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Response Action Completion and Closure Report for the Bag Loading Area, Igniter Assembly Area, and Western Burning Ground New River Unit (RAAP-044)

Radford Army Ammunition Plant
Radford, Virginia

Prepared for:
Radford Army Ammunition Plant

September 2011

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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September 30, 2013

Mr. Jim McKenna
Radford Army Ammunition Plant
Route 114, P.O. Box 1
Radford, Virginia 24143-0100

Re: Completion and Closure Report -NRU - Radford Army Ammunition Plant

Dear Mr. McKenna:

The Virginia Department of Environmental Quality (VDEQ) has reviewed the Response Action Completion and Closure Report for the BLA, IAA, and WBG of the New River Unit (RAAP-044) dated September 2011 and approves the report as final.

Please contact me at (804) 698-4498 if you have any questions or comments regarding the above site.

James L. Cutler, Jr., CPG
Federal Facilities Project Manager

cc: Jay Stewart, BAE
Aziz Farahmand, VDEQ-BRRO

From: Cutler, Jim (DEQ) <James.Cutler@deq.virginia.gov>
Sent: Monday, September 30, 2013 3:31 PM
To: McKenna, James J CIV (US)
Subject: NRU CC Report approval
Attachments: NRU CC Report approval.pdf

Jim,

I've attached my approval letter for the Completion and Closure Report for the NRU that will also be sent via reg. mail. Looks like we're done at the NRU. Good work everyone!!

Jim

James L. Cutler Jr.
Federal Facilities Project Manager
Office of Remediation Programs
Virginia Dept. of Environmental Quality
804-698-4498

From: McKenna, James J CIV (US) <james.j.mckenna16.civ@mail.mil>
Sent: Wednesday, September 18, 2013 11:51 AM
To: Cutler,Jim
Cc: Richard Mendoza; Meyer, Tom NAB02; Wisbeck, Diane; Kalinowski, Chris
Subject: FW: NRU closure report (UNCLASSIFIED)
Attachments: image001.png

Classification: UNCLASSIFIED
Caveats: FOUO

Jim C.

Not sure if this went out but please see email below for the response to your inquiry. As I think this should answer your question, hopefully we can get concurrence letter on the NRU RA Completion Report.

Thanks in advance,
JJM

-----Original Message-----
From: Wisbeck, Diane [mailto:Diane.Wisbeck@arcadis-us.com]
Sent: Wednesday, August 07, 2013 10:59 AM
To: McKenna, James J CIV (US)
Cc: Kalinowski, Chris
Subject: RE: NRU closure report

Jim - below is our response on the question submitted by Cutler. Please let me know if we are approved to send this out.

Thanks! - Diane

Jim -

The following should address your question regarding the difference between the XRF measurements observed during the RI and those taken as part of the post-excavation confirmation sampling. As discussed in the RI Report in Section 7.4.8.2, although XRF results from around Building 502 had a positive correlation with the laboratory data, they appeared to be biased high - in part likely due to the presence of gravel in the soil. After the excavation was completed - the post-excavation samples stepped out and contained less gravel - and the XRF results correlated better with the laboratory results. Below is the paragraph from the RI report (Section 7.4.8.2) where this observation was discussed.

o Building 502 - Building 502 is located in the southern portion of the IAA. The field screening results for the samples collected around this building indicated that lead concentrations were above the industrial RSL in 21 separate sample locations on the northeast (IAA-R112A through IAA-R113C), southeast (IAA-R114A through IAA-R114C), and southwest (IAA-R115A through IAA-R117C) sides of the building. The detections above the RSL extended up to 15-ft from the building pad. XRF reported lead concentrations ranged from 291 mg/kg to 50,000 mg/kg on these sides of the building (see Table 7-11). The XRF reported lead concentrations around this building may have been influenced by the presence of a large amount of gravel debris in the soil.

I hope this information helps answer your question.

Kindest Regards,

Diane Wisbeck, CPM | Principal Scientist | diane.wisbeck@arcadis-us.com
<blockedmailto:diane.wisbeck@arcadis-us.com>

ARCADIS U.S., Inc. | 1913 Royal Oak Dr. | Lynchburg, VA 24503
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www.arcadis-us.com <blockedhttp://www.arcadis-us.com/>

arc_125_small

ARCADIS, Imagine the result

Please consider the environment before printing this email.

From: Wisbeck, Diane
Sent: Friday, July 26, 2013 9:51 AM
To: McKenna, Jim J Mr CIV USA AMC
Cc: Kalinowski, Chris
Subject: FW: NRU closure report

Jim,

I left you a vmail about the following question. We received the question below on the Closure report and I wanted to touch base with you on the response. Would you like to review the response prior to us sending it out, or is adding you to the cc list enough.

Please give me a call, or just respond to this email. We will not respond to Cutler until we hear back from you.

Warmest Regards,

Diane Wisbeck, CPM | Principal Scientist | diane.wisbeck@arcadis-us.com
<blockedmailto:diane.wisbeck@arcadis-us.com>

ARCADIS U.S., Inc. | 1913 Royal Oak Dr. | Lynchburg, VA 24503
T: 434.384.1807 | M: 443.909.9059
www.arcadis-us.com <blockedhttp://www.arcadis-us.com/>

arc_125_small

ARCADIS, Imagine the result

Please consider the environment before printing this email.

From: Kalinowski, Chris
Sent: Tuesday, July 16, 2013 10:50 PM
To: Wisbeck, Diane
Subject: FW: NRU closure report

Hey Diane,

See email below from Cutler. I am traveling this week, but perhaps we could look into this early next week and set something up to talk to Cutler then.

Hope all is well,

Chris

From: Cutler, Jim (DEQ) [mailto:James.Cutler@deq.virginia.gov <blockedmailto:James.Cutler@deq.virginia.gov>]
Sent: Tuesday, July 16, 2013 3:37 PM
To: Kalinowski, Chris
Subject: NRU closure report

Hi Chris,

Now that the DD is done I'm finally looking at the closure report. Confirmation data looks fine so far but I'm puzzled by the apparent discrepancy between XRF in previous investigations and XRF for confirmation that I noticed for IAA in particular Building 502. Any thoughts? If you have a chance to call me I'll be in the office the next several days.

Thanks,

Jim

James L. Cutler Jr.

Federal Facilities Project Manager

Office of Remediation Programs

Virginia Dept. of Environmental Quality

804-698-4498

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Classification: UNCLASSIFIED
Caveats: FOUO

From: Cutler, Jim (DEQ) <James.Cutler@deq.virginia.gov>
Sent: Thursday, July 25, 2013 12:41 PM
To: McKenna, James J CIV (US)
Subject: Response Action Completion and Closure Report for the NRU

Jim,

Overall the report looks good. My only comment is that the XRF data for the IAA at Building 502 indicates much lower levels of lead in this report than previous investigations. Any ideas on the reason for this apparent discrepancy?

Thanks,

Jim

James L. Cutler Jr.
Federal Facilities Project Manager
Office of Remediation Programs
Virginia Dept. of Environmental Quality
804-698-4498

MCHB-IP-REH

MEMORANDUM FOR of Environmental Quality, Radford Army Ammunition Plant (SJMRF-OP-EQ/Mr. Jim McKenna), P.O. Box 2, Radford, VA 24143-0002

SUBJECT: Draft, Response Action Completion and Closure Report for the Bag Loading Area, Igniter Assembly Area and Western Burning Ground, New River Unit (RAAP-044), Radford Army Ammunition Plant, Radford, Virginia 24141

1. The Army Institute of Public Health reviewed the subject document on behalf of the Office of The Surgeon General pursuant to Army Regulation 200-1 (Environmental Protection and Enhancement). We appreciate the opportunity to review this report.

2. Overall we concur with the findings and general recommendations presented in the document. A few specific comments and recommendations are enclosed.

3. The document was reviewed by Mr. James Bressette, Environmental Health Risk Assessment Program. He can be reached at DSN 584-4140, commercial (410) 436-4140 or electronic mail: James.W.Bressette@us.army.mil.

FOR THE DIRECTOR:

Encl

JEFFREY S. KIRKPATRICK
Portfolio Director, Health Risk Management

CF:
HQDA (DASG-PPM-NC) (wo/encl)
USACE (CEHNC-CX-ES) (w/encl)
PHCR-South (w/encl)

COMMENTS AND RECOMMENDATIONS

Draft, Response Action Completion and Closure Report for the Bag Loading Area, Igniter Assembly Area and Western Burning Ground, New River Unit (RAAP-044), Radford Army Ammunition Plant, Radford, Virginia, October 2011

1. Page 4-13, Section 4.5.2.2, J. Bressette
   Igniter Assembly Area
   Comment: "Laboratory analytical results are presented in Table 4-7 and the laboratory analytical results are presented in Appendix E" should read "**Summary of** laboratory analytical results are presented in Table 4-7 and the laboratory analytical results are presented in Appendix E".
   Recommendation: Please revise.

2 Page 4-13, Section 4.5.2.2, J. Bressette
   Igniter Assembly Area
   Comment: Laboratory results for lead were not "fairly closely mirrored XFR results" in two laboratory samples (522A-10W and 8102-3-10W), which were of 25 and 17 times higher (respectively) than XFR results. A discussion of why the XFR and laboratory results were not in agreement would be helpful.
   Recommendation: Please revise.

ATK Armament Systems
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Radford, VA 24143-0100

www.atk.com

September 21, 2011

Mr. James L. Cutler, Jr.
Virginia Department of Environmental Quality
629 East Main Street
Richmond, VA 23219

Subject: Transmittal Acknowledgement,
Draft Response Completion and Closure Report for the Bag Loading Area, Igniter Assembly Area, and Western Burning Ground, New River Unit (RAAP-044) September 2011

Dear Mr. Cutler:

This letter is to acknowledge transmittal of the subject document that was sent to you on September 19, 2011. Enclosed is a copy of the 19 September 2011 transmittal email.

Please coordinate with and provide any questions or comments to myself at (540) 639-8658, Jeremy Flint, ATK staff (540) 639-7668 or Jim McKenna, ACO Staff (540) 731-5782.

Sincerely,

P.W. Holt, Environmental Manager
Alliant Techsystems Inc.

c: Karen Sismour
Virginia Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

E. A. Lohman
Virginia Department of Environmental Quality
Blue Ridge Regional Office
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11-815-136
JMcKenna

Rich Mendoza
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Tom Meyer
Corps of Engineers, Baltimore District
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bc: Administrative File
J. McKenna, ACO Staff
Rob Davie-ACO Staff
P.W. Holt
J. J. Redder
Env. File

Coordination: J. McKenna

M. A. Miano

11-815-136
JMcKenna

Powers, Loretta

From: McKenna, Jim
Sent: Monday, September 19, 2011 12:28 PM
To: Cutler,Jim; diane.wisbeck@arcadis-us.com; Redder, Jerome; Lohman,Elizabeth; Mendoza, Richard R Mr CIV USA IMCOM AEC; Meyer, Tom NAB02; Sismour,Karen; Leach, Jeffrey G Mr CIV USA MEDCOM PHC; Kalinowski, Chris
Cc: Davie, Robert; Holt, Paige; Flint, Jeremy
Subject: RFAAP Radford NRU Completion ReportFed Ex Tracking #s (UNCLASSIFIED)

Importance: High

Classification: UNCLASSIFIED
Caveats: FOUO

All,

The contractor will ship the subject document today. Below are the POCs and their respective Fed Ex numbers.

Thank you for your support of the Radford AAP Installation Restoration Program.

Jim McKenna

POCs and Tracking #s

James McKenna Copies and 2 CDs	7952 0058 4230	2 Hard
Richard Mendoza and 1 CD	7975 3052 0427	1 Hard Copy
Susan Ryan	7952 0059 8030	1 CD
Tom Meyer Copy and 1 CD	7975 3053 4250	1 Hard
Jeffrey Leach Copy	7975 3053 9220	1 Hard
James Cutler Copy	7975 3054 6298	1 Hard
Karen Sismour Copy	7952 0062 1010	1 Hard
Elizabeth Lohman	7975 3055 8497	1 CD

Classification: UNCLASSIFIED
Caveats: FOUO

From: McKenna, James J CIV (US) <james.j.mckenna16.civ@mail.mil>
Sent: Thursday, January 19, 2012 1:01 PM
To: Kalinowski, Chris; Wisbeck, Diane
Subject: FW: memo (UNCLASSIFIED)
Attachments: RAAAP-044.docx

Importance: High

Classification: UNCLASSIFIED
Caveats: NONE

Chris, Diane,

I don't know if I forwarded this email. This must be a review of the copy we sent to DEQ that they yet to approve.

Thanks,
JJM

-----Original Message-----
From: Leach, Jeffrey G Mr CIV USA MEDCOM PHC [mailto:jeff.leach@us.army.mil]
Sent: Tuesday, October 25, 2011 4:08 PM
To: McKenna, Jim J Mr CIV USA AMC
Subject: memo (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Jim,

Draft memo attached. I can send .pdf of final if needed, otherwise will be mailed as usual.

Jeff

Jeffrey G. Leach
Sustainment Section Chief
Environmental Health Risk Assessment Program Army Institute of Public Health
5158 Blackhawk Road, APG-EA, MD 21010
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Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

DRAFT

Response Action Completion and Closure Report for the Bag Loading Area, Igniter Assembly Area and Western Burning Ground

New River Unit (RAAP-044)

Radford Army Ammunition Plant, Radford, Virginia

September 2011

Christopher Kalinowski
Site Manager

Diane D. Wisbeck
Project Manager

INTERNAL DRAFT
Response Action Completion and Closure Report for the New River Unit (RAAP-044)

Radford Army Ammunition Plant
Radford, Virginia

Prepared for:
U.S. Army

Prepared by:
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Tel 410.987.0032
Fax 410.987.4392

Our Ref.:
GP08RAAP.0044

Date:
September 2011

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I Laboratory Analytical Data and Data Validation Reports for WBG Confirmation Samples

Acronyms and Abbreviations

µg/dL	micrograms per deciliter
AEC	U.S. Army Environmental Command
ARCADIS	ARCADIS US, Inc.
bgs	Below Ground Surface
BLA	Bag Loading Area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminants of Concern
DOLI	Department of Labor and Industry
EPC	Exposure Point Concentration
EU	Exposure Units
ft	feet
FS	Feasibility study
HEPA	High Efficiency Particulate Air
IAA	Igniter Assembly Area
IRP	Installation Restoration Program
mg/kg	Milligrams per kilogram
MMA	Main Manufacturing Area
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NROW	New River Ordinance Works
NRU	New River Unit
PRG	Preliminary Remediation Goals
QAPA	Quality Assurance Plan Addendum
QA/QC	Quality Assurance/Quality Control
QC	Quality Control
RAAP	Radford Army Ammunition Plant
RAL	Remedial Action Level
RAO	Remedial Action Objective
RFAAP	Radford Army Ammunition Plant
RSL	Regional Screening Levels
SVOC	Semi-Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
UCL	Upper Confidence Limit
USEPA	United States Environmental Protection Agency
VDEQ	Virginia Department of Environmental Quality
VOC	Volatile Organic Compound
WBG	Western Burning Ground
XRF	X-Ray Fluorescence

EXECUTIVE SUMMARY

This Response Action Completion and Closure Report was prepared to document the successful completion of remedial activities for the Bag Loading Area (BLA), Igniter Assembly Area (IAA), and Western Burning Ground (WBG) Study Areas at Radford Army Ammunition Plant – New River Unit (RFAAP-NRU). In addition to summarizing the details of the completed remedial actions, this report provides certification that the activities achieved the response action objectives that were outlined in the Feasibility Study (ARCADIS 2010), Proposed Plan (RFAAP 2010) and Decision Document (RFAAP 2011) for RFAAP-NRU. With the exception of continuing land use controls for the BLA and IAA study areas, no further remedial actions are required for the BLA, IAA, or WBG Study Areas.

The remedial activities completed at the BLA included: 1) removal of asbestos and metals containing conductive flooring material from building remnants at the site; and 2) excavation of surface soils around the site buildings that contained constituents of concern (COCs) (i.e., lead, copper, and asbestos) at concentrations that would have restricted current and/or hypothetical future industrial/commercial use of the area. The soil excavation activities included extensive confirmation sampling to verify that residual concentrations of copper, lead, and asbestos in soil were below their established site-specific industrial level clean up goals. While the remedial actions achieved the industrial level clean up goals, land use controls (LUCs) will still be required for the BLA to prevent future residential development of the site. COCs (copper, lead, Aroclor 1254, and benzo[a]pyrene) may still remain in soil at the site at concentrations that could pose potential risks under a hypothetical residential land use scenario. The LUCs will also restrict use of the building remnants due to the presence of lead-based paints and asbestos containing materials.

The remedial activities completed at the IAA were very similar in scope to those completed at the BLA in that they included the removal of conductive flooring material from building remnants and excavation of soils containing COCs. However, the excavation activities at the IAA were conducted to more stringent residential level clean up levels and targeted Aroclor 1254, in addition to copper, lead, and asbestos. Successful completion of the remedial actions was documented through extensive confirmation sampling. While the remedial actions achieved residential cleanup levels for soil, LUCs will still be implemented at the IAA. The LUCs will only be required to restrict use of the building remanants due to the presence of lead-based paints and asbestos containing materials. There will be no restrictions to site use due to COCs in soil.

The remedial activities for the WBG included removal of lead and chromium impacted sediments from a pond located adjacent to the former burning ground. Historical investigations and risk assessments completed at the site had indicated that lead and chromium concentrations in sediment within a small area of the pond could have posed potential health risks under a residential land use scenario. In total, approximately 70 cubic yards of sediment were removed from the pond and disposed of off-site. Sediment sampling completed following the removal action confirmed that the residual concentrations of lead and chromium in the target removal area were below the established site-specific residential cleanup levels. With the successful completion of this remedial action, there will be no restrictions on the future land use at the WBG site. No further remedial actions are required for the WBG.

1. Introduction

ARCADIS U.S., Inc (ARCADIS) has been retained by the United States Army (Army) Environmental Command to perform Installation Restoration Program (IRP) activities at the Radford Army Ammunition Plant (RFAAP). RFAAP is an active, government-owned, contractor-operated facility located in the mountains of southwestern Virginia. The facility consists of two non-contiguous units: the Main Manufacturing Area (MMA) and the New River Unit (NRU). RFAAP-MMA is located approximately 5 miles northeast of the City of Radford, in Montgomery County, Virginia. RFAAP-NRU is located approximately six miles west of RFAAP-MMA, near the town of Dublin, in Pulaski County, Virginia (**Figure 1-1**). ARCADIS has assisted the Army with IRP activities at RFAAP-MMA and RFAAP-NRU as part of a Performance Based Contract awarded to ARCADIS under contract W91ZLK-05-D-0015: Task Order 0002.

This Response Action Completion and Closure Report has been prepared to document the successful completion of remedial activities at three study areas located within the boundaries of RFAAP-NRU: the Bag Loading Area (BLA), Igniter Assembly Area (IAA), and the Western Burning Ground (WBG). The remedial activities for the BLA and IAA study areas included: 1.) removal of asbestos and metals containing conductive flooring materials from building remnants, and 2.) excavation of surface soils containing constituents of concern (COCs) at concentrations that posed potential risks associated with current and hypothetical future land use scenarios. The remedial activities for the WBG included the excavation of pond sediments containing lead and chromium at concentrations that posed unacceptable risks under a hypothetical future residential land use scenario.

The environmental investigations, characterization, remedial design, and cleanup activities at the BLA, IAA, and WBG study areas, as well as the remainder of RFAAP-NRU, have been managed and performed in accordance with the requirements outlined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The response actions conducted at the BLA, IAA, and WBG Study Areas were selected following the Remedial Investigation/Feasibility Study (RI/FS), Proposed Plan, and public comment phases of the CERCLA cleanup process at RFAAP-NRU. The Army's final selections of the response actions discussed in this report are also documented in the Decision Document for RFAAP-NRU (RFAAP 2011).

1.1 Purpose and Objectives

In addition to summarizing the details of the completed remedial actions, this report provides certification that the activities achieved the response action objectives that were outlined in the Feasibility Study (ARCADIS 2010), Proposed Plan (RFAAP 2010) and Decision Document (RFAAP 2011) for RFAAP-NRU. The response actions for the BLA and IAA study areas were conducted in accordance with the Remedial Action Work Plan for the Bag Loading Area, Igniter Assembly Area, and Building Debris Disposal Trench (ARCADIS 2010c). The response actions for the WBG Study Area were conducted in accordance with the Remedial Action Work Plan for the Western Burning Ground (ARCADIS 2011).

1.2 Report Organization

This Report is organized as follows:

- Section 2: Site Background. This section provides background information on the RFAAP-NRU facility and a brief discussion of the nature and extent of contamination that was the driver for remediation at the BLA, IAA, and WBG.

- Section 3: Purpose and Objectives of Remedial Action. This section presents the remedial action objectives, required scope of the remedial actions, numerical cleanup goals, and plane response action areas for the BLA, IAA, and WBG.

- Section 4: Remedial Action Implementation at the BLA and IAA. This section outlines the activities completed for the response actions at the BLA and IAA, including the results of the confirmation sampling programs.

- Section 5: Remedial Action Implementation at the WBG. This section outlines the activities completed for the response action at the WBG, including the results of the confirmation sampling program.

- Section 6: Quality Assurance/Quality Control. This section outlines the data validation activities completed for the confirmation sampling programs.

- Section 7: Future Requirements. This section discusses the follow on requirements for the completed response actions, which will include the implementation of Land Use Controls for the BLA.

- Section 8: Certification. The section includes a statement that the response actions completed for the BLA, IAA, and WBG achieved the stated RAOs and were performed in accordance with their respective remedial action work plans.

- Section 9: References.

2. Site Background

This section provides a brief summary of the site background information, including the history and conditions of the BLA, IAA, and WBG, as well as a discussion of the nature and extent of contamination that was the driver for remediation at each area. The information presented in this section is presented in much greater detail within the Remedial Investigation (RI) Report (ARCADIS 2010a) and FS Report (ARCADIS 2010b) for RFAAP-NRU.

2.1 Facility Background

The RFAAP-NRU facility was constructed in 1940 and was originally known as the New River Ordnance Works (NROW). The facility was operated as a powder bag loading plant for artillery, cannon, and mortar projectiles during World War II. All active manufacturing operations at RFAAP-NRU reportedly ceased in 1945 at the end of the war, at which time the facility was consolidated with RFAAP-MMA. Since the consolidation of the two facilities, RFAAP-NRU has served primarily as a storage facility for ATK's on-going propellant and explosives manufacturing operations conducted at RFAAP-MMA. The storage operations at RFAAP-NRU are conducted in secured, magazine buildings located throughout the eastern half of the property.

In total, the RFAAP-NRU property encompasses approximately 3,000 acres. Access to the facility is controlled by perimeter fencing and permanently stationed security guards. Other than the on-going munitions storage operations, the only other current land uses within the secured boundaries of RFAAP-NRU include a few agricultural tracts located in the eastern portion of the facility. There are no residences or offices located within the RFAAP-NRU boundaries, and the only recreational activities at the facility consist of controlled game hunting and fishing. There are no plans to change ownership or land use at RFAAP-NRU..

2.1.1 Bag Loading Area

The BLA is located within an approximately 25-acre area near the southern boundary of RFAAP-NRU (**Figure 2-1**). The BLA ran two powder bag production lines during the period from 1941 through 1943. These bag loading operations and related materials handling activities were conducted in seven buildings located throughout the BLA study area. Three additional buildings located at the BLA were reportedly utilized for office/support activities related to BLA operations. The BLA buildings were all connected by a perimeter road and a series of elevated walkway platforms that ran

across the site. There are no surface water bodies at the BLA; however, a small unnamed stream does pass through RFAAP-NRU to the north of the site. The locations of the former buildings, roads, walkways, and other relevant site features at the BLA are depicted in **Figure 2-2**.

After the manufacturing operations were discontinued at RFAAP-NRU, the ten buildings at the BLA were dismantled. All of the wooden components of the ten BLA buildings (e.g., roofs, walls, stairs, etc.) and walkway platforms were taken down and removed from the site. The electrical transformers, utility lines, and process equipment were also removed from the site. Today, all that remains of the BLA buildings are the concrete floors and a few concrete walls. The seven buildings utilized for the historical loading operations and materials handling had a conductive flooring material that covered the remains of the concrete floors. In most cases, this conductive flooring material partially degraded after the buildings were dismantled as result of exposure to weather and some of the material washed off the concrete floors onto the surrounding soils. There are also some residual lead-based paints and asbestos containing building materials left on some of the building remnants.

2.1.2 Igniter Assembly Area

The IAA is the second of the two historical manufacturing areas located at RFAAP-NRU. The IAA study area, located in the western portion of RFAAP-NRU (**Figure 2-1**), was utilized for the assembly of igniter charges for artillery, cannon, and mortar projectiles; as well as shipping and handling of materials related to the IAA operations from 1941 through 1943. Approximately 36 buildings were located throughout the IAA, 29 of which contained a conductive flooring material similar to that located at the BLA. The IAA buildings are all connected by roads and a series of sidewalks that run throughout the approximately 43-acre site. There are no surface water bodies at the IAA; however, a series of drainage ditches are present at the site. The locations of the buildings, roads, walkways, and other relevant site features at the IAA are depicted in **Figure 2-3**.

After the manufacturing operations were discontinued at RFAAP-NRU, the buildings at the IAA were dismantled in a similar fashion to the BLA. All of the wooden components of former IAA buildings (e.g., roofs, walls, stairs, etc.) and walkway platforms were taken down and removed from the site, as were the electrical transformers, utility lines, and process equipment. All that remains of the former IAA buildings are concrete floors and concrete walls. The conductive flooring material located in the 29 IAA buildings degraded and washed onto surrounding soils as a

result of exposure to weather. Some residual lead-based paints and asbestos building materials also remain on some of the building remnants.

2.1.3 Western Burning Ground

The WBG is a former burning ground located in the southwestern portion of RFAAP-NRU, south of the IAA (**Figure 2-1**). The burning operations conducted at the WBG area were performed to decontaminate materials that had been in contact with explosive/energetic compounds and to dispose of excess and non-compliant explosive/energetic materials from the BLA and IAA operations. The main burn area was approximately 170 ft long by 100 ft wide and is surrounded on three sides by an approximately 4 ft high earthen berm. The burning operations were conducted directly on-ground surface or in a portable burning cage within the bermed area. The soil from the former burning area was removed from the site during a 1999 site investigation, and the area was backfilled with clean fill material. No buildings have ever been located at the WBG study area.

A dirt access road runs parallel to the open side of the former burn area leading to an unnamed pond located to the south of the WBG. This shallow pond, which is approximately 3.6 acres in size, was constructed during the early 1990s. The pond is fed by Wiggins Spring, a natural spring located at the head (i.e., northwest corner) of the pond. The pond also collects surface water drainage from the surrounding area. The pond drains under an earthen dam via a constant level drain on the southeastern side of the pond. The effluent flows into a tributary of an unnamed creek that flows through the southwest portion of the RFAAP NRU. A site map depicting the relevant features of the WBG site is presented as **Figure 2-4**.

2.2 Nature and Extent of Contamination

2.2.1 Bag Loading Area

The extensive environmental investigations completed at the BLA Study Area focused on identifying and delineating potential impacts to soil around the former buildings, walkways, electrical transformers, and area drainage ditches, as well as to sediment and surface water in an unnamed stream located downgradient of the site. The findings of the environmental investigations and risk assessment activities for the BLA concluded that contaminants in soil were presenting potentially unacceptable health risks for future users of the site. Copper, lead, and asbestos in soil were found to present unacceptable risks and/or hazards under an industrial/commercial land use

scenario and a hypothetical future residential land use scenario. Benzo(a)pyrene and Aroclor 1254 in soil were also found to present unacceptable risks and/or hazards under a hypothetical future residential land use scenario. There were no COCs or unacceptable health risks identified with sediment or surface water at the BLA.

The primary source of lead, copper, and asbestos in soil was identified as the degrading conductive flooring material located in the seven former buildings at the BLA. Surface and subsurface soil sampling completed at the BLA indicated that these constituents, particularly the concentrations contributing to the unacceptable risks, were confined to shallow surface soils in the immediate vicinity of the buildings with conductive flooring. Due to the relatively flat topography in the vicinity of the buildings there were no direct migration pathways to carry the COCs any significant distance from the buildings. These constituents were not detected at elevated concentrations in subsurface soil, sediment, or surface water.

The PAH compound benzo(a)pyrene was detected in surface soil samples collected from several areas of the site including next to site buildings, former walkway platforms, and area roadways. The exact source of the benzo(a)pyrene is unknown; however, it can likely be attributed to materials (e.g., tar) that were used in building and road construction. Benzo(a)pyrene is also a natural byproduct of combustion and could have been deposited during fires used to help clear the site.

The PCB compound Aroclor 1254 was detected at concentrations above its soil screening level in a surface soil sample collected near one of the former BLA buildings and one former electrical transformer location. Delineation/confirmation sampling indicated that presence of Aroclor 1254 is isolated and confined to surface soils in the immediate vicinity of the former buildings and transformers.

Table 2-1 provides a summary the relative historical concentrations of the COCs detected in soil at the BLA.

2.2.2 Igniter Assembly Area

Much like the BLA, the environmental investigations completed at the IAA Study Area focused on identifying and delineating potential impacts to soil around the former buildings, walkways, electrical transformers, and area drainage ditches located at the site. The findings of the investigations and risk assessment activities for the IAA Study Area concluded that copper, lead, Aroclor 1254, and asbestos detected in soil presented potentially unacceptable health risks for future users of the site. Asbestos in

soil was found to present unacceptable risks under the industrial/commercial land use scenario and a hypothetical future residential land use scenario. Copper, lead, and Aroclor 1254 in soil were only found to present unacceptable risks under a hypothetical future residential land use scenario. There were no COCs or unacceptable health risks identified with sediment or surface water at the IAA.

The primary source of lead, copper, and asbestos in soil at the IAA was identified as the degraded conductive flooring material that was located in the building remnants spread throughout the site. Extensive surface and subsurface soil delineation sampling completed at the IAA has indicated that these constituents, particularly the concentrations contributing to the unacceptable risks, were confined to surface soils within a few feet of the buildings with conductive flooring. Due to the relatively flat topography in the vicinity of the buildings there were no direct migration pathways to carry the COCs any significant distance from the buildings. These constituents were not identified as COCs in subsurface soil, indicating that migration into deeper soils was not occurring.

The PCB compound Aroclor 1254 was detected at concentrations above its soil screening level in a surface soil sample collected near one of the former IAA buildings and one former electrical transformer location. Delineation/confirmation sampling indicated that presence of Aroclor 1254 is isolated and confined to surface soils in the immediate vicinity of the former building and transformer.

Table 2-1 provides a summary the relative historical concentrations of the COCs detected in soil at the IAA.

2.2.3 Western Burning Ground

The environmental investigations completed at the WBG Study Area focused on identifying and delineating potential impacts to soil within and downgradient of the former burning ground, as well as to sediment and surface water in the adjacent pond and downgradient stream. The investigations also included fish tissue sampling in the pond. The initial environmental investigations conducted at the WBG found isolated detections of a few constituents of potential concern (COPCs) in soil. However, following the 1999 sampling event, during which the impacted soils from the former burn area were removed from the site, the residual concentrations of the detected constituents in soil were not found to present unacceptable risks or hazards under the current and anticipated future industrial/commercial land use scenario. Likewise, no unacceptable risks or hazards were identified with soil for the hypothetical future

residential land use scenario. Therefore, no COCs were identified for soil at the WBG Study Area.

While no COCs were identified in soil at the WBG, the investigations and risk assessment for the site did find that there were potentially unacceptable risks associated with exposure to pond sediments under a hypothetical future residential land use scenario. The COCs in sediment driving these unacceptable risks were chromium and lead. Delineation sampling indicated that the elevated concentrations of these COCs were confined to a small area near the northern bank of the pond. This area is thought to have been a collection point for runoff from the former burn area prior to construction of the pond and access road. Lead was not detected in the fish tissue samples collected from the pond and assessment of the chromium levels in the fish tissue samples indicated that wildlife are not being adversely impacted by the COCs. No COCs were identified in surface water. **Table 2-1** provides a summary the relative historical concentrations of the COCs detected in sediment at the WBG.

3. Purpose and Objectives of Remedial Action

This section summarizes the remedial action objectives (RAOs), scope of work, and the numerical cleanup levels that were utilized to guide the Response Actions at the BLA, IAA, and WBG.

3.1 Remedial Action Objectives

3.1.1 Bag Loading Area and Igniter Assembly Area

The BLA and IAA study areas are very similar to each other in that the presence of degrading conductive flooring material and related surface soil impacts were the primary drivers for remedial action at both study areas. The risk assessments for the BLA and IAA also indicated that unacceptable risks and/or hazards were present under both industrial and hypothetical residential land use scenarios. As such, the same general Remedial Action Objectives (RAOs) were developed for both study areas. The general RAOs developed for the BLA and IAA were to:

- Minimize the potential for future releases of contaminants of concern (COC) from the conductive flooring to the surrounding environment.
- Prevent human exposure to COCs in soil and the flooring material that could lead to an unacceptable risk or hazards for the designated use.
- Minimize the potential for COCs present in surface soils to migrate to other areas.

While the same general RAOs were established for the BLA and IAA, it should be noted that the final soil cleanup levels that were selected for the two sites are different. The response action for soil at the BLA targeted soil cleanup levels that are acceptable for continued industrial use of the property, while the response action for the soil at the IAA targeted cleanup levels that are acceptable for future residential use of the property.

3.1.2 Western Burning Ground

Lead and chromium in sediment at the WBG pond were found to pose an elevated risk under a hypothetical future residential child exposure scenario. The goal of the remedial action at the WBG was to effectively mitigate lead and chromium levels in sediment in a manner that would provide short- and long-term protection of human

health to the extent practicable. Therefore, the RAOs that were established for the WBG included:

- Preventing human exposure to constituents of concern (COCs) in sediment that would result in unacceptable risk or hazard for the designated use; and
- Minimizing the potential for COCs migration to other areas.

3.2 Scope of the Response Actions

The FS for RFAAP-NRU presented an evaluation of the available response action alternatives for achieving the RAOs that were established for the BLA, IAA, and WBG study areas. Based on this evaluation, and following submittal of a Proposed Plan RFAAP 2010) and public comment period, the Army selected response actions that included physical removal of the contaminants from each of these study areas. The selected response actions are outlined below and were determined to be the most effective methods for achieving the RAOs that were established for the sites.

3.2.1 Bag Loading Area and Igniter Assembly Area

The remedial actions for the BLA and IAA sites included the following major components:

- Removal and off-site disposal of all conductive flooring material present in the 7 former BLA buildings and 29 former IAA buildings. This activity was designed to achieve the RAOs of preventing human exposure to the COCs in the flooring material and preventing future releases of degraded flooring material and associated COCs to soil.
- Excavation and off-site disposal of soils that contain COCs at concentrations that were determined to present unacceptable risks to current or hypothetical future receptors. This activity also included removal of soils that contained visual evidence of residual flooring material (i.e., red staining and loose debris). The excavation activities were designed to achieve the RAOs of preventing unacceptable human exposure to COCs and minimizing COC migration.
- Confirmation sampling to verify that the cleanup goals were achieved.
- Site restoration activities to backfill and re-vegetate the site.

The only difference between the scope of the remedial actions at the BLA and IAA sites is that the soil excavation activities were performed to achieve residential cleanup levels at the IAA site, whereas the excavation activities at the BLA site were performed to achieve industrial cleanup levels. The reason for expanding the scope of the excavation to residential levels at the IAA is that the volume of soil that needed to be excavated as part of a residential cleanup scenario was only marginally greater than the volume soil required to achieve an industrial closure. In addition, excavation of the IAA to residential cleanup levels eliminated the need for institutional controls to be applied to soil at the IAA site. The volume of additional soil that would have needed to be excavated at the BLA site to achieve a residential level closure for that site was far greater than that required for the industrial closure scenario. Institutional controls will be maintained at the BLA site to limit future use/development to activities that will not result in unacceptable exposure to the COCs that remain in soil at the site.

3.2.2 Western Burning Ground

The remedial actions selected for the WBG site included the following major components.

- Removal and off-site disposal of sediment that contains lead and chromium at concentrations determined to present unacceptable risks to hypothetical future receptors.
- Confirmation sampling to verify that the cleanup goals were achieved.
- Site restoration activities to the extent practicable to restore the site to pre-existing conditions.

3.3 Numerical Cleanup Levels

Numerical Remedial Action Levels (RALs) were established to guide the cleanup actions for soil at the BLA and IAA, and sediment at the WBG. The RALs were based on Preliminary Remediation Goals (PRGs) that were calculated using the site-specific exposure assumptions developed in the Baseline Human Health Risk Assessment. The PRGs were calculated to target an incremental excess lifetime cancer risk (ELCR) of 10^{-6} for carcinogenic compounds, a hazard index (HI) of 1 for non-carcinogenic effects, or a fetal blood lead level of less than 10 micrograms per deciliter (µg/dL) for lead. RALs were not calculated for the conductive flooring remedial actions at the BLA

and IAA because the goal of these actions was to completely remove the flooring and the successful completion of this activity could be achieved through visual inspection.

3.3.1 Bag Loading Area Soil

The goal of the excavation activities for the BLA was to reduce the estimated risks and/or hazards associated with the COCs in soil to levels that would be generally acceptable for industrial/commercial use. The risk assessment for the BLA site concluded that asbestos, lead, and copper in soil were the only risk drivers under an industrial land use scenario. The table below presents the RALs that were developed for these constituents:

Industrial Remedial Action Levels for Soil at the BLA	
Driver	**BLA**
Copper	11,533 mg/kg
Lead	624 mg/kg
Asbestos	0.1% by weight

3.3.2 Igniter Assembly Area Soil

The goal of the excavation activities for the IAA was to reduce the risks and/or hazards associated with the COCs in soil to levels that would be generally acceptable for residential use. The risk assessment for the IAA site concluded that levels of asbestos, copper, lead, and Aroclor 1254 in soil present unacceptable risks under a residential land use scenario. The table below presents the RALs that were developed for these constituents:

Residential Remedial Action Levels for Soil at the IAA	
Driver	**IAA**
Copper	3,043 mg/kg
Lead	400 mg/kg
Aroclor 1254	0.21 mg/kg
Asbestos	0.1% by weight

3.3.3 Western Burning Ground Sediment

The goal of the sediment removal activities for the WBG was to reduce the potential risks and/or hazards associated with exposure to COCs in sediment to levels that would be generally acceptable for residential use. The risk assessment for the WBG site concluded that levels of chromium and lead in sediment present unacceptable risks under a residential land use scenario. The table below presents the RALs that have been developed for these constituents:

Residential Remedial Action Levels for Sediment at WBG	
Driver	**RALs**
Chromium	1,358 mg/kg
Lead	1,100 mg/kg

3.4 Attainment of RALs

Due to the risk-based nature of the RALs for the BLA, IAA, and WBG it is generally considered overly protective for the RALs to be utilized as “not-to-exceed” concentrations. Generally, the RALs should be utilized as “area average” concentrations for given exposure units (EU) in accordance with USEPA guidance (USEPA 1989 and 2005). An EU is a geographic area within which a receptor would be expected to come in contact with during a given exposure duration. The USEPA’s Soil Screening Guidance (USEPA, 1996) recommends a 0.5-acre source area for residential exposures. Industrial site workers and other receptors would be expected to be exposed to contaminants across a larger area than a resident; therefore, a much larger EU would be utilized for those scenarios.

At the IAA and WBG sites where the objective of the remedial action is to achieve unrestricted residential land use for the soil and sediment an EU of 0.5 acres would be appropriate. However, the distribution of the COCs around the small discrete buildings at the IAA and the extremely limited distribution of COCs in sediment at the IAA make it difficult to define this type of EU. Therefore, the RALs that were developed for the IAA and WBG were utilized as “not-to-exceed” cleanup levels with the understanding that in achieving RALs for confirmation samples will result in a post-remediation exposure level that is well below the required cleanup level (USEPA, 2005).

At the BLA where the objective of the remedial action is to achieve land use that is restricted to industrial/commercial use, the EU would be site wide. As defined by USEPA (2005), an RAL is the maximum concentration that may be left in place within an exposure unit such that the predicted average concentration (i.e., Exposure Point Concentration [EPC]), or the 95% upper concentration limit (UCL) of the average, is at or below the Cleanup Level. Thus, attainment of the RALs at the BLA could be achieved and documented when the 95 % UCL of the confirmation samples collected during the soil excavation activities have concentrations at or below the RALs.

3.5 Target Response Action Areas

3.5.1 BLA Response Action Area

3.5.1.1 Conductive Flooring

The conductive flooring material that was identified as the primary source of the lead, copper, and asbestos in surface soil at the BLA was located in seven former buildings at the site (i.e., former Buildings 404, 405, 406, 407, and 411 to 413 [see **Figure 2-2**]). The total footprint covered by the conductive flooring was approximately 16,000 ft^2. The Army elected to perform a complete physical removal of the conductive flooring material (both degraded and intact sections) from the all seven buildings and to dispose of the material at an appropriately licensed off-site facility to ensure that the flooring material does not continue to release COCs to surrounding soils and that the flooring does not pose an unacceptable risk to future receptors at the site.

3.5.1.2 Soil

The comprehensive environmental investigations completed at the BLA site between 1997 and 2010 clearly indicated that the bulk of the copper, lead, and asbestos impacted soils were located immediately adjacent to the seven former buildings with conductive flooring. More specifically, the soils that contained lead, copper, and asbestos at concentrations above their respective RALs were primarily located on the open sides of the buildings where there were pathways for the conductive flooring to have washed off of the building pads onto the adjacent soil. The distance to which the impacts extended from the buildings varied somewhat, but in general the target COC concentrations (i.e., those above the established RALs) were confined to surface soils located within 1 to 2 ft of the building edges. To ensure that the response actions achieved the established RAOs, the target excavation areas included, at a minimum, surface soils (up to a depth of 1 ft) located within 2 feet of the open sides of the

buildings with conductive flooring. The extent of the excavation was expanded in areas where there was visual staining or residue from the flooring material, and/or where confirmation samples indicated the presence of lead, copper, and/or asbestos at concentrations above their respective RALs. **Figure 3-1** depicts the areas that were targeted for soil excavation at the BLA. Note that soils on the closed ends of the buildings that were not impacted by the flooring material were not excavated.

3.5.2 IAA Response Action Area

3.5.2.1 Conductive Flooring

Similar to the BLA, the primary source of the COCs identified for soil at the IAA was the degraded conductive flooring material in the site buildings. The Army elected to perform a complete physical removal of the conductive flooring material (both degraded and intact sections) from the all former site buildings and dispose of the material at an appropriately licensed off-site facility to ensure that the flooring material does not continue to release COCs to surrounding soils and that the flooring does not pose an unacceptable risk to future receptors at the site. Conductive flooring was identified in a total of 29 former buildings at the IAA and covered an area of approximately 25,000 ft^2. The former buildings that contained conductive flooring are depicted in **Figure 2-3**.

3.5.2.2 Soil

Extensive soil sampling at the IAA indicated that the areas containing copper, lead, and asbestos at concentrations above their target RALs were primarily located within 2 feet of the buildings that contained conductive flooring material. Therefore, the response action for soil, at a minimum, included excavation of surface soils (to a depth of 1 foot) located at distances of up to 2 feet from the open edges of the buildings with conductive flooring. The extent of the excavation was expanded in areas where there was visual staining or residue from the flooring material, and/or where confirmation samples indicated lead, copper, or asbestos concentrations above their respective RALs. Soils on the closed ends of the buildings that were not impacted by the flooring material were not excavated.

In addition to the excavation activities for copper, lead, and asbestos, discrete soil excavations were also required for two areas that were found to contain Aroclor 1254 at concentrations above its RAL. One of these locations was near a former transformer location at Building 8101. The other location was near former Building 504.

Figure 3-2 depicts the areas that were targeted for soil excavation at the IAA.

3.5.3 Western Burning Ground Sediment

Based on the analytical results from the sediment investigation activities discussed in the 2010 RI Report for the RFAAP-NRU, sediments within the Unnamed Pond that contain lead and chromium above the RALs were confined to an approximate area of 1,000 square feet, located on the northeast side of the pond abutting the shoreline (**Figure 3-3**). The depth of sediment containing exceedances of RALs is approximately 1-ft deep. A removal depth of 2 ft was established as a conservative approach to achieve RALs which resulted in an approximate sediment removal volume of 75 cubic yards (cy).

4. Remedial Action Implementation at the BLA and IAA

The major components of the remedial actions at the BLA and IAA Study Areas included removal of the conductive flooring material from the site buildings and excavation of COC impacted soils. Performance of the remediation activities, and related work, was guided by the Remedial Action Work Plan for the BLA, IAA, and WBG approved by VDEQ in December 2010. This section provides an outline of the project organization, timeline, and completed activities. This section also presents the results of the confirmation sampling programs that were used to document successful completion of the actions for the BLA and IAA.

4.1 Project Organization

ARCADIS served as the prime contractor for the remedial action implementation at the BLA and IAA Study Areas and utilized internal staff to perform project oversight, asbestos project monitoring, and confirmation sampling. The majority of the remediation work, including the physical removal of the conductive flooring material, soil excavation, and site restoration activities was subcontracted to Winter Environmental, a Virginia licensed asbestos abatement contractor (License #: 3306000856). Additional subcontractors were utilized for other phases of the work. Following is a comprehensive list of the organizations involved in the performance of the work:

- ARCADIS – General project management, construction oversight, asbestos project monitoring, and confirmation sampling. Licensed asbestos project monitors were utilized to supervise all asbestos related removal activities.

- Winter Environmental (Norcross, Georgia) – Conductive flooring removal, soil excavation, and site restoration. Winter utilized licensed asbestos project supervisors and project workers to perform all asbestos related (flooring and soil) removal activities.

- Valley Grounds, Inc. (Christiansburg, Virginia) – Site clearing work.

- David Thompson Hauling and Excavating, Inc. (Christiansburg, Virginia) – Provided backfill material and stone for road improvements.

- Capitol Environmental Services, Inc. (Roanoke, Virginia) – Waste broker that coordinated disposal of flooring, soil, and waste water.

- Spirit Services, Inc. (16232 Elliot Parkway, Williamsport, Maryland 21795) – Disposal facility for water used during flooring removal

- Freehold Cartage, Inc. (Freehold, New Jersey) – Transported waste water to Spirit Services.

- First Piedmont Corporation (1224 Clarks Mill Rd, Ringgold, Virginia 24586) – Disposal Facility for flooring and soil. First Piedmont Corporation also performed waste transportation.

- Mid-Atlantic Utility Locating, LLC. (Chantilly, Virginia) – Conducted pre-excavation utility location services.

- Empirical Laboratories, LLC. (Nashville, Tennessee) – Laboratory Analytical Services.

4.2 Timeline of Response Action Activities

Due to the similarity in the scope of work required for the BLA and IAA remedial actions, much of the work at the two study areas was conducted concurrently. The field activities for the remedial actions at the BLA and IAA were initiated on December 2, 2010 and were completed by May 4, 2011. The following provides a brief outline of when the major components of the remedial actions at the BLA and IAA were completed.

Activity	Dates
Initial mobilization of personnel and equipment to the site	December 2 and 3, 2010
Site clearing and preparation at the IAA	December 6 – December 14, 2010
Site clearing and preparation at the BLA	December 13 – December 17, 2010
Conductive Flooring Removal at the IAA	January 3 – March 8, 2011
Conductive Flooring Removal at the BLA	February 17 – March 7, 2011

Soil Removal at the IAA	February 15 – April 9, 2011
Soil Removal at the BLA	March 8 – March 28, 2011
Site Restoration at the BLA and IAA	April 7 – April 28, 2011
Final Demobilization of Equipment and Personnel	April 29, 2011
Final Inspection	May 3, 2011

4.3 Site Preparation Activities

4.3.1 Work Permits and Notifications

Prior to commencing work at the BLA and IAA, ARCADIS met with personnel from the RFAAP Safety Department to review the scope of work and obtain facility issued Area Entry Permits and Hot Work Permits for both areas. No other permits were required for the on-site work at the BLA and IAA because the remediation activities were conducted under CERCLA. Per Section 300.400(e) of the NCP, 40 C.F.R. § 300.400(e), no federal, state, or local permits are required for on-site response actions. However, all activities were conducted in accordance with the substantive requirements of applicable site permits.

Due to the presence of asbestos in the soil and conductive flooring material that was removed during the response actions, Winter Environmental submitted asbestos abatement project notifications to both the USEPA Region III and Commonwealth of Virginia Department of Labor and Industry (DOLI) prior to beginning abatement activities at the site.

4.3.2 Subsurface Utility Clearance

A multi-point utility clearance was performed prior to initiating any intrusive work at the BLA and IAA project sites. The utility clearance consisted of the following activities: (1) ARCADIS coordinated with RFAAP to review the scope of work and identify any utility lines that may be located in the work areas, (2) a records review was conducted to review all available drawings/information that could aide in identifying and locating

current and/or historical underground utilities/structures within or adjacent to the work area, (3) a private utility locator (Mid-Atlantic Utility Locating, LLC) was retained to locate underground lines/structures by applying surface geophysical methods in the areas where intrusive work will be conducted, and (4) ARCADIS contacted Miss Utility of Virginia (800-552-7001) to notify utility companies that may have had lines within or near the work areas. Finally, ARCADIS and Winter Environmental conducted a visual inspection of the work areas for marked subsurface utility locations, manholes, and other evidence of subsurface utilities prior to beginning any new phases of work.

4.3.3 Waste Characterization

Waste characterization samples were required by the waste disposal facility (First Piedmont—Ringgold, VA) prior to accepting the soil and conductive flooring material for disposal. On November 16, 2010, ARCADIS collected a composite soil sample from the planned excavation area at BLA, a composite soil sample from the IAA excavation area, and a composite sample of the conductive flooring material from both the BLA and IAA. The soil and flooring samples were analyzed for toxicity characteristic leaching procedure (TCLP) metals, PCBs, and asbestos content. Sample collection and analytical methods were in accordance with the Master Work Plan and SOPs (URS, 2003). The analytical results for the soil and flooring material characterization samples are presented in **Table 4-1**.

The composite soil samples from the BLA and IAA, and the composite flooring material sample were all found to contain asbestos at concentrations above 1% by weight, and therefore were characterized as asbestos containing materials (ACM). The material did not contain leachable metals or PCBs at concentrations above applicable thresholds or screening levels, and therefore was not characterized as hazardous.

4.3.4 Site Clearing

Selective removal of vegetation was required at both the BLA and IAA sites to provide sufficient room for staging areas and accessing the work/excavation areas around the former buildings. Valley Grounds, Inc. cleared trees and shrubs located within 5 ft of the buildings where conductive flooring removal and soil excavation was required. Clearing of above ground vegetation was conducted using hand tools and heavy equipment. After removal, the above ground vegetation was temporarily staged, then chipped and spread on-site and left for decomposition. Any tree stumps that were located within the excavation areas were removed during excavation and disposed of with the soil.

4.3.5 Truck and Equipment Access/Egress Routes

Vehicle traffic to and from RFAAP-NRU entered the facility through Gate 20 located on Bagging Plant Road. Once on-post the BLA and IAA project sites were accessed via the network of paved and gravel surface roads that run throughout the RFAAP-NRU facility. In most cases these roads provided direct access to the majority of the former buildings/work areas at the BLA and IAA. Where possible, vehicle traffic remained on these roads. However, there were a few former buildings at the BLA and IAA that required some off-road vehicle traffic to get equipment to the work areas. Where necessary, trees and shrubs were removed in order to create access paths to these buildings. ARCADIS and Winter Environmental made every effort to minimize the number of trees that were brought down to access the sites.

In areas where off-road traffic was required, straw, woodchips, and/or gravel were laid down to reduce rutting and soil carry over to the paved surface roads during wet soil conditions. Any soil that was tracked on to the paved surface roads was cleaned prior to demobilization from the site. The gravel road improvements were left in place upon completion of the site work at the direction of RFAAP.

4.3.6 Storm Water Management and Erosion and Sediment Control

The work areas at the BLA and IAA were relatively flat and there was minimal erosion potential via overland flow. However, as a protective measure, Winter Environmental utilized straw bales to protect storm water culverts and storm drains located in the vicinity of the work areas from receiving any sediment from the excavation work areas. Although soil conditions remained wet due to frequent snow and rainfall throughout much of the work, no erosion or migration of soils was observed at either the BLA or IAA project sites.

4.3.7 Decontamination Facilities

4.3.7.1 Personnel Decontamination Chambers

Winter Environmental constructed mobile decontamination facilities for personnel and equipment that were utilized during performance of the conductive flooring removal activities. Due to the presence of asbestos in the conductive flooring material the decontamination facilities for the site workers consisted of mobile decontamination chambers that were attached directly to contained conductive flooring removal areas. The decontamination chambers were designed to provide ingress and egress from the conductive flooring removal areas. The chambers provided an area for workers to

remove contaminated coveralls and other personal protective equipment (other than respiratory protection) in a "dirty" room, take a shower and/or wash exposed skin areas in a shower area, and then a separate clean room where street clothes could be put back on. Water utilized in the decontamination chambers was containerized and filtered to remove asbestos fibers then temporarily staged in a 4,900-gallon polyethylene holding tank to await disposal. Photos of the decontamination chambers and temporary holding tank are provided in **Appendix A**.

4.3.7.2 Equipment Decontamination Pad/Truck Wash Area

Winter Environmental constructed a centralized decontamination pad/truck wash area at the IAA that was utilized to clean and decontaminate excavation equipment, trucks, and other large equipment prior to demobilization from the site. Due to the limited size of the excavation areas around the site buildings, the tracks of the excavation equipment were not required to come into contact with the contaminated soils; therefore, only the excavation buckets were decontaminated between work areas. Trucks that were utilized to haul the excavated material from the site were washed to remove any loose debris from the exterior of the trucks prior to departing the site. The decontamination pad was also used when the vacuum boxes utilized for the BLA conductive flooring removal activities were cleaned out. All water utilized during decontamination activities was collected, filtered to remove asbestos fibers, and then temporarily containerized in a 4,900-gallon polyethylene holding tank to await disposal. The decontamination water was disposed of at Spirit Services in Hagerstown, Maryland.

Photos of the decontamination pad and holding tank are provided in **Appendix A**.

4.4 Conductive Flooring Removal Activities

The response action activities for the BLA and IAA were sequenced such that all of the conductive flooring was removed from a building, or group of buildings if several were located in the area, before the soil excavation work at that building was allowed to begin. This ensured that any contaminants present in the flooring that may have been inadvertently spread to the surrounding soils during the removal process were captured during excavation. The following sections discuss the activities that were conducted during the conductive flooring removal action at the BLA and IAA sites.

4.4.1 Isolation of Removal Work Areas

Due to the presence of friable asbestos materials in the conductive flooring material, Winter Environmental constructed enclosures around each of the buildings prior to commencing the flooring removal activities. The enclosures were constructed using plastic sheeting, moveable chain link fencing, and the remaining walls of the former buildings (if present). These enclosures totally encapsulated the buildings and were maintained under negative pressure while the conductive flooring removal activities were on-going to ensure that asbestos fibers or other contaminants in the flooring were not released to the surrounding areas. Negative pressure was maintained within the enclosures using specialized air moving equipment equipped with High Efficiency Particulate (HEPA) filtration. Once erected, the enclosures were left in place at each building until the conductive flooring removal activities for that building were complete. Safety signs were posted on each building under active abatement to warn project personnel and the public of the health hazards associated with asbestos. Photos of the conductive flooring removal area enclosures and air moving equipment are provided in **Appendix A**.

Prior to removal, the interior surfaces (e.g., walls, floors, plastic sheeting) of the abatement enclosures were sprayed with a lockdown encapsulant (i.e., glue solution) to prevent any loose asbestos fibers that might have been left behind from becoming airborne.

4.4.2 Flooring Removal Procedures

All intact and degraded conductive flooring materials located in the seven former buildings at the BLA and 29 former buildings at the IAA were removed during this action using a variety of manual labor intensive techniques. Following erection and approval of the asbestos abatement enclosures, the first step in the flooring removal activities for each building included an initial removal of the loose/easily recoverable material by hand. The remaining conductive flooring material, which was strongly bonded to the underlying concrete, was then removed using various fine cleaning procedures. Regardless of the removal method, all of the conductive flooring material and other waste materials that came in contact with the flooring during the removal action were containerized inside clear polyethylene, OSHA-approved and labeled, asbestos waste disposal bags (double-bagged).

At the IAA, the primary method for performing the fine cleaning of the bonded flooring material involved workers using pneumatic chipping hammers and hand tools to break the conductive flooring and the top layer of concrete free. Removing the top layers of

concrete ensured that no conductive flooring material was left in place. The loose pieces of material were then picked up and placed in the asbestos waste disposal bags. The flooring was kept wet during this process to minimize the generation of airborne asbestos fibers inside the abatement enclosures. Photos of the IAA buildings before, during, and after the asbestos abatement activities are included in **Appendix A**.

At the BLA, the fine cleaning was performed using a combination of the pneumatic hammer method used a t the IAA and a water jet tool provided by Aquilex HydroChem, Inc. The water jet tool removed the flooring and top layers of underlying concrete using a stream of high-pressure hot-water within a vacuum-shrouded housing. This tool allowed the removed material and water to be immediately collected within a dewatering/vacuum box which further minimized the release of airborne asbestos fibers within the enclosed flooring removal area. The water was pumped out of the vacuum boxes and filtered to remove asbestos fibers and then temporarily stored in an on-site 4,900-gallon polyethylene holding tank. Once the water was removed from the boxes, the conductive flooring and other solid waste materials were cleaned out of the boxes and placed in the asbestos waste disposal bags. Photos of the equipment utilized for the fine cleaning activities at the BLA are included in **Appendix A**. Also included in **Appendix A** are photos of the BLA buildings before, during, and after the abatement activities.

All phases of work were overseen by Asbestos Abatement Project Supervisors from Winter Environmental and the ARCADIS asbestos abatement project monitor. Only fully trained and authorized asbestos abatement personnel were allowed inside the flooring removal area enclosures once work began. While inside the enclosures, workers were required to wear full-face respirators and Tyvek suits to protect against exposure to asbestos, lead, copper and other contaminants present in the flooring material. The ARCADIS project monitor collected air samples throughout performance of the work to ensure the abatement enclosures effectively prevented the release of asbestos fibers to the surrounding environment. The collected samples were analyzed in the field by NIOSH Method 7400 Phase Contrast Microscopy (PCM).

4.4.3 Confirmation Sampling for Conductive Flooring Removal

4.4.3.1 Visual Inspection

Prior to allowing the conductive flooring removing area enclosures to be disassemble, the ARCADIS project monitor visually inspected each of BLA and IAA buildings in general accordance with ASTM E1368 to ensure the successful completion of the

prescribed flooring removal activities. The project monitor inspected the buildings for the presence of residual flooring material, dust, and or debris. If any residual material was observed, Winter Environmental was required to continue the cleaning activities until successful completion. Copies of the final visual inspection record for each building at the BLA and IAA are provided in **Appendix B**. A record of when the inspection for each of the buildings at the BLA and IAA was completed is also provided in **Table 4-2**.

4.4.3.2 Final Clearance Air Sampling

Prior to permitting the dismantling of the flooring removal area enclosures, the ARCADIS project monitors collected a representative number of clearance air samples to determine the airborne fiber concentrations inside the contained work area. The clearance samples were analyzed in the field by NIOSH Method 7400, PCM. The samples were required to have asbestos fiber concentrations equal to or less than 0.01 fibers per centimeter (f/cc) prior to releasing the enclosures for dismantling. All of the final clearance air samples were found to be acceptable.

4.4.4 Waste Storage, Transportation, and Disposal

4.4.4.1 Conductive Flooring and Related Waste

The asbestos waste disposal bags and other waste materials generated during performance of the conductive flooring removal activities (e.g., water filters, PPE, and the plastic sheeting used to construct the asbestos abatement enclosures) were temporarily containerized on-site in secured, 50-cubic yard capacity, closed-top roll off boxes. Once filled, the roll-off boxes were transported by First Piedmont Corporation (First Piedmont) under approved waste manifests to the First Piedmont Landfill facility in Ringgold, Virginia for off-loading and disposal. The landfill is a permitted asbestos disposal facility. A total of 11 closed-top roll-off boxes of conductive flooring related waste were sent to the landfill during performance of the BLA and IAA remedial actions. Photos of the roll-off boxes utilized during performance of the work are provided in **Appendix A**. Copies of the conductive flooring waste disposal manifests are provided in **Appendix C**. **Table 4-3** provides a summary of the conductive flooring waste shipments from the BLA and IAA.

4.4.4.2 Waste Water Storage, Transportation, and Disposal

Water utilized for the decontamination facilities and during the conductive flooring removal activities (i.e., water jet tool) was filtered using 0.1 micron cartridge filters to

remove asbestos fibers and other particulates and then temporarily staged in a 4,900-gallon polyethylene holding tank. A total of 5,788 gallons of water was disposed of in two shipments (March 14, 2011 and April 18, 2011). Both shipments were transported via vacuum truck by Freehold Cartage, Inc., to Spirit Services, Inc in Williamsport, Maryland for treatment and disposal. Prior to accepting the water for disposal, Spirit Services analyzed a sample of the water in their in-house lab for total halogens by USEPA Method SW846 and flashpoint by ASTM D93. The waste disposal manifests and analytical results for the water sent to Spirit Services, Inc. are included in **Appendix D**.

4.5 Soil Removal Activities

The soil excavation activities for the BLA and IAA sites proceeded after the completion of the conductive flooring removal actions. The following sections discuss the activities that were conducted for the required soil excavation, transportation, and disposal at the BLA and IAA sites.

4.5.1 Soil Excavation Procedures

The soil removal activities for the IAA were conducted between February 15 and April 9, 2011, and the soil removal activities for the BLA were conducted between March 8 and March 28, 2011. Winter Environmental performed the soil excavation work for the BLA and IAA using a using Bobcat Model E80 mini excavator equipped with a 24-inch wide bucket. The small size of the excavation equipment allowed the work to be performed in a surgical fashion and minimized disturbance to soils outside the target removal areas. However, frequent rainfall and wet soil conditions throughout the removal action did result in some disturbance of surrounding soils that required repair upon completion of the work.

Prior to beginning the required excavation activities at each building/work area, ARCADIS marked the planned boundaries of the excavation using marking paint. In general the boundaries for both the BLA and IAA extended along the open sides of the former buildings to a distance of 2-ft from the building edges. However, the initial excavation boundaries were extended in areas where there was visual evidence of surface staining from the conductive flooring material. In practice the excavation boundaries ended up extending approximately 6-inches beyond the marked boundaries due to the width of the bucket and the mechanical excavation techniques that were utilized.

The excavations at the BLA and IAA were all completed to the planned depth of 1-ft bgs, with the exception of a few isolated areas where the depth was extended to 1.5 ft bgs to encompass some conductive flooring material that was observed in the subsurface.

Confirmation soil samples as described in detail in Section 4.5.2 were collected from the perimeter and base of the excavated areas upon completion of the initial excavation. Based on the results of the field confirmation soil samples for lead and copper, Winter Environmental was required to extend the excavations slightly around portions of Building 405 at the BLA, and Buildings 5, 502, 504, 522, 8102-3, and 8101 at the IAA.

Excavated soils were directly loaded into polyethylene-lined, open-top roll-off containers that were staged adjacent to the excavation areas. Once full, the roll-off containers were covered and prepared for transportation to the disposal facility.

Photos of the excavation activities at the BLA and IAA Study Areas are included in Appendix A.

4.5.2 Confirmation Sampling

4.5.2.1.1 Bag Loading Area

ARCADIS completed an extensive confirmation sampling program at the BLA to document that the excavation activities successfully achieved the RALs that were established for copper, lead, and asbestos. The sampling program included the collection of 99 excavation perimeter samples and 99 excavation base samples. The samples were collected on approximately 15 ft centers around the perimeter of the seven BLA buildings that formerly contained conductive flooring material. **Figure 4-1** depicts the location of each of the confirmation soil samples. Note that samples with a "B" at the end of the sample name were excavation base samples (e.g. 405-1B), all other were excavation perimeter samples. **Table 4-4** indicates how far from the building edge each sample was collected, as an indicator of the extent of the excavation at each location. Note that the table also indicates where it was necessary to expand the original excavation based on non-conforming sample results (i.e., sample results above the target RALs).

All of soil samples collected at the BLA were analyzed in the field for lead and copper using an Innov-X Alpha Series™ X-Ray Fluorescence (XRF) device. Because asbestos in soil was documented to generally be collocated with copper and lead

during the historical site investigations, the field screening results for lead and copper were used as a surrogate for asbestos. The results of the field screening program indicated that only one excavation perimeter sample (405-20E) and one excavation base sample (405-20B) were found to have lead concentrations above the target RAL. None of the collected samples had copper concentrations above the target RAL. The excavation at Building 405 was expanded around the two non-conforming sample locations and new perimeter and base field confirmation samples were collected. The new confirmation samples (405-36SE and 405-36B) had concentrations below the target RALs. The results of the field confirmation XRF readings are presented in **Table 4-4** and **Figures 4-2A** and **4-2B**.

To verify the results of the field XRF analyses, 27 of the 188 confirmation samples were submitted for laboratory analyses of lead and copper by USEPA Method SW6010B, and asbestos by USEPA Method 600/R-93/116. The results of the samples submitted for laboratory analysis are presented in **Table 4-5** and the laboratory analytical reports are included in **Appendix E**. The results of the laboratory analyses indicated that asbestos was not present in any of the confirmation samples. The detected copper and lead concentrations were below the established RALs and very similar to the copper and lead concentrations reported using the XRF device.

Based on the findings of the field XRF readings and the laboratory analyses, the confirmation sampling program at the BLA provides verification that the soil excavation activities achieved the industrial cleanup levels that were established for the site. All of the final excavation boundary and base samples were below the target RALs.

4.5.2.2 Igniter Assembly Area

The confirmation soil sampling program conducted for the IAA was very similar to that conducted for the BLA. Excavation base and perimeter samples were collected on approximately 15 ft centers around each of the buildings where conductive flooring was formerly present. These samples were analyzed in the field for lead and copper using an Innov-X Alpha Series™ XRF device. As at the BLA, lead and copper were used as a surrogate for asbestos, because historical soil sampling had indicated that asbestos was generally collocated with those constituents. In total, approximately 219 excavation perimeter and 215 excavation base soil samples were collected for field analysis by XRF. The locations of the field samples are depicted in **Figure 4-3**. Note that samples with a “B” at the end of the sample name were excavation base samples (e.g. 502-1B), all other were excavation perimeter samples. **Table 4-6** presents the results of the XRF field screening and indicates how far from the building edge each sample was collected, and also indicates where the excavations were expanded

beyond the planned boundaries due to non-conforming initial sample results. The results of the field XRF field screening program are also presented in **Figures 4-4A** and **4-4B**.

The results of the field XRF analyses indicated that the initial excavation activities at the IAA encompassed the majority of the areas where lead and copper were present at concentrations above their target RALs. All of the excavation base samples had concentrations less than the target RALs, however, a limited number of excavation perimeter samples collected adjacent to Buildings 5, 502, 504, and 522, 8102-3 had lead concentrations above the RAL of 400 mg/kg. To ensure that the excavation activities achieved the RAOs, the excavations in these areas were expanded and new perimeter samples were collected. The results of the expanded excavation area confirmation samples all had concentrations below the target RALs, thus documenting attainment of the RALs.

To verify the results of the field XRF analyses, 53 of the 434 confirmation samples were submitted for laboratory analyses of lead and copper by USEPA Method SW6010B, and asbestos by USEPA Method 600/R-93/116. The laboratory analytical results are presented in **Table 4-7**and the laboratory analytical reports are presented in **Appendix E**. The laboratory analytical results for lead and copper fairly closely mirrored the XRF results; however, two of the laboratory samples (522A-10W and 8102-3-10W) indicated that lead was present a concentrations above the 400 mg/kg RAL. In response to the elevated lead detections, the excavations were expanded at these two sample locations and new perimeter samples were collected that had lead concentrations below the RAL. Asbestos was not detected in any of the laboratory samples.

While the primary targets for the soil excavation activities at the IAA were lead, copper, and asbestos, two separate areas were also targeted for excavation due to the presence of Aroclor 1254 at concentrations above the residential RAL of 210 mg/kg established for the site. The first Aroclor 1254 excavation area was located near former Building 8101. The initial confirmation sampling activities for this area included the collection of three excavation perimeter samples (8101-1W, 8101-2N, and 8102-3N) and one excavation base sample (8101-5W), which were submitted for laboratory analysis of Aroclor 1254 by USEPA Method 8082B. The Aroclor 1254 concentrations detected at two of the perimeter sample locations (8101-1W and 8101-2N) were in excess of 210 mg/kg; therefore the excavation boundary for this area was expanded an additional 3-ft and two new perimeter samples were collected. The results of the two new perimeter confirmation samples (8101-5W and 8101-6N) both had Aroclor

1254 concentrations below the target RAL indicating the expanded excavation area encompassed the impacted soils.

The second Aroclor 1254 excavation area at the IAA was located at Building 504. The two confirmation samples collected from this area that were analyzed for Aroclor 1254 (504-20N and 504-22E) both had concentrations far below the target RAL. The laboratory analytical results for both of the Aroclor 1254 excavation areas confirmation samples are included in **Table 4-7**. **Figure 4-5** also presents the results of the final Aroclor 1254 excavation area confirmation samples.

4.5.3 Transportation and Disposal

All excavated soils from the BLA and IAA were placed directly into polyethylene-lined open-top, roll-off containers. Once full, the roll-off containers were covered with tarps and prepared for transportation to the disposal facility. The containers were transported by First Piedmont Corporation under approved Waste Shipment Records/Manifests and disposed of at the First Piedmont Landfill in Ringgold, Virginia. Based on the truck weigh tickets, a total of 798.85 tons of material from the BLA and IAA were disposed of at the landfill. **Table 4-8** provides a summary of the shipping information on each load (i.e., manifest number, load weight, facility receipt date). Copies of the finalized waste manifests, weigh tickets, and Certificates of Disposal are provided in **Appendix F**.

4.6 Site Restoration

4.6.1 Backfill

Once all excavation and field confirmation sampling activities were completed, the excavated areas around each of the BLA and IAA buildings was backfilled with common backfill material and graded to be level with the surrounding terrain. The common backfill material was obtained from David Thompson Hauling and Excavating, Inc. of Christiansburg, VA.

Prior to delivery of the backfill material to the site, one sample of the common backfill (Backfill) was submitted for laboratory analyses to ensure that the material came from a “clean” source. The samples were analyzed for volatile organic compounds (VOCs) by USEPA Method 8260B, semi-volatile organic compounds (SVOCs) by USEPA Method 8270C, metals by USEPA Method 6010B and 7471A, pesticides by USEPA Method 8081A, PCBs by USEPA Method 8082A, and herbicides by USEPA Method 8151A.

The analytical results for the common backfill sample are summarized in **Table 4-9** and the laboratory analytical report is provided in **Appendix E**. The data indicated that the backfill concentrations were all below the USEPA's Residential RSLs for soil, with the exception of arsenic. Arsenic was detected at a concentration of 9.54 mg/kg, which exceeded the residential soil RSL of 0.39 mg/kg; however, the detected concentration was lower than the naturally occurring background concentration for arsenic in soil at the facility of 15.8 mg/kg. The concentrations of copper (30 mg/kg) and lead (21.6 mg/kg) in the backfill material were also lower than the facility-wide background concentrations. Photos of the backfilled areas at the BLA and IAA are included in **Appendix A.**

4.6.2 Vegetation

Upon completion of the backfill and grading activities, the areas surrounding the BLA and IAA buildings, and any other areas of RFAAP-NRU that may have been disturbed by off road vehicle traffic during implementation of the response action, were heavily seeded with the following seed mixture: 70 percent Kentucky 31 tall fescue, 25 percent annual ryegrass gulf, 3 percent annual lespedeza, and 2 percent inert matter. The seed mixture was sown to help re-establish a vegetative layer in the disturbed areas and to provide soil stabilization until natural vegetation is re-established. A heavy straw layer was also placed throughout the disturbed areas to help protect the seed and to provide some measure of soil stabilization until the grass is able to grow. Pictures of the seeded and straw covered excavation footprint are presented in **Appendix A**.

4.7 Alterations to Planned Response Actions

The remedial activities for the BLA and IAA study areas were conducted in accordance with activities outlined in the Response Action Work Plan for the BLA, IAA, and BDDT (ARCADIS 2010). The only change of note was in the disposal facility utilized for the conductive flooring waste and soil. The work plan stated that the waste would be disposed of at the Wayne Disposal Facility in Belleville, Michigan. Instead, the conductive flooring and excavated soils were disposed of at the First Piedmont Landfill in Ringgold, Virginia. This change was made because the waste material was found to be non-hazardous solid waste instead of hazardous waste.

4.8 Final Inspections

A final inspection of the BLA and IAA sites was conducted by representatives of ARCADIS, Winter Environmental, USACE, and the US Army – RFAAP on Tuesday,

May 3, 2011. No comments were generated as a result of the site walk. It was agreed that additional grass seed may be spread at the site during the autumn of 2011 if it is required to stabilize the backfilled areas. The attendees at this inspection were as follows:

- Clint Verelle - USACE;
- James McKenna - US Army - RFAAP;
- Christopher Kalinowski - ARCADIS;
- W. Keith Carr - ARCADIS;
- Pat Chesowsky - Winter Environmental; and,
- Larry Chambers - Winter Environmental.

5. Remedial Action Implementation at the Western Burning Ground

The field activities for the pond sediment removal action at the WBG Study Area were initiated on May 9 and completed on May 13, 2011. This section provides an outline of the project organization, and details the various activities that were completed during implementation of the remedial action at the site.

5.1 Project Organization

ARCADIS served as the prime contractor for the remedial action implementation at the WBG Study Area and utilized internal staff to perform a majority of the related site work, including the site preparation, sediment excavation and stabilization, confirmation sampling, and site restoration activities. However, ARCADIS did utilize the services of various subcontractors to assist with the performance of several key components, including: utility location, waste coordination, waste hauling, backfill delivery, and laboratory analytical services. Following is a list of key subcontractors involved in the performance of the work.

- Mid-Atlantic Utility Locating, LLC. (Chantilly, Virginia) – Conducted pre-excavation utility location services.
- David Thompson Hauling and Excavating, Inc. (Christiansburg, Virginia) – Provided stone and backfill material for road improvements, constructing the sediment stabilization basin, and site restoration.
- Capitol Environmental Services, Inc. (Roanoke, Virginia) – Waste broker that coordinated disposal of sediment.
- Thompson Trucking, Inc. (Concord, Virginia) – Transported stabilized sediment to the disposal facility. .
- First Piedmont Corporation Landfill (1224 Clarks Mill Rd, Ringgold, Virginia 24586) – Disposal facility for stabilized sediment.
- Empirical Laboratories, LLC. (Nashville, Tennessee) – Laboratory Analytical Services.

5.2 Timeline of Response Action Activities

The following table provides a daily chronology of activities that were completed during the WBG Response action.

Date	Description of Activities
9 May 2011	Mobilized personnel and equipment to the site, obtained facility work permits, improved access road with stone, constructed sediment stabilization basin using clean fill material imported from off-site.
10 May 2011	Finished construction of sediment stabilization basin using polyethylene membranes, marked boundaries of the excavation area, removed boulders from excavation area, began excavation of lead and chromium impacted sediments.
11 May 2011	Completed excavation of lead and chromium impacted sediments, collected confirmation samples, and stabilized excavated sediments using cement kiln dust.
12 May 2011	Loaded stabilized sediment on trucks for transportation to landfill, re-graded area used for sediment stabilization basin to match surrounding topography, replaced boulders in excavation area, and seeded/strawed disturbed areas.
13 May 2011	Completed site restoration activities and demobilized equipment and personnel from site.

5.3 Site Preparation Activities

5.3.1 Wetlands Delineation

On March 17, 2011, ARCADIS wetland ecologists delineated wetland boundaries at and around the WBG site in accordance with the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (Manual) (Federal Interagency Committee for Wetland Delineation [FICWD] 1989) and the DRAFT Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont

Region (United States Army Corps of Engineers [USACE] 2010). The wetland delineation identified the extent of wetlands, open waters and transition areas around the planned sediment removal areas in accordance with permit equivalency requirements described in Nationwide Permit (38) for Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. The results of the wetland delineation were used to support the preparation of U.S. Army Corps of Engineers, Nationwide Permit #38 permit equivalency application package for regulated activities occurring at the site in areas regulated under CERCLA. A copy of the application package was included within the Remedial Action Work Plan for the Western Burning Ground (ARCADIS 2011). As this work is being performed under CERCLA, there is no Federal requirement for submitting this application package or obtaining a Nationwide #38 Permit

5.3.2 Work Permits and Notifications

ARCADIS met with personnel from the RFAAP Safety Department on May 9, 2011 to review the scope of work and obtain facility issued Area Entry Permits and Hot Work Permits for the site.

No other permits were required for the on-site work at the BLA and IAA because the remediation activities were conducted under CERCLA. Per Section 300.400(e) of the NCP, 40 C.F.R. § 300.400(e), no federal, state, or local permits are required for on-site response actions. However, all activities were conducted in accordance with the substantive requirements of relevant site permits.

5.3.3 Subsurface Utility Clearance

A multi-point utility clearance was performed prior to initiating any intrusive work at the WBG project site. The utility clearance consisted of the following activities: (1) ARCADIS coordinated with RFAAP to review the scope of work and identify any utility lines that may be located in the work areas, (2) a records review was conducted to review all available drawings/information that could aide in identifying and locating current and/or historical underground utilities/structures within or adjacent to the work area, (3) a private utility locator (Mid-Atlantic Utility Locating, LLC) was retained to locate underground lines/structures by applying surface geophysical methods in the areas where intrusive work will be conducted, and (4) ARCADIS contacted Miss Utility of Virginia (800-552-7001) to notify utility companies that may have had lines within or near the work areas. Finally, ARCADIS conducted a visual inspection of the work

areas for marked subsurface utility locations, manholes, and other evidence of subsurface utilities prior to beginning intrusive work.

5.3.4 Waste Characterization

A waste characterization sample was collected from the sediment excavation area on October 19, 2010. The composite sediment sample was analyzed for TCLP metals and grain size. Sample collection and analytical methods were in accordance with the Master Work Plan and SOPs (URS, 2003). The analytical results for the waste characterization sample are provided in **Table 5-1**. Based on the results of the characterization sample and historical analytical results from the excavation area, the sediment from the WBG was characterized as non-hazardous for disposal purposes.

5.3.5 Access Road Improvements

Vehicle traffic to and from RFAAP-NRU entered the facility through Gate 20 located on Bagging Plant Road. Once on-post, the WBG project site was accessed via the network of paved surface roads that run throughout the RFAAP-NRU facility. Access to the sediment removal area at the WBG site was provided by a pre-existing access road. ARCADIS improved the dirt portions of the WBG access road with gravel base material to support the heavy truck traffic required to transport the excavated sediment from the site. The gravel access road was left in place upon completion of the sediment removal action. Photos of the improved access road are provided in **Appendix G**.

5.3.6 Site Clearing

Minimal clearing work was required for the WBG sediment removal action. ARCADIS removed a few low hanging tree limbs and one small pine tree to clear the entrance road to the WBG sediment removal area. ARCADIS also moved a dead tree that had fallen across the entrance road. The cleared limbs and trees were place in the surrounding wooded areas on-site so they could decay naturally.

5.4 Sediment Removal Activities

5.4.1 Excavation Area Debris Removal

Several medium size boulders were located within the planned sediment excavation footprint. To ensure they did not impede the sediment removal activities, the boulders

were moved from the excavation area using an excavator and placed on the shoreline of the pond prior to starting the sediment removal action. These boulders were placed back in the pond upon completion of the sediment removal activities. Photos of the sediment removal area before and after the removal action are provided in **Appendix G**.

5.4.2 Sediment Stabilization Area

Prior to starting the sediment removal activities, ARCADIS constructed an approximately 25-ft wide by 90-ft long by 2-ft deep bermed area for staging and stabilizing the excavated sediments. The berms and base of the stabilization basin were constructed adjacent to the pond using clean fill material imported from the same off-site source used for the backfill activities at the BLA and IAA. Once the berms and base were completed the entire basin was lined with three layers of 10-mil polyethylene plastic sheeting. The polyethylene sheeting ensured that the excavated sediments would not come into contact with the clean upland soils. Photos of the sediment stabilization area are included in **Appendix G**.

5.4.3 Sediment Removal and Stabilization Procedures

ARCADIS conducted the sediment removal action on the afternoon of May 10 and the morning of May 11, 2011 utilizing a Komatsu PC200LC long boom excavator. The specialized excavation equipment enabled the work to be performed from the top of the pond bank. The excavation was performed in a slow/controlled manner and the bucket fall height was minimized throughout the action to minimize the resuspension of sediments within the pond water column. The movement of disturbed/re-suspended sediments outside the removal area was limited by the slow flow within the pond and minimal wind fetch during the removal activities; therefore, additional resuspension controls were unnecessary. To the extent practical, free liquids were allowed to drain from the excavation bucket prior to moving the excavated material to the sediment staging/stabilization basin.

In total, approximately 75 cubic yards of sediment and decaying vegetation were removed from the pond during the excavation activities. The excavation activities successfully removed the sediments throughout the target removal area. The results of the confirmation samples collected from the perimeter and base of the excavation area following the initial excavation indicated that lead and chromium concentrations were far lower than the established RALs, so the excavation area was not expanded.

The excavated materials were all placed directly into the sediment stabilization basin. Once the excavation activities were completed, approximately 12 tons of cement kiln dust (8 – 3,000 lb super sacks) were mixed with the solid material and free water within the stabilization basin to stabilize the material for transportation and disposal. The sediment and cement kiln dust were mixed using the excavation equipment.

5.4.4 Transportation and Disposal

The stabilized sediments were direct loaded from the stabilization basin onto a total of six polyethylene plastic lined quad-axel dump trucks on May 12, 2011 for transportation to the disposal facility. The polyethylene liners used for the stabilization basin were also picked up and loaded on the last dump truck for disposal. All waste was transported by Thompson Trucking under approved waste manifests to the First Piedmont Corporation Landfill in Ringgold, Virginia. Based on the truck weigh tickets, a total of 122.4 tons of material were disposed of at the landfill. **Table 5-2** provides a summary of the shipping information on each load (i.e., manifest number, load weight, facility receipt date). Copies of the finalized waste manifests and weigh tickets are provided in **Appendix H**.

5.5 Confirmation Sampling

5.5.1 Sediment Confirmation Sampling Program

Sediment samples were collected from the perimeter and interior (base) of the removal area to confirm that the excavation activities achieved the applicable RALs for lead and chromium. A total of six perimeter confirmation samples (WBG-SD1 through WBG-SD6) were collected at approximately 20-ft intervals starting from the shoreline and extending around the perimeter of the removal area. Four confirmation samples (WBG-SD-7 through WBG-SD10) were also collected from the base of the removal area. The locations of the confirmation samples are depicted in **Figure 5-1**.

In accordance with the confirmation sampling plan outlined in the Remedial Action Work Plan for the Western Burning Ground, all of the samples were field screened for lead and chromium using an Innov-X Alpha Series™ XRF device. The results of the field screening analyses indicated that lead and chromium concentrations in the samples were much lower than the target RALs for 1,100 mg/kg for lead and 1,358 mg/kg for chromium. The maximum lead concentration detected was 46 mg/kg and the maximum chromium detection was <176 mg/kg. The results of the field screening analyses are presented in **Table 5-3** and **Figure 5-1**.

To verify the findings of the field analyses, five of the confirmation sediment samples were submitted for laboratory analyses of lead and chromium by USEPA Method SW6010B. The results of the laboratory analyses are presented in **Table 5-4** and the laboratory analytical report is presented in **Appendix I**. The results of the laboratory analyses correlate well with the results of the field analyses conducted with XRF and confirmed that the removal action achieved the target RALs.

5.5.2 Surface Water Sampling

During performance of the sediment removal action ARCADIS collected periodic turbidity readings from the pond effluent to monitor the movement of suspended solids from the removal activities (see **Table 5-5**). While a minor increase in turbidity was observed during performance of the work (i.e., increased from 15.4 NTU at the beginning of work to 55.7 NTU at the completion of work), no significant movement of suspended solids was observed in the pond water column.

Upon completion of the sediment removal action, ARCADIS collected one surface water sample from the pond on the perimeter of the removal activities (WBG-SWEP01) and another surface water sample from the pond outfall (WBG-SWOF1). The two surface water samples were submitted for laboratory analysis of lead and chromium by USEPA Method 6010B to evaluate potential water quality impacts to the pond and downgradient stream as a result of suspended solids generated in the water column during the removal activities. The laboratory analytical results are presented in **Table 5-6**and **Figure 5-2**. The laboratory analytical report is included in **Appendix I**. The analytical results for the sample collected on the perimeter of the excavation area indicated a lead concentration slightly above the Virginia Water Quality Standard of 15 µg/L. However, the sample collected at the pond outfall was well below the surface water quality standard, indicating that the elevated lead concentrations did not migrate away from the excavation area. The elevated lead concentration in the excavation perimeter sample has been attributed to the temporary suspension of solids in the water column from the excavation activities.

5.6 Site Restoration

Upon completion of the sediment removal activities, the fill material that was utilized to construct the sediment stabilization basin was spread out and re-graded to match the surrounding terrain. Areas disturbed by the off-road truck and equipment traffic were also graded to remove any surface ruts. The disturbed areas of the site were then seeded with a mixture consisting of 70 percent Kentucky 31 tall fescue, 25

percent annual ryegrass gulf, 3 percent annual lespedeza, and 2 percent inert matter. The seed mixture was sown to help re-establish a vegetative layer in the disturbed areas and to provide soil stabilization until natural vegetation is re-established. Straw matting and loose straw was spread over the seeded areas to protect the grass seed until germination occurred and also to protect against erosion. Photos of the completed site restoration activities are included in **Appendix G**.

5.7 Alterations to Planned Response Actions

The remedial activities for the WBG site were conducted in accordance with the Response Action Work Plan for the Western Burning Ground (ARCADIS 2011). There were no significant deviations from the scope of work outlined in the work plan. However, it should be noted that the disposal facility for the sediment from the WBG was changed from Wayne Disposal in Belleville, Michigan, to First Piedmont Landfill in Ringgold, Virginia.

5.8 Final Inspection

A final inspection of the WBG site was conducted by representatives of ARCADIS and the US Army on Tuesday, May 13, 2011. No comments were generated as a result of the site walk.

- James McKenna – US Army - RFAAP; and
- Christopher Kalinowski—ARCADIS.

6. Quality Assurance/Quality Control

In accordance with the quality assurance/quality control (QA/QC) procedures outlined in the Master Quality Assurance Project Plan (QAPP) (URS 2003) and the ARCADIS Quality Assurance Plan Addendum (QAPA) (ARCADIS 2008), the laboratory data collected during the performance of this site work was validated to verify data usability and to ensure compliance with the data quality objectives. This section summarizes the findings of the laboratory data validation process.

6.1 Summary of the Electronic Validation Review Report

Laboratory soil, sediment, and surface water laboratory analytical data underwent a validation process to determine the reliability of the chemical analyses and the accuracy and precision of information acquired from the laboratory. Data quality was assessed through the review and evaluation of field sampling activities and Quality Control (QC) samples and data associated with the chemical analytical results. Data validation reports are included along with the laboratory analytical reports included in **Appendices E and I**. In general, only minor deficiencies were identified and the data were qualified as appropriate. Overall, the analytical data associated with the confirmation sampling events are considered quantitative and usable for the intended purposes.

7. Future Requirements

7.1 Bag Loading Area

The remedial actions completed for the BLA Study Area at RFAAP-NRU achieved the RAOs that were established for the site and confirmation samples indicated that the residual concentrations of lead, copper, and asbestos in soil are less than the RALs that were established for the site. However, because the soil excavation activities only targeted RALs that were suitable for the current and anticipated future industrial commercial use of the property, Land Use Controls (LUCs) will need to be implemented for the BLA to ensure the site is not utilized for residential purposes. Historical soil sampling at the site indicated that benzo(a)pyrene and Aroclor 1254, and potentially lead and copper remain at the site at concentrations above the residential RALs. The LUCs will also prevent unacceptable use of the building remnants at the site due to the residual lead based paint and non-conductive flooring asbestos containing materials.

A Land Use Control Implementation Plan (LUCIP) will be prepared for RFAAP-NRU to define responsibilities and procedures for implementing, managing, enforcing and tracking land use controls. The primary objective of the LUCIP for the BLA will be to prevent residential use of the BLA and restrict access to BLA building remnants. Access restrictions are in place at RFAAP by virtue of it being an active military installation. However, in the event that RFAAP-NRU closed and was declared excess property, the LUCIP will require the land use restrictions be legally recorded as appropriate and incorporated into the provisions for the new land use. As a RFAAP-specific GIS database has not been established, the LUCIP will also record the boundary coordinates for the BLA land use controls. The land use controls for the BLA will include the following actions:

- Access regulations are in place at the New River Unit of RFAAP due to the on-going storage operations at the facility. The NRU is enclosed in perimeter fencing and access to the NRU is limited to authorized personnel only. The existing perimeter fence that surrounds the RFAAP-NRU facility will continue to be maintained in accordance with the existing requirements for this active energetics storage facility.

- An information sign will be installed at the main entrance to RFAAP-NRU (i.e., Gate 20) to inform site workers and visitors of the restrictions to land use at the facility.

- Annual inspections will be performed to ensure that the BLA property is not utilized for residential purposes and that the information signs and fence are properly maintained. The inspections will be documented with CERCLA 5-Year Reviews.

The requirement for preventing residential development of the BLA sites and access restrictions to former buildings at the BLA will be in place in perpetuity, unless a future remedial action is conducted at the site (including lead and asbestos abatement of the buildings) that can document that constituent concentrations at the site no longer present unacceptable risks under a residential land use scenario. There are no other restrictions for the site. Generally allowable uses include current industrial / commercial and recreational use. In addition, there are no health-based restrictions for intrusive activities (e.g., utility maintenance or repair). Other than the information sign, there will be no maintenance requirements for the site.

7.2 Igniter Assembly Area

The remedial actions completed for the IAA Study Area achieved the RAOs that were established for the site. Confirmation samples verified that the residual lead, copper, asbestos, and Aroclor 1254 concentrations in the target removal soil removal areas were lower than the residential RALs that were established for the site. Therefore, there will be no requirement for restricting land use at the site due to soil or conductive flooring material. However, LUCs will still be implemented for the IAA to restrict access to the building remnants at the site due to residual lead based paints and asbestos containing materials in the buildings.

The LUCs for the IAA will be documented in the LUCIP that will be prepared for RFAAP-NRU. The objective of the LUCIP for the IAA will be to restrict access to IAA building remnants. Access restrictions are in place at RFAAP by virtue of it being an active military installation. However, in the event that RFAAP-NRU closed and was declared excess property, the LUCIP will require the land use restrictions be legally recorded as appropriate and incorporated into the provisions for the new land use. As a RFAAP-specific GIS database has not been established, the LUCIP will also record the boundary coordinates for the IAA land use controls. The land use controls for the IAA will include the following actions:

- The existing perimeter fence that surrounds the RFAAP-NRU facility will continue to be maintained in accordance with the existing requirements for this active energetics storage facility.

- An information sign will be installed at the main entrance to RFAAP-NRU (i.e., gate 20) to inform site workers and visitors of the restrictions to land use at the facility.

- Annual inspections will be performed to ensure that the IAA buildings are not utilized for habitation. The inspections will be documented with CERCLA 5-Year Reviews.

The access restrictions to former buildings at the IAA will be in place in perpetuity, unless lead and asbestos abatement is completed at the buildings. There are no other restrictions for the site. Other than the information sign, there will be no maintenance requirements for the site.

7.3 Western Burning Ground

The sediment removal action for the WBG achieved the RAOs that were established for the site. Confirmation samples indicated that the residual lead and chromium concentrations in the pond sediments were less than the RALs that were established for residential/unrestricted use of the property. Therefore, there will no restrictions to future land use and no required follow on actions. All necessary response actions have been completed for the WBG.

8. Certification

This Response Action Completion and Closure Report documents the remedial actions that were completed for the BLA, IAA, BDDT, and WBG study areas at RFAAP-NRU. The actions achieved the Remedial Action Objectives that were outlined in the Feasibility Study, Proposed Plan, and Decision Documents for RFAAP-NRU. No deficiencies in the work are believed to exist, nor were any documented during confirmation sampling or subsequent inspection. Land use controls, as described in Section 7, will be required for the BLA and IAA.

9. References

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ARCADIS, 2010c. Remedial Action Work Plan for the Bag Loading Area, Igniter Assembly Area, and Building Debris Disposal Trench, New River Unit (RAAP-044), Radford Army Ammunition Plant, Radford, Virginia. November.

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Tables

Table 2-1
Historical Concentration Ranges for Contaminants of Concern at the BLA, IAA, and WBG Study Areas
New River Unit, Radford Army Ammunition Plant, Radford, Virginia

Exposure Point	Contaminant of Concern	Concentrations Detected		Frequency of Detection	Exposure Point Concentration (mg/kg)	EPC Calculation Method [a]
		Min (mg/kg)	Max (mg/kg)			
Bag Loading Area						
BLA - Soil	Aroclor 1254	0.0066	8.3	9 / 20	1.869	95th UCL
	Benzo(a)pyrene	0.0049	39	39 / 44	16.14	95th UCL
	Copper	21	72,000	47 / 47	19,489	95th UCL
	Lead	9.82	58,000	47 / 47	2,020	Average
	Asbestos	0.1%	9.4%	10 / 29	NA	NA
Igniter Assembly Area						
IAA - Soil	Aroclor 1254	0.0049	12	18 / 61	3.697	95th UCL
	Copper	5.13	56,500	139 / 139	9,523	95th UCL
	Lead	6.4	16,200	139 / 139	642	Average
	Asbestos	0.10%	17.20%	7 / 22	NA	NA
Western Burning Ground						
WBG - Sediment	Chromium	5.17	15,400	28 / 28	6,048	95th UCL
	Lead	5.61	109,000	32 / 32	3,610	Average

mg/kg: milligrams per kilogram

[a] The exposure point concentration (EPC) was the upper confidence level on the mean (UCL) or the maximum concentration where the UCL was incalculable.

Exposure to lead is evaluated by predicting resultant blood lead levels using the arithmetic average (avg).

The UCLs were calculated using ProUCL 4.0. The UCL used is the one recommended by ProUCL 4.0.

Asbestos exposure is not evaluated by exposure point concentration

Table 4-1
Waste Characterization Sample Results for BLA and IAA
November 2010
Radford Army Ammunition Plant - New River Unit

Sample ID:	IAA Soil - 20101116	BLA Soil - 20101116	Flooring - 20101116
Sample Date:	11/16/2010	11/16/2010	11/16/2010
Analyses			
TCLP-Metals (mg/L)			
Mercury	<0.002	<0.002	<0.002
Arsenic	<0.1	<0.1	<0.1
Barium	2.44	1.72	2.9
Cadmium	0.0227	0.0849	0.0192
Chromium	<0.1	<0.1	<0.1
Lead	0.276	0.858	<0.03
Selenium	0.037	<0.06	0.0483
Silver	<0.1	<0.1	<0.1
Asbestos Content (%)			
Chrysotile	**5%**	**3%**	**5%**
PCBs (µg/Kg)			
Aroclor-1254	<23.7	733	<25.0
Aroclor-1260	103	<27.4	<25.0
Aroclor-1268	<23.7	<27.4	25.5

Table 4-2
Summary of Visual Inspection Dates for BLA and IAA Conductive Flooring Removal
January through April 2011
Radford Army Ammunition Plant - New River Unit

Building Identification	Date of Final Visual Inspection for Conductive Flooring Removal
Bag Loading Area	
404	3/4/2011
405	2/23/2011
406	3/7/2011
407	3/5/2011
411	3/7/2011
412	3/5/2011
413	3/7/2011
Igniter Assembly Area	
1	1/6/2011
2	1/6/2011
4	1/12/2011
5	1/11/2011
6	3/4/2011
502	2/3/2011
504	2/2/2011
508	1/26/2011
509	1/25/2011
522	1/25/2011
528	1/24/2011
529	1/21/2011
562	1/18/2011
565	1/21/2011
570	1/13/2011
571	1/19/2011
522A	1/31/2011
565B	1/20/2011
8101-1	2/7/2011
8101-2	2/7/2011
8101-3	2/10/2011
8101-4	2/14/2011
8101-5	2/16/2011
8101-6	2/17/2011
8101-7	3/2/2011
8101-8	3/8/2011
8102-A	3/3/2011
XXXX	1/24/2011
YYYY	1/31/2011

Table 4-3
Summary of Conductive Flooring Waste Shipments for the BLA and IAA Removal Actions
January through April 2011
Radford Army Ammunition Plant - New River Unit

Manifest #	Waste Shipment Date	Facility Receipt Date	Facility Receipt ID	Disposal Company/Site	Load Weight (tons)
FPC4232-01-11	1/20/2011	1/21/2011	291188	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	10.60
FPC4232-02-11	1/25/2011	1/25/2011	291621	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.75
FPC4232-03-11	2/3/2011	2/3/2011	292656	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.80
FPC4232-04-11	2/8/2011	2/9/2011	293130	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.31
FPC4232-05-11	2/9/2011	2/9/2011	293305	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.48
FPC4232-06-11	2/17/2011	2/17/2011	294291	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.98
FPC4232-10-11	2/22/2011	2/22/2011	294869	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.00
FPC4232-11-11	2/23/2011	2/23/2011	295030	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	7.17
FPC4232-12-11	3/8/2011	3/8/2011	296533	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.32
FPC4232-13-11	3/23/2011	3/23/2011	298522	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.60
FPC4232-14-11	4/18/2011	4/18/2011	301583	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	7.32
				Total	**139.33**

Table 4-4
Field XRF Results for BLA Soil Confirmation Samples
March 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for BLA Soils					**11,533**	**624**		
Building 404								
404-1B	Base	23-Mar-11	1 - 1.5	1	49	61	N	-
404-1NW	Perimeter	23-Mar-11	0 - 0.5	2.5	50	72	N	-
404-2B	Base	23-Mar-11	1 - 1.5	1	89	141	N	-
404-2N	Perimeter	23-Mar-11	0 - 0.5	2.5	133	23	N	-
404-3B	Base	23-Mar-11	1 - 1.5	1	34	20	N	-
404-3N	Perimeter	23-Mar-11	0 - 0.5	2.5	39	29	N	-
404-4B	Base	23-Mar-11	1 - 1.5	1	50	38	N	-
404-4N	Perimeter	23-Mar-11	0 - 0.5	2.5	66	34	N	-
404-5B	Base	23-Mar-11	1 - 1.5	1	101	38	N	-
404-5N	Perimeter	23-Mar-11	0 - 0.5	2.5	72	136	N	-
404-6B	Base	23-Mar-11	1 - 1.5	1	38	19	N	-
404-6N	Perimeter	23-Mar-11	0 - 0.5	2.5	93	39	N	-
404-7B	Base	23-Mar-11	1 - 1.5	1	45	19	N	-
404-7N	Perimeter	23-Mar-11	0 - 0.5	2.5	105	58	N	-
404-8B	Base	23-Mar-11	1 - 1.5	1	81	40	N	-
404-8N	Perimeter	23-Mar-11	0 - 0.5	2.5	108	53	N	-
404-9B	Base	23-Mar-11	1 - 1.5	1	32	218	N	-
404-9N	Perimeter	23-Mar-11	0 - 0.5	5.75	92	160	N	-
404-10B	Base	23-Mar-11	1 - 1.5	1	33	32	N	-
404-10W	Perimeter	23-Mar-11	0 - 0.5	2.5	65	124	N	-
404-11B	Base	23-Mar-11	1 - 1.5	1	43	31	N	-
404-11W	Perimeter	23-Mar-11	0 - 0.5	2.5	75	44	N	-
404-12B	Base	23-Mar-11	1 - 1.5	1	37	20	N	-
404-12W	Perimeter	23-Mar-11	0 - 0.5	2.5	50	20	N	-
404-13B	Base	23-Mar-11	1 - 1.5	1	123	69	N	-
404-13W	Perimeter	23-Mar-11	0 - 0.5	2.5	151	67	N	-
404-14B	Base	23-Mar-11	1 - 1.5	1	51	38	N	-
404-14W	Perimeter	23-Mar-11	0 - 0.5	2.5	140	131	N	-
404-15B	Base	23-Mar-11	1 - 1.5	1	201	56	N	-
404-15W	Perimeter	23-Mar-11	0 - 0.5	2.5	45	31	N	-
404-16B	Base	24-Mar-11	1 - 1.5	1	53	25	N	-
404-16E	Perimeter	24-Mar-11	0 - 0.5	2.5	81	106	N	-
404-17B	Base	24-Mar-11	1 - 1.5	1	41	35	N	-
404-17E	Perimeter	24-Mar-11	0 - 0.5	2.5	46	43	N	-
404-18B	Base	24-Mar-11	1 - 1.5	1	43	63	N	-
404-18E	Perimeter	24-Mar-11	0 - 0.5	2.5	60	32	N	-
404-19B	Base	24-Mar-11	1 - 1.5	1	52	28	N	-
404-19E	Perimeter	24-Mar-11	0 - 0.5	2.5	49	19	N	-
404-20B	Base	24-Mar-11	1 - 1.5	1	49	17	N	-
404-20E	Perimeter	24-Mar-11	0 - 0.5	2.5	49	32	N	-
404-21B	Base	24-Mar-11	1 - 1.5	1	36	19	N	-
404-21E	Perimeter	24-Mar-11	0 - 0.5	2.5	35	35	N	-
404-22B	Base	24-Mar-11	1 - 1.5	1	42	24	N	-
404-22E	Perimeter	24-Mar-11	0 - 0.5	2.5	78	24	N	-
404-23B	Base	24-Mar-11	1 - 1.5	1	<5	17	N	-
404-23E	Perimeter	24-Mar-11	0 - 0.5	2.5	47	21	N	-
404-24B	Base	24-Mar-11	1 - 1.5	1	30	20	N	-
404-24E	Perimeter	24-Mar-11	0 - 0.5	2.5	38	34	N	-
404-25B	Base	24-Mar-11	1 - 1.5	1	77	52	N	-
404-25E	Perimeter	24-Mar-11	0 - 0.5	2.5	434	134	N	-
404-26B	Base	24-Mar-11	1 - 1.5	1	31	23	N	-
404-26S	Perimeter	24-Mar-11	0 - 0.5	2.5	66	27	N	-
404-27B	Base	24-Mar-11	1 - 1.5	1	43	31	N	-
404-27S	Perimeter	24-Mar-11	0 - 0.5	2.5	102	45	N	-
404-28B	Base	24-Mar-11	1 - 1.5	1	<5	37	N	-
404-28S	Perimeter	24-Mar-11	0 - 0.5	2.5	61	35	N	-
404-29B	Base	24-Mar-11	1 - 1.5	1	62	91	N	-
404-29S	Perimeter	24-Mar-11	0 - 0.5	2.5	40	22	N	-
404-30B	Base	24-Mar-11	1 - 1.5	1	44	38	N	-
404-30S	Perimeter	24-Mar-11	0 - 0.5	2.5	40	29	N	-
404-31B	Base	24-Mar-11	1 - 1.5	1	<5	32	N	-
404-31S	Perimeter	24-Mar-11	0 - 0.5	2.5	54	22	N	-
404-32B	Base	24-Mar-11	1 - 1.5	1	34	39	N	-

Table 4-4
Field XRF Results for BLA Soil Confirmation Samples
March 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for BLA Soils					**11,533**	**624**		
404-32S	Perimeter	24-Mar-11	0 - 0.5	2.5	69	77	N	-
404-33B	Base	24-Mar-11	1 - 1.5	1	<5	29	N	-
404-33S	Perimeter	24-Mar-11	0 - 0.5	5.5	432	170	N	-
404-34B	Base	24-Mar-11	1 - 1.5	1	45	34	N	-
404-34S	Perimeter	24-Mar-11	0 - 0.5	2.5	40	27	N	-
404-35B	Base	24-Mar-11	1 - 1.5	1	<5	55	N	-
404-35S	Perimeter	24-Mar-11	0 - 0.5	2.5	39	105	N	-
Building 405								
405-1B	Base	13-Mar-11	1 - 1.5	1	84	94	N	-
405-1N	Perimeter	13-Mar-11	0 - 0.5	2.5	201	44	N	-
405-2B	Base	13-Mar-11	1 - 1.5	1	43	21	N	-
405-2N	Perimeter	13-Mar-11	0 - 0.5	2.5	27	22	N	-
405-3B	Base	13-Mar-11	1 - 1.5	1	<5	22	N	-
405-3N	Perimeter	13-Mar-11	0 - 0.5	2.5	126	474	N	-
405-4B	Base	13-Mar-11	1 - 1.5	1	43	20	N	-
405-4N	Perimeter	13-Mar-11	0 - 0.5	2.5	42	25	N	-
405-5B	Base	13-Mar-11	1 - 1.5	1	<5	20	N	-
405-5N	Perimeter	13-Mar-11	0 - 0.5	2.5	36	28	N	-
405-6B	Base	13-Mar-11	1 - 1.5	1	42	16	N	-
405-6N	Perimeter	13-Mar-11	0 - 0.5	2.5	66	29	N	-
405-7B	Base	13-Mar-11	1 - 1.5	1	46	25	N	-
405-7N	Perimeter	13-Mar-11	0 - 0.5	2.5	57	27	N	-
405-8B	Base	13-Mar-11	1 - 1.5	1	38	19	N	-
405-8N	Perimeter	13-Mar-11	0 - 0.5	2.5	40	26	N	-
405-9B	Base	13-Mar-11	1 - 1.5	1	32	21	N	-
405-9N	Perimeter	13-Mar-11	0 - 0.5	2.5	26	25	N	-
405-10B	Base	13-Mar-11	1 - 1.5	1	119	24	N	-
405-10N	Perimeter	13-Mar-11	0 - 0.5	2.5	39	14	N	-
405-11B	Base	13-Mar-11	1 - 1.5	1	573	468	N	-
405-11E	Perimeter	13-Mar-11	0 - 0.5	2.5	764	299	N	-
405-12B	Base	13-Mar-11	1 - 1.5	1	75	21	N	-
405-12E	Perimeter	13-Mar-11	0 - 0.5	2.5	95	163	N	-
405-13B	Base	13-Mar-11	1 - 1.5	1	39	<5	N	-
405-13E	Perimeter	13-Mar-11	0 - 0.5	2.5	49	29	N	-
405-14B	Base	13-Mar-11	1 - 1.5	1	30	20	N	-
405-14E	Perimeter	13-Mar-11	0 - 0.5	2.5	61	50	N	-
405-15B	Base	13-Mar-11	1 - 1.5	1	27	21	N	-
405-15E	Perimeter	13-Mar-11	0 - 0.5	2.5	<5	27	N	-
405-16B	Base	13-Mar-11	1 - 1.5	1	35	28	N	-
405-16E	Perimeter	13-Mar-11	0 - 0.5	2.5	30	20	N	-
405-17B	Base	13-Mar-11	1 - 1.5	1	47	21	N	-
405-17E	Perimeter	13-Mar-11	0 - 0.5	2.5	108	40	N	-
405-18B	Base	13-Mar-11	1 - 1.5	1	38	43	N	-
405-18E	Perimeter	13-Mar-11	0 - 0.5	2.5	30	18	N	-
405-19B	Base	13-Mar-11	1 - 1.5	1	40	20	N	-
405-19E	Perimeter	13-Mar-11	0 - 0.5	2.5	29	21	N	-
405-20B	Base	13-Mar-11	1 - 1.5	1	435	1101	Y	405-36SE
405-20E	Perimeter	13-Mar-11	0 - 0.5	2.5	283	786	Y	405-36B
405-21B	Base	13-Mar-11	1 - 1.5	1	54	139	N	-
405-21W	Perimeter	13-Mar-11	0 - 0.5	2.5	58	181	N	-
405-22B	Base	13-Mar-11	1 - 1.5	1	74	64	N	-
405-22W	Perimeter	13-Mar-11	0 - 0.5	2.5	97	150	N	-
405-23B	Base	13-Mar-11	1 - 1.5	1	74	39	N	-
405-23W	Perimeter	13-Mar-11	0 - 0.5	2.5	67	78	N	-
405-24B	Base	13-Mar-11	1 - 1.5	1	43	25	N	-
405-24W	Perimeter	13-Mar-11	0 - 0.5	2.5	47	32	N	-
405-25B	Base	13-Mar-11	1 - 1.5	1	78	43	N	-
405-25W	Perimeter	13-Mar-11	0 - 0.5	2.5	267	217	N	-
405-26B	Base	13-Mar-11	1 - 1.5	1	<5	21	N	-
405-26W	Perimeter	13-Mar-11	0 - 0.5	2.5	<5	25	N	-
405-27B	Base	13-Mar-11	1 - 1.5	1	220	187	N	-
405-27W	Perimeter	13-Mar-11	0 - 0.5	2.5	120	120	N	-
405-28B	Base	13-Mar-11	1 - 1.5	1	33	27	N	-
405-28S	Perimeter	13-Mar-11	0 - 0.5	2.5	155	84	N	-

Table 4-4
Field XRF Results for BLA Soil Confirmation Samples
March 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for BLA Soils					**11,533**	**624**		
405-29B	Base	13-Mar-11	1 - 1.5	1	31	14	N	-
405-29S	Perimeter	13-Mar-11	0 - 0.5	2.5	425	475	N	-
405-30B	Base	13-Mar-11	1 - 1.5	1	43	22	N	-
405-30S	Perimeter	13-Mar-11	0 - 0.5	2.5	312	87	N	-
405-31B	Base	13-Mar-11	1 - 1.5	1	<5	23	N	-
405-31S	Perimeter	13-Mar-11	0 - 0.5	2.5	72	46	N	-
405-32B	Base	13-Mar-11	1 - 1.5	1	66	224	N	-
405-32S	Perimeter	13-Mar-11	0 - 0.5	2.5	40	53	N	-
405-33B	Base	13-Mar-11	1 - 1.5	1	61	114	N	-
405-33S	Perimeter	13-Mar-11	0 - 0.5	2.5	106	75	N	-
405-34B	Base	13-Mar-11	1 - 1.5	1	64	26	N	-
405-34S	Perimeter	13-Mar-11	0 - 0.5	2.5	170	244	N	-
405-35B	Base	13-Mar-11	1 - 1.5	1	49	22	N	-
405-35S	Perimeter	13-Mar-11	0 - 0.5	2.5	33	24	N	-
405-36SE	Perimeter	28-Mar-11	0 - 0.5	5	465	37	N	-
405-36B	Base	28-Mar-11	2 - 2.5	2	317	24	N	-
Building 406								
406-1B	Base	24-Mar-11	1 - 1.5	1	69	35	N	-
406-1E	Perimeter	24-Mar-11	0 - 0.5	2.5	375	457	N	-
406-2B	Base	25-Mar-11	1 - 1.5	3.5	49	64	N	-
406-2E	Perimeter	25-Mar-11	0 - 0.5	4.5	67	124	N	-
Building 407								
407-1B	Base	13-Mar-11	1 - 1.5	1	76	27	N	-
407-1E	Perimeter	13-Mar-11	0 - 0.5	4	462	222	N	-
Building 411								
411-1NW	Perimeter	25-Mar-11	0 - 0.5	1	83	16	N	-
411-1B	Base	25-Mar-11	1 - 1.5	2.5	37	22	N	-
411-2B	Base	25-Mar-11	1 - 1.5	1	30	13	N	-
411-2N	Perimeter	25-Mar-11	0 - 0.5	2.5	64	29	N	-
411-3B	Base	25-Mar-11	1 - 1.5	1	33	<5	N	-
411-3E	Perimeter	25-Mar-11	0 - 0.5	2.5	30	14	N	-
411-4B	Base	25-Mar-11	1 - 1.5	1	<5	20	N	-
411-4E	Perimeter	25-Mar-11	0 - 0.5	2.5	39	43	N	-
411-5B	Base	25-Mar-11	1 - 1.5	1	32	14	N	-
411-5E	Perimeter	25-Mar-11	0 - 0.5	2.5	33	<5	N	-
411-6B	Base	25-Mar-11	1 - 1.5	1	38	46	N	-
411-6S	Perimeter	25-Mar-11	0 - 0.5	2.5	<5	278	N	-
411-7B	Base	25-Mar-11	1 - 1.5	1	31	37	N	-
411-7SW	Perimeter	25-Mar-11	0 - 0.5	2.5	<5	17	N	-
411-8B	Base	25-Mar-11	1 - 1.5	1	460	319	N	-
411-8W	Perimeter	25-Mar-11	0 - 0.5	2.5	698	516	N	-
Building 412								
412-1B	Base	26-Mar-11	1 - 1.5	1	205	53	N	-
412-1NW	Perimeter	26-Mar-11	0 - 0.5	2.5	487	15	N	-
412-2B	Base	26-Mar-11	1 - 1.5	1	45	20	N	-
412-2N	Perimeter	26-Mar-11	0 - 0.5	2.5	45	45	N	-
412-3B	Base	26-Mar-11	1 - 1.5	1	<5	24	N	-
412-3E	Perimeter	26-Mar-11	0 - 0.5	2.5	44	17	N	-
412-4B	Base	26-Mar-11	1 - 1.5	1	39	17	N	-
412-4E	Perimeter	26-Mar-11	0 - 0.5	2.5	30	<5	N	-
412-5B	Base	26-Mar-11	1 - 1.5	1	90	22	N	-
412-5E	Perimeter	26-Mar-11	0 - 0.5	2.5	77	19	N	-
412-6B	Base	26-Mar-11	1 - 1.5	1	94	24	N	-
412-6E	Perimeter	26-Mar-11	0 - 0.5	2.5	108	25	N	-
412-7B	Base	28-Mar-11	1 - 1.5	1	56	19	N	-
412-7E	Perimeter	28-Mar-11	0 - 0.5	2.5	65	16	N	-
412-8B	Base	28-Mar-11	1 - 1.5	1	155	13	N	-
412-8S	Perimeter	28-Mar-11	0 - 0.5	2.5	357	15	N	-
412-9B	Base	28-Mar-11	1 - 1.5	1	83	16	N	-
412-9W	Perimeter	28-Mar-11	0 - 0.5	2.5	45	62	N	-
412-10B	Base	28-Mar-11	1 - 1.5	1	142	17	N	-
412-10W	Perimeter	28-Mar-11	0 - 0.5	2.5	304	20	N	-
Building 413								
413-1B	Base	28-Mar-11	1 - 1.5	1	34	17	N	-

Table 4-4
Field XRF Results for BLA Soil Confirmation Samples
March 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for BLA Soils					**11,533**	**624**		
413-1NW	Perimeter	28-Mar-11	0 - 0.5	2.5	28	18	N	-
413-2B	Base	28-Mar-11	1 - 1.5	1	136	20	N	-
413-2N	Perimeter	28-Mar-11	0 - 0.5	2.5	93	22	N	-
413-3B	Base	28-Mar-11	1 - 1.5	1	32	15	N	-
413-3E	Perimeter	28-Mar-11	0 - 0.5	2.5	32	14	N	-
413-4B	Base	28-Mar-11	1 - 1.5	1	69	14	N	-
413-4E	Perimeter	28-Mar-11	0 - 0.5	2.5	70	17	N	-
413-5B	Base	28-Mar-11	1 - 1.5	1	49	14	N	-
413-5S	Perimeter	28-Mar-11	0 - 0.5	2.5	508	23	N	-
413-6B	Base	28-Mar-11	1 - 1.5	1	47	26	N	-
413-6W	Perimeter	28-Mar-11	0 - 0.5	2.5	88	148	N	-
413-7B	Base	28-Mar-11	1 - 1.5	1	42	18	N	-
413-7W	Perimeter	28-Mar-11	0 - 0.5	2.5	131	67	N	-

Notes:

1101 Highlighted cell indicates constituent concentration is higher than the established industrial RAL for the BLA.

Note that if an XRF field reading indicated that lead or copper were detected above the listed RALs, the excavation was expanded until a sample result below the RAL was achieved. All samples collected from the final excavation boundaries and base were below the target RALs.

Table 4-5
Summary of Laboratory Analytical Results for BLA Soil Confirmation Soil Samples
March 2011
Radford Army Ammunition Plant - New River Unit

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Industrial RAL for BLA Soil	Facility Wide Background Concentration	Units	404-2N 0 - 0.5 03/24/11 404-2N (20110324)	404-6B 1 - 1.5 03/24/11 404-6B (20110324)	404-6N 0 - 0.5 03/24/11 404-6N (20110324)	404-10W 0 - 0.5 03/24/11 404-10W (20110324)	404-14W 0 - 0.5 03/24/11 404-14W (20110324)	404-17E 0 - 0.5 03/24/11 404-17E (20110324)	404-22E 0 - 0.5 03/24/11 404-22E (20110324)	404-25B 1 - 1.5 03/24/11 404-25B (20110324)	404-29S 0 - 0.5 03/24/11 404-29S (20110324)
Inorganics												
Copper	11,533	**53.5**	mg/kg	40.3	39.4	**95.3**	47.1	**126**	**77.2**	29.5	**72.1**	36
Lead	624	**26.8**	mg/kg	**27.1**	15.9	**41.2**	**153**	**140**	**58.6**	26.3	**55**	26.9
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	11,533	**53.5**	mg/kg	**133**	38	**93**	**65**	**140**	46	**78**	**76**	39
Lead	624	**26.8**	mg/kg	23	19	**39**	**124**	**131**	**43**	24	**52**	22

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Industrial RAL for BLA Soil	Facility Wide Background Concentration	Units	404-32S 0 - 0.5 03/24/11 404-32S (20110324)	405-1N 0 - 0.5 03/24/11 405-1N (20110324)	405-4N 0 - 0.5 03/24/11 405-4N (20110324)	405-9N 0 - 0.5 03/24/11 405-9N (20110324)	405-11E 0 - 0.5 03/24/11 405-11E (20110324)	405-16B 1 - 1.5 03/24/11 405-16B (20110324)	405-21W 0 - 0.5 03/24/11 405-21W (20110324)	405-24B 1 - 1.5 03/24/11 405-24B (20110324)	405-27W 0 - 0.5 03/24/11 405-27W (20110324)
Inorganics												
Copper	11,533	**53.5**	mg/kg	**83**	**62.1**	**56**	22.1	**82**	18.8	**55.1**	29.4	**101**
Lead	624	**26.8**	mg/kg	**60.3**	**71.1**	**29.6**	19.7	**40.6**	22.8	**220**	18.4	**123**
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	11,533	**53.5**	mg/kg	**69**	**201**	42	26	**764**	35	**58**	43	**120**
Lead	624	**26.8**	mg/kg	**77**	**44**	25	25	**299**	**28**	**181**	25	**120**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Industrial RAL for BLA Soil	Facility Wide Background Concentration	Units	405-31S 0 - 0.5 03/24/11 405-31S (20110324)	405-33B 1 - 1.5 03/24/11 405-33B (20110324)	406-2E 0 - 0.5 03/25/11 406-2E (20110325)	411-2N 0 - 0.5 03/29/11 411-2N (20110329)	411-4B 1 - 1.5 03/29/11 411-4B (20110329)	411-7SW 0 - 0.5 03/29/11 411-7SW (20110329)	412-1B 1 - 1.5 03/29/11 412-1B (20110329)	413-3E 0 - 0.5 03/29/11 413-3E (20110329)	413-7W 0 - 0.5 03/29/11 413-7W (20110329)
Inorganics												
Copper	11,533	**53.5**	mg/kg	**70.5**	**204**	51.9	53.1	30.3	32	**99.7**	31.2	**126**
Lead	624	**26.8**	mg/kg	79.3	54.3	221	42.3	10.7	15.1	28.5	12.2	90.1
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	11,533	**53.5**	mg/kg	72	49	67	64	<5	<5	205	32	131
Lead	624	**26.8**	mg/kg	46	22	124	29	20	17	53	14	67

Notes:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

700	Highlighted cell indicates constituent concentration exceeds the industrial RAL established for the BLA.
29	Bolded value indicates concentration exceeds 95% UTL fir facility-wide background estimate.

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
Building 1								
1-1B	Base	22-Feb-11	1 - 1.5	1	40	19	N	-
1-1N	Perimeter	15-Feb-11	0 - 0.5	4	89	103	N	-
1-2B	Base	22-Feb-11	1 - 1.5	1	32	30	N	-
1-2E	Perimeter	15-Feb-11	0 - 0.5	3.5	89	103	N	-
Building 2								
2-1B	Base	22-Feb-11	1 - 1.5	1	229	49	N	-
2-1E	Perimeter	17-Feb-11	0 - 0.5	2.5	763	65	N	-
2-2B	Base	22-Feb-11	1 - 1.5	1	71	62	N	-
2-2S	Perimeter	17-Feb-11	0 - 0.5	2.5	2083	49	N	-
2-3B	Base	22-Feb-11	1 - 1.5	1	73	28	N	-
2-3W	Perimeter	17-Feb-11	0 - 0.5	2.5	192	99	N	-
2-4B	Base	22-Feb-11	1 - 1.5	1	69	70	N	-
2-4W	Perimeter	17-Feb-11	0 - 0.5	2.5	304	82	N	-
2-5B	Base	22-Feb-11	1 - 1.5	1	48	21	N	-
2-5W	Perimeter	17-Feb-11	0 - 0.5	2.5	55	39	N	-
Building 4								
4-1B	Base	23-Feb-11	1 - 1.5	1	198	<5	N	-
4-1N	Perimeter	22-Feb-11	0 - 0.5	2.5	45	16	N	-
4-2B	Base	23-Feb-11	1 - 1.5	1	37	118	N	-
4-2NE	Perimeter	22-Feb-11	0 - 0.5	3.5	42	76	N	-
4-3B	Base	23-Feb-11	1 - 1.5	1	51	16	N	-
4-3S	Perimeter	22-Feb-11	0 - 0.5	2.5	54	32	N	-
4-4B	Base	23-Feb-11	1 - 1.5	1	245	133	N	-
4-4SE	Perimeter	22-Feb-11	0 - 0.5	2.5	170	48	N	-
4-5S	Perimeter	22-Feb-11	0 - 0.5	2.4	51	23	N	-
4-6E	Perimeter	22-Feb-11	0 - 0.5	2.5	284	18	N	-
Building 5								
5-1B	Base	22-Feb-11	1 - 1.5	1	63	71	N	-
5-1N	Perimeter	17-Feb-11	0 - 0.5	2.5	81	60	N	-
5-2B	Base	22-Feb-11	1 - 1.5	1	39	39	N	-
5-2N	Perimeter	17-Feb-11	0 - 0.5	2.5	57	36	N	-
5-3B	Base	22-Feb-11	1 - 1.5	1	86	120	N	-
5-3S	Perimeter	17-Feb-11	0 - 0.5	2.5	291	185	N	-
5-4B	Base	22-Feb-11	1 - 1.5	1	98	56	N	-
5-4S	Perimeter	17-Feb-11	0 - 0.5	2.5	3890	770	Y	5-6S
5-5B	Base	22-Feb-11	1 - 1.5	1	47	66	N	-
5-5S	Perimeter	17-Feb-11	0 - 0.5	2.5	132	120	N	-
5-6B	Base	22-Feb-11	1 - 1.5	1	40	40	N	-
5-6S	Perimeter	17-Feb-11	0 - 0.5	5	184	166	N	-
Building 6								
6-1B	Base	8-Apr-11	1 - 1.5	1	41	24	N	-
6-1NW	Perimeter	8-Apr-11	0 - 0.5	2.5	31	28	N	-
6-2B	Base	8-Apr-11	1 - 1.5	1	<5	20	N	-
6-2N	Perimeter	8-Apr-11	0 - 0.5	2.5	<5	13	N	-
6-3B	Base	8-Apr-11	1 - 1.5	1	<5	16	N	-
6-3E	Perimeter	8-Apr-11	0 - 0.5	2.5	<5	34	N	-
6-4B	Base	8-Apr-11	1 - 1.5	1	47	25	N	-
6-4S	Perimeter	8-Apr-11	0 - 0.5	2.5	<5	89	N	-
Building 502								
502-1B	Base	9-Apr-11	1 - 1.5	1	373	199	N	-
502-1NW	Perimeter	3-Mar-11	0 - 0.5	2.5	573	335	N	-
502-2B	Base	9-Apr-11	1 - 1.5	1	73	245	N	-
502-2N	Perimeter	3-Mar-11	0 - 0.5	2.5	1244	191	N	-
502-3B	Base	9-Apr-11	1 - 1.5	1	68	65	N	-
502-3N	Perimeter	3-Mar-11	0 - 0.5	2.5	54	46	N	-
502-4B	Base	9-Apr-11	1 - 1.5	1	164	89	N	-
502-4NE	Perimeter	3-Mar-11	0 - 0.5	2.5	53	114	N	-
502-5B	Base	9-Apr-11	1 - 1.5	1	53	29	N	-
502-5E	Perimeter	3-Mar-11	0 - 0.5	2.5	281	463	Y	502-15E
502-6B	Base	9-Apr-11	1 - 1.5	1	35	42	N	-
502-6E	Perimeter	3-Mar-11	0 - 0.5	2.5	35	78	N	-
502-7B	Base	9-Apr-11	1 - 1.5	1	32	27	N	-
502-7E	Perimeter	3-Mar-11	0 - 0.5	2.5	56	66	N	-
502-8B	Base	9-Apr-11	1 - 1.5	1	43	74	N	-
502-8SE	Perimeter	3-Mar-11	0 - 0.5	2.5	72	537	N	502-16SE
502-9B	Base	9-Apr-11	1 - 1.5	1	31	25	N	-
502-9S	Perimeter	3-Mar-11	0 - 0.5	2.5	48	342	N	-

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
502-10B	Base	9-Apr-11	1 - 1.5	1	30	52	N	-
502-10S	Perimeter	3-Mar-11	0 - 0.5	2.5	211	236	N	-
502-11B	Base	9-Apr-11	1 - 1.5	1	64	58	N	-
502-11SW	Perimeter	3-Mar-11	0 - 0.5	2.5	90	3160	Y	502-18SW
502-12B	Base	9-Apr-11	1 - 1.5	1	47	98	N	-
502-12W	Perimeter	3-Mar-11	0 - 0.5	2.5	104	410	Y	502-19W
502-13B	Base	9-Apr-11	1 - 1.5	1	160	283	N	-
502-13W	Perimeter	3-Mar-11	0 - 0.5	2.5	36	72	N	-
502-14B	Base	9-Apr-11	1 - 1.5	1	102	84	N	-
502-14W	Perimeter	3-Mar-11	0 - 0.5	2.5	54	60	N	-
502-15B	Base	28-Mar-11	1 - 1.5	2.5	57	54	N	-
502-15E	Perimeter	28-Mar-11	0 - 0.5	3.5	58	126	N	-
502-16B	Base	28-Mar-11	1 - 1.5	2.5	<5	38	N	-
502-16SE	Perimeter	28-Mar-11	0 - 0.5	3.5	<5	27	N	-
502-17B	Base	28-Mar-11	1 - 1.5	2.5	<5	57	N	-
502-17S	Perimeter	28-Mar-11	0 - 0.5	3.5	<5	65	N	-
502-18B	Base	28-Mar-11	1 - 1.5	2.5	<5	54	N	-
502-18SW	Perimeter	28-Mar-11	0 - 0.5	3.5	34	60	N	-
502-19B	Base	28-Mar-11	1 - 1.5	2.5	<5	37	N	-
502-19W	Perimeter	28-Mar-11	0 - 0.5	3.5	<5	21	N	-
Building 504								
504-1B	Base	8-Apr-11	1 - 1.5	1	188	186	N	-
504-1NW	Perimeter	3-Mar-11	0 - 0.5	2.5	275	409	Y	504-18W
504-2B	Base	8-Apr-11	1 - 1.5	1	57	75	N	-
504-2N	Perimeter	3-Mar-11	0 - 0.5	2.5	440	1259	Y	504-19N
504-3B	Base	8-Apr-11	1 - 1.5	1	42	241	N	-
504-3N	Perimeter	3-Mar-11	0 - 0.5	2.5	41	53	N	-
504-4B	Base	8-Apr-11	1 - 1.5	1	<5	53	N	-
504-4N	Perimeter	3-Mar-11	0 - 0.5	2.5	56	707	Y	504-20N
504-5B	Base	8-Apr-11	1 - 1.5	1	28	28	N	-
504-5NE	Perimeter	3-Mar-11	0 - 0.5	2.5	76	1229	Y	504-21NE
504-6B	Base	8-Apr-11	1 - 1.5	19.5	<5	51	N	-
504-6E	Perimeter	3-Mar-11	0 - 0.5	20.5	113	1660	Y	504-22E
504-7B	Base	8-Apr-11	1 - 1.5	20.5	28	27	N	-
504-7E	Perimeter	3-Mar-11	0 - 0.5	21	36	506	Y	504-23E
504-8B	Base	8-Apr-11	1 - 1.5	10.5	27	38	N	-
504-8E	Perimeter	3-Mar-11	0 - 0.5	11	86	1732	Y	504-24E
504-9B	Base	8-Apr-11	1 - 1.5	1	287	269	N	-
504-9E	Perimeter	3-Mar-11	0 - 0.5	2.5	244	3864	Y	504-25E
504-10B	Base	8-Apr-11	1 - 1.5	1	<5	42	N	-
504-10E	Perimeter	3-Mar-11	0 - 0.5	2.5	50	184	N	-
504-11B	Base	8-Apr-11	1 - 1.5	1	39	38	N	-
504-11E	Perimeter	3-Mar-11	0 - 0.5	2.5	91	669	Y	504-26E
504-12B	Base	8-Apr-11	1 - 1.5	1	49	29	N	-
504-12S	Perimeter	3-Mar-11	0 - 0.5	2.5	61	99	N	-
504-13B	Base	8-Apr-11	1 - 1.5	1	34	21	N	-
504-13S	Perimeter	3-Mar-11	0 - 0.5	2.5	336	498	Y	504-27S
504-14B	Base	8-Apr-11	1 - 1.5	1	59	25	N	-
504-14SW	Perimeter	3-Mar-11	0 - 0.5	2.5	185	295	N	-
504-15B	Base	8-Apr-11	1 - 1.5	1	122	71	N	-
504-15W	Perimeter	3-Mar-11	0 - 0.5	2.5	102	199	N	-
504-16B	Base	8-Apr-11	1 - 1.5	1	55	49	N	-
504-16W	Perimeter	3-Mar-11	0 - 0.5	2.5	52	217	N	-
504-17B	Base	8-Apr-11	1 - 1.5	1	40	30	N	-
504-17W	Perimeter	3-Mar-11	0 - 0.5	2.5	73	159	N	-
504-18W	Perimeter	9-Apr-11	0 - 0.5	3.5	53	33	N	-
504-19N	Perimeter	9-Apr-11	0 - 0.5	3.5	30	56	N	-
504-20N	Base	9-Apr-11	1 - 1.5	1.5	40	24	N	-
504-21NE	Perimeter	9-Apr-11	0 - 0.5	1.5	43	107	N	-
504-22E	Perimeter	9-Apr-11	0 - 0.5	24.5	34	63	N	-
504-23E	Perimeter	9-Apr-11	0 - 0.5	24.5	40	39	N	-
504-24E	Perimeter	9-Apr-11	0 - 0.5	10.5	26	46	N	-
504-25E	Perimeter	9-Apr-11	0 - 0.5	4.5	25	92	N	-
504-26E	Perimeter	9-Apr-11	0 - 0.5	3.5	28	42	N	-
504-27S	Perimeter	9-Apr-11	0 - 0.5	3.5	67	64	N	-
Building 508								
508-1B	Base	4-Mar-11	1 - 1.5	1	549	182	N	-
508-1S	Perimeter	4-Mar-11	0 - 0.5	2.5	346	189	N	-

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
508-2B	Base	4-Mar-11	1 - 1.5	1	75	36	N	-
508-2SW	Perimeter	4-Mar-11	0 - 0.5	2.5	55	58	N	-
Building 509								
509-1B	Base	4-Mar-11	1 - 1.5	1	110	42	N	-
509-1NW	Perimeter	4-Mar-11	0 - 0.5	2.5	699	77	N	-
509-2B	Base	4-Mar-11	1 - 1.5	1	160	267	N	-
509-2N	Perimeter	4-Mar-11	0 - 0.5	2.5	92	51	N	-
Building 522								
522-1B	Base	8-Apr-11	1 - 1.5	1	128	37	N	-
522-1NW	Perimeter	25-Feb-11	0 - 0.5	2.5	129	76	N	-
522-2B	Base	8-Apr-11	1 - 1.5	1	26	34	N	-
522-2NE	Perimeter	25-Feb-11	0 - 0.5	2.5	40	49	N	-
522-3B	Base	8-Apr-11	1 - 1.5	1	42	39	N	-
522-3E	Perimeter	25-Feb-11	0 - 0.5	2.5	84	434	Y	522-11E
522-4B	Base	8-Apr-11	1 - 1.5	1	39	20	N	-
522-4E	Perimeter	25-Feb-11	0 - 0.5	2.5	158	7273	Y	522-13E
522-5B	Base	8-Apr-11	1 - 1.5	1	169	88	N	-
522-5E	Perimeter	25-Feb-11	0 - 0.5	2.5	56	139	N	-
522-6B	Base	8-Apr-11	1 - 1.5	1	44	40	N	-
522-6SE	Perimeter	25-Feb-11	0 - 0.5	2.5	109	780	Y	522-14E
522-7B	Base	8-Apr-11	1 - 1.5	1	137	31	N	-
522-7SW	Perimeter	25-Feb-11	0 - 0.5	2.5	87	181	N	-
522-8B	Base	8-Apr-11	1 - 1.5	1	<5	18	N	-
522-8W	Perimeter	28-Feb-11	0 - 0.5	2.5	62	31	N	-
522-9B	Base	8-Apr-11	1 - 1.5	1	128	43	N	-
522-9W	Perimeter	28-Feb-11	0 - 0.5	2.5	114	96	N	-
522-10B	Base	8-Apr-11	1 - 1.5	1	157	36	N	-
522-10W	Perimeter	28-Feb-11	0 - 0.5	2.5	37	18	N	-
522-11B	Base	28-Mar-11	1 - 1.5	2.5	188	28	N	-
522-11E	Perimeter	28-Mar-11	0 - 0.5	3.5	33	41	N	-
522-12B	Base	28-Mar-11	1 - 1.5	2.5	85	39	N	-
522-12E	Perimeter	28-Mar-11	0 - 0.5	3.5	29	23	N	-
522-13B	Base	28-Mar-11	1 - 1.5	2.5	43	59	N	-
522-13E	Perimeter	28-Mar-11	0 - 0.5	3.5	46	57	N	-
522-14B	Base	28-Mar-11	1 - 1.5	2.5	49	52	N	-
522-14E	Perimeter	28-Mar-11	0 - 0.5	3.5	43	32	N	-
Building 522A								
522A-1B	Base	26-Mar-11	1 - 1.5	1	135	239	N	-
522A-1NW	Perimeter	26-Mar-11	0 - 0.5	2.5	98	183	N	-
522A-2B	Base	26-Mar-11	1 - 1.5	1	57	192	N	-
522A-2NE	Perimeter	26-Mar-11	0 - 0.5	2.5	37	101	N	-
522A-3B	Base	26-Mar-11	1 - 1.5	1	302	236	N	-
522A-3E	Perimeter	26-Mar-11	0 - 0.5	2.5	122	184	N	-
522A-4B	Base	26-Mar-11	1 - 1.5	1	65	55	N	-
522A-4E	Perimeter	26-Mar-11	0 - 0.5	2.5	49	46	N	-
522A-5B	Base	26-Mar-11	1 - 1.5	1	50	32	N	-
522A-5E	Perimeter	26-Mar-11	0 - 0.5	2.5	142	107	N	-
522A-6B	Base	26-Mar-11	1 - 1.5	1	37	25	N	-
522A-6SE	Perimeter	26-Mar-11	0 - 0.5	2.5	32	19	N	-
522A-7B	Base	26-Mar-11	1 - 1.5	1	96	92	N	-
522A-7SW	Perimeter	26-Mar-11	0 - 0.5	2.5	<5	29	N	-
522A-8B	Base	26-Mar-11	1 - 1.5	1	102	38	N	-
522A-8W	Perimeter	26-Mar-11	0 - 0.5	2.5	50	32	N	-
522A-9B	Base	26-Mar-11	1 - 1.5	1	87	49	N	-
522A-9W	Perimeter	26-Mar-11	0 - 0.5	2.5	62	28	N	-
522A-10B	Base	26-Mar-11	1 - 1.5	1	145	91	N	-
522A-10W	Perimeter	26-Mar-11	0 - 0.5	2.5	59	60	Y - Lab Result (see Table 4-7)	522A-11W
522-11W	Perimeter	10-Apr-11	0 - 0.5	4.5	22	40	N	-
Building 528								
528-1B	Base	23-Feb-11	1 - 1.5	1	109	28	N	-
528-1SW	Perimeter	23-Feb-11	0 - 0.5	2.5	40	29	N	-
Building 529								
529-1B	Base	23-Feb-11	1 - 1.5	1	67	57	N	-
529-1NW	Perimeter	23-Feb-11	0 - 0.5	2.5	48	31	N	-
Building XXX								
XXXX-1B	Base	23-Feb-11	1 - 1.5	1	783	31	N	-
XXXX-1SE	Perimeter	23-Feb-11	0 - 0.5	2.5	141	31	N	-

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
XXXX-2B	Base	23-Feb-11	1 - 1.5	1	37	34	N	-
XXXX-2W	Perimeter	23-Feb-11	0 - 0.5	2.5	104	24	N	-
Building YYYY								
YYYY-1B	Base	8-Apr-11	1 - 1.5	1	82	22	N	-
YYYY-1S	Perimeter	3-Mar-11	0 - 0.5	2.5	114	26	N	-
YYYY-2B	Base	8-Apr-11	1 - 1.5	1	52	21	N	-
YYYY-2W	Perimeter	3-Mar-11	0 - 0.5	2.5	99	16	N	-
YYYY-3B	Base	8-Apr-11	1 - 1.5	1	167	36	N	-
YYYY-3W	Perimeter	3-Mar-11	0 - 0.5	2.5	99	27	N	-
Building 562								
562-1B	Base	4-Mar-11	1 - 1.5	1	54	<5	N	-
562-1NW	Perimeter	4-Mar-11	0 - 0.5	2.5	26	17	N	-
562-2B	Base	4-Mar-11	1 - 1.5	1	152	59	N	-
562-2N	Perimeter	4-Mar-11	0 - 0.5	2.5	146	42	N	-
562-3B	Base	4-Mar-11	1 - 1.5	1	609	120	N	-
562-3NE	Perimeter	4-Mar-11	0 - 0.5	2.5	85	362	N	-
562-4B	Base	4-Mar-11	1 - 1.5	1	31	19	N	-
562-4SE	Perimeter	4-Mar-11	0 - 0.5	2.5	109	45	N	-
562-5B	Base	4-Mar-11	1 - 1.5	1	35	35	N	-
562-5S	Perimeter	4-Mar-11	0 - 0.5	2.5	68	23	N	-
562-6B	Base	4-Mar-11	1 - 1.5	1	105	52	N	-
562-6SW	Perimeter	4-Mar-11	0 - 0.5	3.5	86	21	N	-
562-7B	Base	4-Mar-11	1 - 1.5	1	62	68	N	-
562-7W	Perimeter	4-Mar-11	0 - 0.5	2.5	207	18	N	-
Building 565								
565-1B	Base	4-Mar-11	1 - 1.5	1	51	25	N	-
565-1NW	Perimeter	4-Mar-11	0 - 0.5	2.5	131	35	N	-
565-2B	Base	4-Mar-11	1 - 1.5	1	198	25	N	-
565-2B	Perimeter	4-Mar-11	0 - 0.5	2.5	144	31	N	-
565-3B	Base	4-Mar-11	1 - 1.5	1	511	247	N	-
565-3N	Perimeter	4-Mar-11	0 - 0.5	2.5	37	54	N	-
565-4B	Base	4-Mar-11	1 - 1.5	1	54	22	N	-
565-4NE	Perimeter	4-Mar-11	0 - 0.5	2.5	177	41	N	-
565-5B	Base	4-Mar-11	1 - 1.5	1	141	29	N	-
565-5SE	Perimeter	4-Mar-11	0 - 0.5	2.5	135	21	N	-
565-6B	Base	4-Mar-11	1 - 1.5	1	130	120	N	-
565-6S	Perimeter	4-Mar-11	0 - 0.5	2.5	<5	24	N	-
565-7B	Base	4-Mar-11	1 - 1.5	1	26	15	N	-
565-7S	Perimeter	4-Mar-11	0 - 0.5	2.5	135	67	N	-
565-8B	Base	4-Mar-11	1 - 1.5	1	68	46	N	-
565-8SW	Perimeter	4-Mar-11	0 - 0.5	2.5	26	21	N	-
565B-1B	Base	4-Mar-11	1 - 1.5	1	51	18	N	-
565B-1N	Perimeter	4-Mar-11	0 - 0.5	2.5	4901	48	N	-
Building 570								
570-1B	Base	4-Mar-11	1 - 1.5	1	<5	18	N	-
570-1N	Perimeter	4-Mar-11	0 - 0.5	2.5	65	<5	N	-
571-1B	Base	4-Mar-11	1 - 1.5	1	72	12	N	-
571-1W	Perimeter	4-Mar-11	0 - 0.5	2.5	167	17	N	-
Building 8102-1								
8102-1-1B	Base	24-Mar-11	1 - 1.5	1	69	17	N	-
8102-1-1NW	Perimeter	24-Mar-11	0 - 0.5	2.5	518	71	N	-
8102-1-2B	Base	24-Mar-11	1 - 1.5	1	88	22	N	-
8102-1-2NE	Perimeter	24-Mar-11	0 - 0.5	2.5	845	209	N	-
8102-1-3B	Base	8-Apr-11	1 - 1.5	1	127	31	N	-
8102-1-3E	Perimeter	24-Mar-11	0 - 0.5	2.5	48	37	N	-
8102-1-4B	Base	8-Apr-11	1 - 1.5	1	281	30	N	-
8102-1-4E	Perimeter	24-Mar-11	0 - 0.5	2.5	428	31	N	-
8102-1-5B	Base	8-Apr-11	1 - 1.5	1	67	17	N	-
8102-1-5E	Perimeter	24-Mar-11	0 - 0.5	2.5	205	69	N	-
8102-1-6B	Base	8-Apr-11	1 - 1.5	1	182	17	N	-
8102-1-6E	Perimeter	24-Mar-11	0 - 0.5	2.5	125	43	N	-
8102-1-7B	Base	8-Apr-11	1 - 1.5	1	871	44	N	-
8102-1-7E	Perimeter	24-Mar-11	0 - 0.5	5	78	15	N	-
8102-1-8B	Base	24-Mar-11	1 - 1.5	1	157	17	N	-
8102-1-8W	Perimeter	24-Mar-11	0 - 0.5	2.5	918	143	N	-
8102-1-9B	Base	24-Mar-11	1 - 1.5	1	224	34	N	-
8102-1-9W	Perimeter	24-Mar-11	0 - 0.5	2.5	189	47	N	-
8102-1-10B	Base	24-Mar-11	1 - 1.5	1	158	19	N	-

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
8102-1-10W	Perimeter	24-Mar-11	0 - 0.5	2.5	673	109	N	-
8102-1-11B	Base	24-Mar-11	1 - 1.5	1	127	28	N	-
8102-1-11W	Perimeter	24-Mar-11	0 - 0.5	2.5	901	95	N	-
8102-1-12B	Base	24-Mar-11	1 - 1.5	1	58	19	N	-
8102-1-12W	Perimeter	24-Mar-11	0 - 0.5	2.5	780	99	N	-
Building 8102-2								
8102-2-1B	Base	25-Mar-11	1 - 1.5	1	337	18	N	-
8102-2-1NW	Perimeter	25-Mar-11	0 - 0.5	2.5	213	58	N	-
8102-2-2B	Base	25-Mar-11	1 - 1.5	1	38	19	N	-
8102-2-2N	Perimeter	25-Mar-11	0 - 0.5	2.5	46	14	N	-
8102-2-3B	Base	25-Mar-11	1 - 1.5	1	134	25	N	-
8102-2-3NE	Perimeter	25-Mar-11	0 - 0.5	2.5	159	36	N	-
8102-2-4B	Base	25-Mar-11	1 - 1.5	1	30	15	N	-
8102-2-4E	Perimeter	25-Mar-11	0 - 0.5	2.5	53	26	N	-
8102-2-5B	Base	25-Mar-11	1 - 1.5	1	92	19	N	-
8102-2-5E	Perimeter	25-Mar-11	0 - 0.5	2.5	411	43	N	-
8102-2-6B	Base	25-Mar-11	1 - 1.5	1	29	19	N	-
8102-2-6E	Perimeter	25-Mar-11	0 - 0.5	2.5	96	24	N	-
8102-2-7B	Base	25-Mar-11	1 - 1.5	1	36	16	N	-
8102-2-7E	Perimeter	25-Mar-11	0 - 0.5	2.5	162	34	N	-
8102-2-8B	Base	25-Mar-11	1 - 1.5	1	133	20	N	-
8102-2-8E	Perimeter	25-Mar-11	0 - 0.5	2.5	102	28	N	-
8102-2-9B	Base	25-Mar-11	1 - 1.5	1	29	<5	N	-
8102-2-9W	Perimeter	25-Mar-11	0 - 0.5	2.5	196	39	N	-
8102-2-10B	Base	25-Mar-11	1 - 1.5	1	<5	15	N	-
8102-2-10W	Perimeter	25-Mar-11	0 - 0.5	2.5	795	139	N	-
8102-2-11B	Base	25-Mar-11	1 - 1.5	1	82	26	N	-
8102-2-11W	Perimeter	25-Mar-11	0 - 0.5	2.5	134	33	N	-
8102-2-12B	Base	25-Mar-11	1 - 1.5	1	135	21	N	-
8102-2-12W	Perimeter	25-Mar-11	0 - 0.5	2.5	276	112	N	-
8102-2-13B	Base	25-Mar-11	1 - 1.5	1	<5	17	N	-
8102-2-13W	Perimeter	25-Mar-11	0 - 0.5	2.5	503	64	N	-
Building 8102-3								
8102-3-1B	Base	25-Mar-11	1 - 1.5	1	50	18	N	-
8102-3-1NW	Perimeter	25-Mar-11	0 - 0.5	2.5	244	16	N	-
8102-3-2B	Base	25-Mar-11	1 - 1.5	1	69	17	N	-
8102-3-2NE	Perimeter	25-Mar-11	0 - 0.5	2.5	349	76	N	-
8102-3-3B	Base	25-Mar-11	1 - 1.5	1	89	15	N	-
8102-3-3E	Perimeter	25-Mar-11	0 - 0.5	2.5	73	41	N	-
8102-3-4B	Base	25-Mar-11	1 - 1.5	1	45	<5	N	-
8102-3-4E	Perimeter	25-Mar-11	0 - 0.5	2.5	156	39	N	-
8102-3-5B	Base	25-Mar-11	1 - 1.5	1	258	23	N	-
8102-3-5E	Perimeter	25-Mar-11	0 - 0.5	2.5	28	16	N	-
8102-3-6B	Base	25-Mar-11	1 - 1.5	1	60	20	N	-
8102-3-6E	Perimeter	25-Mar-11	0 - 0.5	2.5	1464	124	N	-
8102-3-7B	Base	25-Mar-11	1 - 1.5	1	<5	18	N	-
8102-3-7E	Perimeter	25-Mar-11	0 - 0.5	2.5	236	91	N	-
8102-3-8B	Base	25-Mar-11	1 - 1.5	1	36	19	N	-
8102-3-8W	Perimeter	25-Mar-11	0 - 0.5	2.5	266	68	N	-
8102-3-9B	Base	25-Mar-11	1 - 1.5	1	58	29	N	-
8102-3-9W	Perimeter	25-Mar-11	0 - 0.5	2.5	526	122	N	-
8102-3-10B	Base	25-Mar-11	1 - 1.5	1	218	33	N	-
8102-3-10W	Perimeter	25-Mar-11	0 - 0.5	2.5	86	34	Y - Lab Result (see Table 4-7)	8102-3-13W
8102-3-11B	Base	25-Mar-11	1 - 1.5	1	259	53	N	-
8102-3-11W	Perimeter	25-Mar-11	0 - 0.5	2.5	90	21	N	-
8102-3-12B	Base	25-Mar-11	1 - 1.5	1	<5	11	N	-
8102-3-12W	Perimeter	25-Mar-11	0 - 0.5	2.5	27	11	N	-
8102-3-13B	Base	10-Apr-11	1 - 1.5	2.5	33	25	N	-
8102-3-13W	Perimeter	10-Apr-11	0 - 0.5	3.5	40	22	N	-
Building 8102-4								
8102-4-1B	Base	25-Mar-11	1 - 1.5	1	119	46	N	-
8102-4-1NW	Perimeter	25-Mar-11	0 - 0.5	2.5	380	112	N	-
8102-4-2B	Base	25-Mar-11	1 - 1.5	1	155	28	N	-
8102-4-2E	Perimeter	25-Mar-11	0 - 0.5	2.5	284	81	N	-
8102-4-3B	Base	25-Mar-11	1 - 1.5	1	28	16	N	-
8102-4-3E	Perimeter	25-Mar-11	0 - 0.5	2.5	67	22	N	-
8102-4-4B	Base	25-Mar-11	1 - 1.5	1	25	24	N	-

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
8102-4-4E	Perimeter	25-Mar-11	0 - 0.5	2.5	65	71	N	-
8102-4-5B	Base	25-Mar-11	1 - 1.5	1	128	29	N	-
8102-4-5E	Perimeter	25-Mar-11	0 - 0.5	2.5	243	69	N	-
8102-4-6B	Base	25-Mar-11	1 - 1.5	1	117	18	N	-
8102-4-6E	Perimeter	25-Mar-11	0 - 0.5	2.5	760	58	N	-
8102-4-7B	Base	25-Mar-11	1 - 1.5	1	28	17	N	-
8102-4-7E	Perimeter	25-Mar-11	0 - 0.5	2.5	45	35	N	-
8102-4-8B	Base	25-Mar-11	1 - 1.5	1	43	38	N	-
8102-4-8W	Perimeter	25-Mar-11	0 - 0.5	2.5	209	72	N	-
8102-4-9B	Base	25-Mar-11	1 - 1.5	1	37	32	N	-
8102-4-9W	Perimeter	25-Mar-11	0 - 0.5	2.5	171	143	N	-
8102-4-10B	Base	25-Mar-11	1 - 1.5	1	62	133	N	-
8102-4-10W	Perimeter	25-Mar-11	0 - 0.5	2.5	232	75	N	-
8102-4-11B	Base	25-Mar-11	1 - 1.5	1	54	25	N	-
8102-4-11W	Perimeter	25-Mar-11	0 - 0.5	2.5	132	41	N	-
8102-4-12B	Base	25-Mar-11	1 - 1.5	1	86	20	N	-
8102-4-12W	Perimeter	25-Mar-11	0 - 0.5	2.5	127	79	N	-
Building 8102-5								
8102-5-1B	Base	6-Apr-11	1 - 1.5	1	43	37	N	-
8102-5-1NW	Perimeter	6-Apr-11	0 - 0.5	2.5	34	28	N	-
8102-5-2B	Base	6-Apr-11	1 - 1.5	1	337	129	N	-
8102-5-2E	Perimeter	6-Apr-11	0 - 0.5	2.5	161	85	N	-
8102-5-3B	Base	6-Apr-11	1 - 1.5	1	70	24	N	-
8102-5-3E	Perimeter	6-Apr-11	0 - 0.5	2.5	67	36	N	-
8102-5-4B	Base	6-Apr-11	1 - 1.5	1	60	33	N	-
8102-5-4E	Perimeter	6-Apr-11	0 - 0.5	2.5	57	40	N	-
8102-5-5B	Base	6-Apr-11	1 - 1.5	1	49	31	N	-
8102-5-5E	Perimeter	6-Apr-11	0 - 0.5	2.5	78	55	N	-
8102-5-6B	Base	6-Apr-11	1 - 1.5	1	203	49	N	-
8102-5-6E	Perimeter	6-Apr-11	0 - 0.5	2.5	160	133	N	-
8102-5-7B	Base	6-Apr-11	1 - 1.5	1	28	28	N	-
8102-5-7E	Perimeter	6-Apr-11	0 - 0.5	2.5	147	73	N	-
8102-5-8B	Base	6-Apr-11	1 - 1.5	1	32	30	N	-
8102-5-8W	Perimeter	6-Apr-11	0 - 0.5	2.5	40	28	N	-
8102-5-9B	Base	6-Apr-11	1 - 1.5	1	59	23	N	-
8102-5-9W	Perimeter	6-Apr-11	0 - 0.5	2.5	52	27	N	-
8102-5-10B	Base	6-Apr-11	1 - 1.5	1	50	30	N	-
8102-5-10W	Perimeter	6-Apr-11	0 - 0.5	2.5	77	39	N	-
8102-5-11B	Base	6-Apr-11	1 - 1.5	1	40	38	N	-
8102-5-11W	Perimeter	6-Apr-11	0 - 0.5	2.5	29	43	N	-
8102-5-12B	Base	6-Apr-11	1 - 1.5	1	29	31	N	-
8102-5-12W	Perimeter	6-Apr-11	0 - 0.5	2.5	87	31	N	-
Building 8102-6								
8102-6-1B	Base	6-Apr-11	1 - 1.5	1	162	36	N	-
8102-6-1NW	Perimeter	6-Apr-11	0 - 0.5	2.5	238	86	N	-
8102-6-2B	Base	6-Apr-11	1 - 1.5	1	53	28	N	-
8102-6-2E	Perimeter	6-Apr-11	0 - 0.5	2.5	661	64	N	-
8102-6-3B	Base	6-Apr-11	1 - 1.5	1	97	19	N	-
8102-6-3E	Perimeter	6-Apr-11	0 - 0.5	2.5	164	29	N	-
8102-6-4B	Base	6-Apr-11	1 - 1.5	1	182	32	N	-
8102-6-4E	Perimeter	6-Apr-11	0 - 0.5	2.5	87	28	N	-
8102-6-5B	Base	6-Apr-11	1 - 1.5	1	99	20	N	-
8102-6-5E	Perimeter	6-Apr-11	0 - 0.5	2.5	38	20	N	-
8102-6-6B	Base	6-Apr-11	1 - 1.5	1	54	18	N	-
8102-6-6E	Perimeter	6-Apr-11	0 - 0.5	2.5	53	20	N	-
8102-6-7B	Base	6-Apr-11	1 - 1.5	1	33	19	N	-
8102-6-7E	Perimeter	6-Apr-11	0 - 0.5	2.5	112	72	N	-
8102-6-8B	Base	6-Apr-11	1 - 1.5	1	276	28	N	-
8102-6-8W	Perimeter	6-Apr-11	0 - 0.5	2.5	334	22	N	-
8102-6-9B	Base	6-Apr-11	1 - 1.5	1	252	34	N	-
8102-6-9W	Perimeter	6-Apr-11	0 - 0.5	2.5	60	27	N	-
8102-6-10B	Base	6-Apr-11	1 - 1.5	1	51	26	N	-
8102-6-10W	Perimeter	6-Apr-11	0 - 0.5	2.5	124	33	N	-
8102-6-11B	Base	6-Apr-11	1 - 1.5	1	78	24	N	-
8102-6-11W	Perimeter	6-Apr-11	0 - 0.5	2.5	298	66	N	-
8102-6-12B	Base	6-Apr-11	1 - 1.5	1	145	22	N	-
8102-6-12W	Perimeter	6-Apr-11	0 - 0.5	2.5	105	37	N	-
Building 8102-7								

Table 4-6
Field XRF Results for IAA Soil Confirmation Samples
February - April 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Sample Depth	Distance from Edge of Building	Copper	Lead	Did Result Require Expansion of Excavation Area	Sample ID at Expanded Excavation Border
			ft bgs	ft	(mg/kg)	(mg/kg)	(Y/N)	
Remedial Action Level for IAA Soils					**3,043**	**400**		
8102-7-1B	Base	6-Apr-11	1 - 1.5	1	<5	17	N	-
8102-7-1NW	Perimeter	6-Apr-11	0 - 0.5	2.5	158	30	N	-
8102-7-2B	Base	6-Apr-11	1 - 1.5	1	142	63	N	-
8102-7-2E	Perimeter	6-Apr-11	0 - 0.5	2.5	206	73	N	-
8102-7-3B	Base	6-Apr-11	1 - 1.5	1	70	31	N	-
8102-7-3E	Perimeter	6-Apr-11	0 - 0.5	2.5	40	30	N	-
8102-7-4B	Base	6-Apr-11	1 - 1.5	1	33	38	N	-
8102-7-4E	Perimeter	6-Apr-11	0 - 0.5	2.5	193	64	N	-
8102-7-5B	Base	6-Apr-11	1 - 1.5	1	108	28	N	-
8102-7-5E	Perimeter	6-Apr-11	0 - 0.5	2.5	59	37	N	-
8102-7-6B	Base	6-Apr-11	1 - 1.5	1	95	33	N	-
8102-7-6E	Perimeter	6-Apr-11	0 - 0.5	2.5	214	48	N	-
8102-7-7B	Base	6-Apr-11	1 - 1.5	1	54	17	N	-
8102-7-7E	Perimeter	6-Apr-11	0 - 0.5	2.5	89	35	N	-
8102-7-8B	Base	6-Apr-11	1 - 1.5	1	47	45	N	-
8102-7-8W	Perimeter	6-Apr-11	0 - 0.5	2.5	203	65	N	-
8102-7-9B	Base	6-Apr-11	1 - 1.5	1	115	46	N	-
8102-7-9W	Perimeter	6-Apr-11	0 - 0.5	2.5	76	41	N	-
8102-7-10B	Base	6-Apr-11	1 - 1.5	1	54	29	N	-
8102-7-10W	Perimeter	6-Apr-11	0 - 0.5	2.5	48	39	N	-
8102-7-11B	Base	6-Apr-11	1 - 1.5	1	<5	<5	N	-
8102-7-11W	Perimeter	6-Apr-11	0 - 0.5	2.5	212	57	N	-
8102-7-12B	Base	6-Apr-11	1 - 1.5	1	38	12	N	-
8102-7-12W	Perimeter	6-Apr-11	0 - 0.5	2.5	30	13	N	-
Building 8102-8								
8102-8-1B	Base	6-Apr-11	1 - 1.5	1	200	29	N	-
8102-8-1NW	Perimeter	6-Apr-11	0 - 0.5	2.5	41	30	N	-
8102-8-2B	Base	6-Apr-11	1 - 1.5	1	655	24	N	-
8102-8-2E	Perimeter	6-Apr-11	0 - 0.5	2.5	194	50	N	-
8102-8-3B	Base	6-Apr-11	1 - 1.5	1	69	33	N	-
8102-8-3E	Perimeter	6-Apr-11	0 - 0.5	2.5	58	35	N	-
8102-8-4B	Base	6-Apr-11	1 - 1.5	1	170	26	N	-
8102-8-4E	Perimeter	6-Apr-11	0 - 0.5	2.5	163	60	N	-
8102-8-5B	Base	6-Apr-11	1 - 1.5	1	46	17	N	-
8102-8-5E	Perimeter	6-Apr-11	0 - 0.5	2.5	178	69	N	-
8102-8-6B	Base	6-Apr-11	1 - 1.5	1	110	66	N	-
8102-8-6E	Perimeter	6-Apr-11	0 - 0.5	2.5	372	87	N	-
8102-8-7B	Base	6-Apr-11	1 - 1.5	1	73	19	N	-
8102-8-7E	Perimeter	6-Apr-11	0 - 0.5	2.5	98	43	N	-
8102-8-8B	Base	6-Apr-11	1 - 1.5	1	114	23	N	-
8102-8-8E	Perimeter	6-Apr-11	0 - 0.5	2.5	42	18	N	-
8102-8-9B	Base	6-Apr-11	1 - 1.5	1	61	47	N	-
8102-8-9W	Perimeter	6-Apr-11	0 - 0.5	2.5	96	53	N	-
8102-8-10B	Base	6-Apr-11	1 - 1.5	1	180	56	N	-
8102-8-10W	Perimeter	6-Apr-11	0 - 0.5	2.5	85	37	N	-
8102-8-11B	Base	6-Apr-11	1 - 1.5	1	255	31	N	-
8102-8-11W	Perimeter	6-Apr-11	0 - 0.5	2.5	102	59	N	-
8102-8-12B	Base	6-Apr-11	1 - 1.5	1	105	42	N	-
8102-8-12W	Perimeter	6-Apr-11	0 - 0.5	2.5	146	40	N	-
8102-8-13B	Base	6-Apr-11	1 - 1.5	1	35	24	N	-
8102-8-13W	Perimeter	6-Apr-11	0 - 0.5	2.5	139	39	N	-
8102-8-14B	Base	6-Apr-11	1 - 1.5	1	130	28	N	-
8102-8-14W	Perimeter	6-Apr-11	0 - 0.5	2.5	54	22	N	-
Building 8102-A								
8102-A-1B	Base	7-Apr-11	1 - 1.5	1	71	26	N	-
8102-A-1NW	Perimeter	7-Apr-11	0 - 0.5	2.5	58	27	N	-

Notes:

1101 Highlighted cell indicates constituent concentration is higher than the established residental RAL for the IAA.

Note that if an XRF field reading indicated that lead or copper were detected above the listed RALs, the excavation was expanded until a sample result below the RAL was achieved. All samples collected from the final excavation boundaries and base were below the target RALs.

Table 4-7
Summary of Laboratory Analytical Results for IAA Soil Confirmation Samples
February and March 2011
Radford Army Ammunition Plant - New River Unit

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	1-1N 0 - 0.5 02/15/11 1-1N (20110215)	2-2B 1 - 1.5 03/05/11 2-2B (20110305)	2-3W 0 - 0.5 03/05/11 2-3W (20110305)	4-5S 0 - 0.5 03/05/11 4-5S (20110305)	5-5S 0 - 0.5 02/17/11 5-5S (20110215)	6-1NW 0 - 0.5 04/11/11 6-1NW(20110411)	502-4NE 0 - 0.5 03/05/11 502-4NE (20110305)	502-15B 1 - 1.5 03/29/11 502-15B (20110329)	502-19W 0 - 0.5 03/29/11 502-19W (20110329)
PCBs												
Aroclor-1254	210	- -	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Copper	3,043	**53.5**	mg/kg	24.3	49.4	34.4	14.1	**66.8**	20.2	47.4	**114**	19.4
Lead	400	**26.8**	mg/kg	**35.8**	**33.5**	26.5	19.6	**151**	18.5	**79.1**	**158**	20.1
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	3,043	**53.5**	mg/kg	**89**	**71**	**192**	51	**132**	41	53	**57**	<5
Lead	400	**26.8**	mg/kg	**103**	**62**	**99**	23	**120**	24	**114**	**54**	21

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	504-20N 0 - 0.5 04/11/11 504-20N(20110411)	504-22E 0 - 0.5 04/11/11 504-22E(20110411)	508-1S 0 - 0.5 03/05/11 508-1S (20110305)	509-1B 1 - 1.5 03/05/11 509-1B (20110305)	522-9W 0 - 0.5 03/05/11 522-9W (20110305)	522-12E 0 - 0.5 03/29/11 522-12E (20110329)	522A-2NE 0 - 0.5 03/29/11 522A-2NE (20110329)	522A-4E 0 - 0.5 03/29/11 522A-4E (20110329)	522A-6B 1 - 1.5 03/29/11 522A-6B (20110329)
PCBs												
Aroclor-1254	210	- -	ug/kg	21 U	22 U	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Copper	3,043	**53.5**	mg/kg	46	25	**208**	**98.4**	**62.8**	22.1	17.5	55.1	18.9
Lead	400	**26.8**	mg/kg	23.5	**56.2**	**185**	**41.1**	**84.9**	22	**233**	**33.8**	26.4
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	3,043	**53.5**	mg/kg	40	34	**346**	**110**	**114**	29	37	49	37
Lead	400	**26.8**	mg/kg	24	**63**	**189**	**42**	**96**	23	**101**	**46**	25

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	522A-10W ** 0 - 0.5 03/29/11 522A-10W (20110329)	528-1B 1 - 1.5 03/05/11 528-1B (20110305)	529-1NW 0 - 0.5 03/05/11 529-1NW (20110305)	562-7W 0 - 0.5 03/05/11 562-7W (20110305)	565-3N 0 - 0.5 03/05/11 565-3N (20110305)	565-7S 0 - 0.5 03/05/11 565-7S (20110305)	565B-1B 1 - 1.5 03/05/11 565B-1B (20110305)	570-1B 1 - 1.5 03/05/11 570-1B (20110305)	571-1B 1 - 1.5 03/05/11 571-1B (20110305)
PCBs												
Aroclor-1254	210	- -	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Copper	3,043	**53.5**	mg/kg	47.5	**97.9**	42.1	**107**	31.1	**56.6**	**55.7**	26.1	24.7
Lead	400	**26.8**	mg/kg	**1,540**	**38.5**	**27.2**	13.2	26.5	**52.4**	14.7	13.5	9.89
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	3,043	**53.5**	mg/kg	**59**	**109**	48	**207**	37	**135**	51	<5	**72**
Lead	400	**26.8**	mg/kg	**60**	**28**	**31**	18	**54**	**67**	25	18	12

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	8102-1-1NW 0 - 0.5 03/24/11 8102(1)-1NW- (20110324)	8102-1-3E 03/24/11 8102(1)-3E- (20110324)	8102-1-10W 0 - 0.5 03/24/11 8102(1)-10W- (20110324)	8102-2-2N 0 - 0.5 03/25/11 8102(2)-2N (20110325)	8102-2-5E 0 - 0.5 03/25/11 8102(2)-5E (20110325)	8102-2-9W 0 - 0.5 03/25/11 8102(2)-9W (20110325)	8102-2-12W 0 - 0.5 03/25/11 8102(2)-12W (20110325)	8102-3-3E 0 - 0.5 03/25/11 8102(3)-3E (20110325)	8102-3-6E 0 - 0.5 03/25/11 8102(3)-6E (20110325)
PCBs												
Aroclor-1254	210	- -	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Copper	3,043	**53.5**	mg/kg	**286**	14.8	**386**	38.1	**351**	**106**	**114**	**60.3**	**188**
Lead	400	**26.8**	mg/kg	**131**	18.3	**74.9**	22.8	**96.2**	**36.5**	**59.5**	**89.4**	**104**
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	3,043	**53.5**	mg/kg	**518**	48	**673**	46	**411**	**196**	**276**	**73**	**1464**
Lead	400	**26.8**	mg/kg	**70**	**37**	**109**	14	**43**	**39**	**112**	**41**	**124**

footnotes on last page.

Table 4-7
Summary of Laboratory Analytical Results for IAA Soil Confirmation Samples
February and March 2011
Radford Army Ammunition Plant - New River Unit

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	8102-3-10W ** 0 - 0.5 03/25/11 8102(3)-10W (20110325)	8102-3-13W 0 - 0.5 04/11/11 8102(3)-13W(20110411)	8102-4-2E 0 - 0.5 03/29/11 8102(4)-2E (20110329)	8102-4-6E 0 - 0.5 03/29/11 8102(4)-6E (20110329)	8102-4-10W 0 - 0.5 03/29/11 8102(4)-10W (20110329)	8102-5-3E 0 - 0.5 04/06/11 8102 (5)-3E (20110406)	8102-6-3E 0 - 0.5 04/06/11 8102 (6)-3E (20110406)	8102-6-6E 0 - 0.5 04/06/11 8102 (6)-6E (20110406)	8102-6-8W 0 - 0.5 04/06/11 8102 (6)-8W (20110406)
PCBs												
Aroclor-1254	210	- -	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics												
Copper	3,043	**53.5**	mg/kg	**449**	28	**111**	**232**	**262**	47.5	**169**	**72.7**	**313**
Lead	400	**26.8**	mg/kg	**603**	25.9	**35.7**	**56**	**116**	26.2	**33.1**	19.8	**27.9**
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
XRF Metals												
Copper	3,043	**53.5**	mg/kg	**86**	40	**284**	**760**	**232**	**67**	**164**	53	**334**
Lead	400	**26.8**	mg/kg	**34**	22	**81**	**58**	**75**	**36**	**29**	20	22

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	8102-7-3E 0 - 0.5 04/06/11 8102 (7)-3E (20110406)	8102-7-11W 0 - 0.5 04/06/11 8102 (7)-11W (20110406)	8102-8-2E 0 - 0.5 04/06/11 8102 (8)-2E (20110406)	8102-8-5E 0 - 0.5 04/06/11 8102 (8)-5E (20110406)	8102-8-13W 0 - 0.5 04/06/11 8102 (8)-13W (20110406)	8102-a-1NW 04/11/11 8102A-1NW(20110411)	XXXX-2W 0 - 0.5 03/05/11 XXXX-2W (20110305)	YYYY-2SW 0 - 0.5 03/05/11 YYYY-2SW (20110305)	8101-1W ** 0 - 0.5 03/25/11 8101-1W (20110325)
PCBs												
Aroclor-1254	210	- -	ug/kg	NA	NA	NA	NA	NA	NA	NA	NA	590
Inorganics												
Copper	3,043	**53.5**	mg/kg	23.4	**85.7**	**76.1**	**311**	**107**	48.9	**123**	**68.7**	NA
Lead	400	**26.8**	mg/kg	14.9	26.3	**41.1**	**99.1**	**56.5**	**31**	**31.5**	26.5	NA
Asbestos												
Asbestos weight percent	0.1	- -	%	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
XRF Metals												
Copper	3,043	**53.5**	mg/kg	40	**212**	**194**	**178**	**139**	**58**	**104**	**99**	NA
Lead	400	**26.8**	mg/kg	**30**	**57**	**50**	**69**	**39**	**27**	24	16	NA

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for IAA Soil	Facility Wide Background Concentration	Units	8101-2N ** 0 - 0.5 03/25/11 8101-2N (20110325)	8101-3N 0 - 0.5 03/25/11 8101-3N (20110325)	8101-4B 1 - 1.5 03/25/11 8101-4B (20110325)	8101-5W 0 - 0.5 04/07/11 8101-5W (20110407)	8101-6N 0 - 0.5 04/07/11 8101-6N (20110407)
PCBs								
Aroclor-1254	210	- -	ug/kg	1,100 D	84	25 U	53	160
Inorganics								
Copper	3,043	**53.5**	mg/kg	NA	NA	NA	NA	NA
Lead	400	**26.8**	mg/kg	NA	NA	NA	NA	NA
Asbestos								
Asbestos weight percent	0.1	- -	%	NA	NA	NA	NA	NA
XRF Metals								
Copper	3,043	**53.5**	mg/kg	NA	NA	NA	NA	NA
Lead	400	**26.8**	mg/kg	NA	NA	NA	NA	NA

Notes:
U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
D - Denotes that the sample was analyzed after dilution because the concentration in an initial run exceeded the concentration on the standard curve
NA - The compound was not analyzed for.

700	Highlighted cell indicates constituent concentration exceeds the residential RAL established for the IAA.
29	Bolded value indicates concentration exceeds 95% UTL fir facility-wide background estimate.

** Note the the excavation boundaries were expanded at all of the locations where constituents were detected above their respective RALs. All samples collected from the final excavation boundaries were below their respective RALs.

Table 4-8
Summary of Soil Waste Shipments for the BLA and IAA Removal Actions
February through April 2011
Radford Army Ammunition Plant - New River Unit

Manifest #	Waste Shipment Date	Facility Receipt Date	Facility Receipt ID	Disposal Company/Site	Load Weight (tons)
FPC4233-01-11	2/21/2011	2/21/2011	294706	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.49
FPC4233-02-11	2/21/2011	2/21/2011	294705	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.44
FPC4233-03-11	2/22/2011	2/22/2011	294868	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	15.78
FPC4233-04-11	2/23/2011	2/23/2011	295031	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.75
FPC4233-05-11	2/24/2011	3/1/2011	295198	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.62
FPC4233-06-11	2/28/2011	3/1/2011	295522	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	18.28
FPC4233-08-11	3/1/2011	3/1/2011	295656	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	17.72
FPC4233-09-11	3/1/2011	3/1/2011	295657	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	18.05
FPC4233-10-11	3/2/2011	3/2/2011	295802	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	15.77
FPC4233-11-11	3/2/2011	3/2/2011	295804	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.96
FPC4233-12-11	3/3/2011	3/3/2011	295964	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	10.56
FPC4233-13-11	3/3/2011	3/3/2011	295965	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.99
FPC4233-14-11	3/3/2011	3/3/2011	295966	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.51
FPC4233-15-11	3/4/2011	3/4/2011	296120	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	11.59
FPC4233-16-11	3/4/2011	3/4/2011	296118	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	11.96
FPC4233-17-11	3/5/2011	3/5/2011	296178	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.05

Table 4-8
Summary of Soil Waste Shipments for the BLA and IAA Removal Actions
February through April 2011
Radford Army Ammunition Plant - New River Unit

Manifest #	Waste Shipment Date	Facility Receipt Date	Facility Receipt ID	Disposal Company/Site	Load Weight (tons)
FPC4233-18-11	3/5/2011	3/5/2011	296139	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.20
FPC4233-19-11	3/7/2011	3/7/2011	296341	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.89
FPC4233-20-11	3/8/2011	3/9/2011	296534	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.00
FPC4233-21-11	3/8/2011	3/9/2011	296536	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.12
FPC4233-22-11	3/9/2011	3/10/2011	296696	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.29
FPC4233-23-11	3/9/2011	3/10/2011	296694	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	11.86
FPC4233-24-11	3/10/2011	3/10/2011	296851	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.35
FPC4233-25-11	3/10/2011	3/10/2011	296850	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	17.78
FPC4233-26-11	3/11/2011	3/11/2011	297012	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.66
FPC4233-27-11	3/11/2011	3/11/2011	297011	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.99
FPC4233-28-11	3/12/2011	3/12/2011	297458	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.19
FPC4233-29-11	3/12/2011	3/12/2011	297455	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.94
FPC4233-30-11	3/14/2011	3/14/2011	297222	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	15.73
FPC4233-31-11	3/14/2011	3/14/2011	297221	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.40
FPC4233-32-11	3/15/2011	3/15/2011	297323	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	11.35
FPC4233-33-11	3/15/2011	3/15/2011	297380	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	10.04

Table 4-8
Summary of Soil Waste Shipments for the BLA and IAA Removal Actions
February through April 2011
Radford Army Ammunition Plant - New River Unit

Manifest #	Waste Shipment Date	Facility Receipt Date	Facility Receipt ID	Disposal Company/Site	Load Weight (tons)
FPC4233-34-11	3/15/2011	3/16/2011	297427	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.44
FPC4233-35-11	3/16/2011	3/16/2011	297576	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	17.66
FPC4233-36-11	3/16/2011	3/16/2011	297577	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.49
FPC4233-37-11	3/17/2011	3/17/2011	297675	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	10.83
FPC4233-38-11	3/17/2011	3/17/2011	297776	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	9.13
FPC4233-40-11	3/21/2011	3/22/2011	298204	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.52
FPC4233-41-11	3/21/2011	3/22/2011	298207	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.47
FPC4233-42-11	3/21/2011	3/22/2011	298195	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.00
FPC4233-43-11	3/21/2011	3/22/2011	298209	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.84
FPC4233-44-11	3/22/2011	3/22/2011	298362	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	20.54
FPC4233-45-11	3/22/2011	3/23/2011	298364	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	14.35
FPC4233-46-11	3/22/2011	3/23/2011	298363	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.44
FPC4233-47-11	3/24/2011	3/24/2011	298696	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.70
FPC4233-48-11	3/24/2011	3/24/2011	298695	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	16.45
FPC4233-49-11	3/25/2011	3/25/2011	298872	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	10.64
FPC4233-50-11	3/25/2011	3/25/2011	298873	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	11.87

Table 4-8
Summary of Soil Waste Shipments for the BLA and IAA Removal Actions
February through April 2011
Radford Army Ammunition Plant - New River Unit

Manifest #	Waste Shipment Date	Facility Receipt Date	Facility Receipt ID	Disposal Company/Site	Load Weight (tons)
FPC4233-51-11	3/28/2011	3/28/2011	299044	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.45
FPC4233-52-11	3/28/2011	3/28/2011	299045	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.75
FPC4233-53-11	4/4/2011	4/5/2011	299870	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	13.27
FPC4233-54-11	4/4/2011	4/5/2011	299876	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.93
FPC4233-55-11	4/13/2011	4/13/2011	301022	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	21.09
FPC4233-56-11	4/13/2011	4/13/2011	301023	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	15.33
FPC4233-57-11	4/27/2011	4/27/2011	302774	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	19.94
FPC4233-59-11	4/18/2011	4/18/2011	301682	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	12.41
				Total	798.85

Table 4-9
Summary of Backfill Material Analytical Results for BLA and IAA
Radford Army Ammunition Plant - New River Unit

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Regional Screening Levels - Residential Soil	Facility Wide Background Concentration	Backfill 02/18/11 Backfilll (20110218)
Herbicides			
None Detected	--	--	--
Organochlorine Pesticides			
Endosulfan Sulfate	--	--	0.667
PCBs			
None Detected	--	--	--
Volatile Organics			
Bromofluorobenzene	--	--	39
Dibromofluoromethane	--	--	41
Semivolatile Organics			
None Detected	**--**	**--**	--
Inorganics			
Aluminum	77,000	**40,041**	23,600
Arsenic	0.39	**15.8**	9.54
Barium	15,000	**209**	60.6
Beryllium	160	**1.02**	**2.03**
Calcium	--	**--**	817
Chromium	230	**65.3**	39.0
Cobalt	23	**72.3**	16.2
Copper	3,100	**53.5**	30.0
Iron	55,000	**50,962**	40,600
Lead	400	**26.8**	21.6
Magnesium	--	**--**	3,980
Manganese	1,800	**2,543**	524
Mercury	3.1 {sat}	**0.13**	0.0569
Nickel	1500	**62.8**	25.3
Potassium	--	**--**	1,960
Selenium	390	**--**	0.504 J
Vanadium	390	**108**	69.0
Zinc	23,000	**202**	60.7

Notes:
J - The presence of a J to the right indicates that the reported result is estimated

23,600	Highlighted cell indicates constituent concentration above the USEPA Residential Regional Screening Value (RSL)
2.03	Bolded Value indicates constituent concentration above the facility-wide background concentration

{sat} Screening level may exceed saturation limit

Table 5-1
Waste Characterization Sample Results for WBG Sediment
November 2011
Radford Army Ammunition Plant - New River Unit

Sample ID:	IAA Soil - 20101116	BLA Soil - 20101116	Flooring - 20101116
Sample Date:	11/16/2010	11/16/2010	11/16/2010
Analyses			
TCLP-Metals (mg/L)			
Mercury	<0.002	<0.002	<0.002
Arsenic	<0.1	<0.1	<0.1
Barium	2.44	1.72	2.9
Cadmium	0.0227	0.0849	0.0192
Chromium	<0.1	<0.1	<0.1
Lead	0.276	0.858	<0.03
Selenium	0.037	<0.06	0.0483
Silver	<0.1	<0.1	<0.1
Asbestos Content (%)			
Chrysotile	**5%**	**3%**	**5%**
PCBs (µg/Kg)			
Aroclor-1254	<23.7	733	<25.0
Aroclor-1260	103	<27.4	<25.0
Aroclor-1268	<23.7	<27.4	25.5

Table 5-2
Summary of WBG Waste Disposal Shipments
May 2011
Radford Army Ammunition Plant - New River Unit

Manifest #	Waste Shipment Date	Facility Receipt Date	Facility Receipt ID	Disposal Company/Site	Load Weight (tons)
020838	5/12/2011	5/12/2011	304576	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	21.22
020839	5/12/2011	5/12/2011	304578	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	19.44
020841	5/12/2011	5/12/2011	304580	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	20.35
020840	5/12/2011	5/12/2011	304579	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	20.65
020843	5/12/2011	5/12/2011	304597	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	18.45
020842	5/12/2011	5/12/2011	304596	First Piedmont Corporation 1224 Clarks Mill Road, Ringold, Virginia 24531	22.29
				TOTAL	**122.4**

Table 5-3
Field XRF Results for WBG Sediment Confirmation Samples
May 2011
Radford Army Ammunition Plant - New River Unit

Sample ID	Sample Type	Sample Date	Chromium (mg/kg)	Lead (mg/kg)
Remedial Action Levels for WBG Sediment			**1,358**	**1,100**
WBG-SD1	Perimeter	11-May-11	<144	30.5
WBG-SD2	Perimeter	11-May-11	<127	23
WBG-SD3	Perimeter	11-May-11	<162	16
WBG-SD4	Perimeter	11-May-11	<155	24.5
WBG-SD5	Perimeter	11-May-11	<170	57
WBG-SD6	Perimeter	11-May-11	<176	45.5
WBG-SD7	Base	11-May-11	<173	288
WBG-SD8	Base	11-May-11	<176	37
WBG-SD9	Base	11-May-11	<130	32.5
WBG-SD10	Base	11-May-11	<147	21.5

Table 5-4
Summary of Laboratory Analytical Results for WBG Sediment Confirmation Samples
May 2011
Radford Army Ammunition Plant - New River Unit

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	Residential RAL for WBG Sediment	Facility Wide Background Concentration	Units	WBG-SD1 0 - 0.5 05/11/11 WBG-SD1	WBG-SD4 0 - 0.5 05/11/11 WBG-SD4	WBG-SD6 0 - 0.5 05/11/11 WBG-SD6	WBG-SD8 0 - 0.5 05/11/11 WBG-SD8	WBG-SD9 0 - 0.5 05/11/11 WBG-SD9
Inorganics								
Chromium	1,358	**65.3**	mg/kg	36.1	27.9	63.0	33.8	33.5
Lead	1,100	**26.8**	mg/kg	25.8	24.7	**34.6**	**30.0**	26.4
XRF Metals								
Chromium	1,358	**65.3**	mg/kg	**<144**	**<155**	**<176**	**<176**	**<130**
Lead	1,100	**26.8**	mg/kg	**30.5**	24.5	**45.5**	**37**	**32.5**

U - The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
NA - The compound was not analyzed for.

700	Highlighted cell indicates constituent concentration exceeds the residential RAL established for the IAA.
29	Bolded value indicates concentration exceeds 95% UTL fir facility-wide background estimate.

Table 5-5
Summary of Surface Water Turbidity Readings During
WBG Sediment Removal Action
May 2011
Radford Army Ammunition Plant - New River Unit

Reading	Date	Time	Turbidity (NTU)	Appearance	Notes
1	5/10/2011	11:30	15.4	Clear	Collected prior to beginning site activities
2	5/10/2011	17:04	17.5	Clear	Collected 1-hour after Day 1 excavation activities began
3	5/10/2011	18:15	21	Clear	Collected 2-hours after Day 1 excavation activities began
4	5/11/2011	9:05	26.6	Clear	Collected 1-hour after Day 2 excavation activities began
5	5/11/2011	11:00	35.2	Clear	Collected at completion of sediment excavation activities
6	5/11/2011	14:50	55.7	Slightly cloudy	Collected 4-hours after comletion of sediment excavation activities and rainfall event
7	5/12/2011	15:00	35.8	Clear	Collected prior to site demobilization

Table 5-6
Summary of Laboratory Analytical Results for WBG Surface Water Samples
May 2011
Radford Army Ammunition Plant - New River Unit

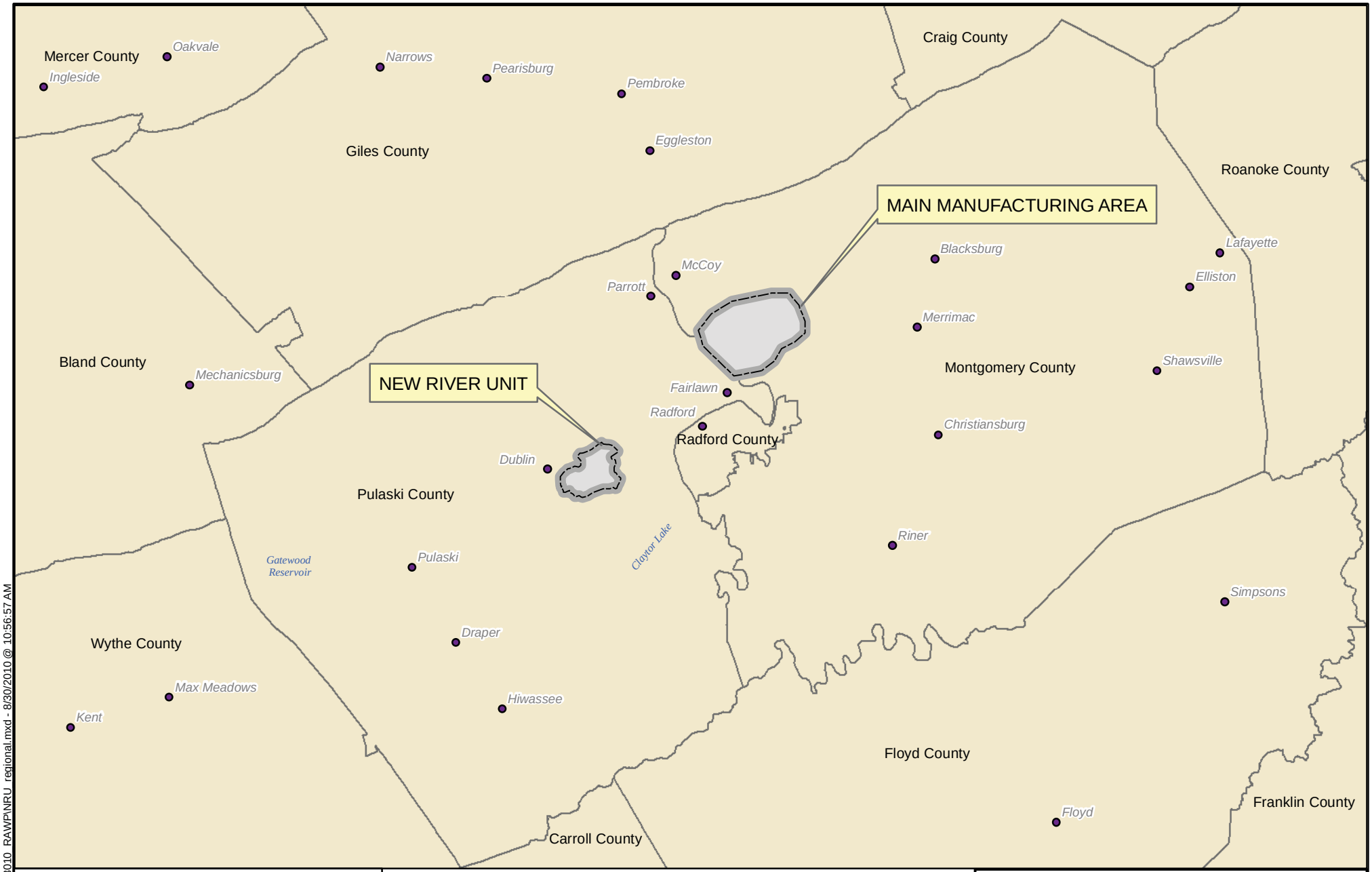
Location ID: Date Collected: Sample Name:	Virginia Surface Water Quality Standards[1]	Units	WBG-SWOF1 05/11/11 WBG-SWOF1	WBG-SWEP01 05/11/11 WBG-SWEP01
Inorganics				
Chromium	100	µg/L	0.778 J	0.916 J
Lead	15	µg/L	8.89	16.9

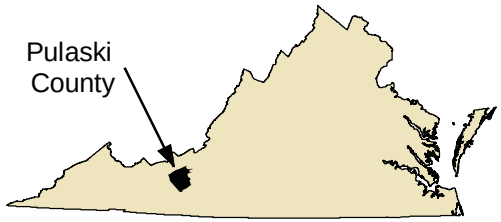
1.Virginia Water Quality Standards for Public Water Supply. 9 VAC 25-260, January 2011.

J - Indicates that the constituent concentration is estimated

700 Highlighted cell indicates constituent concentration exceeds the surface water quality standard

Figures





0 2.5 5 10

Miles

N

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

RFAAP - NRU
FACILITY LOCATION

ARCADIS

FIGURE
1-1

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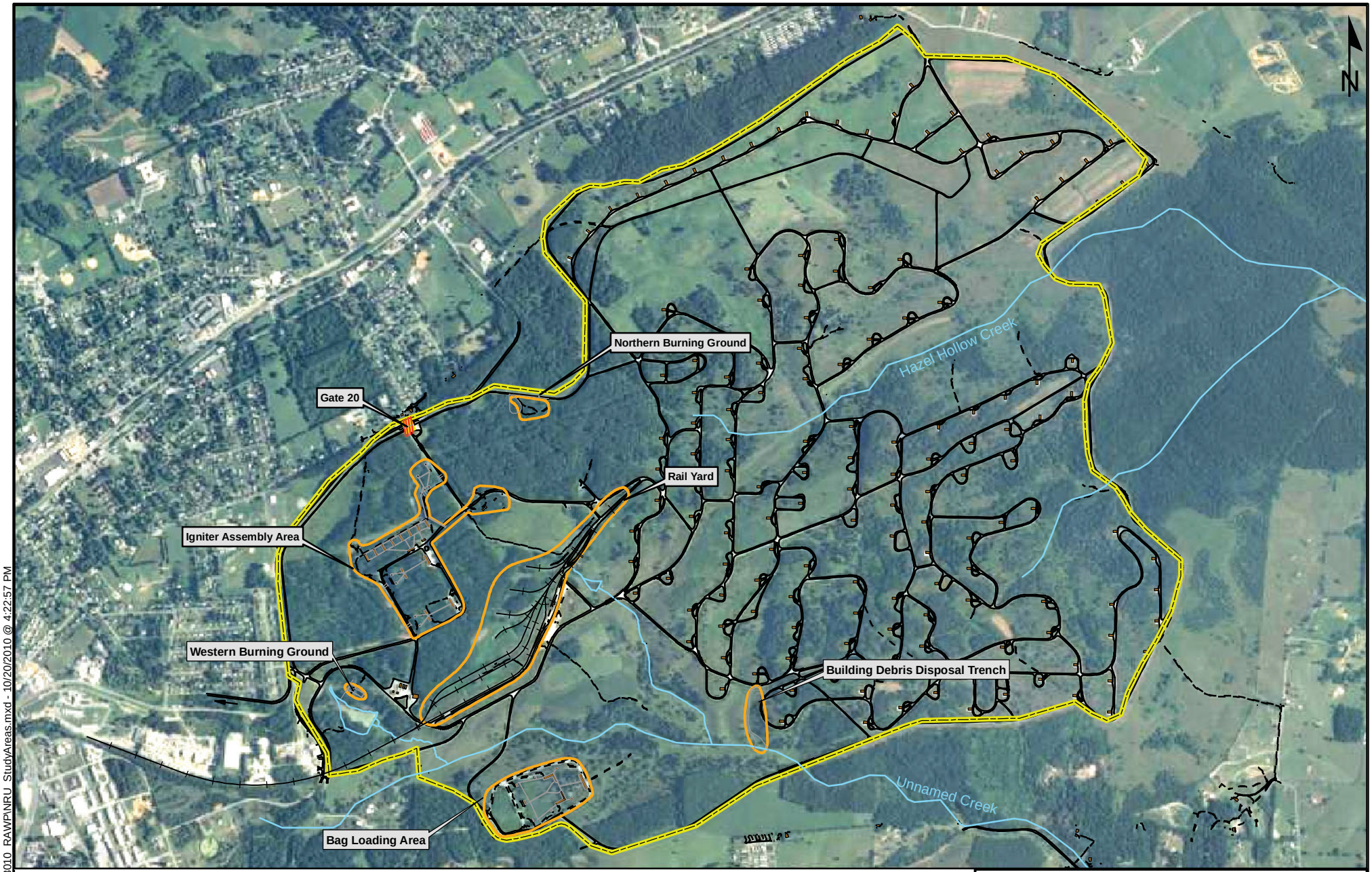


I:\Radford\GIS\ArcMap_MXD\083010_RAWP\NRU_StudyAreas.mxd - 10/20/2010 @ 4:22:57 PM

LEGEND

- SITE FEATURES
- RAIL SPUR
- SURFACE WATER
- PAVED ROADS
- DIRT ROADS
- STUDY AREA
- NRU BOUNDARY
- FORMER BUILDINGS

NOTES:

1. GIS SPATIAL LAYERS OBTAINED FROM SHAW ENVIRONMENTAL, INC. AS REFERENCED IN THEIR REPORT TITLED NRU ADDITIOANL CHARACTERIZATION SAMPLING & GROUNDWATER INVESTIGATION DATA REPORT IN OCTOBER 2007.

0 900 1,800 Feet

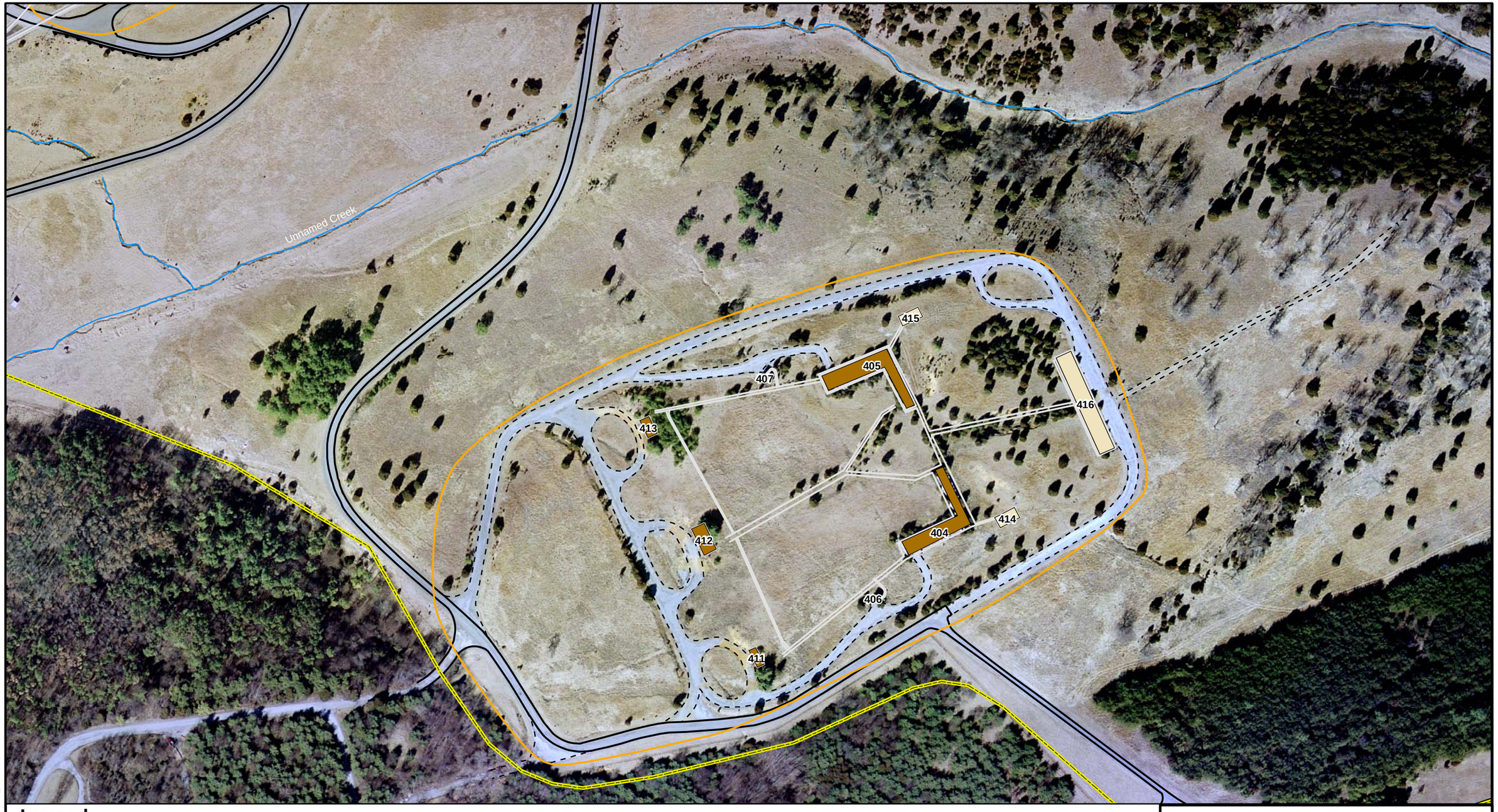
GRAPHIC SCALE

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

RFAAP - NRU STUDY AREAS

ARCADIS

FIGURE 2-1



Legend

- PAVED ROADS
- DIRT ROADS
- SITE FEATURES
- SURFACE WATER
- FORMER RAISED WALKWAY PLATFORMS
- STUDY AREA
- INSTALLATION BOUNDARY

FORMER BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDINGS THAT HISTORICALLY CONTAINED CONDUCTIVE FLOORING

NOTE:
BUILDINGS 404 AND 405 WERE TWO STORY BUILDINGS

0 200 400 Feet

GRAPHIC SCALE

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

BAG LOADING AREA SITE LAYOUT

ARCADIS

FIGURE 2-2

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LEGEND

- SEWER LINE
- SITE FEATURES
- RAIL SPUR
- SURFACE WATER
- CULVERT
- PAVED ROADS
- DIRT ROADS

FORMER BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDINGS THAT HISTORICALLY CONTAINED CONDUCTIVE FLOORING

- STUDY AREA
- INSTALLATION BOUNDARY

0 340 680 Feet

GRAPHIC SCALE

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

IGNITER ASSEMBLY AREA SITE LAYOUT

ARCADIS

FIGURE 2-3

I:\Radford\GIS\ArcMap_MXD\080511_Report\AA_Basemap.mxd - 8/23/2011 @ 4:12:30 PM

LEGEND

- TOP OF BERM
- FORMER BURN CAGE
- BREAK BETWEEN ASPHALT AND DIRT ROAD
- UNLINED DRAINAGE DITCH
- TEST PIT AREA (1999 RI)
- SURFACE WATER
- PAVED ROADS
- DIRT ROADS
- BUILDINGS
- STUDY AREA
- INSTALLATION BOUNDARY

0 100 200 Feet

GRAPHIC SCALE

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

WESTERN BURNING GROUND SITE LAYOUT

ARCADIS

FIGURE 2-4

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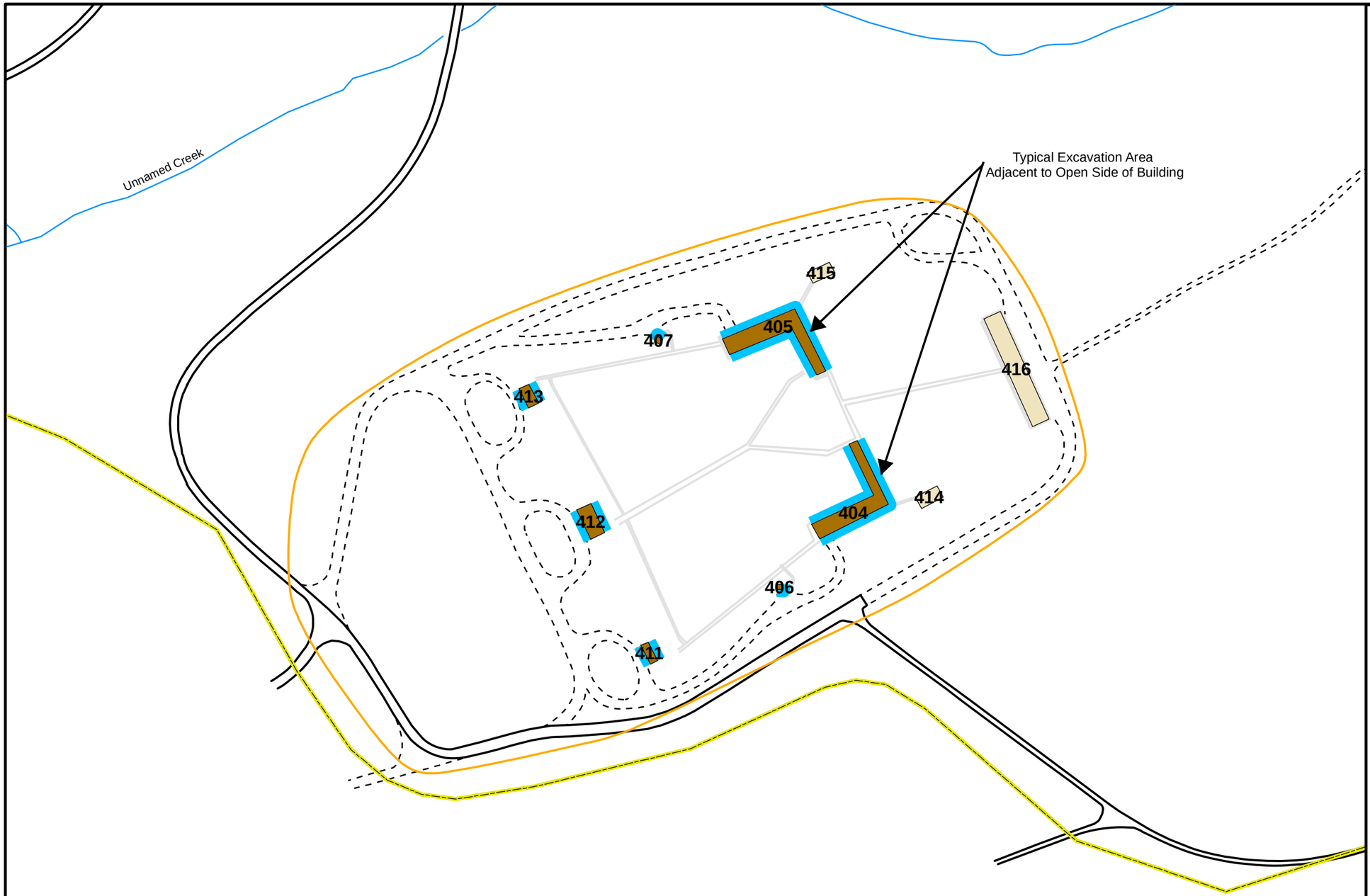


NOTES:

1. REMOVAL OF CONDUCTIVE FLOORING WILL OCCUR AT THE BUILDINGS AS INDICATED BY THIS FIGURE.
2. EXCAVATION OF SOIL WILL PRIMARILY OCCUR ON THE OPEN SIDES OF THE BUILDINGS WHERE THERE ARE PATHWAYS FOR THE CONDUCTIVE FLOORING TO HAVE WASHED OFF OF THE BUILDING PADS ONTO THE ADJACENT SOIL AS DEPICTED IN THIS DRAWING, OR AS DETERMINED BY THE ENGINEER.
3. THE INITIAL EXCAVATION EXTENT WILL EXTEND HORIZONTALLY 2 FEET FROM THE BASE OF AFFECTED BUILDINGS, AND PROCEED VERTICALLY TO A DEPTH OF 1 FOOT. HOWEVER, THE FINAL EXCAVATION EXTENT WILL BE FIELD DETERMINED BY THE ENGINEER BASED UPON FIELD ANALYSIS, LABORATORY ANALYSIS, AND VISUAL CONFIRMATION.
4. UPON RECEIPT OF CONFIRMATION SAMPLING RESULTS INDICATING THAT THE FINAL EXCAVATION EXTENT HAS BEEN ACHIEVED, THE EXCAVATION AREAS SHALL BE BACKFILLED AND GRADED TO MATCH THE EXISTING GRADE.

Remedial Action Levels for Soil at the BLA	
Driver	**PRG**
Copper	11,533 mg/kg
Lead	624 mg/kg
Asbestos	0.1% by weight

0 200 400 Feet

GRAPHIC SCALE

LEGEND

- OPEN SIDE OF BUILDING, ADJACENT SOILS TO BE EXCAVATED
- PAVED ROADS
- DIRT ROADS
- SITE FEATURES
- SURFACE WATER
- FORMER RAISED WALKWAY PLATFORMS
- STUDY AREA
- INSTALLATION BOUNDARY
- FORMER BUILDINGS
  - NO CONDUCTIVE FLOORING
  - BUILDINGS THAT HISTORICALLY CONTAINED CONDUCTIVE FLOORING

NOTE:
BUILDINGS 404 AND 405 ARE TWO STORY BUILDINGS

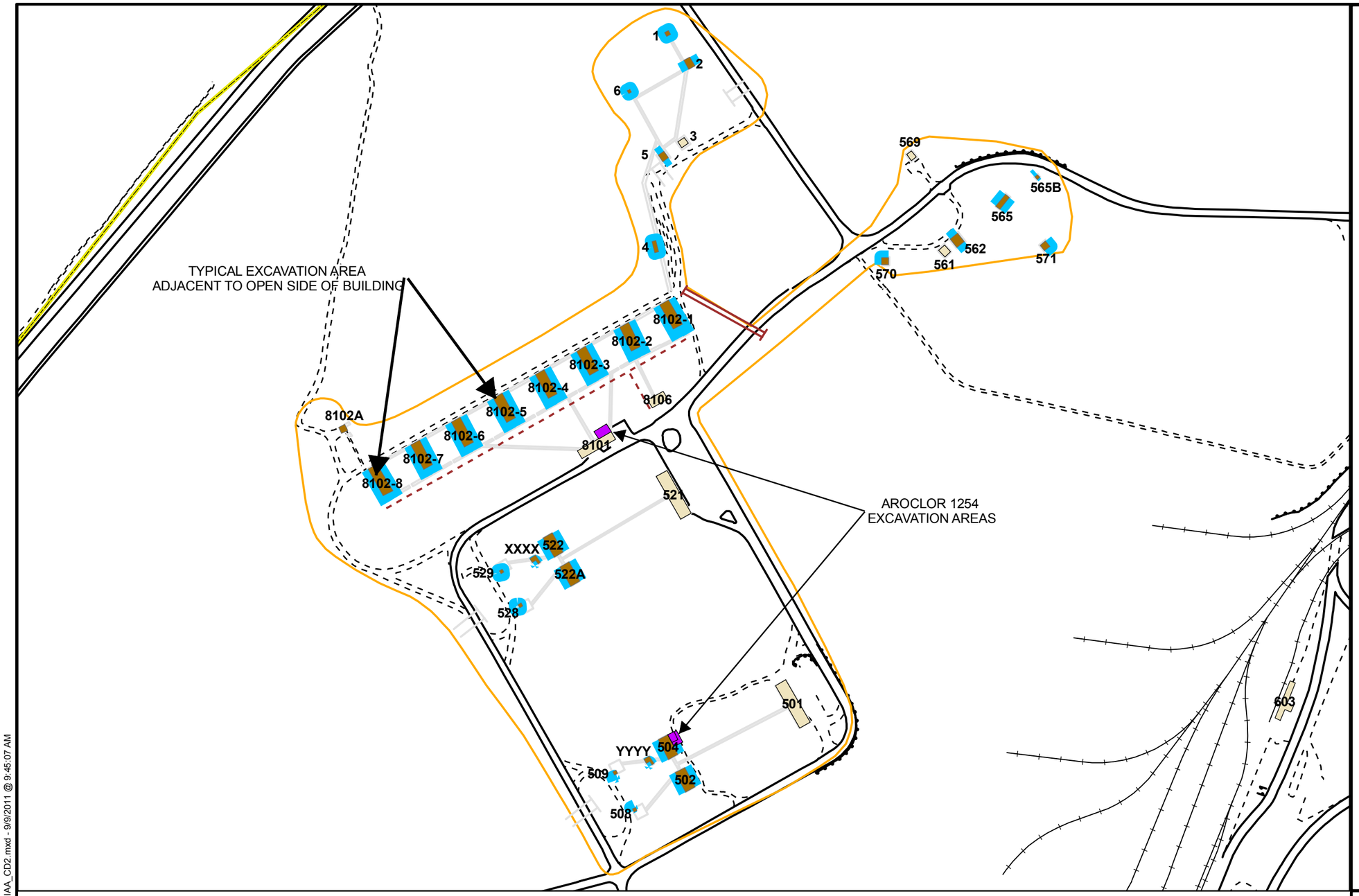
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

PLANNED RESPONSE ACTION AREA AT THE BLA

ARCADIS

FIGURE
3-1

I:\Radford\GIS\ArcMap_MXD\080511_Report\BLA_CD1.mxd - 8/23/2011 @ 4:25:20 PM



NOTES:

1. REMOVAL OF CONDUCTIVE FLOORING WILL OCCUR AT THE BUILDINGS AS INDICATED BY THIS FIGURE.
2. EXCAVATION OF SOIL WILL PRIMARILY OCCUR ON THE OPEN SIDES OF THE BUILDINGS WHERE THERE ARE PATHWAYS FOR THE CONDUCTIVE FLOORING TO HAVE WASHED OFF OF THE BUILDING PADS ONTO THE ADJACENT SOIL AS DEPICTED IN THIS DRAWING, OR AS DETERMINED BY THE ENGINEER.
3. SOILS THAT EXCEED THE REMEDIAL ACTION LEVEL FOR AROCLOR 1254 WILL REQUIRE EXCAVATION, AS INDICATED ON THIS DRAWING. THE EXCAVATION AREAS FOR AROCLOR 1254 ARE NOT TO SCALE AS DEPICTED ON THIS DRAWING FOR ILLUSTRATION PURPOSES. THE ACTUAL EXCAVATION EXTENT FOR AROCLOR 1254 WILL BE FIELD DETERMINED BY THE ENGINEER.
4. THE INITIAL EXCAVATION EXTENT WILL EXTEND HORIZONTALLY 2 FEET FROM THE BASE OF AFFECTED BUILDINGS, AND PROCEED VERTICALLY TO A DEPTH OF 1 FOOT. HOWEVER, THE FINAL EXCAVATION EXTENT WILL BE FIELD DETERMINED BY THE ENGINEER BASED UPON FIELD ANALYSIS, LABORATORY ANALYSIS, AND VISUAL CONFIRMATION.
5. UPON RECEIPT OF CONFIRMATION SAMPLING RESULTS INDICATING THAT THE FINAL EXCAVATION EXTENT HAS BEEN ACHIEVED, THE EXCAVATION AREAS SHALL BE BACKFILLED AND GRADED TO MATCH THE EXISTING GRADE.

Remedial Action Levels for Soil at the IAA

Driver	PRG
Copper	3,043 mg/kg
Lead	400 mg/kg
Aroclor 1254	0.21 mg/kg
Asbestos	0.1% by weight

N

0 300 600 Feet

GRAPHIC SCALE

LEGEND

- AROCLOR 1254 EXCAVATION AREAS
- OPEN SIDE OF BUILDING, ADJACENT SOILS TO BE EXCAVATED
- PAVED ROADS
- DIRT ROADS
- SITE FEATURES
- RAIL SPUR
- SURFACE WATER
- CULVERT
- SEWER LINE
- STUDY AREA
- INSTALLATION BOUNDARY

FORMER BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDINGS THAT HISTORICALLY CONTAINED CONDUCTIVE FLOORING

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

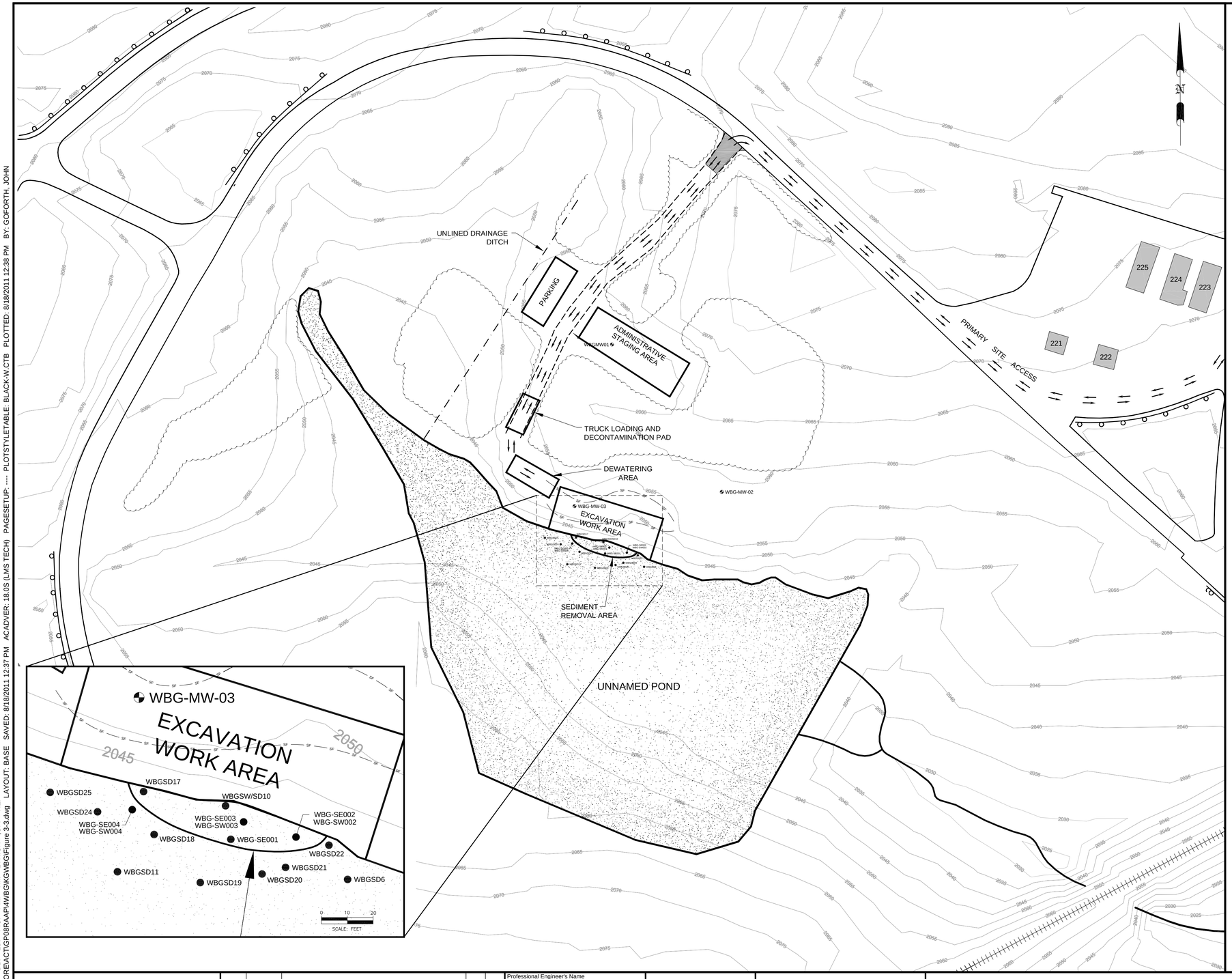
PLANNED RESPONSE ACTION AREA AT THE IAA

ARCADIS

FIGURE 3-2

I:\Radford\GIS\ArcMap_MXD\080511_Report\IAA_CD2.mxd - 9/9/2011 @ 9:45:07 AM

CITY: DIV/GROUP: G:\ENV\CAD\BALTIMORE\ACT\GP08RAAP\WBG\KGWBG\Figure 3-3.dwg DB: LD: PIC: PM: TM: LYR:ON=*;OFF=*REF* LAYOUT: BASE SAVED: 8/18/2011 12:37 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: BLACK-W.CTB PLOTTED: 8/18/2011 12:38 PM BY: GOFORTH, JOHN



LEGEND:

- MONITORING WELL
- WBGSW/SD10 — HISTORIC SEDIMENT SAMPLE LOCATION
- TREE LINE
- UNLINED DRAINAGE DITCH
- DIRT ACCESS ROAD
- RAILROAD
- 222 — EXISTING BUILDING
- TRAFFIC PATTERN
- GUARD RAIL
- SF — SF — SF — FILT FENCE

NOTES:

1. BASEMAP AND LINE WORK OBTAINED FROM NEW RIVER UNIT ADDITIONAL CHARACTERIZATION SAMPLING & GROUNDWATER INVESTIGATION DATA REPORT (SHAW ENVIRONMENTAL, 2007).
2. SITE DEVELOPMENT DIMENSIONS, FEATURES, BOUNDARIES, AND LOCATIONS DEPICTED ARE APPROXIMATE AND SHALL BE FIELD LOCATED AND MODIFIED ACCORDINGLY.
3. DEBRIS LOCATED ALONG THE SHORELINE, INCLUDING LARGE TO MEDIUM SIZE ROCKS, WILL BE MECHANICALLY REMOVED AND PLACED UPLAND DURING REMOVAL ACTIVITIES. LARGE ROCK AND BOULDERS REMOVED DURING CONSTRUCTION ACTIVITIES WILL BE REPLACED ALONG THE SHORELINE OF THE UNNAMED POND FOLLOWING THE COMPLETION OF SEDIMENT REMOVAL ACTIVITIES.
4. APPROXIMATELY 75 CUBIC YARDS (CY) OF SEDIMENT WILL BE REMOVED FROM THE NORTHEAST SIDE OF THE UNNAMED POND. IMPACTED SEDIMENTS ARE CONFINED TO AN ESTIMATED 1,000 SQUARE FOOT AREA. THE PLANNED DEPTH OF THE SEDIMENT REMOVAL ACTIVITIES IS 2 FEET BELOW SEDIMENT SURFACE.
5. CONSTRUCTION CONTROLS, SUCH AS FALL HEIGHT OF BUCKET AND BUCKET CYCLE TIMES, SHALL BE IMPLEMENTED AS NECESSARY TO LIMIT RESUSPENSION OF SEDIMENTS WITHIN THE UNNAMED POND DURING REMOVAL ACTIVITIES. STRUCTURAL RESUSPENSION CONTROLS ARE NOT ANTICIPATED.
6. A SEDIMENT DEWATERING AND STAGING AREA APPROXIMATELY 40 FT. BY 75 FT. WILL BE CONSTRUCTED. THE 2 FT. BERMINED AREA WILL BE LINED WITH A TRIPLE LAYER OF POLYETHYLENE GEOMEMBRANE AND A LAYER OF SAND. DREDGED SEDIMENTS WILL BE PLACED IN THE DEWATERING AREA WHERE SEDIMENTS WILL GRAVITY DEWATER. FREE LIQUIDS FROM DEWATERING ACTIVITIES WILL BE CONTAINERIZED AND DISPOSED OF OFF SITE. AGENTS MAY BE ADDED IF ADDITIONAL DEWATERING IS REQUIRED PRIOR TO OFF-SITE TRANSPORTATION AND DISPOSAL.
7. DEWATERED SEDIMENT WILL BE TRANSPORTED OFFSITE BY CAPITOL ENVIRONMENTAL, INC. AND DISPOSED OF AS NON-HAZARDOUS AT A SUBTITLE C DISPOSAL FACILITY.
8. ANY DISTURBED AREAS AFFECTED AS A RESULT OF CONSTRUCTION ACTIVITIES WILL BE REPLACED TO PRE-CONSTRUCTION CONDITIONS. RESTORATION AT THE SITE WILL CONSIST OF REMOVAL OF TEMPORARY PARKING AREAS, STAGING AREAS, AND TEMPORARY CONTROLS.

0 30 60 120
SCALE: FEET

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING:

USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
0				

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name		
Professional Engineer's No.		
State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS

ARCADIS U.S., INC.

RADFORD ARMY AMMUNITION PLANT
WESTERN BURNING GROUND
RADFORD, VIRGINIA

PLANNED RESPONSE ACTION AREA FOR THE WBG

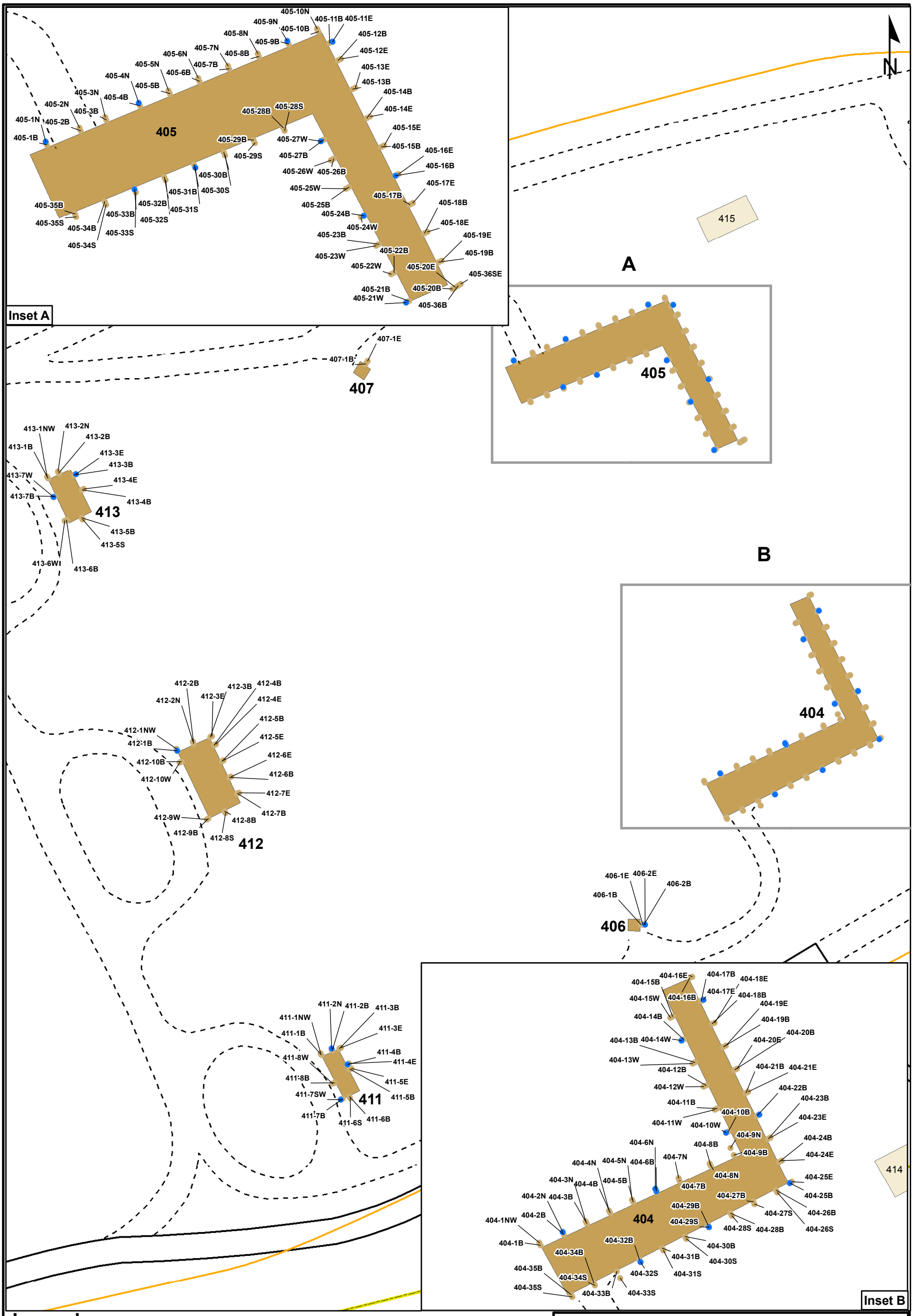
ARCADIS Project No.
GP08RAAP.4WBG.KGWBG

Date
November 2010

801 CORPORATE
Center Dr. Suite 300
Raleigh, North Carolina
(919) 854-1262

FIGURE

3-3



Legend

CONFIRMATION SAMPLE LOCATIONS

- XRF ONLY
- XRF AND LAB ANALYSES

- SITE FEATURES
- WALKWAY
- DIRT ROADS
- PAVED ROADS

- STUDY AREA
- INSTALLATION BOUNDARY

BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDING HISTORICALLY CONTAINED CONDUCTIVE FLOORING

NOTES:
B: EXCAVATION BASE
N: NORTH SIDE OF BUILDING
S: SOUTH SIDE OF BUILDING
E: EAST SIDE OF BUILDING
W: WEST SIDE OF BUILDING

LAB SAMPLES WERE ANALYZED FOR COPPER, LEAD, AND ASBESTOS.

0 75 150 Feet

GRAPHIC SCALE (MAIN DATA FRAME)

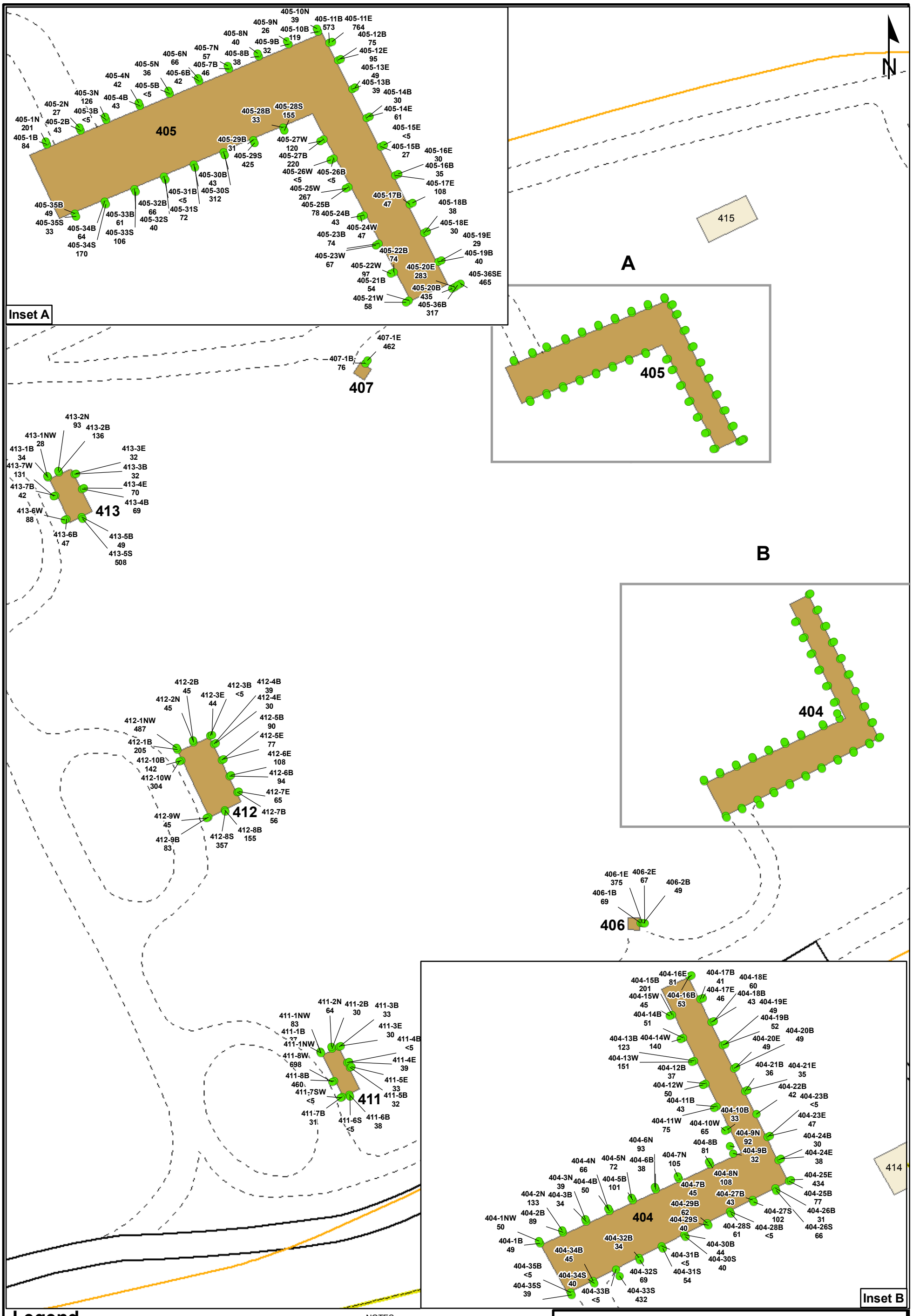
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

CONFIRMATION SAMPLE LOCATIONS
BAG LOADING AREA

ARCADIS

FIGURE
4-1

I:\Radford\GIS\ArcMap_MXD\080511_Report\Fig 4-1 ConfirmationSample_BLA.mxd - 8/24/2011 @ 10:21:13 AM



Legend

- XRF AND LAB RESULT BELOW RAL
- EXCAVATION EXPANDED DUE TO INITIAL SCREENING RESULT ABOVE RAL
- SITE FEATURES
- WALKWAY
- DIRT ROADS
- PAVED ROADS
- STUDY AREA
- INSTALLATION BOUNDARY

BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDING HISTORICALLY CONTAINED CONDUCTIVE FLOORING

412-2B 45 SAMPLE ID / XRF RESULT

NOTES:
B: EXCAVATION BASE
N: NORTH SIDE OF BUILDING
S: SOUTH SIDE OF BUILDING
E: EAST SIDE OF BUILDING
W: WEST SIDE OF BUILDING

SOIL SAMPLE RESULTS REPORTED IN MG/KG
RAL: REMEDIAL ACTION LEVEL
COPPER RAL: 11,533 MG/KG
MG/KG: MILIGRAMS PER KILOGRAM
ALL FINAL CONFIRMATION SAMPLES HAD CONCENTRATIONS BELOW TARGET RAL

0 75 150 Feet
GRAPHIC SCALE (MAIN DATA FRAME)

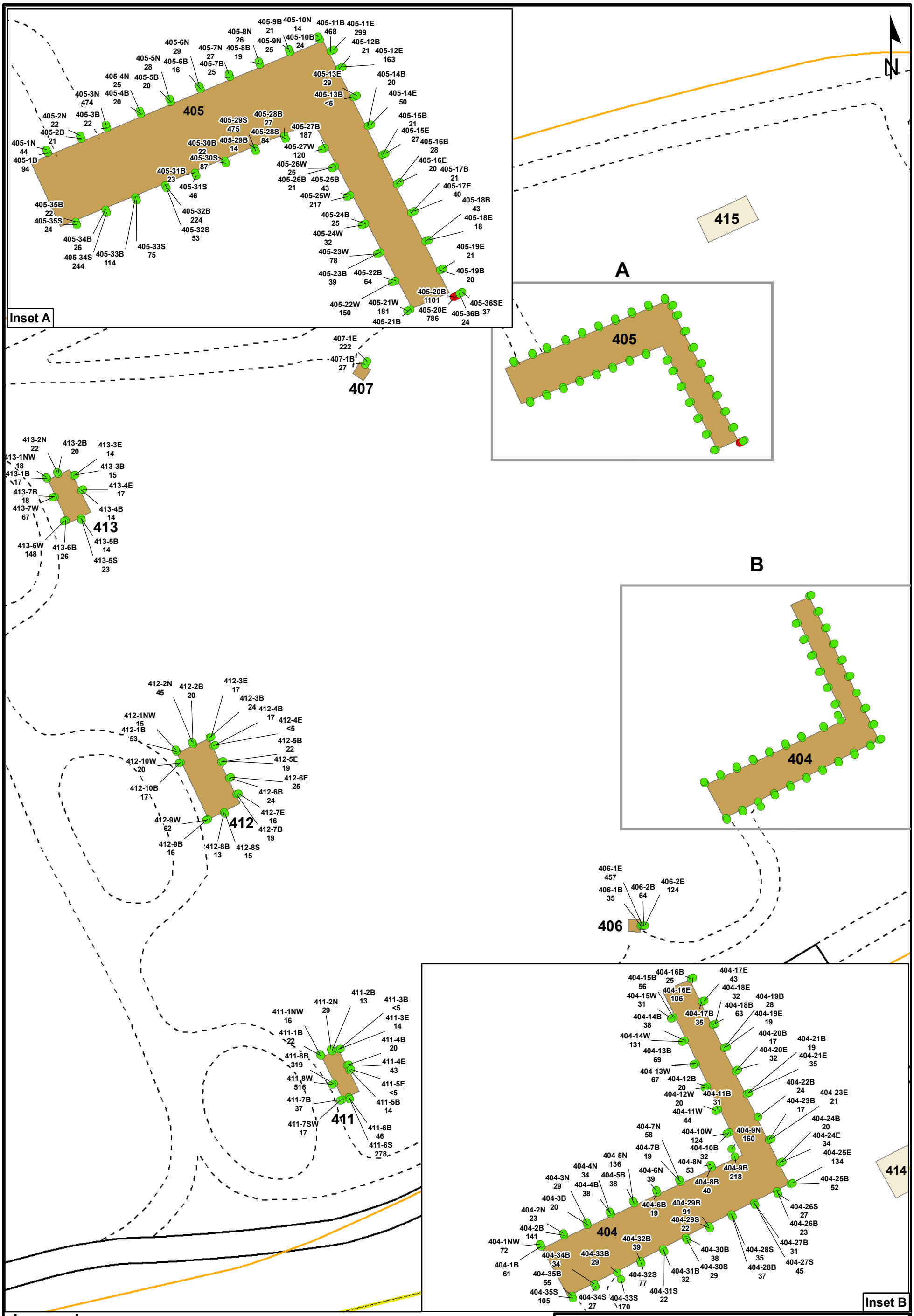
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

XRF SAMPLE RESULTS - COPPER
BAG LOADING AREA

ARCADIS

FIGURE
4-2A

I:\Radford\GIS\ArcMap_MXD\080511_Report\Fig 4-2A BLA_XRF_Cu.mxd - 9/9/2011 @ 9:50:53 AM



Legend

- XRF AND LAB RESULT BELOW RAL
- EXCAVATION EXPANDED DUE TO INITIAL SCREENING RESULT ABOVE RAL
- SITE FEATURES
- WALKWAY
- DIRT ROADS
- PAVED ROADS
- STUDY AREA
- INSTALLATION BOUNDARY

BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDING HISTORICALLY CONTAINED CONDUCTIVE FLOORING

412-2B 45 SAMPLE ID XRF RESULT

NOTES:
B: EXCAVATION BASE
N: NORTH SIDE OF BUILDING
S: SOUTH SIDE OF BUILDING
E: EAST SIDE OF BUILDING
W: WEST SIDE OF BUILDING

SOIL SAMPLE RESULTS REPORTED IN MG/KG
RAL: REMEDIAL ACTION LEVEL
LEAD RAL: 624 MG/KG
MG/KG: MILIGRAMS PER KILOGRAM
ALL FINAL CONFIRMATION SAMPLES HAD CONCENTRATIONS BELOW TARGET RAL

0 75 150 Feet
GRAPHIC SCALE (MAIN DATA FRAME)

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

XRF SAMPLE RESULTS - LEAD
BAG LOADING AREA

ARCADIS

FIGURE
4-2B

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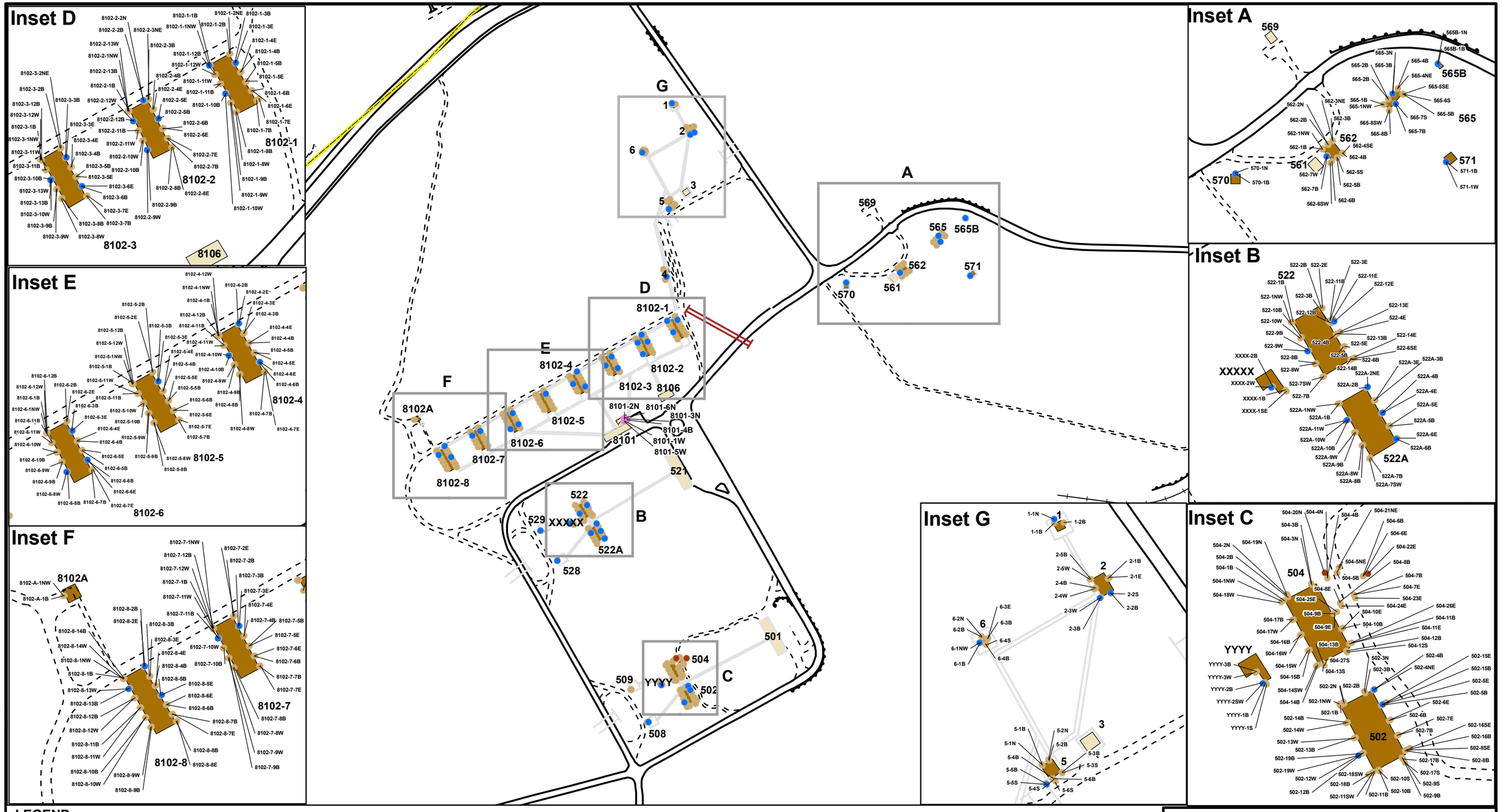

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

CONFIRMATION SAMPLE LOCATIONS
IGNITER ASSEMBLY AREA

ARCADIS

FIGURE
4-3

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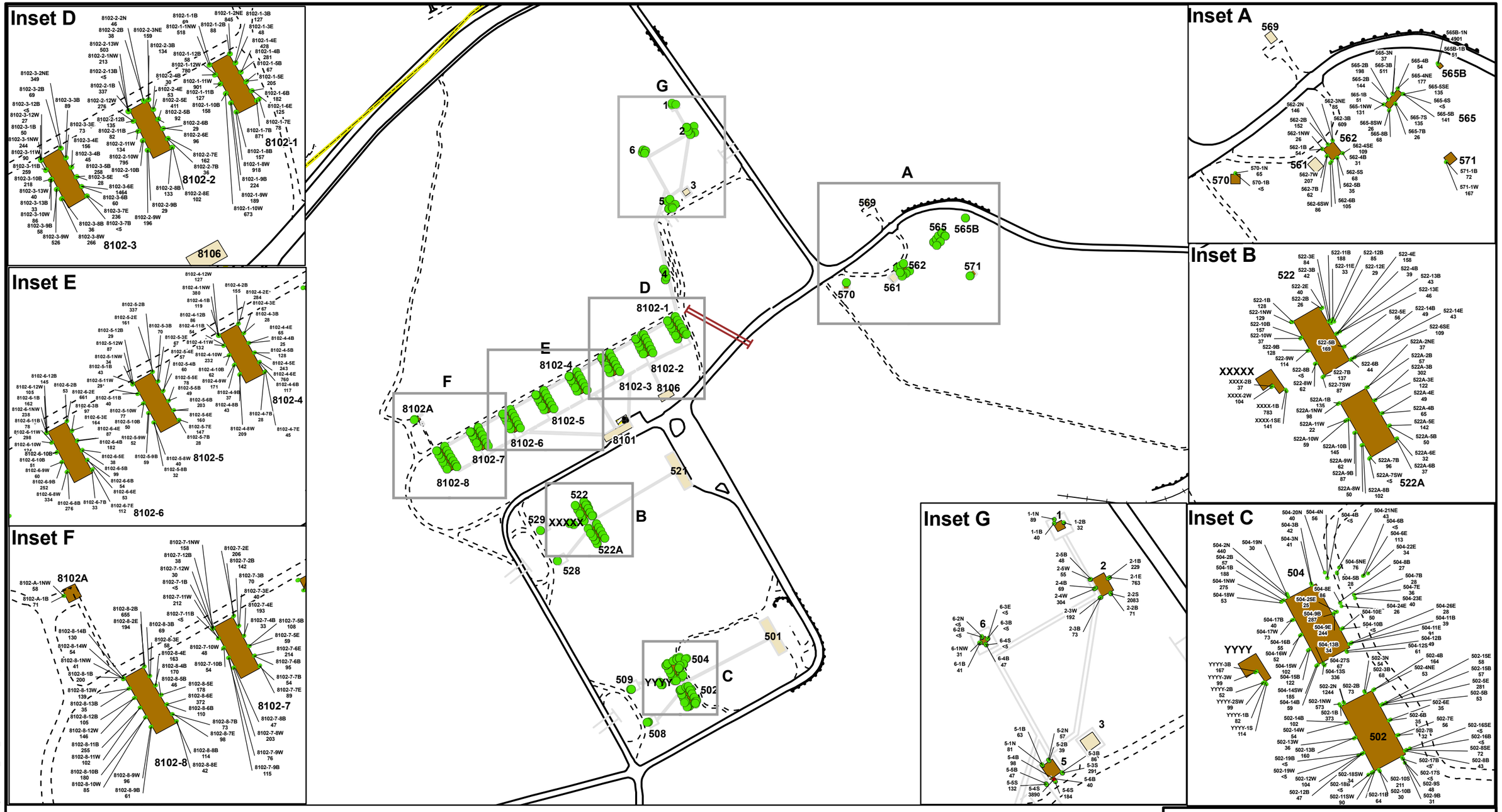
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8102-1
8102-2
8102-3
8106
Inset E
8102-4
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8102-6
Inset F
8102A
8102-7
8102-8
G
D
E
F
A
B
C
8102-1
8102-2
8102-3
8102-4
8102-5
8102-6
8102-7
8102-8
8102A
8106
8101
521
522
529
XXXXX
522A
528
501
504
YYYY
502
509
508
569
565
565B
562
571
570
561
Inset A
Inset B
Inset C
Inset G
XXXXX
YYYY
522
504
502
522A
LEGEND
XRF AND LAB RESULT BELOW RAL
EXCAVATION EXPANDED DUE TO INITIAL SCREENING RESULT ABOVE RAL
PAVED ROADS
DIRT ROADS
SITE FEATURES
RAIL SPUR
SURFACE WATER
CULVERT
STUDY AREA
INSTALLATION BOUNDARY
BUILDINGS
NO CONDUCTIVE FLOORING
BUILDING HISTORICALLY CONTAINED CONDUCTIVE FLOORING
504-1B SAMPLE ID
188 XRF RESULT
NOTES:
B: EXCAVATION BASE
N: NORTH SIDE OF BUILDING
S: SOUTH SIDE OF BUILDING
E: EAST SIDE OF BUILDING
W: WEST SIDE OF BUILDING
SOIL SAMPLE RESULTS REPORTED IN MG/KG
RAL: REMEDIAL ACTION LEVEL
COPPER RAL: 3,043 MG/KG
MG/KG: MILIGRAMS PER KILOGRAM
ALL FINAL CONFIRMATION SAMPLES HAD CONCENTRATIONS BELOW TARGET RAL
0
345
690
Feet
GRAPHIC SCALE
N
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA
XRF SAMPLE RESULTS - COPPER IGNITER ASSEMBLY AREA
ARCADIS
FIGURE
4-4A
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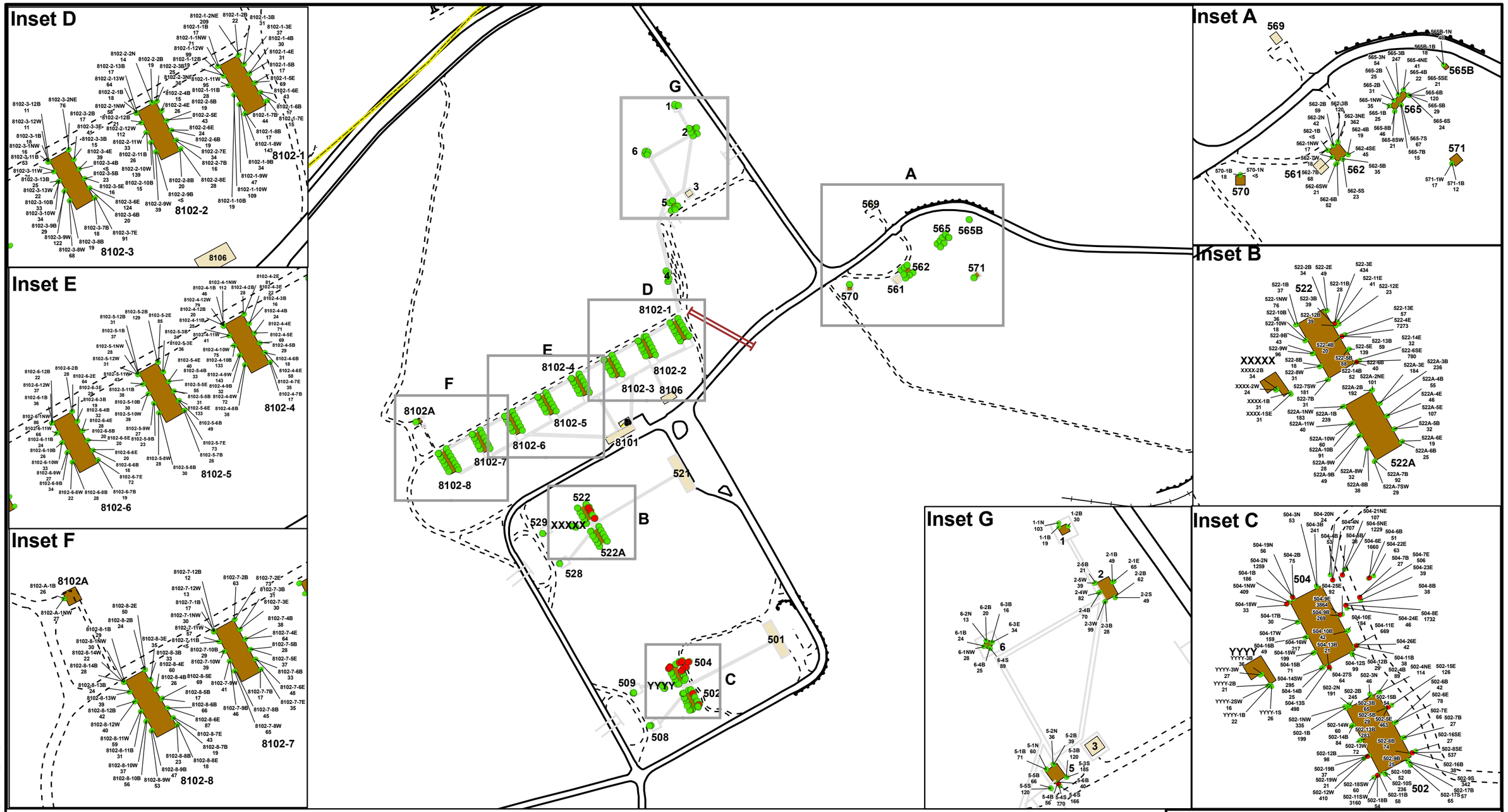


LEGEND

- XRF AND LAB RESULT BELOW RAL
- EXCAVATION EXPANDED DUE TO INITIAL SCREENING RESULT ABOVE RAL
- PAVED ROADS
- DIRT ROADS
- SITE FEATURES
- RAIL SPUR
- SURFACE WATER
- CULVERT
- STUDY AREA
- INSTALLATION BOUNDARY

BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDING HISTORICALLY CONTAINED CONDUCTIVE FLOORING

504-1B 186 SAMPLE ID / XRF RESULT

NOTES:
B: EXCAVATION BASE
N: NORTH SIDE OF BUILDING
S: SOUTH SIDE OF BUILDING
E: EAST SIDE OF BUILDING
W: WEST SIDE OF BUILDING

SOIL SAMPLE RESULTS REPORTED IN MG/KG
RAL: REMEDIAL ACTION LEVEL
LEAD RAL: 400 MG/KG
MG/KG: MILIGRAMS PER KILOGRAM
ALL FINAL CONFIRMATION SAMPLES HAD CONCENTRATIONS BELOW TARGET RAL

N

0 345 690 Feet

GRAPHIC SCALE

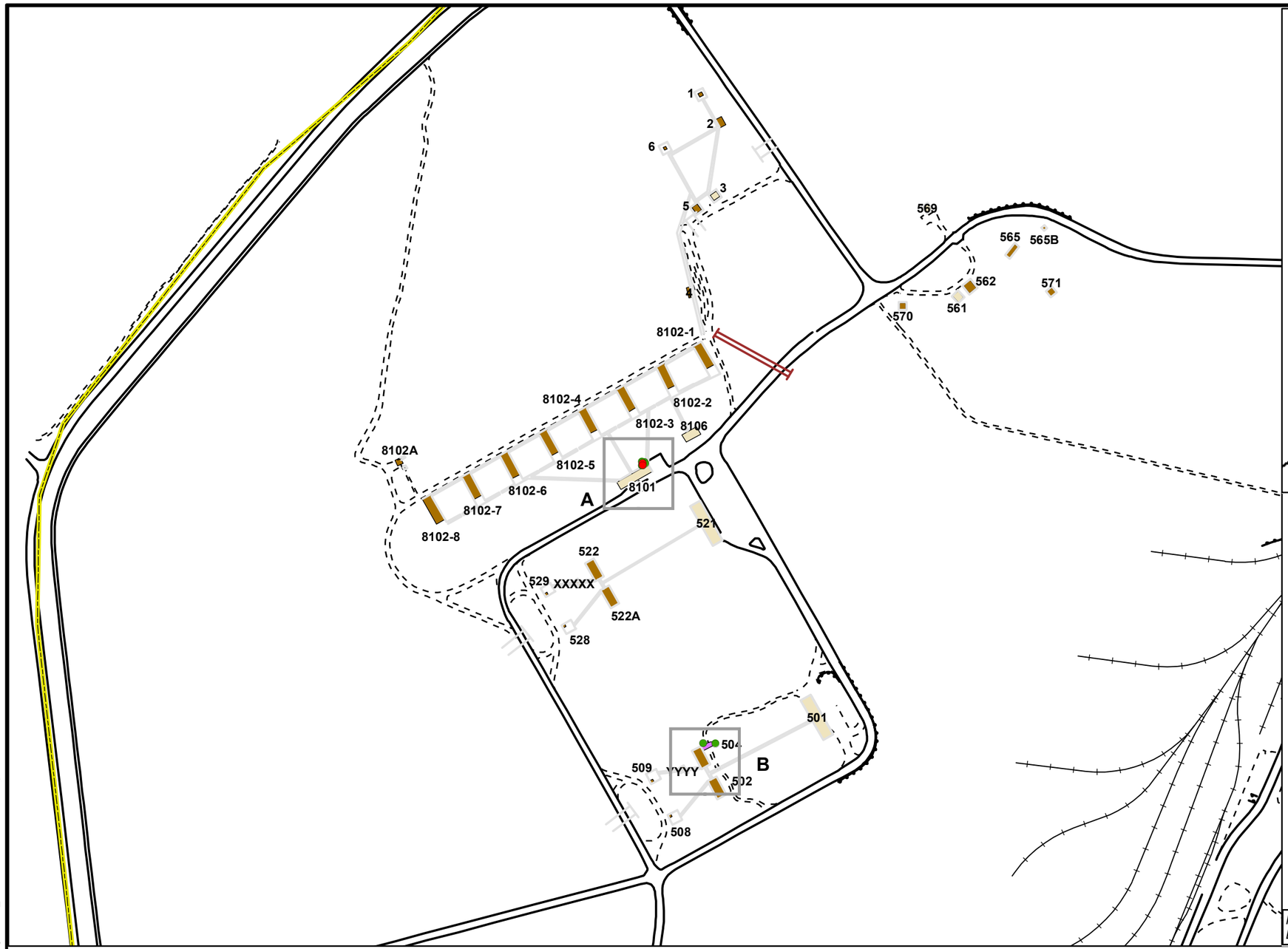
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

XRF SAMPLE RESULTS - LEAD IGNITER ASSEMBLY AREA

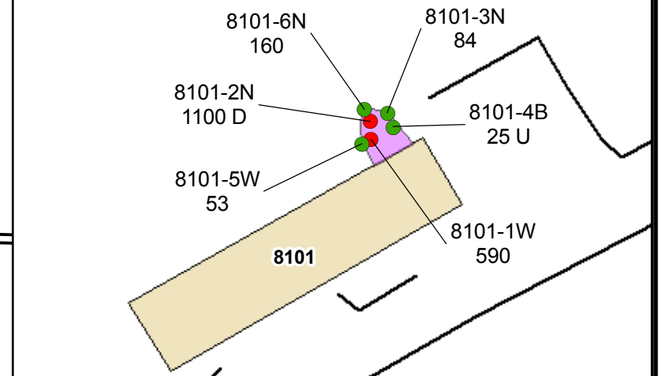
ARCADIS

FIGURE 4-4B

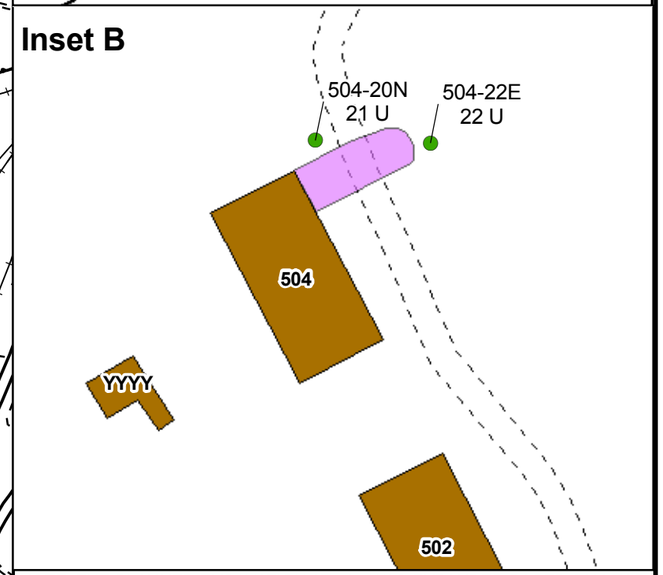
I:\Radford\GIS\ArcMap_MXD\080511_ReportFig 4-4B IAA_XRF_Pb.mxd - 9/9/2011 @ 12:00:52 PM



Inset A



Inset B



NOTE: THE PLANNED EXCAVATION AT 504 WAS EXPANDED BASED ON LEAD DETECTIONS IN THE INITIAL CONFIRMATION SAMPLES. SEE FIGURE 4-4B

LEGEND

- SAMPLE RESULT BELOW RAL
- EXCAVATION EXPANDED DUE TO INITIAL SAMPLING RESULT ABOVE RAL
- AROCLOR 1254 EXCAVATION AREA
- PAVED ROADS
- DIRT ROADS
- SITE FEATURES
- RAIL SPUR
- SURFACE WATER
- CULVERT
- STUDY AREA
- INSTALLATION BOUNDARY

BUILDINGS

- NO CONDUCTIVE FLOORING
- BUILDING HISTORICALLY CONTAINED CONDUCTIVE FLOORING

504-20N 21 U — SAMPLE ID AROCLOR 1254 RESULT

NOTES:
B: EXCAVATION BASE
N: NORTH SIDE OF BUILDING
S: SOUTH SIDE OF BUILDING
E: EAST SIDE OF BUILDING
W: WEST SIDE OF BUILDING

SOIL SAMPLE RESULTS REPORTED IN µG/KG
RAL: REMEDIAL ACTION LEVEL
AROCLOR 1254 RAL: 210 µG/KG
µG/KG: MICROGRAMS PER KILOGRAM
U: NOT DETECTED ABOVE REPORTING LIMIT
D: SAMPLE WAS DILUTED
ALL FINAL CONFIRMATION SAMPLES HAD CONCENTRATIONS BELOW TARGET RAL

0 345 690 Feet
N
GRAPHIC SCALE

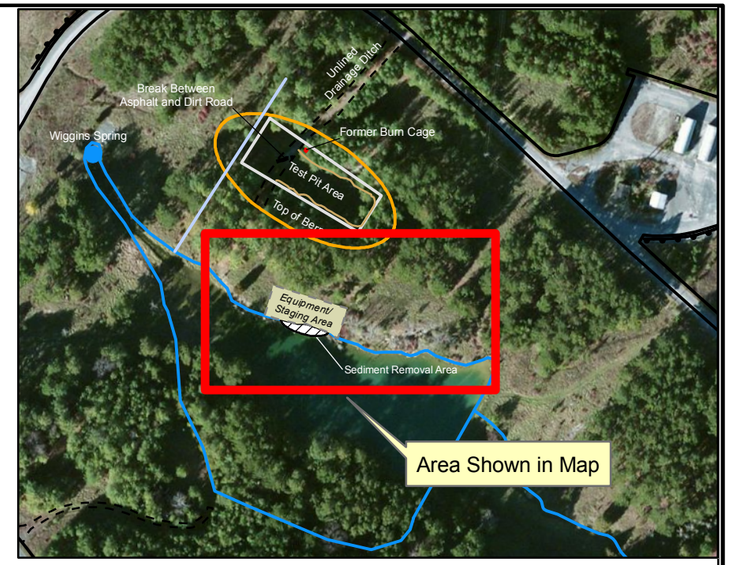
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

AROCLOR 1254 EXCAVATION AREA CONFIRMATION SAMPLING RESULTS IGNITER ASSEMBLY AREA

ARCADIS

FIGURE 4-5

I:\Radford\GIS\ArcMap_MXD\080511_Report\Fig 4-5 IAA_Aroclor1254.mxd - 9/9/2011 @ 4:24:52 PM



WBG-SD9
Chromium: 130 U
Lead:32.5

WBG-SD9
Chromium: 33.5
Lead:26.4

WBG-SD10
Chromium: 147 U
Lead:21.5

WBG-SD1
Chromium: 144 U
Lead:30.5

WBG-SD1
Chromium: 36.1
Lead:25.8

WBG-SD2
Chromium: 127 U
Lead:23

WBG-SD3
Chromium: 162 U
Lead:16

WBG-SD4
Chromium: 155 U
Lead:24.5

WBG-SD4
Chromium: 27.9
Lead:24.7

WBG-SD8
Chromium: 176 U
Lead:37

WBG-SD8
Chromium: 33.8
Lead:30

WBG-SD7
Chromium: 173 U
Lead:288

WBG-SD6
Chromium: 176 U
Lead:45.5

WBG-SD6
Chromium: 63
Lead:34.6

WBG-SD5
Chromium: 170 U
Lead:57

Equipment/ Staging Area

Sediment Removal Area

LEGEND

- SEDIMENT SAMPLE LOCATION BELOW RAL
- SEDIMENT SAMPLE LOCATION ABOVE RAL
- CHROMIUM → ⓘ ← LEAD

CHROMIUM RAL: 1,358 MG/KG
LEAD RAL: 1,100 MG/KG

- EQUIPMENT/STAGING AREA
- SEDIMENT REMOVAL AREA
- TOP OF BERM
- FORMER BURN CAGE
- BREAK BETWEEN ASPHALT AND DIRT ROAD
- UNLINED DRAINAGE DITCH
- TEST PIT AREA (1999 RI)
- SURFACE WATER
- PAVED ROADS
- DIRT ROADS
- BUILDINGS
- STUDY AREA
- INSTALLATION BOUNDARY

NOTES:
GREY BOXES REPRESENT LAB RESULTS
WHITE BOXES REPRESENT XRF RESULTS
U: NOT DETECTED ABOVE REPORTING LIMIT
SEDIMENT SAMPLE RESULTS REPORTED IN MG/KG
RAL: REMEDIAL ACTION LEVEL
MG/KG: MILIGRAMS PER KILOGRAM

N

0 30 60 Feet

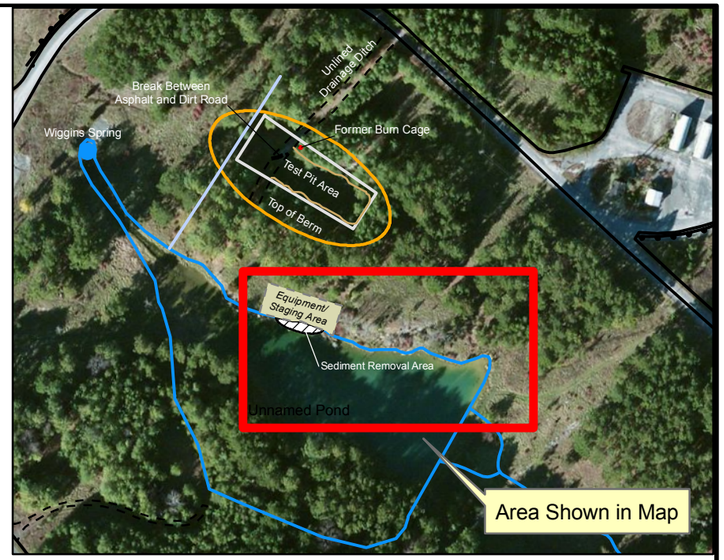
RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

WBG CONFIRMATION SAMPLE LOCATIONS AND RESULTS

ARCADIS

FIGURE
5-1

I:\Radford\GIS\ArcMap_MXD\080511_Report\WBG_XRF_SED2011_v2.mxd - 8/24/2011 @ 12:08:27 PM



Equipment/ Staging Area

Sediment Removal Area

WBG-SWEP01
Chromium: 0.916 J
Lead:16.9

Unnamed Pond

WBG-SWOF1
Chromium: 0.778 J
Lead:8.89

LEGEND

- SURFACE WATER SAMPLE LOCATIONS
- EQUIPMENT/STAGING AREA
- SEDIMENT REMOVAL AREA
- PAVED ROADS
- DIRT ROADS
- TOP OF BERM
- FORMER BURN CAGE
- BREAK BETWEEN ASPHALT AND DIRT ROAD
- UNLINED DRAINAGE DITCH
- TEST PIT AREA (1999 RI)
- SURFACE WATER
- BUILDINGS
- STUDY AREA
- INSTALLATION BOUNDARY

NOTES:
SURFACE WATER SAMPLE RESULTS REPORTED IN µG/L
GREY BOXES REPRESENT LAB RESULTS
J: INDICATES AN ESTIMATED VALUE
µG/L: MICROGRAMS PER LITER

N

0 30 60 Feet

RADFORD ARMY AMMUNITION PLANT
RADFORD, VA

WBG SURFACE WATER SAMPLE LOCATIONS

ARCADIS

FIGURE **5-2**

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Appendix A

Photo Log for BLA and IAA Response Actions

ARCADIS

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

Bag Loading Area Building 404 prior to removal action. October 2009.

IAA Building 8102-1 prior to removal action.. October 2009.

View of conductive flooring material inside BLA Building 404. October 2009

View of conductive flooring stains on sidewalk at BLA Building 405. October 2009.

ARCADIS

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

Typical IAA building prior to removal action. August 2008.

Close-up view of conductive flooring material. August 2008.

View of IAA Building 1 from October 2009.

Winter Environmental crew erecting asbestos abatement enclosure at Building 1. January 2011.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

Asbestos abatement enclosure constructed around Building 8101-1 during conductive flooring removal. February 2011.

Inside asbestos abatement enclosure during conductive flooring removal event. February 2011.

ARCADIS

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

Asbestos abatement enclosure set up at BLA Building 404. February 2011.

Typical safety signs erected within BLA and IAA work areas. February 2011. .

View of typical decontamination chamber/conductive flooring removal work area enclosure entrance.

View of abatement crew member prior to entering conductive flooring removal enclosure.

View of typical air sampling (asbestos) cartridge used during abatement work. This sample location was inside the entrance/exit to a decontamination unit. January 2011.

Digital manometer used to demonstrate negative air pressure in asbestos containment during conductive flooring removal event. February 2011.

View of conductive flooring inside Building 404. January 2011.

View of above (Building 404) after conductive flooring removal. February 2011.

View of IAA Building 565B from August 2008.

View of IAA building 565B following conductive flooring removal. January 2011.

Conductive flooring inside Building 8102-4. August 2008.

View of above (Building 8102-4) following conductive flooring removal. February 2011.

View of IAA Building 1 from August 2008. most of the conductive flooring was buried underneath soil and tree leaves.

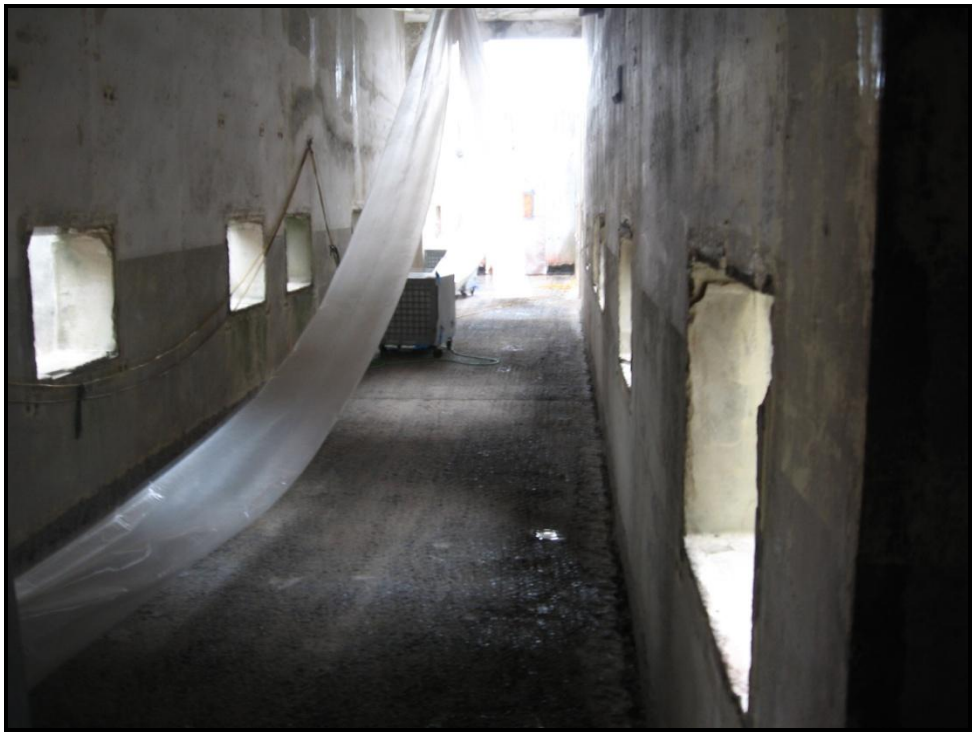
IAA Building 1 following conductive flooring removal. February 2011.

Completed flooring removal at IAA Building XXXX. March 2011.

Completed flooring removal at IAA Building 565. February 2011.

Typical IAA building section prior to conductive flooring removal. January 2011.

Typical IAA building section following conductive flooring removal. February 2011.



View inside BLA Building 405 following conductive flooring removal. March 2011.

View of second story floor in BLA Building 405 following conductive flooring removal. March 2011.

Asbestos containment unit set up at BLA Building 412. March 2011.

Completed conductive flooring removal at BLA Building 412. March 2011.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

Specialized equipment used for conductive flooring removal at BLA Buildings. February 2011.

Vacuum truck and collection tank used to support conductive flooring removal equipment at the BLA. March 2011.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

View of vacuum box used for BLA conductive flooring removal at decontamination pad. The 4,900 gallon temporary holding tank for filtered water is visible in background..

View of filter equipment skid used to filter decontamination wash water and BLA flooring removal process water.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

View of excavation equipment utilized for BLA and IAA soil removal actions.

View of typical area where the excavations were expanded beyond planned 2-ft boundary due to surface staining from conductive flooring.

View of excavation at IAA Building 565. March 2011.

View of excavation at IAA Building 8102-1 following rainfall. March 2011.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

View of completed excavation for Aroclor 1254 action area at IAA. March 2011.

View of excavation activities at BLA Building 405. March 2011.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

All conductive flooring waste was placed in double-lined and labeled asbestos disposal bags.

All soil was placed in double lined and covered roll-off boxes.

View of backfill material being delivered to the site in April 2011.

View of completed backfill activities at BLA Building 404. April 2011.

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

View of gravel road improvements constructed near IAA Building 1. March 2011.

Area where excavation was expanded at IAA Building 504 based on confirmation samples. March 2011.

Completed backfill and spread grass seed/straw at Building 8101-5. April 2011.

Completed backfill and spread grass seed/staw at Building 565. April 2011.

Completed excavation at Building 404. April 2011.

Completed backfill and site grading at BLA Building 405. April 2011.

Completed backfill and grass seed/straw spread at Building 404. April 2011.

Completed backfill and grass/straw spread at Building 405. April 2011.

View of re-established ground cover at Building 522A. May 2011.

View of re-established ground cover at IAA Building 8101-4. May 2011.

Appendix B

Certificates of Visual Inspection for BLA and IAA Conductive Flooring Removal

ARCADIS
Infrastructure, environment, buildings

Date: 2-23-11

Project Name: Bag loading Area Project Number: 6P08RAAP.40LA.KGBLA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 405 - Flooring - 9,850 S.F.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 2-23-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 2-23-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-4-11

Project Name: Bag Loading Area Project Number: GP08RAAC.4BLA.KGBLA/

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 404 - Flooring - ~9850 sf

ASBESTOS ABATEMENT CONTRACTOR

BY:

Smith

(Signature) 3-4-11 (Date)

Gabe Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

Erling Johnson

(Signature) 3-4-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-7-11

Project Name: Bag Loading Area Project Number: 6P08RAAP48LA. K6BLA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 406 - Flooring - 100 sf.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 3-7-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 3-7-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-5-11

Project Name: Bag Loading Area Project Number: GP08 RAAP.4BLA.16BLA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 407 - Flooring - ≈ 100 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 3-5-11 (Date)

Gabe Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

Erling Johnson (Signature) 3-5-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-7-11

Project Name: Bag Loading Area Project Number: GP08RAAP.4BCA.KGBLA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 411 - Flooring - ~ 760 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 3-7-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 3-7-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-5-11

Project Name: Bag Loading Area Project Number: GPOBRAAP.4/BLA.16/BLA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 412 - Flooring - ≈ 1800 sf

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 3-5-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 3-5-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-7-11

Project Name: Bag Loading Area Project Number: GP08RAAP.4BLA.1CGBLA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 413 - Flooring - ≈ 760 s.f.

ASBESTOS ABATEMENT CONTRACTOR

BY:

Smith

(Signature) 3-7-11 (Date)

Gabe Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

Erling Johnson

(Signature) 3-7-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-6-11

Project Name: Radford Ammunition Plant Project Number: GP08RAAP.4IAA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Building #1 Flooring ≈ 300 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-6-11 (Date)

Gabe Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

Kevin A Hardy (Signature) 1-6-11 (Date)

Kevin A Hardy
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-6-11

Project Name: Radford Amunition Plant Project Number: 60 SRAAP. 41AA.KG1AH

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Building #2 Flooring ≈ 600 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) (Date)

Gabe Smith

(Printed Name)

Superisor

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

Kevin A Hardy 1-6-11

(Signature) (Date)

Kevin A Hardy

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-12-11

Project Name: Ignitere Assembly Project Number: 60BRAAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Building #4 Flooring ± 630 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

Gabe Smith
(Signature)

1-12-11
(Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature)

1-12-11
(Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-11-11

Project Name: Igniter Assembly Project Number: 60080AAP.41AA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Building # 5 Flooring ≈ 360 sf

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-11-11 (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-11-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-4-11

Project Name: Igniter Assembly Project Number: 60288AAP.4IAA.EGIA1

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Building 6 - Flooring - 100 S.F.

ASBESTOS ABATEMENT CONTRACTOR

BY:

[signature] 3-4-11

(Signature) (Date)

Gabe Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

[signature] 3-4-11

(Signature) (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-3-11

Project Name: Igniter Assembly Project Number: 60280AAP.4JAA, 60IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 502 - Flooring - ≈ 6,000 S.F.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 2-3-11 (Date)

Gabriel Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 2-3-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-2-11

Project Name: Igniter Assembly Project Number: 60108AAP.41AA.K61AA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 504 - Flooring - 1135 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) (Date)

Gabe Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 2-2-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-26-11

Project Name: Igniter Assembly Project Number: 6P08RAAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 508 - Flooring - ≈ 100 SF.

ASBESTOS ABATEMENT CONTRACTOR

BY:

Smith

(Signature) 1-26-11 (Date)

Gabriel Smith

(Printed Name)

Supervisor

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-26-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-25-11

Project Name: Igniter Assembly Project Number: GP08AAP.41AA.K61AA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 509 - Flooring - ~ 100 s.f.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-25-11 (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-25-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-25-11

Project Name: Igniter Assembly Project Number: 6P08EAAP.4IAA, K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 522 – Flooring - ≈ 1100 S.F.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-25-11 (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-25-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-31-11

Project Name: Igniter Assembly Project Number: 60 08 AA P.41 AA.K6 1A A

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 522A - Flooring - 1100 S.F.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-31-11 (Date)

Gabriel Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-31-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-24-11

Project Name: Igniter Assembly Project Number: 60608RAAP.4IAA.K6IAH

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg # 528 - Flooring - 100 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

Smith

(Signature)

1-24-11

(Date)

Gabriel Smith

(Printed Name)

Supervisor

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature)

1-24-11

(Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-21-11

Project Name: Igniter Assembly Project Number: 60280AAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. #529 - Flooring - ≈ 100 SF.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-21-11 (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-21-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-24-11

Project Name: Igniter Assembly Project Number: 6P08RAAP.4IAA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. # XXXXX - Flooring - ~ 450 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-24-11 (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-24-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-31-11

Project Name: Igniter Assembly Project Number: GP08RAAP.4IAA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. YYYYY - Flooring - 450 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-31-11 (Date)

Gabriel Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-31-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-21-11

Project Name: Igniter Assembly Project Number: GP08RAAP.4IAA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 565 - Flooring - ≈ 700 S.F

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-21-11 (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-21-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-20-11

Project Name: Ignitor Assembly Project Number: GP08RAAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg 565 B - Flooring - 100 sf.

ASBESTOS ABATEMENT CONTRACTOR

BY: [signature] 1-20-11

(Signature) (Date)

Gabe Smith

(Printed Name)

Supervisor

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

[signature] 1-20-11

(Signature) (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-19-11

Project Name: Ignition Assembly Project Number: 60108AAP.41AA.KG1AA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 571 Flooring ~ 400 SF.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1-19-11 (Date)

Gabe Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-19-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-18-11

Project Name: Igniter Assembly Project Number: 60 08RAAP.4IAA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg # 562 Flooring ≈ 550 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1/18/11 (Date)

Gabe Smith
(Printed Name)

Super
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-18-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 1-13-11

Project Name: Igniter Assembly Project Number: GP0 8RAAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 570 - Flooring ≈ 400 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 1/13/11 (Date)

Gabe Smith
(Printed Name)

Supv
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 1-13-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-7-11

Project Name: Igniter Assembly Project Number: 60288AAP.4IAA.K6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 9102-1 - Flooring ≈ 1200 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

Smith

(Signature) 2-7-11 (Date)

Gabriel Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

Erling Johnson

(Signature) 2-7-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-7-11

Project Name: Igniter Assembly Project Number: 60288AA.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8102-2 - Flooring ≈ 1200 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 2-7-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 2-7-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-10-11

Project Name: Igniter Assembly Project Number: 60208AAP.4IHA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8102-3 - Flooring - ≈ 1200 SF.

ASBESTOS ABATEMENT CONTRACTOR

BY:

[signature] 2-10-11

(Signature) (Date)

Gabriel Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

[signature] 2-10-11

(Signature) (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-14-11

Project Name: Igniter Assembly Project Number: 6P08RAAP.4IAA.K6JAA

CERTIFICATION OF VISUAL INSPECTION:

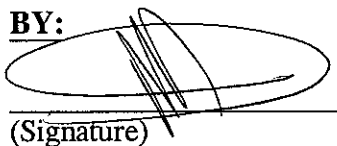
The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg 8102-4 - Flooring - ≈ 1200 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:



(Signature) 2/14/11 (Date)

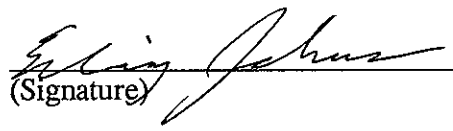
Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:



(Signature) 2-14-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-16-11

Project Name: Igniter Assembly Project Number: GP08RAAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8107-5 - Flooring - ≈ 1200 S.F.

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 2-16-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 2-16-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 2-17-11

Project Name: Igniter Assembly Project Number: 6P08AAP.4IAA.IC6IAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8102-6 - Flooring - 1200 SF.

ASBESTOS ABATEMENT CONTRACTOR

BY:

[signature] 2-17-11
(Signature) (Date)

Gabriel Smith
(Printed Name)

Supervisor
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

[signature] 2-17-11
(Signature) (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-2-11

Project Name: Igniter Assembly Project Number: GP08RAAP.4IAA.KGIAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8102-7 - Flooring ≈ 1200 s.f.

ASBESTOS ABATEMENT CONTRACTOR

BY:

[signature] 3-2-11

(Signature) (Date)

Gabe Smith

(Printed Name)

Superintendent

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

[signature] 3-2-11

(Signature) (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-8-11

Project Name: Igniter Assembly Project Number: GP08RAAP.41AA.KGEAA

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8102-8 - Flooring ≈ 1200 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) (Date)

Gabe Smith

(Printed Name)

Supervisor

(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 3-8-11 (Date)

Erling Johnson

(Printed Name)

Project Monitor

(Printed Title)

ARCADIS
Infrastructure, environment, buildings

Date: 3-3-11

Project Name: Igniter Assembly Project Number: 60108AAP.4JAA.EGIA A

CERTIFICATION OF VISUAL INSPECTION:

The contractor hereby certifies that he/she has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found NO dust, debris or residue.

WORK AREA DESCRIPTION

Bldg. 8102-A - Flooring - 225 SF

ASBESTOS ABATEMENT CONTRACTOR

BY:

(Signature) 3-3-11 (Date)

Gabe Smith
(Printed Name)

Superintendent
(Printed Title)

PROJECT MONITOR CERTIFICATION

The Project Monitor hereby certifies that he/she has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough, and to the best of his/her knowledge and belief, the Contractor's Certification above is a true and honest one.

BY:

(Signature) 3-3-11 (Date)

Erling Johnson
(Printed Name)

Project Monitor
(Printed Title)

Appendix C

Waste Disposal Manifests and Weigh Tickets for BLA and IAA Conductive Flooring Waste

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-01-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	CM	~~7~~ 35yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title: H.R.BLANKENSHIP, TRANSPORTATION ANALYST
Signature: H.R. Blankenship
Month Day Year: 1 / 20 / 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title: JAN M. Pruitt Driver
Signature: Jan M. Pruitt
Month Day Year: 1 / 20 / 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title
Signature
Month Day Year
Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
N 36°33.805
W 079° 18.653

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ ☒ 556

Printed/typed name & title: Tom Wade Landfill Mgr
Signature
Month Day Year: 1 27 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 291188
Date: 01/21/2011
Account No: 1261751
Service Order No: 505086

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

PO/Release No: -001
Vehicle No: 269 JAN PRUITT

Gross	56,240	lb	Inbound	4:58 pm
Tare	35,040	lb	Outbound	7:29 am
Net	21,200	lb	10.600 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-02-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	502	CT	14 TONS

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	1	25	11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
J. KENNETH TALLEY - DRIVER	J. Kenneth Talley	1	25	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
N 36°33.803
W079°18.660

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ← North → El 538

Printed/typed name & title	Signature	Month	Day	Year
Tom Wade Landfill Mgr		1	27	11

GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 291621
Date: 01/25/2011
Account No: 1261751
Service Order No: 505606

PO/Release No: -001

Billing Status: ACTIVE

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

Vehicle No: 211 KEN TALLEY

Gross	62,920	lb	Inbound	3:07 pm
Tare	33,420	lb	Outbound	3:08 pm
Net	29,500	lb	14.75 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-03-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	526	C.T.	50 CU YD

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST		2	3	11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
J. KENNETH TALLEY DRIVER	J. Kenneth Talley	2	3	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N 36° 33.802 W 079° 18.644 554

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows	Audrie Meadows	2	11	11

GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 292656
Date: 02/03/2011
Account No: 1261751
Service Order No: 506597

PO/Release No: -001

Billing Status: ACTIVE

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

Vehicle No: 211 Unassigned

Gross	69,040	lb	Inbound	3:02 pm
Tare	41,440	lb	Outbound	3:03 pm
Net	27,600	lb	13.80 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-04-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.9 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7668

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1089
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	534	CF	50 CU YD
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	2	8	11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
JACK KENNETH TALLEY DRIVER	Jack Kenneth Talley	2	8	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1089
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.802 079° 18.647 545

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows	Audrie Meadows	2	11	11

GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 293130
Date: 02/09/2011
Account No: 1261751
Service Order No: 507044

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 211 KEN TALLEY

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

Gross	68,060	lb	Inbound	2:25 pm
Tare	41,440	lb	Outbound	2:26 pm
Net	26,620	lb	13.31 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-05-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-633-7669

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	DT	50 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	02.09.11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
ISAAC GARY ARWOOD	Isaac Gary Arwood	2-9-10

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.805 079° 18.647 554

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	2 11 11

GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 293305
Date: 02/09/2011
Account No: 1261751
Service Order No: 507119

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 211 Isaac Gray

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

Gross	66,400	lb	Inbound	3:26 pm
Tare	41,440	lb	Outbound	3:28 pm
Net	24,960	lb	12.48 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-08-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1089 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	537	CT	50 cu yds
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	02.17.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JACK KENNETH TALLEY DRIVER	Jack Kenneth Talley	2-17-11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1089
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space D 36.33.990 Cell III A W 079.18.1019 EL 552

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Tenitha Valentine	Tenitha B. Valentine	2-19-11

GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 294291
Date: 02/17/2011
Account No: 1261751
Service Order No: 508123

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

PO/Release No: -001
Vehicle No: 211 KEN TALLEY

Gross	71,400	lb	Inbound	2:51 pm
Tare	41,440	lb	Outbound	2:52 pm
Net	29,960	lb	14.980 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-10-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.9 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	526	CT	60 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	2-22-11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Isaac Gray Driver	Isaac Gray	2-22-11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
N 36,33,791 W 079,18,490 EL 548
Cell IIIA

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ___ North ___ El ___

Printed/typed name & title	Signature	Month Day Year
Tenisha Valentine	Tenisha Valentine	2-23-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 294869
Date: 02/22/2011
Account No: 1261751
Service Order No: 508513

PO/Release No: 0

Billing Status: ACTIVE

Vehicle No: 211 Isaac Gray

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

Gross	69,440	lb	Inbound	3:47 pm
Tare	41,440	lb	Outbound	3:48 pm
Net	28,000	lb	14.00 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-11-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7668

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	527	CT	50 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANPORTATION ANALYST	H R Blankenship	02. 23 .2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
ISAAC COREY driver	Isaac Dez	02-23 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
N36° 33. 793
W079° 18. 682

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 550

Printed/typed name & title	Signature	Month Day Year
Tom Wade Landfill Mgr		02/23/11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295030
Date: 02/23/2011
Account No: 1261751
Service Order No: 508620

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 211 Isaac Gray

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

Gross	55,780	lb	Inbound	3:56 pm
Tare	41,440	lb	Outbound	3:57 pm
Net	14,340	lb	7.17 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-12-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7686

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials

6. Containers No. 1 Type CT

7. Total quantity m³ (yd³) 50 yd

FRIABLE ASBESTOS
RQ ASBESTOS 9 NA2212 PG III

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title: H. R. BLANKENSHIP, TRANSPORTATION ANALYST
Signature: H R Blankenship
Month Day Year: 03 08 11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)
Printed/typed name & title: Isaac Gray Driver
Signature: Isaac Gray
Month Day Year: 3- 8- 11
Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)
Printed/typed name & title
Signature
Month Day Year
Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36°33.795 079°18.661 554

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates East North El.

Printed/typed name & title: Audrie Meadows
Signature: Audrie Meadows
Month Day Year: 3 11 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296533
Date: 03/09/2011
Account No: 1261751
Service Order No: 510004

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

PO/Release No: -001
Vehicle No: 211 Isaac Gray

Gross	74,080	lb	Inbound	7:21 am
Tare	41,440	lb	Outbound	7:22 am
Net	32,640	lb	16.320 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-13-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7686

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	1	CY	50 yd³

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03.23.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
O. T. L. MARTIN JR.	O T L Martin	03.23.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.795 79.18.681 575

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadors	Audrie Meadors	3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298522
Date: 03/23/2011
Account No: 1261751
Service Order No: 511718

Capitol Environmental
NRU Baggind Plant Road
Dublin VA

PO/Release No: -001

Vehicle No: 260 LEE MARTIN

Gross	72,800	lb	Inbound	3:23 pm
Tare	43,600	lb	Outbound	3:23 pm
Net	29,200	lb	14.600 tn	

Material	Qty	Unit/S	Materials	Total

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4232-14-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4232

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23249-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	CT	30 yd³
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	04.18.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Edward Lewis-Roland DRIVER	Edward Lewis Roland	04.18.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell III A N 36.33.802 W 79.18.602

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 574

Printed/typed name & title	Signature	Month Day Year
Tanisha Valentine	Tanisha Valentine	4-28-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 301583
Date: 04/18/2011
Account No: 1261751
Service Order No: 514355

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 211 Eddie Roland

Capitol Environmental
NRU Bagging Plant Road
Dublin VA

Gross	56,080	lb	Inbound	3:46 pm
Tare	41,440	lb	Outbound	3:59 pm
Net	14,640	lb	7.32 tn	

Material	Qty	Unit/$	Materials	Totals

Appendix D

Waste Disposal Manifests for Waste Water

Facility 6768

Spirit Services, Inc.
15801 Lockwood Road
Williamsport, MD 21795
Phone: (301)223-1251
Fax: (301)223-1253

Manifest No. 3-14-11-A
Inv# 26075

Non-Hazardous Waste Manifest

Generator: New River Storage Unit
0.8 miles South of Rt1030& 747
Dublin, VA 24084

Date: 3-10-11
Phone No.: 540-639-7688
EPA ID No.: N/A
Contact: H.R. Blankenship

I certify that the materials described below are properly described, classified, packaged, marked and labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

Date: 03.14.11 Authorized Signature: W. Vian For ABC MATS

Description of Waste	Form (circle one)	Quantity	Units (circle one)	Container
Wash Water	~~Solid~~ Liquid ~~Sludge~~	3957	Gallons ~~Pounds~~ ~~Tons~~ ~~Cu. Yards~~	Vac tanker

Transporter: Freehold Cartage, Inc
PO Box 5010
Freehold, NJ 07728
Tractor No.: 872

Phone: 732-540-462-1001
EPA ID No.: N/A
Contact: Tom Scuderi
Trailer No.: 172

I certify that the specified waste was transferred in a registered (licensed) vehicle to the treatment, storage, or disposal facility named below and was accepted.

Pick Up Driver's Signature: [signature] Date: 03.14.11

Delivering Driver's Signature: [signature] Date: 3/14/11

Facility: Spirit Services Inc
1602 E Elliott Pkwy
Williamsport MD 21795

Comments: Profile on File & Approved

I certify that the Transporter above delivered the specified material to this facility and it was accepted.

Date: 03.14.11 Authorized Signature: H.R. Blankenship

White: Receiving Facility Yellow: Return to Generator Pink: Transporter Retain Goldenrod: Generator Retain

Spirit Services, Inc.
15801 Lockwood Road
Williamsport, MD 21795
Phone: (301)223-1251
Fax: (301)223-1253

Manifest No. 41811

Profile on file and approved

Non-Hazardous Waste Manifest

Generator: New River Storage Unit
0.8 miles South of Rt1030& 747
Dublin, VA 24084

Date: 3-21-2011
Phone No. 540-639-7688
EPA ID No. N/A
Contact H.R. Blankenship

I certify that the materials described below are properly described, classified, packaged, marked and labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

Date 04.18.2011 Authorized Signature W.H. Co. For RFAP

Description of Waste	Form (circle one)	Quantity	Units (circle one)	Container
Wash Water	~~Solid~~ Liquid ~~Sludge~~	1831	Gallons ~~Pounds~~ ~~Tons~~ ~~Cu. Yards~~	Vac tanker

Transporter: Freehold Cartage, Inc
PO Box 5010
Freehold, NJ
Tractor No. 82

Phone 540-462-1001
EPA ID No. N/A
Contact Tom Scuderi
Trailer No. 180

I certify that the specified waste was transferred in a registered (licensed) vehicle to the treatment, storage, or disposal facility named below and was accepted.

Pick Up Driver's Signature [signature] Date 4 18 11

Delivering Driver's Signature [signature] Date 4 18 11

Facility CIPF

Comments

I certify that the Transporter above delivered the specified material to this facility and it was accepted.

Date 03-21-2011 Authorized Signature [signature]

41811

White: Receiving Facility Yellow: Return to Generator Pink: Transporter Retain Goldenrod: Generator Retain

Spirit Services, Inc.

Laboratory Services
Conococheague Facility
16232 Elliott Parkway
Williamsport, MD 21795
301-223-4384 phone
301-223-4605 fax

Sample Specifications

Sample Name: FCI
Lab ID: 2-041811-9
Source: INCOMING

Date: 4/18/2011
Type: WASTEWATER

Analyte	Result	RL	Units	Method
Arsenic	NA	1	mg/kg	SW846 7010
Cadmium	NA	1	mg/kg	SW846 7130
Chromium	NA	1	mg/kg	SW846 7190
Lead	NA	2	mg/kg	SW846 7420
PCB's	NA	2	mg/kg	SW846 8082
Flashpoint	>140	2	deg F	ASTM D93
Total Halogens	37	27	mg/L	SW846 9076
VOC's	NA	--	mg/L	SW846 8260
Sulfur	NA	0.05	mass %	ASTM D1552
Ash	NA	0.08	mass %	ASTM D482
BTU	NA	3	BTU/gal	ASTM D240
Water	NA	0.15	vol %	SW846 9001
Solids	NA	0.1	vol %	ASTM D1796
Density	NA	--	g/mL	ASTM D5355
pH	8.6	--	S.U.	SM 4500HB
Melt/Freeze Pt.	NA	--	deg F	--

Codes: NA - Analysis Not Applicable
ND - Analyte Concentration Below Reporting Limit
RL - Reporting Limit
mg/kg - PPM by Weight

Comments: NONE

Tuesday, April 26, 2011

Appendix E

Laboratory Analytical Data and Data Validation Reports for BLA and IAA Soil Confirmation Samples

(On CD – Attached)

RADFORD

Data Validation Checklist

Sample Team:	Keith Carr
Sample Matrix:	Soil
Analytical Laboratory:	Empirical Laboratories, LLC, Nashville, Tennessee
Laboratory Work Order No.:	1102180, 1103066, 1103223, 1103249, 1104087, and 1104114
Lab Project Manager:	Sonya Gordon
Analyses:	Volatile Organic Compounds (VOCs) by EPA 8260B Semivolatile Organic Compounds (SVOCs) by EPA 8270C Organochlorine Pesticides by EPA 8081A Herbicides by EPA 8151A Polychlorinated Biphenyls (PCBs) by EPA 8082A Metals by EPA 6010B and 7471A
QA Reporting Level:	IV
ARCADIS Project Manager:	Chris Kalinowski

ARCADIS, Inc.
3850 N. Causeway Blvd.
Suite 1600
Metairie, LA 70002
Tel. (504) 832-4174
Fax. (504) 832-2145

Environmental Project:
Radford Army Ammunition Plant, New River Unit, Dublin, VA

Project Number:
GP08RAAP.4IAA.KGIAA

Analytical data was evaluated in accordance with applicable USEPA SW-846 method requirements, "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (July 2002), "USEPA Region III National Functional Guidelines for Organic Data Review" (September 1994), "USEPA Region III National Functional Guidelines for Inorganic Data Review" (June 1995), site-specific requirements defined in *Radford Master Work Plan* (URS, 2003), and site-specific requirements defined in the *Quality Assurance Plan Addendum* (Arcadis, 2008). The validation presented in this review was performed at the RAAP defined Level I.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The following samples were included in this data validation:

SDG Number	Sample ID	Lab Sample ID	Sample Date	Parent Sample
1102180	Backfill (20110218)	1102180-01	2/18/2011	
	1-1N (20110215)	1102180-02	2/15/2011	
	5-5S (20110215)	1102180-03	2/17/2011	
1103066	2-3W (20110305)	1103066-01	3/5/2011	
	2-2B (20110305)	1103066-02	3/5/2011	
	4-5S (20110305)	1103066-03	3/5/2011	
	529-1NW (20110305)	1103066-04	3/5/2011	
	528-1B (20110305)	1103066-05	3/5/2011	
	XXXX-2W (20110305)	1103066-06	3/5/2011	
	522-9W (20110305)	1103066-07	3/5/2011	
	502-4NE (20110305)	1103066-08	3/5/2011	
	YYYY-2SW (20110305)	1103066-09	3/5/2011	
	508-1S (20110305)	1103066-10	3/5/2011	
	509-1B (20110305)	1103066-11	3/5/2011	
	565B-1B (20110305)	1103066-12	3/5/2011	
	571-1B (20110305)	1103066-13	3/5/2011	
	570-1B (20110305)	1103066-14	3/5/2011	
	562-7W (20110305)	1103066-15	3/5/2011	
	565-3N (20110305)	1103066-16	3/5/2011	
	565-7S (20110305)	1103066-17	3/5/2011	
1103223	405-IN (20110324)	1103223-01	3/24/2011	
	405-4N (20110324)	1103223-02	3/24/2011	
	405-9N (20110324)	1103223-03	3/24/2011	
	405-11E (20110324)	1103223-04	3/24/2011	
	405-16B (20110324)	1103223-05	3/24/2011	
	405-21W (20110324)	1103223-06	3/24/2011	
	405-24B (20110324)	1103223-07	3/24/2011	
	405-27W (20110324)	1103223-08	3/24/2011	
	405-31S (20110324)	1103223-09	3/24/2011	
	405-33B (20110324)	1103223-10	3/24/2011	
	404-2N (20110324)	1103223-11	3/24/2011	
	404-6N (20110324)	1103223-12	3/24/2011	
	404-6B (20110324)	1103223-13	3/24/2011	
	404-10W (20110324)	1103223-14	3/24/2011	
	404-14W (20110324)	1103223-15	3/24/2011	
	404-17E (20110324)	1103223-16	3/24/2011	
	404-22E (20110324)	1103223-17	3/24/2011	
	404-25B (20110324)	1103223-18	3/24/2011	
	404-29S (20110324)	1103223-19	3/24/2011	
	404-32S (20110324)	1103223-20	3/24/2011	
	8102(1)-1NW (20110324)	1103223-21	3/24/2011	
	8102(1)-3E (20110324)	1103223-22	3/24/2011	

SDG Number	Sample ID	Lab Sample ID	Sample Date	Parent Sample
1103223	8102(1)-10W (20110324)	1103223-23	3/24/2011	
	8101-1W (20110325)	1103223-24	3/25/2011	
	8101-2N (20110325)	1103223-25	3/25/2011	
	8101-3N (20110325)	1103223-26	3/25/2011	
	8101-4B (20110325)	1103223-27	3/25/2011	
	8102(2)-2N (20110325)	1103223-28	3/25/2011	
	8102(2)-5E (20110325)	1103223-29	3/25/2011	
	8102(2)-9W (20110325)	1103223-30	3/25/2011	
	8102(2)-12W (20110325)	1103223-31	3/25/2011	
	8102(3)-3E (20110325)	1103223-32	3/25/2011	
	8102(3)-6E (20110325)	1103223-33	3/25/2011	
	8102(3)-10W (20110325)	1103223-34	3/25/2011	
	406-2E (20110325)	1103223-35	3/25/2011	
1103249	411-2N (20110329)	1103249-01	3/29/2011	
	411-4B (20110329)	1103249-02	3/29/2011	
	411-7SW (20110329)	1103249-03	3/29/2011	
	8102(4)-2E (20110329)	1103249-04	3/29/2011	
	8102(4)-6E (20110329)	1103249-05	3/29/2011	
	8102(4)-10W (20110329)	1103249-06	3/29/2011	
	522A-2NE (20110329)	1103249-07	3/29/2011	
	522A-4E (20110329)	1103249-08	3/29/2011	
	522A-6B (20110329)	1103249-09	3/29/2011	
	522A-10W (20110329)	1103249-10	3/29/2011	
	412-1B (20110329)	1103249-11	3/29/2011	
	413-3E (20110329)	1103249-12	3/29/2011	
	413-7W (20110329)	1103249-13	3/29/2011	
	522-12E (20110329)	1103249-14	3/29/2011	
	502-15B (20110329)	1103249-15	3/29/2011	
	502-19W (20110329)	1103249-16	3/29/2011	
1104087	8102(5)-3E (20110406)	1104087-01	4/6/2011	
	8102(5)-11W (20110406)	1104087-02	4/6/2011	
	8102(6)-3E (20110406)	1104087-03	4/6/2011	
	8102(6)-6E (20110406)	1104087-04	4/6/2011	
	8102(6)-8W (20110406)	1104087-05	4/6/2011	
	8102(7)-3E (20110406)	1104087-06	4/6/2011	
	8102(7)-11W (20110406)	1104087-07	4/6/2011	
	8102(8)-2E (20110406)	1104087-08	4/6/2011	
	8102(8)-5E (20110406)	1104087-09	4/6/2011	
	8102(8)-13W (20110406)	1104087-10	4/6/2011	
	8101-5W (20110407)	1104087-11	4/7/2011	
	8101-6N (20110407)	1104087-12	4/7/2011	
1104114	8102A-1NW (20110411)	1104114-01	4/11/2011	
	6-1NW (20110411)	1104114-02	4/11/2011	
	504-20N (20110411)	1104114-03	4/11/2011	

SDG Number	Sample ID	Lab Sample ID	Sample Date	Parent Sample
1104114	504-22E (20110411)	1104114-04	4/11/2011	
	8102(3)-13W (20110411)	1104114-05	4/11/2011	

I. GENERAL INFORMATION

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Chain of Custody		X	X		X		
2. Sampling dates and times		X	X		X		
3. Sample type on COC		X	X		X		
4. Field QC samples		X	X		X		
5. Case Narrative		X	X		X		
6. Sample Receipt Condition		X	X		X		

"Exceptions Noted" = If an exception was noted in the Case Narrative this will be checked in the affirmative.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the Case Narrative) this will be checked in the affirmative.

II. VOLATILE ORGANIC COMPOUNDS

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding Times		X	X		X		
2. Reporting Limits		X	X		X		
3. Blanks							
A. Method Blanks		X		X	X		
B. Equipment/Field Blanks							X
C. Trip Blanks							X
4. Laboratory Control Sample (LCS) accuracy (%R)		X	X		X		
5. LCS Duplicate (LCSD) %R		X	X			X	
6. LCS/LCSD precision (RPD)		X	X		X		
7. Matrix Spike (MS) %R							X
8. Matrix Spike Duplicate (MSD) %R							X
9. MS/MSD RPD							X
10. Surrogate %R		X	X		X		
11. Field/Lab Duplicate Sample RPD							X
12. Other		X	X			X	

%R - Percent Recovery RPD - Relative Percent Difference

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B. Performance was acceptable, with the following exceptions and notes:

3A. Methylene chloride was detected in the laboratory method blank in SDG 1102180. The methylene chloride result in the associated sample, Backfill (20110218), has been qualified as not detected ("UB") at the reporting limit because its concentration is less than ten times the blank amount.

5. The recoveries of chloromethane, dichlorodifluoromethane, and vinyl chloride were greater than the upper control limit in the LCSD analysis in SDG 1102180. Data qualification is unnecessary because the LCSD bias is high and these compounds were not detected in the associated sample.

12. The laboratory noted that the instrument calibrations in SDG 1102180 exceeded the control limits with a positive bias for dichlorodifluoromethane, bromoform, bromomethane, 2-butanone., 1,2-dibromo-3-chloropropane, 2-hexanone, methyl acetate, and 4-methyl-2-pentanone. Data qualification is unnecessary because the calibration bias is high and these compounds were not detected in the associated sample.

III. SEMIVOLATILE ORGANIC COMPOUNDS

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding Times		X	X		X		
2. Reporting Limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Equipment/Field Blanks							X
4. Laboratory Control Sample (LCS) accuracy (%R)		X	X		X		
5. LCS Duplicate (LCSD) %R		X	X			X	
6. LCS/LCSD precision (RPD)		X		X	X		
7. Matrix Spike (MS) %R							X
8. Matrix Spike Duplicate (MSD) %R							X
9. MS/MSD RPD							X
10. Surrogate %R		X	X		X		
11. Field/Lab Duplicate Sample RPD							X
12. Other		X		X		X	

%R - Percent Recovery RPD - Relative Percent Difference

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for semivolatile organic compounds (SVOCs) by EPA Method 8270C. Performance was acceptable, with the following exceptions and notes:

5. The recoveries of 2,4-dimethylphenol, pentachlorophenol, and phenol were greater than the upper control limit in the LCSD analysis in SDG 1102180. Data qualification is unnecessary because the LCSD bias is high and these compounds were not detected in the associated sample.

6. The RPD for 3,3'-dichlorobenzidine was above the control limit in the LCS/LCSD analysis in SDG 1102180. The 3,3'-dichlorobenzidine result for the associated sample, Backfill (20110218), has been qualified as estimated not detected ("UJ").

12. The laboratory noted that the instrument calibrations in SDG 1102180 exceeded the control limits with a positive bias for 2-chloronaphthalene, 4,6-dinitro-2-methylphenol, 2,4-dinitrophenol, and 2-nitroanaline. Because the calibration bias is high and these compounds were not detected in the associated sample, data qualification is unnecessary.

The calibrations in SDG 1102180 exceeded the control limit with a negative bias for 3,3'-dichlorobenzidine; the associated sample 3,3'-dichlorobenzidine result has been qualified as estimated not detected ("UJ").

IV. ORGANOCHLORINE PESTICIDES

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding Times		X	X		X		
2. Reporting Limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Equipment/Field Blanks							X
4. Laboratory Control Sample (LCS) accuracy (%R)		X	X			X	
5. LCS Duplicate (LCSD) %R		X	X			X	
6. LCS/LCSD precision (RPD)		X		X	X		
7. Matrix Spike (MS) %R							X
8. Matrix Spike Duplicate (MSD) %R							X
9. MS/MSD RPD							X
10. Surrogate %R		X	X		X		
11. Field/Lab Duplicate Sample RPD							X
12. Other		X	X			X	

%R - Percent Recovery RPD - Relative Percent Difference

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for organochlorine pesticides by EPA Method 8081A. Performance was acceptable, with the following exceptions and notes:

5-7. The gamma-chlordane recoveries and RPD were greater than the upper control limits in the LCS/LCSD analysis in SDG 1102180. The gamma-chlordane result for the associated sample, Backfill (20110218), has been qualified as estimated not detected ("UJ").

12. The laboratory noted that the instrument calibrations in SDG 1102180 exceeded the control limits with a positive bias for chlordane, toxaphene, and heptachlor. Because the calibration bias is high and these analytes were not detected in the associated sample, data qualification is unnecessary.

The laboratory noted that there was a lab-introduced artifact co-eluting with gamma-chlordane in SDG 1102180 that necessitated the raising of the reporting limit for gamma-chlordane; no qualification is required.

V. HERBICIDES

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding Times		X	X		X		
2. Reporting Limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Equipment/Field Blanks							X
4. Laboratory Control Sample (LCS) accuracy (%R)		X	X		X		
5. LCS Duplicate (LCSD) %R		X	X		X		
6. LCS/LCSD precision (RPD)		X	X		X		
7. Matrix Spike (MS) %R							X
8. Matrix Spike Duplicate (MSD) %R							X
9. MS/MSD RPD							X
10. Surrogate %R		X	X		X		
11. Field/Lab Duplicate Sample RPD							X
12. Other		X		X		X	

%R - Percent Recovery RPD - Relative Percent Difference

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for herbicides by EPA Method 8151A. Performance was acceptable, with the following exceptions and notes:

12. The laboratory noted that the instrument calibration in SDG 1102180 exceeded the control limits with a positive bias for 2,4-D. Because the calibration bias is high and 2,4-D was not detected in the associated sample, data qualification is unnecessary.

The difference between the primary and confirmation column results for 2,4,5-T detected in sample Backfill (20110218) was greater than the 40% control limit. The 2,4,5-T result for Backfill (20110218) has been qualified as estimated ("J").

VI. POLYCHLORINATED BIPHENYLS

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding Times		X	X		X		
2. Reporting Limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Equipment/Field Blanks							X
4. Laboratory Control Sample (LCS) accuracy (%R)		X	X			X	
5. LCS Duplicate (LCSD) %R		X	X			X	
6. LCS/LCSD precision (RPD)		X	X		X		
7. Matrix Spike (MS) %R							X
8. Matrix Spike Duplicate (MSD) %R							X
9. MS/MSD RPD							X
10. Surrogate %R		X	X			X	
11. Field/Lab Duplicate Sample RPD							X
12. Other		X	X			X	

%R - Percent Recovery RPD - Relative Percent Difference

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for polychlorinated biphenyls (PCBs) as Aroclors by EPA Method 8082A. Performance was acceptable, with the following exceptions and notes:

10. The recoveries of surrogate decachlorobiphenyl were less than the lower control limit in the analyses of samples 8101-1W-20110325, 8101-3N (20110325), 8101-4B (20110325), and 504-20N (20110411). Because the analytical method only requires that one of the two PCB surrogate compounds exhibit recoveries within the acceptance limits, data qualification is unnecessary.

4,5. The Aroclor-1260 recoveries were greater than the upper control limit in the LCS/LCSD analysis in SDG 1102180. Data qualification is unnecessary because the LCS/LCSD bias is high and Aroclor-1260 was not detected in the associated samples.

12. The laboratory noted that the instrument calibration exceeded the control limits with a positive bias for Aroclor-1016 and Aroclor-1260 in SDG 1102180. Because the calibration bias is high and these Aroclors were not detected in the associated sample, data qualification is unnecessary.

VII. METALS

ITEMS REVIEWED	REPORTED / REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding Times		X	X		X		
2. Reporting Limits		X	X		X		
3. Blanks							
A. Method Blanks		X		X		X	
B. Equipment/Field Blanks							X
4. Laboratory Control Sample (LCS) accuracy (%R)		X	X		X		
5. LCS Duplicate (LCSD) %R		X	X		X		
6. LCS/LCSD precision (RPD)		X	X		X		
7. Matrix Spike (MS) %R		X		X	X		
8. Matrix Spike Duplicate (MSD) %R		X		X	X		
9. MS/MSD RPD		X		X	X		
10. Field/Lab Duplicate Sample RPD							X
11. Other		X	X			X	

%R - Percent Recovery RPD - Relative Percent Difference

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for metals by EPA Methods 6010B and 7471A. Performance was acceptable, with the following exceptions and notes:

3A. Cadmium and chromium were detected in the laboratory method blanks in SDG 1102180. The cadmium results for samples 1-1N (20110215) and 5-5S (20110215) have been qualified as not detected ("UB") at the reported concentrations because they are less than ten times the blank amounts. The chromium results in the associated samples are greater than ten times the blank concentration and therefore do no warrant qualification.

7-9. The copper recovery was less than the lower control limit in the MSD analyzed in SDG 1103066; the parent sample was 565-7S (20110305). All associated sample copper results have been qualified as estimated ("J").

The lead recoveries were greater than the upper control limit in the batch IC29002 MS/MSD analyzed in SDG 1103223; the parent sample was 404-32S (20110324). The lead recoveries were less than the lower control limit in the batch IC29003 MS/MSD analyzed in SDG 1103223; the parent sample was 406-2E (20110325). All associated sample lead results have been qualified as estimated ("J").

The copper recovery was less than the lower control limit in the MS analyzed in SDG 1104087; the parent sample was 8102(8)-13W (20110406). The copper results for the associated samples have been qualified as estimated ("J").

VIII. VALIDATION CHECKLIST SUMMARY AND DATA QUALIFIER CODES

Sample ID	Analyte(s)	Qualifier	Reason(s)
VOCs			
Backfill (20110218)	Methylene chloride	UB	Blank contamination
SVOCs			
Backfill (20110218)	3,3'-Dichlorobenzidine	UJ	LCS/LCSD RPD > CL; Calibration %R < LCL
Organochlorine Pesticides			
Backfill (20110218)	gamma-Chlordane	UJ	LCS/LCSD RPD > CL
Herbicides			
Backfill (20110218)	2,4,5-T	J	Dual column %D > CL
PCBs			
No results required qualification.			
Metals			
1-1N (20110215) 5-5S (20110215)	Cadmium	UB	Blank contamination
2-3W (20110305) 2-2B (20110305) 4-5S (20110305) 529-1NW (20110305) 528-1B (20110305) XXXX-2W (20110305) 522-9W (20110305) 502-4NE (20110305) YYYY-2SW (20110305) 508-1S (20110305) 509-1B (20110305) 565B-1B (20110305) 571-1B (20110305) 570-1B (20110305) 562-7W (20110305) 565-3N (20110305) 565-7S (20110305) 8102(5)-3E (20110406) 8102(5)-11W (20110406) 8102(6)-3E (20110406) 8102(6)-6E (20110406) 8102(6)-8W (20110406) 8102(7)-3E (20110406) 8102(7)-11W (20110406) 8102(8)-2E (20110406) 8102(8)-5E (20110406) 8102(8)-13W (20110406)	Copper	J	MSD %R < LCL
405-IN (20110324) 405-4N (20110324) 405-9N (20110324) 405-11E (20110324) 405-16B (20110324) 405-21W (20110324) 405-24B (20110324) 405-27W (20110324) 405-31S (20110324) 405-33B (20110324) 404-2N (20110324)	Lead	J	MS/MSD %R > UCL

Sample ID	Analyte(s)	Qualifier	Reason(s)
404-6N (20110324) 404-6B (20110324) 404-10W (20110324) 404-14W (20110324) 404-17E (20110324) 404-22E (20110324) 404-25B (20110324) 404-29S (20110324) 404-32S (20110324)	Lead	J	MS/MSD %R > UCL
8102(1)-1NW (20110324) 8102(1)-3E (20110324) 8102(1)-10W (20110324) 8102(2)-2N (20110325) 8102(2)-5E (20110325) 8102(2)-9W (20110325) 8102(2)-12W (20110325) 8102(3)-3E (20110325) 8102(3)-6E (20110325) 8102(3)-10W (20110325) 406-2E (20110325)	Lead	J	MS/MSD %R < LCL

Qualifier Definitions:

J – The analyte was positively identified; the associated numerical value is considered estimated.
UJ – The analyte was not detected above the quantitative reporting limit. However, the reporting limit may have a low bias due to associated QC exceedances.
UB – The analyte was detected in the associated blank, so its presence in the sample is questionable and the result has been changed to not detected.
R – The result is unusable. The analyte may or may not be present in the sample.

Validation Performed By: Dennis Dyke

Signature:

Date: June 1, 2011

Peer Review: Jace'que Powell

Date: June 3, 2011

ANALYTICAL DATA PACKAGE
SDG # 1102180

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
Fax (866)417-0548
Email: sgordon@empirlabs.com

Original Report Date: March 4, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 948

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. Samples were subcontracted to EMLab P&K for Asbestos by EPA Method 600/R-93/116.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW8260B:
The method blank 1B21008-BLK1 has a positive result for Methylene Chloride.

The batch spikes associated to batch 1B21008 exceeded criteria with a positive bias for Chloromethane, Dichlorodifluoromethane, and Vinyl Chloride.

The initial calibration verification 1B04025-ICV1 exceeded criteria with a positive bias for Dichlorodifluoromethane.

The continuing calibration verification 1B05306-CCV1 exceeded criteria with a positive bias for Bromoform, Bromomethane, 2-Butanone, 1,2-Dibromo-3-chloropropane, 2-Hexanone, Methyl Acetate, and 4-Methyl-2-pentanone.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW8270C:
The batch spikes associated to batch 1B16021 exceeded recovery criteria with a positive bias for 2,4-Dimethylphenol, Pentachlorophenol, and Phenol and exceeded relative percent difference criteria for 3,3'-Dichlorobenzidine.

The continuing calibration verification 1B05516-CCV1 exceeded criteria with a negative bias for 3,3'-Dichlorobenzidine and exceeded criteria with a positive bias for 2-Chloronaphthalene, 4,6-Dinitro-2-methylphenol, 2,4-Dinitrophenol, and 2-Nitroaniline.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW8081A:
Sample 1102180-01 is qualified with a Z-01 for Gamma-Chlordane to indicate that the MDL and MRL were raised due to an artifact introduced during extraction that is being detected in both batch QC and samples. The MDL and MRL were raised to the level of the concentration of the artifact.

The batch spikes associated to batch 1B21019 exceeded recovery criteria with a positive bias and relative percent difference for Gamma-Chlordane on column 2. This is most likely due to an artifact introduced during extraction.

The continuing calibration verifications exceeded criteria in 1C06009-CCV2 and –CCV6 with a positive bias on both columns for Chlordane, in 1C06009-CCV3 and –CCV7 with a positive bias on one or both columns for Toxaphene, and in 1C06009-CCV5 with a positive bias for Heptachlor on column 1.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW8082A:
The continuing calibration verifications exceeded criteria in 1C06009-CCV4 and –CCV8 with a positive bias for Aroclor-1016 on both columns and with a positive bias on column 2 for Aroclor-1260.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW8151A:
The continuing calibration verification 1C06106-CCV2 exceeded criteria with a positive

bias for 2,4-D on column 1.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW6010B/SW7471A:
Samples 1102180-01, -02, and -03 are qualified with an M for Silver and Thallium to indicate that the MDL and MRL were raised due to interference.

The initial calibration blank 1C06303-ICB1 has a positive result for Cadmium. The digestion blank 1C01006-BLK1 has positive results for Cadmium and Chromium.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name GP08RAAP.4IAA.KG1AA / RAAP-NRV

Project Location Dublin, VA

Laboratory Empirical Laboratories

Project Manager Chris Kalinowski

Sampler(s)/Affiliation Keith Carr / ARCADIS

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	VOCs (8260)	SVOCs (8270)	TAL Metals (6010B)	Pesticides/Herbicides (8081A)	PCBs (8082)	% Asbestos	Remarks	Total
Backfill (20110218)	SO	2/18/11 1615		X	X	X	X	X		1102180-01	6
1-1N (20110215)	SO	2/15/11 1630				X			X	-02	2
5-5S (20110217)	SO	2/17/11 1120				X			X	-03 ~~-04~~ CR 2-14-11	2

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Total No. of Bottles/Containers 10

					Seal Intact?
Relinquished by: Scott Kam	Organization: ARCADIS	Date 2/18/11	Time 1730		
Received by:	Organization:	Date / /	Time		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by: 2.0°C	Organization:	Date 2/19/11	Time 09:30		Yes No N/A

Special Instructions/Remarks: please contact Chris Kalinowski with questions (919-656-7731)

Delivery Method: ☐ In Person ☑ Common Carrier FedEX ☐ Lab Courier ☐ Other

SPECIFY SPECIFY

AG 05-12/01

10

1102180

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1102180 Number of Coolers: 1 of 1

Client: Arcadis Project: GP09RAAP-41AA-KG1AA/RAAP-NRV

Date/Time Received: 2/19/11 9:30 AM Date cooler(s) opened: 2/19/11

Opened By (print): Reginald Talley (signature): Reginald Talley

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered
EL Courier Other: _____

If applicable, enter airbill number here: 8620

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 1 Seal date: 2/18/11 Seal Initials: ?

3. Were custody seals unbroken and intact at the date and time of arrival? ..... (Yes) No N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler? ..... (Yes) No N/A
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (Yes) No N/A
6. Did you sign custody papers in the appropriate place for acceptance? ..... (Yes) No N/A
7. Was project identifiable from custody papers? ..... (Yes) No N/A
8. If required, was enough ice present in the cooler(s)? ..... (Yes) No N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 2.3 °C Correction Factor: -0.3 °C Final Value: 2.0 °C

Dates samples were logged-in: 2-19-11

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____
10. Were all bottle lids intact and sealed tightly? ..... (Yes) No N/A
11. Did all bottles arrive unbroken? ..... (Yes) No N/A
12. Was all required bottle label information complete? ..... (Yes) No N/A
13. Did all bottle labels agree with custody papers? ..... (Yes) No N/A
14. Were correct containers used for the analyses indicated? ..... (Yes) No N/A
15. Were preservative levels correct in all applicable sample containers? ..... Yes No (N/A)
16. Was residual chlorine present in any applicable sample containers? ..... Yes No (N/A)
17. Was sufficient amount of sample sent for the analyses required? ..... (Yes) No N/A
18. Was headspace present in any included VOA vials? ..... Yes (No) N/A

If Non-Conformance issues were present, list by sample ID: _____

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1102180

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 1-1N (20110215)				
Reference No: 1102180-02	**Solid**	**Sampled:02/15/2011 16:30**		
SUB_Asbestos Lab SOP	03/02/2011 14:00	02/17/2011 15:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 5-5S (20110215)				
Reference No: 1102180-03	**Solid**	**Sampled:02/17/2011 11:20**		
SUB_Asbestos Lab SOP	03/02/2011 14:00	02/19/2011 10:20		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

WORK ORDER

1102180

Printed: 3/4/2011 12:51:35PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 03/07/2011 16:00 (10 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 02/19/2011 09:30
Date Logged In 02/19/2011 14:03

Samples Received at: **2°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	Yes		

Analysis	Due	TAT	Expires	Version	Comments
1102180-01 Backfilll (20110218) [Solid] Sampled 02/18/2011 16:15 Central					
SM2540B	03/02/2011 14:00	10	02/25/2011 16:15		
varies	03/02/2011 14:00	10	08/17/2011 16:15		
SW8151A	03/02/2011 14:00	10	03/04/2011 16:15		
SW8082A	03/02/2011 14:00	10	03/04/2011 16:15		
SW8081A	03/02/2011 14:00	10	03/04/2011 16:15		
SW8270C	03/02/2011 14:00	10	03/04/2011 16:15		
SW8260B	03/02/2011 14:00	10	03/04/2011 16:15		

1102180

WORK ORDER

Printed: 3/4/2011 12:51:35PM

1102180

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1102180-02 1-1N (20110215) [Solid] Sampled 02/15/2011 16:30 Eastern					
varies	03/02/2011 14:00	10	08/14/2011 15:30		
SM2540B	03/02/2011 14:00	10	02/22/2011 15:30		
1102180-03 5-5S (20110215) [Solid] Sampled 02/17/2011 11:20 Eastern					
SM2540B	03/02/2011 14:00	10	02/24/2011 10:20		
varies	03/02/2011 14:00	10	08/16/2011 10:20		
EMLab P&K (SUB)					
1102180-02 1-1N (20110215) [Solid] Sampled 02/15/2011 16:30 Eastern					
bAsbestos Lab SOP-S (SubContracted)	03/02/2011 14:00	10	02/17/2011 15:30		% Asbestos EPA 600
1102180-03 5-5S (20110215) [Solid] Sampled 02/17/2011 11:20 Eastern					
bAsbestos Lab SOP-S (SubContracted)	03/02/2011 14:00	10	02/19/2011 10:20		% Asbestos EPA 600

Analysis groups included in this work order

MET TAL GRP S LOW

MET ICP LOW6010B T… MET 7471A MERCURY

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1102180

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1102180
MATRIX: Soil

QC LEVEL: Level IV
Report Due: 3/7/2011
Client Sample Count: 3

Sample Type	Sampled	Received	Lab ID	Client ID	bAsbestos Lab SOP-S	SM2540B	SW6010B	SW7471A	SW8081A	SW8082A	SW8151A	SW8260B	SW8270C
Client Sample	2/18/2011	2/19/2011	1102180-01	Backfilll (20110218)		X	X	X	X	X	X	X	X
Client Sample	2/15/2011	2/19/2011	1102180-02	1-1N (20110215)	X	X	X	X					
Client Sample	2/17/2011	2/19/2011	1102180-03	5-5S (20110215)	X	X	X	X					

Data for SW8260B Forms

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 0218001.D

Sampled: 02/18/11 16:15 Prepared: 02/21/11 00:00 Analyzed: 02/21/11 14:17

Solids: 80.80 Preparation: 5035 Dilution: 1

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
67-64-1	Acetone		2.76	13.8	U
71-43-2	Benzene		0.649	6.91	U
74-97-5	Bromochloromethane		0.580	6.91	U
75-27-4	Bromodichloromethane		0.414	6.91	U
75-25-2	Bromoform		1.38	6.91	X, U
74-83-9	Bromomethane		0.995	6.91	X, U
78-93-3	2-Butanone		1.93	13.8	X, U
75-15-0	Carbon disulfide		1.80	6.91	U
56-23-5	Carbon tetrachloride		1.22	6.91	U
108-90-7	Chlorobenzene		0.470	6.91	U
75-00-3	Chloroethane		1.52	6.91	U
67-66-3	Chloroform		0.760	6.91	U
74-87-3	Chloromethane		0.718	6.91	Q, U
110-82-7	Cyclohexane		0.746	6.91	U
124-48-1	Dibromochloromethane		0.470	6.91	U
96-12-8	1,2-Dibromo-3-chloropropane		1.66	6.91	X, U
106-93-4	1,2-Dibromoethane (EDB)		0.594	6.91	U
95-50-1	1,2-Dichlorobenzene		0.511	6.91	U
541-73-1	1,3-Dichlorobenzene		1.16	6.91	U
106-46-7	1,4-Dichlorobenzene		0.760	6.91	U
75-71-8	Dichlorodifluoromethane		1.52	6.91	Q, U, X
75-34-3	1,1-Dichloroethane		0.746	6.91	U
107-06-2	1,2-Dichloroethane		0.635	6.91	U
75-35-4	1,1-Dichloroethene		1.66	6.91	U
156-59-2	cis-1,2-Dichloroethene		1.66	6.91	U
156-60-5	trans-1,2-Dichloroethene		1.52	6.91	U
78-87-5	1,2-Dichloropropane		0.635	6.91	U
10061-01-5	cis-1,3-Dichloropropene		0.691	6.91	U
10061-02-6	trans-1,3-Dichloropropene		0.442	6.91	U
123-91-1	1,4-Dioxane		0.691	69.1	U
100-41-4	Ethylbenzene		1.04	6.91	U
591-78-6	2-Hexanone		3.18	13.8	X, U
98-82-8	Isopropylbenzene		1.22	6.91	U
75-09-2	Methylene chloride	4.08	0.856	6.91	J, B
79-20-9	Methyl Acetate		2.21	6.91	X, U
108-87-2	Methylcyclohexane		0.414	6.91	U
108-10-1	4-Methyl-2-pentanone		0.801	13.8	X, U
1634-04-4	Methyl t-Butyl Ether		0.442	6.91	U
100-42-5	Styrene		0.483	6.91	U
79-34-5	1,1,2,2-Tetrachloroethane		0.594	6.91	U
127-18-4	Tetrachloroethene		1.34	6.91	U

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 0218001.D

Sampled: 02/18/11 16:15 Prepared: 02/21/11 00:00 Analyzed: 02/21/11 14:17

Solids: 80.80 Preparation: 5035 Dilution: 1

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
108-88-3	Toluene		1.19	6.91	U
87-61-6	1,2,3-Trichlorobenzene		0.580	6.91	U
120-82-1	1,2,4-Trichlorobenzene		0.249	6.91	U
79-00-5	1,1,2-Trichloroethane		0.483	6.91	U
71-55-6	1,1,1-Trichloroethane		1.24	6.91	U
79-01-6	Trichloroethene		1.17	6.91	U
75-69-4	Trichlorofluoromethane		1.31	6.91	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		2.31	6.91	U
75-01-4	Vinyl chloride		1.52	6.91	Q, U
1330-20-7	Xylenes (total)		0.967	6.91	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Bromofluorobenzene	41.44	38.62	93.2	85 - 120	
Dibromofluoromethane	41.44	40.79	98.4	80 - 125	
1,2-Dichloroethane-d4	41.44	41.57	100	75 - 140	
Toluene-d8	41.44	41.96	101	85 - 115	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B05306
Instrument: MS-VOA6
Calibration: 1045002

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1B05306-CCV1) ug/L				Lab File ID: 0221CCV1.D		Analyzed: 02/21/11 11:35		
Bromofluorobenzene	30.00	99.5	80 - 120	12.258	12.258	0.0000	+/-1.000	
Dibromofluoromethane	30.00	96.7	80 - 120	6.947	6.947	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	97.3	80 - 120	7.438	7.438	0.0000	+/-1.000	
Toluene-d8	30.00	99.2	80 - 120	9.651	9.651	0.0000	+/-1.000	
LCS (1B21008-BS1) ug/Kg wet				Lab File ID: 0221LS1.D		Analyzed: 02/21/11 12:15		
Bromofluorobenzene	30.00	93.7	85 - 120	12.263	12.258	0.0050	+/-1.000	
Dibromofluoromethane	30.00	95.3	80 - 125	6.952	6.947	0.0050	+/-1.000	
1,2-Dichloroethane-d4	30.00	96.3	75 - 140	7.444	7.438	0.0060	+/-1.000	
Toluene-d8	30.00	94.5	85 - 115	9.647	9.651	-0.0040	+/-1.000	
LCS (1B21008-BS2) ug/Kg wet				Lab File ID: 0221LS2.D		Analyzed: 02/21/11 12:40		
Bromofluorobenzene	30.00	94.9	85 - 120	12.266	12.258	0.0080	+/-1.000	
Dibromofluoromethane	30.00	98.4	80 - 125	6.955	6.947	0.0080	+/-1.000	
1,2-Dichloroethane-d4	30.00	97.1	75 - 140	7.447	7.438	0.0090	+/-1.000	
Toluene-d8	30.00	96.2	85 - 115	9.65	9.651	-0.0010	+/-1.000	
Blank (1B21008-BLK1) ug/Kg wet				Lab File ID: 0221BL1.D		Analyzed: 02/21/11 13:53		
Bromofluorobenzene	30.00	93.2	85 - 120	12.258	12.258	0.0000	+/-1.000	
Dibromofluoromethane	30.00	98.8	80 - 125	6.947	6.947	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	108	75 - 140	7.439	7.438	0.0010	+/-1.000	
Toluene-d8	30.00	92.6	85 - 115	9.642	9.651	-0.0090	+/-1.000	
Backfilll (20110218) (1102180-01) ug/Kg dry				Lab File ID: 0218001.D		Analyzed: 02/21/11 14:17		
Bromofluorobenzene	41.44	93.2	85 - 120	12.258	12.258	0.0000	+/-1.000	
Dibromofluoromethane	41.44	98.4	80 - 125	6.957	6.947	0.0100	+/-1.000	
1,2-Dichloroethane-d4	41.44	100	75 - 140	7.448	7.438	0.0100	+/-1.000	
Toluene-d8	41.44	101	85 - 115	9.651	9.651	0.0000	+/-1.000	
LCS Dup (1B21008-BSD1) ug/Kg wet				Lab File ID: 0221LD1.D		Analyzed: 02/21/11 15:56		
Bromofluorobenzene	30.00	89.3	85 - 120	12.266	12.258	0.0080	+/-1.000	
Dibromofluoromethane	30.00	98.0	80 - 125	6.955	6.947	0.0080	+/-1.000	
1,2-Dichloroethane-d4	30.00	97.7	75 - 140	7.447	7.438	0.0090	+/-1.000	
Toluene-d8	30.00	90.0	85 - 115	9.65	9.651	-0.0010	+/-1.000	
LCS Dup (1B21008-BSD2) ug/Kg wet				Lab File ID: 0221LD2.D		Analyzed: 02/21/11 16:20		
Bromofluorobenzene	30.00	94.5	85 - 120	12.258	12.258	0.0000	+/-1.000	
Dibromofluoromethane	30.00	96.7	80 - 125	6.957	6.947	0.0100	+/-1.000	
1,2-Dichloroethane-d4	30.00	91.4	75 - 140	7.449	7.438	0.0110	+/-1.000	
Toluene-d8	30.00	96.2	85 - 115	9.652	9.651	0.0010	+/-1.000	

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B21008
Laboratory ID: 1B21008-BS1
Preparation: 5035
Initial/Final: 5 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
Acetone	100.0	82.80	82.8	20 - 160
Benzene	50.00	50.30	101	75 - 125
Bromochloromethane	50.00	49.29	98.6	70 - 125
Bromodichloromethane	50.00	57.19	114	70 - 130
Bromoform	50.00	56.18	112	55 - 135
Bromomethane	50.00	58.07	116	30 - 160
2-Butanone	100.0	87.24	87.2	30 - 160
Carbon disulfide	50.00	52.09	104	45 - 160
Carbon tetrachloride	50.00	56.00	112	65 - 135
Chlorobenzene	50.00	48.02	96.0	75 - 125
Chloroethane	50.00	59.28	119	40 - 155
Chloroform	50.00	51.77	104	70 - 125
Chloromethane	50.00	62.01	124	50 - 130
Cyclohexane	50.00	52.42	105	65 - 140
Dibromochloromethane	50.00	54.01	108	65 - 130
1,2-Dibromo-3-chloropropane	50.00	53.57	107	40 - 135
1,2-Dibromoethane (EDB)	50.00	49.88	99.8	70 - 125
1,2-Dichlorobenzene	50.00	51.85	104	75 - 120
1,3-Dichlorobenzene	50.00	51.06	102	70 - 125
1,4-Dichlorobenzene	50.00	49.88	99.8	70 - 125
Dichlorodifluoromethane	50.00	66.78	134	35 - 135
1,1-Dichloroethane	50.00	52.06	104	75 - 125
1,2-Dichloroethane	50.00	55.79	112	70 - 135
1,1-Dichloroethene	50.00	61.59	123	65 - 135
cis-1,2-Dichloroethene	50.00	49.46	98.9	65 - 125
trans-1,2-Dichloroethene	50.00	52.20	104	65 - 135
1,2-Dichloropropane	50.00	50.95	102	70 - 120
cis-1,3-Dichloropropene	50.00	49.80	99.6	70 - 125
trans-1,3-Dichloropropene	50.00	58.75	117	65 - 125
Ethylbenzene	50.00	50.01	100	75 - 125

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B21008
Laboratory ID: 1B21008-BS1
Preparation: 5035
Initial/Final: 5 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
2-Hexanone	100.0	82.20	82.2	45 - 145
Isopropylbenzene	50.00	53.35	107	75 - 130
Methylene chloride	50.00	52.32	105	55 - 140
Methyl Acetate	50.00	58.78	118	45 - 165
Methylcyclohexane	50.00	49.79	99.6	65 - 135
4-Methyl-2-pentanone	100.0	83.75	83.7	45 - 145
Methyl t-Butyl Ether	100.0	110.9	111	55 - 150
Styrene	50.00	50.28	101	75 - 125
1,1,2,2-Tetrachloroethane	50.00	53.68	107	55 - 130
Tetrachloroethene	50.00	48.11	96.2	65 - 140
Toluene	50.00	51.00	102	70 - 125
1,2,3-Trichlorobenzene	50.00	45.60	91.2	60 - 130
1,2,4-Trichlorobenzene	50.00	45.32	90.6	65 - 130
1,1,2-Trichloroethane	50.00	48.31	96.6	60 - 125
1,1,1-Trichloroethane	50.00	53.38	107	70 - 135
Trichloroethene	50.00	51.06	102	75 - 125
Trichlorofluoromethane	50.00	52.32	105	25 - 185
1,1,2-Trichloro-1,2,2-trifluoroethane	50.00	55.78	112	20 - 185
Vinyl chloride	**50.00**	**63.33**	**127**	**60 - 125**
Xylenes (total)	150.0	158.0	105	75 - 125

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Acetone	100.0	88.02	88.0	6.12	30	20 - 160
Benzene	50.00	51.32	103	2.01	30	75 - 125
Bromochloromethane	50.00	49.88	99.8	1.19	30	70 - 125
Bromodichloromethane	50.00	57.99	116	1.41	30	70 - 130
Bromoform	50.00	51.95	104	7.82	30	55 - 135
Bromomethane	50.00	57.80	116	0.471	30	30 - 160
2-Butanone	100.0	101.1	101	14.8	30	30 - 160

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B21008
Laboratory ID: 1B21008-BSD1
Preparation: 5035
Initial/Final: 5 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #		% RPD #	QC LIMITS RPD	QC LIMITS REC.
Carbon disulfide	50.00	52.99	106		1.71	30	45 - 160
Carbon tetrachloride	50.00	55.31	111		1.24	30	65 - 135
Chlorobenzene	50.00	46.40	92.8		3.45	30	75 - 125
Chloroethane	50.00	60.54	121		2.10	30	40 - 155
Chloroform	50.00	53.26	107		2.84	30	70 - 125
Chloromethane	**50.00**	**66.06**	**132**	*	**6.32**	**30**	**50 - 130**
Cyclohexane	50.00	54.78	110		4.40	30	65 - 140
Dibromochloromethane	50.00	52.18	104		3.44	30	65 - 130
1,2-Dibromo-3-chloropropane	50.00	53.91	108		0.636	30	40 - 135
1,2-Dibromoethane (EDB)	50.00	48.26	96.5		3.29	30	70 - 125
1,2-Dichlorobenzene	50.00	51.51	103		0.650	30	75 - 120
1,3-Dichlorobenzene	50.00	51.19	102		0.253	30	70 - 125
1,4-Dichlorobenzene	50.00	50.40	101		1.05	30	70 - 125
Dichlorodifluoromethane	**50.00**	**72.92**	**146**	*	**8.80**	**30**	**35 - 135**
1,1-Dichloroethane	50.00	53.93	108		3.53	30	75 - 125
1,2-Dichloroethane	50.00	57.43	115		2.89	30	70 - 135
1,1-Dichloroethene	50.00	60.77	122		1.33	30	65 - 135
cis-1,2-Dichloroethene	50.00	49.43	98.9		0.0680	30	65 - 125
trans-1,2-Dichloroethene	50.00	54.14	108		3.64	30	65 - 135
1,2-Dichloropropane	50.00	52.41	105		2.84	30	70 - 120
cis-1,3-Dichloropropene	50.00	51.13	102		2.64	30	70 - 125
trans-1,3-Dichloropropene	50.00	55.85	112		5.05	30	65 - 125
Ethylbenzene	50.00	48.66	97.3		2.74	30	75 - 125
2-Hexanone	100.0	85.99	86.0		4.51	30	45 - 145
Isopropylbenzene	50.00	51.10	102		4.30	30	75 - 130
Methylene chloride	50.00	53.79	108		2.76	30	55 - 140
Methyl Acetate	50.00	64.76	130		9.69	30	45 - 165
Methylcyclohexane	50.00	51.00	102		2.40	30	65 - 135
4-Methyl-2-pentanone	100.0	94.48	94.5		12.0	30	45 - 145
Methyl t-Butyl Ether	100.0	112.9	113		1.87	30	55 - 150

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B21008
Laboratory ID: 1B21008-BSD1
Preparation: 5035
Initial/Final: 5 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #		% RPD #	QC LIMITS RPD	QC LIMITS REC.
Styrene	50.00	47.55	95.1		5.57	30	75 - 125
1,1,2,2-Tetrachloroethane	50.00	53.28	107		0.741	30	55 - 130
Tetrachloroethene	50.00	45.18	90.4		6.29	30	65 - 140
Toluene	50.00	49.37	98.7		3.25	30	70 - 125
1,2,3-Trichlorobenzene	50.00	44.92	89.8		1.49	30	60 - 130
1,2,4-Trichlorobenzene	50.00	43.55	87.1		3.98	30	65 - 130
1,1,2-Trichloroethane	50.00	47.51	95.0		1.68	30	60 - 125
1,1,1-Trichloroethane	50.00	53.32	107		0.111	30	70 - 135
Trichloroethene	50.00	53.01	106		3.74	30	75 - 125
Trichlorofluoromethane	50.00	58.77	118		11.6	30	25 - 185
1,1,2-Trichloro-1,2,2-trifluoroethane	50.00	55.54	111		0.429	30	20 - 185
Vinyl chloride	**50.00**	**63.47**	**127**	*	**0.225**	**30**	**60 - 125**
Xylenes (total)	150.0	154.7	103		2.10	30	75 - 125

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B21008	Laboratory ID:	1B21008-BS2
Preparation:	5035	Initial/Final:	5 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
1,4-Dioxane	1000	762.7	76.3	50 - 150

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dioxane	1000	1007	101	27.6	30	50 - 150

PREPARATION BATCH SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1B21008 Batch Matrix: Solid Preparation: 5035

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	02/21/11 00:00	4.48	5.00
Blank	1B21008-BLK1	02/21/11 00:00	5.00	5.00
LCS	1B21008-BS1	02/21/11 00:00	5.00	5.00
LCS	1B21008-BS2	02/21/11 00:00	5.00	5.00
LCS Dup	1B21008-BSD1	02/21/11 00:00	5.00	5.00
LCS Dup	1B21008-BSD2	02/21/11 00:00	5.00	5.00

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	0208TUN1.D	Injection Date:	02/08/11
Instrument ID:	MS-VOA6	Injection Time:	16:12
Sequence:	1B04025	Lab Sample ID:	1B04025-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	21.5	PASS
75	30 - 60% of 95	39.6	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.17	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	84.4	PASS
175	5 - 9% of 174	7.21	PASS
176	95 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.33	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	0208TUN2.D	Injection Date:	02/09/11
Instrument ID:	MS-VOA6	Injection Time:	06:45
Sequence:	1B04025	Lab Sample ID:	1B04025-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	23.4	PASS
75	30 - 60% of 95	41.2	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.69	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	82.1	PASS
175	5 - 9% of 174	7.04	PASS
176	95 - 101% of 174	95	PASS
177	5 - 9% of 176	6.33	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	0208TUN3.D	Injection Date:	02/09/11
Instrument ID:	MS-VOA6	Injection Time:	15:56
Sequence:	1B04025	Lab Sample ID:	1B04025-TUN3

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	26.4	PASS
75	30 - 60% of 95	43.2	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.71	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	63.8	PASS
175	5 - 9% of 174	7.5	PASS
176	95 - 101% of 174	97.4	PASS
177	5 - 9% of 176	6.46	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	0211TUN1.D	Injection Date:	02/11/11
Instrument ID:	MS-VOA6	Injection Time:	14:35
Sequence:	1B04025	Lab Sample ID:	1B04025-TUN4

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	22.3	PASS
75	30 - 60% of 95	40	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.39	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	86.4	PASS
175	5 - 9% of 174	6.88	PASS
176	95 - 101% of 174	95.8	PASS
177	5 - 9% of 176	6.12	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	0221TUN1.D	Injection Date:	02/21/11
Instrument ID:	MS-VOA6	Injection Time:	09:43
Sequence:	1B05306	Lab Sample ID:	1B05306-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	16.7	PASS
75	30 - 60% of 95	36.9	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	5.65	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	151	PASS
175	5 - 9% of 174	6.76	PASS
176	95 - 101% of 174	96.9	PASS
177	5 - 9% of 176	5.93	PASS

ANALYSIS SEQUENCE SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B04025
Instrument: MS-VOA6
Calibration: 1045002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	1B04025-TUN1	0208TUN1.D	02/08/11 16:12
Cal Standard	1B04025-CAL1	0208CAL1.D	02/08/11 16:35
Cal Standard	1B04025-CAL2	0208CAL2.D	02/08/11 16:59
Cal Standard	1B04025-CAL3	0208CAL3.D	02/08/11 17:23
Cal Standard	1B04025-CAL4	0208CAL4.D	02/08/11 17:47
Cal Standard	1B04025-CAL5	0208CAL5.D	02/08/11 18:11
Cal Standard	1B04025-CAL7	0208CAL7.D	02/08/11 18:59
Cal Standard	1B04025-CAL8	0208CAL8.D	02/08/11 19:23
Cal Standard	1B04025-CAL9	0208CAL9.D	02/08/11 20:35
Cal Standard	1B04025-CALA	0208CALA.D	02/08/11 20:58
Cal Standard	1B04025-CALB	0208CALB.D	02/08/11 21:22
Cal Standard	1B04025-CALC	0208CALC.D	02/08/11 21:46
Cal Standard	1B04025-CALD	0208CALD.D	02/08/11 22:09
Cal Standard	1B04025-CALE	0208CALE.D	02/08/11 22:33
Cal Standard	1B04025-CALF	0208CALF.D	02/08/11 22:57
Cal Standard	1B04025-CALG	0208CALG.D	02/08/11 23:21
Initial Cal Check	1B04025-ICV3	0208ICV3.D	02/08/11 23:45
MS Tune	1B04025-TUN2	0208TUN2.D	02/09/11 06:45
Cal Standard	1B04025-CAL6	208CAL6A.D	02/09/11 07:13
Initial Cal Check	1B04025-ICV1	208ICV1A.D	02/09/11 07:37
Initial Cal Check	1B04025-ICV2	0209icv2.D	02/09/11 09:08
MS Tune	1B04025-TUN3	0208TUN3.D	02/09/11 15:56
Cal Standard	1B04025-CALH	SEQ-CALH.D	02/09/11 16:20
Cal Standard	1B04025-CALI	SEQ-CALI.D	02/09/11 16:45
Cal Standard	1B04025-CALJ	SEQ-CALJ.D	02/09/11 17:09
Cal Standard	1B04025-CALK	SEQ-CALK.D	02/09/11 17:33
Cal Standard	1B04025-CALL	SEQ-CALL.D	02/09/11 17:56
Cal Standard	1B04025-CALM	SEQ-CALM.D	02/09/11 18:20
Cal Standard	1B04025-CALN	SEQ-CALN.D	02/09/11 18:44
Cal Standard	1B04025-CALO	SEQ-CALO.D	02/09/11 19:08
MS Tune	1B04025-TUN4	0211TUN1.D	02/11/11 14:35
Initial Cal Check	1B04025-ICV5	SEQ-ICV5.D	02/11/11 14:58

ANALYSIS SEQUENCE SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B05306
Instrument: MS-VOA6
Calibration: 1045002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	1B05306-TUN1	0221TUN1.D	02/21/11 09:43
Calibration Check	1B05306-CCV2	0221CCV2.D	02/21/11 10:32
Calibration Check	1B05306-CCV1	0221CCV1.D	02/21/11 11:35
LCS	1B21008-BS1	0221LS1.D	02/21/11 12:15
LCS	1B21008-BS2	0221LS2.D	02/21/11 12:40
Blank	1B21008-BLK1	0221BL1.D	02/21/11 13:53
Backfilll (20110218)	1102180-01	0218001.D	02/21/11 14:17
LCS Dup	1B21008-BSD1	0221LD1.D	02/21/11 15:56
LCS Dup	1B21008-BSD2	0221LD2.D	02/21/11 16:20

INTERNAL STANDARD AREA AND RT SUMMARY
SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B05306
Instrument: MS-VOA6
Calibration: 1045002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (1B05306-CCV2)			Lab File ID: 0221CCV2.D			Analyzed: 02/21/11 10:32			
Fluorobenzene	961096	7.965	972174	7.931	99	50 - 200	0.0340	+/-0.50	
Chlorobenzene-d5	427569	11.073	431704	11.049	99	50 - 200	0.0240	+/-0.50	
1,4-Dichlorobenzene-d4	377809	13.463	423574	13.439	89	50 - 200	0.0240	+/-0.50	
Calibration Check (1B05306-CCV1)			Lab File ID: 0221CCV1.D			Analyzed: 02/21/11 11:35			
Fluorobenzene	997391	7.969	997391	7.969	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	430271	11.067	430271	11.067	100	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	415621	13.457	415621	13.457	100	50 - 200	0.0000	+/-0.50	
LCS (1B21008-BS1)			Lab File ID: 0221LS1.D			Analyzed: 02/21/11 12:15			
Fluorobenzene	986387	7.965	997391	7.969	99	50 - 200	-0.0040	+/-0.50	
Chlorobenzene-d5	448630	11.073	430271	11.067	104	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	410953	13.463	415621	13.457	99	50 - 200	0.0060	+/-0.50	
LCS (1B21008-BS2)			Lab File ID: 0221LS2.D			Analyzed: 02/21/11 12:40			
Fluorobenzene	918418	7.968	997391	7.969	92	50 - 200	-0.0010	+/-0.50	
Chlorobenzene-d5	406960	11.076	430271	11.067	95	50 - 200	0.0090	+/-0.50	
1,4-Dichlorobenzene-d4	344306	13.466	415621	13.457	83	50 - 200	0.0090	+/-0.50	
Blank (1B21008-BLK1)			Lab File ID: 0221BL1.D			Analyzed: 02/21/11 13:53			
Fluorobenzene	840590	7.961	997391	7.969	84	50 - 200	-0.0080	+/-0.50	
Chlorobenzene-d5	393495	11.068	430271	11.067	91	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	339095	13.458	415621	13.457	82	50 - 200	0.0010	+/-0.50	
Backfilll (20110218) (1102180-01)			Lab File ID: 0218001.D			Analyzed: 02/21/11 14:17			
Fluorobenzene	830970	7.97	997391	7.969	83	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	352541	11.068	430271	11.067	82	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	282106	13.458	415621	13.457	68	50 - 200	0.0010	+/-0.50	
LCS Dup (1B21008-BSD1)			Lab File ID: 0221LD1.D			Analyzed: 02/21/11 15:56			
Fluorobenzene	854448	7.968	997391	7.969	86	50 - 200	-0.0010	+/-0.50	
Chlorobenzene-d5	414510	11.076	430271	11.067	96	50 - 200	0.0090	+/-0.50	
1,4-Dichlorobenzene-d4	358403	13.466	415621	13.457	86	50 - 200	0.0090	+/-0.50	
LCS Dup (1B21008-BSD2)			Lab File ID: 0221LD2.D			Analyzed: 02/21/11 16:20			
Fluorobenzene	835608	7.97	997391	7.969	84	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	369854	11.078	430271	11.067	86	50 - 200	0.0110	+/-0.50	
1,4-Dichlorobenzene-d4	317736	13.458	415621	13.457	76	50 - 200	0.0010	+/-0.50	

INITIAL CALIBRATION DATA

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone												
Acetonitrile												
Acrolein	10	3.756483E-02	25.01	3.592496E-02	50.02	3.279747E-02	100	3.027563E-02	250.1	2.616578E-02	500.2	2.836008E-02
Acrylonitrile	9.996	7.751938E-02	24.99	6.934293E-02	49.98	0.1036364	99.96	6.371372E-02	249.9	9.483173E-02	499.8	0.1038235
Benzene	2	1.061782	5	1.085753	10	1.07756	20	1.101538	50	1.062681	100	1.168729
Allyl chloride												
Bromobenzene	2	0.7470029	5	0.690608	10	0.73579	20	0.7029826	50	0.6759098	100	0.7159262
Bromochloromethane	2	0.1531184	5	0.1481263	10	0.1471181	20	0.1476266	50	0.1386942	100	0.1478994
Tert-Amyl Methyl Ether	2	0.7507538	5	0.7660239	10	0.7592371	20	0.7607483	50	0.7115281	100	0.7910823
Bromodichloromethane	2	0.3104988	5	0.3071958	10	0.3190153	20	0.3117362	50	0.3116093	100	0.3449616
Bromoform	2	~~0.2616829~~	5	0.2798085	10	0.3012296	20	0.3115155	50	0.3087993	100	0.3759775
Bromomethane	2	~~7.371335E-02~~	5	7.750693E-02	10	8.466907E-02	20	8.624543E-02	50	0.0937419	100	0.1153427
Bromofluorobenzene	30	0.8301043	30	0.849826	30	0.8264607	30	0.8153727	30	0.7890826	30	0.8544657
n-Butylbenzene	2	2.785165	5	2.617003	10	2.816419	20	2.750954	50	2.622143	100	2.894858
2-Butanone												
sec-Butylbenzene	2	3.151285	5	3.066315	10	3.323505	20	3.301126	50	3.202842	100	3.459591
tert-Butylbenzene	2	2.17391	5	2.031212	10	2.135985	20	2.119383	50	2.039649	100	2.229972
Carbon disulfide	2	0.7149891	5	0.6924307	10	0.7993255	20	0.5551867	50	0.8103692	100	0.9498407
Carbon tetrachloride	2	0.2889103	5	0.2860839	10	0.288463	20	0.3030137	50	0.3080328	100	0.35016
Chlorobenzene	2	1.875558	5	1.771786	10	1.803756	20	1.765153	50	1.690779	100	1.905895
Chloroethane	2	8.705562E-02	5	7.229842E-02	10	8.957504E-02	20	8.400356E-02	50	8.288075E-02	100	8.787256E-02
Chloroform	2	0.4898649	5	0.4751689	10	0.4707317	20	0.4865336	50	0.457359	100	0.5020879
2-Chloroethyl vinyl ether	3.99	0.1848713	9.975	0.1784075	19.95	0.1770296	39.9	0.1763524	99.75	0.1619434	199.5	0.1744515
Chloromethane	2	0.35766	5	0.3572945	10	0.3695839	20	0.3693712	50	0.3945523	100	0.3919691
1-Chlorohexane	2.004	2.22108	5.01	2.023071	10.02	2.169874	20.04	2.118177	50.1	2.018756	100.2	2.112281
2-Chlorotoluene	2	2.026203	5	2.003491	10	2.116461	20	2.10787	50	1.979201	100	2.20004
Chloroprene												
4-Chlorotoluene	2	2.219507	5	2.256409	10	2.307302	20	2.295402	50	2.228706	100	2.424602
Cyclohexane	2	0.7461476	5	0.6373068	10	0.6643557	20	0.6754938	50	0.6609604	100	0.711204
Dibromochloromethane	2	0.4664542	5	0.4878683	10	0.5045771	20	0.5001025	50	0.4934865	100	0.5950801
1,2-Dibromo-3-chloropropane	2	0.11204	5	0.1045764	10	0.1082321	20	0.1108009	50	0.1044906	100	0.1137534

INITIAL CALIBRATION DATA

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,2-Dibromoethane (EDB)	2	0.6004558	5	0.5329797	10	0.4938069	20	0.4902496	50	0.458391	100	0.515838
Dibromomethane	2	0.1753952	5	0.1633735	10	0.1759811	20	0.1750685	50	0.1642084	100	0.1767537
1,2-Dichlorobenzene	2	1.25758	5	1.158089	10	1.202775	20	1.190451	50	1.107789	100	1.182512
1,3-Dichlorobenzene	2	1.313197	5	1.280567	10	1.331553	20	1.320101	50	1.222079	100	1.308105
trans-1,4-Dichloro-2-butene												
cis-1,4-Dichloro-2-butene												
1,4-Dichlorobenzene	2	1.397145	5	1.336716	10	1.321149	20	1.291749	50	1.239289	100	1.30013
Dichlorodifluoromethane	2	0.2899824	5	0.2433753	10	0.2462849	20	0.2339546	50	0.2969228	100	0.3137854
1,1-Dichloroethane	2	0.5414735	5	0.5528414	10	0.6051287	20	0.5926146	50	0.5757458	100	0.6148422
1,2-Dichloroethane	2	0.293543	5	0.2842689	10	0.2959148	20	0.2875738	50	0.2714845	100	0.3087262
1,1-Dichloroethene	2	~~0.1672813~~	5	0.1708818	10	0.2138923	20	0.1881977	50	0.2206685	100	0.2484578
cis-1,2-Dichloroethene	2	0.3114254	5	0.3106307	10	0.3209246	20	0.3086273	50	0.3079395	100	0.3264114
trans-1,2-Dichloroethene	2	0.2866469	5	0.2498845	10	0.2830028	20	0.2781287	50	0.2772549	100	0.3027944
1,2-Dichloroethene (total)	4	0.2990361	10	0.2802576	20	0.3019637	40	0.293378	100	0.2925972	200	0.3146029
1,2-Dichloropropane	2	0.3763763	5	0.3682909	10	0.365142	20	0.3629965	50	0.3481348	100	0.3742469
1,3-Dichloropropane	2	0.879273	5	0.7939543	10	0.8081485	20	0.7899708	50	0.73429	100	0.8173957
2,2-Dichloropropane	2	0.3242779	5	0.3285206	10	0.3349875	20	0.3345004	50	0.3213804	100	0.3729991
1,1-Dichloropropene	2	0.3884081	5	0.3484738	10	0.3805441	20	0.3847533	50	0.3792585	100	0.4104046
cis-1,3-Dichloropropene	2	0.4344839	5	0.4350143	10	0.4301103	20	0.4335544	50	0.4170583	100	0.4573277
trans-1,3-Dichloropropene	2	0.7683201	5	0.7138107	10	0.7232023	20	0.7117684	50	0.6927822	100	0.7933086
Diisopropyl Ether	2	1.643891	5	1.595466	10	1.621821	20	1.620216	50	1.573697	100	1.707769
1,4-Dioxane												
Ethylbenzene	2	3.006193	5	2.923263	10	3.07896	20	3.067902	50	2.95293	100	3.41056
Ethyl tert-Butyl Ether	2	0.9974004	5	0.9712783	10	0.9963493	20	0.9846551	50	0.9564952	100	1.075788
Ethyl Methacrylate	2	0.8625155	5	0.8436295	10	0.7624561	20	0.7667309	50	0.7163738	100	0.8089864
Hexachlorobutadiene	2	0.4575836	5	0.4341365	10	0.4659515	20	0.4715648	50	0.4532541	100	0.5045612
Hexane												
2-Hexanone												
Iodomethane	2	0.248407	5	0.2548802	10	0.3049656	20	0.279838	50	0.3250018	100	0.3519559
Isobutyl alcohol												
Isopropylbenzene	2	2.294059	5	2.285611	10	2.452665	20	2.37677	50	2.275532	100	2.581928

INITIAL CALIBRATION DATA

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
p-Isopropyltoluene	2	2.309628	5	2.135441	10	2.337972	20	2.332356	50	2.269986	100	2.487688
Methacrylonitrile												
Methylene chloride	2	0.7552542	5	0.4559193	10	0.3996641	20	0.2317498	50	0.2907731	100	0.3130779
Methyl Acetate	2	0.2236285	5	0.2514748	10	0.2597989	20	0.1718908	50	0.2310738	100	0.2529856
Methylcyclohexane	2	0.5012217	5	0.4741875	10	0.5071525	20	0.5214485	50	0.502103	100	0.5426753
Naphthalene	2	1.780473	5	1.614442	10	1.578626	20	1.557813	50	1.429284	100	1.560273
Methyl Methacrylate	2	0.48326	5	0.4803774	10	0.4711374	20	0.4626519	50	0.4558675	100	0.4859491
4-Methyl-2-pentanone												
Methyl t-Butyl Ether	2	0.5759807	5	0.5826558	10	0.5951922	20	0.5754943	50	0.5694992	100	0.638687
n-Propylbenzene	2	3.79603	5	3.545272	10	3.80743	20	3.780267	50	3.661068	100	4.13336
Propionitrile												
Styrene	2	1.927309	5	1.80957	10	1.873548	20	1.872612	50	1.750939	100	1.970078
1,1,2,2-Tetrachloroethane	2	0.6828267	5	0.7255559	10	0.7090542	20	0.6776878	50	0.6315376	100	0.71698
1,1,1,2-Tetrachloroethane	2	0.6138791	5	0.5872829	10	0.6046367	20	0.6078519	50	0.5767041	100	0.6580373
tert-Butyl alcohol	10	3.247147E-02	25	2.832816E-02	50	2.641692E-02	100	2.675249E-02	250	2.407234E-02	500	2.525515E-02
Tetrachloroethene	2	0.6411317	5	0.5516078	10	0.6071488	20	0.5940988	50	0.5687704	100	0.6485346
Toluene	2	1.653855	5	1.500784	10	1.608872	20	1.546331	50	1.509546	100	1.656163
1,2,3-Trichlorobenzene	2	0.7095767	5	0.7003469	10	0.7116627	20	0.6956501	50	0.6350796	100	0.6810502
1,2,4-Trichlorobenzene	2	0.8162488	5	0.7952111	10	0.7953906	20	0.7745676	50	0.7371004	100	0.7827231
1,1,2-Trichloroethane	2	0.5007809	5	0.4659105	10	0.4662858	20	0.4427537	50	0.416613	100	0.4616935
1,1,1-Trichloroethane	2	0.3368524	5	0.3178967	10	0.3316859	20	0.3398842	50	0.3373299	100	0.3698448
Tetrahydrofuran	2	0.2155278	5	0.1543103	10	0.118979	20	0.1078508	50	9.851796E-02	100	0.1062613
Trichloroethene	2	0.328765	5	0.2905771	10	0.2943873	20	0.3047147	50	0.2969598	100	0.3201752
Trichlorofluoromethane	2	0.4417375	5	0.4173432	10	0.4186727	20	0.4473662	50	0.4334278	100	0.4536805
1,2,3-Trichloropropane	2	0.1627907	5	0.1329942	10	0.134935	20	0.1426108	50	0.1239256	100	0.1396684
1,3,5-Trimethylbenzene	2	2.255114	5	2.173421	10	2.276182	20	2.202211	50	2.172413	100	2.372903
1,2,4-Trimethylbenzene	2	2.309479	5	2.14176	10	2.199332	20	2.211839	50	2.158688	100	2.3911
1,1,2-Trichloro-1,2,2-trifluoroethan	2	0.268791	5	0.2260116	10	0.2709447	20	0.2430542	50	0.2542092	100	0.2843963
Vinyl chloride	2	0.2231652	5	0.1838824	10	0.1648936	20	0.1664933	50	0.2255206	100	0.2109722
m,p-Xylene	4	2.356566	10	2.201289	20	2.300586	40	2.335069	100	2.271009	200	2.481994
o-Xylene	2	2.296002	5	2.225227	10	2.338918	20	2.313981	50	2.173523	100	2.494403

INITIAL CALIBRATION DATA

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Vinyl acetate	3.998	0.4521423	9.995	0.4534324	19.99	0.4418868	39.98	0.4271593	99.95	0.4198531	199.9	0.4560466
Xylenes (total)	6	2.336378	15	2.209268	30	2.313363	60	2.328039	150	2.238513	300	2.48613
Dibromofluoromethane	30	0.2988129	30	0.2996363	30	0.2905854	30	0.2955724	30	0.2971521	30	0.3075259
1,2-Dichloroethane-d4	30	5.968633E-02	30	5.947716E-02	30	5.530486E-02	30	5.696298E-02	30	5.913587E-02	30	0.0591198
Toluene-d8	30	2.123717	30	2.131698	30	2.11596	30	2.034826	30	2.028679	30	2.169641

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone					4	8.470745E-02	10	8.915309E-02	20	8.285134E-02	40	7.250014E-02
Acetonitrile												
Acrolein	750.3	2.838079E-02	1000	2.600032E-02								
Acrylonitrile	749.7	0.1024932	999.6	9.546004E-02								
Benzene	150	1.192145	200	1.155082								
Allyl chloride												
Bromobenzene	150	0.7302519	200	0.7329693								
Bromochloromethane	150	0.1491289	200	0.1443947								
Tert-Amyl Methyl Ether	150	0.807724	200	0.7867898								
Bromodichloromethane	150	0.3531789	200	0.3510862								
Bromoform	150	0.4028367	200	~~0.4128355~~								
Bromomethane	150	0.1015578	200	0.1000582								
Bromofluorobenzene	30	0.8640198	30	0.8813654								
n-Butylbenzene	150	2.870467	200	2.722726								
2-Butanone					4	0.1330208	10	0.1701131	20	0.1749022	40	0.1609534
sec-Butylbenzene	150	3.480445	200	3.296109								
tert-Butylbenzene	150	2.240936	200	2.192407								
Carbon disulfide	150	0.9301783	200	0.8994057								
Carbon tetrachloride	150	0.3521533	200	0.338749								
Chlorobenzene	150	2.022008	200	2.042233								
Chloroethane	150	8.393602E-02	200	8.074598E-02								
Chloroform	150	0.5073668	200	0.4925365								
2-Chloroethyl vinyl ether	299.2	0.1762279	399	0.1688767								
Chloromethane	150	0.3887158	200	0.3704813								
1-Chlorohexane	150.3	2.01726	200.4	1.885388								
2-Chlorotoluene	150	2.239528	200	2.201793								
Chloroprene												
4-Chlorotoluene	150	2.466821	200	2.43551								
Cyclohexane	150	0.7164013	200	0.6757709								
Dibromochloromethane	150	0.6469215	200	0.6589571								
1,2-Dibromo-3-chloropropane	150	0.1180717	200	0.1164974								

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,2-Dibromoethane (EDB)	150	0.5513408	200	0.5571805								
Dibromomethane	150	0.1775397	200	0.1716395								
1,2-Dichlorobenzene	150	1.205745	200	1.236032								
1,3-Dichlorobenzene	150	1.326823	200	1.310985								
trans-1,4-Dichloro-2-butene												
cis-1,4-Dichloro-2-butene												
1,4-Dichlorobenzene	150	1.329174	200	1.311361								
Dichlorodifluoromethane	150	0.294192	200	0.2759141								
1,1-Dichloroethane	150	0.6166086	200	0.5947691								
1,2-Dichloroethane	150	0.3026457	200	0.3034343								
1,1-Dichloroethene	150	0.1785913	200	~~0.2416956~~								
cis-1,2-Dichloroethene	150	0.3297915	200	0.3192484								
trans-1,2-Dichloroethene	150	0.2978576	200	0.2889025								
1,2-Dichloroethene (total)	300	0.3138245	400	0.3040755								
1,2-Dichloropropane	150	0.3778939	200	0.3725401								
1,3-Dichloropropane	150	0.8986319	200	0.8784469								
2,2-Dichloropropane	150	0.3617797	200	0.3482468								
1,1-Dichloropropene	150	0.4099157	200	0.3932496								
cis-1,3-Dichloropropene	150	0.469431	200	0.4523565								
trans-1,3-Dichloropropene	150	0.8248023	200	0.802177								
Diisopropyl Ether	150	1.730807	200	1.694548								
1,4-Dioxane												
Ethylbenzene	150	3.651297	200	3.573134								
Ethyl tert-Butyl Ether	150	1.079763	200	1.057801								
Ethyl Methacrylate	150	0.8710207	200	0.8578263								
Hexachlorobutadiene	150	0.4984486	200	0.5033677								
Hexane												
2-Hexanone					4	0.649287	10	0.637436	20	0.6198641	40	0.6138946
Iodomethane	150	0.3500682	200	~~0.3742377~~								
Isobutyl alcohol												
Isopropylbenzene	150	2.784682	200	2.727285								

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
p-Isopropyltoluene	150	2.44157	200	2.332893								
Methacrylonitrile												
Methylene chloride	150	0.309667	200	0.3027675								
Methyl Acetate	150	0.2510632	200	~~0.223989~~								
Methylcyclohexane	150	0.5392906	200	0.5146507								
Naphthalene	150	1.643224	200	1.657041								
Methyl Methacrylate	150	0.4831825	200	0.4512382								
4-Methyl-2-pentanone					4	0.3733068	10	0.4147558	20	0.3954946	40	0.3765838
Methyl t-Butyl Ether	150	0.6360249	200	0.6284265								
n-Propylbenzene	150	4.002939	200	3.703082								
Propionitrile												
Styrene	150	2.111887	200	2.10262								
1,1,2,2-Tetrachloroethane	150	0.6980061	200	0.6850432								
1,1,1,2-Tetrachloroethane	150	0.7068497	200	0.7111916								
tert-Butyl alcohol	750	2.532031E-02	1000	2.506596E-02								
Tetrachloroethene	150	0.6992434	200	0.6850495								
Toluene	150	1.706061	200	1.604325								
1,2,3-Trichlorobenzene	150	0.7278232	200	0.7516194								
1,2,4-Trichlorobenzene	150	0.8125712	200	0.8332477								
1,1,2-Trichloroethane	150	0.4953458	200	0.4956092								
1,1,1-Trichloroethane	150	0.3669203	200	0.3572786								
Tetrahydrofuran	150	0.1030719	200	9.688072E-02								
Trichloroethene	150	0.3226635	200	0.3110056								
Trichlorofluoromethane	150	0.4505598	200	0.3669905								
1,2,3-Trichloropropane	150	0.1471629	200	0.1448242								
1,3,5-Trimethylbenzene	150	2.367285	200	2.354633								
1,2,4-Trimethylbenzene	150	2.425007	200	2.350211								
1,1,2-Trichloro-1,2,2-trifluoroethan	150	0.2343912	200	0.2778142								
Vinyl chloride	150	0.1769872	200	0.1586922								
m,p-Xylene	300	2.402223	400	2.220402								
o-Xylene	150	2.704775	200	2.61654								

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Vinyl acetate	299.8	0.4630155	399.8	0.4347041								
Xylenes (total)	450	2.503073	600	2.352449								
Dibromofluoromethane	30	0.3024829	30	0.301783								
1,2-Dichloroethane-d4	30	5.607005E-02	30	0.0572409								
Toluene-d8	30	2.255154	30	2.324347								

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	100	6.862368E-02	200	0.071894	300	7.060606E-02	400	6.814481E-02				
Acetonitrile									20	2.855323E-02	50	3.448358E-02
Acrolein												
Acrylonitrile												
Benzene												
Allyl chloride									2	0.135699	5	0.1433794
Bromobenzene												
Bromochloromethane												
Tert-Amyl Methyl Ether												
Bromodichloromethane												
Bromoform												
Bromomethane												
Bromofluorobenzene												
n-Butylbenzene												
2-Butanone	100	0.1617353	200	0.1751666	300	0.1783483	400	0.1715294				
sec-Butylbenzene												
tert-Butylbenzene												
Carbon disulfide												
Carbon tetrachloride												
Chlorobenzene												
Chloroethane												
Chloroform												
2-Chloroethyl vinyl ether												
Chloromethane												
1-Chlorohexane												
2-Chlorotoluene												
Chloroprene									2	0.4185475	5	0.4834692
4-Chlorotoluene												
Cyclohexane												
Dibromochloromethane												
1,2-Dibromo-3-chloropropane												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,2-Dibromoethane (EDB)												
Dibromomethane												
1,2-Dichlorobenzene												
1,3-Dichlorobenzene												
trans-1,4-Dichloro-2-butene									2	0.2652028	5	0.2479307
cis-1,4-Dichloro-2-butene									2	0.2069597	5	0.1766969
1,4-Dichlorobenzene												
Dichlorodifluoromethane												
1,1-Dichloroethane												
1,2-Dichloroethane												
1,1-Dichloroethene												
cis-1,2-Dichloroethene												
trans-1,2-Dichloroethene												
1,2-Dichloroethene (total)												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
1,1-Dichloropropene												
cis-1,3-Dichloropropene												
trans-1,3-Dichloropropene												
Diisopropyl Ether												
1,4-Dioxane									40		100	2.206444E-03
Ethylbenzene												
Ethyl tert-Butyl Ether												
Ethyl Methacrylate												
Hexachlorobutadiene												
Hexane									2.002	0.6231075	5.005	0.6189691
2-Hexanone	100	0.5779477	200	0.6258995	300	0.6538966	400	0.6288518				
Iodomethane												
Isobutyl alcohol									40	~~1.969205E-02~~	100	1.627713E-02
Isopropylbenzene												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
p-Isopropyltoluene												
Methacrylonitrile									20	0.2655897	50	0.2321716
Methylene chloride												
Methyl Acetate												
Methylcyclohexane												
Naphthalene												
Methyl Methacrylate												
4-Methyl-2-pentanone	100	0.3698155	200	0.3970651	300	0.4166396	400	0.4044311				
Methyl t-Butyl Ether												
n-Propylbenzene												
Propionitrile									20	5.017268E-02	50	4.044138E-02
Styrene												
1,1,2,2-Tetrachloroethane												
1,1,1,2-Tetrachloroethane												
tert-Butyl alcohol												
Tetrachloroethene												
Toluene												
1,2,3-Trichlorobenzene												
1,2,4-Trichlorobenzene												
1,1,2-Trichloroethane												
1,1,1-Trichloroethane												
Tetrahydrofuran												
Trichloroethene												
Trichlorofluoromethane												
1,2,3-Trichloropropane												
1,3,5-Trimethylbenzene												
1,2,4-Trimethylbenzene												
1,1,2-Trichloro-1,2,2-trifluoroethan												
Vinyl chloride												
m,p-Xylene												
o-Xylene												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Vinyl acetate												
Xylenes (total)												
Dibromofluoromethane												
1,2-Dichloroethane-d4												
Toluene-d8												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone												
Acetonitrile	100	2.939836E-02	200	2.919275E-02	500	2.403987E-02	1000	2.923679E-02	1500	2.553591E-02	2000	2.705793E-02
Acrolein												
Acrylonitrile												
Benzene												
Allyl chloride	10	0.107602	20	0.1519913	50	0.1461746	100	0.1685479	150	0.1709842	200	0.1718935
Bromobenzene												
Bromochloromethane												
Tert-Amyl Methyl Ether												
Bromodichloromethane												
Bromoform												
Bromomethane												
Bromofluorobenzene												
n-Butylbenzene												
2-Butanone												
sec-Butylbenzene												
tert-Butylbenzene												
Carbon disulfide												
Carbon tetrachloride												
Chlorobenzene												
Chloroethane												
Chloroform												
2-Chloroethyl vinyl ether												
Chloromethane												
1-Chlorohexane												
2-Chlorotoluene												
Chloroprene	10	0.4954808	20	0.4965546	50	0.4669755	100	0.555009	150	0.5795961	200	0.5722686
4-Chlorotoluene												
Cyclohexane												
Dibromochloromethane												
1,2-Dibromo-3-chloropropane												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,2-Dibromoethane (EDB)												
Dibromomethane												
1,2-Dichlorobenzene												
1,3-Dichlorobenzene												
trans-1,4-Dichloro-2-butene	10	0.2245292	20	0.2145588	50	0.1925518	100	0.2250313	150	0.2330714	200	0.2482655
cis-1,4-Dichloro-2-butene	10	0.171214	20	0.1885215	50	0.1674621	100	0.1914922	150	0.2037682	200	0.2157148
1,4-Dichlorobenzene												
Dichlorodifluoromethane												
1,1-Dichloroethane												
1,2-Dichloroethane												
1,1-Dichloroethene												
cis-1,2-Dichloroethene												
trans-1,2-Dichloroethene												
1,2-Dichloroethene (total)												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
1,1-Dichloropropene												
cis-1,3-Dichloropropene												
trans-1,3-Dichloropropene												
Diisopropyl Ether												
1,4-Dioxane	200	1.876678E-03	400	2.405805E-03	1000	2.042065E-03	2000	2.21821E-03	3000	2.267013E-03	4000	2.493068E-03
Ethylbenzene												
Ethyl tert-Butyl Ether												
Ethyl Methacrylate												
Hexachlorobutadiene												
Hexane	10.01	0.6179582	20.02	0.6309002	50.05	0.6007104	100.1	0.687046	150.2	0.7045144	200.2	0.6950964
2-Hexanone												
Iodomethane												
Isobutyl alcohol	200	1.369115E-02	400	1.393754E-02	1000	1.183017E-02	2000	1.266437E-02	3000	1.317439E-02	4000	1.450848E-02
Isopropylbenzene												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
p-Isopropyltoluene												
Methacrylonitrile	100	0.2358419	200	0.2323532	500	0.2138889	1000	0.2396268	1500	0.2338561	2000	0.2308342
Methylene chloride												
Methyl Acetate												
Methylcyclohexane												
Naphthalene												
Methyl Methacrylate												
4-Methyl-2-pentanone												
Methyl t-Butyl Ether												
n-Propylbenzene												
Propionitrile	100	4.148813E-02	200	4.333411E-02	500	3.613378E-02	1000	3.907868E-02	1500	4.197285E-02	2000	0.0442969
Styrene												
1,1,2,2-Tetrachloroethane												
1,1,1,2-Tetrachloroethane												
tert-Butyl alcohol												
Tetrachloroethene												
Toluene												
1,2,3-Trichlorobenzene												
1,2,4-Trichlorobenzene												
1,1,2-Trichloroethane												
1,1,1-Trichloroethane												
Tetrahydrofuran												
Trichloroethene												
Trichlorofluoromethane												
1,2,3-Trichloropropane												
1,3,5-Trimethylbenzene												
1,2,4-Trimethylbenzene												
1,1,2-Trichloro-1,2,2-trifluoroethan												
Vinyl chloride												
m,p-Xylene												
o-Xylene												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Vinyl acetate												
Xylenes (total)												
Dibromofluoromethane												
1,2-Dichloroethane-d4												
Toluene-d8												

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acetone	7.606007E-02	10.77376	3.791625	0.2559776			15	
Acetonitrile	0.0284373	10.98934	3.856	0.2674575			15	
Acrolein	3.068373E-02	14.17936	3.687375	0.266829			15	
Acrylonitrile	8.885261E-02	18.29246	4.637625	0.1611173	0.9961602		0.995	
Benzene	1.113159	4.608946	7.67675	4.449891E-02			15	
Allyl chloride	0.149534	14.5782	4.71025	0.2415273			15	
Bromobenzene	0.7164301	3.444919	12.40125	2.882236E-02			15	
Bromochloromethane	0.1470133	2.818947	6.77675	6.962075E-02			15	
Tert-Amyl Methyl Ether	0.7667359	3.84088	7.868625	0.0369654			15	
Bromodichloromethane	0.3261603	6.110637	8.6565	0.0395075			15	
Bromoform	0.3300278	14.56769	11.81133	3.114238E-02			SPCC (0.1)	
Bromomethane	9.416029E-02	13.49252	2.841429	0.3399494			15	
Bromofluorobenzene	0.8388372	3.508578	12.24	0.0295681			15	
n-Butylbenzene	2.759967	3.753642	13.82862	1.990092E-02			15	
2-Butanone	0.1657211	8.815262	6.23675	9.832357E-02			15	
sec-Butylbenzene	3.285152	4.35073	13.29013	3.345705E-02			15	
tert-Butylbenzene	2.145432	3.707538	13.05663	2.013395E-02			15	
Carbon disulfide	0.7939658	17.02013	4.8035	0.1982975	0.9975385		0.995	
Carbon tetrachloride	0.3144458	8.98804	7.644625	5.435293E-02			15	
Chlorobenzene	1.859646	6.752518	11.08463	2.703025E-02			SPCC (0.3)	
Chloroethane	8.354599E-02	6.438411	2.97925	0.3520969			15	
Chloroform	0.4852062	3.430147	6.7485	5.313365E-02			CCC (20)	
2-Chloroethyl vinyl ether	0.17477	3.894887	9.0105	4.037457E-02			15	
Chloromethane	0.3749535	3.973692	2.239125	0.4681154			SPCC (0.1)	
1-Chlorohexane	2.070736	5.11712	11.051	3.853776E-02			15	
2-Chlorotoluene	2.109323	4.700997	12.6225	3.341376E-02			15	
Chloroprene	0.5084877	11.03475	6.056625	0.1101759			15	
4-Chlorotoluene	2.329282	4.243641	12.68525	2.421974E-02			15	
Cyclohexane	0.685955	5.186082	7.5735	5.633159E-02			15	
Dibromochloromethane	0.5441809	14.16857	10.3225	3.125264E-02			15	
1,2-Dibromo-3-chloropropane	0.1110578	4.56858	14.43113	0.0227997			15	
1,2-Dibromoethane (EDB)	0.5250303	8.57485	10.53375	2.690444E-02			15	

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Dibromomethane	0.172495	3.274856	8.595125	3.800596E-02			15	
1,2-Dichlorobenzene	1.192622	3.865282	13.789	1.366507E-02			15	
1,3-Dichlorobenzene	1.301676	2.74033	13.3795	3.011168E-02			15	
trans-1,4-Dichloro-2-butene	0.2313927	9.778397	11.896	2.420643E-02			15	
cis-1,4-Dichloro-2-butene	0.1902287	9.277507	12.20475	2.260074E-02			15	
1,4-Dichlorobenzene	1.315839	3.393764	13.47213	2.224884E-02			15	
Dichlorodifluoromethane	0.2743014	10.74781	2.016625	0.5619011			15	
1,1-Dichloroethane	0.586753	4.750245	5.793375	7.525912E-02			SPCC (0.1)	
1,2-Dichloroethane	0.2934489	4.123627	7.505875	5.038248E-02			15	
1,1-Dichloroethene	0.2034482	14.48541	4.277667	0.1728932			CCC (20)	
cis-1,2-Dichloroethene	0.3168749	2.657418	6.4965	8.574096E-02			15	
trans-1,2-Dichloroethene	0.283059	5.687211	5.419625	8.226152E-02			15	
1,2-Dichloroethene (total)	0.2999669	3.809693	0	0			15	
1,2-Dichloropropane	0.3682027	2.627754	8.4795	4.454179E-02			CCC (20)	
1,3-Dichloropropane	0.8250139	6.792829	10.06175	0.0225482			15	
2,2-Dichloropropane	0.3408366	5.440234	6.602125	6.320189E-02			15	
1,1-Dichloropropene	0.386876	5.080917	7.524375	0.0579442			15	
cis-1,3-Dichloropropene	0.441167	3.859299	9.22575	3.273881E-02			15	
trans-1,3-Dichloropropene	0.7537714	6.572131	9.69775	2.998173E-02			15	
Diisopropyl Ether	1.648527	3.427531	6.164375	8.144213E-02			15	
1,4-Dioxane	2.215612E-03	9.411383	8.637714	0.0675898			15	
Ethylbenzene	3.20803	9.080474	11.2305	3.248409E-02			CCC (20)	
Ethyl tert-Butyl Ether	1.014941	4.802987	6.624375	5.856448E-02			15	
Ethyl Methacrylate	0.8111924	7.03362	9.88475	3.023834E-02			15	
Hexachlorobutadiene	0.4736085	5.501745	15.78825	2.462656E-02			15	
Hexane	0.6472878	6.350022	6	0.1580417			15	
2-Hexanone	0.6258846	3.796589	9.999875	5.270258E-02			15	
Iodomethane	0.3021595	14.1237	4.468714	0.194976			15	
Isobutyl alcohol	1.372618E-02	10.38514	6.845	3.761983E-02			15	
Isopropylbenzene	2.472317	8.225239	12.12925	2.846195E-02			15	
p-Isopropyltoluene	2.330942	4.564871	13.4265	0.02919			15	
Methacrylonitrile	0.2355203	6.079285	6.410625	0.1308775			15	

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1045002
Instrument: MS-VOA6
Matrix: Water
Calibration Date: 2/8/2011 4:35:18PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Methylene chloride	0.3823591	43.34252	4.754375	0.1602236	0.9983757		0.995	
Methyl Acetate	0.2345594	13.01771	4.628714	0.1631094			15	
Methylcyclohexane	0.5128412	4.32501	8.80775	0.0356778			15	
Naphthalene	1.602647	6.275391	15.66025	1.983775E-02			15	
Methyl Methacrylate	0.471708	2.883842	7.5735	5.633159E-02			15	
4-Methyl-2-pentanone	0.3935115	4.684102	9.15025	7.573038E-02			15	
Methyl t-Butyl Ether	0.6002451	4.891206	5.423375	0.1227064			15	
n-Propylbenzene	3.803681	4.930978	12.5375	2.980661E-02			15	
Propionitrile	4.211481E-02	9.80583	5.963	0.0655176			15	
Styrene	1.92732	6.721793	11.704	2.493567E-02			15	
1,1,2,2-Tetrachloroethane	0.6908364	4.258784	12.05575	3.119017E-02			SPCC (0.3)	
1,1,1,2-Tetrachloroethane	0.6333042	8.281663	11.1275	3.464365E-02			15	
tert-Butyl alcohol	2.671035E-02	9.966665	4.427375	0.2216083			15	
Tetrachloroethene	0.6244481	8.506563	10.43312	3.100488E-02			15	
Toluene	1.598242	4.627079	9.70025	4.291451E-02			CCC (20)	
1,2,3-Trichlorobenzene	0.7016011	4.889794	15.94525	2.154844E-02			15	
1,2,4-Trichlorobenzene	0.7933826	3.727781	15.508	1.845566E-02			15	
1,1,2-Trichloroethane	0.468124	6.206816	9.8525	3.322686E-02			15	
1,1,1-Trichloroethane	0.3447116	5.271122	7.3065	4.409785E-02			15	
Tetrahydrofuran	0.125175	32.67256	6.962375	9.085995E-02	0.9977438		0.995	
Trichloroethene	0.308656	4.617016	8.43125	5.007405E-02			15	
Trichlorofluoromethane	0.4287223	6.644425	3.48675	0.268437			15	
1,2,3-Trichloropropane	0.141114	8.142237	12.1785	2.715286E-02			15	
1,3,5-Trimethylbenzene	2.27177	3.75346	12.7145	2.609472E-02			15	
1,2,4-Trimethylbenzene	2.273427	4.81283	13.08825	1.976355E-02			15	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2574515	8.290995	4.35	0.1908188			15	
Vinyl chloride	0.1888258	14.37893	2.38775	0.3384152			CCC (20)	
m,p-Xylene	2.321142	4.033096	11.34387	3.895987E-02			15	
o-Xylene	2.395421	7.925602	11.73375	4.033886E-02			15	
Vinyl acetate	0.44353	3.427564	5.86575	0.0758661			15	
Xylenes (total)	2.345902	4.444014	0	0			15	
Dibromofluoromethane	0.2991939	1.6886	6.921875	7.311495E-02			15	

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1045002	Instrument:	MS-VOA6
Matrix:	Water	Calibration Date:	2/8/2011 4:35:18PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,2-Dichloroethane-d4	5.787474E-02	2.926794	7.41575	6.396857E-02			15	
Toluene-d8	2.148003	4.720766	9.625	2.169328E-02			15	

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	208ICV1A.D	Calibration Date:	02/08/11 16:35
Sequence:	1B04025	Injection Date:	02/09/11
Lab Sample ID:	1B04025-ICV1	Injection Time:	07:37

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)	
Benzene	A	100.0	104.0	1.113159	1.157594		4.0	20	
Bromochloromethane	A	100.0	96.49	0.1470133	0.1418523		-3.5	20	
Tert-Amyl Methyl Ether	A	100.0	97.63	0.7667359	0.748571		-2.4	20	
Bromodichloromethane	A	100.0	110.9	0.3261603	0.3616116		10.9	20	
Bromoform	A	100.0	111.3	0.3300278	0.3673	0.1	11.3	20	
Bromomethane	A	100.0	119.0	9.416029E-02	0.1120975		19.0	20	
Carbon disulfide	L	100.0	108.2	0.7939658	0.9807305		8.2	20	
Carbon tetrachloride	A	100.0	111.3	0.3144458	0.349977		11.3	20	
Chlorobenzene	A	100.0	102.6	1.859646	1.907606	0.3	2.6	20	
Chloroethane	A	100.0	105.5	8.354599E-02	8.814122E-02		5.5	20	
Chloroform	A	100.0	102.1	0.4852062	0.4953556		2.1	20	
Chloromethane	A	100.0	114.0	0.3749535	0.4274088	0.1	14.0	20	
Cyclohexane	A	100.0	105.2	0.685955	0.721848		5.2	20	
Dibromochloromethane	A	100.0	110.8	0.5441809	0.6032151		10.8	20	
1,2-Dibromo-3-chloropropane	A	100.0	99.69	0.1110578	0.1107138		-0.3	20	
1,2-Dibromoethane (EDB)	A	100.0	99.12	0.5250303	0.5204191		-0.9	20	
1,2-Dichlorobenzene	A	100.0	99.59	1.192622	1.18775		-0.4	20	
1,3-Dichlorobenzene	A	100.0	99.43	1.301676	1.294283		-0.6	20	
1,4-Dichlorobenzene	A	100.0	96.58	1.315839	1.270818		-3.4	20	
Dichlorodifluoromethane	A	100.0	140.7	0.2743014	0.3860147		40.7	20	*
1,1-Dichloroethane	A	100.0	105.6	0.586753	0.6195161	0.1	5.6	20	
1,2-Dichloroethane	A	100.0	104.8	0.2934489	0.3076813		4.9	20	
1,1-Dichloroethene	A	100.0	95.08	0.2034482	0.1934308		-4.9	20	
cis-1,2-Dichloroethene	A	100.0	102.4	0.3168749	0.3243315		2.4	20	
trans-1,2-Dichloroethene	A	100.0	108.8	0.283059	0.3079633		8.8	20	
1,2-Dichloroethene (total)	A	200.0	211.2	0.2999669	0.3161474		5.4	20	
1,2-Dichloropropane	A	100.0	101.4	0.3682027	0.3731918		1.4	20	
cis-1,3-Dichloropropene	A	100.0	98.60	0.441167	0.4349796		-1.4	20	
trans-1,3-Dichloropropene	A	100.0	113.0	0.7537714	0.8520092		13.0	20	

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	208ICV1A.D	Calibration Date:	02/08/11 16:35
Sequence:	1B04025	Injection Date:	02/09/11
Lab Sample ID:	1B04025-ICV1	Injection Time:	07:37

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Ethylbenzene	A	100.0	104.9	3.20803	3.364976		4.9	20
Isopropylbenzene	A	100.0	112.2	2.472317	2.774601		12.2	20
Methylene chloride	L	100.0	99.43	0.3823591	0.3048582		-0.6	20
Methylcyclohexane	A	100.0	104.5	0.5128412	0.5359612		4.5	20
Methyl t-Butyl Ether	A	200.0	214.0	0.6002451	0.6421448		7.0	20
Styrene	A	100.0	102.6	1.92732	1.978379		2.6	20
1,1,2,2-Tetrachloroethane	A	100.0	100.8	0.6908364	0.6964445	0.3	0.8	20
Tetrachloroethene	A	100.0	104.3	0.6244481	0.6511732		4.3	20
Toluene	A	100.0	104.5	1.598242	1.670356		4.5	20
1,2,3-Trichlorobenzene	A	100.0	93.56	0.7016011	0.656403		-6.4	20
1,2,4-Trichlorobenzene	A	100.0	93.48	0.7933826	0.7416854		-6.5	20
1,1,2-Trichloroethane	A	100.0	95.77	0.468124	0.4483403		-4.2	20
1,1,1-Trichloroethane	A	100.0	105.0	0.3447116	0.3618112		5.0	20
Trichloroethene	A	100.0	103.4	0.308656	0.3190973		3.4	20
Trichlorofluoromethane	A	100.0	109.9	0.4287223	0.4712291		9.9	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	100.0	94.83	0.2574515	0.2441378		-5.2	20
Vinyl chloride	A	100.0	112.7	0.1888258	0.2127773		12.7	20
Xylenes (total)	A	300.0	315.0	2.345902	2.462529		5.0	20
Bromofluorobenzene	A	30.00	29.16	0.8388372	0.8154046		-2.8	20
Dibromofluoromethane	A	30.00	29.51	0.2991939	0.2943467		-1.6	20
1,2-Dichloroethane-d4	A	30.00	29.91	5.787474E-02	5.770697E-02		-0.3	20
Toluene-d8	A	30.00	29.62	2.148003	2.120858		-1.3	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	0209icv2.D	Calibration Date:	02/08/11 16:35
Sequence:	1B04025	Injection Date:	02/09/11
Lab Sample ID:	1B04025-ICV2	Injection Time:	09:08

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Methyl Acetate	A	50.00	46.16	0.2345594	0.21654		-7.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	0208ICV3.D	Calibration Date:	02/08/11 16:35
Sequence:	1B04025	Injection Date:	02/08/11
Lab Sample ID:	1B04025-ICV3	Injection Time:	23:45

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Acetone	A	200.0	210.9	7.606007E-02	8.019405E-02		5.4	20
2-Butanone	A	200.0	227.4	0.1657211	0.1883976		13.7	20
2-Hexanone	A	200.0	217.6	0.6258846	0.6809582		8.8	20
4-Methyl-2-pentanone	A	200.0	222.5	0.3935115	0.4377713		11.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	SEQ-ICV5.D	Calibration Date:	02/08/11 16:35
Sequence:	1B04025	Injection Date:	02/11/11
Lab Sample ID:	1B04025-ICV5	Injection Time:	14:58

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
1,4-Dioxane	A	2000	2023	2.215612E-03	2.240974E-03		1.1	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	0221CCV1.D	Calibration Date:	02/08/11 16:35
Sequence:	1B05306	Injection Date:	02/21/11
Lab Sample ID:	1B05306-CCV1	Injection Time:	11:35

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Acetone	A	200.0	236.2	7.606007E-02	0.0898411		18.1	20	
Benzene	A	100.0	99.34	1.113159	1.105864		-0.7	20	
Bromochloromethane	A	100.0	93.80	0.1470133	0.1378915		-6.2	20	
Tert-Amyl Methyl Ether	A	100.0	106.0	0.7667359	0.81294		6.0	20	
Bromodichloromethane	A	100.0	106.1	0.3261603	0.3460628		6.1	20	
Bromoform	A	100.0	125.6	0.3300278	0.4146728	0.1	25.6	20	*
Bromomethane	A	100.0	199.6	9.416029E-02	0.1879264		99.6	20	*
2-Butanone	A	200.0	255.1	0.1657211	0.2114055		27.6	20	*
Carbon disulfide	L	100.0	97.51	0.7939658	0.880997		-2.5	20	
Carbon tetrachloride	A	100.0	109.9	0.3144458	0.3457286		9.9	20	
Chlorobenzene	A	100.0	100.1	1.859646	1.861973	0.3	0.1	20	
Chloroethane	A	100.0	108.0	8.354599E-02	9.019873E-02		8.0	20	
Chloroform	A	100.0	102.2	0.4852062	0.4957982		2.2	20	
Chloromethane	A	100.0	109.8	0.3749535	0.4116381	0.1	9.8	20	
Cyclohexane	A	100.0	103.6	0.685955	0.710761		3.6	20	
Dibromochloromethane	A	100.0	113.7	0.5441809	0.6188902		13.7	20	
1,2-Dibromo-3-chloropropane	A	100.0	121.3	0.1110578	0.1347283		21.3	20	*
1,2-Dibromoethane (EDB)	A	100.0	102.7	0.5250303	0.5390373		2.7	20	
1,2-Dichlorobenzene	A	100.0	102.4	1.192622	1.221275		2.4	20	
1,3-Dichlorobenzene	A	100.0	101.8	1.301676	1.325218		1.8	20	
1,4-Dichlorobenzene	A	100.0	100.8	1.315839	1.326883		0.8	20	
Dichlorodifluoromethane	A	100.0	119.3	0.2743014	0.3273458		19.3	20	
1,1-Dichloroethane	A	100.0	98.25	0.586753	0.5765117	0.1	-1.7	20	
1,2-Dichloroethane	A	100.0	109.3	0.2934489	0.320731		9.3	20	
1,1-Dichloroethene	A	100.0	113.9	0.2034482	0.2317411		13.9	20	
cis-1,2-Dichloroethene	A	100.0	96.20	0.3168749	0.3048423		-3.8	20	
trans-1,2-Dichloroethene	A	100.0	103.9	0.283059	0.2942391		3.9	20	
1,2-Dichloroethene (total)	A	200.0	200.2	0.2999669	0.2995407		-0.1	20	
1,2-Dichloropropane	A	100.0	100.8	0.3682027	0.3711112		0.8	20	

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	0221CCV1.D	Calibration Date:	02/08/11 16:35
Sequence:	1B05306	Injection Date:	02/21/11
Lab Sample ID:	1B05306-CCV1	Injection Time:	11:35

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
cis-1,3-Dichloropropene	A	100.0	103.7	0.441167	0.4573522		3.7	20	
trans-1,3-Dichloropropene	A	100.0	112.1	0.7537714	0.845242		12.1	20	
Ethylbenzene	A	100.0	105.0	3.20803	3.369165		5.0	20	
2-Hexanone	A	200.0	260.6	0.6258846	0.8154937		30.3	20	*
Isopropylbenzene	A	100.0	105.5	2.472317	2.608012		5.5	20	
Methylene chloride	L	100.0	96.11	0.3823591	0.2947396		-3.9	20	
Methyl Acetate	A	100.0	125.6	0.2345594	0.2945149		25.6	20	*
Methylcyclohexane	A	100.0	103.4	0.5128412	0.5304282		3.4	20	
4-Methyl-2-pentanone	A	200.0	249.5	0.3935115	0.490886		24.7	20	*
Methyl t-Butyl Ether	A	100.0	112.2	0.6002451	0.673319		12.2	20	
Styrene	A	100.0	103.4	1.92732	1.992098		3.4	20	
1,1,2,2-Tetrachloroethane	A	100.0	112.2	0.6908364	0.7755048	0.3	12.3	20	
Tetrachloroethene	A	100.0	101.2	0.6244481	0.632245		1.2	20	
Toluene	A	100.0	103.3	1.598242	1.650835		3.3	20	
1,2,3-Trichlorobenzene	A	100.0	100.0	0.7016011	0.7016383		0.005	20	
1,2,4-Trichlorobenzene	A	100.0	98.21	0.7933826	0.7791594		-1.8	20	
1,1,2-Trichloroethane	A	100.0	103.0	0.468124	0.4820362		3.0	20	
1,1,1-Trichloroethane	A	100.0	107.7	0.3447116	0.3712631		7.7	20	
Trichloroethene	A	100.0	99.97	0.308656	0.3085546		-0.03	20	
Trichlorofluoromethane	A	100.0	102.1	0.4287223	0.4377209		2.1	20	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	100.0	106.7	0.2574515	0.2747109		6.7	20	
Vinyl chloride	A	100.0	98.30	0.1888258	0.1856083		-1.7	20	
Xylenes (total)	A	300.0	318.0	2.345902	2.486821		6.0	20	
Bromofluorobenzene	A	30.00	29.85	0.8388372	0.8347181		-0.5	20	
Dibromofluoromethane	A	30.00	29.02	0.2991939	0.289391		-3.3	20	
1,2-Dichloroethane-d4	A	30.00	29.20	5.787474E-02	5.633498E-02		-2.7	20	
Toluene-d8	A	30.00	29.77	2.148003	2.131836		-0.8	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-VOA6	Calibration:	1045002
Lab File ID:	0221CCV2.D	Calibration Date:	02/08/11 16:35
Sequence:	1B05306	Injection Date:	02/21/11
Lab Sample ID:	1B05306-CCV2	Injection Time:	10:32

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,4-Dioxane	A	2000	1752	2.215612E-03	1.940332E-03		-12.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BLK1 File ID: 0221BL1.D

Sampled: Prepared: Analyzed: 02/21/11 13:53

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
67-64-1	Acetone		2.00	10.0	U
71-43-2	Benzene		0.470	5.00	U
74-97-5	Bromochloromethane		0.420	5.00	U
75-27-4	Bromodichloromethane		0.300	5.00	U
75-25-2	Bromoform		1.00	5.00	X, U
74-83-9	Bromomethane		0.720	5.00	X, U
78-93-3	2-Butanone		1.40	10.0	X, U
75-15-0	Carbon disulfide		1.30	5.00	U
56-23-5	Carbon tetrachloride		0.880	5.00	U
108-90-7	Chlorobenzene		0.340	5.00	U
75-00-3	Chloroethane		1.10	5.00	U
67-66-3	Chloroform		0.550	5.00	U
74-87-3	Chloromethane		0.520	5.00	Q, U
110-82-7	Cyclohexane		0.540	5.00	U
124-48-1	Dibromochloromethane		0.340	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.20	5.00	X, U
106-93-4	1,2-Dibromoethane (EDB)		0.430	5.00	U
95-50-1	1,2-Dichlorobenzene		0.370	5.00	U
541-73-1	1,3-Dichlorobenzene		0.840	5.00	U
106-46-7	1,4-Dichlorobenzene		0.550	5.00	U
75-71-8	Dichlorodifluoromethane		1.10	5.00	Q, U, X
75-34-3	1,1-Dichloroethane		0.540	5.00	U
107-06-2	1,2-Dichloroethane		0.460	5.00	U
75-35-4	1,1-Dichloroethene		1.20	5.00	U
156-59-2	cis-1,2-Dichloroethene		1.20	5.00	U
156-60-5	trans-1,2-Dichloroethene		1.10	5.00	U
78-87-5	1,2-Dichloropropane		0.460	5.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	5.00	U
10061-02-6	trans-1,3-Dichloropropene		0.320	5.00	U
123-91-1	1,4-Dioxane		0.500	50.0	U
100-41-4	Ethylbenzene		0.750	5.00	U
591-78-6	2-Hexanone		2.30	10.0	X, U
98-82-8	Isopropylbenzene		0.880	5.00	U
75-09-2	Methylene chloride	3.30	0.620	5.00	J
79-20-9	Methyl Acetate		1.60	5.00	X, U
108-87-2	Methylcyclohexane		0.300	5.00	U
108-10-1	4-Methyl-2-pentanone		0.580	10.0	X, U
1634-04-4	Methyl t-Butyl Ether		0.320	5.00	U
100-42-5	Styrene		0.350	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.430	5.00	U

ANALYSIS DATA SHEET

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Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BLK1 File ID: 0221BL1.D

Sampled: Prepared: Analyzed: 02/21/11 13:53

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
127-18-4	Tetrachloroethene		0.970	5.00	U
108-88-3	Toluene		0.860	5.00	U
87-61-6	1,2,3-Trichlorobenzene		0.420	5.00	U
120-82-1	1,2,4-Trichlorobenzene		0.180	5.00	U
79-00-5	1,1,2-Trichloroethane		0.350	5.00	U
71-55-6	1,1,1-Trichloroethane		0.900	5.00	U
79-01-6	Trichloroethene		0.850	5.00	U
75-69-4	Trichlorofluoromethane		0.950	5.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.67	5.00	U
75-01-4	Vinyl chloride		1.10	5.00	Q, U
1330-20-7	Xylenes (total)		0.700	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	27.96	93.2	85 - 120	
Dibromofluoromethane	30.00	29.65	98.8	80 - 125	
1,2-Dichloroethane-d4	30.00	32.41	108	75 - 140	
Toluene-d8	30.00	27.77	92.6	85 - 115	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BS1 File ID: 0221LS1.D

Sampled: Prepared: Analyzed: 02/21/11 12:15

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
67-64-1	Acetone	82.80	2.00	10.0	
71-43-2	Benzene	50.30	0.470	5.00	
74-97-5	Bromochloromethane	49.29	0.420	5.00	
75-27-4	Bromodichloromethane	57.19	0.300	5.00	
75-25-2	Bromoform	56.18	1.00	5.00	X
74-83-9	Bromomethane	58.07	0.720	5.00	X
78-93-3	2-Butanone	87.24	1.40	10.0	X
75-15-0	Carbon disulfide	52.09	1.30	5.00	
56-23-5	Carbon tetrachloride	56.00	0.880	5.00	
108-90-7	Chlorobenzene	48.02	0.340	5.00	
75-00-3	Chloroethane	59.28	1.10	5.00	
67-66-3	Chloroform	51.77	0.550	5.00	
74-87-3	Chloromethane	62.01	0.520	5.00	
110-82-7	Cyclohexane	52.42	0.540	5.00	
124-48-1	Dibromochloromethane	54.01	0.340	5.00	
96-12-8	1,2-Dibromo-3-chloropropane	53.57	1.20	5.00	X
106-93-4	1,2-Dibromoethane (EDB)	49.88	0.430	5.00	
95-50-1	1,2-Dichlorobenzene	51.85	0.370	5.00	
541-73-1	1,3-Dichlorobenzene	51.06	0.840	5.00	
106-46-7	1,4-Dichlorobenzene	49.88	0.550	5.00	
75-71-8	Dichlorodifluoromethane	66.78	1.10	5.00	X
75-34-3	1,1-Dichloroethane	52.06	0.540	5.00	
107-06-2	1,2-Dichloroethane	55.79	0.460	5.00	
75-35-4	1,1-Dichloroethene	61.59	1.20	5.00	
156-59-2	cis-1,2-Dichloroethene	49.46	1.20	5.00	
156-60-5	trans-1,2-Dichloroethene	52.20	1.10	5.00	
78-87-5	1,2-Dichloropropane	50.95	0.460	5.00	
10061-01-5	cis-1,3-Dichloropropene	49.80	0.500	5.00	
10061-02-6	trans-1,3-Dichloropropene	58.75	0.320	5.00	
123-91-1	1,4-Dioxane		0.500	50.0	U
100-41-4	Ethylbenzene	50.01	0.750	5.00	
591-78-6	2-Hexanone	82.20	2.30	10.0	X
98-82-8	Isopropylbenzene	53.35	0.880	5.00	
75-09-2	Methylene chloride	52.32	0.620	5.00	B
79-20-9	Methyl Acetate	58.78	1.60	5.00	X
108-87-2	Methylcyclohexane	49.79	0.300	5.00	
108-10-1	4-Methyl-2-pentanone	83.75	0.580	10.0	X
1634-04-4	Methyl t-Butyl Ether	110.9	0.320	5.00	
100-42-5	Styrene	50.28	0.350	5.00	
79-34-5	1,1,2,2-Tetrachloroethane	53.68	0.430	5.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BS1 File ID: 0221LS1.D

Sampled: Prepared: Analyzed: 02/21/11 12:15

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
127-18-4	Tetrachloroethene	48.11	0.970	5.00	
108-88-3	Toluene	51.00	0.860	5.00	
87-61-6	1,2,3-Trichlorobenzene	45.60	0.420	5.00	
120-82-1	1,2,4-Trichlorobenzene	45.32	0.180	5.00	
79-00-5	1,1,2-Trichloroethane	48.31	0.350	5.00	
71-55-6	1,1,1-Trichloroethane	53.38	0.900	5.00	
79-01-6	Trichloroethene	51.06	0.850	5.00	
75-69-4	Trichlorofluoromethane	52.32	0.950	5.00	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	55.78	1.67	5.00	
75-01-4	Vinyl chloride	63.33	1.10	5.00	
1330-20-7	Xylenes (total)	158.0	0.700	5.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.10	93.7	85 - 120	
Dibromofluoromethane	30.00	28.59	95.3	80 - 125	
1,2-Dichloroethane-d4	30.00	28.89	96.3	75 - 140	
Toluene-d8	30.00	28.35	94.5	85 - 115	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BS2 File ID: 0221LS2.D

Sampled: Prepared: Analyzed: 02/21/11 12:40

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
67-64-1	Acetone		2.00	10.0	U
71-43-2	Benzene		0.470	5.00	U
74-97-5	Bromochloromethane		0.420	5.00	U
75-27-4	Bromodichloromethane		0.300	5.00	U
75-25-2	Bromoform		1.00	5.00	U
74-83-9	Bromomethane		0.720	5.00	U
75-15-0	Carbon disulfide		1.30	5.00	U
56-23-5	Carbon tetrachloride		0.880	5.00	U
108-90-7	Chlorobenzene		0.340	5.00	U
75-00-3	Chloroethane		1.10	5.00	U
67-66-3	Chloroform		0.550	5.00	U
74-87-3	Chloromethane		0.520	5.00	U
110-82-7	Cyclohexane		0.540	5.00	U
124-48-1	Dibromochloromethane		0.340	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.20	5.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.430	5.00	U
95-50-1	1,2-Dichlorobenzene		0.370	5.00	U
541-73-1	1,3-Dichlorobenzene		0.840	5.00	U
106-46-7	1,4-Dichlorobenzene		0.550	5.00	U
75-71-8	Dichlorodifluoromethane		1.10	5.00	U
75-34-3	1,1-Dichloroethane		0.540	5.00	U
107-06-2	1,2-Dichloroethane		0.460	5.00	U
75-35-4	1,1-Dichloroethene		1.20	5.00	U
156-59-2	cis-1,2-Dichloroethene		1.20	5.00	U
156-60-5	trans-1,2-Dichloroethene		1.10	5.00	U
78-87-5	1,2-Dichloropropane		0.460	5.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	5.00	U
10061-02-6	trans-1,3-Dichloropropene		0.320	5.00	U
123-91-1	1,4-Dioxane	762.7	0.500	50.0	
100-41-4	Ethylbenzene		0.750	5.00	U
591-78-6	2-Hexanone		2.30	10.0	U
98-82-8	Isopropylbenzene		0.880	5.00	U
75-09-2	Methylene chloride		0.620	5.00	U
79-20-9	Methyl Acetate		1.60	5.00	U
108-87-2	Methylcyclohexane		0.300	5.00	U
108-10-1	4-Methyl-2-pentanone		0.580	10.0	U
1634-04-4	Methyl t-Butyl Ether		0.320	5.00	U
100-42-5	Styrene		0.350	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.430	5.00	U
127-18-4	Tetrachloroethene		0.970	5.00	U

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BS2 File ID: 0221LS2.D

Sampled: Prepared: Analyzed: 02/21/11 12:40

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
108-88-3	Toluene		0.860	5.00	U
87-61-6	1,2,3-Trichlorobenzene		0.420	5.00	U
120-82-1	1,2,4-Trichlorobenzene		0.180	5.00	U
79-00-5	1,1,2-Trichloroethane		0.350	5.00	U
71-55-6	1,1,1-Trichloroethane		0.900	5.00	U
79-01-6	Trichloroethene		0.850	5.00	U
75-69-4	Trichlorofluoromethane		0.950	5.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.67	5.00	U
75-01-4	Vinyl chloride		1.10	5.00	U
1330-20-7	Xylenes (total)		0.700	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.46	94.9	85 - 120	
Dibromofluoromethane	30.00	29.53	98.4	80 - 125	
1,2-Dichloroethane-d4	30.00	29.12	97.1	75 - 140	
Toluene-d8	30.00	28.86	96.2	85 - 115	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BSD1 File ID: 0221LD1.D

Sampled: Prepared: Analyzed: 02/21/11 15:56

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
67-64-1	Acetone	88.02	2.00	10.0	
71-43-2	Benzene	51.32	0.470	5.00	
74-97-5	Bromochloromethane	49.88	0.420	5.00	
75-27-4	Bromodichloromethane	57.99	0.300	5.00	
75-25-2	Bromoform	51.95	1.00	5.00	X
74-83-9	Bromomethane	57.80	0.720	5.00	X
78-93-3	2-Butanone	101.1	1.40	10.0	X
75-15-0	Carbon disulfide	52.99	1.30	5.00	
56-23-5	Carbon tetrachloride	55.31	0.880	5.00	
108-90-7	Chlorobenzene	46.40	0.340	5.00	
75-00-3	Chloroethane	60.54	1.10	5.00	
67-66-3	Chloroform	53.26	0.550	5.00	
74-87-3	Chloromethane	66.06	0.520	5.00	
110-82-7	Cyclohexane	54.78	0.540	5.00	
124-48-1	Dibromochloromethane	52.18	0.340	5.00	
96-12-8	1,2-Dibromo-3-chloropropane	53.91	1.20	5.00	X
106-93-4	1,2-Dibromoethane (EDB)	48.26	0.430	5.00	
95-50-1	1,2-Dichlorobenzene	51.51	0.370	5.00	
541-73-1	1,3-Dichlorobenzene	51.19	0.840	5.00	
106-46-7	1,4-Dichlorobenzene	50.40	0.550	5.00	
75-71-8	Dichlorodifluoromethane	72.92	1.10	5.00	X
75-34-3	1,1-Dichloroethane	53.93	0.540	5.00	
107-06-2	1,2-Dichloroethane	57.43	0.460	5.00	
75-35-4	1,1-Dichloroethene	60.77	1.20	5.00	
156-59-2	cis-1,2-Dichloroethene	49.43	1.20	5.00	
156-60-5	trans-1,2-Dichloroethene	54.14	1.10	5.00	
78-87-5	1,2-Dichloropropane	52.41	0.460	5.00	
10061-01-5	cis-1,3-Dichloropropene	51.13	0.500	5.00	
10061-02-6	trans-1,3-Dichloropropene	55.85	0.320	5.00	
123-91-1	1,4-Dioxane		0.500	50.0	U
100-41-4	Ethylbenzene	48.66	0.750	5.00	
591-78-6	2-Hexanone	85.99	2.30	10.0	X
98-82-8	Isopropylbenzene	51.10	0.880	5.00	
75-09-2	Methylene chloride	53.79	0.620	5.00	B
79-20-9	Methyl Acetate	64.76	1.60	5.00	X
108-87-2	Methylcyclohexane	51.00	0.300	5.00	
108-10-1	4-Methyl-2-pentanone	94.48	0.580	10.0	X
1634-04-4	Methyl t-Butyl Ether	112.9	0.320	5.00	
100-42-5	Styrene	47.55	0.350	5.00	
79-34-5	1,1,2,2-Tetrachloroethane	53.28	0.430	5.00	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BSD1 File ID: 0221LD1.D

Sampled: Prepared: Analyzed: 02/21/11 15:56

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
127-18-4	Tetrachloroethene	45.18	0.970	5.00	
108-88-3	Toluene	49.37	0.860	5.00	
87-61-6	1,2,3-Trichlorobenzene	44.92	0.420	5.00	
120-82-1	1,2,4-Trichlorobenzene	43.55	0.180	5.00	
79-00-5	1,1,2-Trichloroethane	47.51	0.350	5.00	
71-55-6	1,1,1-Trichloroethane	53.32	0.900	5.00	
79-01-6	Trichloroethene	53.01	0.850	5.00	
75-69-4	Trichlorofluoromethane	58.77	0.950	5.00	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	55.54	1.67	5.00	
75-01-4	Vinyl chloride	63.47	1.10	5.00	
1330-20-7	Xylenes (total)	154.7	0.700	5.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	26.79	89.3	85 - 120	
Dibromofluoromethane	30.00	29.39	98.0	80 - 125	
1,2-Dichloroethane-d4	30.00	29.30	97.7	75 - 140	
Toluene-d8	30.00	27.01	90.0	85 - 115	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BSD2 File ID: 0221LD2.D

Sampled: Prepared: Analyzed: 02/21/11 16:20

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
67-64-1	Acetone		2.00	10.0	U
71-43-2	Benzene		0.470	5.00	U
74-97-5	Bromochloromethane		0.420	5.00	U
75-27-4	Bromodichloromethane		0.300	5.00	U
75-25-2	Bromoform		1.00	5.00	U
74-83-9	Bromomethane		0.720	5.00	U
75-15-0	Carbon disulfide		1.30	5.00	U
56-23-5	Carbon tetrachloride		0.880	5.00	U
108-90-7	Chlorobenzene		0.340	5.00	U
75-00-3	Chloroethane		1.10	5.00	U
67-66-3	Chloroform		0.550	5.00	U
74-87-3	Chloromethane		0.520	5.00	U
110-82-7	Cyclohexane		0.540	5.00	U
124-48-1	Dibromochloromethane		0.340	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.20	5.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.430	5.00	U
95-50-1	1,2-Dichlorobenzene		0.370	5.00	U
541-73-1	1,3-Dichlorobenzene		0.840	5.00	U
106-46-7	1,4-Dichlorobenzene		0.550	5.00	U
75-71-8	Dichlorodifluoromethane		1.10	5.00	U
75-34-3	1,1-Dichloroethane		0.540	5.00	U
107-06-2	1,2-Dichloroethane		0.460	5.00	U
75-35-4	1,1-Dichloroethene		1.20	5.00	U
156-59-2	cis-1,2-Dichloroethene		1.20	5.00	U
156-60-5	trans-1,2-Dichloroethene		1.10	5.00	U
78-87-5	1,2-Dichloropropane		0.460	5.00	U
10061-01-5	cis-1,3-Dichloropropene		0.500	5.00	U
10061-02-6	trans-1,3-Dichloropropene		0.320	5.00	U
123-91-1	1,4-Dioxane	1007	0.500	50.0	
100-41-4	Ethylbenzene		0.750	5.00	U
591-78-6	2-Hexanone		2.30	10.0	U
98-82-8	Isopropylbenzene		0.880	5.00	U
75-09-2	Methylene chloride		0.620	5.00	U
79-20-9	Methyl Acetate		1.60	5.00	U
108-87-2	Methylcyclohexane		0.300	5.00	U
108-10-1	4-Methyl-2-pentanone		0.580	10.0	U
1634-04-4	Methyl t-Butyl Ether		0.320	5.00	U
100-42-5	Styrene		0.350	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.430	5.00	U
127-18-4	Tetrachloroethene		0.970	5.00	U

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21008-BSD2 File ID: 0221LD2.D

Sampled: Prepared: Analyzed: 02/21/11 16:20

Solids: Preparation: 5035 Dilution:

Batch: 1B21008 Sequence: 1B05306 Calibration: 1045002 Instrument: MS-VOA6

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
108-88-3	Toluene		0.860	5.00	U
87-61-6	1,2,3-Trichlorobenzene		0.420	5.00	U
120-82-1	1,2,4-Trichlorobenzene		0.180	5.00	U
79-00-5	1,1,2-Trichloroethane		0.350	5.00	U
71-55-6	1,1,1-Trichloroethane		0.900	5.00	U
79-01-6	Trichloroethene		0.850	5.00	U
75-69-4	Trichlorofluoromethane		0.950	5.00	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.67	5.00	U
75-01-4	Vinyl chloride		1.10	5.00	U
1330-20-7	Xylenes (total)		0.700	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.34	94.5	85 - 120	
Dibromofluoromethane	30.00	29.00	96.7	80 - 125	
1,2-Dichloroethane-d4	30.00	27.41	91.4	75 - 140	
Toluene-d8	30.00	28.86	96.2	85 - 115	

HOLDING TIME SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: 1102180

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
Backfilll (20110218)	02/18/11 16:15	02/19/11 09:30	02/21/11 00:00	N/A	14.00	02/21/11 14:17	2.92	14.00	

Data for SW8260B
Supporting Raw Data / Logs

Sequence Name: C:\HPCHEM\1\SEQUENCE\020811V6.S
Comment: 8260B
Operator: RDW
Data Path: d:\DATA\020811V6\
Pre-Seq Cmd:
Post-Seq Cmd:

030

MY 8/11

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

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

Line	Type	Vial	DataFile	Method	Sample Name
1	Blank	49	BLANK01	VSOIL6E	BLANK
2	BFB	50	0208TUN1	VSOIL6E	SEQ-TUN1 16:12 2/8
3	Calibration	1	0208CAL1	VSOIL6E	SEQ-CAL1;;;;; 2ppb soil
4	Calibration	2	0208CAL2	VSOIL6E	SEQ-CAL2;;;;; 5ppb soil
5	Calibration	3	0208CAL3	VSOIL6E	SEQ-CAL3;;;;; 10ppb soil
6	Calibration	4	0208CAL4	VSOIL6E	SEQ-CAL4;;;;; 20ppb soil
7	Calibration	5	0208CAL5	VSOIL6E	SEQ-CAL5;;;;; 50ppb soil
8	Calibration	6	0208CAL6	VSOIL6E	SEQ-CAL6;;;;; 100ppb soil x MK
9	Calibration	7	0208CAL7	VSOIL6E	SEQ-CAL7;;;;; 150ppb soil
10	Calibration	8	0208CAL8	VSOIL6E	SEQ-CAL8;;;;; 200ppb soil
11	Spike	9	0208ICV1	VSOIL6E	SEQ-ICV1;;;;; 100ppb soil?
12	Spike	10	0208ICV2	VSOIL6E	SEQ-ICV2;;;;; 50ppb soil 5x MK
13	Calibration	11	0208CAL9	VSOIL6E	SEQ-CAL9;;;;; 4ppb soil
14	Calibration	12	0208CALA	VSOIL6E	SEQ-CALA;;;;; 10ppb soil
15	Calibration	13	0208CALB	VSOIL6E	SEQ-CALB;;;;; 20ppb soil
16	Calibration	14	0208CALC	VSOIL6E	SEQ-CALC;;;;; 40ppb soil
17	Calibration	15	0208CALD	VSOIL6E	SEQ-CALD;;;;; 100ppb soil
18	Calibration	16	0208CALE	VSOIL6E	SEQ-CALE;;;;; 200ppb soil
19	Calibration	17	0208CALF	VSOIL6E	SEQ-CALF;;;;; 300ppb soil
20	Calibration	18	0208CALG	VSOIL6E	SEQ-CALG;;;;; 400ppb soil
21	Spike	19	0208ICV3	VSOIL6E	SEQ-ICV3;;;;; 200ppb soil
22	Spike	20	0208ICV4	VSOIL6E	SEQ-ICV4;;;;; 100ppb soil
23	Blank	49	BLANK02	VSOIL6E	BLANK
24	BFB	50	0208TUN2	VSOIL6E	SEQ-TUN2 2/9, 6:45
25	Calibration	21	208CAL6A	VSOIL6E	SEQ-CAL6;;;;; 100ppb soil
26	Spike	22	208ICV1A	VSOIL6E	SEQ-ICV1;;;;; 100ppb soil

Last Modified: Wed Feb 09 06:08:38 2011

Sequence Name: C:\HPCHEM\1\SEQUENCE\020911V6.S
Comment: 8260B
Operator: RDW
Data Path: d:\DATA\020911V6\
Pre-Seq Cmd:
Post-Seq Cmd:

032

M 2/11/11

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

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

Line	Type	Vial	DataFile	Method	Sample Name	
1	BFB	50	0209TUN1	VSOIL6E	SEQ-TUN1	
2	Sample	19	SEQ-CALH	VSOIL6E	SEQ-CALH;;;;;	2.0 ppb soil
3	Sample	20	SEQ-CALI	VSOIL6E	SEQ-CALI;;;;;	5.0 ppb soil
4	Sample	21	SEQ-CALJ	VSOIL6E	SEQ-CALJ;;;;;	10 ppb soil
5	Sample	22	SEQ-CALK	VSOIL6E	SEQ-CALK;;;;;	20 ppb soil
6	Sample	23	SEQ-CALL	VSOIL6E	SEQ-CALL;;;;;	50 ppb soil
7	Sample	24	SEQ-CALM	VSOIL6E	SEQ-CALM;;;;;	100 ppb soil
8	Sample	25	SEQ-CALN	VSOIL6E	SEQ-CALN;;;;;	150 ppb soil
9	Sample	26	SEQ-CALO	VSOIL6E	SEQ-CALO;;;;;	200 ppb soil
10	Sample	27	SEQ-ICV5	VSOIL6E	SEQ-ICV5;;;;;	100 ppb soil
11	Sample	28	SEQ-ICV6	VSOIL6E	SEQ-ICV6;;;;;	50 ppb soil
12	Sample	48	BLANK1	VSOIL6E	BLANK1;;;;;	
13	Sample	50	0211TUN1	VSOIL6E	SEQ-TUN1	
14	Sample	1	SEQ-ICV5	VSOIL6E	SEQ-ICV5;;;;;	100 ppb soil
15	Sample	2	SEQ-ICV6	VSOIL6E	SEQ-ICV6;;;;;	50 ppb soil

Last Modified: Fri Feb 11 14:01:56 2011

ANALYSIS SEQUENCE

Instrument: MS-VOA6

Calibration ID: UNASSIGNED

1B04025

Printed: 2/14/2011 12:24:28PM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1B04025-TUN1	2/8	QC		1		10K0388		
1B04025-CAL1	main ical	QC		2		11B0358	11A0563	
1B04025-CAL2	main ical	QC		3		11B0359	11A0563	
1B04025-CAL3	main ical	QC		4		11B0360	11A0563	
1B04025-CAL4	main ical	QC		5		11B0361	11A0563	
1B04025-CAL5	main ical	QC		6		11B0362	11A0563	
1B04025-CAL7	main ical	QC		7		11B0364	11A0563	
1B04025-CAL8	main ical	QC		8		11B0365	11A0563	
1B04025-CAL9	ketones ical	QC		9		11B0367	11A0563	
1B04025-CALA	ketones ical	QC		10		11B0368	11A0563	
1B04025-CALB	ketones ical	QC		11		11B0369	11A0563	
1B04025-CALC	ketones ical	QC		12		11B0370	11A0563	
1B04025-CALD	ketones ical	QC		13		11B0371	11A0563	
1B04025-CALE	ketones ical	QC		14		11B0372	11A0563	
1B04025-CALF	ketones ical	QC		15		11B0373	11A0563	
1B04025-CALG	ketones ical	QC		16		11B0374	11A0563	
1B04025-ICV3	ketones-icv	QC		17		11B0375	11A0563	
1B04025-TUN2	2/9a	QC		18		10K0388		
1B04025-CAL6	main ical	QC		19		11B0363	11A0563	
1B04025-ICV1	main icv	QC		20		11B0366	11A0563	
1B04025-ICV2	ma icv	QC		21		11B0402	11A0563	
1B04025-TUN3	2/9b	QC		22		10K0388		
1B04025-CALH	ap9 cal	QC		23		11B0376	11A0563	
1B04025-CALI	ap9 cal	QC		24		11B0377	11A0563	
1B04025-CALJ	ap9 cal	QC		25		11B0378	11A0563	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

76

1102180

ANALYSIS SEQUENCE

Instrument: MS-VOA6

Calibration ID: UNASSIGNED

1B04025

Printed: 2/14/2011 12:24:28PM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1B04025-CALK	ap9 cal	QC		26		11B0379	11A0563	
1B04025-CALL	ap9 cal	QC		27		11B0380	11A0563	
1B04025-CALM	ap9 cal	QC		28		11B0381	11A0563	
1B04025-CALN	ap9 cal	QC		29		11B0382	11A0563	
1B04025-CALO	ap9 cal	QC		30		11B0383	11A0563	
1B04025-TUN4	2/11	QC		31		10K0388		
1B04025-ICV5	ap9 icv	QC		32		11B0384	11A0563	

Samples Loaded By Date

Data Processed By Date

77

1102180

Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\0208TUN1.D

Date : 08-FEB-2011 16:12

Client ID: 50ppb BFB

Instrument: voa6.i

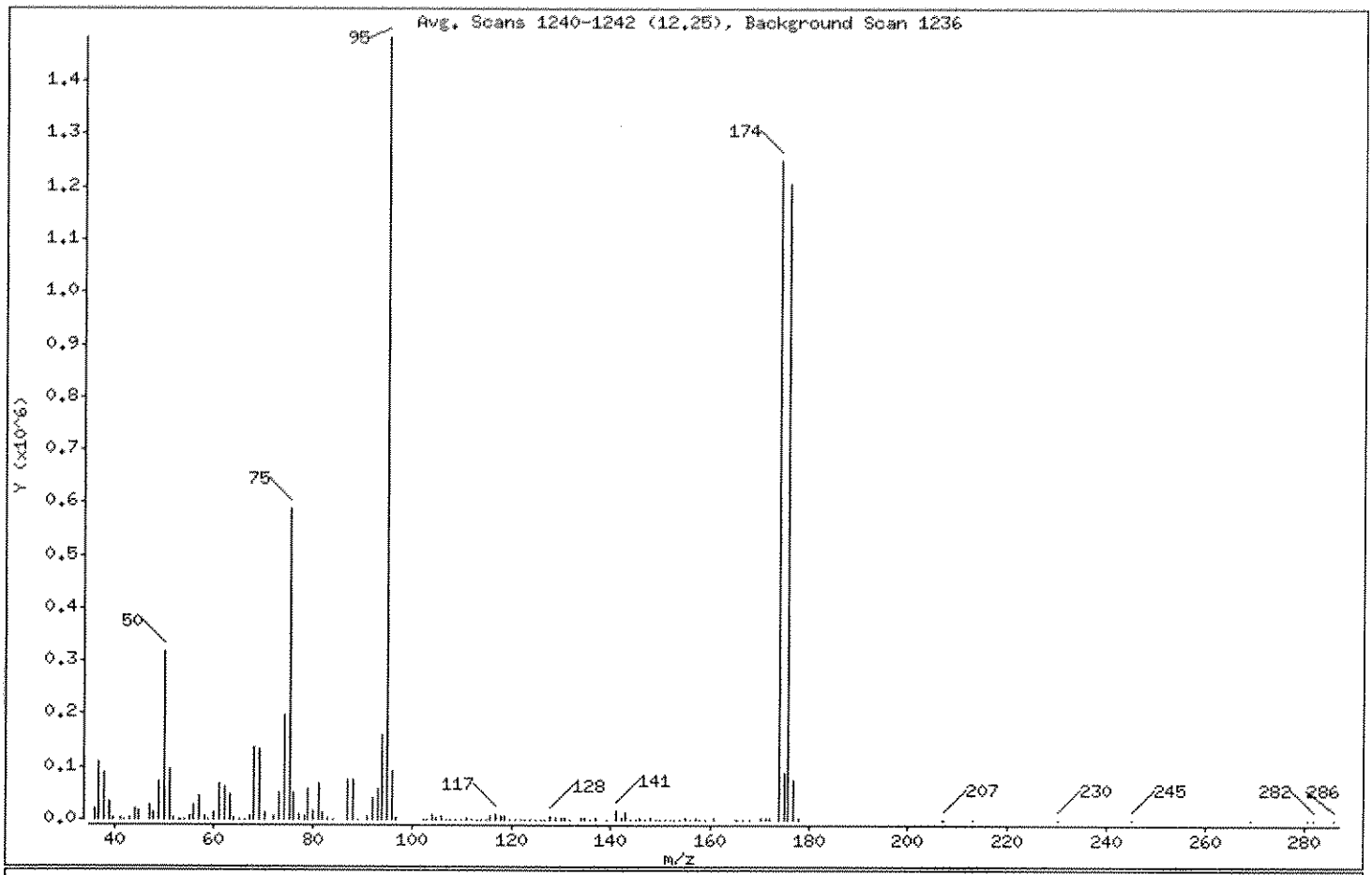
Sample Info: SEQ-TUN1

Operator: RDW

Column phase: RTX-VRX

Column diameter: 0.25

1 bfb



2-15-11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.52
75	30.00 - 60.00% of mass 95	39.63
96	5.00 - 9.00% of mass 95	6.17
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	84.36
175	5.00 - 9.00% of mass 174	6.08 (7.21)
176	95.00 - 101.00% of mass 174	81.42 (96.52)
177	5.00 - 9.00% of mass 176	5.15 (6.33)

2/9/11

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN1.D

Date : 08-FEB-2011 16:12

Client ID: 50ppb BFB

Instrument: voa6.i

Sample Info: SEQ-TUN1

Operator: RDW

Column phase: RTX-VRX

Column diameter: 0.25

Data File: 0208TUN1.D

Spectrum: Avg. Scans 1240-1242 (12.25), Background Scan 1236

Location of Maximum: 95.00

Number of points: 135

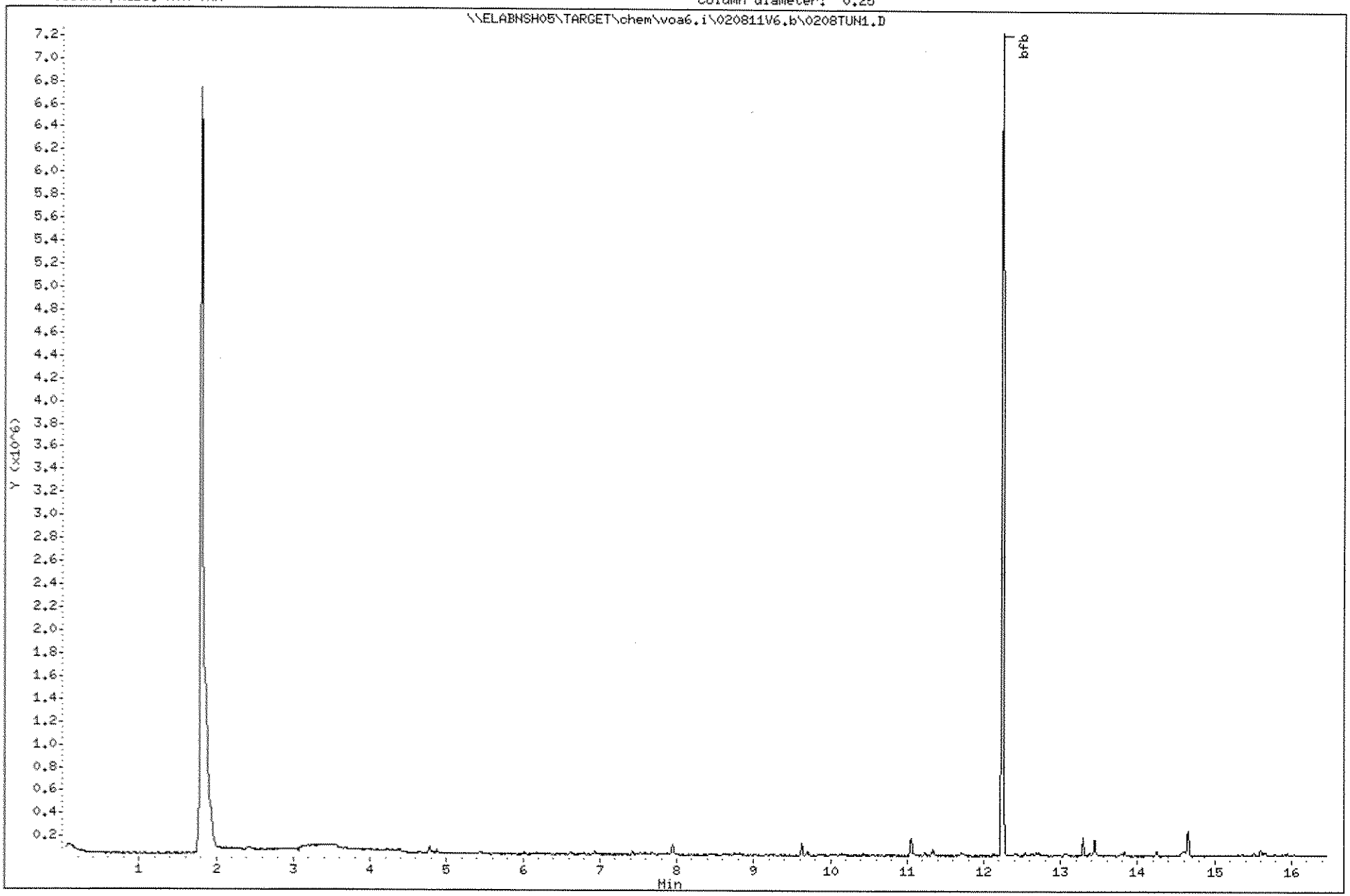
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	19360	70.05	12796	111.95	1405	149.05	1091
36.95	107672	72.00	7076	113.05	1503	149.95	1541
37.95	88728	73.00	52808	113.95	230	150.85	418
39.05	32720	73.95	199680	114.95	1642	151.95	645
39.75	1863	75.05	587584	115.90	6163	152.80	1213
41.10	2787	76.05	49712	116.90	9668	153.70	1109
41.90	1663	76.95	9627	117.90	6634	154.90	3385
43.00	3384	78.00	7471	118.85	7022	156.00	373
44.00	20000	78.90	58240	119.95	489	156.95	2341
44.95	18152	79.90	17016	120.95	308	157.85	334
47.05	28672	80.90	66816	121.85	349	158.85	1539
47.90	12807	81.95	13583	122.90	760	160.90	1901
49.00	71016	82.95	1732	124.00	945	164.95	187
50.00	319040	84.15	799	125.10	567	165.65	304
51.00	95808	87.00	75616	125.90	838	166.75	751
51.95	3981	88.00	73512	126.75	659	168.10	1004
52.75	404	89.15	494	127.95	5425	170.20	2180
53.15	590	90.95	7844	128.85	2367	171.25	2989
53.85	645	92.05	39680	129.95	4755	172.15	4029
55.05	5557	93.00	58920	130.90	1744	173.95	1250816
56.00	27000	94.00	160064	132.00	276	174.90	90176
57.00	44360	95.00	1482752	134.05	1710	175.90	1207296
58.10	8120	96.00	91480	134.95	3579	176.90	76424
58.90	839	96.95	3147	135.95	813	177.90	1936
59.95	13458	102.10	225	136.85	3519	206.80	311
61.05	68136	103.00	856	139.00	853	207.10	360
62.05	61552	103.95	8847	141.00	16133	212.90	171
63.00	48912	104.85	2654	141.95	2163	230.20	171
64.00	5024	105.95	7924	142.85	14869	245.30	236
64.90	785	106.95	1602	143.85	788	269.15	153
65.90	652	107.90	388	145.00	1103	280.70	164
67.05	5875	108.80	482	145.90	1994	281.90	270
67.95	135104	110.00	1254	147.00	979	285.85	219
69.05	134848	110.90	2457	147.90	2901		

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN1.D
Date : 08-FEB-2011 16:12
Client ID: 50ppb BFB
Sample Info: SEQ-TUN1

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN2.D

Date : 09-FEB-2011 06:45

Client ID: 50ppb BFB

Instrument: voa6.i

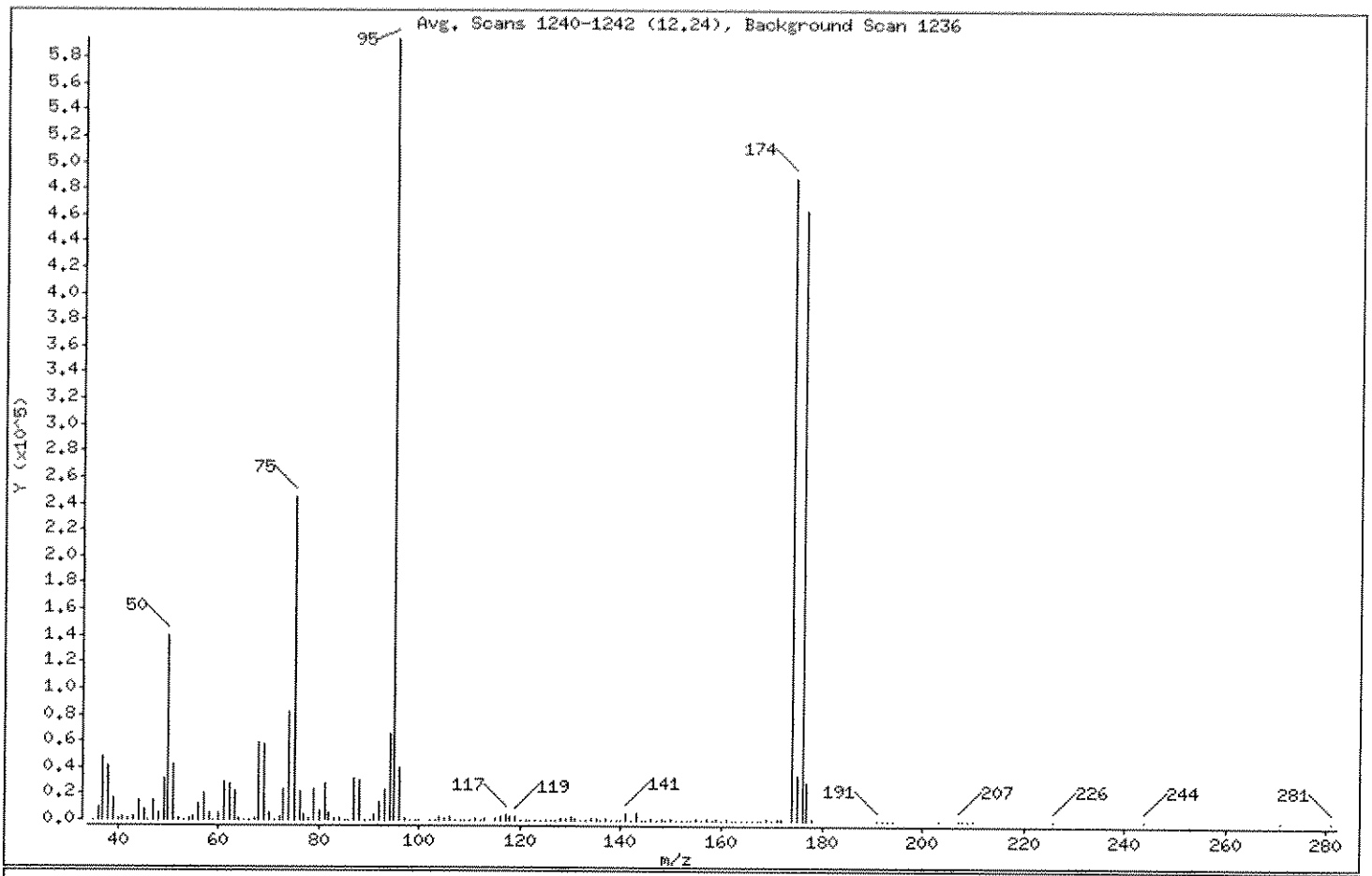
Sample Info: SEQ-TUN2

Operator: RDW

Column phase: RTX-VRX

Column diameter: 0.25

1 bfb



RDW 2-15-11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.45
75	30.00 - 60.00% of mass 95	41.24
96	5.00 - 9.00% of mass 95	6.69
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	82.15
175	5.00 - 9.00% of mass 174	5.78 (7.04)
176	95.00 - 101.00% of mass 174	78.06 (95.03)
177	5.00 - 9.00% of mass 176	4.94 (6.33)

MJ 9/11

Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\0208TUN2.D

Date : 09-FEB-2011 06:45

Client ID: 50ppb BFB

Instrument: voa6.i

Sample Info: SEQ-TUN2

Operator: RDW

Column phase: RTX-VRX

Column diameter: 0.25

Data File: 0208TUN2.D

Spectrum: Avg. Scans 1240-1242 (12.24), Background Scan 1236

Location of Maximum: 95.00

Number of points: 154

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	53	74.00	81576	115.00	766	154.00	362
36.00	9211	75.00	244864	116.00	2459	155.00	1374
37.00	47848	76.00	21640	117.00	3646	156.00	180
38.00	40464	77.00	3801	118.00	2432	157.00	894
39.00	16424	78.00	1291	119.00	3124	158.00	126
40.00	1438	79.00	23920	120.00	181	159.00	743
41.00	2184	80.00	6960	121.00	228	160.00	152
42.00	1194	81.00	27000	122.00	198	161.00	699
43.00	2709	82.00	5927	123.00	306	162.00	84
44.00	14623	83.00	987	124.00	425	163.00	40
45.00	8762	84.00	693	125.00	346	164.00	45
46.00	683	85.00	288	126.00	336	165.00	159
47.00	15016	86.00	296	127.00	228	166.00	168
48.00	4984	87.00	31320	128.00	1871	167.00	291
49.00	31600	88.00	29984	129.00	1016	168.00	377
50.00	139200	89.00	72	130.00	2065	169.00	703
51.00	42592	90.00	34	131.00	1079	170.00	606
52.00	1943	91.00	3794	132.00	227	171.00	1301
53.00	447	92.00	14324	133.00	140	172.00	974
54.00	691	93.00	23768	134.00	1116	174.00	487744
55.00	3338	94.00	65072	135.00	1653	175.00	34344
56.00	12366	95.00	593728	136.00	302	176.00	463488
57.00	21080	96.00	39736	137.00	1176	177.00	29320
58.00	5400	97.00	1336	138.00	88	178.00	879
59.00	380	98.00	368	139.00	410	191.00	134
60.00	6051	99.00	119	140.00	310	192.00	30
61.00	28928	100.00	70	141.00	5751	193.00	30
62.00	27392	102.00	31	142.00	491	194.00	43
63.00	21888	103.00	472	143.00	5720	203.00	30
64.00	2015	104.00	3384	144.00	405	207.00	561
65.00	534	105.00	1063	145.00	471	208.00	87
66.00	363	106.00	3197	146.00	780	209.00	103
67.00	742	107.00	645	147.00	415	210.00	40
68.00	58872	108.00	196	148.00	1281	226.00	31
69.00	57576	109.00	595	149.00	650	244.00	30

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN2.D

Date : 09-FEB-2011 06:45

Client ID: 50ppb BFB

Instrument: voa6.i

Sample Info: SEQ-TUN2

Operator: RDW

Column phase: RTX-VRX

Column diameter: 0.25

Data File: 0208TUN2.D

Spectrum: Avg. Scans 1240-1242 (12,24), Background Scan 1236

Location of Maximum: 95.00

Number of points: 154

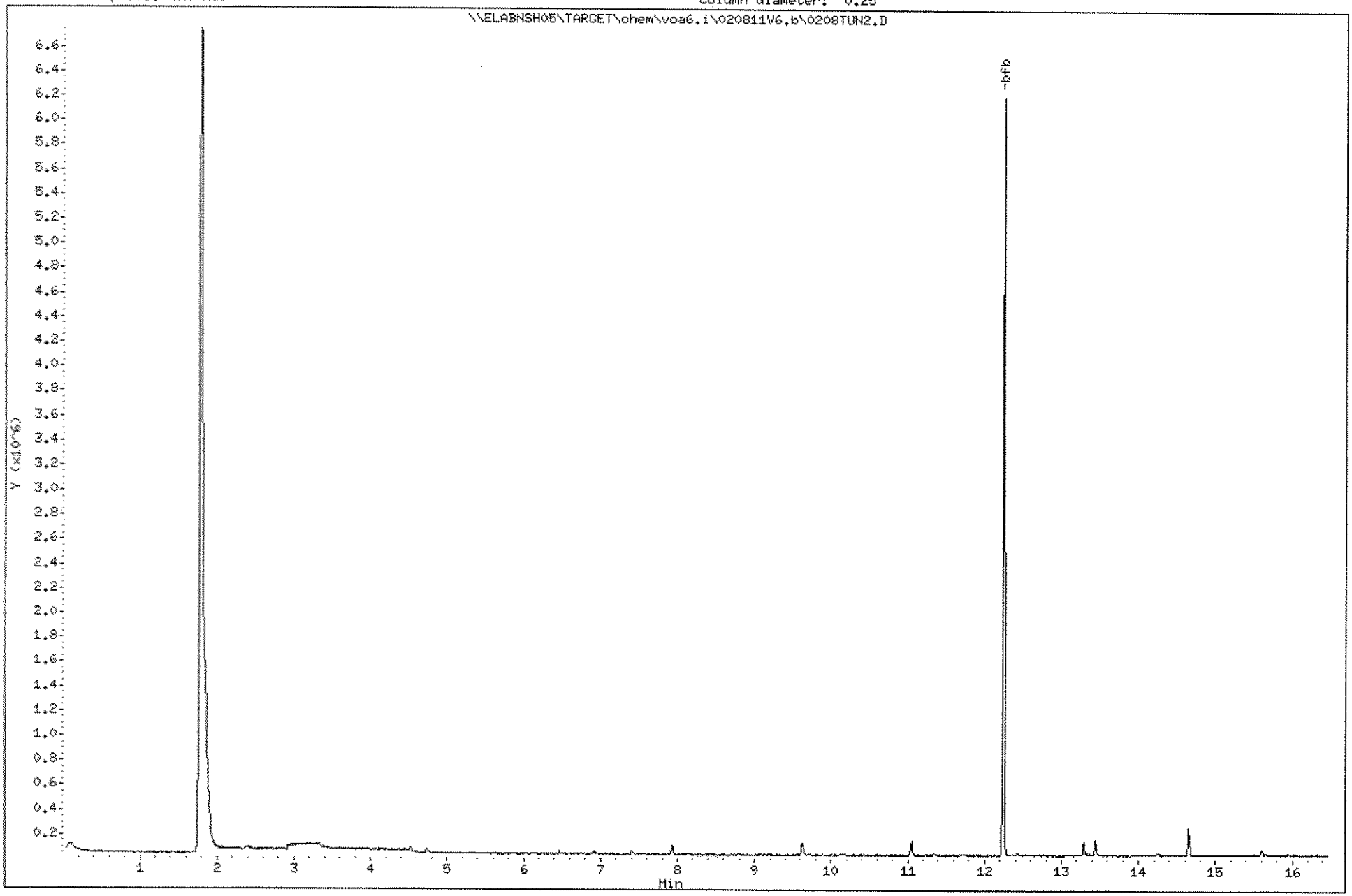
m/z	Y	m/z	Y	m/z	Y	m/z	Y
70.00	4904	110.00	683	150.00	731	271.00	30
71.00	313	111.00	931	151.00	74	281.00	167
72.00	3138	112.00	639	152.00	333		
73.00	23720	113.00	744	153.00	384		

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN2.D
Date : 09-FEB-2011 06:45
Client ID: 50ppb BFB
Sample Info: SEQ-TUN2

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\0208TUN3.D

Date : 09-FEB-2011 15:56

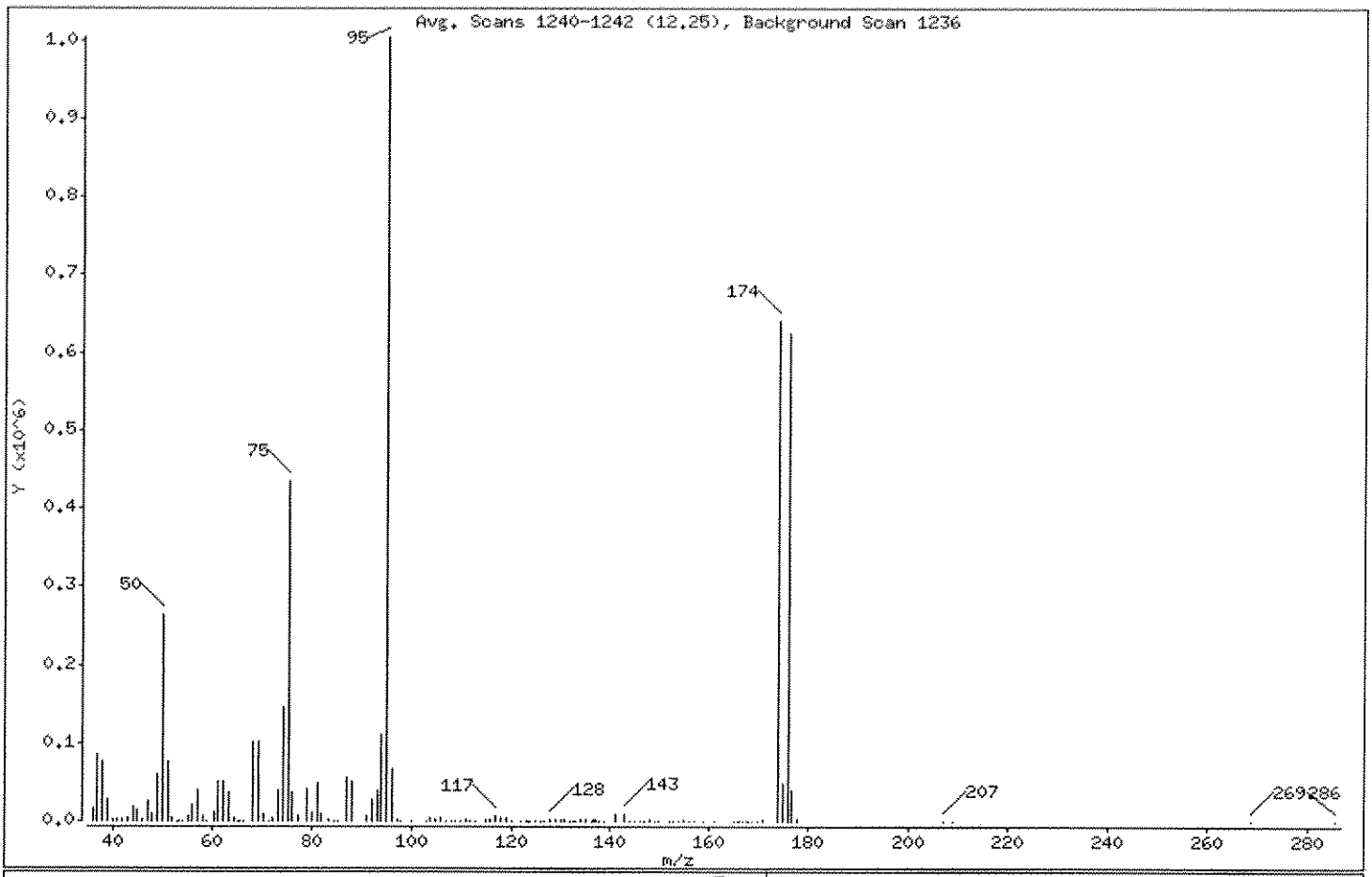
Client ID: SEQ-TUN3 Instrument: voa6.i

Sample Info: SEQ-TUN3;;;;;

Operator: RDW

Column phase: RTX-VRX Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.37
75	30.00 - 60.00% of mass 95	43.22
96	5.00 - 9.00% of mass 95	6.71
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	63.81
175	5.00 - 9.00% of mass 174	4.79 (7.50)
176	95.00 - 101.00% of mass 174	62.13 (97.36)
177	5.00 - 9.00% of mass 176	4.01 (6.46)

2-15-11

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Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN3.D

Date : 09-FEB-2011 15:56

Client ID: SEQ-TUN3 Instrument: voa6.i

Sample Info: SEQ-TUN3;;;;;

Operator: RDW

Column phase: RTX-VRX Column diameter: 0.25

Data File: 0208TUN3.D

Spectrum: Avg. Scans 1240-1242 (12.25), Background Scan 1236

Location of Maximum: 95.00

Number of points: 134

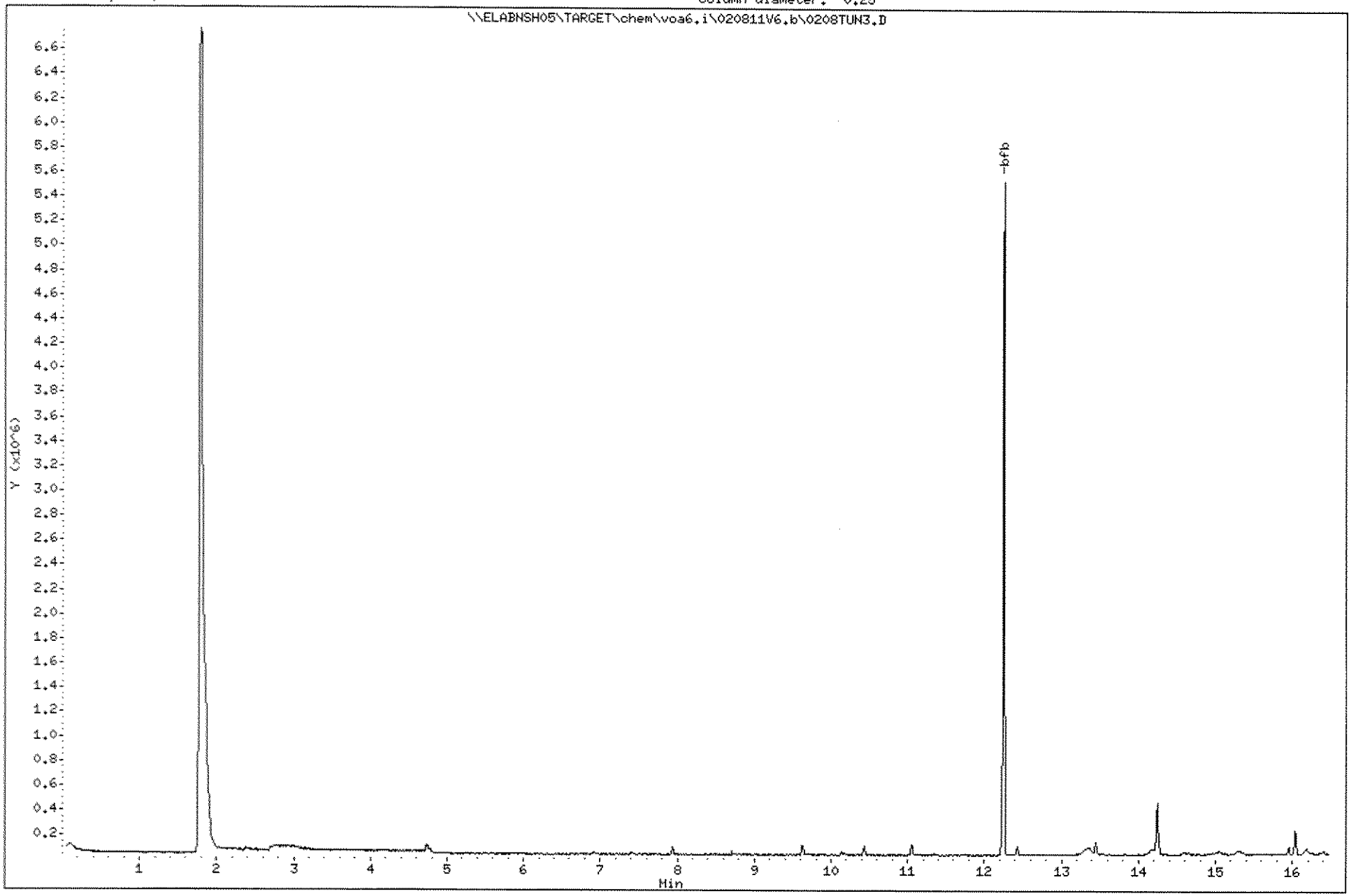
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16292	69.05	101312	110.00	810	145.10	951
36.95	86680	70.05	9075	110.90	1905	145.90	1081
37.95	76312	71.00	964	111.85	1043	146.90	607
38.95	27352	72.00	4877	112.95	1018	147.90	1486
39.95	2177	73.00	39144	114.85	1272	148.85	602
41.00	2428	73.95	145664	115.90	3198	149.85	1077
41.90	1615	75.05	433792	116.90	5887	151.95	598
43.00	3510	76.05	37992	117.90	3571	152.80	482
44.00	19168	77.05	7429	118.95	4420	153.70	648
44.95	13889	78.90	41880	120.05	350	154.90	2204
46.05	1741	80.00	11641	121.95	480	155.80	323
47.05	24872	80.90	47688	122.90	409	156.95	1010
47.90	9355	81.95	9844	123.50	637	158.95	1081
49.00	59552	83.05	1605	123.70	632	160.90	937
50.00	264640	84.15	765	125.00	463	164.95	241
51.00	76896	85.20	466	125.90	381	165.85	255
51.95	3818	87.00	54864	126.65	364	166.15	229
52.95	623	88.00	50232	127.95	3039	167.05	225
53.25	566	90.95	6081	128.95	1992	167.80	406
54.05	1062	91.95	26856	129.85	2983	168.00	442
54.95	6120	93.00	39224	130.90	1405	168.80	570
56.00	20664	94.00	111328	132.00	297	170.00	967
57.00	38320	95.00	1003584	132.60	160	171.00	1456
58.10	7476	96.00	67376	133.10	199	173.95	640384
58.90	651	97.05	2638	134.05	1523	174.90	48040
60.05	11845	97.85	214	134.95	1986	175.90	623488
60.95	51056	99.95	185	136.05	776	176.90	40256
61.95	50080	102.80	535	136.75	1488	177.90	1162
63.00	38016	103.85	5157	136.95	1418	207.00	655
64.10	3538	104.95	1439	137.80	245	208.75	227
64.90	926	105.95	5650	138.60	222	268.95	307
65.50	447	106.95	1051	140.90	8504	285.75	160
66.00	511	108.00	458	142.95	8653		
67.95	102592	108.90	413	144.05	707		

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208TUN3.D
Date : 09-FEB-2011 15:56
Client ID: SEQ-TUN3
Sample Info: SEQ-TUN3;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSHOS\TARGET\chem\voa6.i\020811V6.b\0211TUN1.D

Date : 11-FEB-2011 14:35

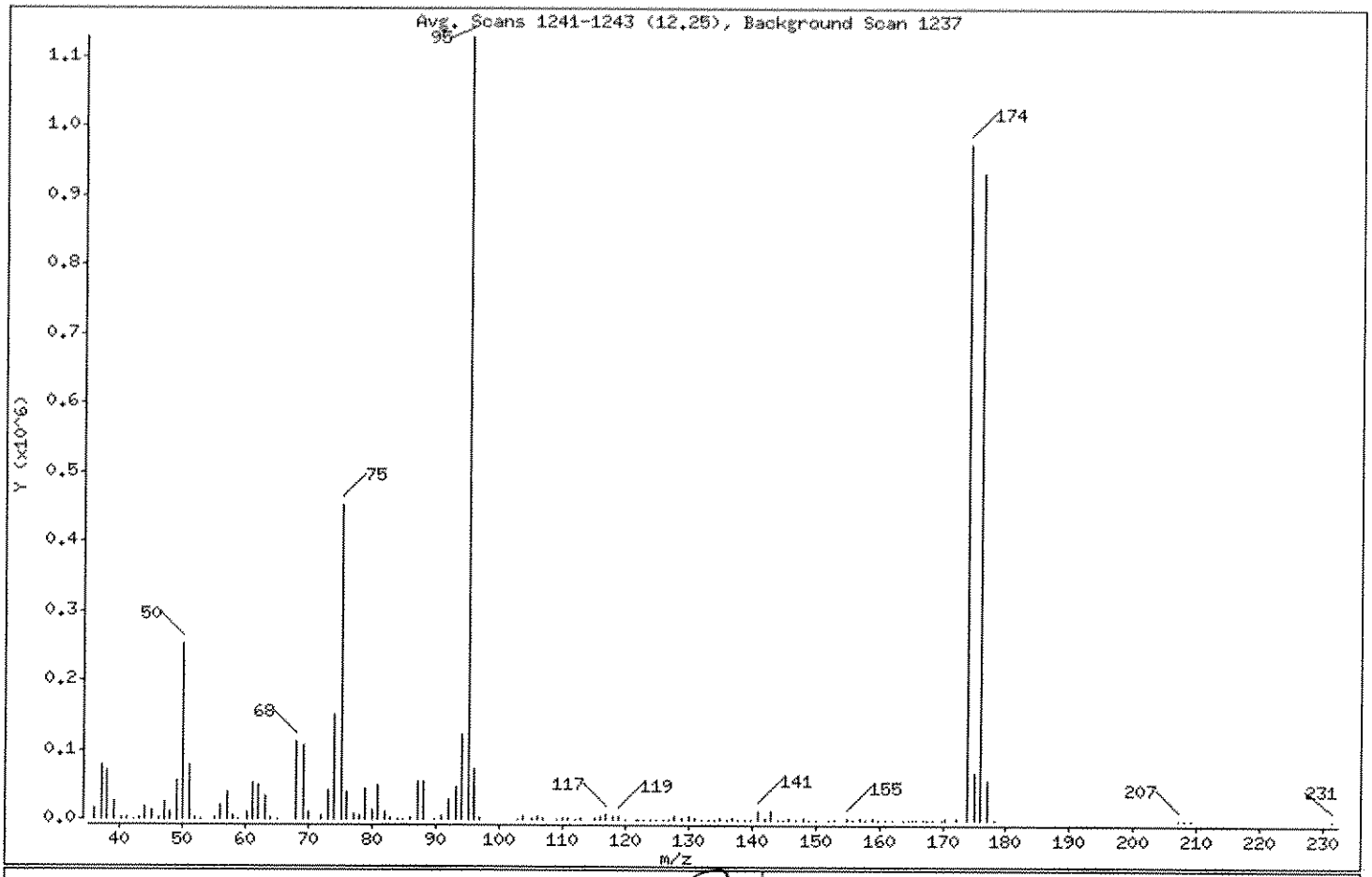
Client ID: SEQ-TUN4 Instrument: voa6.i

Sample Info: SEQ-TUN4

Operator: RDW

Column phase: RTX-VRX Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.27
75	30.00 - 60.00% of mass 95	40.02
96	5.00 - 9.00% of mass 95	6.39
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	86.39
175	5.00 - 9.00% of mass 174	5.94 (6.88)
176	95.00 - 101.00% of mass 174	82.74 (95.77)
177	5.00 - 9.00% of mass 176	5.06 (6.12)

RDW 2-15-11

2/14/11

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0211TUN1.D

Date : 11-FEB-2011 14:35

Client ID: SEQ-TUN4 Instrument: voa6.i

Sample Info: SEQ-TUN4

Operator: RDW

Column phase: RTX-VRX Column diameter: 0.25

Data File: 0211TUN1.D

Spectrum: Avg. Scans 1241-1243 (12.25), Background Scan 1237

Location of Maximum: 95.00

Number of points: 133

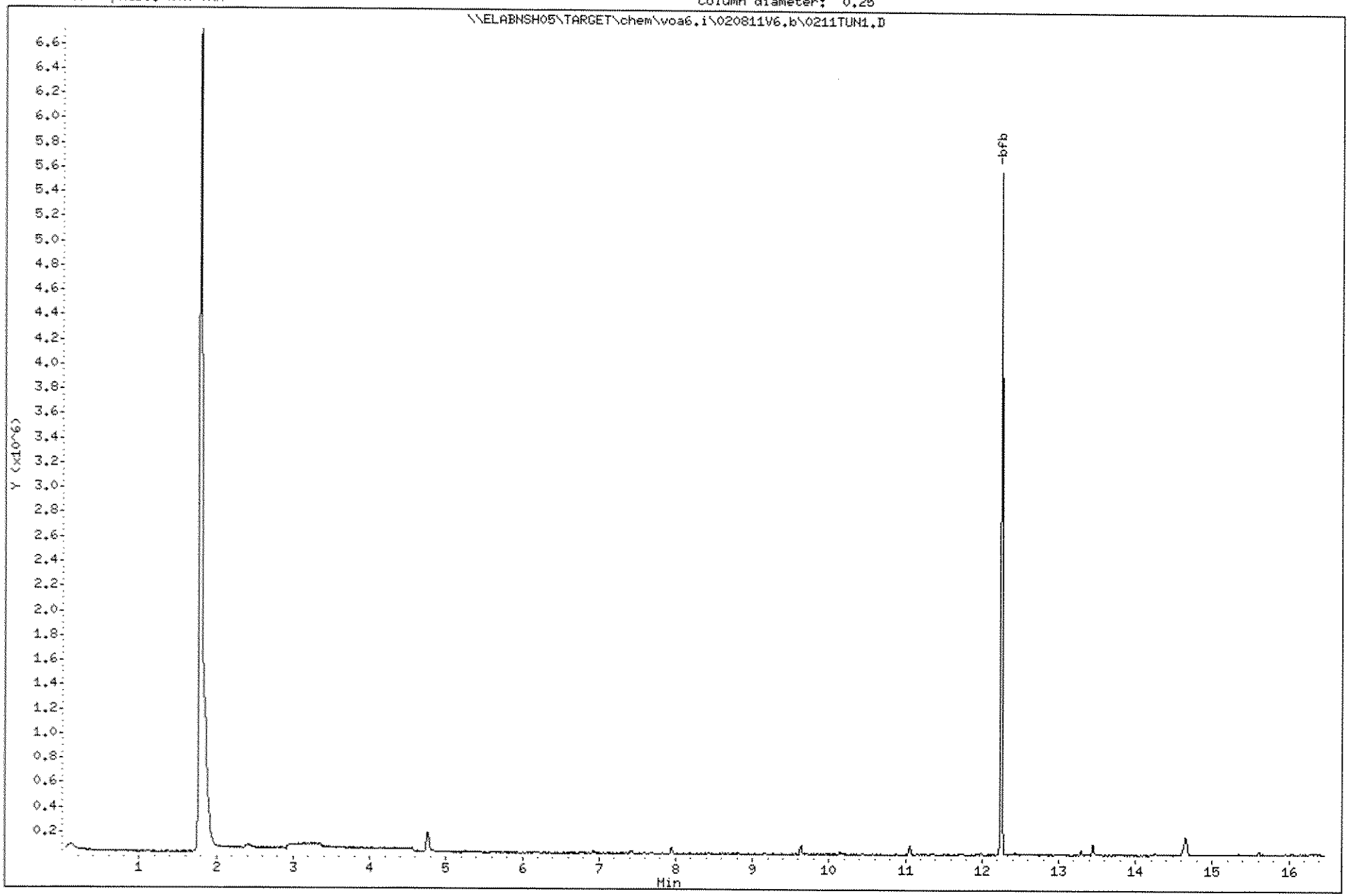
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	16147	73.95	150720	115.90	4587	149.95	966
36.95	76984	75.05	451584	116.90	7927	151.95	785
37.95	70056	76.05	38624	117.90	4065	152.90	880
38.95	25552	77.05	7323	118.95	6145	155.00	2212
40.05	1783	77.90	4255	120.05	230	155.80	335
41.00	1679	78.90	44672	121.65	347	157.05	1708
42.10	1256	80.00	13117	122.05	208	157.95	437
43.10	2301	80.90	49456	122.80	468	158.95	1385
44.00	17472	81.85	10691	124.00	873	159.75	303
45.05	12767	82.95	1901	125.00	379	160.90	1041
46.05	1426	83.95	539	126.00	320	162.00	248
47.05	25152	84.85	265	126.85	430	163.75	177
47.90	9208	86.00	2325	127.85	4689	164.55	164
49.00	57864	87.00	55240	128.95	1448	165.15	230
50.00	251328	88.00	54504	129.95	4082	165.95	486
51.00	77160	89.55	266	130.90	1477	167.05	549
51.95	3744	90.95	5708	132.00	264	167.50	592
52.85	322	92.05	29384	133.20	262	168.30	583
55.05	3371	93.00	46104	133.95	1198	168.50	583
56.00	20800	94.00	121984	134.85	2367	169.70	1236
57.00	39440	95.00	1128448	135.95	740	170.40	1726
58.00	5995	96.10	72080	136.95	2187	172.05	3168
58.80	634	96.95	2502	137.70	228	173.95	974848
60.05	10786	102.80	760	139.00	706	175.00	67032
60.95	53104	103.85	5383	139.90	930	175.90	933632
62.05	50528	105.05	1934	140.90	12957	177.00	57136
63.00	34752	105.95	5649	141.95	1735	178.00	1252
64.00	2840	106.95	1472	142.95	11995	207.10	462
65.10	432	109.10	527	143.95	1043	208.00	182
68.05	110976	110.00	1524	145.00	902	209.05	151
69.05	106016	111.00	1500	145.90	1491	231.25	172
70.05	9357	111.95	1030	146.80	865		
72.00	5495	112.95	1652	148.00	2294		
73.00	40440	115.05	1802	148.95	766		

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0211TUN1.D
Date : 11-FEB-2011 14:35
Client ID: SEQ-TUN4
Sample Info: SEQ-TUN4

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Lab Smp Id: SEQ-CAL1
Inj Date : 08-FEB-2011 16:35
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL1;;;;; 2ppb soil
Misc Info : ;1;;1;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.936	7.936	(1.000)	1133241	30.0000	
1 Dichlorodifluoromethane	85	2.035	2.035	(0.256)	21908	2.00000	2.114
4 Chloromethane	50	2.251	2.251	(0.284)	27021	2.00000	1.908(a)
5 Vinyl chloride	62	2.398	2.398	(0.302)	16860	2.00000	2.364
6 Bromomethane	94	2.861	2.861	(0.361)	5569	2.00000	1.566(aM)
7 Chloroethane	64	2.989	2.989	(0.377)	6577	2.00000	2.084
9 Trichlorofluoromethane	101	3.490	3.490	(0.440)	33373	2.00000	2.061
24 t-Butyl alcohol	59	4.444	4.444	(0.560)	12266	10.0000	12.16
21 Trichlorotrifluoroethane	101	4.346	4.346	(0.548)	20307	2.00000	2.088
26 tert-Amyl alcohol	59	7.119	7.119	(0.897)	10479	10.0000	10.62
8 Acrolein	56	3.687	3.687	(0.465)	14190	10.0000	12.24
15 1,1-Dichloroethene	96	4.277	4.277	(0.539)	12638	2.00000	1.644
16 Iodomethane	142	4.464	4.464	(0.563)	18767	2.00000	1.644(a)
25 Carbon disulfide	76	4.798	4.798	(0.605)	54017	2.00000	4.255
20 Methylene chloride	84	4.749	4.749	(0.598)	57059	2.00000	4.167

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Report Date: 11-Feb-2011 14:12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.641	4.641	(0.585)	29271	10.0000	14.81
	28	trans-1,2-Dichloroethene	96	5.418	5.418	(0.683)	21656	2.00000	2.025
	30	MTBE	73	5.428	5.428	(0.684)	43515	2.00000	1.919
	31	1,1-Dichloroethane	63	5.792	5.792	(0.730)	40908	2.00000	1.846
	33	Vinyl acetate	43	5.870	5.870	(0.740)	68284	4.00000	4.078(a)
	41	Di-isopropyl ether	45	6.165	6.165	(0.777)	124195	2.00000	1.994
	39	cis-1,2-Dichloroethene	96	6.500	6.500	(0.819)	23528	2.00000	1.966
M	18	1,2-Dichloroethene(total)	96				45184	4.00000	3.991
	43	Bromochloromethane	128	6.775	6.775	(0.854)	11568	2.00000	2.083
	50	Tetrahydrofuran	42	6.962	6.962	(0.877)	16283	2.00000	1.698(a)
	44	Chloroform	83	6.746	6.746	(0.850)	37009	2.00000	2.019
	22	Methyl acetate	43	4.621	4.621	(0.582)	16895	2.00000	1.907
$	47	Dibromofluoromethane	111	6.923	6.923	(0.872)	338627	30.0000	29.96
	53	1,1,1-Trichloroethane	97	7.306	7.306	(0.921)	25449	2.00000	1.954
	45	ETBE	59	6.628	6.628	(0.835)	75353	2.00000	1.965
	55	Cyclohexane	56	7.572	7.572	(0.954)	56371	2.00000	2.175
	56	Carbon tetrachloride	117	7.650	7.650	(0.964)	21827	2.00000	1.838
$	51	1,2-Dichloroethane-d4	102	7.414	7.414	(0.934)	67639	30.0000	30.94
	57	Benzene	78	7.680	7.680	(0.968)	80217	2.00000	1.908
	52	1,2-Dichloroethane	62	7.503	7.503	(0.945)	22177	2.00000	2.001
	46	2,2-Dichloropropane	77	6.608	6.608	(0.833)	24499	2.00000	1.903
	54	1,1-Dichloropropene	75	7.523	7.523	(0.948)	29344	2.00000	2.008
	59	tert-Amyl Methyl Ether	73	7.867	7.867	(0.991)	56719	2.00000	1.958
	68	tert-Amyl Ethyl Ether	59	8.742	8.742	(1.102)	64846	2.00000	1.940(a)
	64	Trichloroethene	95	8.437	8.437	(1.063)	24838	2.00000	2.130
	63	1,2-Dichloropropane	63	8.477	8.477	(1.068)	28435	2.00000	2.044
	62	Dibromomethane	93	8.595	8.595	(1.083)	13251	2.00000	2.034
	66	Methyl methacrylate	41	7.572	7.572	(0.954)	36510	2.00000	2.049
	65	Bromodichloromethane	83	8.654	8.654	(1.090)	23458	2.00000	1.904
	69	2-Chloroethyl vinyl ether	63	9.008	9.008	(1.135)	27864	4.00000	4.231(a)
	73	cis-1,3-Dichloropropene	75	9.224	9.224	(1.162)	32825	2.00000	1.970
$	78	Toluene-d8	98	9.627	9.627	(0.871)	1098773	30.0000	29.66
	79	Toluene	92	9.696	9.696	(0.877)	57045	2.00000	2.070
	76	trans-1,3-Dichloropropene	75	9.696	9.696	(0.877)	26501	2.00000	2.039
	80	Ethyl methacrylate	69	9.883	9.883	(0.894)	29750	2.00000	2.126
	77	1,1,2-Trichloroethane	83	9.853	9.853	(0.891)	17273	2.00000	2.140
	85	Tetrachloroethene	166	10.434	10.434	(0.944)	22114	2.00000	2.053
	83	Dibromochloromethane	129	10.326	10.326	(0.934)	16089	2.00000	1.714
	84	1,2-Dibromoethane	107	10.532	10.532	(0.953)	20711	2.00000	2.287
	70	Methyl cyclohexane	83	8.811	8.811	(1.110)	37867	2.00000	1.955
*	88	Chlorobenzene-d5	82	11.053	11.053	(1.000)	517382	30.0000	
	89	Chlorobenzene	112	11.083	11.083	(1.003)	64692	2.00000	2.017
	86	1,1,1,2-Tetrachloroethane	131	11.122	11.122	(1.006)	21174	2.00000	1.939
	87	1-Chlorohexane	91	11.053	11.053	(1.000)	76763	2.00000	2.145
	90	Ethylbenzene	91	11.230	11.230	(1.016)	103690	2.00000	1.874
	91	m,p-Xylene	91	11.339	11.339	(1.026)	162566	4.00000	4.061
M	97	Xylene(total)	91				241760	6.00000	5.978

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Report Date: 11-Feb-2011 14:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.732	11.732	(1.061)	79194	2.00000	1.917
94	Styrene	104	11.702	11.702	(1.059)	66477	2.00000	2.000
93	Bromoform	173	11.811	11.811	(1.069)	9026	2.00000	1.586
101	Isopropylbenzene	105	12.125	12.125	(1.097)	79127	2.00000	1.856
$ 102	Bromofluorobenzene	95	12.243	12.243	(1.108)	429481	30.0000	29.69
96	1,1,2,2-Tetrachloroethane	83	12.057	12.057	(0.897)	22897	2.00000	1.977
81	1,3-Dichloropropane	76	10.060	10.060	(0.910)	30328	2.00000	2.132
98	1,2,3-Trichloropropane	110	12.175	12.175	(1.101)	5615	2.00000	2.307
104	n-Propylbenzene	91	12.538	12.538	(0.933)	127291	2.00000	1.996
107	1,3,5-Trimethylbenzene	105	12.715	12.715	(0.946)	75620	2.00000	1.985
110	1,2,4-Trimethylbenzene	105	13.089	13.089	(0.974)	77443	2.00000	2.032
111	sec-Butylbenzene	105	13.286	13.286	(0.988)	105671	2.00000	1.918
109	tert-Butylbenzene	119	13.060	13.060	(0.971)	72897	2.00000	2.026
112	1,3-Dichlorobenzene	146	13.374	13.374	(0.995)	44035	2.00000	2.018
* 113	1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	502990	30.0000	
115	1,4-Dichlorobenzene	146	13.473	13.473	(1.002)	46850	2.00000	2.124
117	n-Butylbenzene	91	13.827	13.827	(1.029)	93394	2.00000	2.018
116	1,2-Dichlorobenzene	146	13.787	13.787	(1.026)	42170	2.00000	2.109
118	1,2-Dibromo-3-chloropropane	157	14.427	14.427	(1.073)	3757	2.00000	2.018
103	Bromobenzene	156	12.401	12.401	(0.922)	25049	2.00000	2.085
105	2-Chlorotoluene	91	12.627	12.627	(0.939)	67944	2.00000	1.921
106	4-Chlorotoluene	91	12.686	12.686	(0.944)	74426	2.00000	1.906
119	1,2,4-Trichlorobenzene	180	15.509	15.509	(1.154)	27371	2.00000	2.058
120	Naphthalene	128	15.656	15.656	(1.165)	59704	2.00000	2.222
114	p-Isopropyltoluene	119	13.424	13.424	(0.999)	77448	2.00000	1.982
121	Hexachlorobutadiene	225	15.784	15.784	(1.174)	15344	2.00000	1.932
122	1,2,3-Trichlorobenzene	180	15.941	15.941	(1.186)	23794	2.00000	2.023

QC Flag Legend

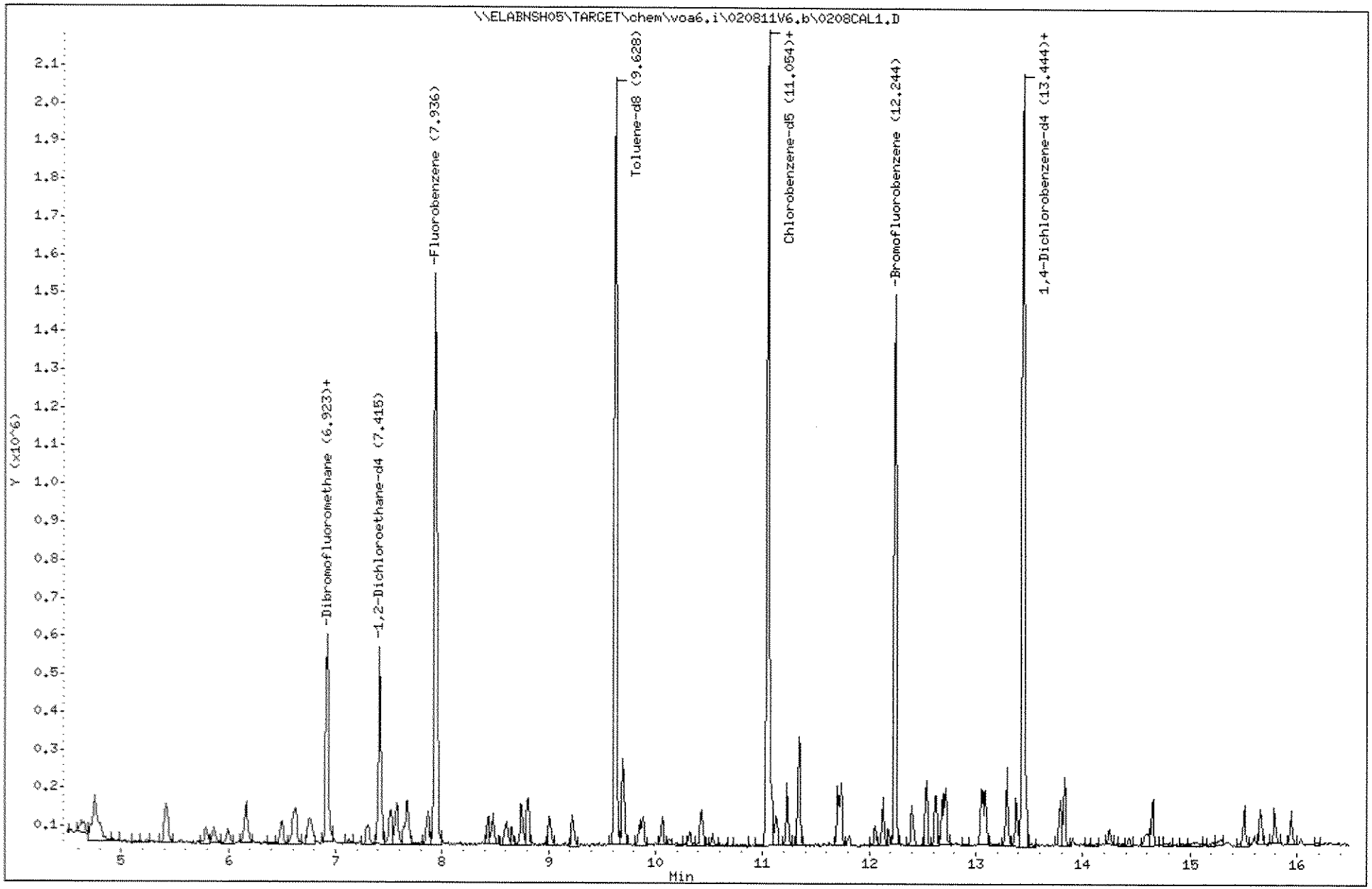
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Date : 08-FEB-2011 16:35
Client ID:
Sample Info: SEQ-CAL1;;;;; 2ppb soil

Instrument: voa6.i

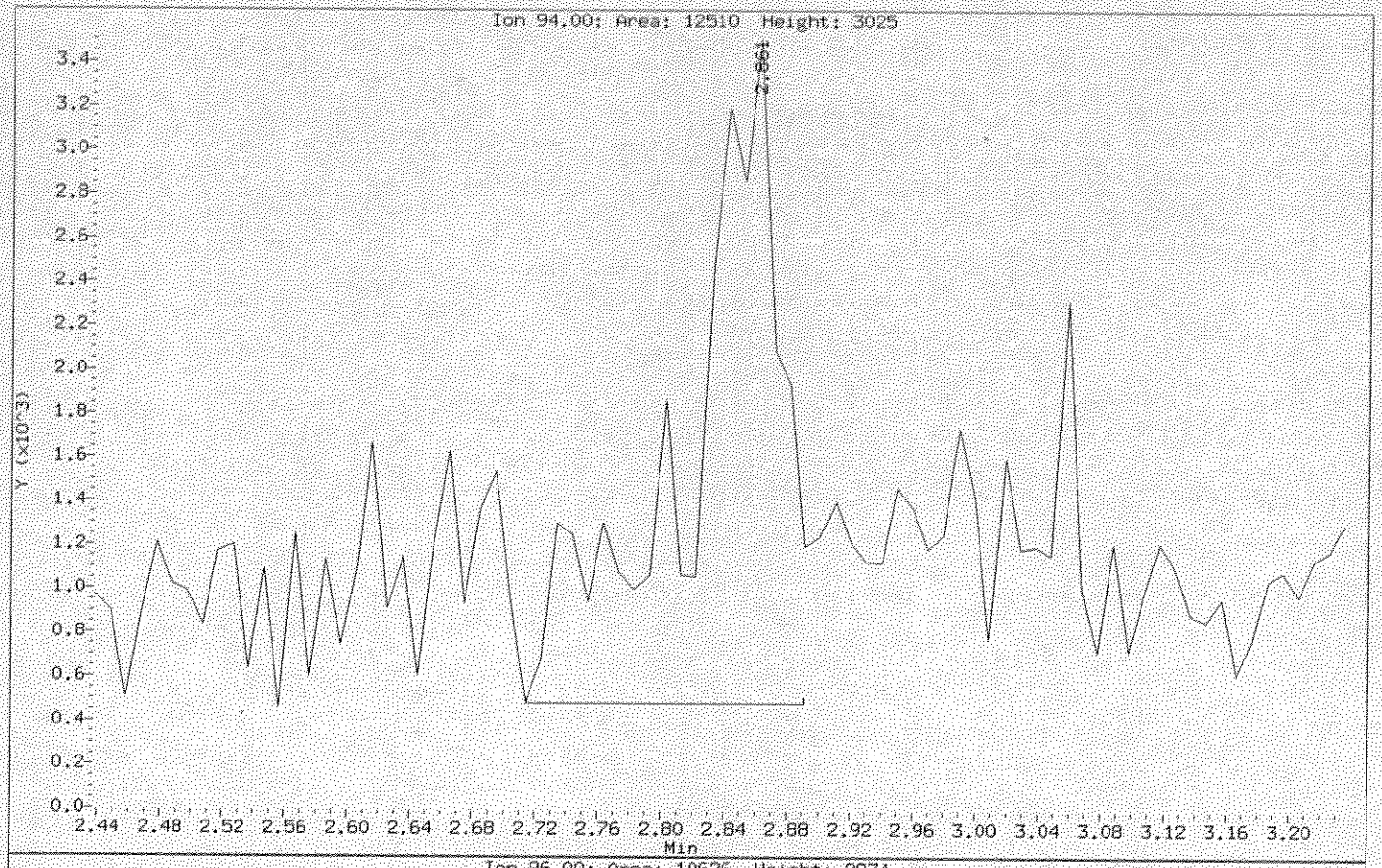
Operator: RDW
Column diameter: 0.25

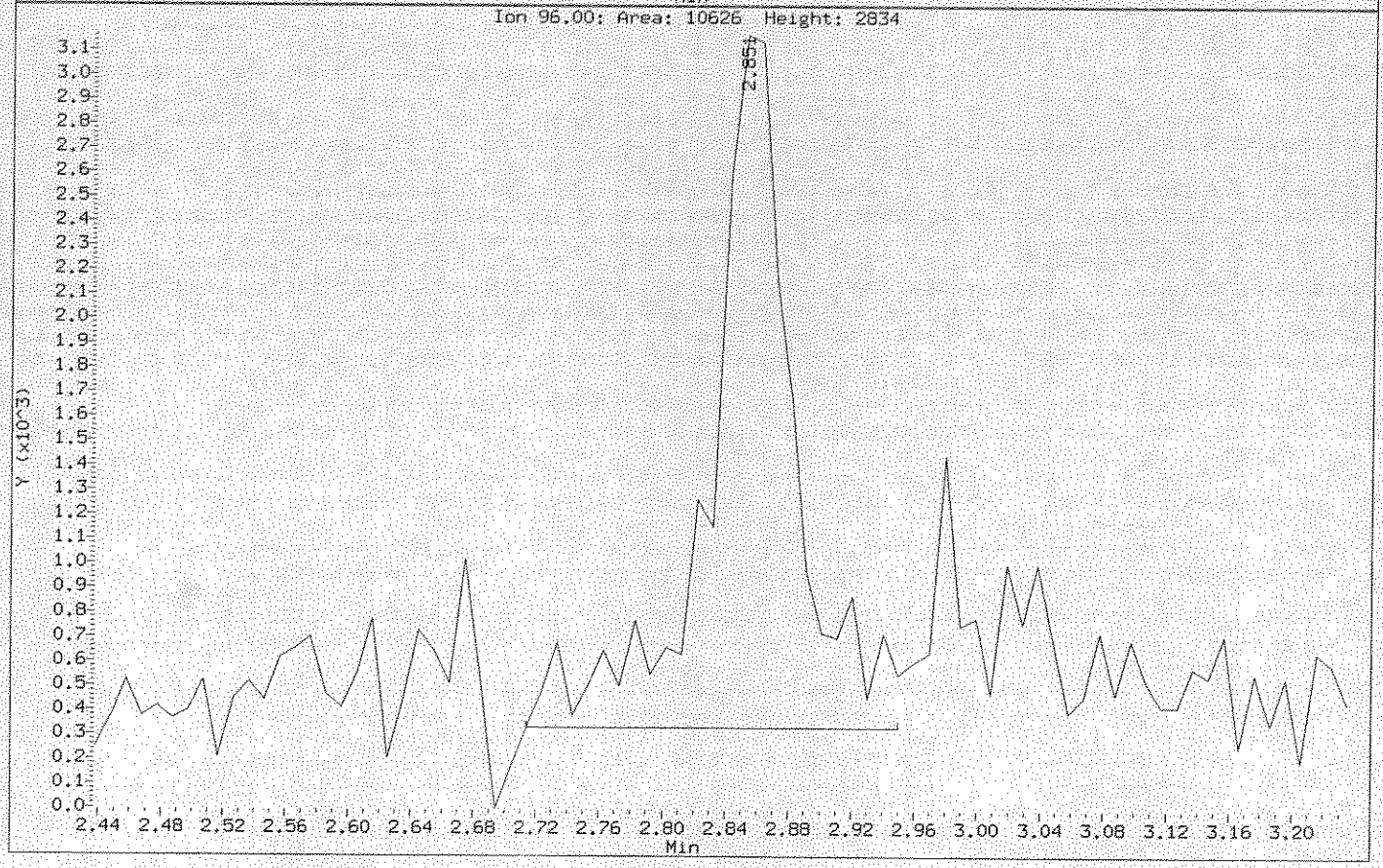
Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Injection Date: 08-FEB-2011 16:35
Instrument: voa6.i
Client Sample ID:

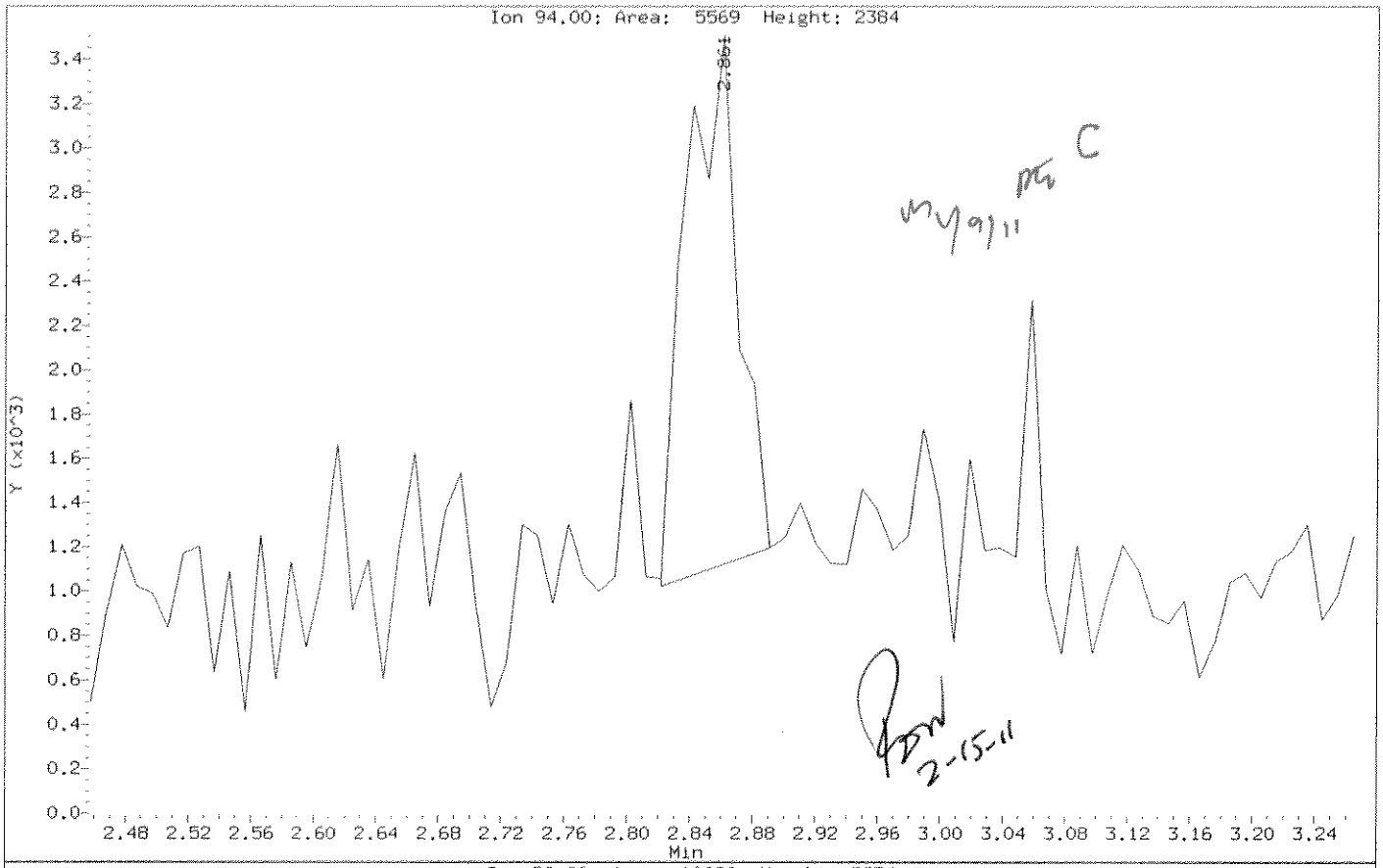
Compound: Bromomethane
CAS Number: 74-83-9

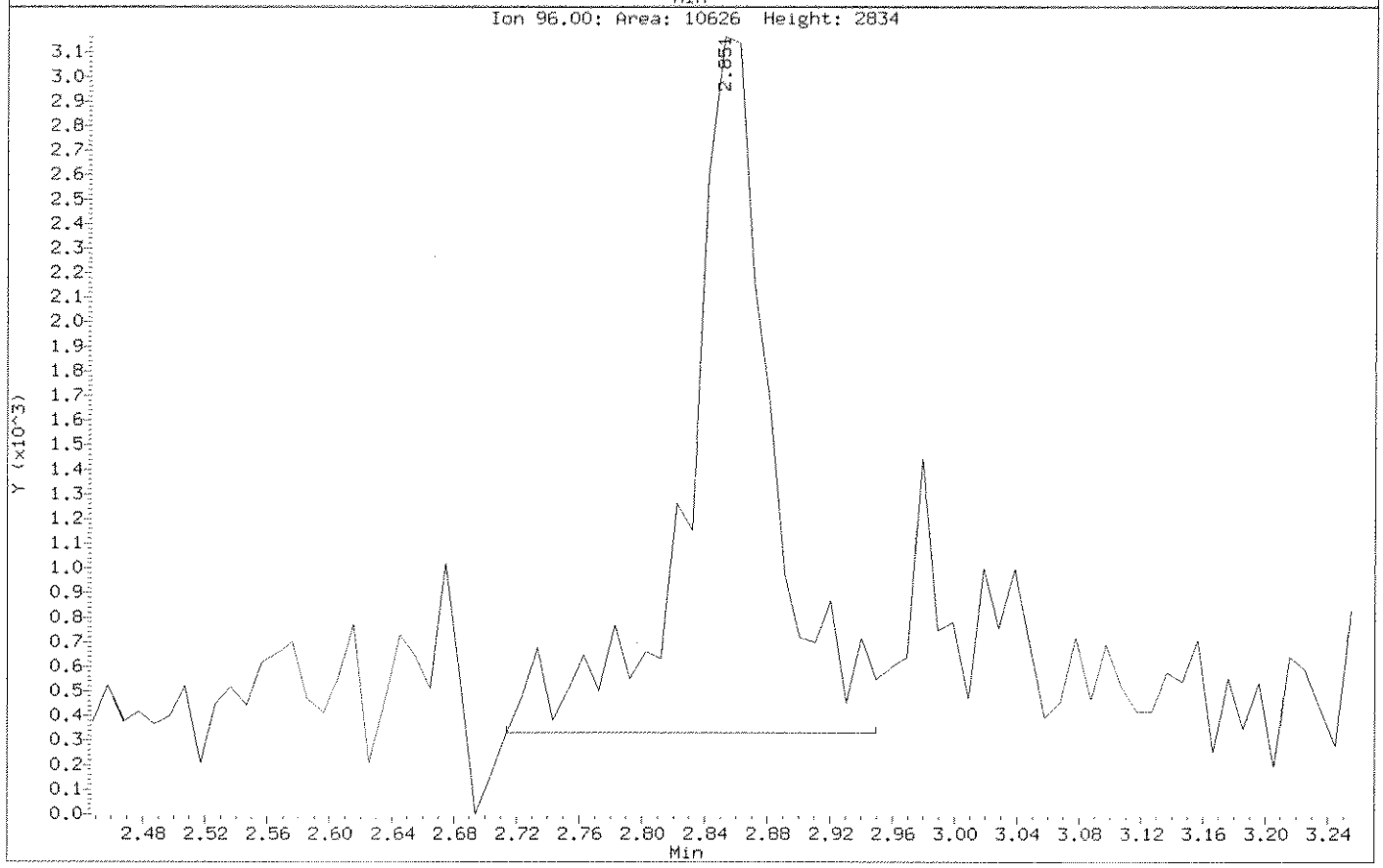




Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\0208CAL1.D
Injection Date: 08-FEB-2011 16:35
Instrument: voa6.i
Client Sample ID:

Compound: Bromomethane
CAS Number: 74-83-9





Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL2.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL2.D
Lab Smp Id: SEQ-CAL2
Inj Date : 08-FEB-2011 16:59
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL2;;;;; 5ppb soil
Misc Info : ;1;;2;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.936	7.936	(1.000)	1014877	30.0000	
1 Dichlorodifluoromethane	85	2.026	2.026	(0.255)	41166	5.00000	4.436
4 Chloromethane	50	2.242	2.242	(0.283)	60435	5.00000	4.764
5 Vinyl chloride	62	2.389	2.389	(0.301)	31103	5.00000	4.869
6 Bromomethane	94	2.842	2.842	(0.358)	13110	5.00000	4.116
7 Chloroethane	64	2.980	2.980	(0.375)	12229	5.00000	4.327
9 Trichlorofluoromethane	101	3.481	3.481	(0.439)	70592	5.00000	4.867
24 t-Butyl alcohol	59	4.415	4.415	(0.556)	23958	25.0000	26.51
21 Trichlorotrifluoroethane	101	4.347	4.347	(0.548)	38229	5.00000	4.389
26 tert-Amyl alcohol	59	7.120	7.120	(0.897)	22563	25.0000	25.54
8 Acrolein	56	3.688	3.688	(0.465)	30395	25.0000	29.27
15 1,1-Dichloroethene	96	4.278	4.278	(0.539)	28904	5.00000	4.200
16 Iodomethane	142	4.465	4.465	(0.563)	43112	5.00000	4.218(a)
25 Carbon disulfide	76	4.799	4.799	(0.605)	117122	5.00000	6.441
20 Methylene chloride	84	4.750	4.750	(0.599)	77117	5.00000	6.696

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL2.D
Report Date: 11-Feb-2011 14:12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.632	4.632	(0.584)	58622	25.0000	24.42
	28	trans-1,2-Dichloroethene	96	5.419	5.419	(0.683)	42267	5.00000	4.414
	30	MTBE	73	5.419	5.419	(0.683)	98554	5.00000	4.853
	31	1,1-Dichloroethane	63	5.792	5.792	(0.730)	93511	5.00000	4.711
	33	Vinyl acetate	43	5.871	5.871	(0.740)	153316	10.0000	10.22
	41	Di-isopropyl ether	45	6.166	6.166	(0.777)	269867	5.00000	4.839
	39	cis-1,2-Dichloroethene	96	6.501	6.501	(0.819)	52542	5.00000	4.901
M	18	1,2-Dichloroethene(total)	96				94809	10.0000	9.315
	43	Bromochloromethane	128	6.776	6.776	(0.854)	25055	5.00000	5.038
	50	Tetrahydrofuran	42	6.963	6.963	(0.877)	26101	5.00000	5.159
	44	Chloroform	83	6.746	6.746	(0.850)	80373	5.00000	4.896
	22	Methyl acetate	43	4.632	4.632	(0.584)	42536	5.00000	5.360
$	47	Dibromofluoromethane	111	6.923	6.923	(0.872)	304094	30.0000	30.04
	53	1,1,1-Trichloroethane	97	7.307	7.307	(0.921)	53771	5.00000	4.611
	45	ETBE	59	6.628	6.628	(0.835)	164288	5.00000	4.785
	55	Cyclohexane	56	7.573	7.573	(0.954)	107798	5.00000	4.645
	56	Carbon tetrachloride	117	7.641	7.641	(0.963)	48390	5.00000	4.549
$	51	1,2-Dichloroethane-d4	102	7.415	7.415	(0.934)	60362	30.0000	30.83
	57	Benzene	78	7.671	7.671	(0.967)	183651	5.00000	4.877
	52	1,2-Dichloroethane	62	7.504	7.504	(0.945)	48083	5.00000	4.844
	46	2,2-Dichloropropane	77	6.599	6.599	(0.831)	55568	5.00000	4.819
	54	1,1-Dichloropropene	75	7.523	7.523	(0.948)	58943	5.00000	4.504
	59	tert-Amyl Methyl Ether	73	7.868	7.868	(0.991)	129570	5.00000	4.995
	68	tert-Amyl Ethyl Ether	59	8.743	8.743	(1.102)	143780	5.00000	4.802(a)
	64	Trichloroethene	95	8.428	8.428	(1.062)	49150	5.00000	4.707
	63	1,2-Dichloropropane	63	8.477	8.477	(1.068)	62295	5.00000	5.001
	62	Dibromomethane	93	8.595	8.595	(1.083)	27634	5.00000	4.736
	66	Methyl methacrylate	41	7.573	7.573	(0.954)	81254	5.00000	5.092
	65	Bromodichloromethane	83	8.654	8.654	(1.090)	51961	5.00000	4.709
	69	2-Chloroethyl vinyl ether	63	9.008	9.008	(1.135)	60203	10.0000	10.21
	73	cis-1,3-Dichloropropene	75	9.225	9.225	(1.162)	73581	5.00000	4.930
$	78	Toluene-d8	98	9.628	9.628	(0.872)	994889	30.0000	29.77
	79	Toluene	92	9.697	9.697	(0.878)	116739	5.00000	4.695
	76	trans-1,3-Dichloropropene	75	9.697	9.697	(0.878)	55524	5.00000	4.735
	80	Ethyl methacrylate	69	9.884	9.884	(0.895)	65622	5.00000	5.200
	77	1,1,2-Trichloroethane	83	9.854	9.854	(0.892)	36241	5.00000	4.976
	85	Tetrachloroethene	166	10.435	10.435	(0.945)	42907	5.00000	4.417
	83	Dibromochloromethane	129	10.317	10.317	(0.934)	37949	5.00000	4.482
	84	1,2-Dibromoethane	107	10.533	10.533	(0.954)	41458	5.00000	5.076
	70	Methyl cyclohexane	83	8.802	8.802	(1.109)	80207	5.00000	4.623
*	88	Chlorobenzene-d5	82	11.044	11.044	(1.000)	466712	30.0000	
	89	Chlorobenzene	112	11.084	11.084	(1.004)	137819	5.00000	4.764
	86	1,1,1,2-Tetrachloroethane	131	11.123	11.123	(1.007)	45682	5.00000	4.637
	87	1-Chlorohexane	91	11.044	11.044	(1.000)	157680	5.00000	4.885
	90	Ethylbenzene	91	11.231	11.231	(1.017)	227387	5.00000	4.556
	91	m,p-Xylene	91	11.339	11.339	(1.027)	342456	10.0000	9.484
M	97	Xylene(total)	91				515546	15.0000	14.13

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL2.D
Report Date: 11-Feb-2011 14:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.733	11.733	(1.062)	173090	5.00000	4.645
94	Styrene	104	11.703	11.703	(1.060)	140758	5.00000	4.694
93	Bromoform	173	11.811	11.811	(1.069)	21765	5.00000	4.239
101	Isopropylbenzene	105	12.126	12.126	(1.098)	177787	5.00000	4.622
$ 102	Bromofluorobenzene	95	12.234	12.234	(1.108)	396624	30.0000	30.39
96	1,1,2,2-Tetrachloroethane	83	12.057	12.057	(0.897)	54311	5.00000	5.251
81	1,3-Dichloropropane	76	10.061	10.061	(0.911)	61758	5.00000	4.812
98	1,2,3-Trichloropropane	110	12.175	12.175	(1.102)	10345	5.00000	4.712
104	n-Propylbenzene	91	12.539	12.539	(0.933)	265379	5.00000	4.660
107	1,3,5-Trimethylbenzene	105	12.716	12.716	(0.946)	162690	5.00000	4.784
110	1,2,4-Trimethylbenzene	105	13.090	13.090	(0.974)	160320	5.00000	4.710
111	sec-Butylbenzene	105	13.287	13.287	(0.988)	229527	5.00000	4.667
109	tert-Butylbenzene	119	13.051	13.051	(0.971)	152045	5.00000	4.734
112	1,3-Dichlorobenzene	146	13.375	13.375	(0.995)	95856	5.00000	4.919
* 113	1,4-Dichlorobenzene-d4	152	13.444	13.444	(1.000)	449126	30.0000	
115	1,4-Dichlorobenzene	146	13.474	13.474	(1.002)	100059	5.00000	5.079
117	n-Butylbenzene	91	13.828	13.828	(1.029)	195894	5.00000	4.741
116	1,2-Dichlorobenzene	146	13.788	13.788	(1.026)	86688	5.00000	4.855
118	1,2-Dibromo-3-chloropropane	157	14.428	14.428	(1.073)	7828	5.00000	4.708
103	Bromobenzene	156	12.402	12.402	(0.922)	51695	5.00000	4.820
105	2-Chlorotoluene	91	12.618	12.618	(0.939)	149970	5.00000	4.749
106	4-Chlorotoluene	91	12.687	12.687	(0.944)	168902	5.00000	4.844
119	1,2,4-Trichlorobenzene	180	15.509	15.509	(1.154)	59525	5.00000	5.012
120	Naphthalene	128	15.657	15.657	(1.165)	120848	5.00000	5.037
114	p-Isopropyltoluene	119	13.424	13.424	(0.999)	159847	5.00000	4.581
121	Hexachlorobutadiene	225	15.785	15.785	(1.174)	32497	5.00000	4.583
122	1,2,3-Trichlorobenzene	180	15.942	15.942	(1.186)	52424	5.00000	4.991

QC Flag Legend

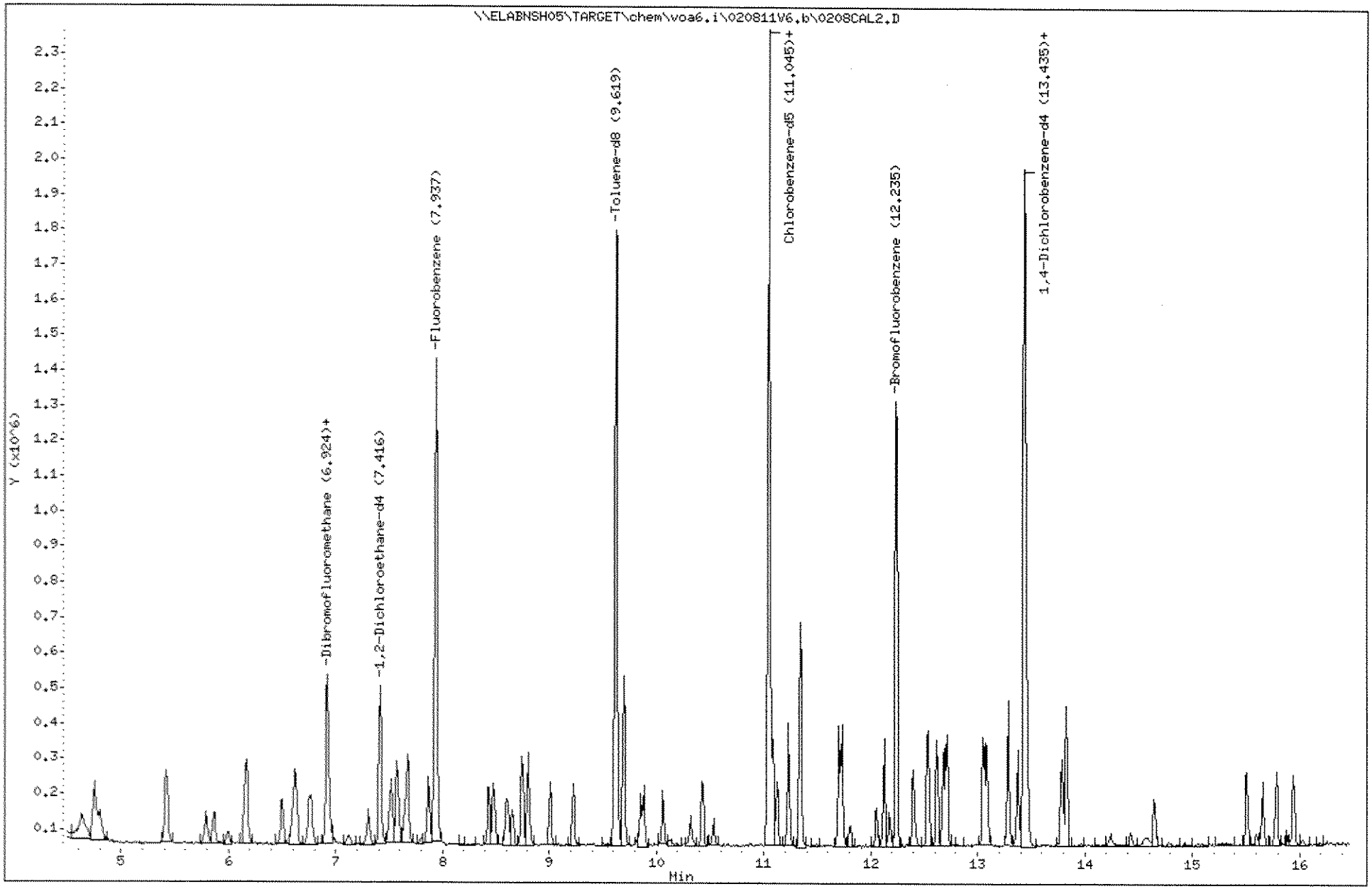
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL2.D
Date : 08-FEB-2011 16:59
Client ID:
Sample Info: SEQ-CAL2;;;;; 5ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



100

1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL3.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL3.D
Lab Smp Id: SEQ-CAL3
Inj Date : 08-FEB-2011 17:23
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL3;;;;; 10ppb soil
Misc Info : ;1;;3;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.945	7.945	(1.000)	1131275	30.0000	
1 Dichlorodifluoromethane	85	2.024	2.024	(0.255)	92872	10.0000	8.979
4 Chloromethane	50	2.251	2.251	(0.283)	139367	10.0000	9.857
5 Vinyl chloride	62	2.398	2.398	(0.302)	62180	10.0000	8.732
6 Bromomethane	94	2.860	2.860	(0.360)	31928	10.0000	8.992
7 Chloroethane	64	2.998	2.998	(0.377)	33778	10.0000	10.72
9 Trichlorofluoromethane	101	3.500	3.500	(0.441)	157878	10.0000	9.766
24 t-Butyl alcohol	59	4.424	4.424	(0.557)	49808	50.0000	49.45
21 Trichlorotrifluoroethane	101	4.365	4.365	(0.549)	102171	10.0000	10.52
26 tert-Amyl alcohol	59	7.129	7.129	(0.897)	50315	50.0000	51.09
8 Acrolein	56	3.706	3.706	(0.467)	61863	50.0000	53.45
15 1,1-Dichloroethene	96	4.286	4.286	(0.540)	80657	10.0000	10.51
16 Iodomethane	142	4.483	4.483	(0.564)	115000	10.0000	10.09
25 Carbon disulfide	76	4.818	4.818	(0.606)	301419	10.0000	11.32
20 Methylene chloride	84	4.768	4.768	(0.600)	150710	10.0000	12.34

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL3.D
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		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.650	4.650	(0.585)	195324	50.0000	59.02
	28	trans-1,2-Dichloroethene	96	5.427	5.427	(0.683)	106718	10.0000	9.998
	30	MTBE	73	5.437	5.437	(0.684)	224442	10.0000	9.916
	31	1,1-Dichloroethane	63	5.801	5.801	(0.730)	228189	10.0000	10.31
	33	Vinyl acetate	43	5.870	5.870	(0.739)	333097	20.0000	19.93
	41	Di-isopropyl ether	45	6.165	6.165	(0.776)	611575	10.0000	9.838
	39	cis-1,2-Dichloroethene	96	6.499	6.499	(0.818)	121018	10.0000	10.13
M	18	1,2-Dichloroethene(total)	96				227736	20.0000	20.12
	43	Bromochloromethane	128	6.785	6.785	(0.854)	55477	10.0000	10.01
	50	Tetrahydrofuran	42	6.971	6.971	(0.877)	44866	10.0000	9.411
	44	Chloroform	83	6.755	6.755	(0.850)	177509	10.0000	9.702
	22	Methyl acetate	43	4.640	4.640	(0.584)	97968	10.0000	11.08
$	47	Dibromofluoromethane	111	6.922	6.922	(0.871)	328732	30.0000	29.14
	53	1,1,1-Trichloroethane	97	7.306	7.306	(0.920)	125076	10.0000	9.622
	45	ETBE	59	6.627	6.627	(0.834)	375715	10.0000	9.817
	55	Cyclohexane	56	7.581	7.581	(0.954)	250523	10.0000	9.685
	56	Carbon tetrachloride	117	7.650	7.650	(0.963)	108777	10.0000	9.174
$	51	1,2-Dichloroethane-d4	102	7.424	7.424	(0.934)	62565	30.0000	28.67
	57	Benzene	78	7.680	7.680	(0.967)	406339	10.0000	9.680
	52	1,2-Dichloroethane	62	7.512	7.512	(0.946)	111587	10.0000	10.08
	46	2,2-Dichloropropane	77	6.607	6.607	(0.832)	126321	10.0000	9.828
	54	1,1-Dichloropropene	75	7.532	7.532	(0.948)	143500	10.0000	9.836
	59	tert-Amyl Methyl Ether	73	7.866	7.866	(0.990)	286302	10.0000	9.902
	68	tert-Amyl Ethyl Ether	59	8.752	8.752	(1.102)	327592	10.0000	9.816
	64	Trichloroethene	95	8.437	8.437	(1.062)	111011	10.0000	9.538
	63	1,2-Dichloropropane	63	8.486	8.486	(1.068)	137692	10.0000	9.917
	62	Dibromomethane	93	8.594	8.594	(1.082)	66361	10.0000	10.20
	66	Methyl methacrylate	41	7.581	7.581	(0.954)	177662	10.0000	9.988
	65	Bromodichloromethane	83	8.663	8.663	(1.090)	120298	10.0000	9.781
	69	2-Chloroethyl vinyl ether	63	9.017	9.017	(1.135)	133179	20.0000	20.26
	73	cis-1,3-Dichloropropene	75	9.224	9.224	(1.161)	162191	10.0000	9.749
$	78	Toluene-d8	98	9.627	9.627	(0.871)	1081541	30.0000	29.55
	79	Toluene	92	9.706	9.706	(0.878)	274117	10.0000	10.07
	76	trans-1,3-Dichloropropene	75	9.696	9.696	(0.877)	123218	10.0000	9.594
	80	Ethyl methacrylate	69	9.883	9.883	(0.894)	129906	10.0000	9.399
	77	1,1,2-Trichloroethane	83	9.853	9.853	(0.891)	79445	10.0000	9.961
	85	Tetrachloroethene	166	10.433	10.433	(0.944)	103445	10.0000	9.723
	83	Dibromochloromethane	129	10.325	10.325	(0.934)	85969	10.0000	9.272
	84	1,2-Dibromoethane	107	10.532	10.532	(0.953)	84134	10.0000	9.405
	70	Methyl cyclohexane	83	8.811	8.811	(1.109)	191243	10.0000	9.889
*	88	Chlorobenzene-d5	82	11.053	11.053	(1.000)	511135	30.0000	
	89	Chlorobenzene	112	11.082	11.082	(1.003)	307321	10.0000	9.699
	86	1,1,1,2-Tetrachloroethane	131	11.132	11.132	(1.007)	103017	10.0000	9.547
	87	1-Chlorohexane	91	11.053	11.053	(1.000)	370439	10.0000	10.48
	90	Ethylbenzene	91	11.230	11.230	(1.016)	524588	10.0000	9.598
	91	m,p-Xylene	91	11.348	11.348	(1.027)	783940	20.0000	19.82
M	97	Xylene(total)	91				1182441	30.0000	29.59

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL3.D
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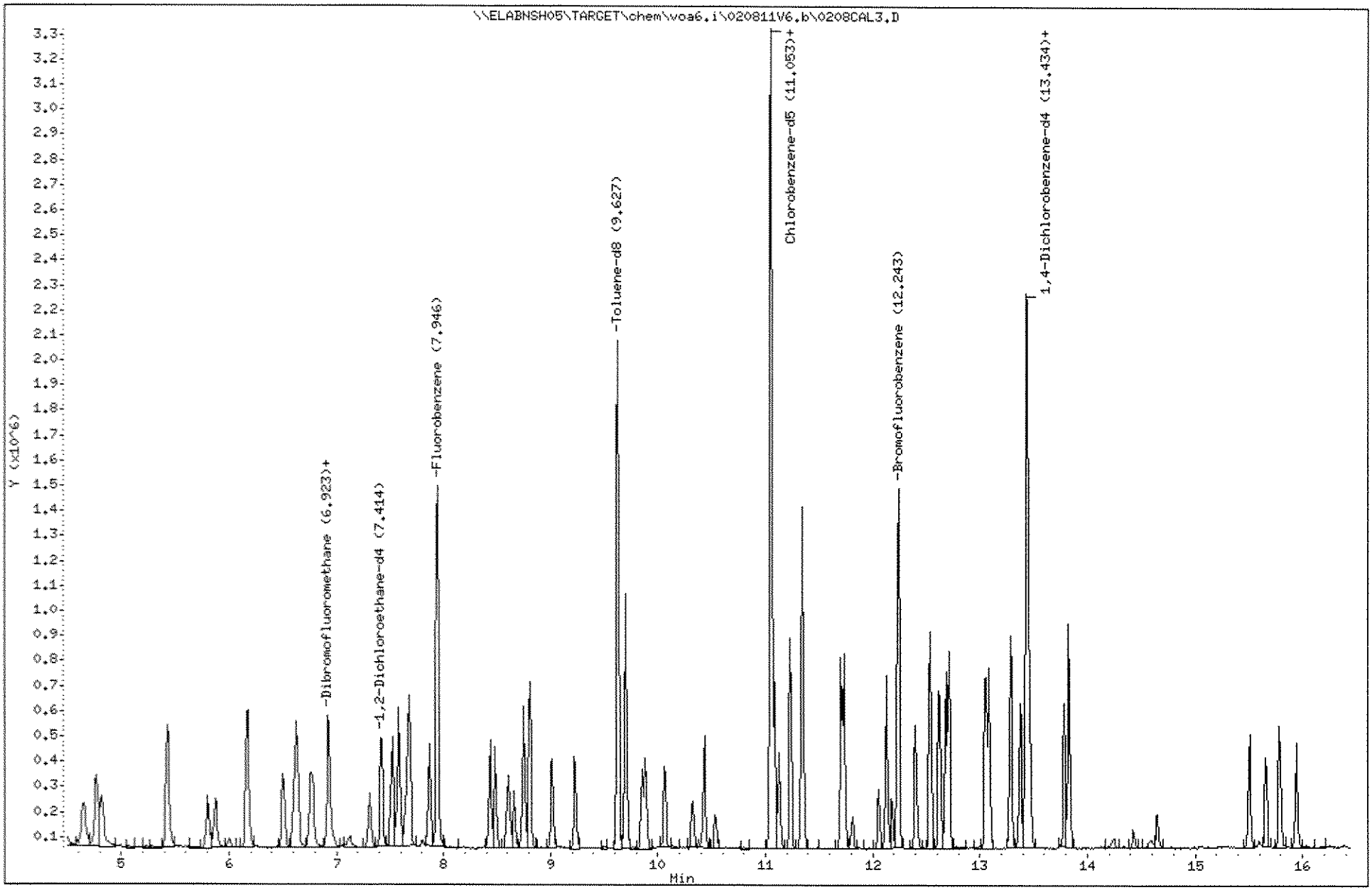
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.732	11.732	(1.061)	398501	10.0000	9.764
94	Styrene	104	11.702	11.702	(1.059)	319212	10.0000	9.721
93	Bromoform	173	11.810	11.810	(1.069)	51323	10.0000	9.127
101	Isopropylbenzene	105	12.125	12.125	(1.097)	417881	10.0000	9.920
$ 102	Bromofluorobenzene	95	12.243	12.243	(1.108)	422433	30.0000	29.56
96	1,1,2,2-Tetrachloroethane	83	12.056	12.056	(0.897)	116612	10.0000	10.26
81	1,3-Dichloropropane	76	10.060	10.060	(0.910)	137691	10.0000	9.796
98	1,2,3-Trichloropropane	110	12.174	12.174	(1.101)	22990	10.0000	9.562
104	n-Propylbenzene	91	12.538	12.538	(0.933)	626175	10.0000	10.01
107	1,3,5-Trimethylbenzene	105	12.715	12.715	(0.946)	374344	10.0000	10.02
110	1,2,4-Trimethylbenzene	105	13.089	13.089	(0.974)	361705	10.0000	9.674
111	sec-Butylbenzene	105	13.285	13.285	(0.988)	546588	10.0000	10.12
109	tert-Butylbenzene	119	13.059	13.059	(0.971)	351287	10.0000	9.956
112	1,3-Dichlorobenzene	146	13.384	13.384	(0.996)	218989	10.0000	10.23
* 113	1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	493384	30.0000	
115	1,4-Dichlorobenzene	146	13.472	13.472	(1.002)	217278	10.0000	10.04
117	n-Butylbenzene	91	13.826	13.826	(1.029)	463192	10.0000	10.20
116	1,2-Dichlorobenzene	146	13.787	13.787	(1.026)	197810	10.0000	10.08
118	1,2-Dibromo-3-chloropropane	157	14.426	14.426	(1.073)	17800	10.0000	9.746
103	Bromobenzene	156	12.400	12.400	(0.922)	121009	10.0000	10.27
105	2-Chlorotoluene	91	12.617	12.617	(0.939)	348076	10.0000	10.03
106	4-Chlorotoluene	91	12.686	12.686	(0.944)	379462	10.0000	9.906
119	1,2,4-Trichlorobenzene	180	15.508	15.508	(1.154)	130811	10.0000	10.02
120	Naphthalene	128	15.656	15.656	(1.165)	259623	10.0000	9.850
114	p-Isopropyltoluene	119	13.423	13.423	(0.999)	384506	10.0000	10.03
121	Hexachlorobutadiene	225	15.784	15.784	(1.174)	76631	10.0000	9.838
122	1,2,3-Trichlorobenzene	180	15.941	15.941	(1.186)	117041	10.0000	10.14

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL3.D
Date : 08-FEB-2011 17:23
Client ID:
Sample Info: SEQ-CAL3;;;;; 10ppb soil

Instrument: voa6.i
Operator: RDW
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL4.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL4.D
Lab Smp Id: SEQ-CAL4
Inj Date : 08-FEB-2011 17:47
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL4;;;;; 20ppb soil
Misc Info : ;1;;4;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.940	7.940	(1.000)	1089936	30.0000	
1 Dichlorodifluoromethane	85	2.020	2.020	(0.254)	169997	20.0000	17.06
4 Chloromethane	50	2.246	2.246	(0.283)	268394	20.0000	19.70
5 Vinyl chloride	62	2.384	2.384	(0.300)	120978	20.0000	17.63
6 Bromomethane	94	2.836	2.836	(0.357)	62668	20.0000	18.32
7 Chloroethane	64	2.974	2.974	(0.375)	61039	20.0000	20.11
9 Trichlorofluoromethane	101	3.475	3.475	(0.438)	325067	20.0000	20.87
24 t-Butyl alcohol	59	4.439	4.439	(0.559)	97195	100.000	100.2
21 Trichlorotrifluoroethane	101	4.341	4.341	(0.547)	176609	20.0000	18.88
26 tert-Amyl alcohol	59	7.124	7.124	(0.897)	98793	100.000	104.1
8 Acrolein	56	3.682	3.682	(0.464)	109995	100.000	98.64
15 1,1-Dichloroethene	96	4.272	4.272	(0.538)	136749	20.0000	18.50
16 Iodomethane	142	4.459	4.459	(0.562)	203337	20.0000	18.52
25 Carbon disulfide	76	4.793	4.793	(0.604)	403412	20.0000	14.66
20 Methylene chloride	84	4.754	4.754	(0.599)	168395	20.0000	14.44

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL4.D
Report Date: 11-Feb-2011 14:12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.636	4.636	(0.584)	231387	100.000	70.95
	28	trans-1,2-Dichloroethene	96	5.413	5.413	(0.682)	202095	20.0000	19.65
	30	MTBE	73	5.423	5.423	(0.683)	418168	20.0000	19.18
	31	1,1-Dichloroethane	63	5.787	5.787	(0.729)	430608	20.0000	20.20
	33	Vinyl acetate	43	5.865	5.865	(0.739)	620458	40.0000	38.52
	41	Di-isopropyl ether	45	6.160	6.160	(0.776)	1177288	20.0000	19.66
	39	cis-1,2-Dichloroethene	96	6.495	6.495	(0.818)	224256	20.0000	19.48
M	18	1,2-Dichloroethene(total)	96				426351	40.0000	39.13
	43	Bromochloromethane	128	6.770	6.770	(0.853)	107269	20.0000	20.08
	50	Tetrahydrofuran	42	6.967	6.967	(0.877)	78367	20.0000	19.24
	44	Chloroform	83	6.750	6.750	(0.850)	353527	20.0000	20.05
	22	Methyl acetate	43	4.626	4.626	(0.583)	124900	20.0000	14.66
$	47	Dibromofluoromethane	111	6.918	6.918	(0.871)	322155	30.0000	29.64
	53	1,1,1-Trichloroethane	97	7.301	7.301	(0.919)	246968	20.0000	19.72
	45	ETBE	59	6.623	6.623	(0.834)	715474	20.0000	19.40
	55	Cyclohexane	56	7.567	7.567	(0.953)	490830	20.0000	19.69
	56	Carbon tetrachloride	117	7.645	7.645	(0.963)	220177	20.0000	19.27
$	51	1,2-Dichloroethane-d4	102	7.409	7.409	(0.933)	62086	30.0000	29.53
	57	Benzene	78	7.675	7.675	(0.967)	800404	20.0000	19.79
	52	1,2-Dichloroethane	62	7.508	7.508	(0.946)	208958	20.0000	19.60
	46	2,2-Dichloropropane	77	6.603	6.603	(0.832)	243056	20.0000	19.63
	54	1,1-Dichloropropene	75	7.518	7.518	(0.947)	279571	20.0000	19.89
	59	tert-Amyl Methyl Ether	73	7.872	7.872	(0.991)	552778	20.0000	19.84
	68	tert-Amyl Ethyl Ether	59	8.747	8.747	(1.102)	630413	20.0000	19.61
	64	Trichloroethene	95	8.432	8.432	(1.062)	221413	20.0000	19.74
	63	1,2-Dichloropropane	63	8.481	8.481	(1.068)	263762	20.0000	19.72
	62	Dibromomethane	93	8.590	8.590	(1.082)	127209	20.0000	20.30
	66	Methyl methacrylate	41	7.567	7.567	(0.953)	336174	20.0000	19.62
	65	Bromodichloromethane	83	8.658	8.658	(1.090)	226515	20.0000	19.12
	69	2-Chloroethyl vinyl ether	63	9.012	9.012	(1.135)	255643	40.0000	40.36
	73	cis-1,3-Dichloropropene	75	9.229	9.229	(1.162)	315031	20.0000	19.65
$	78	Toluene-d8	98	9.622	9.622	(0.871)	1042413	30.0000	28.42
	79	Toluene	92	9.701	9.701	(0.878)	528109	20.0000	19.35
	76	trans-1,3-Dichloropropene	75	9.701	9.701	(0.878)	243086	20.0000	18.88
	80	Ethyl methacrylate	69	9.888	9.888	(0.895)	261857	20.0000	18.90
	77	1,1,2-Trichloroethane	83	9.848	9.848	(0.891)	151211	20.0000	18.92
	85	Tetrachloroethene	166	10.429	10.429	(0.944)	202899	20.0000	19.03
	83	Dibromochloromethane	129	10.321	10.321	(0.934)	170797	20.0000	18.38
	84	1,2-Dibromoethane	107	10.537	10.537	(0.954)	167432	20.0000	18.68
	70	Methyl cyclohexane	83	8.806	8.806	(1.109)	378897	20.0000	20.34
*	88	Chlorobenzene-d5	82	11.048	11.048	(1.000)	512286	30.0000	
	89	Chlorobenzene	112	11.088	11.088	(1.004)	602842	20.0000	18.98
	86	1,1,1,2-Tetrachloroethane	131	11.127	11.127	(1.007)	207596	20.0000	19.20
	87	1-Chlorohexane	91	11.048	11.048	(1.000)	724855	20.0000	20.46
	90	Ethylbenzene	91	11.225	11.225	(1.016)	1047762	20.0000	19.13
	91	m,p-Xylene	91	11.343	11.343	(1.027)	1594964	40.0000	40.24
M	97	Xylene(total)	91				2385244	60.0000	59.56

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL4.D
Report Date: 11-Feb-2011 14:12

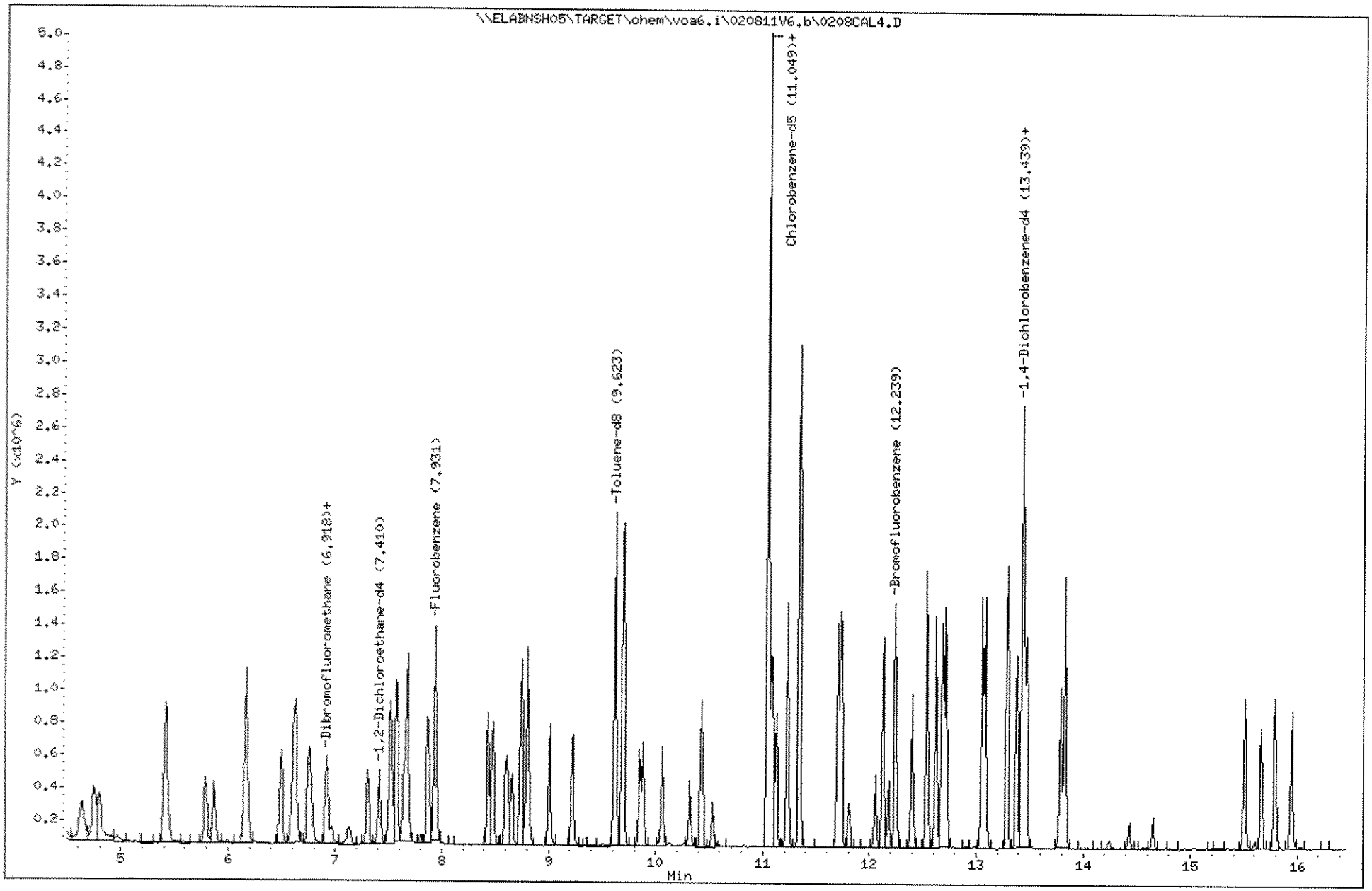
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.727	11.727	(1.061)	790280	20.0000	19.32
94	Styrene	104	11.707	11.707	(1.060)	639542	20.0000	19.43
93	Bromoform	173	11.806	11.806	(1.069)	106390	20.0000	18.88
101	Isopropylbenzene	105	12.130	12.130	(1.098)	811724	20.0000	19.23
$ 102	Bromofluorobenzene	95	12.238	12.238	(1.108)	417704	30.0000	29.16
96	1,1,2,2-Tetrachloroethane	83	12.051	12.051	(0.897)	223201	20.0000	19.62
81	1,3-Dichloropropane	76	10.065	10.065	(0.911)	269794	20.0000	19.15
98	1,2,3-Trichloropropane	110	12.179	12.179	(1.102)	48705	20.0000	20.21
104	n-Propylbenzene	91	12.533	12.533	(0.933)	1245056	20.0000	19.88
107	1,3,5-Trimethylbenzene	105	12.710	12.710	(0.946)	725313	20.0000	19.39
110	1,2,4-Trimethylbenzene	105	13.084	13.084	(0.974)	728484	20.0000	19.46
111	sec-Butylbenzene	105	13.291	13.291	(0.989)	1087248	20.0000	20.10
109	tert-Butylbenzene	119	13.055	13.055	(0.971)	698033	20.0000	19.76
112	1,3-Dichlorobenzene	146	13.379	13.379	(0.996)	434784	20.0000	20.28
* 113	1,4-Dichlorobenzene-d4	152	13.438	13.438	(1.000)	494035	30.0000	
115	1,4-Dichlorobenzene	146	13.468	13.468	(1.002)	425446	20.0000	19.63
117	n-Butylbenzene	91	13.832	13.832	(1.029)	906045	20.0000	19.93
116	1,2-Dichlorobenzene	146	13.792	13.792	(1.026)	392083	20.0000	19.96
118	1,2-Dibromo-3-chloropropane	157	14.432	14.432	(1.074)	36493	20.0000	19.95
103	Bromobenzene	156	12.396	12.396	(0.922)	231532	20.0000	19.62
105	2-Chlorotoluene	91	12.622	12.622	(0.939)	694241	20.0000	19.99
106	4-Chlorotoluene	91	12.681	12.681	(0.944)	756006	20.0000	19.71
119	1,2,4-Trichlorobenzene	180	15.504	15.504	(1.154)	255109	20.0000	19.52
120	Naphthalene	128	15.661	15.661	(1.165)	513076	20.0000	19.44
114	p-Isopropyltoluene	119	13.428	13.428	(0.999)	768177	20.0000	20.01
121	Hexachlorobutadiene	225	15.789	15.789	(1.175)	155313	20.0000	19.91
122	1,2,3-Trichlorobenzene	180	15.946	15.946	(1.187)	229117	20.0000	19.83

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL4.D
Date : 08-FEB-2011 17:47
Client ID:
Sample Info: SEQ-CAL4;;;;; 20ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL5.D
Lab Smp Id: SEQ-CAL5
Inj Date : 08-FEB-2011 18:11
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL5;;;;; 50ppb soil
Misc Info : ;1;;5;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

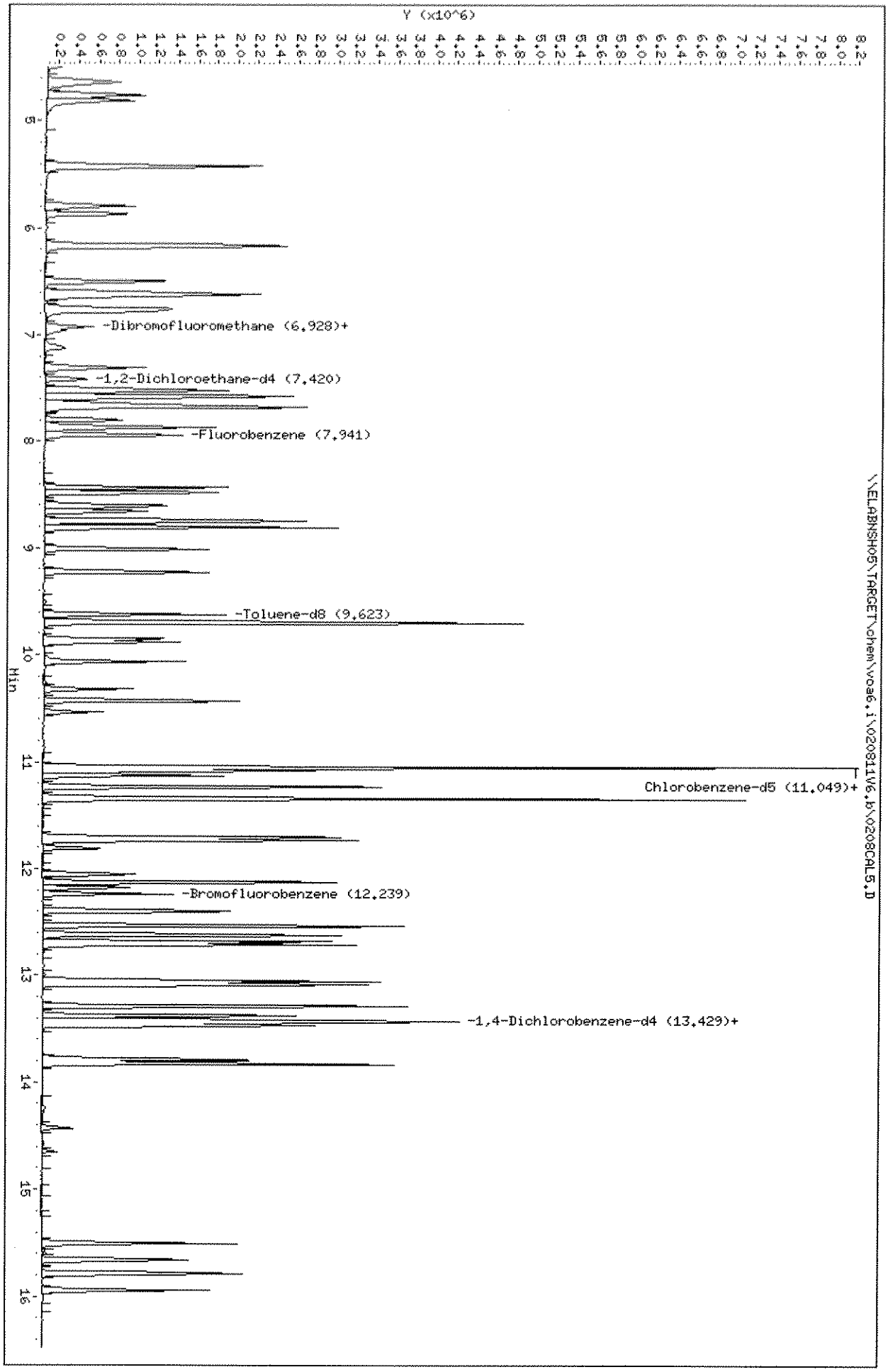
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.940	7.940	(1.000)	1002877	30.0000	
1 Dichlorodifluoromethane	85	2.010	2.010	(0.253)	496295	50.0000	54.12
4 Chloromethane	50	2.236	2.236	(0.282)	659479	50.0000	52.61
5 Vinyl chloride	62	2.393	2.393	(0.301)	376949	50.0000	59.72
6 Bromomethane	94	2.846	2.846	(0.358)	156686	50.0000	49.78
7 Chloroethane	64	2.983	2.983	(0.376)	138532	50.0000	49.60
9 Trichlorofluoromethane	101	3.495	3.495	(0.440)	724458	50.0000	50.55
24 t-Butyl alcohol	59	4.419	4.419	(0.557)	201180	250.000	225.3
21 Trichlorotrifluoroethane	101	4.360	4.360	(0.549)	424901	50.0000	49.37
26 tert-Amyl alcohol	59	7.124	7.124	(0.897)	206305	250.000	236.3
8 Acrolein	56	3.692	3.692	(0.465)	218763	250.000	213.2
15 1,1-Dichloroethene	96	4.282	4.282	(0.539)	368839	50.0000	54.23
16 Iodomethane	142	4.478	4.478	(0.564)	543228	50.0000	53.78
25 Carbon disulfide	76	4.813	4.813	(0.606)	1354501	50.0000	46.31
20 Methylene chloride	84	4.764	4.764	(0.600)	486016	50.0000	47.00

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL5.D
Report Date: 11-Feb-2011 14:12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.646	4.646	(0.585)	792221	250.000	244.9
	28	trans-1,2-Dichloroethene	96	5.423	5.423	(0.683)	463421	50.0000	48.97
	30	MTBE	73	5.423	5.423	(0.683)	951896	50.0000	47.44
	31	1,1-Dichloroethane	63	5.796	5.796	(0.730)	962337	50.0000	49.06
	33	Vinyl acetate	43	5.865	5.865	(0.739)	1402835	100.000	94.66
	41	Di-isopropyl ether	45	6.170	6.170	(0.777)	2630374	50.0000	47.73
	39	cis-1,2-Dichloroethene	96	6.504	6.504	(0.819)	514709	50.0000	48.59
M	18	1,2-Dichloroethene(total)	96				978130	100.000	97.56
	43	Bromochloromethane	128	6.780	6.780	(0.854)	231822	50.0000	47.17
	50	Tetrahydrofuran	42	6.957	6.957	(0.876)	164669	50.0000	47.39
	44	Chloroform	83	6.750	6.750	(0.850)	764458	50.0000	47.13
	22	Methyl acetate	43	4.636	4.636	(0.584)	386231	50.0000	49.26
$	47	Dibromofluoromethane	111	6.927	6.927	(0.872)	298007	30.0000	29.80
	53	1,1,1-Trichloroethane	97	7.311	7.311	(0.921)	563834	50.0000	48.93
	45	ETBE	59	6.622	6.622	(0.834)	1598745	50.0000	47.12
	55	Cyclohexane	56	7.576	7.576	(0.954)	1104770	50.0000	48.18
	56	Carbon tetrachloride	117	7.645	7.645	(0.963)	514865	50.0000	48.98
$	51	1,2-Dichloroethane-d4	102	7.419	7.419	(0.934)	59306	30.0000	30.65
	57	Benzene	78	7.675	7.675	(0.967)	1776230	50.0000	47.73
	52	1,2-Dichloroethane	62	7.508	7.508	(0.946)	453776	50.0000	46.26
	46	2,2-Dichloropropane	77	6.603	6.603	(0.832)	537175	50.0000	47.14
	54	1,1-Dichloropropene	75	7.527	7.527	(0.948)	633916	50.0000	49.02
	59	tert-Amyl Methyl Ether	73	7.872	7.872	(0.991)	1189292	50.0000	46.40
	68	tert-Amyl Ethyl Ether	59	8.747	8.747	(1.102)	1419951	50.0000	48.00
	64	Trichloroethene	95	8.432	8.432	(1.062)	496357	50.0000	48.10
	63	1,2-Dichloropropane	63	8.481	8.481	(1.068)	581894	50.0000	47.27
	62	Dibromomethane	93	8.599	8.599	(1.083)	274468	50.0000	47.60
	66	Methyl methacrylate	41	7.576	7.576	(0.954)	761965	50.0000	48.32
	65	Bromodichloromethane	83	8.658	8.658	(1.090)	520843	50.0000	47.77
	69	2-Chloroethyl vinyl ether	63	9.012	9.012	(1.135)	540011	100.000	92.66
	73	cis-1,3-Dichloropropene	75	9.229	9.229	(1.162)	697097	50.0000	47.27
$	78	Toluene-d8	98	9.622	9.622	(0.871)	946456	30.0000	28.33
	79	Toluene	92	9.701	9.701	(0.878)	1173768	50.0000	47.22
	76	trans-1,3-Dichloropropene	75	9.701	9.701	(0.878)	538682	50.0000	45.95
	80	Ethyl methacrylate	69	9.888	9.888	(0.895)	557026	50.0000	44.16
	77	1,1,2-Trichloroethane	83	9.848	9.848	(0.891)	323943	50.0000	44.50
	85	Tetrachloroethene	166	10.429	10.429	(0.944)	442255	50.0000	45.54
	83	Dibromochloromethane	129	10.320	10.320	(0.934)	383717	50.0000	45.34
	84	1,2-Dibromoethane	107	10.537	10.537	(0.954)	356428	50.0000	43.65
	70	Methyl cyclohexane	83	8.806	8.806	(1.109)	839246	50.0000	48.95
*	88	Chlorobenzene-d5	82	11.048	11.048	(1.000)	466538	30.0000	
	89	Chlorobenzene	112	11.088	11.088	(1.004)	1314688	50.0000	45.46
	86	1,1,1,2-Tetrachloroethane	131	11.127	11.127	(1.007)	448424	50.0000	45.53
	87	1-Chlorohexane	91	11.048	11.048	(1.000)	1572850	50.0000	48.74
	90	Ethylbenzene	91	11.235	11.235	(1.017)	2296090	50.0000	46.02
	91	m,p-Xylene	91	11.343	11.343	(1.027)	3531706	100.000	97.84
M	97	Xylene(total)	91				5221758	150.000	143.2

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL5.D
Report Date: 11-Feb-2011 14:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.737	11.737	(1.062)	1690052	50.0000	45.37
94	Styrene	104	11.707	11.707	(1.060)	1361466	50.0000	45.42
93	Bromoform	173	11.815	11.815	(1.069)	240111	50.0000	46.78
101	Isopropylbenzene	105	12.130	12.130	(1.098)	1769370	50.0000	46.02
$ 102	Bromofluorobenzene	95	12.238	12.238	(1.108)	368137	30.0000	28.22
96	1,1,2,2-Tetrachloroethane	83	12.051	12.051	(0.897)	461795	50.0000	45.71
81	1,3-Dichloropropane	76	10.065	10.065	(0.911)	570957	50.0000	44.50
98	1,2,3-Trichloropropane	110	12.179	12.179	(1.102)	96360	50.0000	43.91
104	n-Propylbenzene	91	12.533	12.533	(0.933)	2677058	50.0000	48.12
107	1,3,5-Trimethylbenzene	105	12.710	12.710	(0.946)	1588519	50.0000	47.81
110	1,2,4-Trimethylbenzene	105	13.084	13.084	(0.974)	1578483	50.0000	47.48
111	sec-Butylbenzene	105	13.291	13.291	(0.989)	2341993	50.0000	48.75
109	tert-Butylbenzene	119	13.055	13.055	(0.971)	1491439	50.0000	47.53
112	1,3-Dichlorobenzene	146	13.379	13.379	(0.996)	893613	50.0000	46.94
* 113	1,4-Dichlorobenzene-d4	152	13.438	13.438	(1.000)	438734	30.0000	
115	1,4-Dichlorobenzene	146	13.468	13.468	(1.002)	906197	50.0000	47.09
117	n-Butylbenzene	91	13.832	13.832	(1.029)	1917372	50.0000	47.50
116	1,2-Dichlorobenzene	146	13.792	13.792	(1.026)	810041	50.0000	46.44
118	1,2-Dibromo-3-chloropropane	157	14.432	14.432	(1.074)	76406	50.0000	47.04
103	Bromobenzene	156	12.405	12.405	(0.923)	494241	50.0000	47.17
105	2-Chlorotoluene	91	12.622	12.622	(0.939)	1447238	50.0000	46.92
106	4-Chlorotoluene	91	12.681	12.681	(0.944)	1629682	50.0000	47.84
119	1,2,4-Trichlorobenzene	180	15.504	15.504	(1.154)	538985	50.0000	46.45
120	Naphthalene	128	15.661	15.661	(1.165)	1045126	50.0000	44.59
114	p-Isopropyltoluene	119	13.428	13.428	(0.999)	1659867	50.0000	48.69
121	Hexachlorobutadiene	225	15.789	15.789	(1.175)	331430	50.0000	47.85
122	1,2,3-Trichlorobenzene	180	15.946	15.946	(1.187)	464385	50.0000	45.26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Date : 08-FEB-2011 18:11
Client ID:
Sample Info: SEQ-CAL5;;;;; 50ppb soil
Column phase: RTX-VRX
Instrument: voa6.i
Operator: RDW
Column diameter: 0.25
Y (x10^6)
Min
-Dibromofluoromethane (6.928)+
-1,2-Dichloroethane-d4 (7.420)
-Fluorobenzene (7.941)
-Toluene-d8 (9.623)
Chlorobenzene-d5 (11.049)+
-Bromofluorobenzene (12.239)
-1,4-Dichlorobenzene-d4 (13.429)+
\\ELANSHO5\TARGET\chem\voa6.i\020811V6.b\0208CAL5.D

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208CAL6A.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208CAL6A.D
Lab Smp Id: SEQ-CAL6
Inj Date : 09-FEB-2011 07:13
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL6;;;;; 100ppb soil
Misc Info : ;1;;6;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 21 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.941	7.941	(1.000)	1045538	30.0000	
1 Dichlorodifluoromethane	85	2.010	2.010	(0.253)	1093582	100.000	114.4
4 Chloromethane	50	2.236	2.236	(0.282)	1366062	100.000	104.5
5 Vinyl chloride	62	2.384	2.384	(0.300)	735265	100.000	111.7
6 Bromomethane	94	2.836	2.836	(0.357)	401984	100.000	122.5
7 Chloroethane	64	2.974	2.974	(0.375)	306247	100.000	105.2
9 Trichlorofluoromethane	101	3.495	3.495	(0.440)	1581134	100.000	105.8
24 t-Butyl alcohol	59	4.430	4.430	(0.558)	440087	500.000	472.8
21 Trichlorotrifluoroethane	101	4.351	4.351	(0.548)	991157	100.000	110.5
26 tert-Amyl alcohol	59	7.124	7.124	(0.897)	441274	500.000	484.8
8 Acrolein	56	3.692	3.692	(0.465)	494390	500.000	462.2
15 1,1-Dichloroethene	96	4.282	4.282	(0.539)	865907	100.000	122.1
16 Iodomethane	142	4.469	4.469	(0.563)	1226611	100.000	116.5
25 Carbon disulfide	76	4.813	4.813	(0.606)	3310315	100.000	104.9
20 Methylene chloride	84	4.754	4.754	(0.599)	1091116	100.000	102.1

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208CAL6A.D
Report Date: 11-Feb-2011 14:13

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)	
	17	Acrylonitrile	53	4.636	4.636	(0.584)	1808467	500.000	527.8	
	28	trans-1,2-Dichloroethene	96	5.423	5.423	(0.683)	1055277	100.000	107.0	
	30	MTBE	73	5.423	5.423	(0.683)	2225905	100.000	106.4	
	31	1,1-Dichloroethane	63	5.797	5.797	(0.730)	2142803	100.000	104.8	
	33	Vinyl acetate	43	5.865	5.865	(0.739)	3177171	200.000	205.6	
	41	Di-isopropyl ether	45	6.170	6.170	(0.777)	5951793	100.000	103.6	
	39	cis-1,2-Dichloroethene	96	6.495	6.495	(0.818)	1137585	100.000	103.0	
M	18	1,2-Dichloroethene(total)	96				2192862	200.000	210.0	
	43	Bromochloromethane	128	6.780	6.780	(0.854)	515448	100.000	100.6	
	50	Tetrahydrofuran	42	6.967	6.967	(0.877)	370334	100.000	105.3	
	44	Chloroform	83	6.751	6.751	(0.850)	1749840	100.000	103.5	*
	22	Methyl acetate	43	4.626	4.626	(0.583)	881687	100.000	107.8	
$	47	Dibromofluoromethane	111	6.928	6.928	(0.872)	321530	30.0000	30.84	
	53	1,1,1-Trichloroethane	97	7.311	7.311	(0.921)	1288956	100.000	107.3	
	45	ETBE	59	6.623	6.623	(0.834)	3749259	100.000	106.0	
	55	Cyclohexane	56	7.577	7.577	(0.954)	2478636	100.000	103.7	
	56	Carbon tetrachloride	117	7.646	7.646	(0.963)	1220352	100.000	111.4	
$	51	1,2-Dichloroethane-d4	102	7.419	7.419	(0.934)	61812	30.0000	30.64	
	57	Benzene	78	7.675	7.675	(0.967)	4073170	100.000	105.0	
	52	1,2-Dichloroethane	62	7.508	7.508	(0.946)	1075950	100.000	105.2	
	46	2,2-Dichloropropane	77	6.603	6.603	(0.832)	1299949	100.000	109.4	
	54	1,1-Dichloropropene	75	7.528	7.528	(0.948)	1430312	100.000	106.1	
	59	tert-Amyl Methyl Ether	73	7.872	7.872	(0.991)	2757022	100.000	103.2	
	68	tert-Amyl Ethyl Ether	59	8.747	8.747	(1.102)	3238755	100.000	105.0	
	64	Trichloroethene	95	8.432	8.432	(1.062)	1115851	100.000	103.7	
	63	1,2-Dichloropropane	63	8.482	8.482	(1.068)	1304298	100.000	101.6	
	62	Dibromomethane	93	8.600	8.600	(1.083)	616009	100.000	102.5	
	66	Methyl methacrylate	41	7.577	7.577	(0.954)	1693594	100.000	103.0	
	65	Bromodichloromethane	83	8.659	8.659	(1.090)	1202235	100.000	105.8	
	69	2-Chloroethyl vinyl ether	63	9.013	9.013	(1.135)	1212931	200.000	199.6	
	73	cis-1,3-Dichloropropene	75	9.229	9.229	(1.162)	1593845	100.000	103.7	
$	78	Toluene-d8	98	9.622	9.622	(0.871)	1013259	30.0000	30.30	
	79	Toluene	92	9.701	9.701	(0.878)	2578188	100.000	103.6	
	76	trans-1,3-Dichloropropene	75	9.701	9.701	(0.878)	1234962	100.000	105.2	
	80	Ethyl methacrylate	69	9.888	9.888	(0.895)	1259368	100.000	99.73	
	77	1,1,2-Trichloroethane	83	9.858	9.858	(0.892)	718729	100.000	98.63	
	85	Tetrachloroethene	166	10.439	10.439	(0.945)	1009589	100.000	103.8	
	83	Dibromochloromethane	129	10.321	10.321	(0.934)	926375	100.000	109.4	
	84	1,2-Dibromoethane	107	10.537	10.537	(0.954)	803017	100.000	98.25	
	70	Methyl cyclohexane	83	8.806	8.806	(1.109)	1891292	100.000	105.8	
*	88	Chlorobenzene-d5	82	11.049	11.049	(1.000)	467017	30.0000		
	89	Chlorobenzene	112	11.088	11.088	(1.004)	2966951	100.000	102.5	
	86	1,1,1,2-Tetrachloroethane	131	11.127	11.127	(1.007)	1024382	100.000	103.9	
	87	1-Chlorohexane	91	11.058	11.058	(1.001)	3294814	100.000	102.0(A)	
	90	Ethylbenzene	91	11.235	11.235	(1.017)	5309298	100.000	106.3	
	91	m,p-Xylene	91	11.344	11.344	(1.027)	7727555	200.000	213.8(A)	
M	97	Xylene(total)	91				11610650	300.000	318.0	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208CAL6A.D
Report Date: 11-Feb-2011 14:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
95	o-Xylene	91	11.737	11.737	(1.062)	3883095	100.000	104.1
94	Styrene	104	11.707	11.707	(1.060)	3066867	100.000	102.2
93	Bromoform	173	11.816	11.816	(1.069)	585293	100.000	113.9
101	Isopropylbenzene	105	12.130	12.130	(1.098)	4019347	100.000	104.4
$ 102	Bromofluorobenzene	95	12.239	12.239	(1.108)	399050	30.0000	30.56
96	1,1,2,2-Tetrachloroethane	83	12.062	12.062	(0.897)	1079705	100.000	103.8
81	1,3-Dichloropropane	76	10.065	10.065	(0.911)	1272459	100.000	99.08
98	1,2,3-Trichloropropane	110	12.180	12.180	(1.102)	217425	100.000	98.98
104	n-Propylbenzene	91	12.543	12.543	(0.933)	6224454	100.000	108.7
107	1,3,5-Trimethylbenzene	105	12.720	12.720	(0.946)	3573370	100.000	104.4
110	1,2,4-Trimethylbenzene	105	13.094	13.094	(0.974)	3600773	100.000	105.2
111	sec-Butylbenzene	105	13.291	13.291	(0.988)	5209821	100.000	105.3
109	tert-Butylbenzene	119	13.055	13.055	(0.971)	3358130	100.000	103.9
112	1,3-Dichlorobenzene	146	13.379	13.379	(0.995)	1969884	100.000	100.5
* 113	1,4-Dichlorobenzene-d4	152	13.448	13.448	(1.000)	451772	30.0000	
115	1,4-Dichlorobenzene	146	13.478	13.478	(1.002)	1957875	100.000	98.81
117	n-Butylbenzene	91	13.832	13.832	(1.029)	4359386	100.000	104.9
116	1,2-Dichlorobenzene	146	13.792	13.792	(1.026)	1780752	100.000	99.15
118	1,2-Dibromo-3-chloropropane	157	14.432	14.432	(1.073)	171302	100.000	102.4
103	Bromobenzene	156	12.406	12.406	(0.922)	1078118	100.000	99.93
105	2-Chlorotoluene	91	12.622	12.622	(0.939)	3313055	100.000	104.3
106	4-Chlorotoluene	91	12.691	12.691	(0.944)	3651224	100.000	104.1
119	1,2,4-Trichlorobenzene	180	15.514	15.514	(1.154)	1178708	100.000	98.66
120	Naphthalene	128	15.661	15.661	(1.165)	2349626	100.000	97.36
114	p-Isopropyltoluene	119	13.429	13.429	(0.999)	3746226	100.000	106.7
121	Hexachlorobutadiene	225	15.789	15.789	(1.174)	759822	100.000	106.5
122	1,2,3-Trichlorobenzene	180	15.946	15.946	(1.186)	1025598	100.000	97.07

QC Flag Legend

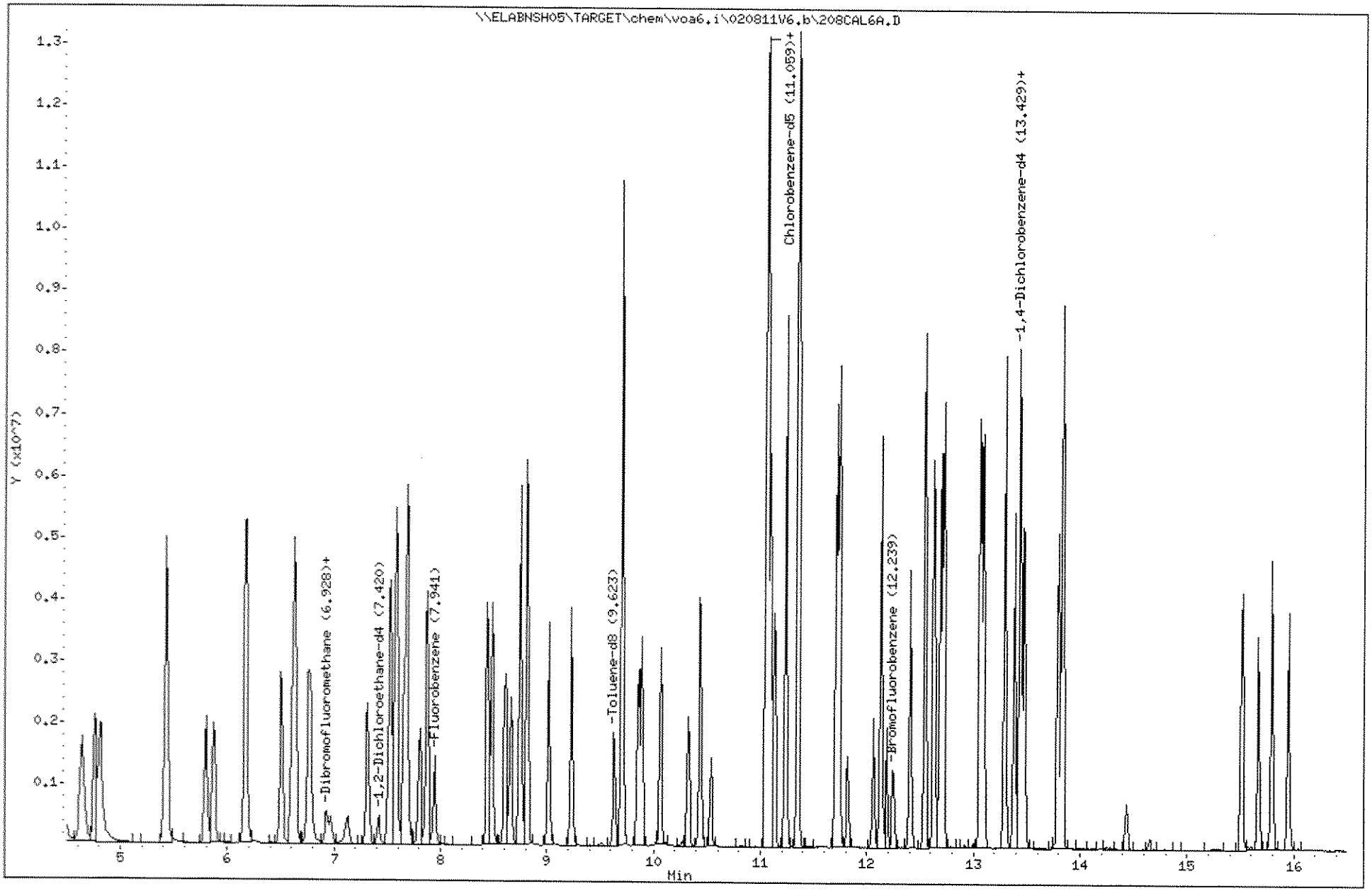
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208CAL6A.D
Date : 09-FEB-2011 07:13
Client ID:
Sample Info: SEQ-CAL6;;;;; 100ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL7.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL7.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-FEB-2011 18:59
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL7;;;;; 150ppb soil
Misc Info : ;1;;7;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

MM 11/11

RDW 2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.935	7.935	(1.000)	1015016	30.0000	
1 Dichlorodifluoromethane	85	2.004	2.004	(0.253)	1493048	150.000	160.9
4 Chloromethane	50	2.230	2.230	(0.281)	1972764	150.000	155.5
5 Vinyl chloride	62	2.378	2.378	(0.300)	898224	150.000	140.6
6 Bromomethane	94	2.840	2.840	(0.358)	515414	150.000	161.8
7 Chloroethane	64	2.968	2.968	(0.374)	425982	150.000	150.7
9 Trichlorofluoromethane	101	3.479	3.479	(0.439)	2286627	150.000	157.6
24 t-Butyl alcohol	59	4.424	4.424	(0.558)	642513	750.000	711.0
21 Trichlorotrifluoroethane	101	4.345	4.345	(0.548)	1189554	150.000	136.6
26 tert-Amyl alcohol	59	7.118	7.118	(0.897)	662233	750.000	749.4
8 Acrolein	56	3.676	3.676	(0.463)	720462	750.000	693.8
15 1,1-Dichloroethene	96	4.266	4.266	(0.538)	906365	150.000	131.7
16 Iodomethane	142	4.463	4.463	(0.562)	1776624	150.000	173.8
25 Carbon disulfide	76	4.797	4.797	(0.605)	4720729	150.000	152.8
20 Methylene chloride	84	4.748	4.748	(0.598)	1571585	150.000	151.9

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL7.D
Report Date: 11-Feb-2011 14:12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.630	4.630	(0.584)	2599765	750.000	778.3
	28	trans-1,2-Dichloroethene	96	5.417	5.417	(0.683)	1511651	150.000	157.8
	30	MTBE	73	5.417	5.417	(0.683)	3227877	150.000	158.9
	31	1,1-Dichloroethane	63	5.791	5.791	(0.730)	3129338	150.000	157.6
	33	Vinyl acetate	43	5.860	5.860	(0.738)	4696548	300.000	313.1
	41	Di-isopropyl ether	45	6.164	6.164	(0.777)	8783985	150.000	157.5
	39	cis-1,2-Dichloroethene	96	6.489	6.489	(0.818)	1673718	150.000	156.1
M	18	1,2-Dichloroethene(total)	96				3185369	300.000	314.0
	43	Bromochloromethane	128	6.774	6.774	(0.854)	756841	150.000	152.2
	50	Tetrahydrofuran	42	6.961	6.961	(0.877)	523098	150.000	154.5
	44	Chloroform	83	6.745	6.745	(0.850)	2574927	150.000	156.8
	22	Methyl acetate	43	4.620	4.620	(0.582)	1274166	150.000	160.6
$	47	Dibromofluoromethane	111	6.922	6.922	(0.872)	307025	30.0000	30.33
	53	1,1,1-Trichloroethane	97	7.305	7.305	(0.921)	1862150	150.000	159.7
	45	ETBE	59	6.627	6.627	(0.835)	5479885	150.000	159.6
	55	Cyclohexane	56	7.571	7.571	(0.954)	3635794	150.000	156.6
	56	Carbon tetrachloride	117	7.640	7.640	(0.963)	1787206	150.000	168.0
$	51	1,2-Dichloroethane-d4	102	7.413	7.413	(0.934)	56912	30.0000	29.06
	57	Benzene	78	7.679	7.679	(0.968)	6050230	150.000	160.6
	52	1,2-Dichloroethane	62	7.502	7.502	(0.945)	1535951	150.000	154.7
	46	2,2-Dichloropropane	77	6.597	6.597	(0.831)	1836061	150.000	159.2
	54	1,1-Dichloropropene	75	7.522	7.522	(0.948)	2080355	150.000	158.9
	59	tert-Amyl Methyl Ether	73	7.866	7.866	(0.991)	4099264	150.000	158.0
	68	tert-Amyl Ethyl Ether	59	8.741	8.741	(1.102)	4784439	150.000	159.8
	64	Trichloroethene	95	8.426	8.426	(1.062)	1637543	150.000	156.8
	63	1,2-Dichloropropane	63	8.476	8.476	(1.068)	1917842	150.000	153.9
	62	Dibromomethane	93	8.594	8.594	(1.083)	901028	150.000	154.4
	66	Methyl methacrylate	41	7.571	7.571	(0.954)	2452190	150.000	153.6
	65	Bromodichloromethane	83	8.653	8.653	(1.090)	1792411	150.000	162.4
	69	2-Chloroethyl vinyl ether	63	9.007	9.007	(1.135)	1783971	300.000	302.4
	73	cis-1,3-Dichloropropene	75	9.223	9.223	(1.162)	2382400	150.000	159.6
$	78	Toluene-d8	98	9.626	9.626	(0.872)	960371	30.0000	31.50
	79	Toluene	92	9.695	9.695	(0.878)	3632682	150.000	160.1
	76	trans-1,3-Dichloropropene	75	9.695	9.695	(0.878)	1756235	150.000	164.1
	80	Ethyl methacrylate	69	9.882	9.882	(0.895)	1854647	150.000	161.1
	77	1,1,2-Trichloroethane	83	9.853	9.853	(0.892)	1054730	150.000	158.7
	85	Tetrachloroethene	166	10.433	10.433	(0.945)	1488885	150.000	168.0
	83	Dibromochloromethane	129	10.325	10.325	(0.935)	1377477	150.000	178.3
	84	1,2-Dibromoethane	107	10.531	10.531	(0.954)	1173959	150.000	157.5
	70	Methyl cyclohexane	83	8.810	8.810	(1.110)	2736943	150.000	157.7
*	88	Chlorobenzene-d5	82	11.043	11.043	(1.000)	425856	30.0000	
	89	Chlorobenzene	112	11.082	11.082	(1.004)	4305421	150.000	163.1
	86	1,1,1,2-Tetrachloroethane	131	11.131	11.131	(1.008)	1505081	150.000	167.4
	87	1-Chlorohexane	91	11.052	11.052	(1.001)	4303901	150.000	146.1(A)
	90	Ethylbenzene	91	11.229	11.229	(1.017)	7774633	150.000	170.7
	91	m,p-Xylene	91	11.347	11.347	(1.028)	10230009	300.000	310.5(A)
M	97	Xylene(total)	91				15989233	450.000	479.8

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL7.D
Report Date: 11-Feb-2011 14:12

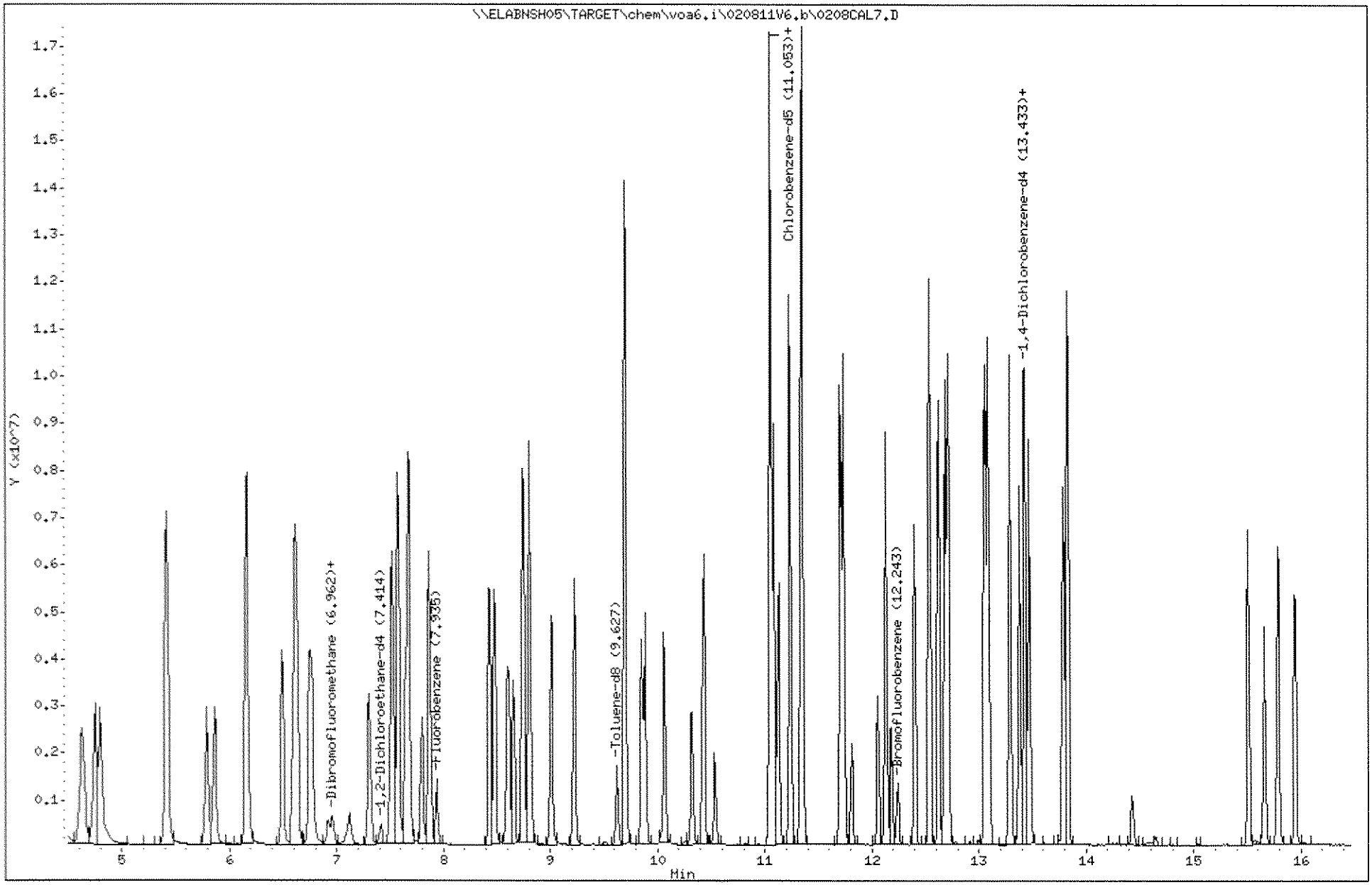
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.731	11.731	(1.062)	5759224	150.000	169.4
94	Styrene	104	11.702	11.702	(1.060)	4496798	150.000	164.4
93	Bromoform	173	11.810	11.810	(1.069)	857752	150.000	183.1
101	Isopropylbenzene	105	12.134	12.134	(1.099)	5929367	150.000	169.0
$ 102	Bromofluorobenzene	95	12.242	12.242	(1.109)	367948	30.0000	30.90
96	1,1,2,2-Tetrachloroethane	83	12.056	12.056	(0.897)	1533303	150.000	151.6
81	1,3-Dichloropropane	76	10.059	10.059	(0.911)	1913439	150.000	163.4
98	1,2,3-Trichloropropane	110	12.183	12.183	(1.103)	313351	150.000	156.4
104	n-Propylbenzene	91	12.538	12.538	(0.933)	8793217	150.000	157.8
107	1,3,5-Trimethylbenzene	105	12.715	12.715	(0.946)	5200191	150.000	156.3
110	1,2,4-Trimethylbenzene	105	13.088	13.088	(0.974)	5326989	150.000	160.0
111	sec-Butylbenzene	105	13.295	13.295	(0.989)	7645458	150.000	158.9
109	tert-Butylbenzene	119	13.059	13.059	(0.971)	4922642	150.000	156.7
112	1,3-Dichlorobenzene	146	13.383	13.383	(0.996)	2914619	150.000	152.9
* 113	1,4-Dichlorobenzene-d4	152	13.442	13.442	(1.000)	439338	30.0000	
115	1,4-Dichlorobenzene	146	13.472	13.472	(1.002)	2919784	150.000	151.5
117	n-Butylbenzene	91	13.826	13.826	(1.029)	6305527	150.000	156.0
116	1,2-Dichlorobenzene	146	13.787	13.787	(1.026)	2648647	150.000	151.6
118	1,2-Dibromo-3-chloropropane	157	14.436	14.436	(1.074)	259367	150.000	159.5
103	Bromobenzene	156	12.400	12.400	(0.922)	1604137	150.000	152.9
105	2-Chlorotoluene	91	12.626	12.626	(0.939)	4919549	150.000	159.2
106	4-Chlorotoluene	91	12.685	12.685	(0.944)	5418841	150.000	158.8
119	1,2,4-Trichlorobenzene	180	15.508	15.508	(1.154)	1784967	150.000	153.6
120	Naphthalene	128	15.665	15.665	(1.165)	3609654	150.000	153.8
114	p-Isopropyltoluene	119	13.423	13.423	(0.999)	5363373	150.000	157.1
121	Hexachlorobutadiene	225	15.793	15.793	(1.175)	1094937	150.000	157.9
122	1,2,3-Trichlorobenzene	180	15.950	15.950	(1.187)	1598802	150.000	155.6

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL7.D
Date : 08-FEB-2011 18:59
Client ID:
Sample Info: SEQ-CAL7;;;;; 150ppb soil

Instrument: voa6.i
Operator: RDW
Column phase: RTX-VRX
Column diameter: 0.25



120

1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL8.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL8.D
Lab Smp Id: SEQ-CAL8
Inj Date : 08-FEB-2011 19:23
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL8;;;;; 200ppb soil
Misc Info : ;1;;8;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

MJ 11/11

2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.935	7.935	(1.000)	950282	30.0000	
1 Dichlorodifluoromethane	85	2.004	2.004	(0.253)	1747975	200.000	201.2(A)
4 Chloromethane	50	2.221	2.221	(0.280)	2347078	200.000	197.6
5 Vinyl chloride	62	2.378	2.378	(0.300)	1005349	200.000	168.1
6 Bromomethane	94	2.830	2.830	(0.357)	633890	200.000	212.5(A)
7 Chloroethane	64	2.968	2.968	(0.374)	511543	200.000	193.3
9 Trichlorofluoromethane	101	3.479	3.479	(0.439)	2324963	200.000	171.2
24 t-Butyl alcohol	59	4.424	4.424	(0.558)	793991	1000.00	938.4
21 Trichlorotrifluoroethane	101	4.345	4.345	(0.548)	1760012	200.000	215.8(A)
26 tert-Amyl alcohol	59	7.118	7.118	(0.897)	776949	1000.00	939.2
8 Acrolein	56	3.676	3.676	(0.463)	823588	1000.00	847.2
15 1,1-Dichloroethene	96	4.266	4.266	(0.538)	1531193	200.000	237.6(A)
16 Iodomethane	142	4.463	4.463	(0.562)	2370876	200.000	247.7(A)
25 Carbon disulfide	76	4.797	4.797	(0.605)	5697927	200.000	196.2
20 Methylene chloride	84	4.748	4.748	(0.598)	1918097	200.000	198.3

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL8.D
Report Date: 11-Feb-2011 14:12

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	17	Acrylonitrile	53	4.630	4.630	(0.584)	3022589	1000.00	964.8
	28	trans-1,2-Dichloroethene	96	5.417	5.417	(0.683)	1830259	200.000	204.1(A)
	30	MTBE	73	5.417	5.417	(0.683)	3981216	200.000	209.4(A)
	31	1,1-Dichloroethane	63	5.791	5.791	(0.730)	3767989	200.000	202.7(A)
	33	Vinyl acetate	43	5.860	5.860	(0.738)	5505132	400.000	392.0
	41	Di-isopropyl ether	45	6.155	6.155	(0.776)	10735315	200.000	205.6(A)
	39	cis-1,2-Dichloroethene	96	6.489	6.489	(0.818)	2022507	200.000	201.5(A)
M	18	1,2-Dichloroethene(total)	96				3852766	400.000	405.6
	43	Bromochloromethane	128	6.774	6.774	(0.854)	914771	200.000	196.4
	50	Tetrahydrofuran	42	6.951	6.951	(0.876)	613760	200.000	194.3
	44	Chloroform	83	6.745	6.745	(0.850)	3120324	200.000	203.0(A)
	22	Methyl acetate	43	4.620	4.620	(0.582)	1419018	200.000	191.0
$	47	Dibromofluoromethane	111	6.912	6.912	(0.871)	286779	30.0000	30.26
	53	1,1,1-Trichloroethane	97	7.305	7.305	(0.921)	2263436	200.000	207.3(A)
	45	ETBE	59	6.617	6.617	(0.834)	6701397	200.000	208.4(A)
	55	Cyclohexane	56	7.571	7.571	(0.954)	4281153	200.000	197.0
	56	Carbon tetrachloride	117	7.640	7.640	(0.963)	2146047	200.000	215.4(A)
$	51	1,2-Dichloroethane-d4	102	7.413	7.413	(0.934)	54395	30.0000	29.67
	57	Benzene	78	7.679	7.679	(0.968)	7317688	200.000	207.5(A)
	52	1,2-Dichloroethane	62	7.502	7.502	(0.945)	1922321	200.000	206.8(AM)
	46	2,2-Dichloropropane	77	6.597	6.597	(0.831)	2206218	200.000	204.3(A)
	54	1,1-Dichloropropene	75	7.522	7.522	(0.948)	2491320	200.000	203.3(A)
	59	tert-Amyl Methyl Ether	73	7.866	7.866	(0.991)	4984481	200.000	205.2(A)
	68	tert-Amyl Ethyl Ether	59	8.741	8.741	(1.102)	5788609	200.000	206.5(A)
	64	Trichloroethene	95	8.426	8.426	(1.062)	1970287	200.000	201.5(A)
	63	1,2-Dichloropropane	63	8.476	8.476	(1.068)	2360121	200.000	202.4(A)
	62	Dibromomethane	93	8.594	8.594	(1.083)	1087373	200.000	199.0
	66	Methyl methacrylate	41	7.571	7.571	(0.954)	2858690	200.000	191.3
	65	Bromodichloromethane	83	8.653	8.653	(1.090)	2224206	200.000	215.3(A)
	69	2-Chloroethyl vinyl ether	63	9.007	9.007	(1.135)	2134391	400.000	386.5
	73	cis-1,3-Dichloropropene	75	9.223	9.223	(1.162)	2865775	200.000	205.1(A)
$	78	Toluene-d8	98	9.626	9.626	(0.872)	897728	30.0000	32.46
	79	Toluene	92	9.705	9.705	(0.879)	4130902	200.000	200.8(A)
	76	trans-1,3-Dichloropropene	75	9.695	9.695	(0.878)	2065488	200.000	212.8(A)
	80	Ethyl methacrylate	69	9.882	9.882	(0.895)	2208777	200.000	211.5(A)
	77	1,1,2-Trichloroethane	83	9.853	9.853	(0.892)	1276121	200.000	211.7(A)
	85	Tetrachloroethene	166	10.433	10.433	(0.945)	1763902	200.000	219.4(A)
	83	Dibromochloromethane	129	10.325	10.325	(0.935)	1696718	200.000	242.2(A)
	84	1,2-Dibromoethane	107	10.531	10.531	(0.954)	1434658	200.000	212.2(A)
	70	Methyl cyclohexane	83	8.810	8.810	(1.110)	3260422	200.000	200.7(A)
*	88	Chlorobenzene-d5	82	11.043	11.043	(1.000)	386228	30.0000	
	89	Chlorobenzene	112	11.082	11.082	(1.004)	5258451	200.000	219.6(A)
	86	1,1,1,2-Tetrachloroethane	131	11.131	11.131	(1.008)	1831214	200.000	224.6(A)
	87	1-Chlorohexane	91	11.052	11.052	(1.001)	4864307	200.000	182.1(A)
	90	Ethylbenzene	91	11.229	11.229	(1.017)	9200296	200.000	222.8(A)
	91	m,p-Xylene	91	11.348	11.348	(1.028)	11434423	400.000	382.6(A)
M	97	Xylene(total)	91				18171629	600.000	601.1

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL8.D
Report Date: 11-Feb-2011 14:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
95	o-Xylene	91	11.741	11.741	(1.063)	6737206	200.000	218.5(A)
94	Styrene	104	11.702	11.702	(1.060)	5413937	200.000	218.2(A)
93	Bromoform	173	11.810	11.810	(1.069)	1062991	200.000	250.2(A)
101	Isopropylbenzene	105	12.134	12.134	(1.099)	7022359	200.000	220.6(A)
$ 102	Bromofluorobenzene	95	12.243	12.243	(1.109)	340408	30.0000	31.52
96	1,1,2,2-Tetrachloroethane	83	12.056	12.056	(0.897)	1836345	200.000	198.3
81	1,3-Dichloropropane	76	10.059	10.059	(0.911)	2261872	200.000	213.0(A)
98	1,2,3-Trichloropropane	110	12.183	12.183	(1.103)	372901	200.000	205.2(A)
104	n-Propylbenzene	91	12.538	12.538	(0.933)	9926581	200.000	194.7
107	1,3,5-Trimethylbenzene	105	12.715	12.715	(0.946)	6311891	200.000	207.3(A)
110	1,2,4-Trimethylbenzene	105	13.088	13.088	(0.974)	6300037	200.000	206.8(A)
111	sec-Butylbenzene	105	13.295	13.295	(0.989)	8835639	200.000	200.7(A)
109	tert-Butylbenzene	119	13.059	13.059	(0.971)	5877025	200.000	204.4(A)
112	1,3-Dichlorobenzene	146	13.383	13.383	(0.996)	3514262	200.000	201.4(A)
* 113	1,4-Dichlorobenzene-d4	152	13.442	13.442	(1.000)	402094	30.0000	
115	1,4-Dichlorobenzene	146	13.472	13.472	(1.002)	3515269	200.000	199.3
117	n-Butylbenzene	91	13.826	13.826	(1.029)	7298611	200.000	197.3
116	1,2-Dichlorobenzene	146	13.787	13.787	(1.026)	3313341	200.000	207.3(A)
118	1,2-Dibromo-3-chloropropane	157	14.436	14.436	(1.074)	312286	200.000	209.8(A)
103	Bromobenzene	156	12.400	12.400	(0.922)	1964817	200.000	204.6(A)
105	2-Chlorotoluene	91	12.626	12.626	(0.939)	5902185	200.000	208.8(A)
106	4-Chlorotoluene	91	12.685	12.685	(0.944)	6528692	200.000	209.1(A)
119	1,2,4-Trichlorobenzene	180	15.508	15.508	(1.154)	2233626	200.000	210.0(A)
120	Naphthalene	128	15.665	15.665	(1.165)	4441909	200.000	206.8(A)
114	p-Isopropyltoluene	119	13.433	13.433	(0.999)	6253614	200.000	200.2(A)
121	Hexachlorobutadiene	225	15.793	15.793	(1.175)	1349341	200.000	212.6(A)
122	1,2,3-Trichlorobenzene	180	15.950	15.950	(1.187)	2014811	200.000	214.2(A)

QC Flag Legend

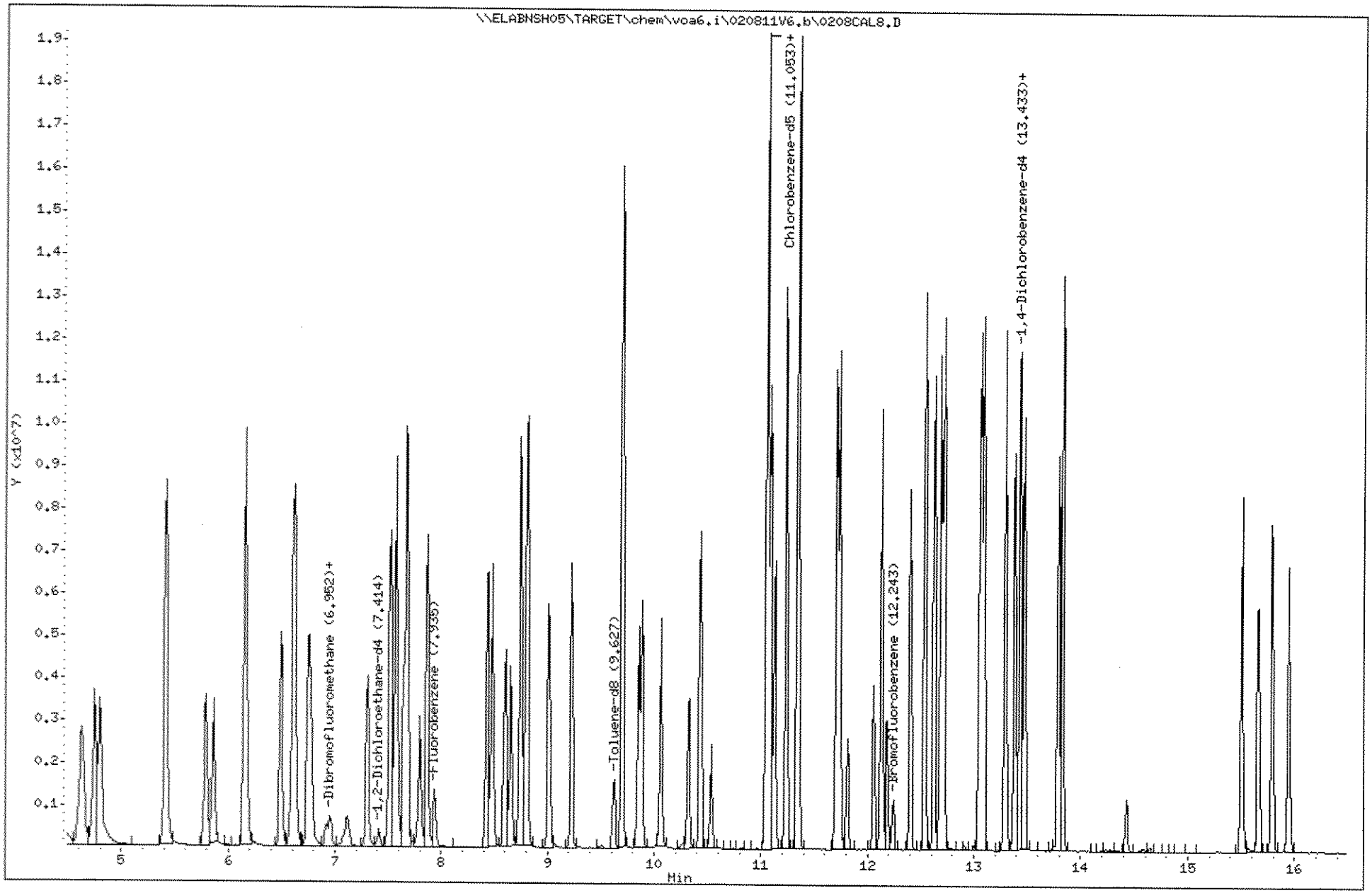
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL8.D
Date : 08-FEB-2011 19:23
Client ID:
Sample Info: SEQ-CAL8;;;;; 200ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208ICV1A.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208ICV1A.D
Lab Smp Id: SEQ-ICV1
Inj Date : 09-FEB-2011 07:37
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-ICV1;;;;; 100ppb soil
Misc Info : ;3;ICV;;;gmall-k.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 22 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gmall-k.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

MY 2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.939	7.941	(1.000)	1009826	30.0000	
1 Dichlorodifluoromethane	85	1.998	2.010	(0.252)	1299359	140.726	140.7(R)
4 Chloromethane	50	2.225	2.236	(0.280)	1438695	113.990	114.0
5 Vinyl chloride	62	2.372	2.384	(0.299)	716227	112.684	112.7
6 Bromomethane	94	2.825	2.836	(0.356)	377330	119.050	119.0
7 Chloroethane	64	2.952	2.974	(0.372)	296691	105.500	105.5
9 Trichlorofluoromethane	101	3.464	3.495	(0.436)	1586198	109.915	109.9
24 t-Butyl alcohol	59	4.408	4.430	(0.555)	377923	420.338	420.3
21 Trichlorotrifluoroethane	101	4.329	4.351	(0.545)	821789	94.8286	94.83
26 tert-Amyl alcohol	59	7.113	7.124	(0.896)	425914	484.487	484.5
8 Acrolein	56	3.661	3.692	(0.461)	564188	546.114	546.1
15 1,1-Dichloroethene	96	4.251	4.282	(0.535)	651105	95.0762	95.08
16 Iodomethane	142	4.447	4.469	(0.560)	1030536	101.321	101.3
25 Carbon disulfide	76	4.782	4.813	(0.602)	3301224	108.238	108.2
20 Methylene chloride	84	4.733	4.754	(0.596)	1026179	99.4344	99.43

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208ICV1A.D
Report Date: 11-Feb-2011 14:13

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	17	Acrylonitrile	53	4.624	4.636	(0.583)	1373409	416.553	416.6
	28	trans-1,2-Dichloroethene	96	5.401	5.423	(0.680)	1036631	108.798	108.8
	30	MTBE	73	5.411	5.423	(0.682)	4323030	213.961	214.0(AR)
	31	1,1-Dichloroethane	63	5.775	5.797	(0.727)	2085345	105.584	105.6
	33	Vinyl acetate	43	5.854	5.865	(0.737)	3170991	212.507	212.5
	41	Di-isopropyl ether	45	6.149	6.170	(0.775)	5483807	98.8236	98.82
	39	cis-1,2-Dichloroethene	96	6.483	6.495	(0.817)	1091728	102.353	102.4
M	18	1,2-Dichloroethene(total)	96				2128359	211.151	211.2
	43	Bromochloromethane	128	6.768	6.780	(0.853)	477487	96.4894	96.49
	50	Tetrahydrofuran	42	6.955	6.967	(0.876)	344180	101.257	101.2
	44	Chloroform	83	6.739	6.751	(0.849)	1667410	102.092	102.1
	22	Methyl acetate	43	4.605	4.626	(0.580)	585547	74.1624	74.16
$	47	Dibromofluoromethane	111	6.916	6.928	(0.871)	297239	29.5140	29.51
	53	1,1,1-Trichloroethane	97	7.300	7.311	(0.919)	1217888	104.961	105.0
	45	ETBE	59	6.621	6.623	(0.834)	3522376	103.103	103.1
	55	Cyclohexane	56	7.565	7.577	(0.953)	2429803	105.233	105.2
	56	Carbon tetrachloride	117	7.634	7.646	(0.962)	1178053	111.300	111.3
$	51	1,2-Dichloroethane-d4	102	7.408	7.419	(0.933)	58274	29.9130	29.91
	57	Benzene	78	7.673	7.675	(0.967)	3896562	103.992	104.0
	52	1,2-Dichloroethane	62	7.496	7.508	(0.944)	1035682	104.850	104.8
	46	2,2-Dichloropropane	77	6.591	6.603	(0.830)	1219663	106.309	106.3
	54	1,1-Dichloropropene	75	7.516	7.528	(0.947)	1384271	106.298	106.3
	59	tert-Amyl Methyl Ether	73	7.860	7.872	(0.990)	2519755	97.6309	97.63
	68	tert-Amyl Ethyl Ether	59	8.745	8.747	(1.102)	2992728	100.462	100.5
	64	Trichloroethene	95	8.431	8.432	(1.062)	1074109	103.383	103.4
	63	1,2-Dichloropropane	63	8.480	8.482	(1.068)	1256196	101.355	101.4
	62	Dibromomethane	93	8.588	8.600	(1.082)	599543	103.257	103.2
	66	Methyl methacrylate	41	7.565	7.577	(0.953)	1670804	105.227	105.2
	65	Bromodichloromethane	83	8.657	8.659	(1.090)	1217216	110.869	110.9
	69	2-Chloroethyl vinyl ether	63	9.011	9.013	(1.135)	1296830	220.997	221.0
	73	cis-1,3-Dichloropropene	75	9.227	9.229	(1.162)	1464179	98.5975	98.60
$	78	Toluene-d8	98	9.621	9.622	(0.871)	952089	29.6209	29.62
	79	Toluene	92	9.699	9.701	(0.878)	2499504	104.512	104.5
	76	trans-1,3-Dichloropropene	75	9.699	9.701	(0.878)	1274938	113.033	113.0
	80	Ethyl methacrylate	69	9.886	9.888	(0.895)	1194203	98.3806	98.38
	77	1,1,2-Trichloroethane	83	9.847	9.858	(0.891)	670892	95.7738	95.77
	85	Tetrachloroethene	166	10.427	10.439	(0.944)	974409	104.280	104.3
	83	Dibromochloromethane	129	10.319	10.321	(0.934)	902645	110.848	110.8
	84	1,2-Dibromoethane	107	10.535	10.537	(0.954)	778750	99.1217	99.12
	70	Methyl cyclohexane	83	8.804	8.806	(1.109)	1804092	104.508	104.5
*	88	Chlorobenzene-d5	82	11.047	11.049	(1.000)	448917	30.0000	
	89	Chlorobenzene	112	11.086	11.088	(1.004)	2854522	102.579	102.6
	86	1,1,1,2-Tetrachloroethane	131	11.125	11.127	(1.007)	999812	105.502	105.5
	87	1-Chlorohexane	91	11.057	11.058	(1.001)	3202306	103.140	103.1(A)
	90	Ethylbenzene	91	11.234	11.235	(1.017)	5035317	104.892	104.9
	91	m,p-Xylene	91	11.342	11.344	(1.027)	7348799	211.578	211.6(A)
M	97	Xylene(total)	91				11054714	314.965	315.0

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208ICV1A.D
Report Date: 11-Feb-2011 14:13

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)	
95	o-Xylene	91	11.735	11.737	(1.062)	3705915	103.388	103.4	
94	Styrene	104	11.706	11.707	(1.060)	2960427	102.649	102.6	
93	Bromoform	173	11.814	11.816	(1.069)	549624	111.294	111.3	
101	Isopropylbenzene	105	12.129	12.130	(1.098)	4151885	112.227	112.2	
$ 102	Bromofluorobenzene	95	12.237	12.239	(1.108)	366049	29.1620	29.16	
96	1,1,2,2-Tetrachloroethane	83	12.060	12.062	(0.897)	1027634	100.812	100.8	
81	1,3-Dichloropropane	76	10.063	10.065	(0.911)	1224345	99.1740	99.17	
98	1,2,3-Trichloropropane	110	12.178	12.180	(1.102)	206138	97.6210	97.62	
104	n-Propylbenzene	91	12.542	12.543	(0.933)	6051626	107.824	107.8	
107	1,3,5-Trimethylbenzene	105	12.719	12.720	(0.946)	3524580	105.146	105.1	
110	1,2,4-Trimethylbenzene	105	13.092	13.094	(0.974)	3553991	105.946	105.9	
111	sec-Butylbenzene	105	13.289	13.291	(0.988)	4989500	102.932	102.9	
109	tert-Butylbenzene	119	13.053	13.055	(0.971)	3278494	103.564	103.6	
112	1,3-Dichlorobenzene	146	13.378	13.379	(0.995)	1909771	99.4320	99.43	
* 113	1,4-Dichlorobenzene-d4	152	13.446	13.448	(1.000)	442663	30.0000		(Q)
115	1,4-Dichlorobenzene	146	13.476	13.478	(1.002)	1875147	96.5785	96.58	
117	n-Butylbenzene	91	13.830	13.832	(1.029)	4176390	102.552	102.6	
116	1,2-Dichlorobenzene	146	13.791	13.792	(1.026)	1752577	99.5916	99.59	
118	1,2-Dibromo-3-chloropropane	157	14.430	14.432	(1.073)	163363	99.6902	99.69	
103	Bromobenzene	156	12.404	12.406	(0.922)	1040829	98.4586	98.46	
105	2-Chlorotoluene	91	12.620	12.622	(0.939)	3183947	102.299	102.3	
106	4-Chlorotoluene	91	12.689	12.691	(0.944)	3648689	106.160	106.2	
119	1,2,4-Trichlorobenzene	180	15.512	15.514	(1.154)	1094389	93.4840	93.48	
120	Naphthalene	128	15.659	15.661	(1.165)	2205070	93.2465	93.25	
114	p-Isopropyltoluene	119	13.427	13.429	(0.999)	3704800	107.716	107.7	
121	Hexachlorobutadiene	225	15.787	15.789	(1.174)	731277	104.643	104.6	
122	1,2,3-Trichlorobenzene	180	15.945	15.946	(1.186)	968551	93.5579	93.56	

QC Flag Legend

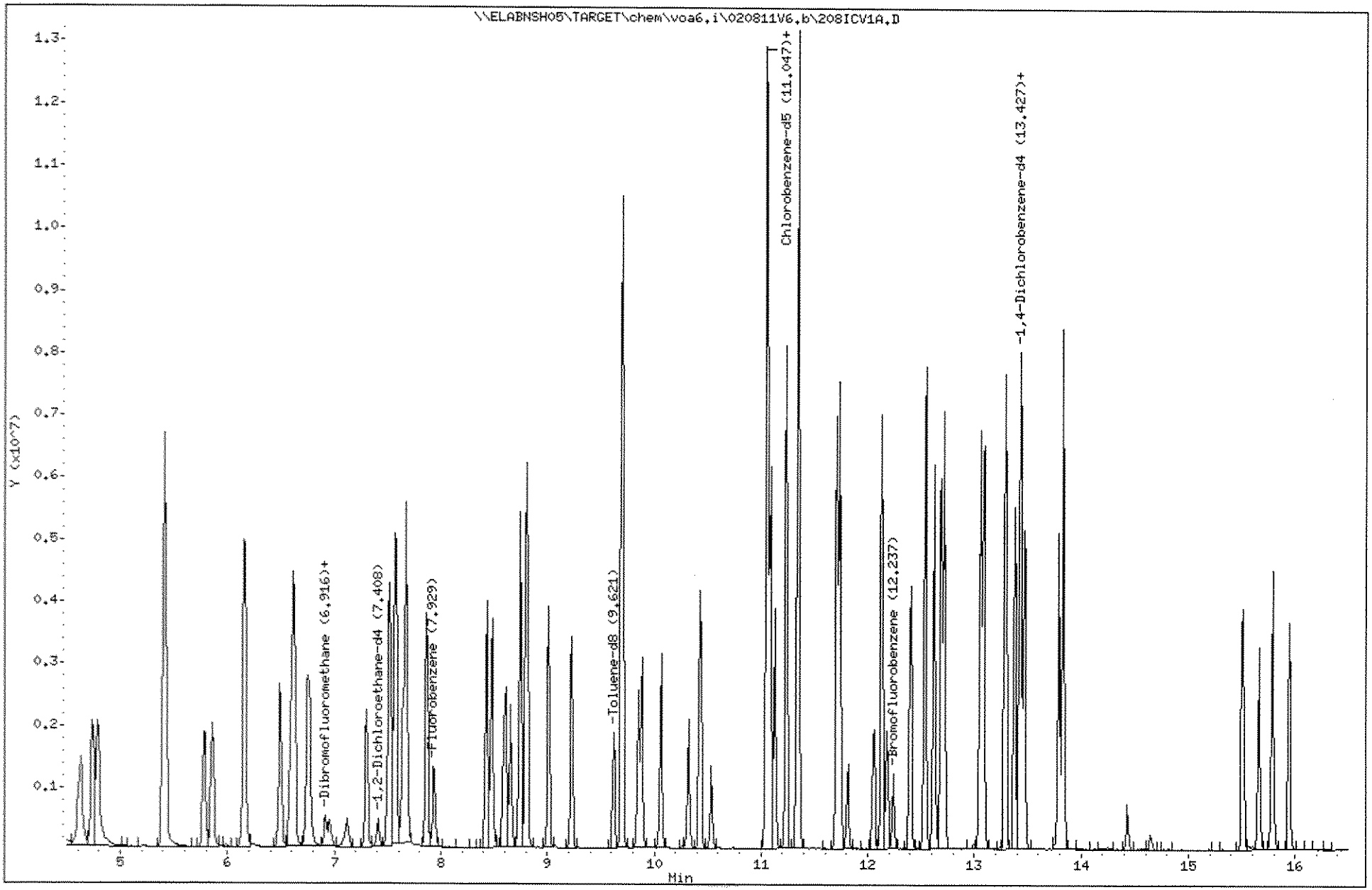
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\208ICV1A.D
Date : 09-FEB-2011 07:37
Client ID:
Sample Info: SEQ-ICV1;;;;; 100ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0209icv2.D
Report Date: 14-Feb-2011 12:18

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0209icv2.D
Lab Smp Id: SEQ-ICV2 Client Smp ID: SEQ-ICV2
Inj Date : 09-FEB-2011 09:08
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-ICV2;;;;;
Misc Info : ;3;LCS;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 14-Feb-2011 12:17 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 2 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ma.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

VM 2/14/11

RSW 2-15-11

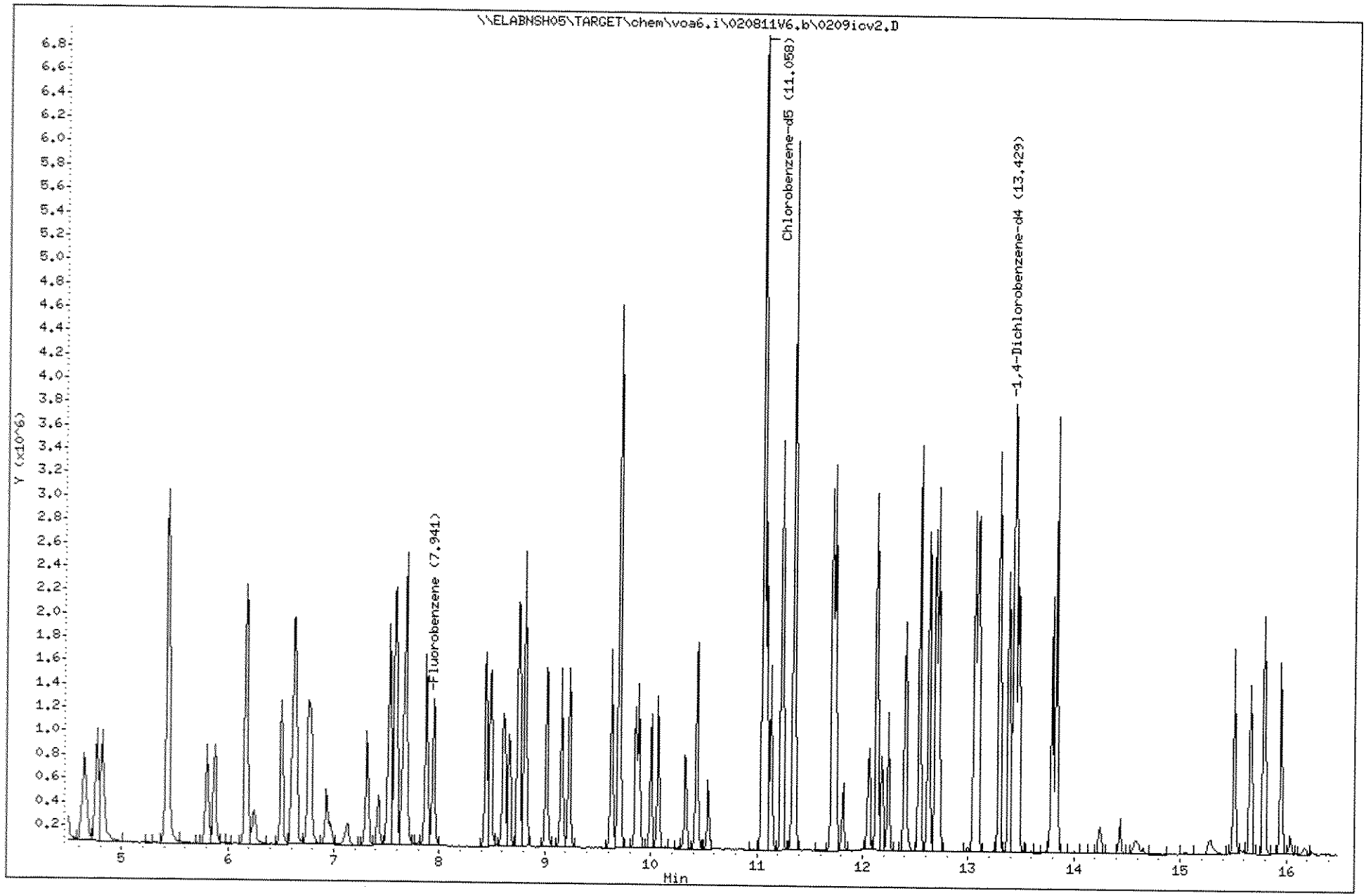
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.940	7.935	(1.000)	963037	30.0000	
* 88 Chlorobenzene-d5	82	11.048	11.053	(1.000)	439768	30.0000	
22 Methyl acetate	43	4.636	4.626	(0.584)	347560	46.1589	46.16
* 113 1,4-Dichlorobenzene-d4	152	13.448	13.443	(1.000)	421027	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0209icv2.D
Date : 09-FEB-2011 09:08
Client ID: SEQ-ICV2
Sample Info: SEQ-ICV2;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL9.D
Report Date: 11-Feb-2011 14:12

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL9.D
Lab Smp Id: SEQ-CAL9
Inj Date : 08-FEB-2011 20:35
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CAL9;;;;; 4ppb soil
Misc Info : ;1;;1;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:12 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.945	7.945	(1.000)	954550	30.0000	
12 Acetone	43	3.804	3.804	(0.479)	10781	4.00000	4.455(a)
36 2-Butanone	43	6.243	6.243	(0.786)	16930	4.00000	3.211(a)
75 4-Methyl-2-pentanone	43	9.154	9.154	(1.152)	47512	4.00000	3.795(a)
82 2-Hexanone	43	10.000	10.000	(0.905)	36982	4.00000	4.150(a)
* 88 Chlorobenzene-d5	82	11.053	11.053	(1.000)	427184	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	415986	30.0000	

QC Flag Legend

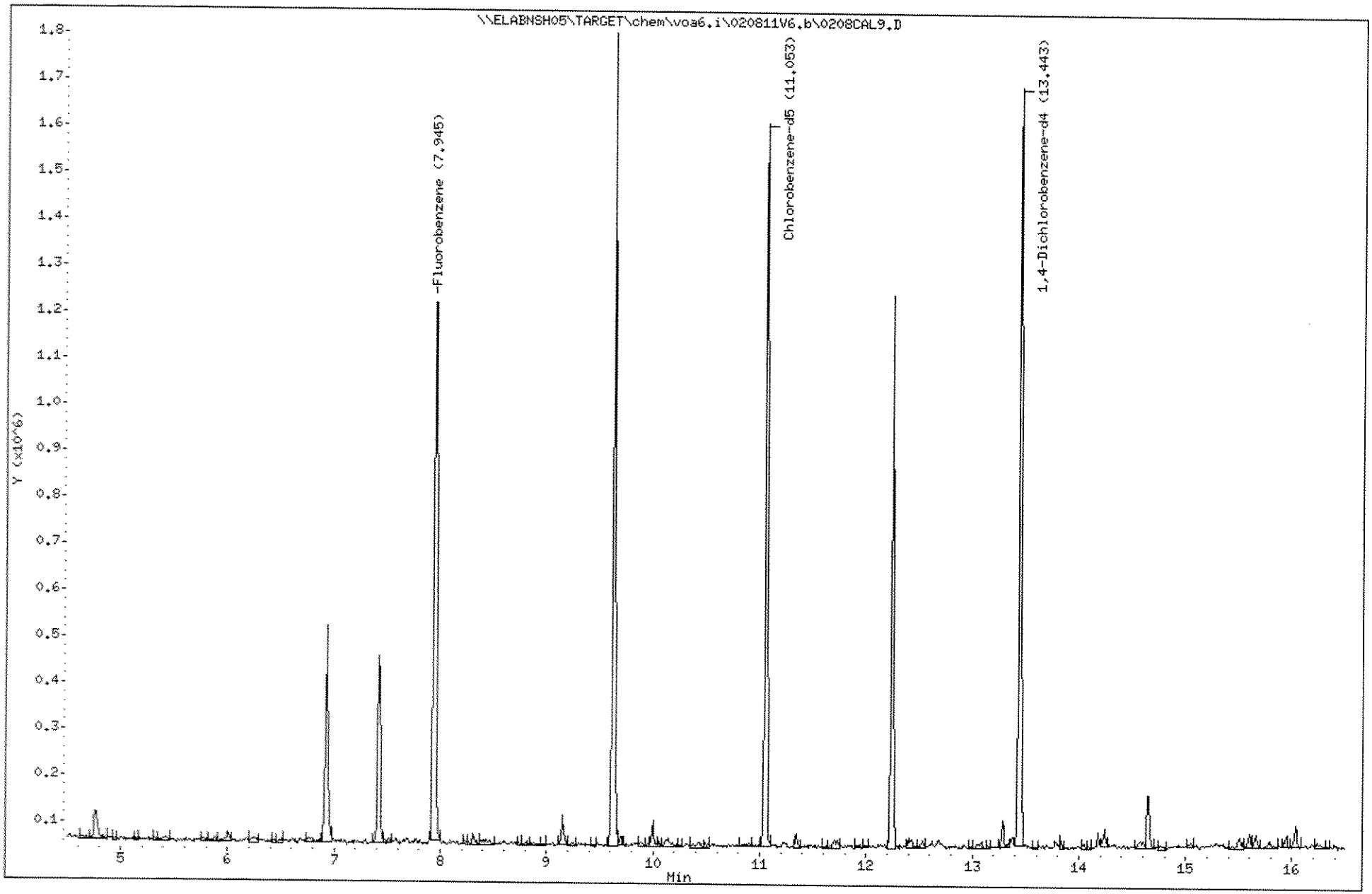
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CAL9.D
Date : 08-FEB-2011 20:35
Client ID:
Sample Info: SEQ-CAL9;;;;; 4ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALA.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALA.D
Lab Smp Id: SEQ-CALA
Inj Date : 08-FEB-2011 20:58
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALA;;;;; 10ppb soil
Misc Info : ;1;;2;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

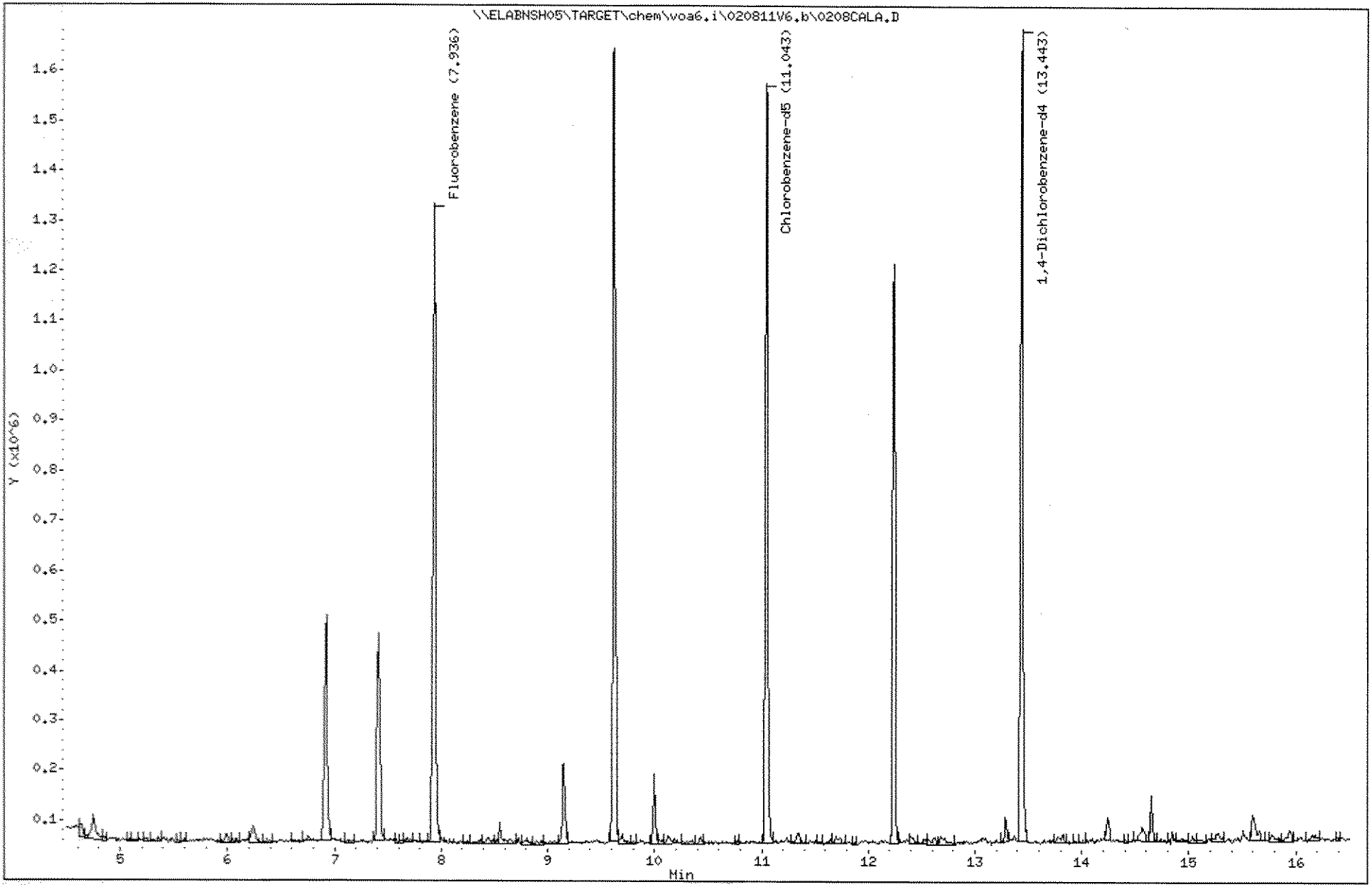
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.935	7.935	(1.000)	951285	30.0000	
12 Acetone	43	3.795	3.795	(0.478)	28270	10.0000	11.72
36 2-Butanone	43	6.234	6.234	(0.786)	53942	10.0000	10.26
75 4-Methyl-2-pentanone	43	9.145	9.145	(1.152)	131517	10.0000	10.54
82 2-Hexanone	43	10.000	10.000	(0.906)	93194	10.0000	10.18
* 88 Chlorobenzene-d5	82	11.043	11.043	(1.000)	438604	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	420771	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALA.D
Date : 08-FEB-2011 20:58
Client ID:
Sample Info: SEQ-CALA;;;;; 10ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALB.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALB.D
Lab Smp Id: SEQ-CALB
Inj Date : 08-FEB-2011 21:22
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALB;;;;; 20ppb soil
Misc Info : ;1;;3;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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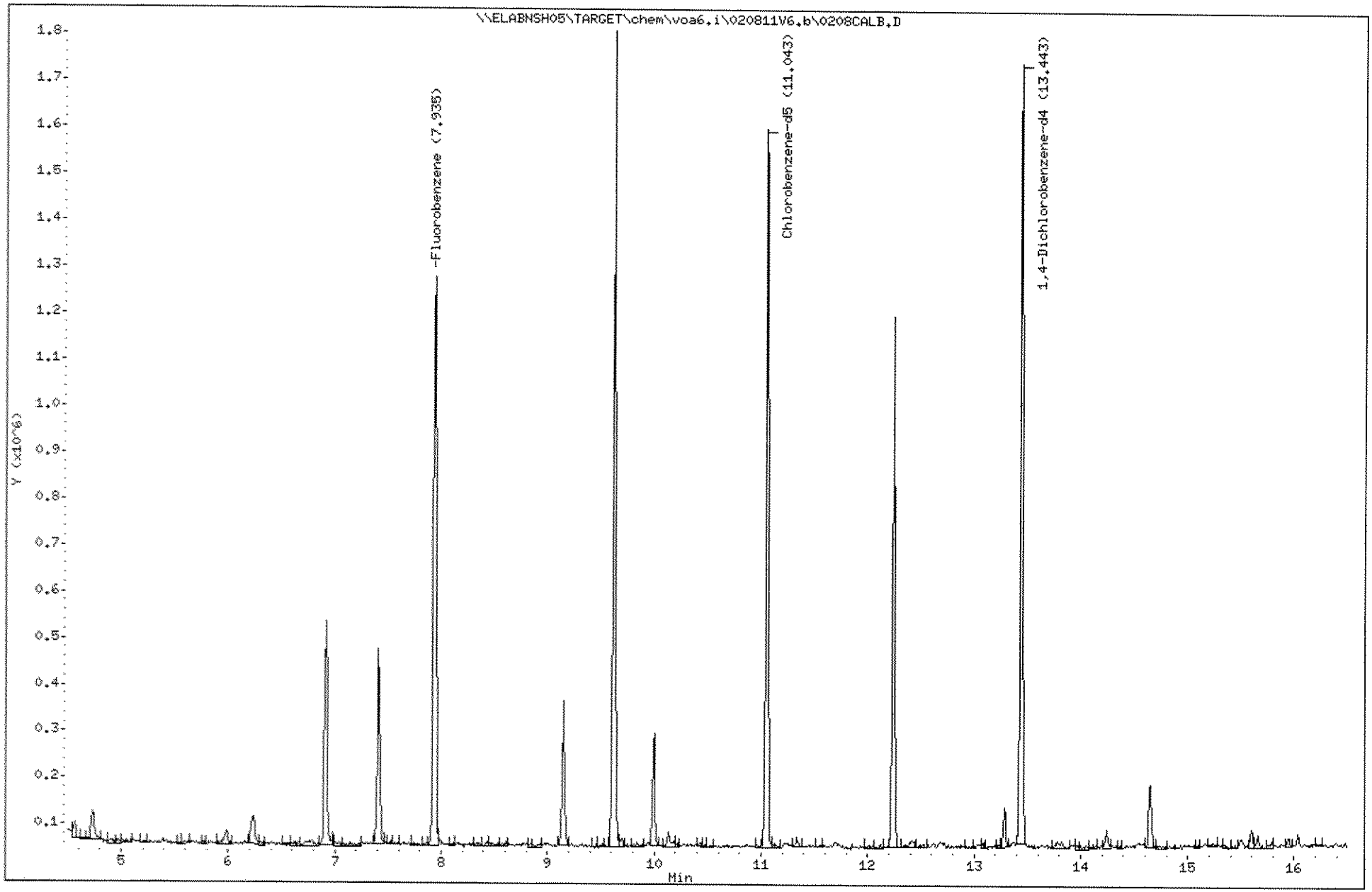
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.935	7.935	(1.000)	970974	30.0000	
12 Acetone	43	3.784	3.784	(0.477)	53631	20.0000	21.78
36 2-Butanone	43	6.233	6.233	(0.786)	113217	20.0000	21.11
75 4-Methyl-2-pentanone	43	9.144	9.144	(1.152)	256010	20.0000	20.10
82 2-Hexanone	43	10.000	10.000	(0.906)	177770	20.0000	19.81
* 88 Chlorobenzene-d5	82	11.043	11.043	(1.000)	430183	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.442	13.442	(1.000)	422864	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALB.D
Date : 08-FEB-2011 21:22
Client ID:
Sample Info: SEQ-CALB;;;;; 20ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALC.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALC.D
Lab Smp Id: SEQ-CALC
Inj Date : 08-FEB-2011 21:46
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALC;;;;; 40ppb soil
Misc Info : ;1;;4;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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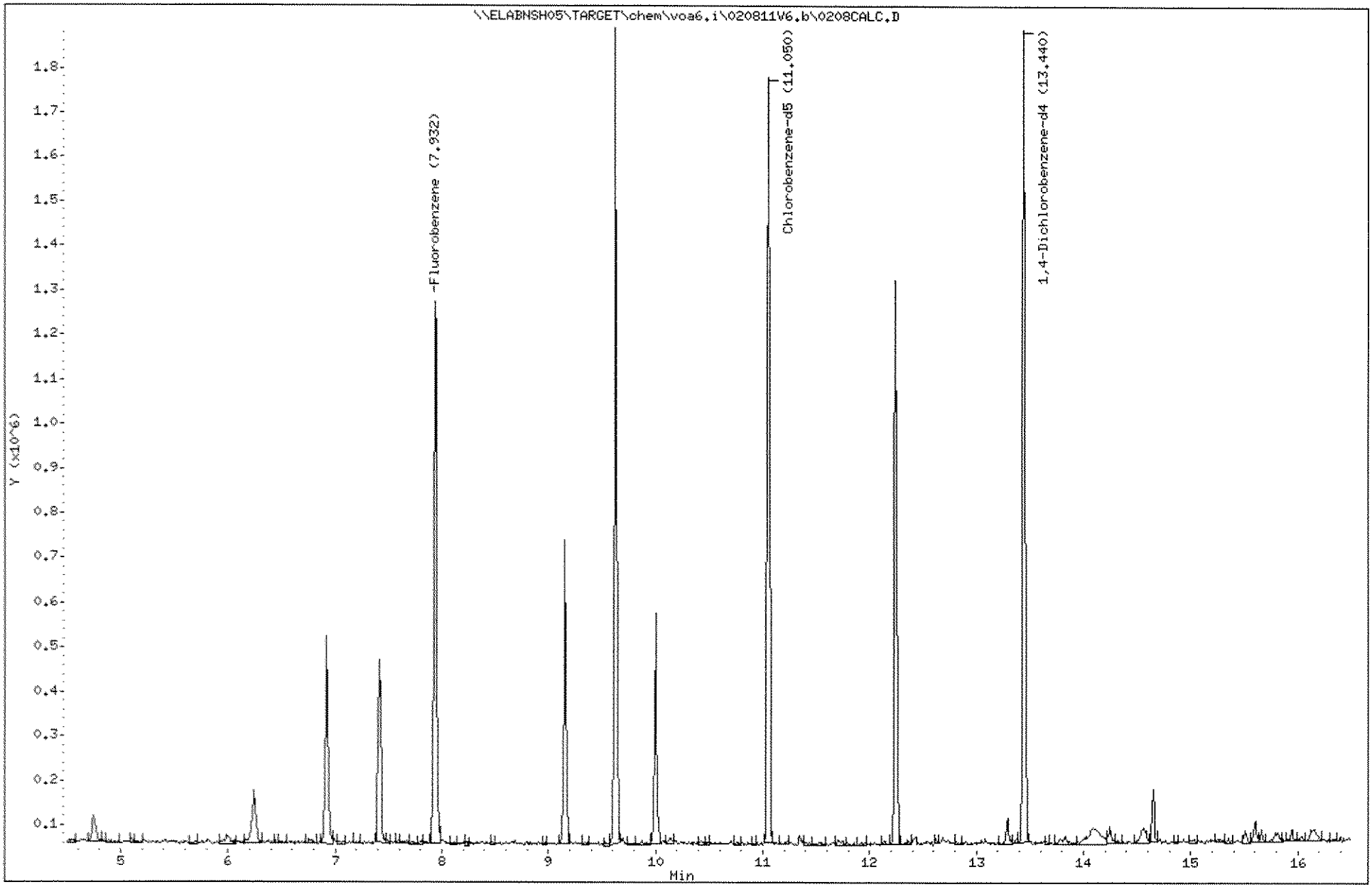
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.931	7.931	(1.000)	972174	30.0000	
12 Acetone	43	3.801	3.801	(0.479)	93977	40.0000	38.13
36 2-Butanone	43	6.240	6.240	(0.787)	208633	40.0000	38.85
75 4-Methyl-2-pentanone	43	9.151	9.151	(1.154)	488140	40.0000	38.28
82 2-Hexanone	43	9.997	9.997	(0.905)	353361	40.0000	39.23
* 88 Chlorobenzene-d5	82	11.049	11.049	(1.000)	431704	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.439	13.439	(1.000)	423574	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALC.D
Date : 08-FEB-2011 21:46
Client ID:
Sample Info: SEQ-CALC;;;;; 40ppb soil

Instrument: voa6.i
Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALD.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALD.D
Lab Smp Id: SEQ-CALD
Inj Date : 08-FEB-2011 22:09
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALD;;;;; 100ppb soil
Misc Info : ;1;;5;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

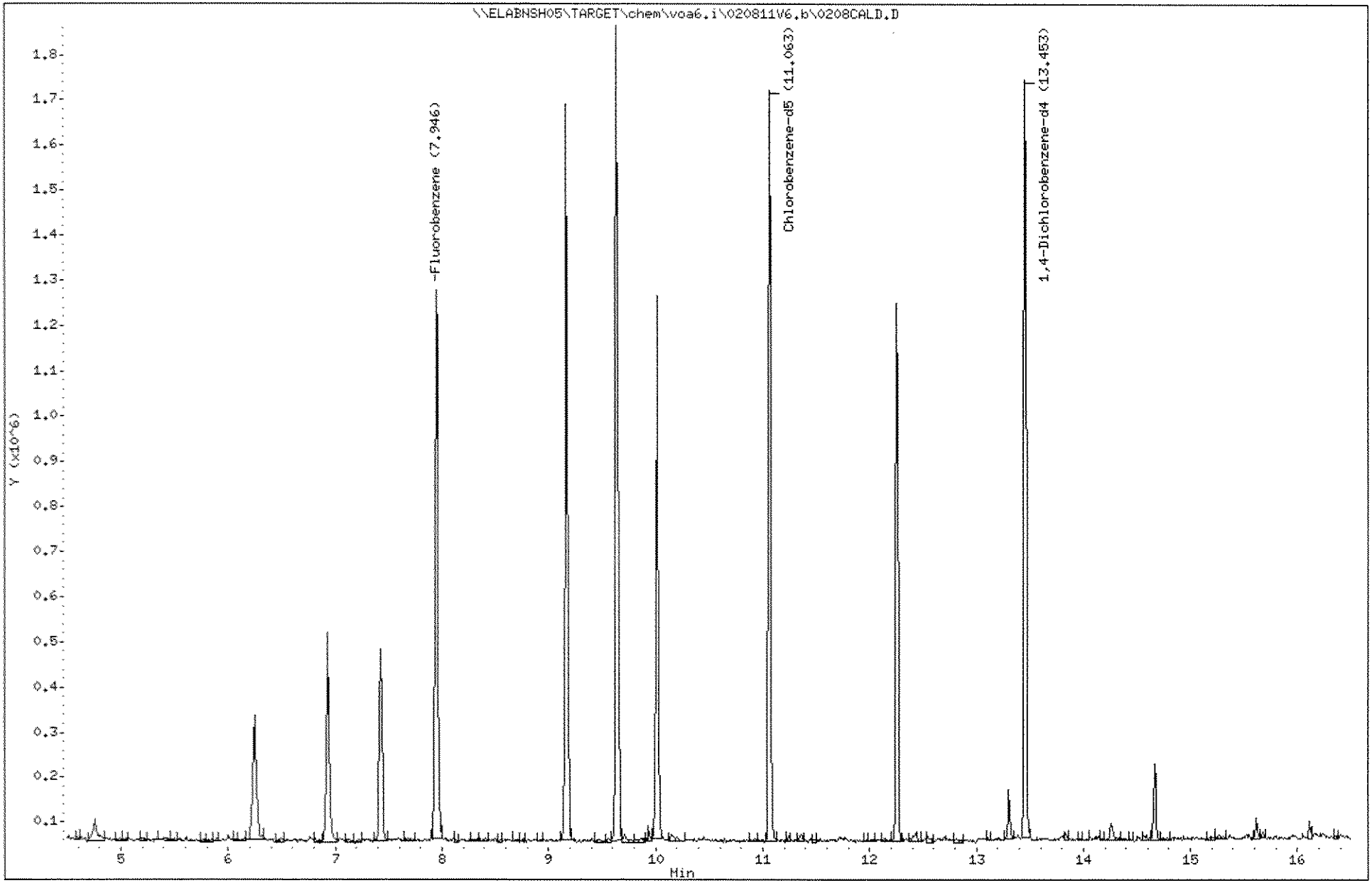
Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.945	7.945	(1.000)	966082	30.0000	
12 Acetone	43	3.785	3.785	(0.476)	220987	100.000	90.22
36 2-Butanone	43	6.244	6.244	(0.786)	520832	100.000	97.59
75 4-Methyl-2-pentanone	43	9.165	9.165	(1.153)	1190907	100.000	93.98
82 2-Hexanone	43	10.011	10.011	(0.905)	836061	100.000	92.34
* 88 Chlorobenzene-d5	82	11.063	11.063	(1.000)	433981	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.463	13.463	(1.000)	419556	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALD.D
Date : 08-FEB-2011 22:09
Client ID:
Sample Info: SEQ-CALD;;;;; 100ppb soil

Instrument: voa6.i
Operator: RDW
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALE.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALE.D
Lab Smp Id: SEQ-CALE
Inj Date : 08-FEB-2011 22:33
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALE;;;;; 200ppb soil
Misc Info : ;1;;6;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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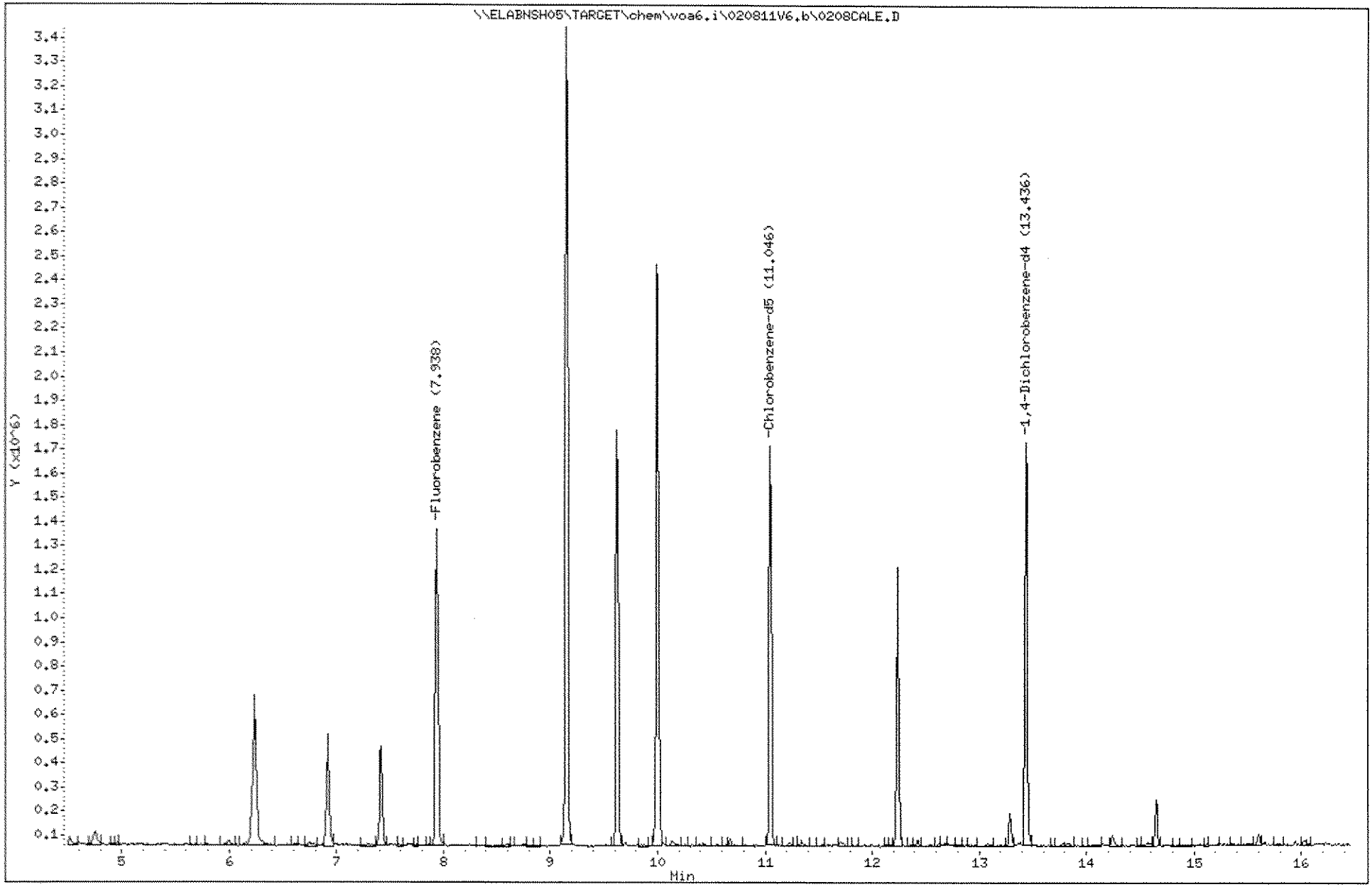
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.938	7.938	(1.000)	984080	30.0000	
12 Acetone	43	3.787	3.787	(0.477)	471663	200.000	189.0
36 2-Butanone	43	6.236	6.236	(0.786)	1149186	200.000	211.4
75 4-Methyl-2-pentanone	43	9.147	9.147	(1.152)	2604959	200.000	201.8
82 2-Hexanone	43	9.993	9.993	(0.905)	1839794	200.000	200.0
* 88 Chlorobenzene-d5	82	11.046	11.046	(1.000)	440916	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.445	13.445	(1.000)	420805	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALE.D
Date : 08-FEB-2011 22:33
Client ID:
Sample Info: SEQ-CALE;;;;; 200ppb soil

Instrument: voa6.i
Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALF.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALF.D
Lab Smp Id: SEQ-CALF
Inj Date : 08-FEB-2011 22:57
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALF;;;;; 300ppb soil
Misc Info : ;1;;7;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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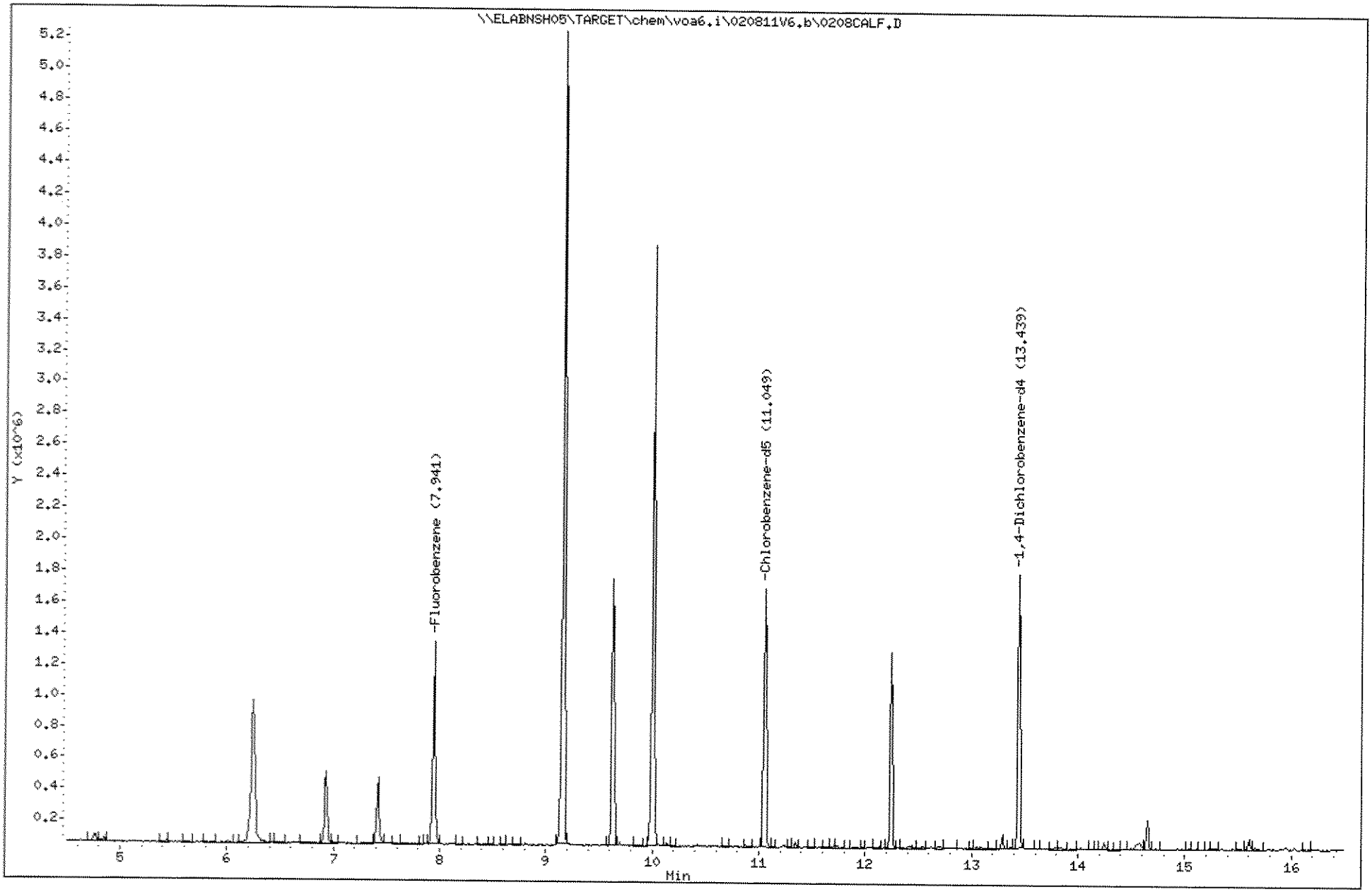
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.940	7.940	(1.000)	960715	30.0000	
12 Acetone	43	3.800	3.800	(0.479)	678323	300.000	278.5
36 2-Butanone	43	6.239	6.239	(0.786)	1713419	300.000	322.8
75 4-Methyl-2-pentanone	43	9.150	9.150	(1.152)	4002719	300.000	317.6
82 2-Hexanone	43	9.996	9.996	(0.905)	2839206	300.000	313.4
* 88 Chlorobenzene-d5	82	11.048	11.048	(1.000)	434198	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.438	13.438	(1.000)	417031	30.0000	

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALF.D
Date : 08-FEB-2011 22:57
Client ID:
Sample Info: SEQ-CALF;;;;; 300ppb soil

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALG.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALG.D
Lab Smp Id: SEQ-CALG
Inj Date : 08-FEB-2011 23:21
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALG;;;;; 400ppb soil
Misc Info : ;1;;8;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 18 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.937	7.937	(1.000)	974316	30.0000	
12 Acetone	43	3.777	3.777	(0.476)	885261	400.000	358.4
36 2-Butanone	43	6.225	6.225	(0.784)	2228318	400.000	414.0(A)
75 4-Methyl-2-pentanone	43	9.146	9.146	(1.152)	5253916	400.000	411.1(A)
82 2-Hexanone	43	10.002	10.002	(0.906)	3711014	400.000	401.9(A)
* 88 Chlorobenzene-d5	82	11.045	11.045	(1.000)	442594	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.444	13.444	(1.000)	426019	30.0000	

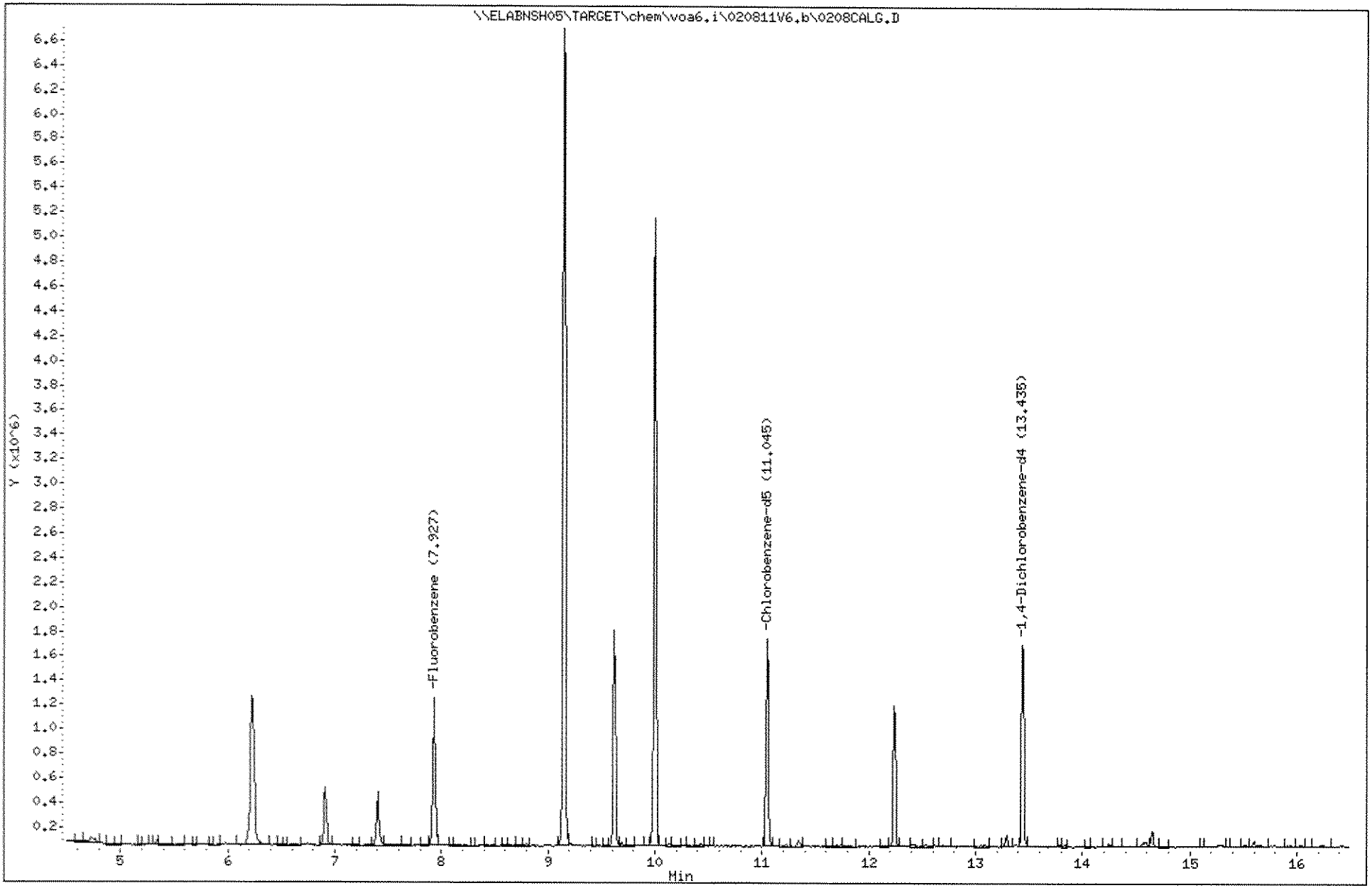
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208CALG.D
Date : 08-FEB-2011 23:21
Client ID:
Sample Info: SEQ-CALG;;;;; 400ppb soil

Instrument: voa6.i
Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208ICV3.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208ICV3.D
Lab Smp Id: SEQ-ICV3
Inj Date : 08-FEB-2011 23:45
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-ICV3;;;;; 200ppb soil
Misc Info : ;3;ICV;;;ketones.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 19 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ketones.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

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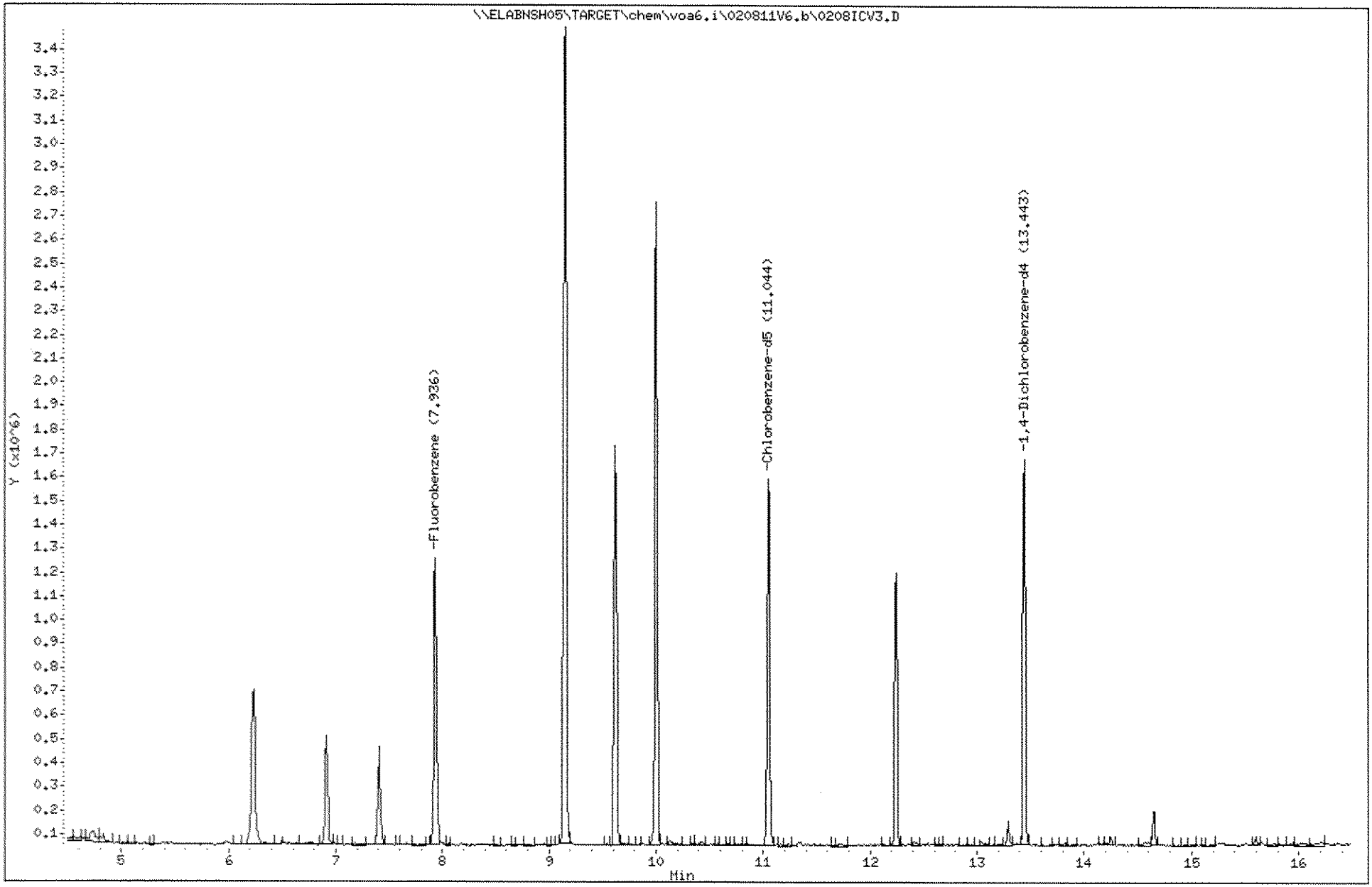
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)	
* 60 Fluorobenzene	96	7.935	7.937	(1.000)	947223	30.0000		
12 Acetone	43	3.775	3.777	(0.476)	506411	210.870	210.9	
36 2-Butanone	43	6.234	6.225	(0.786)	1189697	227.367	227.4	
75 4-Methyl-2-pentanone	43	9.145	9.146	(1.152)	2764447	222.495	222.5	
82 2-Hexanone	43	10.000	10.002	(0.906)	1947554	217.599	217.6	
* 88 Chlorobenzene-d5	82	11.043	11.045	(1.000)	429003	30.0000		
* 113 1,4-Dichlorobenzene-d4	152	13.443	13.444	(1.000)	414709	30.0000		(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\0208ICV3.D
Date : 08-FEB-2011 23:45
Client ID:
Sample Info: SEQ-ICV3;;;;; 200ppb soil

Instrument: voa6.i
Operator: RDW
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALH.D
Report Date: 11-Feb-2011 14:13

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALH.D
Lab Smp Id: SEQ-CALH
Inj Date : 09-FEB-2011 16:20
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALH;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:13 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 20 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

MY 11/11

2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.944	7.944	(1.000)	922225	30.0000	
10 Acetonitrile	41	3.852	3.852	(0.485)	17555	20.0000	20.08
38 Hexane	57	5.996	5.996	(0.755)	38348	2.00000	1.925(a)
23 Allyl chloride	76	4.708	4.708	(0.593)	8343	2.00000	1.815(a)
35 Chloroprene	53	6.055	6.055	(0.762)	25733	2.00000	1.646(a)
32 Propionitrile	54	5.967	5.967	(0.751)	30847	20.0000	23.83
40 Methacrylonitrile	41	6.409	6.409	(0.807)	163289	20.0000	22.55
48 Isobutyl alcohol	42	6.852	6.852	(0.863)	24214	40.0000	57.38
* 88 Chlorobenzene-d5	82	11.051	11.051	(1.000)	416612	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.441	13.441	(1.000)	407688	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.897	11.897	(0.885)	7208	2.00000	2.292(a)
100 cis-1,4-Dichloro-2-butene	53	12.202	12.202	(0.908)	5625	2.00000	2.176(a)

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALH.D
Report Date: 11-Feb-2011 14:13

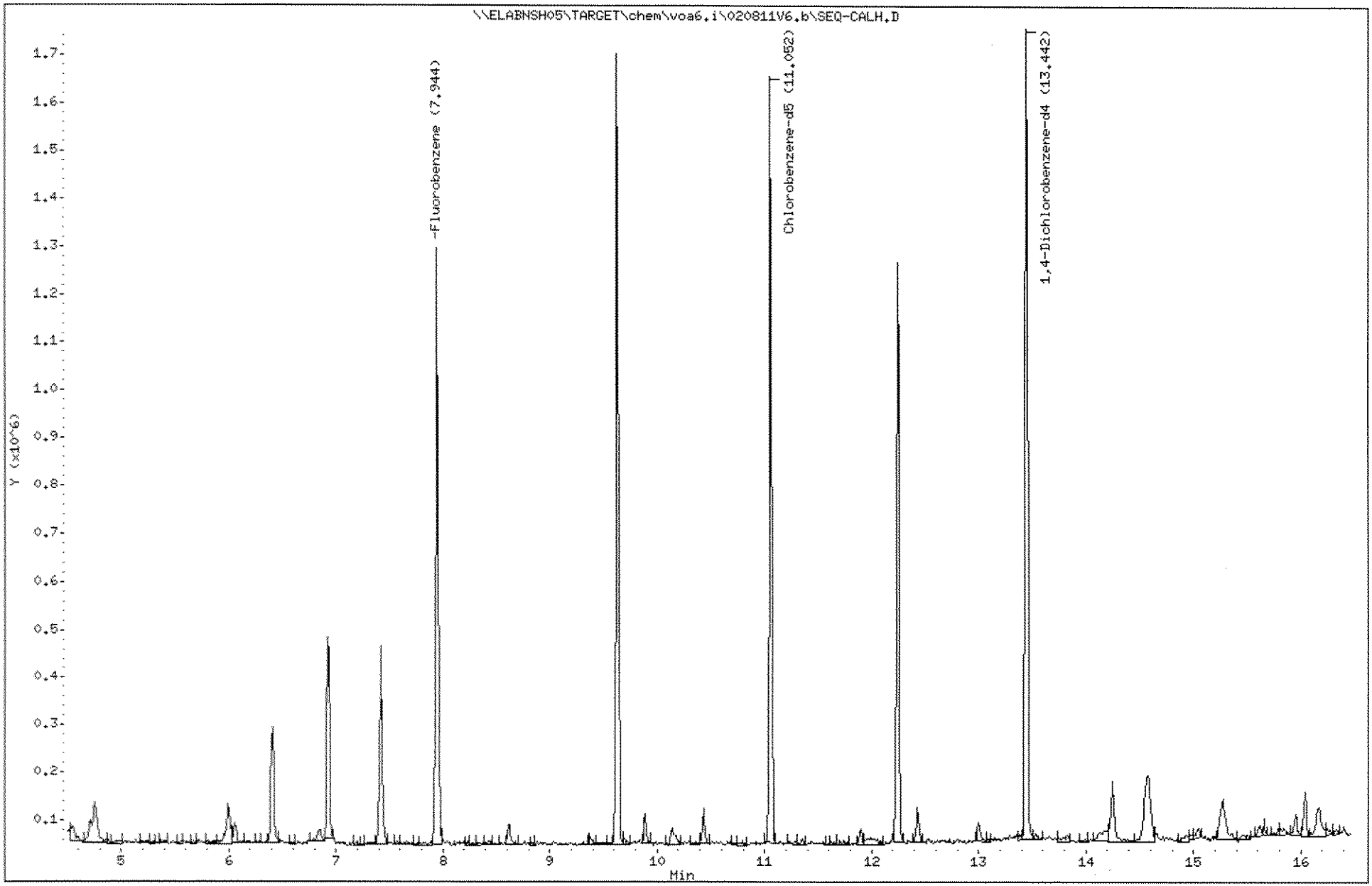
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALH.D
Date : 09-FEB-2011 16:20
Client ID:
Sample Info: SEQ-CALH;;;;;

Instrument: voa6.i

Operator: RDW
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALI.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALI.D
Lab Smp Id: SEQ-CALI
Inj Date : 09-FEB-2011 16:45
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALI;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 21 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.938	7.938	(1.000)	911512	30.0000	
10 Acetonitrile	41	3.847	3.847	(0.485)	52387	50.0000	60.63
38 Hexane	57	6.001	6.001	(0.756)	94127	5.00000	4.781(a)
23 Allyl chloride	76	4.712	4.712	(0.594)	21782	5.00000	4.794(a)
35 Chloroprene	53	6.060	6.060	(0.763)	73448	5.00000	4.754(a)
32 Propionitrile	54	5.961	5.961	(0.751)	61438	50.0000	48.01
40 Methacrylonitrile	41	6.404	6.404	(0.807)	352712	50.0000	49.29
48 Isobutyl alcohol	42	6.847	6.847	(0.862)	49456	100.000	118.6
67 1,4-Dioxane	88	8.646	8.646	(1.089)	6704	100.000	99.59
* 88 Chlorobenzene-d5	82	11.056	11.056	(1.000)	403955	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.446	13.446	(1.000)	400007	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.892	11.892	(0.884)	16529	5.00000	5.357(a)
100 cis-1,4-Dichloro-2-butene	53	12.207	12.207	(0.908)	11780	5.00000	4.644(a)

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALI.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

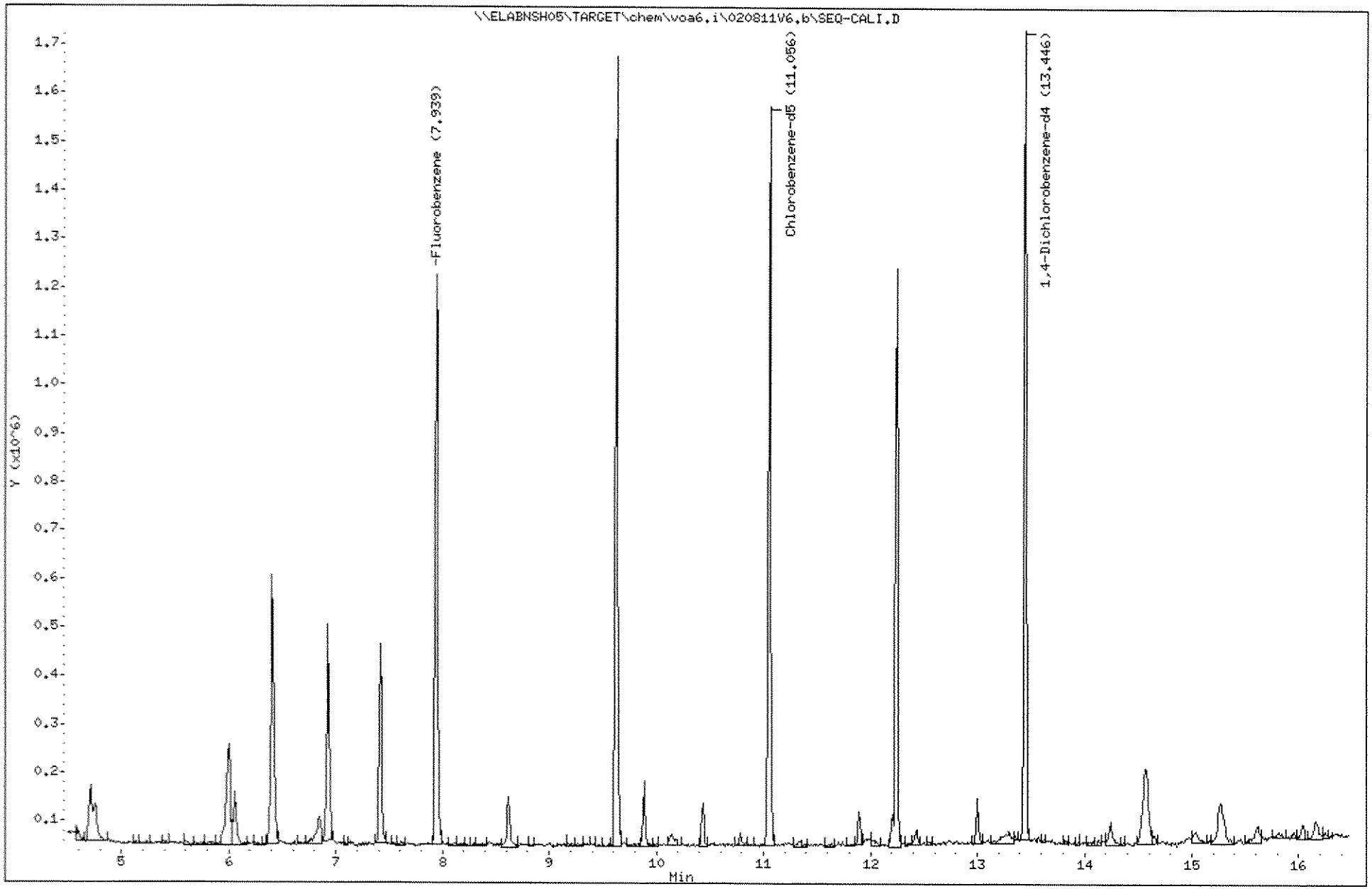
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\SEQ-CALI.D
Date : 09-FEB-2011 16:45
Client ID:
Sample Info: SEQ-CALI;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALJ.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALJ.D
Lab Smp Id: SEQ-CALJ
Inj Date : 09-FEB-2011 17:09
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALJ;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 22 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.938	7.938	(1.000)	905030	30.0000	
10 Acetonitrile	41	3.846	3.846	(0.485)	88688	100.000	103.4
38 Hexane	57	5.990	5.990	(0.755)	186610	10.0000	9.546
23 Allyl chloride	76	4.692	4.692	(0.591)	32461	10.0000	7.196
35 Chloroprene	53	6.049	6.049	(0.762)	149475	10.0000	9.744
32 Propionitrile	54	5.961	5.961	(0.751)	125160	100.000	98.51
40 Methacrylonitrile	41	6.403	6.403	(0.807)	711480	100.000	100.1
48 Isobutyl alcohol	42	6.846	6.846	(0.862)	82606	200.000	199.5
67 1,4-Dioxane	88	8.646	8.646	(1.089)	11323	200.000	169.4
* 88 Chlorobenzene-d5	82	11.055	11.055	(1.000)	412293	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.445	13.445	(1.000)	397485	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.891	11.891	(0.884)	29749	10.0000	9.703(a)
100 cis-1,4-Dichloro-2-butene	53	12.206	12.206	(0.908)	22685	10.0000	9.000(a)

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALJ.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

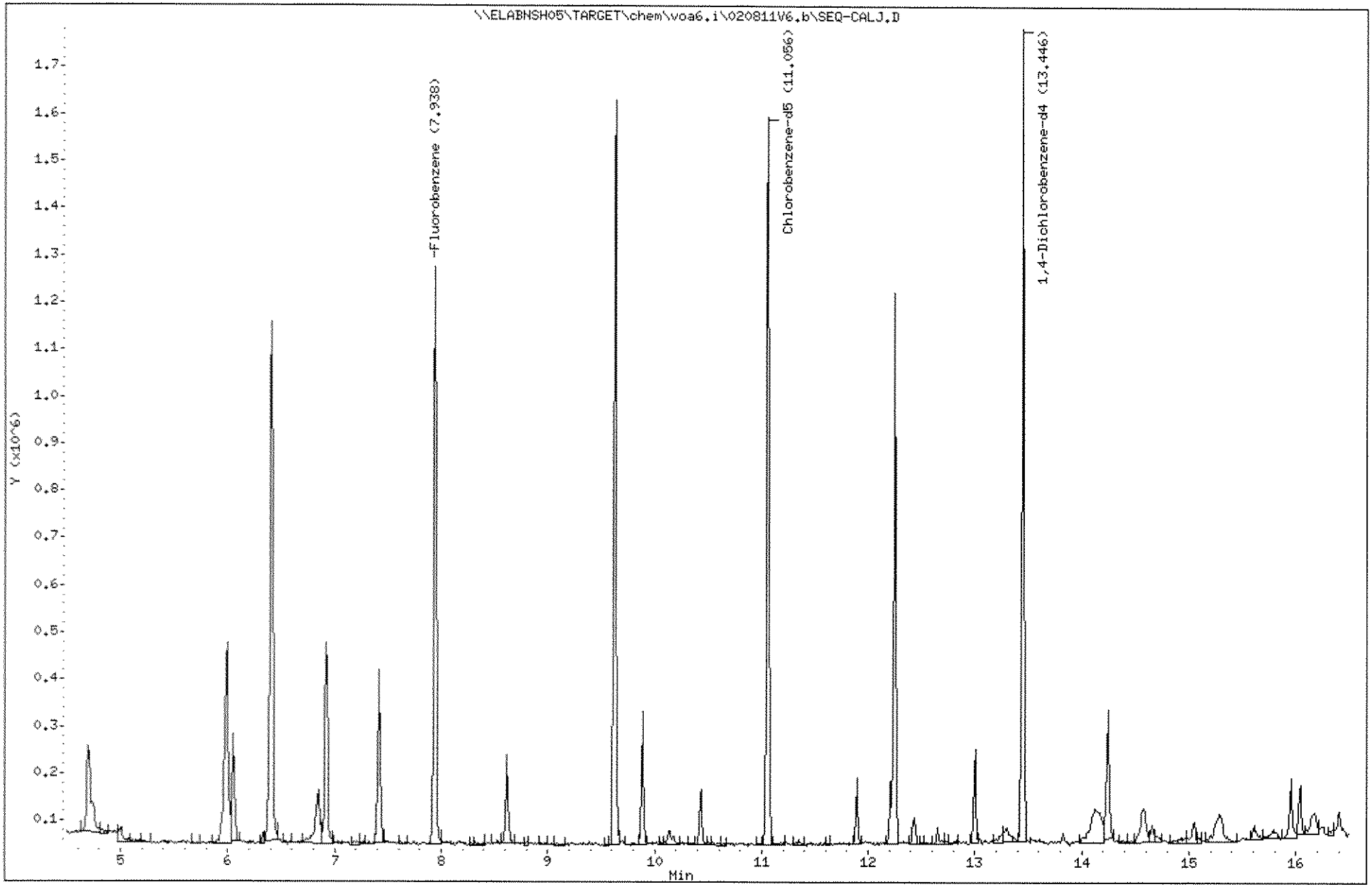
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALJ.D
Date : 09-FEB-2011 17:09
Client ID:
Sample Info: SEQ-CALJ;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALK.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALK.D
Lab Smp Id: SEQ-CALK
Inj Date : 09-FEB-2011 17:33
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALK;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 23 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.945	7.945	(1.000)	906713	30.0000	
10 Acetonitrile	41	3.863	3.863	(0.486)	176463	200.000	205.3(A)
38 Hexane	57	5.997	5.997	(0.755)	381745	20.0000	19.49
23 Allyl chloride	76	4.709	4.709	(0.593)	91875	20.0000	20.33
35 Chloroprene	53	6.056	6.056	(0.762)	300155	20.0000	19.53
32 Propionitrile	54	5.958	5.958	(0.750)	261944	200.000	205.8(A)
40 Methacrylonitrile	41	6.401	6.401	(0.806)	1404518	200.000	197.3
48 Isobutyl alcohol	42	6.843	6.843	(0.861)	168498	400.000	406.2(A)
67 1,4-Dioxane	88	8.633	8.633	(1.087)	29085	400.000	434.3(A)
* 88 Chlorobenzene-d5	82	11.053	11.053	(1.000)	405705	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	391515	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.898	11.898	(0.885)	56002	20.0000	18.54(a)
100 cis-1,4-Dichloro-2-butene	53	12.203	12.203	(0.908)	49206	20.0000	19.82(a)

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALK.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

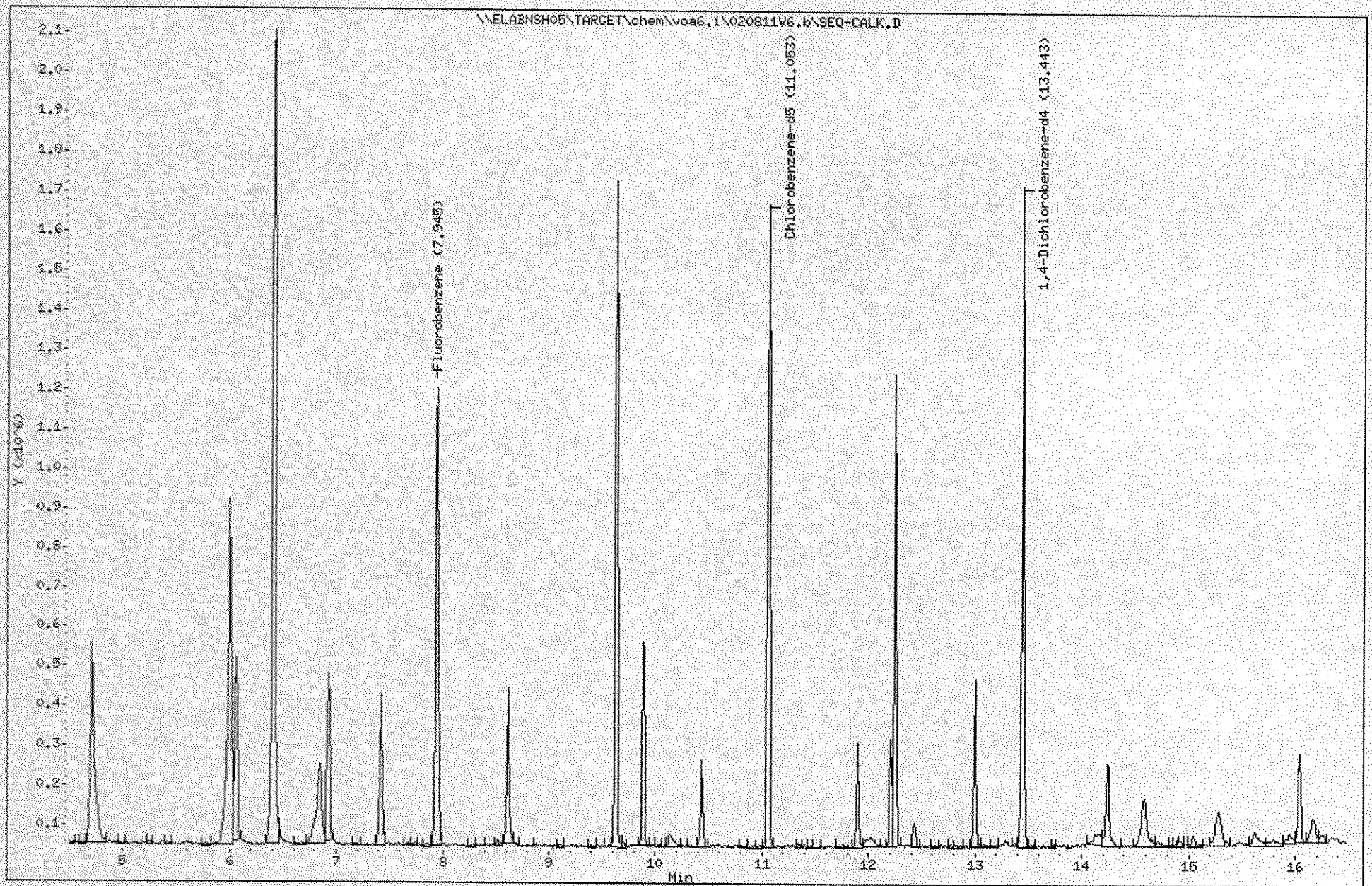
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALK.D
Date : 09-FEB-2011 17:33
Client ID:
Sample Info: SEQ-CALK;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALL.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALL.D
Lab Smp Id: SEQ-CALL
Inj Date : 09-FEB-2011 17:56
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALL;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 24 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.941	7.941	(1.000)	901088	30.0000	
10 Acetonitrile	41	3.860	3.860	(0.486)	361034	500.000	422.7(A)
38 Hexane	57	6.004	6.004	(0.756)	903057	50.0000	46.40
23 Allyl chloride	76	4.715	4.715	(0.594)	219527	50.0000	48.88
35 Chloroprene	53	6.063	6.063	(0.763)	701310	50.0000	45.92
32 Propionitrile	54	5.964	5.964	(0.751)	542662	500.000	429.0(A)
40 Methacrylonitrile	41	6.407	6.407	(0.807)	3212212	500.000	454.1(A)
48 Isobutyl alcohol	42	6.849	6.849	(0.863)	355334	1000.00	861.9(A)
67 1,4-Dioxane	88	8.639	8.639	(1.088)	61336	1000.00	921.7(A)
* 88 Chlorobenzene-d5	82	11.059	11.059	(1.000)	419454	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.449	13.449	(1.000)	395158	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.895	11.895	(0.884)	126814	50.0000	41.61
100 cis-1,4-Dichloro-2-butene	53	12.210	12.210	(0.908)	110290	50.0000	44.02

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALL.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

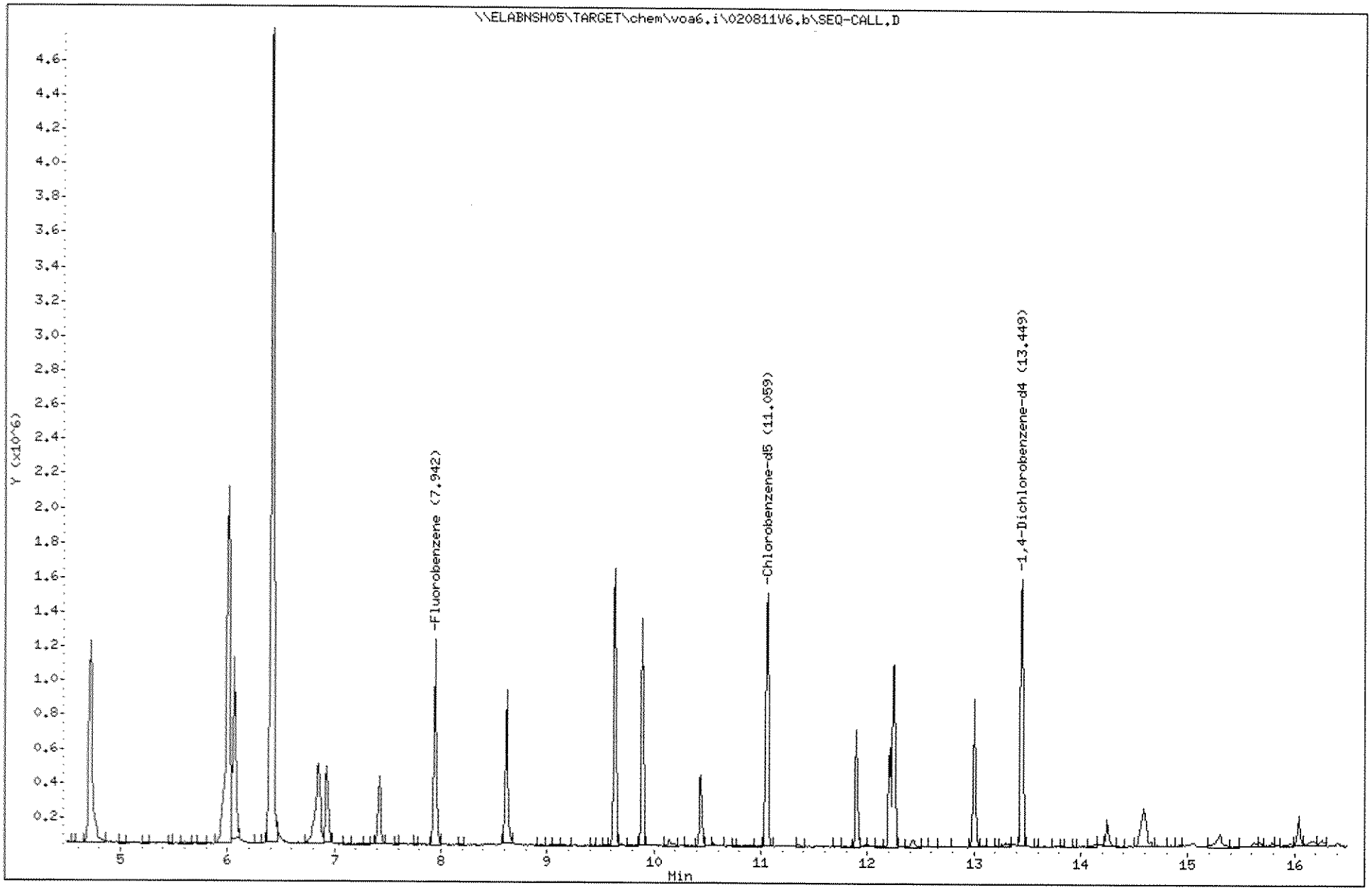
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALL.D
Date : 09-FEB-2011 17:56
Client ID:
Sample Info: SEQ-CALL;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALM.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALM.D
Lab Smp Id: SEQ-CALM
Inj Date : 09-FEB-2011 18:20
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALM;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 25 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.945	7.945	(1.000)	931900	30.0000	
10 Acetonitrile	41	3.873	3.873	(0.488)	908192	1000.00	1028(AM)
38 Hexane	57	6.017	6.017	(0.757)	2136328	100.000	106.1
23 Allyl chloride	76	4.729	4.729	(0.595)	523566	100.000	112.7
35 Chloroprene	53	6.067	6.067	(0.764)	1724043	100.000	109.1
32 Propionitrile	54	5.968	5.968	(0.751)	1213914	1000.00	927.9(A)
40 Methacrylonitrile	41	6.421	6.421	(0.808)	7443608	1000.00	1017(A)
48 Isobutyl alcohol	42	6.844	6.844	(0.861)	786795	2000.00	1845(A)
67 1,4-Dioxane	88	8.634	8.634	(1.087)	137810	2000.00	2002(A)
* 88 Chlorobenzene-d5	82	11.053	11.053	(1.000)	416817	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	399643	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.899	11.899	(0.885)	299774	100.000	97.25
100 cis-1,4-Dichloro-2-butene	53	12.204	12.204	(0.908)	255095	100.000	100.7

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALM.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

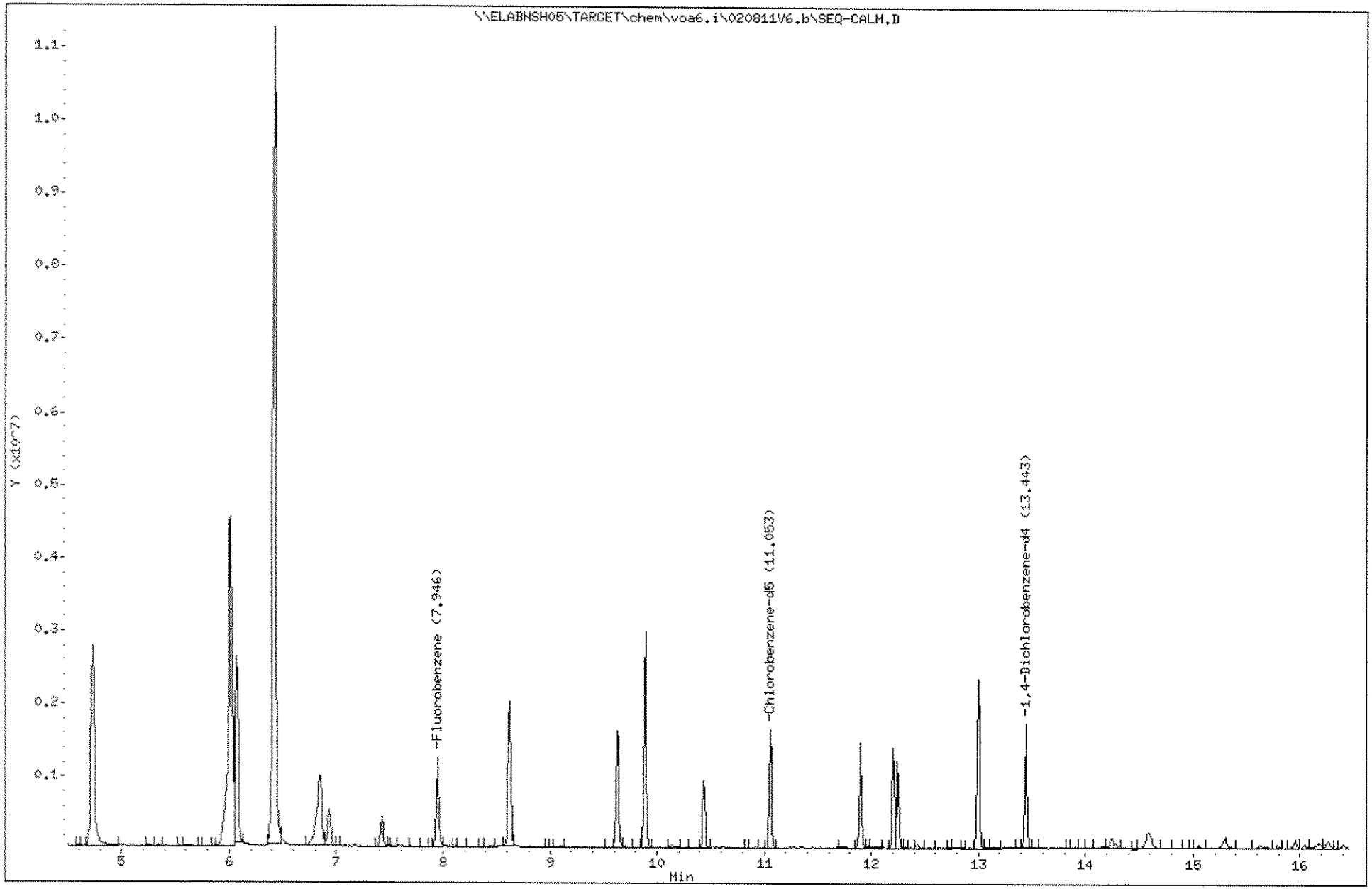
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALM.D
Date : 09-FEB-2011 18:20
Client ID:
Sample Info: SEQ-CALM;;;;;

Instrument: voa6.i

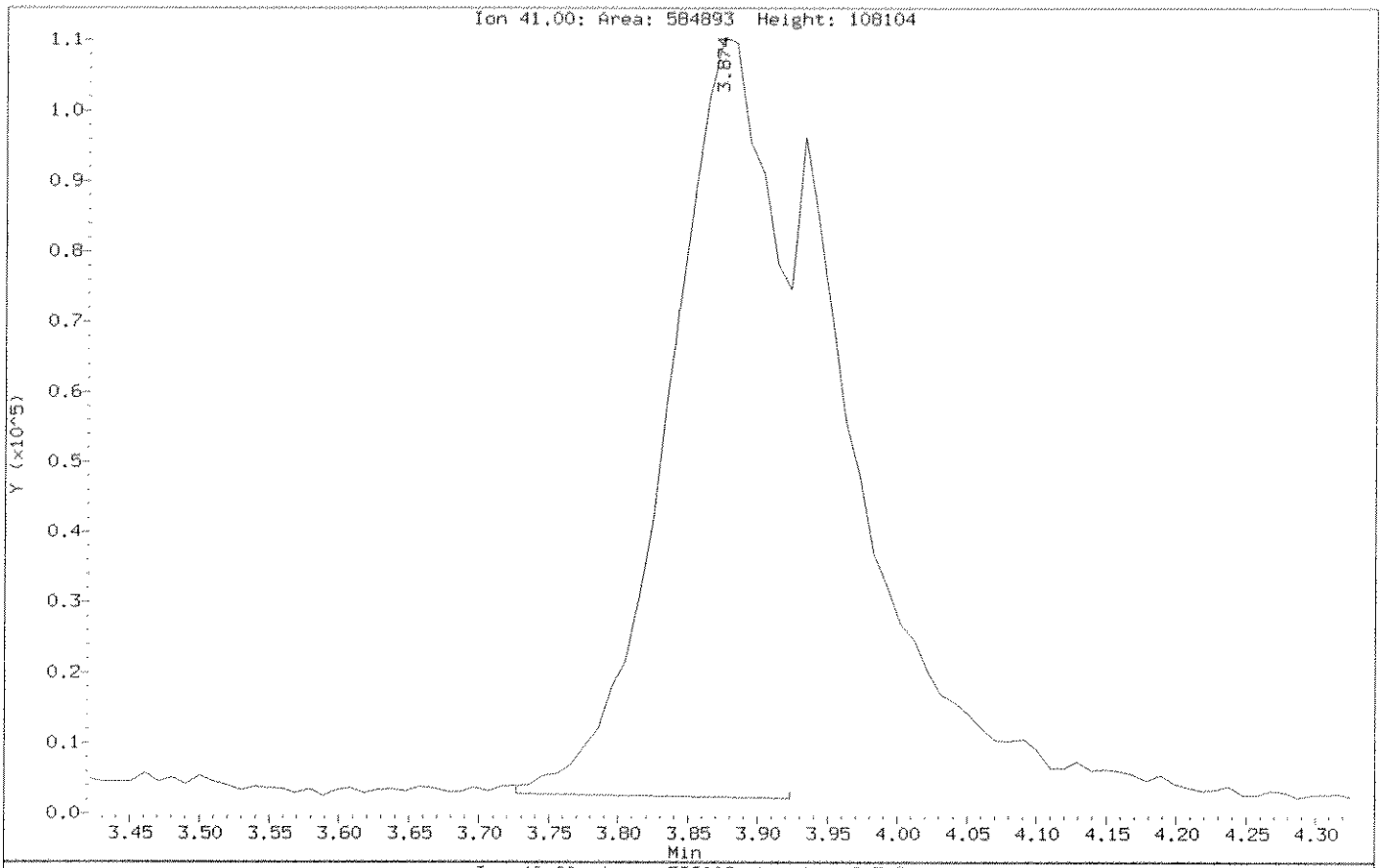
Operator: RDW
Column diameter: 0.25

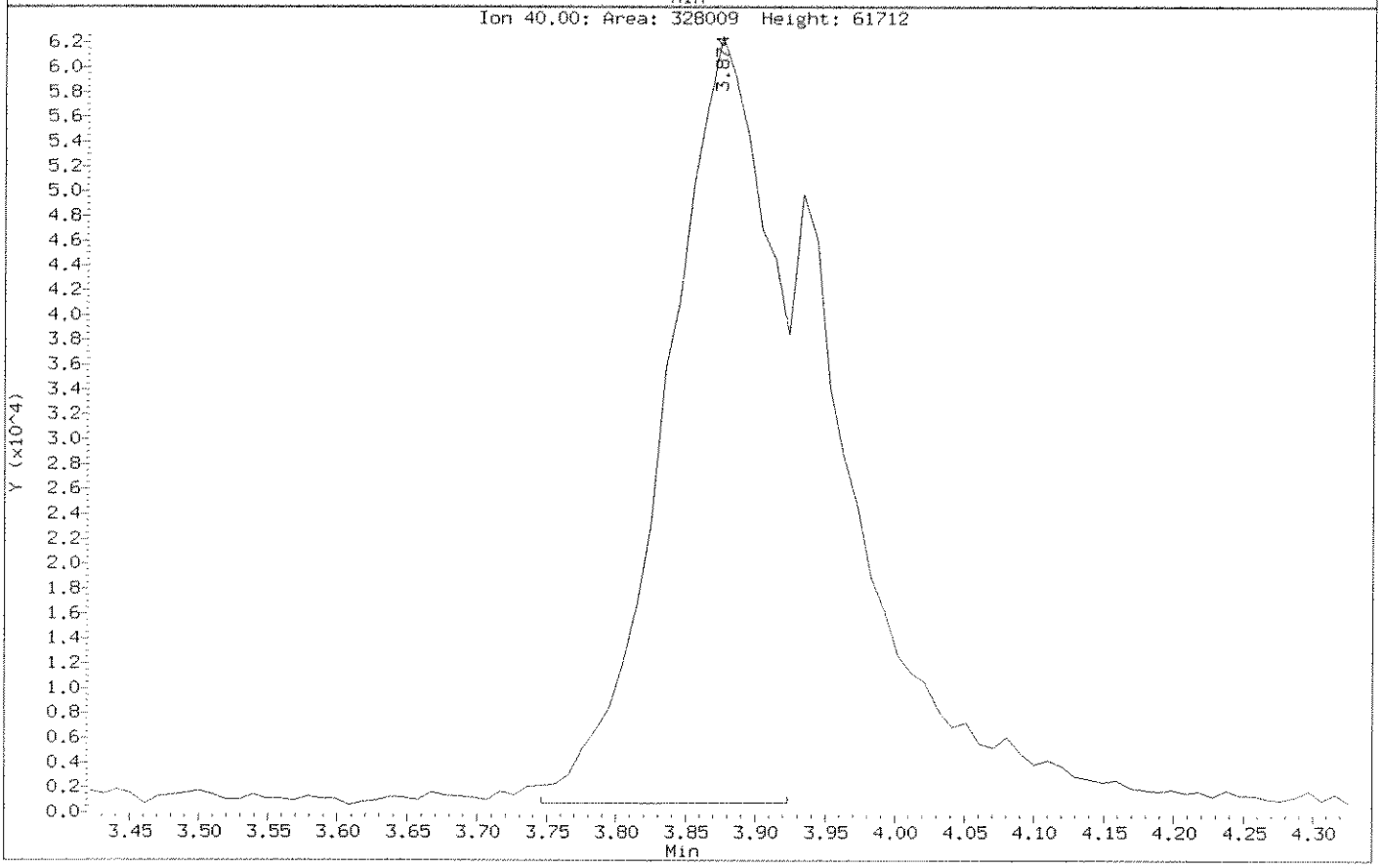
Column phase: RTX-VRX



Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\SEQ-CALM.D
Injection Date: 09-FEB-2011 18:20
Instrument: voa6.i
Client Sample ID:

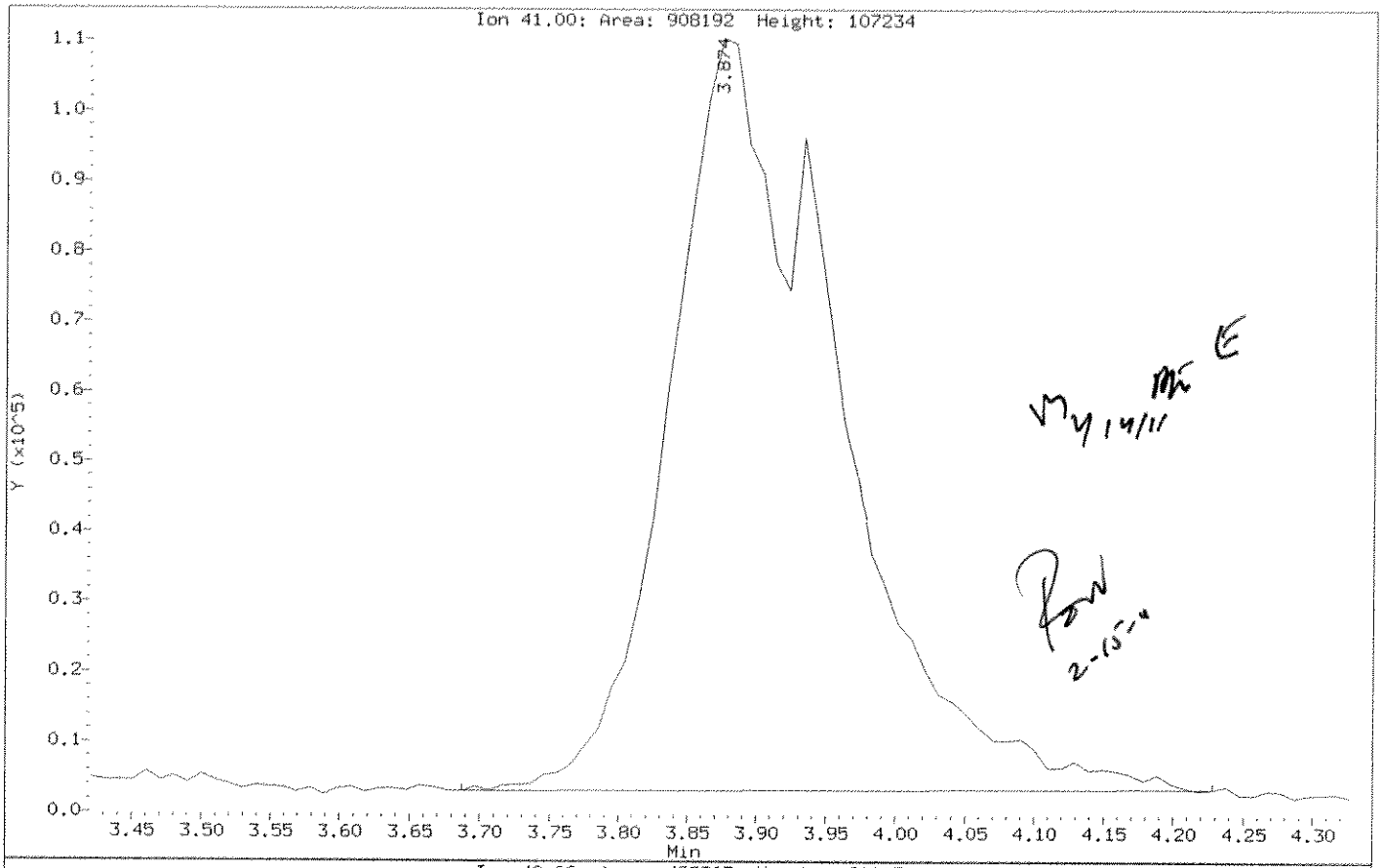
Compound: Acetonitrile
CAS Number: 75-05-8

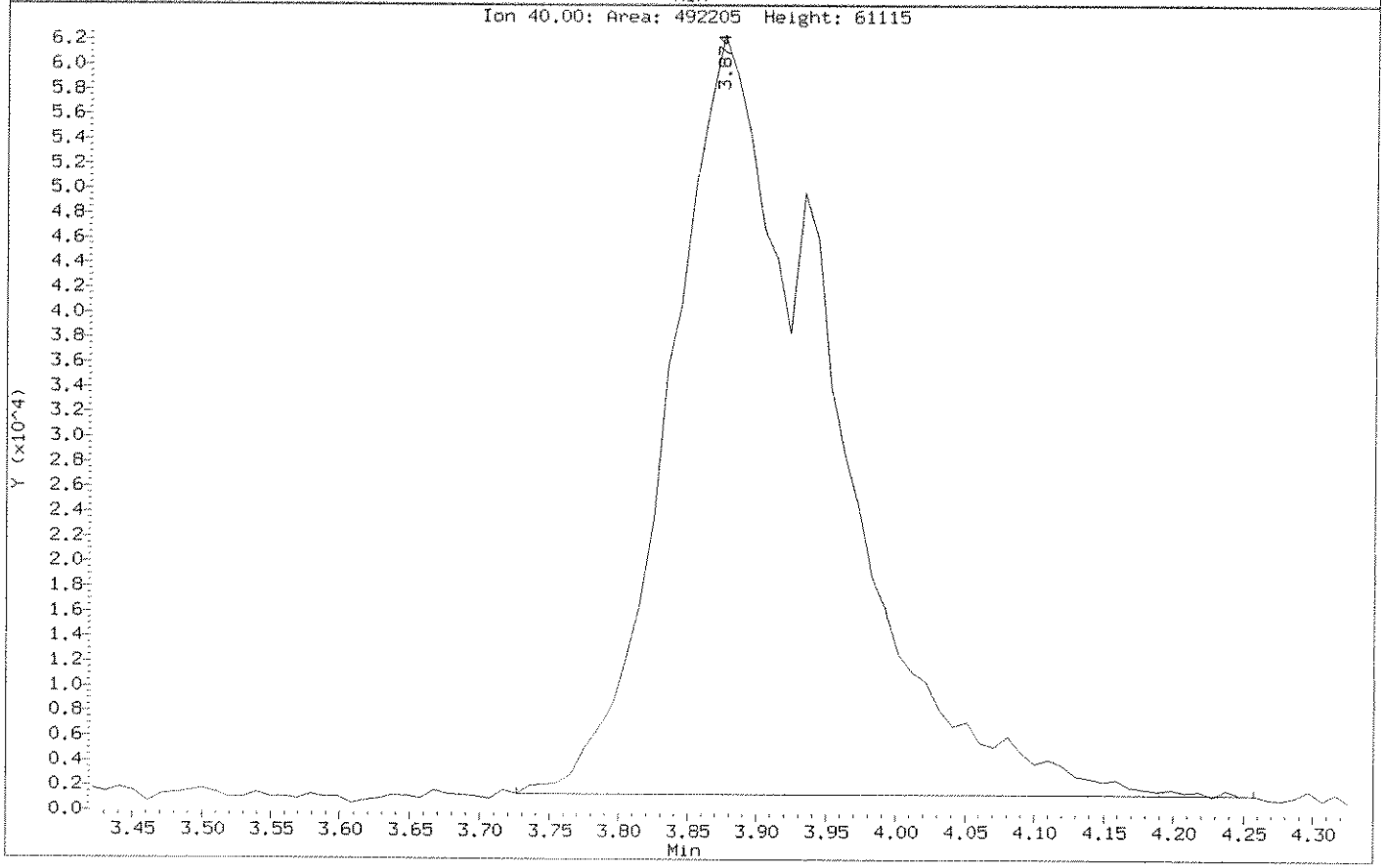




Data File: \\ELABNSHO5\TARGET\chem\voa6.i\020811V6.b\SEQ-CALM.D
Injection Date: 09-FEB-2011 18:20
Instrument: voa6.i
Client Sample ID:

Compound: Acetonitrile
CAS Number: 75-05-8





Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALN.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALN.D
Lab Smp Id: SEQ-CALN
Inj Date : 09-FEB-2011 18:44
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALN;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 16:20 Cal File: SEQ-CALH.D
Als bottle: 26 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.944	7.944	(1.000)	934000	30.0000	
10 Acetonitrile	41	3.863	3.863	(0.486)	1192527	1500.00	1347(A)
38 Hexane	57	6.007	6.007	(0.756)	3294469	150.000	163.3
23 Allyl chloride	76	4.718	4.718	(0.594)	798496	150.000	171.5
35 Chloroprene	53	6.056	6.056	(0.762)	2706714	150.000	171.0
32 Propionitrile	54	5.967	5.967	(0.751)	1960132	1500.00	1495(A)
40 Methacrylonitrile	41	6.420	6.420	(0.808)	10921078	1500.00	1489(A)
48 Isobutyl alcohol	42	6.843	6.843	(0.861)	1230488	3000.00	2879(A)
67 1,4-Dioxane	88	8.633	8.633	(1.087)	211739	3000.00	3070(A)
* 88 Chlorobenzene-d5	82	11.052	11.052	(1.000)	415502	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.442	13.442	(1.000)	399342	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.898	11.898	(0.885)	465376	150.000	151.1
100 cis-1,4-Dichloro-2-butene	53	12.203	12.203	(0.908)	406866	150.000	160.7

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALN.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

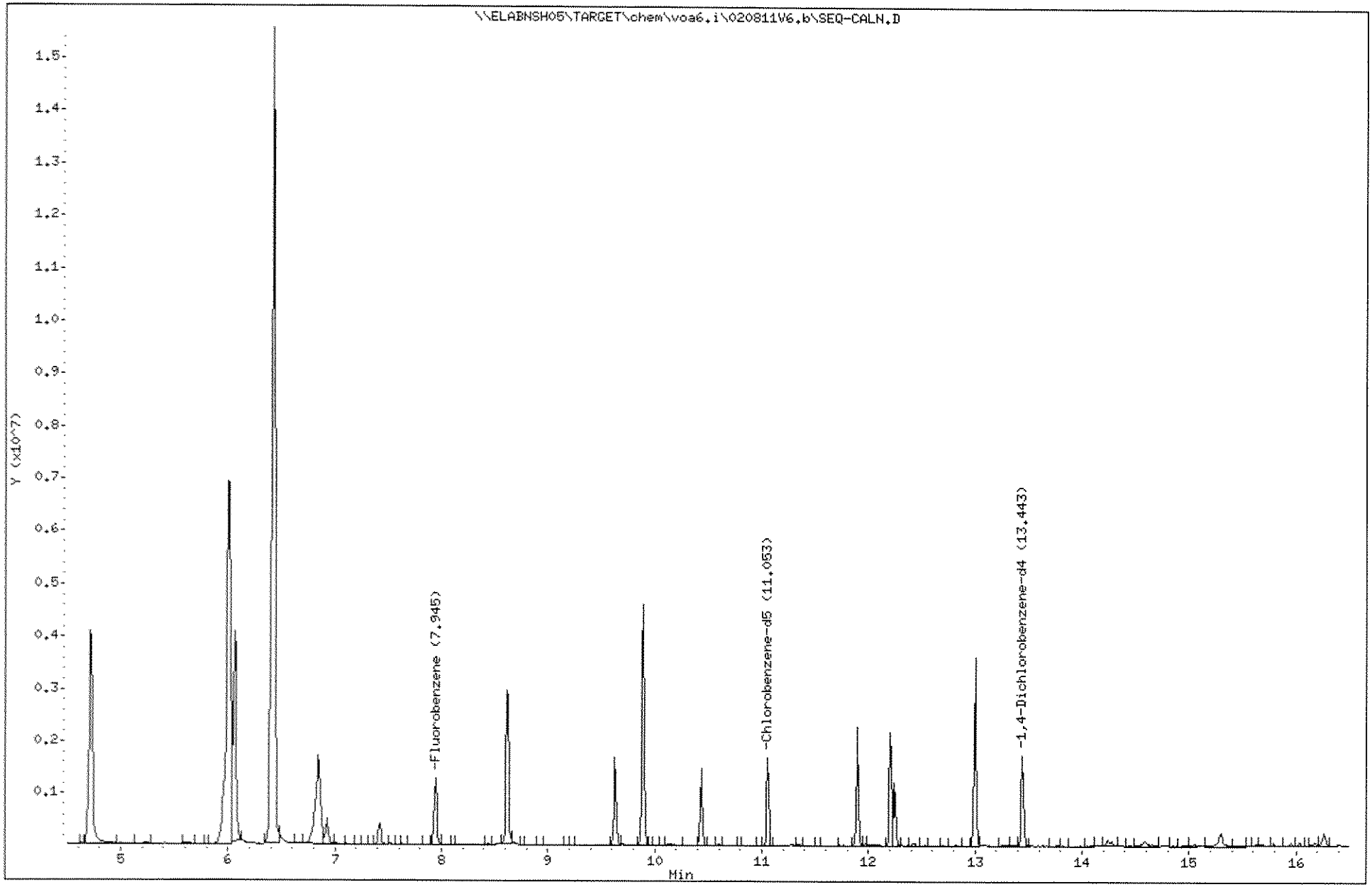
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALN.D
Date : 09-FEB-2011 18:44
Client ID:
Sample Info: SEQ-CALN;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALO.D
Report Date: 11-Feb-2011 14:14

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALO.D
Lab Smp Id: SEQ-CALO
Inj Date : 09-FEB-2011 19:08
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-CALO;;;;;
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:14 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 27 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.935	7.935	(1.000)	946376	30.0000	
10 Acetonitrile	41	3.844	3.844	(0.484)	1707132	2000.00	1903(A)
38 Hexane	57	5.988	5.988	(0.755)	4389869	200.000	214.8(A)
23 Allyl chloride	76	4.699	4.699	(0.592)	1084506	200.000	229.9(A)
35 Chloroprene	53	6.047	6.047	(0.762)	3610542	200.000	225.1(A)
32 Propionitrile	54	5.958	5.958	(0.751)	2794768	2000.00	2104(A)
40 Methacrylonitrile	41	6.420	6.420	(0.809)	14563733	2000.00	1960(A)
48 Isobutyl alcohol	42	6.843	6.843	(0.862)	1830730	4000.00	4228(A)
67 1,4-Dioxane	88	8.633	8.633	(1.088)	314584	4000.00	4501(A)
* 88 Chlorobenzene-d5	82	11.053	11.053	(1.000)	413575	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.443	13.443	(1.000)	404895	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.898	11.898	(0.885)	670143	200.000	214.6(A)
100 cis-1,4-Dichloro-2-butene	53	12.203	12.203	(0.908)	582279	200.000	226.8

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALO.D
Report Date: 11-Feb-2011 14:14

QC Flag Legend

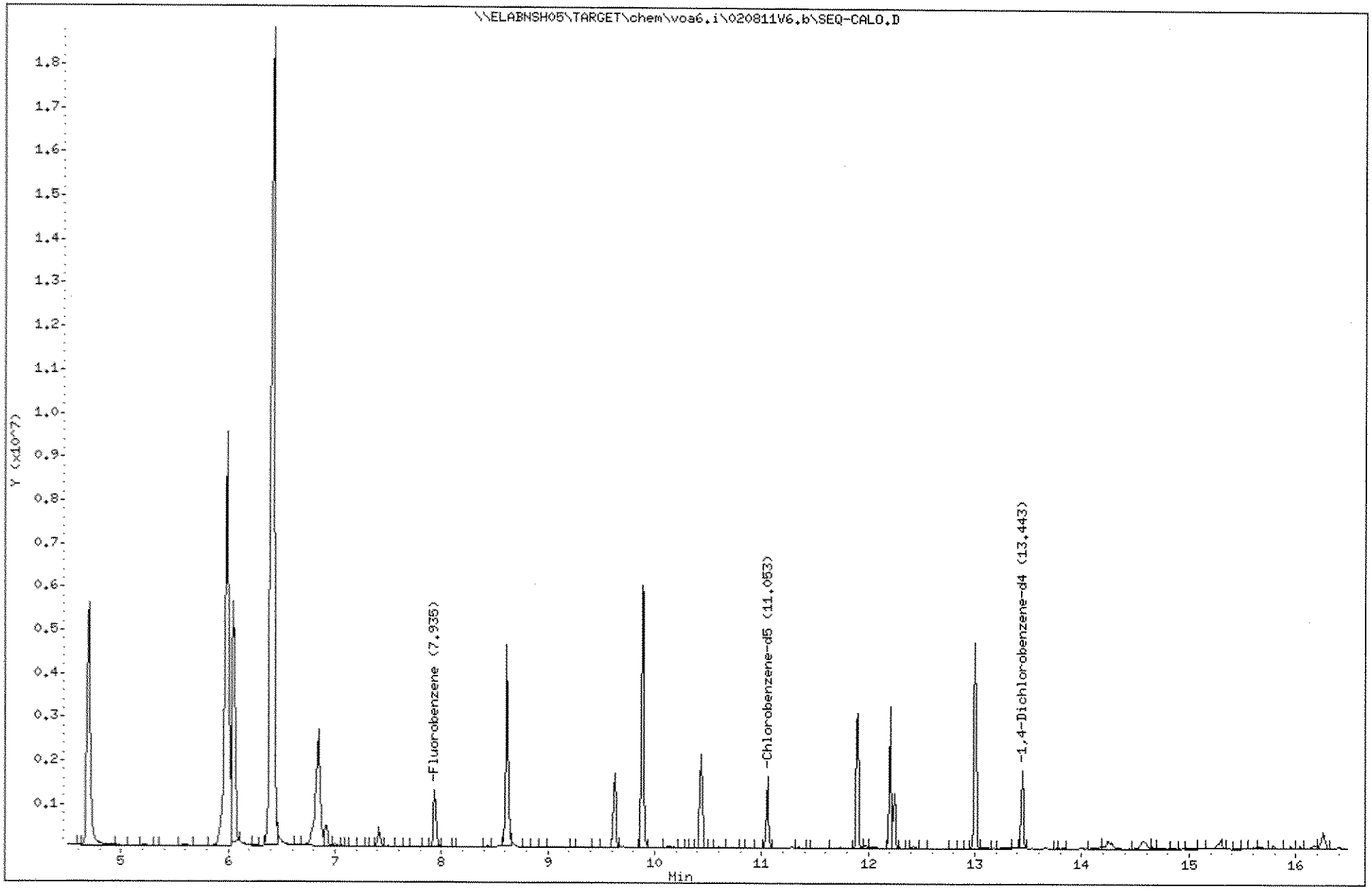
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-CALO.D
Date : 09-FEB-2011 19:08
Client ID:
Sample Info: SEQ-CALO;;;;;

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-ICV5.D
Report Date: 11-Feb-2011 16:24

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-ICV5.D
Lab Smp Id: SEQ-ICV5
Inj Date : 11-FEB-2011 14:58
Operator : RDW Inst ID: voa6.i
Smp Info : SEQ-ICV5;;;;; 100 ppb soil AP9
Misc Info : ;;;;;ap9hex.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\VSOIL6.m
Meth Date : 11-Feb-2011 14:18 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 1 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-15-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.950	7.935	(1.000)	957809	30.0000	
10 Acetonitrile	41	3.869	3.844	(0.487)	763945	841.426	841.4(A)
38 Hexane	57	6.003	5.988	(0.755)	1755441	84.8550	84.85
23 Allyl chloride	76	4.714	4.699	(0.593)	445407	93.2953	93.30
35 Chloroprene	53	6.062	6.047	(0.762)	1469640	90.5259	90.52
32 Propionitrile	54	5.973	5.958	(0.751)	1218971	906.569	906.6(A)
40 Methacrylonitrile	41	6.416	6.420	(0.807)	7173703	954.019	954.0(A)
48 Isobutyl alcohol	42	6.849	6.843	(0.861)	824770	1882.03	1882(A)
67 1,4-Dioxane	88	8.639	8.633	(1.087)	143095	2022.90	2023(A)
* 88 Chlorobenzene-d5	82	11.058	11.053	(1.000)	433942	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.448	13.443	(1.000)	412271	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.894	11.898	(0.884)	298977	94.0216	94.02
100 cis-1,4-Dichloro-2-butene	53	12.209	12.203	(0.908)	261809	100.149	100.1

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-ICV5.D
Report Date: 11-Feb-2011 16:24

QC Flag Legend

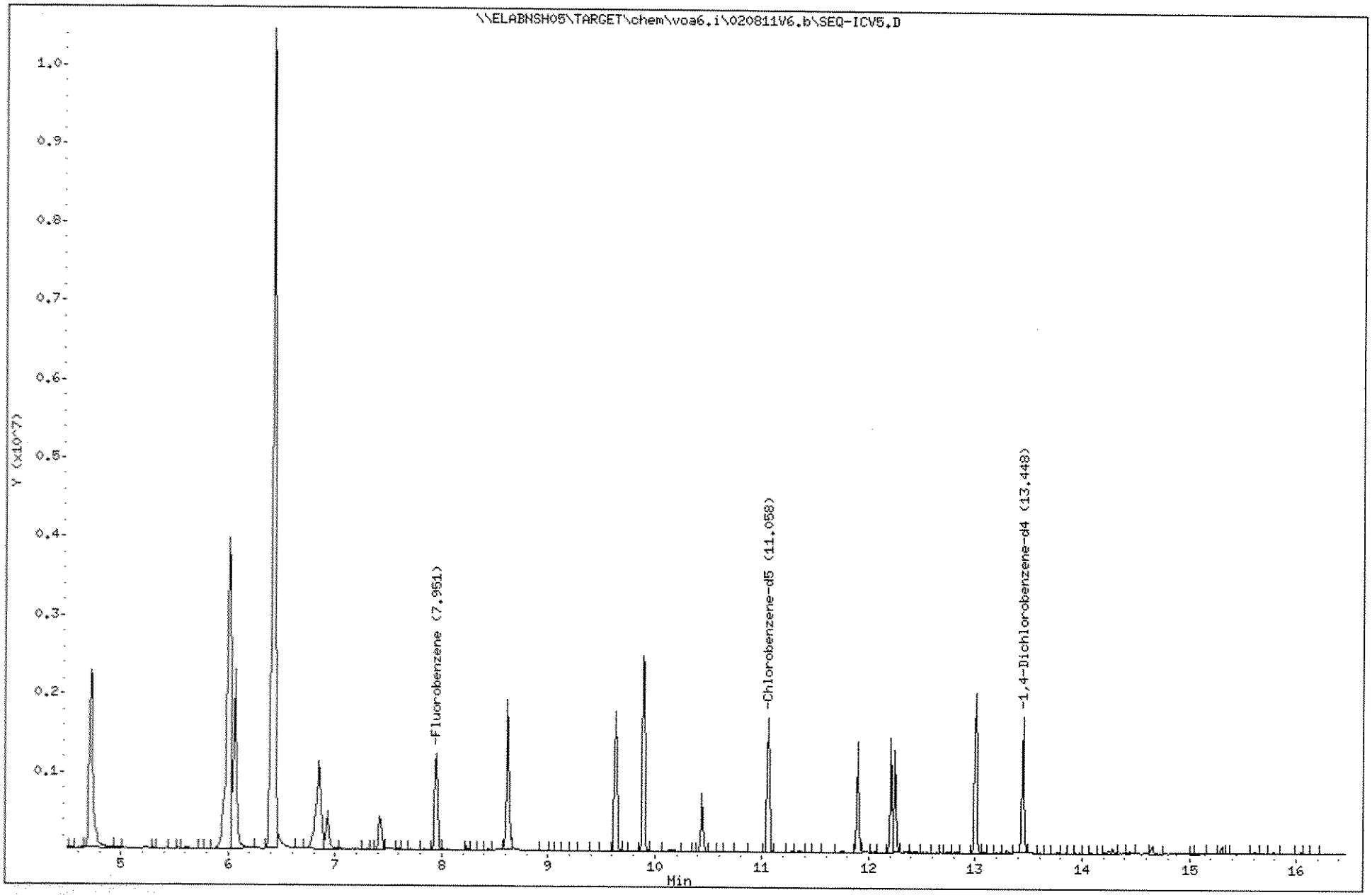
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\020811V6.b\SEQ-ICV5.D
Date : 11-FEB-2011 14:58
Client ID:
Sample Info: SEQ-ICV5;;;;; 100 ppb soil AP9

Instrument: voa6.i

Operator: RDW
Column diameter: 0.25

Column phase: RTX-VRX



177

1102180

Sequence Name: C:\HPCHEM\1\SEQUENCE\022111V6.S
Comment: 8260B
Operator: CLB
Data Path: d:\DATA\022111V6\
Pre-Seq Cmd:
Post-Seq Cmd:

M 2/24/11

038

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

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

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	48	PREBLK1	VSOIL6E	blank
2	Sample	49	PREBLK2	VSOIL6E	blank
3	Sample	50	0221TUN1	VSOIL6E	SEQ-TUN1
4	DailyCal	1	0221CCV1	VSOIL6E	SEQ-CCV1;;;;; 100ppb soil
5	DailyCal	2	0221CCV2	VSOIL6E	SEQ-CCV2;;;;; 100ppb soil
6	DailyCal	3	0221CCV1	VSOIL6E	SEQ-CCV1;;;;; 100ppb soil
7	Spike	4	0221LS1	VSOIL6E	-BS1;;;;; 50ppb soil
8	Spike	5	0221LS2	VSOIL6E	1B21008-BS2;;;;; 50ppb soi
9	Spike	6	0221RL1	VSOIL6E	SEQ-LCV1;;;;;
10	Blank	7	BLANK01	VSOIL6E	BLANK;;;;;
11	Blank	8	0221BL1	VSOIL6E	1B21008-BLK1;;;;;
12	Sample	9	0218001	VSOIL6E	1102180-01;;;;;
13	Sample	10	0216004	VSOIL6E	1102160-04;;;;;
14	Blank	11	BLANK02	VSOIL6E	BLANK2;;;;;
15	Blank	12	BLANK03	VSOIL6E	BLANK3;;;;;
16	Spike	13	0221LD1	VSOIL6E	1B21008-BSD1;;;;; 50ppb so
17	Spike	14	0221LD2	VSOIL6E	1B21008-BSD2;;;;; 50ppb so

Last Modified: Mon Feb 21 12:53:13 2011 Page: 1

ANALYSIS SEQUENCE

Instrument: MS-VOA6

1B05306

Printed: 2/22/2011 11:29:25AM

Calibration ID: 1045002

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1B05306-TUN1	;3;BFB;;;all.sub;	QC		1		10K0388		
1B05306-CCV2	;3;CCV;;;gm-all.sub;	QC		2		11A0407	11A0563	
1B05306-CCV1	;3;CCV;;;gm-all.sub;	QC		3		11B0530	11A0563	
1B21008-BS1	LCS	QC		4			11A0563	
1B21008-BS2	LCS	QC		5			11A0563	
1B21008-BLK1	Blank	QC		6			11A0563	
1102180-01	Backfilll (20110218)	VOC_8260B_AP9	E	7			11A0563	
1102160-04	DSY-SO-TB01-021111	VOC_8260B_REG	B	8			11A0563	
1B21008-BSD1	LCS Dup	QC		9			11A0563	
1B21008-BSD2	LCS Dup	QC		10			11A0563	

Samples Loaded By Date

Data Processed By Date

179

1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221TUN1.D

Date : 21-FEB-2011 09:43

Client ID: 50ppb BFB

Instrument: voa6.i

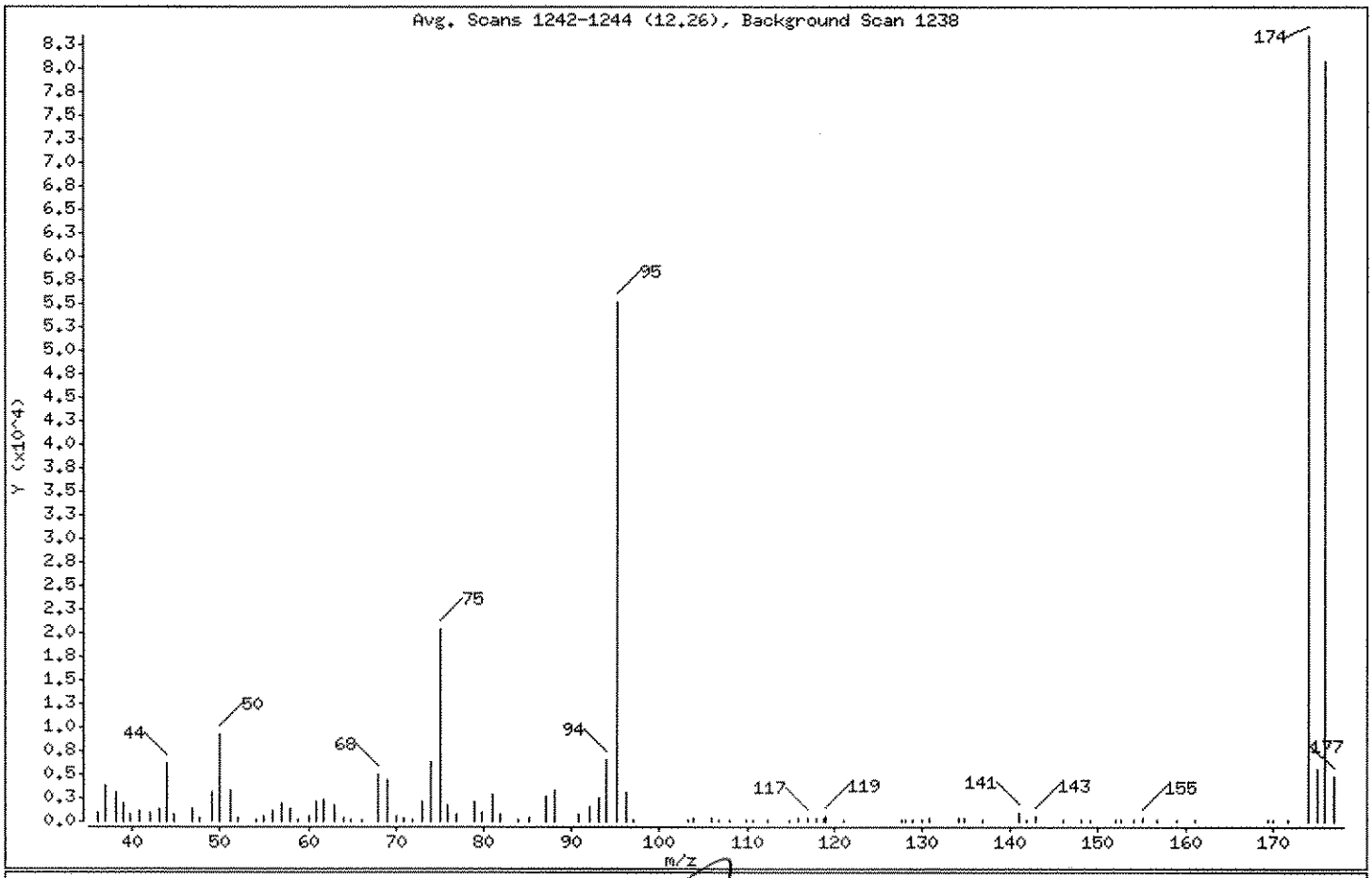
Sample Info: SEQ-TUN1

Operator: CLB

Column phase: RTX-VRX

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.70
75	30.00 - 60.00% of mass 95	36.90
96	5.00 - 9.00% of mass 95	5.65
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	151.30
175	5.00 - 9.00% of mass 174	10.22 (6.76)
176	95.00 - 101.00% of mass 174	146.56 (96.87)
177	5.00 - 9.00% of mass 176	8.69 (5.93)

2-22-11

2/21/11

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221TUN1.D

Date : 21-FEB-2011 09:43

Client ID: 50ppb BFB

Instrument: voa6.i

Sample Info: SEQ-TUN1

Operator: CLB

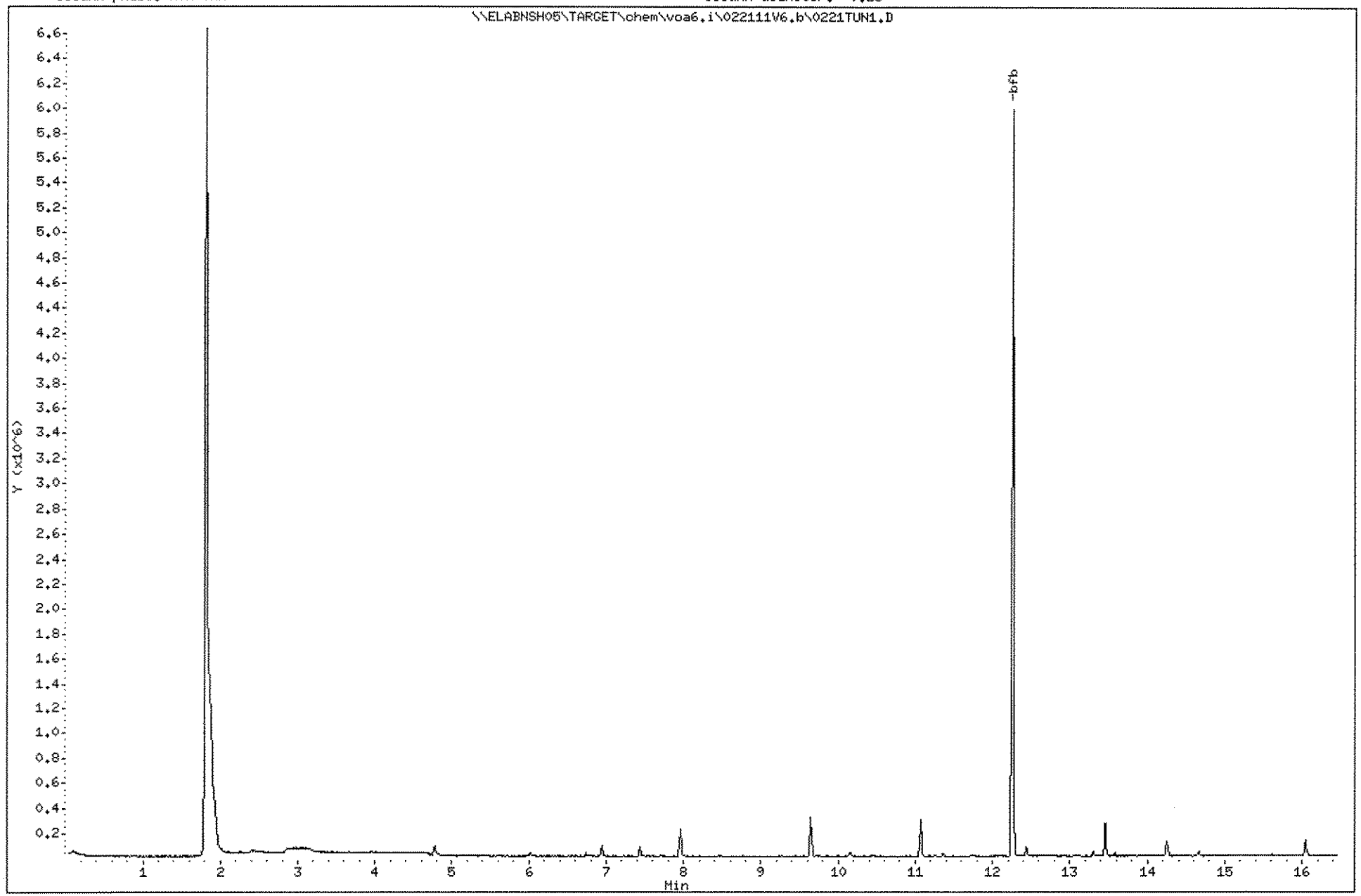
Column phase: RTX-VRX

Column diameter: 0.25

Data File: 0221TUN1.D
Spectrum: Avg. Scans 1242-1244 (12,26), Background Scan 1238
Location of Maximum: 173.95
Number of points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	906	63.10	1658	94.00	6554	134.85	346
36.95	3888	64.00	399	95.10	55160	136.85	228
38.05	3074	64.90	230	96.10	3116	141.00	1002
38.95	1921	66.20	204	97.05	209	141.85	197
39.85	758	67.95	5025	103.30	161	142.75	624
40.90	1179	69.05	4503	103.95	478	145.90	193
42.10	1002	69.95	602	105.95	431	148.10	172
43.10	1260	70.90	320	106.75	234	149.05	270
43.90	6167	71.90	217	108.00	160	152.05	186
44.85	682	72.90	2024	109.90	241	152.70	152
46.85	1285	74.05	6439	110.80	152	154.10	157
47.75	453	75.05	20352	112.45	185	155.00	314
49.00	3020	75.95	1721	114.75	161	156.75	172
50.00	9211	76.95	697	115.90	381	159.05	177
51.10	3335	78.90	2149	117.00	455	161.00	163
51.95	337	79.90	915	118.00	309	169.50	184
54.15	156	81.00	2961	118.70	414	170.10	202
54.95	605	81.95	707	119.05	514	171.65	260
56.00	1247	84.05	166	121.15	245	173.95	83456
57.00	1979	85.10	320	127.65	205	174.90	5639
58.00	1430	87.00	2735	128.05	232	175.90	80840
58.95	167	88.00	3177	129.05	155	176.90	4793
60.05	584	90.85	813	129.95	275		
60.85	2082	92.05	1591	130.90	331		
61.85	2311	93.00	2595	134.05	354		

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221TUN1.D
Date : 21-FEB-2011 09:43
Client ID: 50ppb BFB
Instrument: voa6.i
Sample Info: SEQ-TUN1
Operator: CLB
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV2.D
Report Date: 21-Feb-2011 11:59

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV2.D
Lab Smp Id: SEQ-CCV2 Client Smp ID: SEQ-CCV2
Inj Date : 21-FEB-2011 10:32
Operator : CLB Inst ID: voa6.i
Smp Info : SEQ-CCV2;;;;; 100ppb soil
Misc Info : ;3;CCV;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 21-Feb-2011 11:59 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap9hex.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.965	7.965	(1.000)	961096	30.0000	
10 Acetonitrile	41	3.913	3.913	(0.491)	833297	1000.00	914.7(A)
38 Hexane	57	6.028	6.028	(0.757)	1963302	100.000	94.58
23 Allyl chloride	76	4.749	4.749	(0.596)	488722	100.000	102.0
35 Chloroprene	53	6.087	6.087	(0.764)	1669645	100.000	102.5
32 Propionitrile	54	5.998	5.998	(0.753)	1239460	1000.00	918.6(A)
40 Methacrylonitrile	41	6.441	6.441	(0.809)	8105269	1000.00	1074(A)
48 Isobutyl alcohol	42	6.873	6.873	(0.863)	867788	2000.00	1973(A)
67 1,4-Dioxane	88	8.654	8.654	(1.086)	124323	2000.00	1752(A)
* 88 Chlorobenzene-d5	82	11.073	11.073	(1.000)	427569	30.0000	
* 113 1,4-Dichlorobenzene-d4	152	13.463	13.463	(1.000)	377809	30.0000	
99 trans-1,4-Dichloro-2-butene	53	11.909	11.909	(0.885)	328301	100.000	112.7
100 cis-1,4-Dichloro-2-butene	53	12.224	12.224	(0.908)	287752	100.000	120.1

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV2.D
Report Date: 21-Feb-2011 11:59

QC Flag Legend

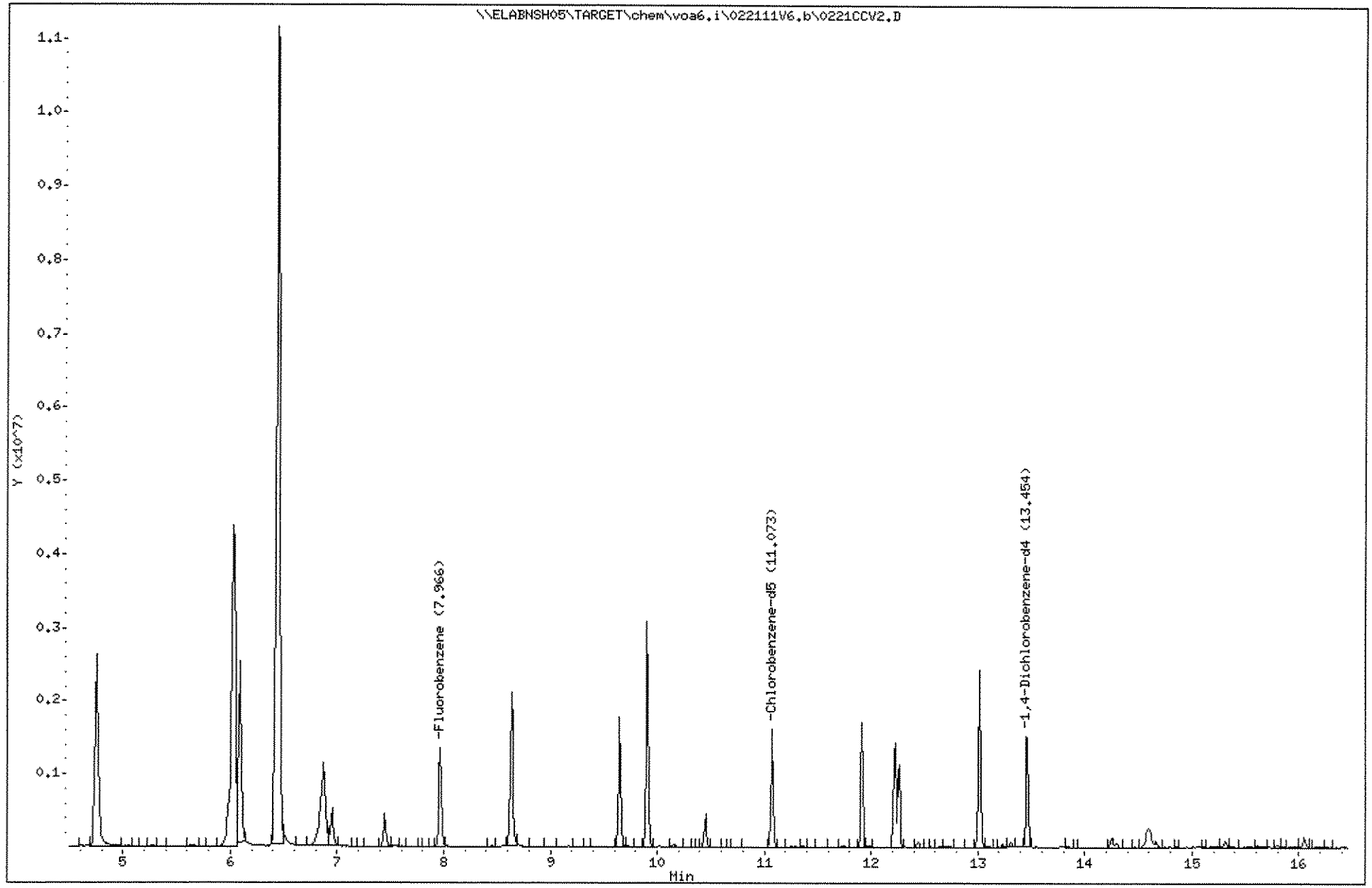
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV2.D
Date : 21-FEB-2011 10:32
Client ID: SEQ-CCV2
Sample Info: SEQ-CCV2;;;;; 100ppb soil

Column phase: RTX-VRX

Instrument: voa6.i

Operator: CLB
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV1.D
Report Date: 21-Feb-2011 12:01

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV1.D
Lab Smp Id: SEQ-CCV1 Client Smp ID: SEQ-CCV1
Inj Date : 21-FEB-2011 11:35
Operator : CLB Inst ID: voa6.i
Smp Info : SEQ-CCV1;;;;; 100ppb soil
Misc Info : ;3;CCV;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 21-Feb-2011 12:01 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gm-all.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
* 60 Fluorobenzene	96	7.969	7.969	(1.000)	997391	30.0000	
1 Dichlorodifluoromethane	85	2.039	2.039	(0.256)	1088306	100.000	119.3
4 Chloromethane	50	2.255	2.255	(0.283)	1368547	100.000	109.8
5 Vinyl chloride	62	2.413	2.413	(0.303)	617080	100.000	98.30
6 Bromomethane	94	2.875	2.875	(0.361)	624787	100.000	199.6
7 Chloroethane	64	3.003	3.003	(0.377)	299878	100.000	108.0
9 Trichlorofluoromethane	101	3.524	3.524	(0.442)	1455263	100.000	102.1
21 Trichlorotrifluoroethane	101	4.389	4.389	(0.551)	913314	100.000	106.7
8 Acrolein	56	3.721	3.721	(0.467)	819745	500.000	803.4
12 Acetone	43	3.839	3.839	(0.482)	597378	200.000	236.2
15 1,1-Dichloroethene	96	4.311	4.311	(0.541)	770455	100.000	113.9
16 Iodomethane	142	4.507	4.507	(0.566)	1200133	100.000	119.5
17 Acrylonitrile	53	4.675	4.675	(0.587)	1937730	500.000	592.0
20 Methylene chloride	84	4.793	4.793	(0.601)	979902	100.000	96.11
24 t-Butyl alcohol	59	4.468	4.468	(0.561)	524610	500.000	590.8

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV1.D
Report Date: 21-Feb-2011 12:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
25	Carbon disulfide	76	4.842	4.842	(0.608)	2928995	100.000	97.51
26	tert-Amyl alcohol	59	7.153	7.153	(0.898)	542451	500.000	624.7
28	trans-1,2-Dichloroethene	96	5.452	5.452	(0.684)	978238	100.000	103.9
30	MTBE	73	5.452	5.452	(0.684)	2238541	100.000	112.2
31	1,1-Dichloroethane	63	5.825	5.825	(0.731)	1916692	100.000	98.25
33	Vinyl acetate	43	5.894	5.894	(0.740)	3413610	200.000	231.6
36	2-Butanone	43	6.268	6.268	(0.787)	1405693	200.000	255.1
39	cis-1,2-Dichloroethene	96	6.524	6.524	(0.819)	1013490	100.000	96.20
41	Di-Isopropyl Ether	45	6.189	6.189	(0.777)	5921448	100.000	108.0
M 18	1,2-Dichloroethene(total)	96				1991728	200.000	200.2
43	Bromochloromethane	128	6.809	6.809	(0.854)	458439	100.000	93.80
44	Chloroform	83	6.779	6.779	(0.851)	1648349	100.000	102.2
45	ETBE	59	6.652	6.652	(0.835)	3633034	100.000	107.7
46	2,2-Dichloropropane	77	6.632	6.632	(0.832)	1224264	100.000	108.0
$ 47	Dibromofluoromethane	111	6.947	6.947	(0.872)	288636	30.0000	29.02
22	Methyl acetate	43	4.665	4.665	(0.585)	979155	100.000	125.6
50	Tetrahydrofuran	42	6.986	6.986	(0.877)	419451	100.000	125.6
55	Cyclohexane	56	7.606	7.606	(0.954)	2363022	100.000	103.6
$ 51	1,2-Dichloroethane-d4	102	7.438	7.438	(0.933)	56188	30.0000	29.20
52	1,2-Dichloroethane	62	7.537	7.537	(0.946)	1066314	100.000	109.3
53	1,1,1-Trichloroethane	97	7.340	7.340	(0.921)	1234315	100.000	107.7
54	1,1-Dichloropropene	75	7.556	7.556	(0.948)	1303069	100.000	101.3
56	Carbon tetrachloride	117	7.674	7.674	(0.963)	1149422	100.000	109.9
57	Benzene	78	7.704	7.704	(0.967)	3676595	100.000	99.34
59	tert-Amyl Methyl Ether	73	7.891	7.891	(0.990)	2702730	100.000	106.0
62	Dibromomethane	93	8.619	8.619	(1.081)	589352	100.000	102.8
63	1,2-Dichloropropane	63	8.510	8.510	(1.068)	1233810	100.000	100.8
64	Trichloroethene	95	8.461	8.461	(1.062)	1025832	100.000	99.97
65	Bromodichloromethane	83	8.678	8.678	(1.089)	1150533	100.000	106.1
66	Methyl methacrylate	41	7.606	7.606	(0.954)	1716620	100.000	109.5
68	tert-Amyl Ethyl Ether	59	8.766	8.766	(1.100)	3156166	100.000	107.3
69	2-Chloroethyl vinyl ether	63	9.032	9.032	(1.133)	934352	200.000	161.2
73	cis-1,3-Dichloropropene	75	9.248	9.248	(1.160)	1520530	100.000	103.7
75	4-Methyl-2-pentanone	43	9.179	9.179	(1.152)	3264035	200.000	249.5
76	trans-1,3-Dichloropropene	75	9.720	9.720	(0.878)	1212277	100.000	112.1
77	1,1,2-Trichloroethane	83	9.877	9.877	(0.892)	691354	100.000	103.0
$ 78	Toluene-d8	98	9.651	9.651	(0.872)	917267	30.0000	29.77
79	Toluene	92	9.720	9.720	(0.878)	2367688	100.000	103.3
81	1,3-Dichloropropane	76	10.084	10.084	(0.911)	1278035	100.000	108.0
80	Ethyl methacrylate	69	9.907	9.907	(0.895)	1326258	100.000	114.0
82	2-Hexanone	43	10.025	10.025	(0.906)	2339222	200.000	260.6
83	Dibromochloromethane	129	10.340	10.340	(0.934)	887635	100.000	113.7
84	1,2-Dibromoethane	107	10.556	10.556	(0.954)	773107	100.000	102.7
70	Methyl cyclohexane	83	8.835	8.835	(1.109)	1763481	100.000	103.4
85	Tetrachloroethene	166	10.458	10.458	(0.945)	906789	100.000	101.2
86	1,1,1,2-Tetrachloroethane	131	11.146	11.146	(1.007)	937949	100.000	103.3
87	1-Chlorohexane	91	11.077	11.077	(1.001)	2971779	100.000	99.86

Data File: \\ELABNSH05\TARGET\chem\voa6.1\022111V6.b\0221CCV1.D
Report Date: 21-Feb-2011 12:01

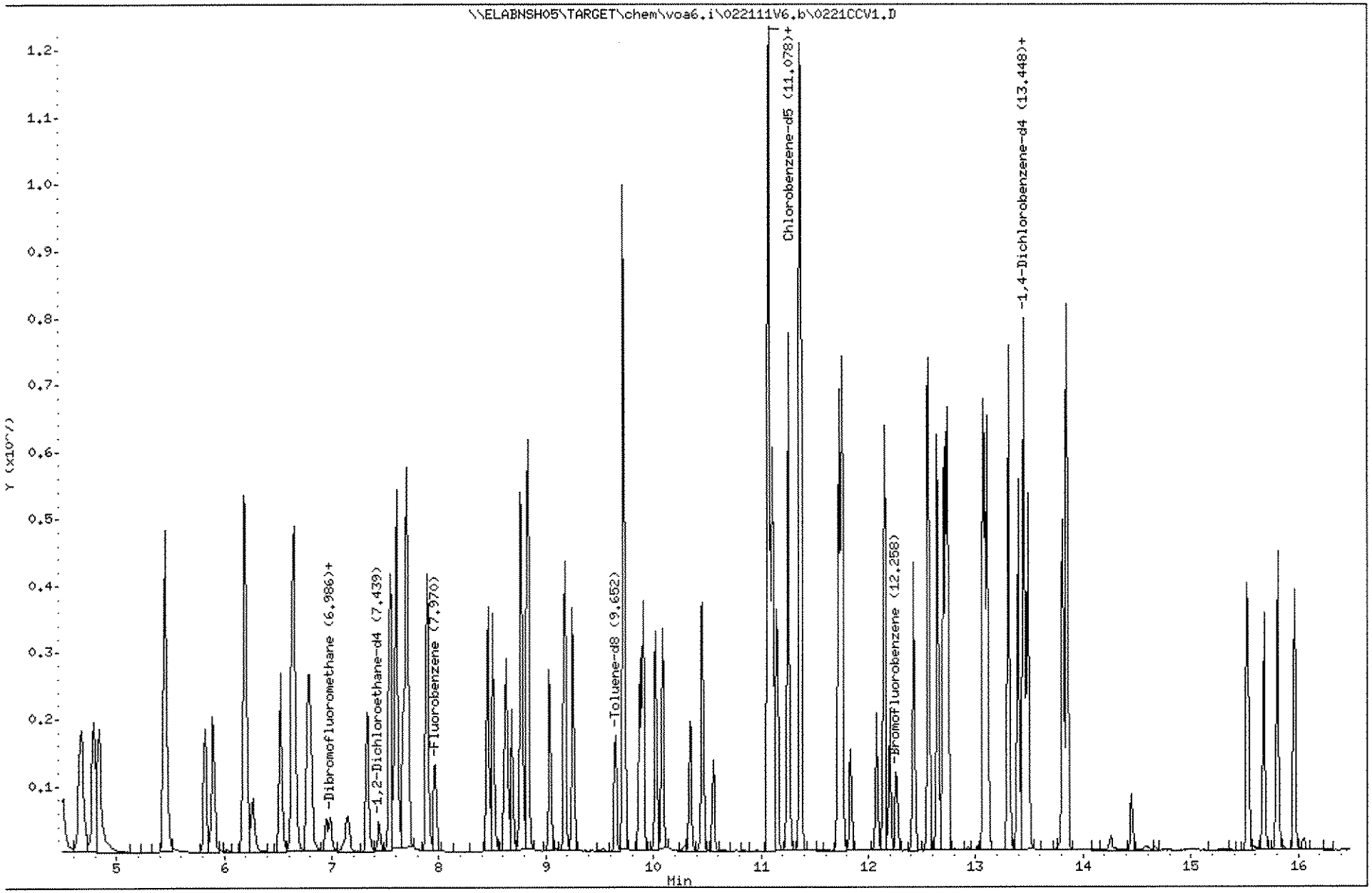
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
*	88	Chlorobenzene-d5	82	11.067	11.067	(1.000)	430271	30.0000	
	89	Chlorobenzene	112	11.107	11.107	(1.004)	2670510	100.000	100.1
	93	Bromoform	173	11.835	11.835	(1.069)	594739	100.000	125.6
	90	Ethylbenzene	91	11.254	11.254	(1.017)	4832180	100.000	105.0
	91	m,p-Xylene	91	11.363	11.363	(1.027)	7046573	200.000	211.7
M	97	Xylene(total)	91				10700065	300.000	318.0
	95	o-Xylene	91	11.756	11.756	(1.062)	3653492	100.000	106.3
	94	Styrene	104	11.726	11.726	(1.060)	2857140	100.000	103.4
	96	1,1,2,2-Tetrachloroethane	83	12.080	12.080	(0.898)	1074387	100.000	112.2
	98	1,2,3-Trichloropropane	110	12.199	12.199	(1.102)	231918	100.000	114.6
	101	Isopropylbenzene	105	12.149	12.149	(1.098)	3740506	100.000	105.5
$	102	Bromofluorobenzene	95	12.258	12.258	(1.108)	359155	30.0000	29.85
	103	Bromobenzene	156	12.425	12.425	(0.923)	1008850	100.000	101.6
	104	n-Propylbenzene	91	12.562	12.562	(0.933)	5696094	100.000	108.1
	105	2-Chlorotoluene	91	12.641	12.641	(0.939)	3142647	100.000	107.5
	106	4-Chlorotoluene	91	12.710	12.710	(0.944)	3542349	100.000	109.8
	107	1,3,5-Trimethylbenzene	105	12.739	12.739	(0.947)	3433627	100.000	109.1
	109	tert-Butylbenzene	119	13.074	13.074	(0.971)	3195436	100.000	107.5
	110	1,2,4-Trimethylbenzene	105	13.103	13.103	(0.974)	3404519	100.000	108.1
	111	sec-Butylbenzene	105	13.310	13.310	(0.989)	4861182	100.000	106.8
	112	1,3-Dichlorobenzene	146	13.398	13.398	(0.996)	1835962	100.000	101.8
*	113	1,4-Dichlorobenzene-d4	152	13.457	13.457	(1.000)	415621	30.0000	
	115	1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	1838268	100.000	100.8
	114	p-Isopropyltoluene	119	13.448	13.448	(0.999)	3476955	100.000	107.7
	116	1,2-Dichlorobenzene	146	13.811	13.811	(1.026)	1691959	100.000	102.4
	117	n-Butylbenzene	91	13.851	13.851	(1.029)	4123508	100.000	107.8
	118	1,2-Dibromo-3-chloropropane	157	14.451	14.451	(1.074)	186653	100.000	121.3
	119	1,2,4-Trichlorobenzene	180	15.533	15.533	(1.154)	1079450	100.000	98.21
	120	Naphthalene	128	15.680	15.680	(1.165)	2317679	100.000	104.4
	121	Hexachlorobutadiene	225	15.808	15.808	(1.175)	691391	100.000	105.4
	122	1,2,3-Trichlorobenzene	180	15.965	15.965	(1.186)	972052	100.000	100.0

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221CCV1.D
Date : 21-FEB-2011 11:35
Client ID: SEQ-CCV1
Sample Info: SEQ-CCV1;;;;; 100ppb soil

Instrument: voa6.i

Operator: CLB
Column diameter: 0.25

Column phase: RTX-VRX



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS1.D
Report Date: 22-Feb-2011 11:17

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS1.D
Lab Smp Id: 1B21008-BS1 Client Smp ID: 1B21008-BS1
Inj Date : 21-FEB-2011 12:15
Operator : CLB Inst ID: voa6.i
Smp Info : 1B21008-BS1;;;;; 50ppb soil
Misc Info : ;3;LCS;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 22-Feb-2011 11:16 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gm-all.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.965	7.969	(1.000)	986387	30.0000	
1 Dichlorodifluoromethane	85	2.035	2.039	(0.255)	602253	66.7767	66.78
4 Chloromethane	50	2.261	2.255	(0.284)	764434	62.0064	62.01
5 Vinyl chloride	62	2.418	2.413	(0.304)	393173	63.3281	63.33(R)
6 Bromomethane	94	2.871	2.875	(0.360)	179783	58.0704	58.07
7 Chloroethane	64	3.008	3.003	(0.378)	162848	59.2831	59.28
9 Trichlorofluoromethane	101	3.530	3.524	(0.443)	737452	52.3157	52.32
21 Trichlorotrifluoroethane	101	4.395	4.389	(0.552)	472166	55.7793	55.78
8 Acrolein	56	3.726	3.721	(0.468)	321343	318.440	318.4
12 Acetone	43	3.834	3.839	(0.481)	207065	82.7988	82.80
15 1,1-Dichloroethene	96	4.316	4.311	(0.542)	411971	61.5867	61.59
16 Iodomethane	142	4.513	4.507	(0.567)	624469	62.8563	62.86
17 Acrylonitrile	53	4.680	4.675	(0.588)	932606	291.723	291.7
20 Methylene chloride	84	4.798	4.793	(0.602)	531212	52.3208	52.32
24 t-Butyl alcohol	59	4.464	4.468	(0.560)	235496	268.150	268.2

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS1.D
Report Date: 22-Feb-2011 11:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	25 Carbon disulfide	76	4.847	4.842	(0.609)	1508922	52.0940	52.09
	26 tert-Amyl alcohol	59	7.149	7.153	(0.898)	253196	294.860	294.9
	28 trans-1,2-Dichloroethene	96	5.457	5.452	(0.685)	485843	52.2027	52.20
	30 MTBE	73	5.457	5.452	(0.685)	2187751	110.852	110.8(R)
	31 1,1-Dichloroethane	63	5.831	5.825	(0.732)	1004312	52.0580	52.06
	33 Vinyl acetate	43	5.900	5.894	(0.741)	1664368	114.190	114.2
	36 2-Butanone	43	6.264	6.268	(0.786)	475369	87.2423	87.24
	39 cis-1,2-Dichloroethene	96	6.529	6.524	(0.820)	515346	49.4635	49.46
	41 Di-Isopropyl Ether	45	6.195	6.189	(0.778)	2803143	51.7158	51.72
M	18 1,2-Dichloroethene(total)	96				1001189	101.666	101.7
	43 Bromochloromethane	128	6.805	6.809	(0.854)	238234	49.2857	49.28
	44 Chloroform	83	6.785	6.779	(0.852)	825926	51.7713	51.77
	45 ETBE	59	6.657	6.652	(0.836)	1747826	52.3759	52.38
	46 2,2-Dichloropropane	77	6.637	6.632	(0.833)	578935	51.6604	51.66
$	47 Dibromofluoromethane	111	6.952	6.947	(0.873)	281282	28.5932	28.59
	22 Methyl acetate	43	4.661	4.665	(0.585)	453314	58.7787	58.78
	50 Tetrahydrofuran	42	6.991	6.986	(0.878)	205640	60.8941	60.89
	55 Cyclohexane	56	7.611	7.606	(0.956)	1182365	52.4240	52.42
$	51 1,2-Dichloroethane-d4	102	7.444	7.438	(0.935)	54983	28.8944	28.89
	52 1,2-Dichloroethane	62	7.532	7.537	(0.946)	538287	55.7899	55.79
	53 1,1,1-Trichloroethane	97	7.336	7.340	(0.921)	604964	53.3762	53.38
	54 1,1-Dichloropropene	75	7.552	7.556	(0.948)	677049	53.2258	53.22
	56 Carbon tetrachloride	117	7.680	7.674	(0.964)	578983	56.0008	56.00
	57 Benzene	78	7.709	7.704	(0.968)	1840817	50.2953	50.30
	59 tert-Amyl Methyl Ether	73	7.896	7.891	(0.991)	1242767	49.2967	49.30
	62 Dibromomethane	93	8.624	8.619	(1.083)	299854	52.8698	52.87
	63 1,2-Dichloropropane	63	8.506	8.510	(1.068)	616763	50.9454	50.94
	64 Trichloroethene	95	8.457	8.461	(1.062)	518228	51.0646	51.06
	65 Bromodichloromethane	83	8.683	8.678	(1.090)	613257	57.1854	57.18
	66 Methyl methacrylate	41	7.601	7.606	(0.954)	881024	56.8052	56.80
	68 tert-Amyl Ethyl Ether	59	8.772	8.766	(1.101)	1495232	51.3856	51.38
	69 2-Chloroethyl vinyl ether	63	9.037	9.032	(1.135)	497593	86.8115	86.81
	73 cis-1,3-Dichloropropene	75	9.254	9.248	(1.162)	722303	49.7955	49.80
	75 4-Methyl-2-pentanone	43	9.175	9.179	(1.152)	1083561	83.7471	83.75
	76 trans-1,3-Dichloropropene	75	9.726	9.720	(0.878)	662194	58.7460	58.75
	77 1,1,2-Trichloroethane	83	9.873	9.877	(0.892)	338221	48.3140	48.31
$	78 Toluene-d8	98	9.647	9.651	(0.871)	910650	28.3498	28.35
	79 Toluene	92	9.726	9.720	(0.878)	1218930	50.9999	51.00
	81 1,3-Dichloropropane	76	10.089	10.084	(0.911)	618618	50.1411	50.14
	80 Ethyl methacrylate	69	9.912	9.907	(0.895)	611394	50.4000	50.40
	82 2-Hexanone	43	10.021	10.025	(0.905)	769322	82.1953	82.20
	83 Dibromochloromethane	129	10.345	10.340	(0.934)	439496	54.0063	54.01
	84 1,2-Dibromoethane	107	10.562	10.556	(0.954)	391639	49.8809	49.88
	70 Methyl cyclohexane	83	8.831	8.835	(1.109)	839619	49.7936	49.79
	85 Tetrachloroethene	166	10.453	10.458	(0.944)	449235	48.1072	48.11
	86 1,1,1,2-Tetrachloroethane	131	11.152	11.146	(1.007)	472915	49.9348	49.93
	87 1-Chlorohexane	91	11.073	11.077	(1.000)	1627805	52.4618	52.46

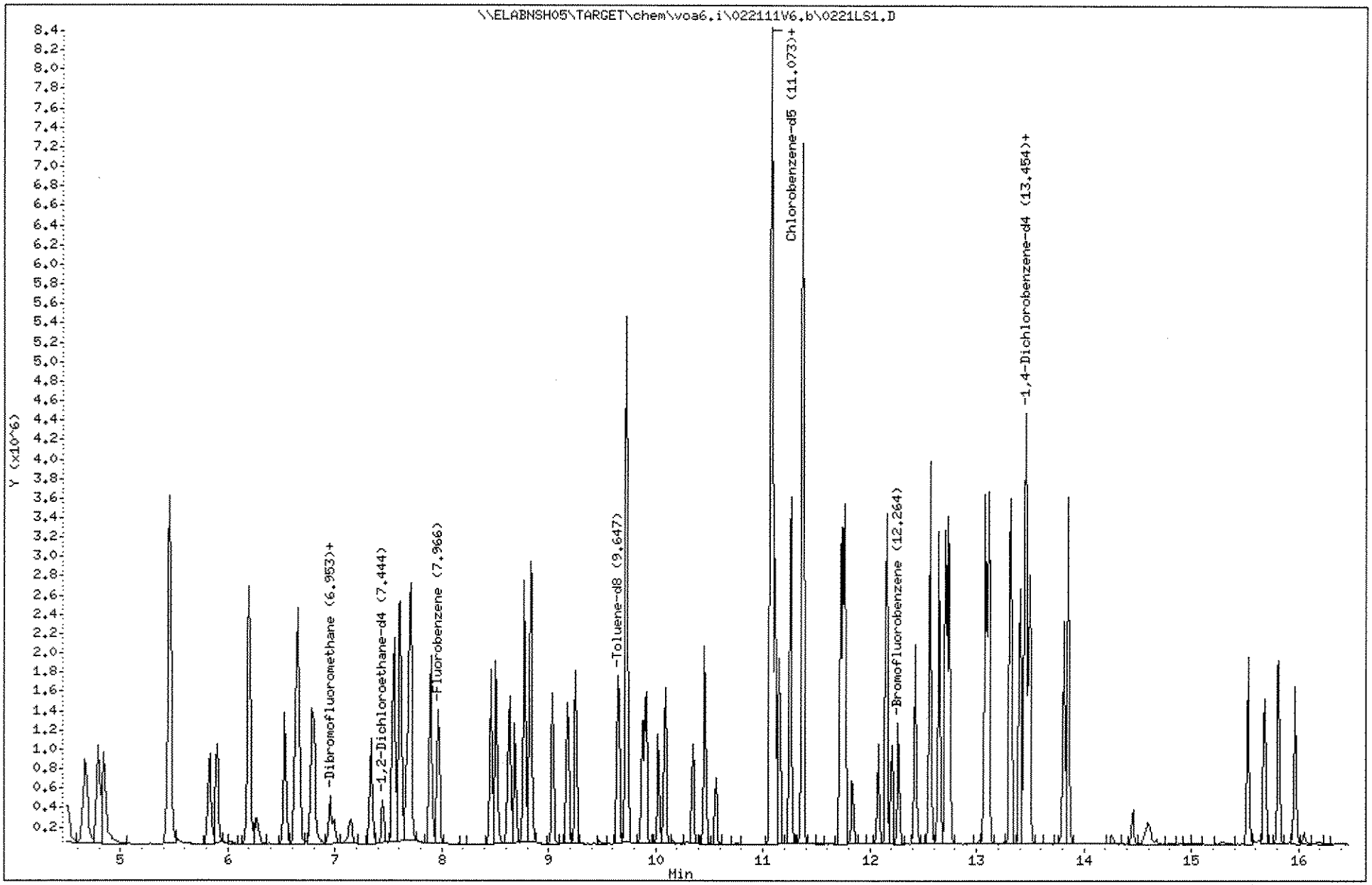
Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS1.D
Report Date: 22-Feb-2011 11:17

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)	
*	88	Chlorobenzene-d5	82	11.073	11.067	(1.000)	448630	30.0000		
	89	Chlorobenzene	112	11.112	11.107	(1.004)	1335562	48.0249	48.02	
	93	Bromoform	173	11.840	11.835	(1.069)	277260	56.1784	56.18	
	90	Ethylbenzene	91	11.260	11.254	(1.017)	2399166	50.0098	50.01	
	91	m,p-Xylene	91	11.368	11.363	(1.027)	3708666	106.844	106.8	
M	97	Xylene(total)	91				5541868	158.019	158.0	
	95	o-Xylene	91	11.761	11.756	(1.062)	1833202	51.1754	51.18	
	94	Styrene	104	11.732	11.726	(1.060)	1449044	50.2760	50.28	
	96	1,1,2,2-Tetrachloroethane	83	12.076	12.080	(0.897)	507980	53.6785	53.68	
	98	1,2,3-Trichloropropane	110	12.204	12.199	(1.102)	105547	50.0160	50.02	
	101	Isopropylbenzene	105	12.155	12.149	(1.098)	1972375	53.3480	53.35	
$	102	Bromofluorobenzene	95	12.263	12.258	(1.107)	352474	28.0985	28.10	
	103	Bromobenzene	156	12.430	12.425	(0.923)	511438	52.1133	52.11	
	104	n-Propylbenzene	91	12.558	12.562	(0.933)	2857568	54.8430	54.84	
	105	2-Chlorotoluene	91	12.647	12.641	(0.939)	1567929	54.2641	54.26	
	106	4-Chlorotoluene	91	12.706	12.710	(0.944)	1760148	55.1640	55.16	
	107	1,3,5-Trimethylbenzene	105	12.735	12.739	(0.946)	1692538	54.3880	54.39	
	109	tert-Butylbenzene	119	13.079	13.074	(0.972)	1586654	53.9879	53.99	
	110	1,2,4-Trimethylbenzene	105	13.109	13.103	(0.974)	1716840	55.1287	55.13	
	111	sec-Butylbenzene	105	13.315	13.310	(0.989)	2382843	52.9504	52.95	
	112	1,3-Dichlorobenzene	146	13.404	13.398	(0.996)	910444	51.0598	51.06	
*	113	1,4-Dichlorobenzene-d4	152	13.463	13.457	(1.000)	410953	30.0000		(Q)
	115	1,4-Dichlorobenzene	146	13.492	13.497	(1.002)	899055	49.8784	49.88	
	114	p-Isopropyltoluene	119	13.453	13.448	(0.999)	1781134	55.7820	55.78	
	116	1,2-Dichlorobenzene	146	13.817	13.811	(1.026)	847080	51.8503	51.85	
	117	n-Butylbenzene	91	13.856	13.851	(1.029)	2017446	53.3614	53.36	
	118	1,2-Dibromo-3-chloropropane	157	14.456	14.451	(1.074)	81493	53.5674	53.57	
	119	1,2,4-Trichlorobenzene	180	15.528	15.533	(1.153)	492491	45.3153	45.32	
	120	Naphthalene	128	15.686	15.680	(1.165)	1056840	48.1394	48.14	
	121	Hexachlorobutadiene	225	15.813	15.808	(1.175)	325704	50.2034	50.20	
	122	1,2,3-Trichlorobenzene	180	15.971	15.965	(1.186)	438253	45.5999	45.60	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS1.D
Date : 21-FEB-2011 12:15
Client ID: 1B21008-BS1
Instrument: voa6.i
Sample Info: 1B21008-BS1;;;;; 50ppb soil
Operator: CLB
Column phase: RTX-VRX
Column diameter: 0.25



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS2.D
Report Date: 22-Feb-2011 11:17

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS2.D
Lab Smp Id: 1B21008-BS2 Client Smp ID: 1B21008-BS2
Inj Date : 21-FEB-2011 12:40
Operator : CLB Inst ID: voa6.i
Smp Info : 1B21008-BS2;;;;; 50ppb soil
Misc Info : ;3;LCS;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 22-Feb-2011 11:16 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: app9.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.968	7.969	(1.000)	918418	30.0000	
10 Acetonitrile	41	3.906	3.913	(0.490)	368527	423.313	423.3
38 Hexane	57	6.031	6.028	(0.757)	910971	45.9234	45.92
23 Allyl chloride	76	4.752	4.749	(0.596)	202179	44.1649	44.16(Q)
35 Chloroprene	53	6.090	6.087	(0.764)	902165	57.9544	57.95
32 Propionitrile	54	6.001	5.998	(0.753)	520306	403.557	403.6
40 Methacrylonitrile	41	6.444	6.441	(0.809)	3456309	479.364	479.4
$ 47 Dibromofluoromethane	111	6.955	6.947	(0.873)	270450	29.5267	29.53
$ 51 1,2-Dichloroethane-d4	102	7.447	7.438	(0.935)	51596	29.1211	29.12
48 Isobutyl alcohol	42	6.877	6.873	(0.863)	361905	861.243	861.2
67 1,4-Dioxane	88	8.657	8.654	(1.086)	51736	762.746	762.7
$ 78 Toluene-d8	98	9.650	9.651	(0.871)	840856	28.8573	28.86
* 88 Chlorobenzene-d5	82	11.076	11.067	(1.000)	406960	30.0000	
$ 102 Bromofluorobenzene	95	12.266	12.258	(1.107)	323858	28.4608	28.46
* 113 1,4-Dichlorobenzene-d4	152	13.466	13.457	(1.000)	344306	30.0000	(Q)

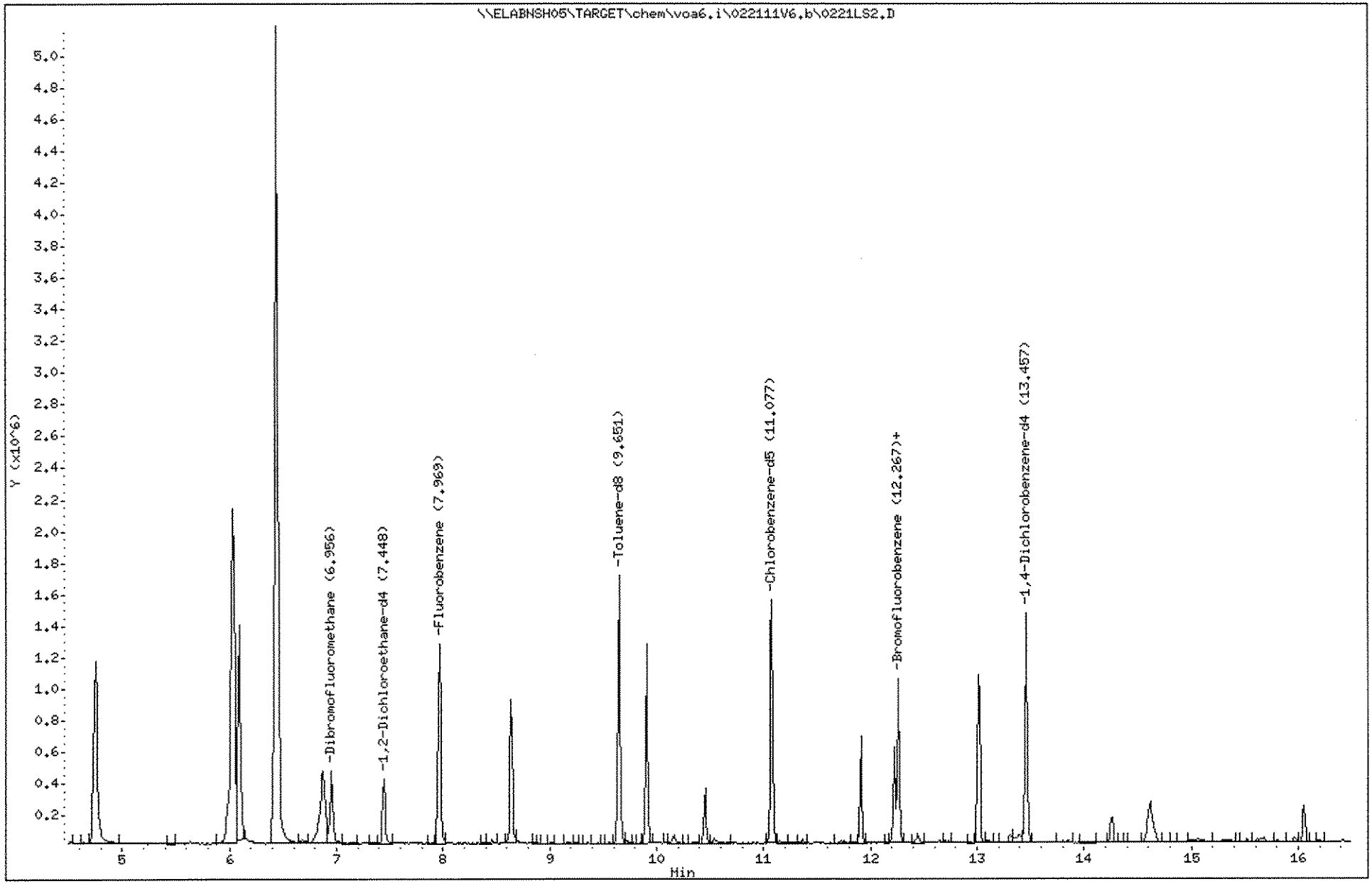
Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS2.D
Report Date: 22-Feb-2011 11:17

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
99 trans-1,4-Dichloro-2-butene	53	11.912	11.909	(0.885)	131555	49.5375	49.54
100 cis-1,4-Dichloro-2-butene	53	12.227	12.224	(0.908)	124668	57.1026	57.10

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LS2.D
Date : 21-FEB-2011 12:40
Client ID: 1B21008-BS2
Instrument: voa6.i
Sample Info: 1B21008-BS2;;;;; 50ppb soil
Operator: CLB
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221BL1.D
Report Date: 22-Feb-2011 11:17

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221BL1.D
Lab Smp Id: 1B21008-BLK1 Client Smp ID: 1B21008-BLK1
Inj Date : 21-FEB-2011 13:53
Operator : CLB Inst ID: voa6.i
Smp Info : 1B21008-BLK1;;;;;
Misc Info : ;3;BLANK;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 22-Feb-2011 11:16 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gm-allap9.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.961	7.969	(1.000)	840590	30.0000	
20 Methylene chloride	84	4.784	4.793	(0.601)	34910	3.29738	3.297(a)
38 Hexane	57	6.023	6.028	(0.757)	13243	0.72941	0.7294(a)
$ 47 Dibromofluoromethane	111	6.947	6.947	(0.873)	248586	29.6525	29.65
$ 51 1,2-Dichloroethane-d4	102	7.439	7.438	(0.935)	52560	32.4118	32.41
$ 78 Toluene-d8	98	9.642	9.651	(0.871)	782365	27.7688	27.77
* 88 Chlorobenzene-d5	82	11.068	11.067	(1.000)	393495	30.0000	
$ 102 Bromofluorobenzene	95	12.258	12.258	(1.108)	307683	27.9646	27.96
* 113 1,4-Dichlorobenzene-d4	152	13.458	13.457	(1.000)	339095	30.0000	(Q)

QC Flag Legend

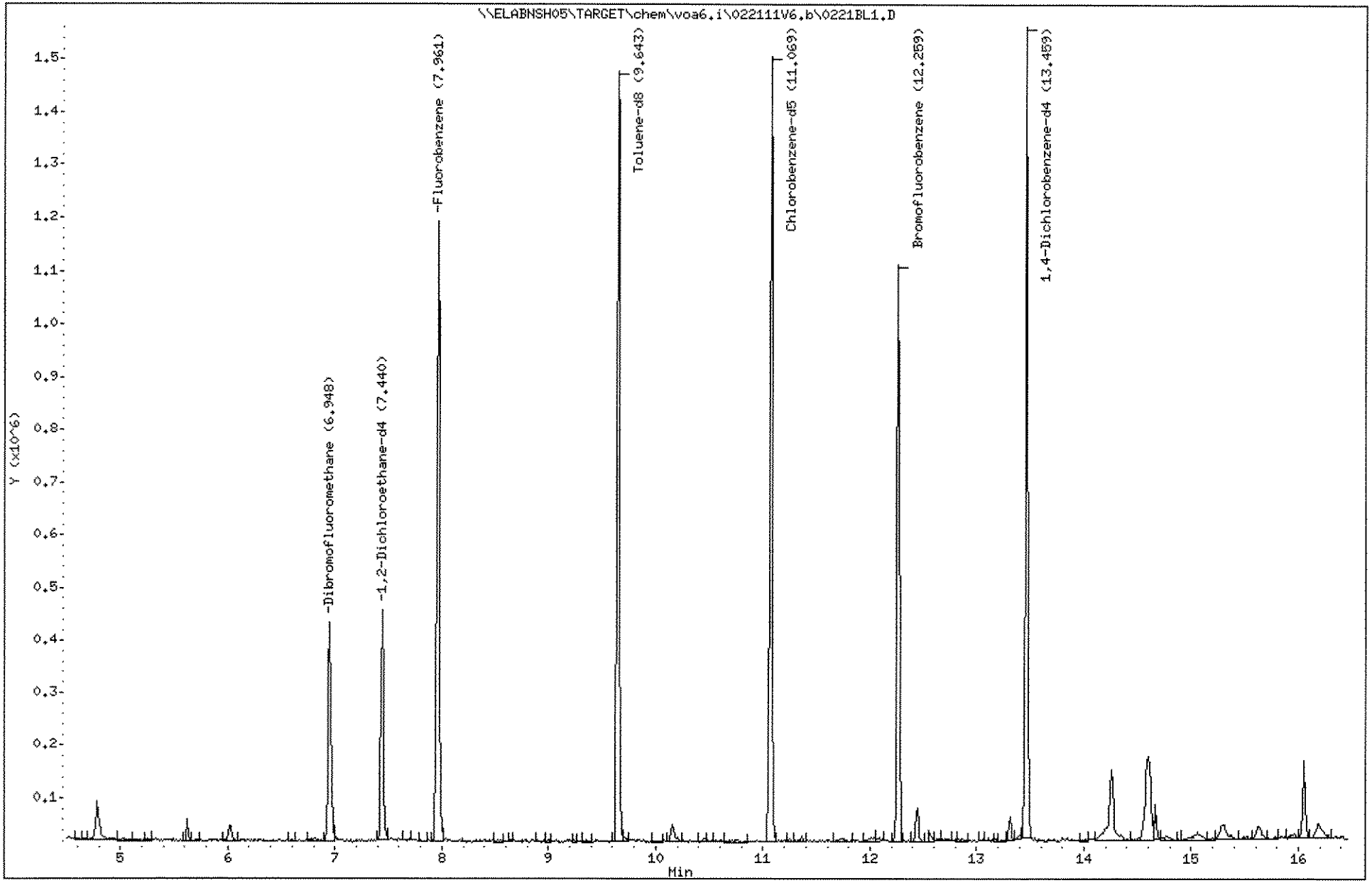
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221BL1.D
Date : 21-FEB-2011 13:53
Client ID: 1B21008-BLK1
Sample Info: 1B21008-BLK1;;;;;

Instrument: voa6.i

Operator: CLB
Column diameter: 0.25

Column phase: RTX-VRX



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Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221BL1.D

Date : 21-FEB-2011 13:53

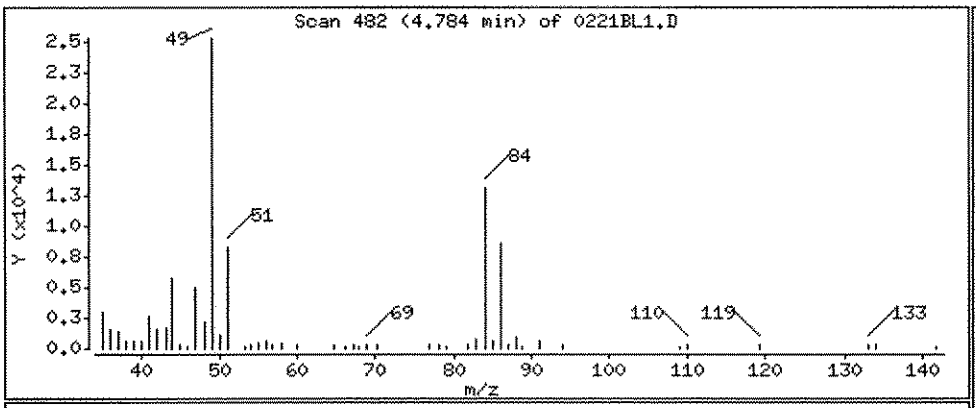
Client ID: 1B21008-BLK1 Instrument: voa6.i

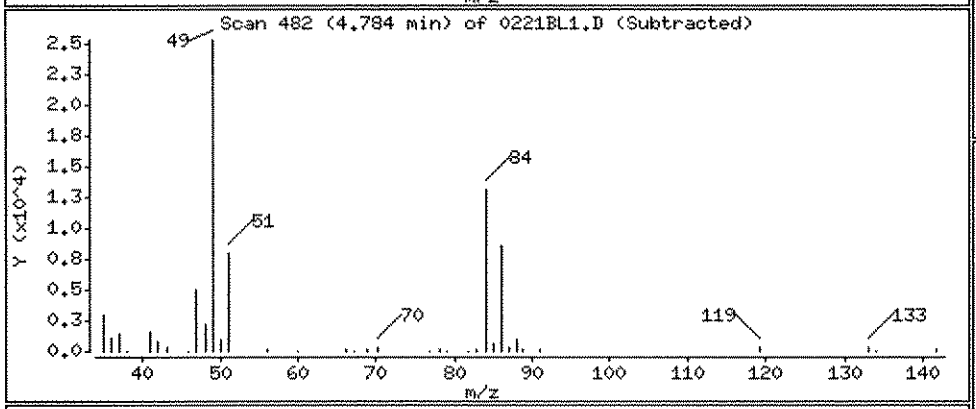
Sample Info: 1B21008-BLK1;;;;;;

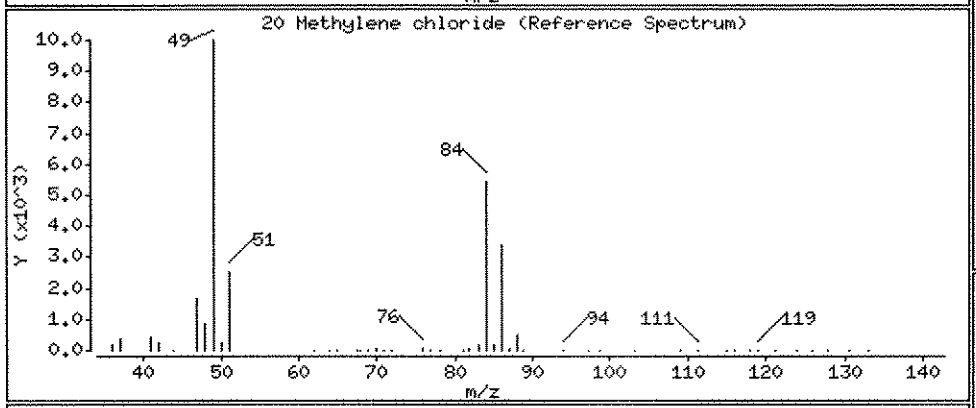
Operator: CLB

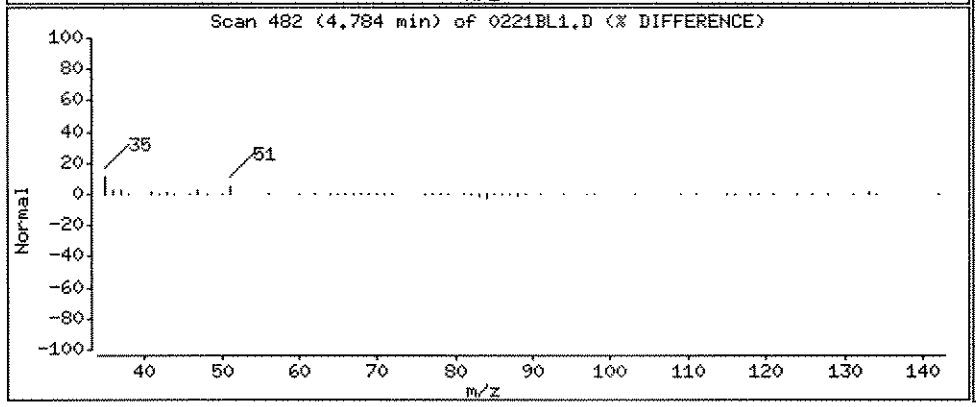
Column phase: RTX-VRX Column diameter: 0.25

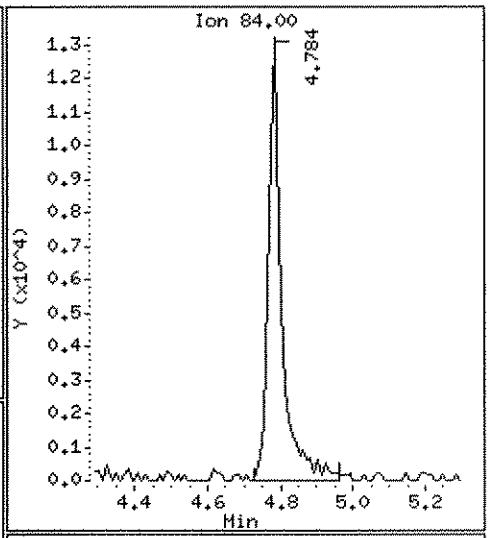
20 Methylene chloride Concentration: 3.297 ug/Kg

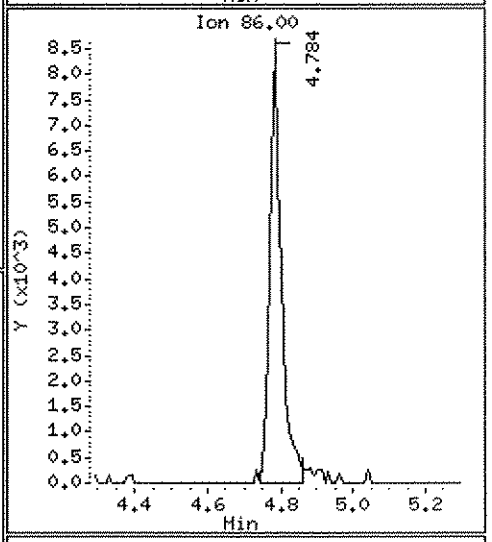


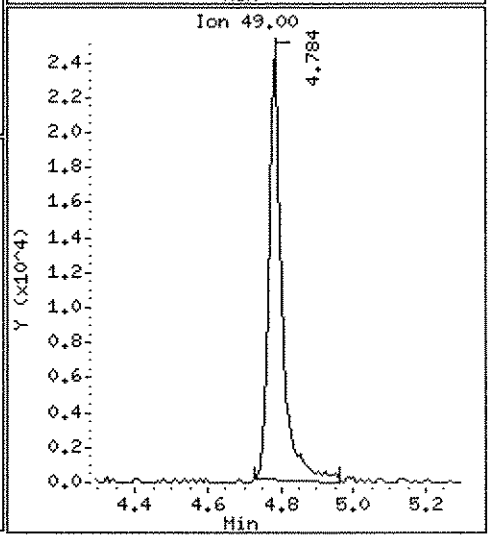












Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221BL1.D

Date : 21-FEB-2011 13:53

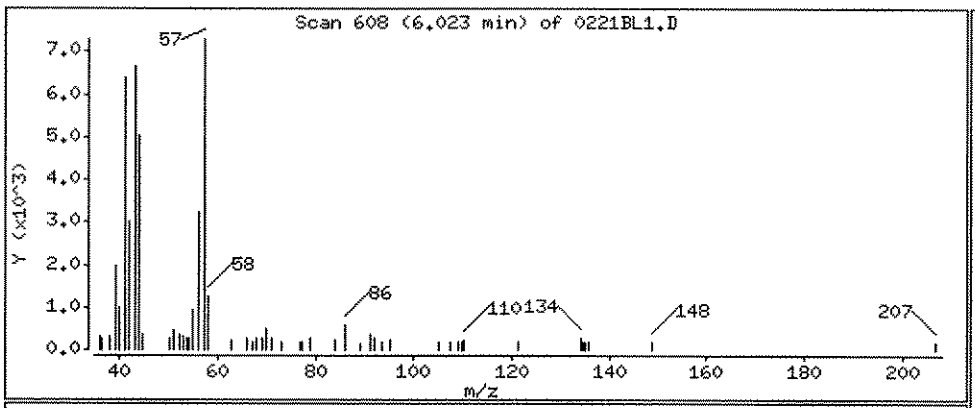
Client ID: 1B21008-BLK1 Instrument: voa6.i

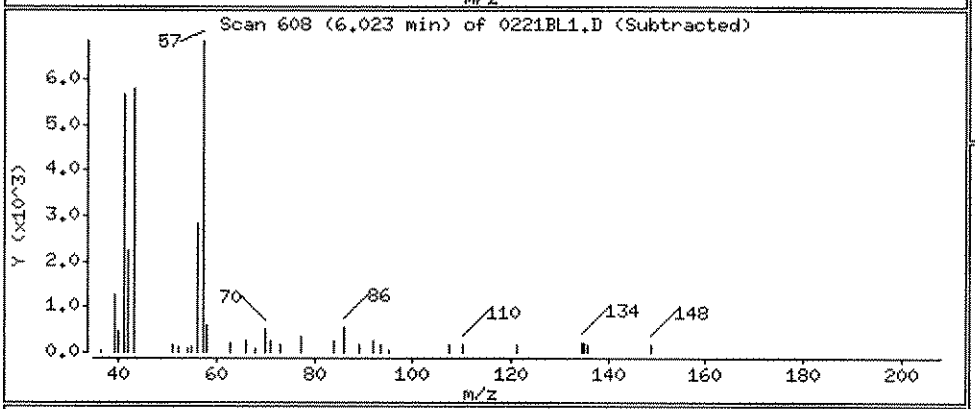
Sample Info: 1B21008-BLK1;;;;;

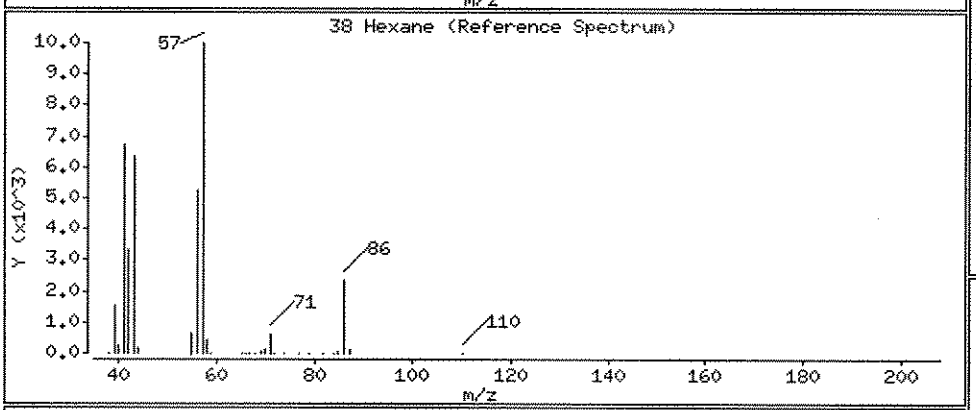
Operator: CLB

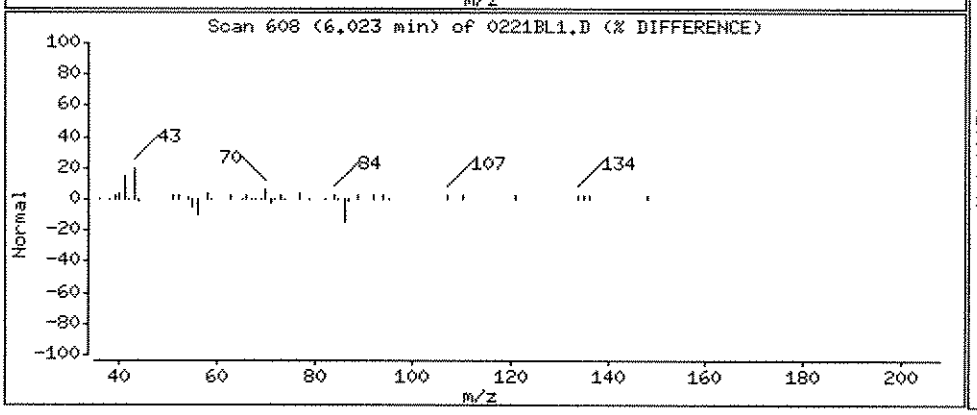
Column phase: RTX-VRX Column diameter: 0.25

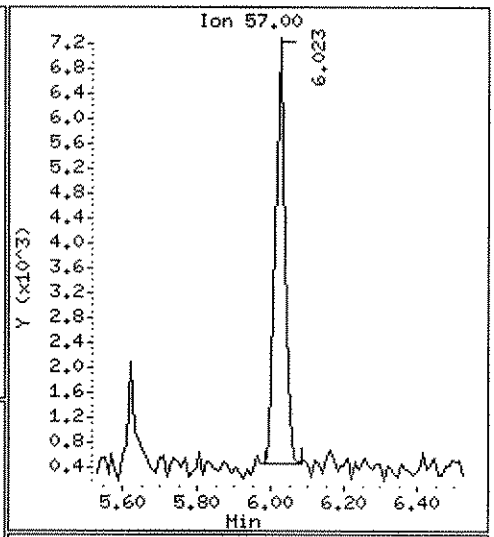
38 Hexane Concentration: 0.7294 ug/Kg

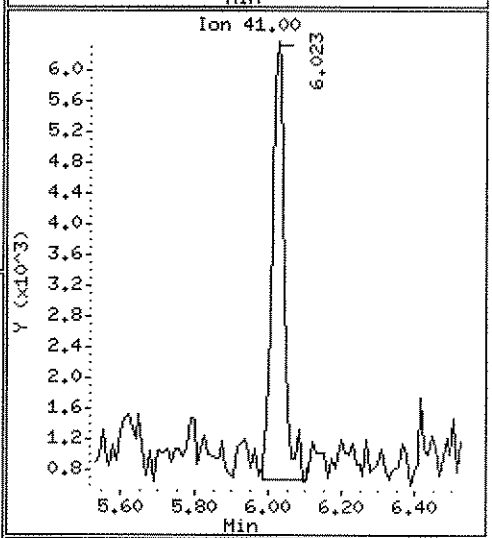


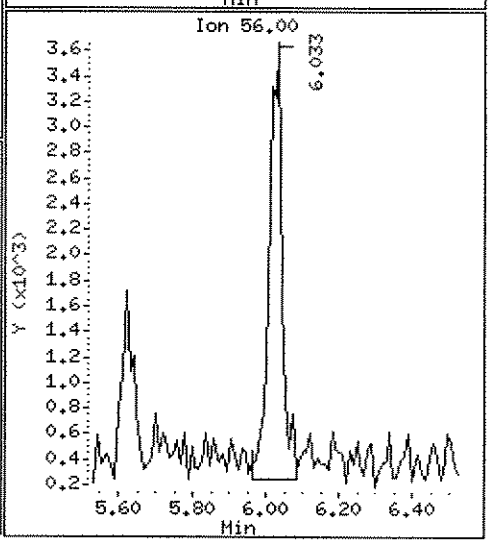












Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0218001.D
Report Date: 22-Feb-2011 11:17

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0218001.D
Lab Smp Id: 1102180-01 Client Smp ID: Backfilll (20110218
Inj Date : 21-FEB-2011 14:17
Operator : CLB Inst ID: voa6.i
Smp Info : 1102180-01;;;;;
Misc Info : ;;;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 22-Feb-2011 11:16 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gm-allap9.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.970	7.969	(1.000)	830970	30.0000	
20 Methylene chloride	84	4.793	4.793	(0.601)	31599	2.95179	2.952(a)
38 Hexane	57	6.032	6.028	(0.757)	11855	0.66052	0.6605(a)
$ 47 Dibromofluoromethane	111	6.957	6.947	(0.873)	244716	29.5288	29.53
$ 51 1,2-Dichloroethane-d4	102	7.448	7.438	(0.935)	48246	30.0960	30.10
$ 78 Toluene-d8	98	9.651	9.651	(0.872)	766742	30.3757	30.38
* 88 Chlorobenzene-d5	82	11.068	11.067	(1.000)	352541	30.0000	
$ 102 Bromofluorobenzene	95	12.258	12.258	(1.108)	275580	27.9564	27.96
* 113 1,4-Dichlorobenzene-d4	152	13.458	13.457	(1.000)	282106	30.0000	(Q)

QC Flag Legend

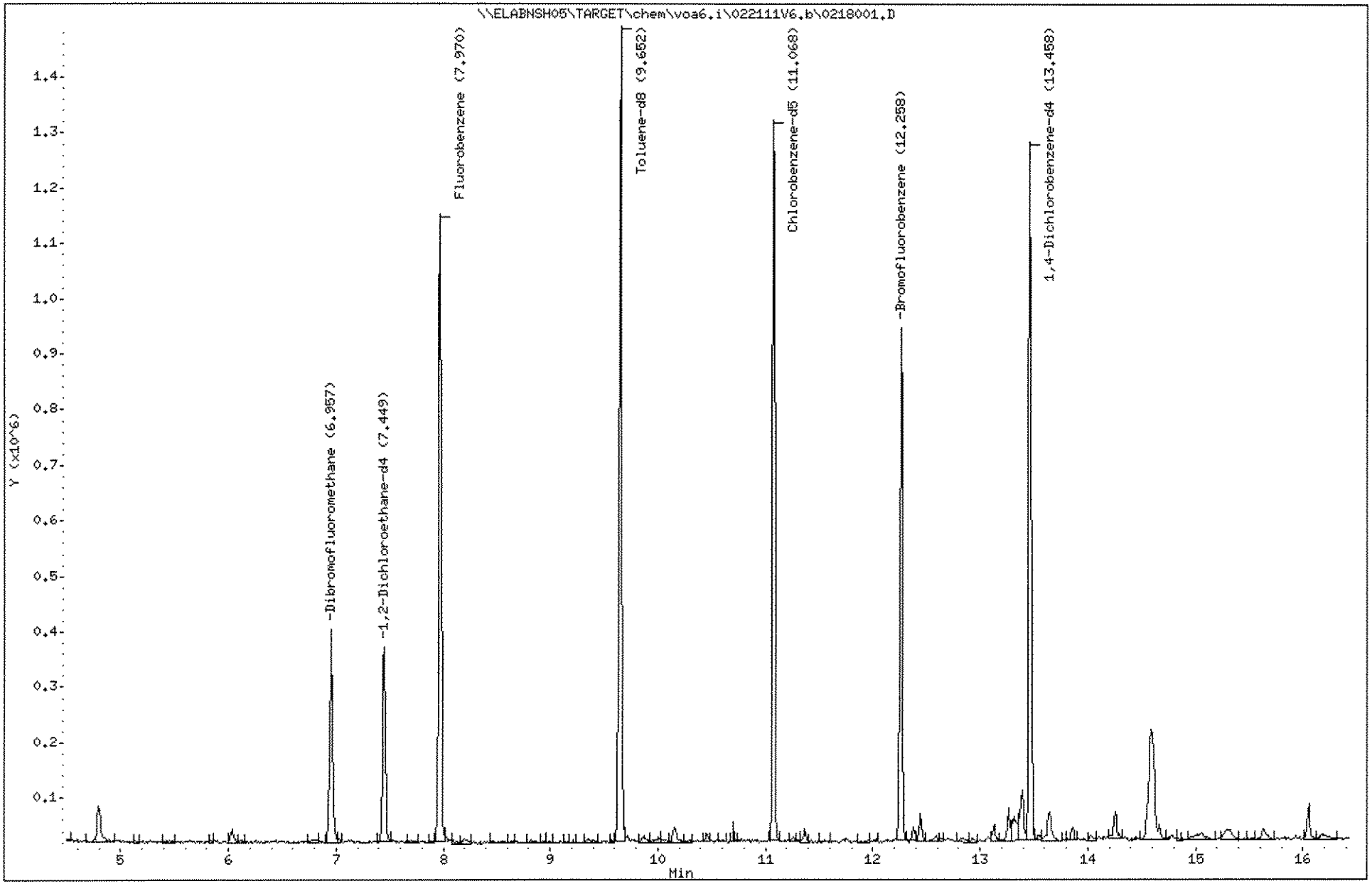
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0218001.D
Date : 21-FEB-2011 14:17
Client ID: Backfilll (20110218
Sample Info: 1102180-01;;;;;

Instrument: voa6.i

Operator: CLB
Column diameter: 0.25

Column phase: RTX-VRX



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1102180

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0218001.D

Date : 21-FEB-2011 14:17

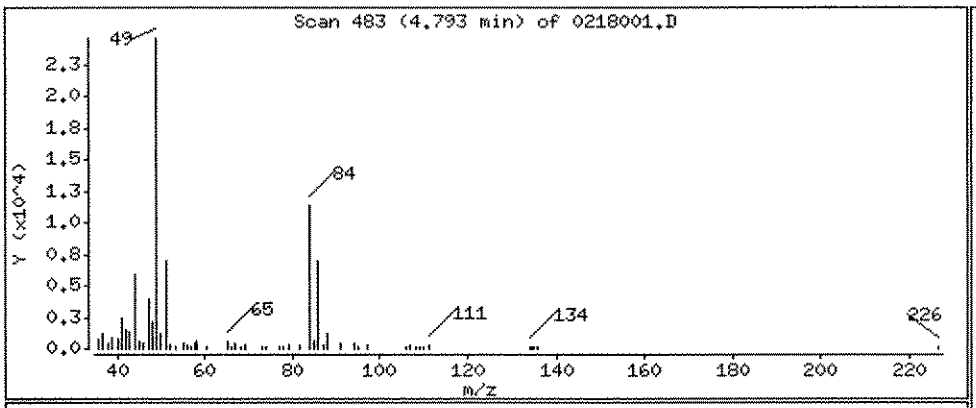
Client ID: Backfilll (20110218 | Instrument: voa6.i

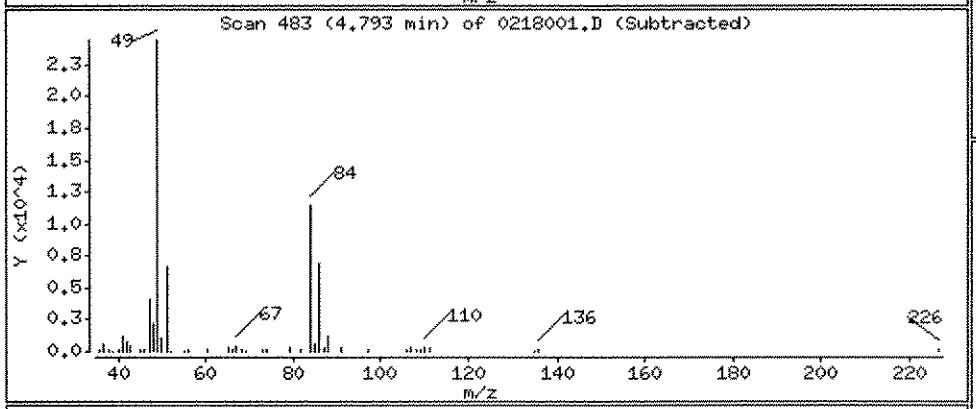
Sample Info: 1102180-01;;;;;

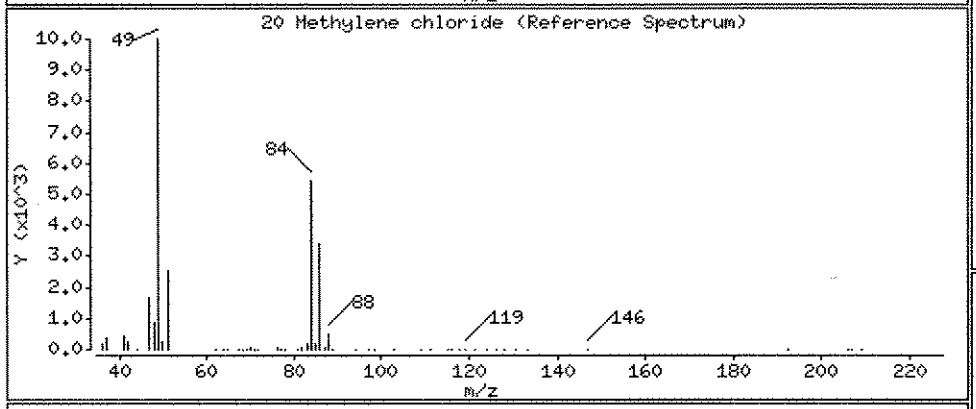
Operator: CLB

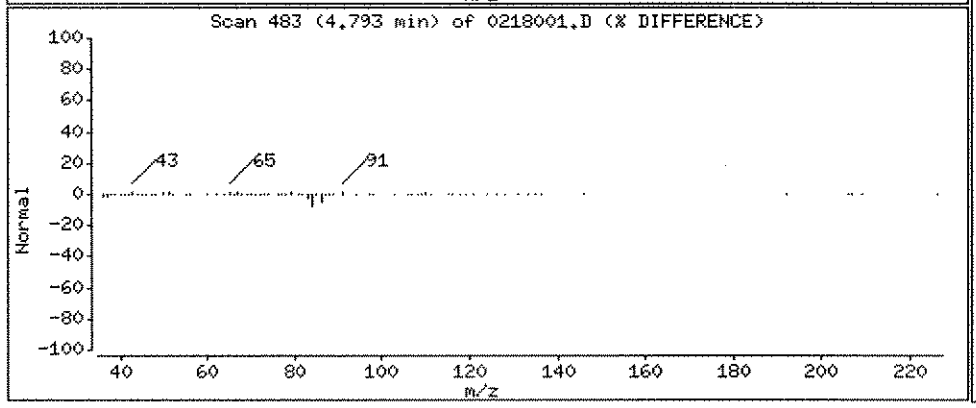
Column phase: RTX-VRX | Column diameter: 0.25

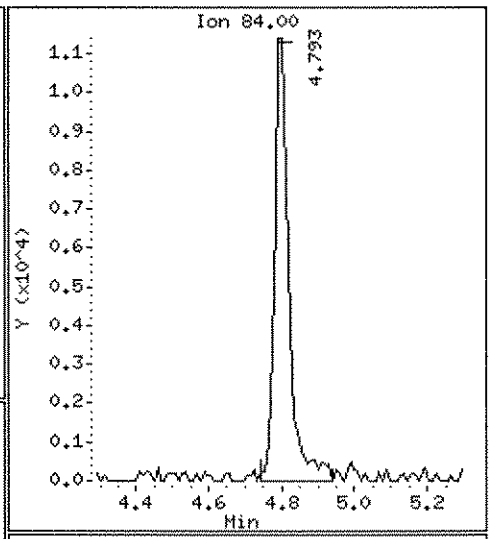
20 Methylene chloride | Concentration: 2.952 ug/Kg

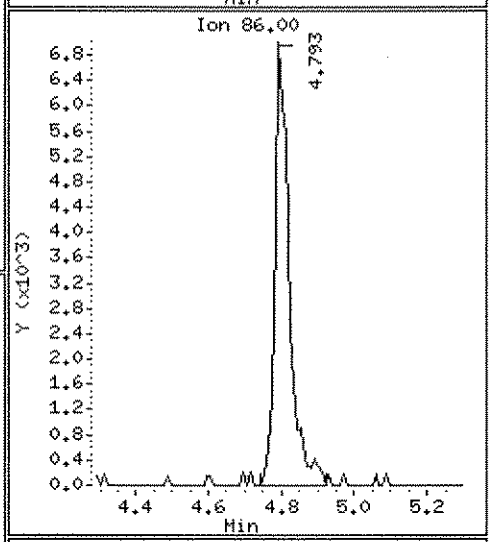


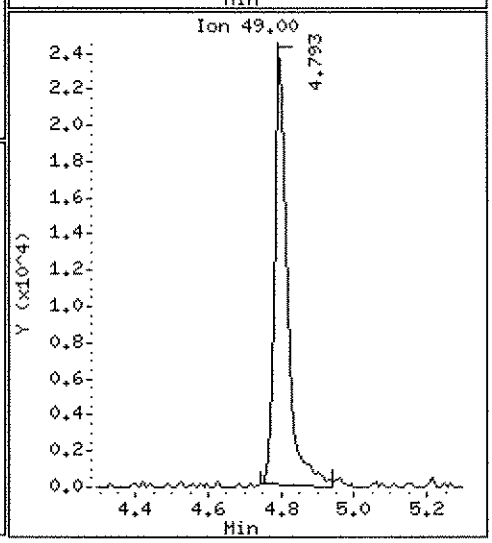












Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0218001.D

Date : 21-FEB-2011 14:17

Client ID: Backfilll (20110218

Instrument: voa6.i

Sample Info: 1102180-01;;;;;

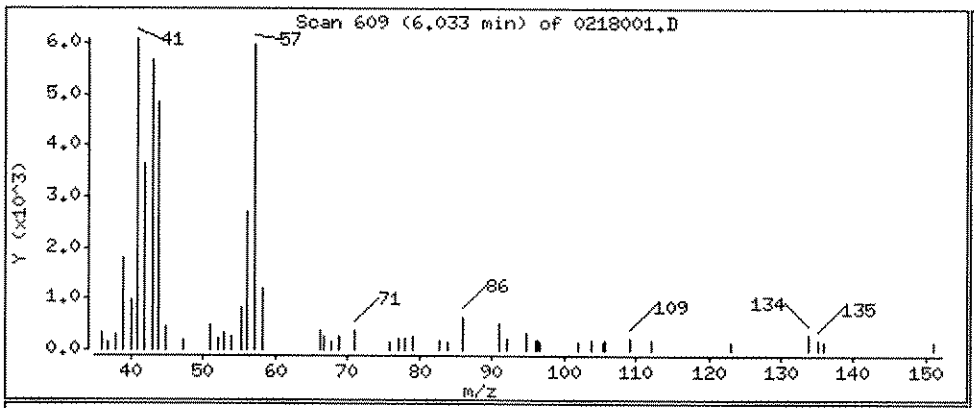
Operator: CLB

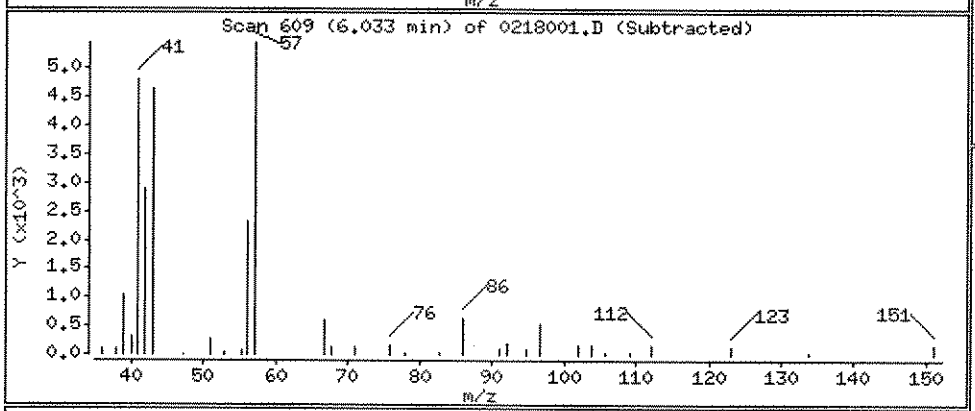
Column phase: RTX-VRX

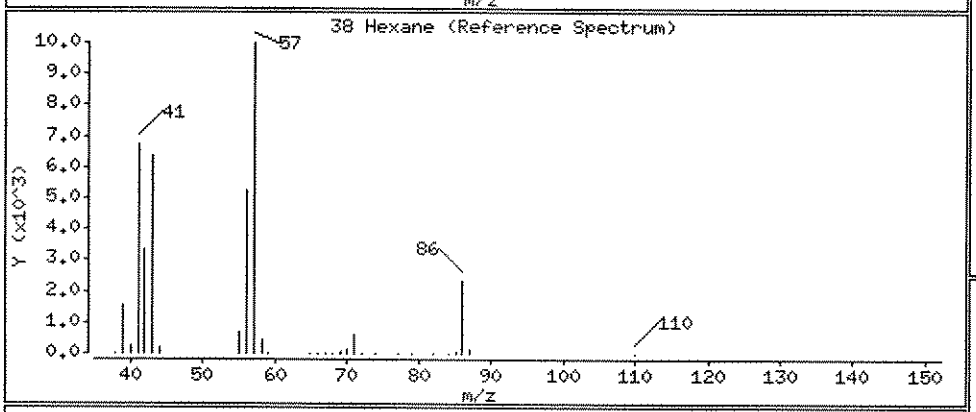
Column diameter: 0.25

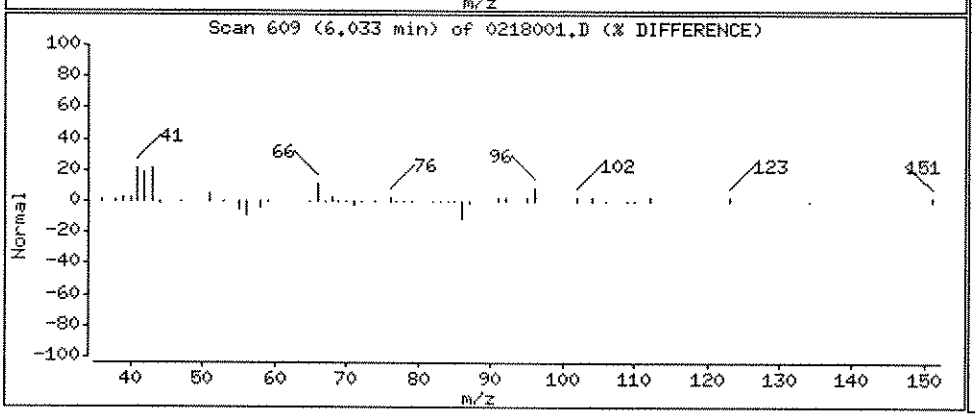
38 Hexane

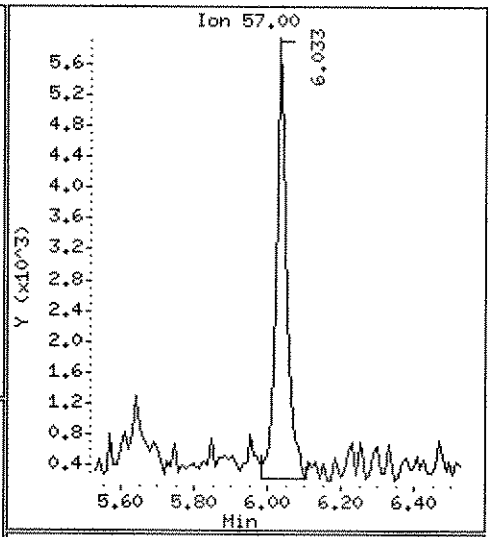
Concentration: 0.6605 ug/Kg

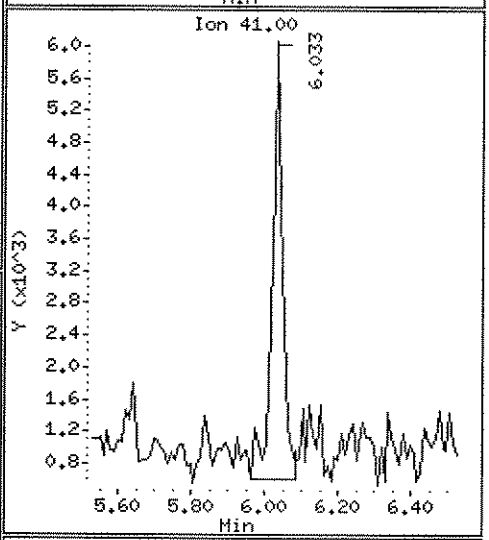


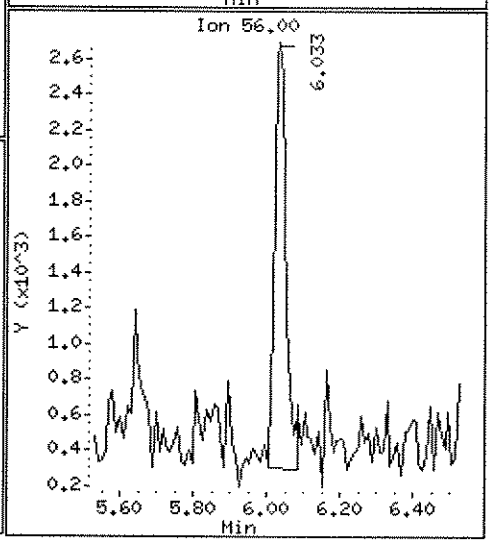












Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD1.D
Report Date: 22-Feb-2011 11:17

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD1.D
Lab Smp Id: 1B21008-BSD1 Client Smp ID: 1B21008-BSD1
Inj Date : 21-FEB-2011 15:56
Operator : CLB Inst ID: voa6.i
Smp Info : 1B21008-BSD1;;;;; 50ppb soil
Misc Info : ;3;LCSD;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 22-Feb-2011 11:16 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 13 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: gm-all.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.968	7.969	(1.000)	854448	30.0000	
1 Dichlorodifluoromethane	85	2.047	2.039	(0.257)	569698	72.9209	72.92(R)
4 Chloromethane	50	2.273	2.255	(0.285)	705431	66.0561	66.06(R)
5 Vinyl chloride	62	2.431	2.413	(0.305)	341349	63.4706	63.47(R)
6 Bromomethane	94	2.883	2.875	(0.362)	155004	57.7977	57.80
7 Chloroethane	64	3.021	3.003	(0.379)	144053	60.5386	60.54
9 Trichlorofluoromethane	101	3.532	3.524	(0.443)	717614	58.7693	58.77
21 Trichlorotrifluoroethane	101	4.398	4.389	(0.552)	407258	55.5405	55.54
8 Acrolein	56	3.729	3.721	(0.468)	273349	312.707	312.7
12 Acetone	43	3.847	3.839	(0.483)	190689	88.0247	88.02
15 1,1-Dichloroethene	96	4.319	4.311	(0.542)	352146	60.7721	60.77
16 Iodomethane	142	4.516	4.507	(0.567)	483773	56.2135	56.21
17 Acrylonitrile	53	4.683	4.675	(0.588)	835821	301.576	301.6
20 Methylene chloride	84	4.801	4.793	(0.603)	472855	53.7866	53.79
24 t-Butyl alcohol	59	4.476	4.468	(0.562)	215624	283.435	283.4

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD1.D
Report Date: 22-Feb-2011 11:17

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
		Compounds							
	25	Carbon disulfide	76	4.850	4.842	(0.609)	1330938	52.9949	52.99
	26	tert-Amyl alcohol	59	7.152	7.153	(0.898)	231688	311.476	311.5
	28	trans-1,2-Dichloroethene	96	5.460	5.452	(0.685)	436448	54.1366	54.14
	30	MTBE	73	5.460	5.452	(0.685)	1930876	112.944	112.9(R)
	31	1,1-Dichloroethane	63	5.834	5.825	(0.732)	901205	53.9267	53.93
	33	Vinyl acetate	43	5.902	5.894	(0.741)	1455801	115.303	115.3
	36	2-Butanone	43	6.276	6.268	(0.788)	477411	101.146	101.1
	39	cis-1,2-Dichloroethene	96	6.532	6.524	(0.820)	446110	49.4299	49.43
	41	Di-Isopropyl Ether	45	6.198	6.189	(0.778)	2497547	53.1929	53.19
M	18	1,2-Dichloroethene(total)	96				882558	103.567	103.6
	43	Bromochloromethane	128	6.807	6.809	(0.854)	208840	49.8761	49.88
	44	Chloroform	83	6.788	6.779	(0.852)	736030	53.2604	53.26
	45	ETBE	59	6.660	6.652	(0.836)	1551529	53.6728	53.67
	46	2,2-Dichloropropane	77	6.640	6.632	(0.833)	524819	54.0629	54.06
$	47	Dibromofluoromethane	111	6.955	6.947	(0.873)	250424	29.3872	29.39
	22	Methyl acetate	43	4.673	4.665	(0.587)	432666	64.7643	64.76
	50	Tetrahydrofuran	42	6.994	6.986	(0.878)	188721	64.6728	64.67
	55	Cyclohexane	56	7.604	7.606	(0.954)	1070340	54.7850	54.78
$	51	1,2-Dichloroethane-d4	102	7.447	7.438	(0.935)	48305	29.3048	29.30
	52	1,2-Dichloroethane	62	7.535	7.537	(0.946)	479979	57.4282	57.43
	53	1,1,1-Trichloroethane	97	7.338	7.340	(0.921)	523461	53.3168	53.32
	54	1,1-Dichloropropene	75	7.555	7.556	(0.948)	588189	53.3803	53.38
	56	Carbon tetrachloride	117	7.673	7.674	(0.963)	495378	55.3129	55.31
	57	Benzene	78	7.702	7.704	(0.967)	1626975	51.3168	51.32
	59	tert-Amyl Methyl Ether	73	7.899	7.891	(0.991)	1102949	50.5063	50.51
	62	Dibromomethane	93	8.617	8.619	(1.081)	270967	55.1538	55.15
	63	1,2-Dichloropropane	63	8.509	8.510	(1.068)	549671	52.4145	52.41
	64	Trichloroethene	95	8.460	8.461	(1.062)	466022	53.0112	53.01
	65	Bromodichloromethane	83	8.686	8.678	(1.090)	538747	57.9948	57.99
	66	Methyl methacrylate	41	7.604	7.606	(0.954)	780968	58.1294	58.13
	68	tert-Amyl Ethyl Ether	59	8.774	8.766	(1.101)	1323374	52.5021	52.50
	69	2-Chloroethyl vinyl ether	63	9.040	9.032	(1.135)	467789	94.2139	94.21
	73	cis-1,3-Dichloropropene	75	9.256	9.248	(1.162)	642405	51.1260	51.12
	75	4-Methyl-2-pentanone	43	9.178	9.179	(1.152)	1058968	94.4846	94.48
	76	trans-1,3-Dichloropropene	75	9.718	9.720	(0.877)	581671	55.8501	55.85
	77	1,1,2-Trichloroethane	83	9.876	9.877	(0.892)	307301	47.5105	47.51
$	78	Toluene-d8	98	9.650	9.651	(0.871)	801710	27.0127	27.01
	79	Toluene	92	9.728	9.720	(0.878)	1090163	49.3668	49.37
	81	1,3-Dichloropropane	76	10.082	10.084	(0.910)	567051	49.7447	49.74
	80	Ethyl methacrylate	69	9.905	9.907	(0.894)	562682	50.2025	50.20
	82	2-Hexanone	43	10.023	10.025	(0.905)	743587	85.9852	85.98
	83	Dibromochloromethane	129	10.348	10.340	(0.934)	392344	52.1807	52.18
	84	1,2-Dibromoethane	107	10.554	10.556	(0.953)	350129	48.2647	48.26
	70	Methyl cyclohexane	83	8.833	8.835	(1.109)	745004	51.0048	51.00
	85	Tetrachloroethene	166	10.456	10.458	(0.944)	389775	45.1756	45.18
	86	1,1,1,2-Tetrachloroethane	131	11.154	11.146	(1.007)	416473	47.5949	47.59
	87	1-Chlorohexane	91	11.076	11.077	(1.000)	1460706	50.9515	50.95

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD1.D
Report Date: 22-Feb-2011 11:17

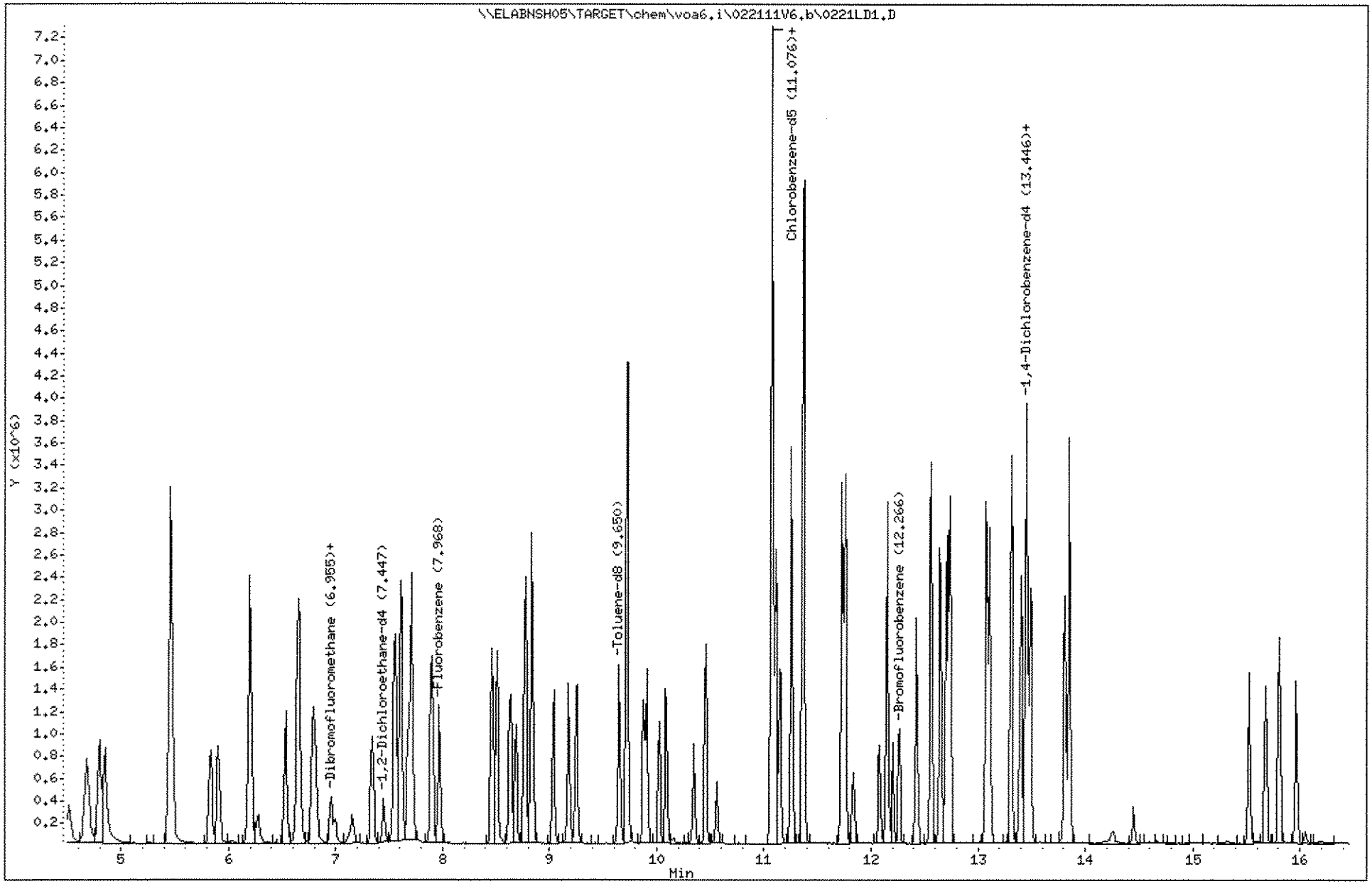
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
*	88	Chlorobenzene-d5	82	11.076	11.067	(1.000)	414510	30.0000	
	89	Chlorobenzene	112	11.105	11.107	(1.003)	1192135	46.3961	46.40
	93	Bromoform	173	11.833	11.835	(1.068)	236896	51.9509	51.95
	90	Ethylbenzene	91	11.253	11.254	(1.016)	2156870	48.6600	48.66
	91	m,p-Xylene	91	11.371	11.363	(1.027)	3392967	105.795	105.8
M	97	Xylene(total)	91				5012808	154.736	154.7
	95	o-Xylene	91	11.754	11.756	(1.061)	1619841	48.9414	48.94
	94	Styrene	104	11.725	11.726	(1.059)	1266323	47.5529	47.55
	96	1,1,2,2-Tetrachloroethane	83	12.079	12.080	(0.897)	439753	53.2823	53.28
	98	1,2,3-Trichloropropane	110	12.197	12.199	(1.101)	96912	49.7043	49.70
	101	Isopropylbenzene	105	12.148	12.149	(1.097)	1745741	51.1048	51.10
$	102	Bromofluorobenzene	95	12.266	12.258	(1.107)	310465	26.7868	26.79
	103	Bromobenzene	156	12.423	12.425	(0.923)	453230	52.9535	52.95
	104	n-Propylbenzene	91	12.561	12.562	(0.933)	2519597	55.4468	55.45
	105	2-Chlorotoluene	91	12.640	12.641	(0.939)	1383533	54.9030	54.90
	106	4-Chlorotoluene	91	12.708	12.710	(0.944)	1568047	56.3490	56.35
	107	1,3,5-Trimethylbenzene	105	12.738	12.739	(0.946)	1508120	55.5675	55.57
	109	tert-Butylbenzene	119	13.072	13.074	(0.971)	1407481	54.9133	54.91
	110	1,2,4-Trimethylbenzene	105	13.112	13.103	(0.974)	1502045	55.3034	55.30
	111	sec-Butylbenzene	105	13.308	13.310	(0.988)	2163693	55.1302	55.13
	112	1,3-Dichlorobenzene	146	13.397	13.398	(0.995)	796032	51.1891	51.19
*	113	1,4-Dichlorobenzene-d4	152	13.466	13.457	(1.000)	358403	30.0000	
	115	1,4-Dichlorobenzene	146	13.495	13.497	(1.002)	792342	50.4034	50.40
	114	p-Isopropyltoluene	119	13.446	13.448	(0.999)	1574346	56.5351	56.54
	116	1,2-Dichlorobenzene	146	13.810	13.811	(1.026)	733979	51.5146	51.51
	117	n-Butylbenzene	91	13.849	13.851	(1.028)	1761006	53.4080	53.41
	118	1,2-Dibromo-3-chloropropane	157	14.449	14.451	(1.073)	71526	53.9094	53.91
	119	1,2,4-Trichlorobenzene	180	15.531	15.533	(1.153)	412740	43.5455	43.54
	120	Naphthalene	128	15.679	15.680	(1.164)	903628	47.1956	47.20
	121	Hexachlorobutadiene	225	15.806	15.808	(1.174)	279863	49.4624	49.46
	122	1,2,3-Trichlorobenzene	180	15.964	15.965	(1.186)	376552	44.9246	44.92

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD1.D
Date : 21-FEB-2011 15:56
Client ID: 1B21008-BSD1
Sample Info: 1B21008-BSD1;;;;; 50ppb soil

Instrument: voa6.i
Operator: CLB
Column phase: RTX-VRX
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD2.D
Report Date: 22-Feb-2011 11:17

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD2.D
Lab Smp Id: 1B21008-BSD2 Client Smp ID: 1B21008-BSD2
Inj Date : 21-FEB-2011 16:20
Operator : CLB Inst ID: voa6.i
Smp Info : 1B21008-BSD2;;;;; 50ppb soil
Misc Info : ;3;LCSD;;;gm-all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\VSOIL6.m
Meth Date : 22-Feb-2011 11:16 amonteiro Quant Type: ISTD
Cal Date : 09-FEB-2011 19:08 Cal File: SEQ-CALO.D
Als bottle: 14 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: app9.sub
Target Version: 4.04
Processing Host: TARGET02_VM

Concentration Formula: Amt * DF * 5*Uf/(Ws*(Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	unit correction factor
Ws	5.000	Weight of sample extracted (g)
Solids	100.000	Percent Solids

2-22-11

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
* 60 Fluorobenzene	96	7.970	7.969	(1.000)	835608	30.0000	
10 Acetonitrile	41	3.918	3.913	(0.492)	422750	533.720	533.7
38 Hexane	57	6.042	6.028	(0.758)	1025715	56.8322	56.83
23 Allyl chloride	76	4.774	4.749	(0.599)	224321	53.8578	53.86(Q)
35 Chloroprene	53	6.101	6.087	(0.766)	990550	69.9382	69.94
32 Propionitrile	54	6.003	5.998	(0.753)	583456	497.384	497.4
40 Methacrylonitrile	41	6.446	6.441	(0.809)	3929011	598.927	598.9
$ 47 Dibromofluoromethane	111	6.957	6.947	(0.873)	241683	29.0009	29.00
$ 51 1,2-Dichloroethane-d4	102	7.449	7.438	(0.935)	44180	27.4066	27.41
48 Isobutyl alcohol	42	6.878	6.873	(0.863)	410097	1072.64	1073
67 1,4-Dioxane	88	8.658	8.654	(1.086)	62139	1006.91	1007
$ 78 Toluene-d8	98	9.652	9.651	(0.871)	764272	28.8605	28.86
* 88 Chlorobenzene-d5	82	11.078	11.067	(1.000)	369854	30.0000	
$ 102 Bromofluorobenzene	95	12.258	12.258	(1.107)	293119	28.3437	28.34
* 113 1,4-Dichlorobenzene-d4	152	13.458	13.457	(1.000)	317736	30.0000	(Q)

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD2.D
Report Date: 22-Feb-2011 11:17

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
99 trans-1,4-Dichloro-2-butene	53	11.914	11.909	(0.885)	145361	59.3134	59.31
100 cis-1,4-Dichloro-2-butene	53	12.219	12.224	(0.908)	140240	69.6067	69.61(R)

QC Flag Legend

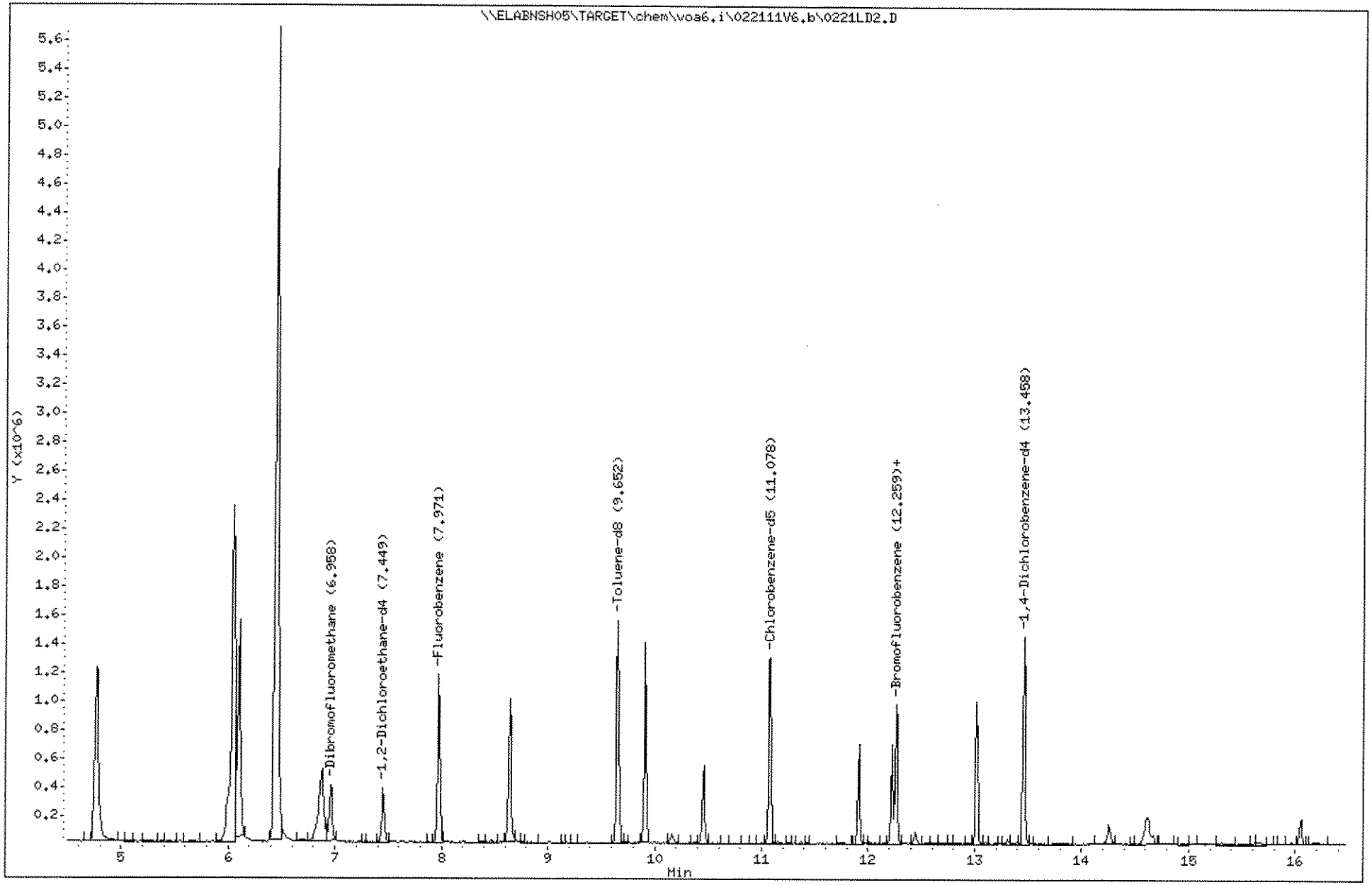
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\voa6.i\022111V6.b\0221LD2.D
Date : 21-FEB-2011 16:20
Client ID: 1B21008-BSD2
Sample Info: 1B21008-BSD2;;;;; 50ppb soil

Column phase: RTX-VRX

Instrument: voa6.i

Operator: CLB
Column diameter: 0.25



PREPARATION BENCH SHEET

1B21008

Empirical Laboratories, LLC

Printed: 3/4/2011 11:19:07AM

212

Matrix: Solid **Prepared using: MS - 5035** **Surrogate used: 11A0564**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102160-04	VOC_8260B_REG	02/21/2011 00:00	5	5				1	
1102180-01	VOC_8260B_AP9	02/21/2011 00:00	4.48	5				1	
1B21008-BLK1	QC	02/21/2011 00:00	5	5				1	
1B21008-BS1	QC	02/21/2011 00:00	5	5	11B0496		2.5	1	
1B21008-BS2	QC	02/21/2011 00:00	5	5	11A0369		2.5	1	
1B21008-BSD1	QC	02/21/2011 00:00	5	5	11B0496		2.5	1	
1B21008-BSD2	QC	02/21/2011 00:00	5	5	11A0369		2.5	1	

1102180

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Data for SW8270C Forms

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 0218001.D

Sampled: 02/18/11 16:15 Prepared: 02/21/11 13:31 Analyzed: 02/22/11 23:07

Solids: 80.80 Preparation: EXT_3546 Dilution: 1

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		38.4	408	Q, Y, U
83-32-9	Acenaphthene		32.2	408	U
208-96-8	Acenaphthylene		24.8	408	U
98-86-2	Acetophenone		50.7	408	U
62-53-3	Aniline		50.7	408	U
120-12-7	Anthracene		33.4	408	U
56-55-3	Benzo(a)anthracene		44.6	408	U
50-32-8	Benzo(a)pyrene		28.5	408	U
205-99-2	Benzo(b)fluoranthene		39.6	408	U
191-24-2	Benzo(g,h,i)perylene		86.6	408	U
65-85-0	Benzoic acid		23.5	1610	U
207-08-9	Benzo(k)fluoranthene		48.3	408	U
100-51-6	Benzyl alcohol		55.7	408	U
101-55-3	4-Bromophenyl-phenylether		32.2	408	U
85-68-7	Butylbenzylphthalate		37.1	408	U
105-60-2	Caprolactam		82.9	408	U
86-74-8	Carbazole		44.6	408	U
59-50-7	4-Chloro-3-methylphenol		34.7	408	U
106-47-8	4-Chloroaniline		59.4	408	U
111-91-1	Bis(2-chloroethoxy)methane		38.4	408	U
111-44-4	Bis(2-chloroethyl)ether		50.7	408	U
108-60-1	2,2'-Oxybis-1-chloropropane		63.1	408	U
91-58-7	2-Chloronaphthalene		39.6	408	X, U
95-57-8	2-Chlorophenol		50.7	408	U
7005-72-3	4-Chlorophenyl phenyl ether		38.4	408	U
218-01-9	Chrysene		38.4	408	U
53-70-3	Dibenz(a,h)anthracene		74.3	408	U
132-64-9	Dibenzofuran		29.7	408	U
84-74-2	Di-n-butylphthalate		37.1	408	U
106-46-7	1,4-Dichlorobenzene		52.0	408	U
541-73-1	1,3-Dichlorobenzene		49.5	408	U
95-50-1	1,2-Dichlorobenzene		48.3	408	U
120-83-2	2,4-Dichlorophenol		23.5	408	U
84-66-2	Diethylphthalate		42.1	408	U
105-67-9	2,4-Dimethylphenol		26.0	1610	Q, U
131-11-3	Dimethyl phthalate		37.1	408	U
534-52-1	4,6-Dinitro-2-methylphenol		27.2	4080	X, U
51-28-5	2,4-Dinitrophenol		161	4080	X, U
121-14-2	2,4-Dinitrotoluene		29.7	408	U
606-20-2	2,6-Dinitrotoluene		47.0	408	U
117-84-0	Di-n-octylphthalate		33.4	408	U

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 0218001.D

Sampled: 02/18/11 16:15 Prepared: 02/21/11 13:31 Analyzed: 02/22/11 23:07

Solids: 80.80 Preparation: EXT_3546 Dilution: 1

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
122-66-7	1,2-Diphenylhydrazine		33.4	408	U
117-81-7	Bis(2-ethylhexyl)phthalate		44.6	408	U
206-44-0	Fluoranthene		66.8	408	U
86-73-7	Fluorene		32.2	408	U
118-74-1	Hexachlorobenzene		43.3	408	U
87-68-3	Hexachlorobutadiene		40.8	408	U
77-47-4	Hexachlorocyclopentadiene		75.5	408	U
67-72-1	Hexachloroethane		48.3	408	U
193-39-5	Indeno(1,2,3-cd)pyrene		56.9	408	U
78-59-1	Isophorone		34.7	408	U
90-12-0	1-Methylnaphthalene		124	408	U
91-57-6	2-Methylnaphthalene		43.3	408	U
95-48-7	2-Methylphenol		48.3	408	U
108-39-4	3-Methylphenol		33.4	408	U
106-44-5	4-Methylphenol		32.2	408	U
91-20-3	Naphthalene		39.6	408	U
100-01-6	4-Nitroaniline		124	1610	U
99-09-2	3-Nitroaniline		58.2	1610	U
88-74-4	2-Nitroaniline		39.6	1610	X, U
98-95-3	Nitrobenzene		42.1	408	U
100-02-7	4-Nitrophenol		100	1610	U
88-75-5	2-Nitrophenol		27.2	408	U
62-75-9	N-Nitrosodimethylamine		118	408	U
86-30-6	N-Nitrosodiphenylamine		39.6	408	U
621-64-7	N-Nitroso-di-n-propylamine		68.1	408	U
87-86-5	Pentachlorophenol		42.1	1610	Q, U
85-01-8	Phenanthrene		28.5	408	U
108-95-2	Phenol		44.6	408	Q, U
129-00-0	Pyrene		49.5	408	U
110-86-1	Pyridine		66.8	1610	U
95-94-3	1,2,4,5-Tetrachlorobenzene		124	408	U
58-90-2	2,3,4,6-Tetrachlorophenol		124	408	U
120-82-1	1,2,4-Trichlorobenzene		32.2	408	U
88-06-2	2,4,6-Trichlorophenol		43.3	408	U
95-95-4	2,4,5-Trichlorophenol		33.4	408	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	4125	3003	72.8	45 - 105	
2-Fluorophenol	8251	5515	66.8	35 - 105	
Nitrobenzene-d5	4125	3017	73.1	35 - 100	
Phenol-d6	8251	5134	62.2	40 - 100	
Terphenyl-d14	4125	3436	83.3	30 - 125	

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory:	Empirical Laboratories, LLC			SDG:	1102180
Client:	Arcadis (A285)			Project:	Radford Army Ammunition Plant201(
Matrix:	Soil	Laboratory ID:	1102180-01	File ID:	0218001.D
Sampled:	02/18/11 16:15	Prepared:	02/21/11 13:31	Analyzed:	02/22/11 23:07
Solids:	80.80	Preparation:	EXT_3546	Dilution:	1
Batch:	1B16021	Sequence:	1B05516	Calibration:	1032006
Instrument:	MS-BNA1				

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2,4,6-Tribromophenol	8251	5433	65.8	35 - 125	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B05516
Instrument: MS-BNA1
Calibration: 1032006

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1B05516-CCV1) ug/mL				Lab File ID: SEQ-CCV1.D		Analyzed: 02/22/11 17:47		
2-Fluorobiphenyl	50.00	105	80 - 120	8.945	8.945	0.0000	+/-0.500	
2-Fluorophenol	100.0	93.7	80 - 120	4.663	4.663	0.0000	+/-0.500	
Nitrobenzene-d5	50.00	105	80 - 120	6.782	6.782	0.0000	+/-0.500	
Phenol-d6	100.0	99.1	80 - 120	5.73	5.73	0.0000	+/-0.500	
Terphenyl-d14	50.00	105	80 - 120	13.514	13.514	0.0000	+/-0.500	
2,4,6-Tribromophenol	100.0	108	80 - 120	10.715	10.715	0.0000	+/-0.500	
Blank (1B16021-BLK1) ug/Kg wet				Lab File ID: B16021B1.D		Analyzed: 02/22/11 18:51		
2-Fluorobiphenyl	3333	61.4	45 - 105	8.937	8.945	-0.0080	+/-0.500	
2-Fluorophenol	6667	64.0	35 - 105	4.647	4.663	-0.0160	+/-0.500	
Nitrobenzene-d5	3333	62.5	35 - 100	6.766	6.782	-0.0160	+/-0.500	
Phenol-d6	6667	63.0	40 - 100	5.714	5.73	-0.0160	+/-0.500	
Terphenyl-d14	3333	79.5	30 - 125	13.511	13.514	-0.0030	+/-0.500	
2,4,6-Tribromophenol	6667	59.2	35 - 125	10.708	10.715	-0.0070	+/-0.500	
LCS (1B16021-BS1) ug/Kg wet				Lab File ID: B16021L1.D		Analyzed: 02/22/11 19:48		
2-Fluorobiphenyl	3333	71.4	45 - 105	8.94	8.945	-0.0050	+/-0.500	
2-Fluorophenol	6667	80.7	35 - 105	4.663	4.663	0.0000	+/-0.500	
Nitrobenzene-d5	3333	69.4	35 - 100	6.773	6.782	-0.0090	+/-0.500	
Phenol-d6	6667	71.3	40 - 100	5.724	5.73	-0.0060	+/-0.500	
Terphenyl-d14	3333	80.5	30 - 125	13.511	13.514	-0.0030	+/-0.500	
2,4,6-Tribromophenol	6667	79.1	35 - 125	10.712	10.715	-0.0030	+/-0.500	
LCS Dup (1B16021-BSD1) ug/Kg wet				Lab File ID: B16021L2.D		Analyzed: 02/22/11 20:16		
2-Fluorobiphenyl	3333	81.5	45 - 105	8.937	8.945	-0.0080	+/-0.500	
2-Fluorophenol	6667	83.1	35 - 105	4.664	4.663	0.0010	+/-0.500	
Nitrobenzene-d5	3333	85.0	35 - 100	6.777	6.782	-0.0050	+/-0.500	
Phenol-d6	6667	81.2	40 - 100	5.725	5.73	-0.0050	+/-0.500	
Terphenyl-d14	3333	103	30 - 125	13.513	13.514	-0.0010	+/-0.500	
2,4,6-Tribromophenol	6667	86.7	35 - 125	10.712	10.715	-0.0030	+/-0.500	
Backfilll (20110218) (1102180-01) ug/Kg dry				Lab File ID: 0218001.D		Analyzed: 02/22/11 23:07		
2-Fluorobiphenyl	4125	72.8	45 - 105	8.937	8.945	-0.0080	+/-0.500	
2-Fluorophenol	8251	66.8	35 - 105	4.649	4.663	-0.0140	+/-0.500	
Nitrobenzene-d5	4125	73.1	35 - 100	6.772	6.782	-0.0100	+/-0.500	
Phenol-d6	8251	62.2	40 - 100	5.717	5.73	-0.0130	+/-0.500	
Terphenyl-d14	4125	83.3	30 - 125	13.511	13.514	-0.0030	+/-0.500	
2,4,6-Tribromophenol	8251	65.8	35 - 125	10.708	10.715	-0.0070	+/-0.500	

LCS / LCS DUPLICATE RECOVERY

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B16021	Laboratory ID:	1B16021-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 1 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
3,3'-Dichlorobenzidine	3333	1986	59.6	19 - 130
Acenaphthene	3333	2642	79.3	45 - 110
Acenaphthylene	3333	2523	75.7	45 - 105
Acetophenone	3333	2098	62.9	35 - 110
Aniline	3333	2300	69.0	10 - 110
Anthracene	3333	2753	82.6	55 - 105
Benzo(a)anthracene	3333	2620	78.6	50 - 110
Benzo(a)pyrene	3333	2736	82.1	50 - 110
Benzo(b)fluoranthene	3333	3146	94.4	45 - 115
Benzo(g,h,i)perylene	3333	2628	78.9	40 - 125
Benzoic acid	3333	2645	79.4	0 - 110
Benzo(k)fluoranthene	3333	3225	96.8	45 - 125
Benzyl alcohol	3333	2454	73.6	20 - 125
4-Bromophenyl-phenylether	3333	2963	88.9	45 - 115
Butylbenzylphthalate	3333	2953	88.6	50 - 125
Caprolactam	3333	2314	69.4	50 - 110
Carbazole	3333	2841	85.2	45 - 115
4-Chloro-3-methylphenol	3333	2831	84.9	45 - 115
4-Chloroaniline	3333	2207	66.2	10 - 95
Bis(2-chloroethoxy)methane	3333	2753	82.6	45 - 110
Bis(2-chloroethyl)ether	3333	2656	79.7	40 - 105
2,2'-Oxybis-1-chloropropane	3333	2725	81.7	20 - 115
2-Chloronaphthalene	3333	2873	86.2	45 - 105
2-Chlorophenol	3333	2589	77.7	45 - 105
4-Chlorophenyl phenyl ether	3333	2641	79.2	45 - 110
Chrysene	3333	2627	78.8	55 - 110
Dibenz(a,h)anthracene	3333	2548	76.5	40 - 125
Dibenzofuran	3333	2640	79.2	50 - 105
Di-n-butylphthalate	3333	2775	83.2	55 - 110
1,4-Dichlorobenzene	3333	2621	78.6	35 - 105

LCS / LCS DUPLICATE RECOVERY

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B16021
Laboratory ID: 1B16021-BS1
Preparation: EXT_3546
Initial/Final: 15 g / 1 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
1,3-Dichlorobenzene	3333	2644	79.3	40 - 100
1,2-Dichlorobenzene	3333	2674	80.2	45 - 95
2,4-Dichlorophenol	3333	2642	79.3	45 - 110
Diethylphthalate	3333	2784	83.5	50 - 115
2,4-Dimethylphenol	3333	2992	89.8	30 - 105
Dimethyl phthalate	3333	2833	85.0	50 - 110
4,6-Dinitro-2-methylphenol	3333	3579	107	30 - 135
2,4-Dinitrophenol	3333	3371	101	15 - 130
2,4-Dinitrotoluene	3333	2821	84.6	50 - 115
2,6-Dinitrotoluene	3333	2524	75.7	50 - 110
Di-n-octylphthalate	3333	3997	120	40 - 130
1,2-Diphenylhydrazine	3333	2792	83.7	10 - 110
Bis(2-ethylhexyl)phthalate	3333	2849	85.5	45 - 125
Fluoranthene	3333	2577	77.3	55 - 115
Fluorene	3333	2532	76.0	50 - 110
Hexachlorobenzene	3333	2844	85.3	45 - 120
Hexachlorobutadiene	3333	2769	83.1	30 - 110
Hexachlorocyclopentadiene	3333	2020	60.6	10 - 110
Hexachloroethane	3333	2586	77.6	35 - 110
Indeno(1,2,3-cd)pyrene	3333	2458	73.8	40 - 120
Isophorone	3333	2337	70.1	45 - 110
1-Methylnaphthalene	3333	2509	75.3	30 - 110
2-Methylnaphthalene	3333	2824	84.7	40 - 110
2-Methylphenol	3333	2774	83.2	40 - 105
4-Methylphenol	3333	2436	73.1	40 - 105
Naphthalene	3333	2564	76.9	40 - 105
4-Nitroaniline	3333	3235	97.0	35 - 115
3-Nitroaniline	3333	2213	66.4	25 - 110
2-Nitroaniline	3333	2586	77.6	45 - 120
Nitrobenzene	3333	2561	76.8	40 - 115

LCS / LCS DUPLICATE RECOVERY

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B16021	Laboratory ID:	1B16021-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 1 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
4-Nitrophenol	3333	2660	79.8	15 - 140
2-Nitrophenol	3333	2807	84.2	40 - 110
N-Nitrosodimethylamine	3333	2764	82.9	20 - 115
N-Nitrosodiphenylamine	3333	2124	63.7	50 - 115
N-Nitroso-di-n-propylamine	3333	2311	69.3	40 - 115
Pentachlorophenol	3333	3094	92.8	25 - 120
Phenanthrene	3333	2786	83.6	50 - 110
Phenol	3333	2943	88.3	40 - 100
Pyrene	3333	2934	88.0	45 - 125
Pyridine	3333	2305	69.1	10 - 110
1,2,4,5-Tetrachlorobenzene	3333	2328	69.9	50 - 150
2,3,4,6-Tetrachlorophenol	3333	2078	62.3	50 - 125
1,2,4-Trichlorobenzene	3333	2348	70.5	45 - 110
2,4,6-Trichlorophenol	3333	2813	84.4	45 - 110
2,4,5-Trichlorophenol	3333	2808	84.2	50 - 110

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
3,3'-Dichlorobenzidine	3333	2834	85.0	35.2 *	30	19 - 130
Acenaphthene	3333	3070	92.1	15.0	30	45 - 110
Acenaphthylene	3333	2703	81.1	6.88	30	45 - 105
Acetophenone	3333	2359	70.8	11.7	30	35 - 110
Aniline	3333	2751	82.5	17.9	30	10 - 110
Anthracene	3333	3039	91.2	9.87	30	55 - 105
Benzo(a)anthracene	3333	3120	93.6	17.4	30	50 - 110
Benzo(a)pyrene	3333	2895	86.9	5.64	30	50 - 110
Benzo(b)fluoranthene	3333	3545	106	11.9	30	45 - 115
Benzo(g,h,i)perylene	3333	2739	82.2	4.11	30	40 - 125
Benzoic acid	3333	3156	94.7	17.6	30	0 - 110
Benzo(k)fluoranthene	3333	3093	92.8	4.19	30	45 - 125

LCS / LCS DUPLICATE RECOVERY

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B16021
Laboratory ID: 1B16021-BSD1
Preparation: EXT_3546
Initial/Final: 15 g / 1 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Benzyl alcohol	3333	2743	82.3	11.1	30	20 - 125
4-Bromophenyl-phenylether	3333	3528	106	17.4	30	45 - 115
Butylbenzylphthalate	3333	3940	118	28.7	30	50 - 125
Caprolactam	3333	2773	83.2	18.1	30	50 - 110
Carbazole	3333	3284	98.5	14.5	30	45 - 115
4-Chloro-3-methylphenol	3333	3295	98.9	15.2	30	45 - 115
4-Chloroaniline	3333	2743	82.3	21.7	30	10 - 95
Bis(2-chloroethoxy)methane	3333	3226	96.8	15.8	30	45 - 110
Bis(2-chloroethyl)ether	3333	2833	85.0	6.44	30	40 - 105
2,2'-Oxybis-1-chloropropane	3333	2994	89.8	9.41	30	20 - 115
2-Chloronaphthalene	3333	2883	86.5	0.347	30	45 - 105
2-Chlorophenol	3333	3048	91.4	16.3	30	45 - 105
4-Chlorophenyl phenyl ether	3333	2925	87.8	10.2	30	45 - 110
Chrysene	3333	3227	96.8	20.5	30	55 - 110
Dibenz(a,h)anthracene	3333	2773	83.2	8.42	30	40 - 125
Dibenzofuran	3333	3160	94.8	17.9	30	50 - 105
Di-n-butylphthalate	3333	3384	102	19.8	30	55 - 110
1,4-Dichlorobenzene	3333	2955	88.6	12.0	30	35 - 105
1,3-Dichlorobenzene	3333	2893	86.8	9.00	30	40 - 100
1,2-Dichlorobenzene	3333	2964	88.9	10.3	30	45 - 95
2,4-Dichlorophenol	3333	3035	91.1	13.9	30	45 - 110
Diethylphthalate	3333	3298	98.9	16.9	30	50 - 115
2,4-Dimethylphenol	**3333**	**3573**	**107** *	**17.7**	**30**	**30 - 105**
Dimethyl phthalate	3333	3109	93.3	9.29	30	50 - 110
4,6-Dinitro-2-methylphenol	3333	4083	122	13.2	30	30 - 135
2,4-Dinitrophenol	3333	4226	127	22.5	30	15 - 130
2,4-Dinitrotoluene	3333	3346	100	17.0	30	50 - 115
2,6-Dinitrotoluene	3333	2980	89.4	16.6	30	50 - 110
Di-n-octylphthalate	3333	3973	119	0.603	30	40 - 130
1,2-Diphenylhydrazine	3333	2966	89.0	6.04	30	10 - 110

LCS / LCS DUPLICATE RECOVERY

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B16021
Laboratory ID: 1B16021-BSD1
Preparation: EXT_3546
Initial/Final: 15 g / 1 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #		% RPD #	QC LIMITS RPD	QC LIMITS REC.
Bis(2-ethylhexyl)phthalate	3333	3440	103		18.8	30	45 - 125
Fluoranthene	3333	3103	93.1		18.5	30	55 - 115
Fluorene	3333	2889	86.7		13.2	30	50 - 110
Hexachlorobenzene	3333	3259	97.8		13.6	30	45 - 120
Hexachlorobutadiene	3333	3167	95.0		13.4	30	30 - 110
Hexachlorocyclopentadiene	3333	2366	71.0		15.8	30	10 - 110
Hexachloroethane	3333	2867	86.0		10.3	30	35 - 110
Indeno(1,2,3-cd)pyrene	3333	2756	82.7		11.4	30	40 - 120
Isophorone	3333	2692	80.8		14.1	30	45 - 110
1-Methylnaphthalene	3333	2948	88.4		16.1	30	30 - 110
2-Methylnaphthalene	3333	3077	92.3		8.58	30	40 - 110
2-Methylphenol	3333	3151	94.5		12.7	30	40 - 105
4-Methylphenol	3333	2920	87.6		18.1	30	40 - 105
Naphthalene	3333	3054	91.6		17.5	30	40 - 105
4-Nitroaniline	3333	3739	112		14.5	30	35 - 115
3-Nitroaniline	3333	2621	78.6		16.9	30	25 - 110
2-Nitroaniline	3333	3089	92.7		17.7	30	45 - 120
Nitrobenzene	3333	2914	87.4		12.9	30	40 - 115
4-Nitrophenol	3333	3329	99.9		22.3	30	15 - 140
2-Nitrophenol	3333	3527	106		22.7	30	40 - 110
N-Nitrosodimethylamine	3333	3138	94.1		12.7	30	20 - 115
N-Nitrosodiphenylamine	3333	2448	73.4		14.1	30	50 - 115
N-Nitroso-di-n-propylamine	3333	2746	82.4		17.2	30	40 - 115
Pentachlorophenol	**3333**	**4059**	**122**	*	**27.0**	**30**	**25 - 120**
Phenanthrene	3333	3106	93.2		10.8	30	50 - 110
Phenol	**3333**	**3465**	**104**	*	**16.3**	**30**	**40 - 100**
Pyrene	3333	3840	115		26.7	30	45 - 125
Pyridine	3333	2345	70.4		1.73	30	10 - 110
1,2,4,5-Tetrachlorobenzene	3333	2763	82.9		17.1	30	50 - 150
2,3,4,6-Tetrachlorophenol	3333	2492	74.8		18.1	30	50 - 125

LCS / LCS DUPLICATE RECOVERY

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B16021	Laboratory ID:	1B16021-BSD1
Preparation:	EXT_3546	Initial/Final:	15 g / 1 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichlorobenzene	3333	2906	87.2	21.2	30	45 - 110
2,4,6-Trichlorophenol	3333	3128	93.8	10.6	30	45 - 110
2,4,5-Trichlorophenol	3333	3331	99.9	17.0	30	50 - 110

PREPARATION BATCH SUMMARY

SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1B16021 Batch Matrix: Solid Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	02/21/11 13:31	15.00	1.00
Blank	1B16021-BLK1	02/21/11 13:31	15.00	1.00
LCS	1B16021-BS1	02/21/11 13:31	15.00	1.00
LCS Dup	1B16021-BSD1	02/21/11 13:31	15.00	1.00

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	SEQ-TUN1.D	Injection Date:	01/26/11
Instrument ID:	MS-BNA1	Injection Time:	15:13
Sequence:	1B03208	Lab Sample ID:	1B03208-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	41.9	PASS
68	Less than 2% of 69	0	PASS
69	Less than 200% of 198	62.8	PASS
70	Less than 2% of 69	0.345	PASS
127	40 - 60% of 198	44.3	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.89	PASS
275	10 - 30% of 198	16.8	PASS
365	1 - 200% of 198	1.47	PASS
441	0.001 - 100% of 443	70.3	PASS
442	40 - 200% of 198	40.3	PASS
443	17 - 23% of 442	21.7	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	SEQ-TUN1.D	Injection Date:	01/28/11
Instrument ID:	MS-BNA1	Injection Time:	09:18
Sequence:	1B03208	Lab Sample ID:	1B03208-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	31.1	PASS
68	Less than 2% of 69	0	PASS
69	Less than 200% of 198	48.5	PASS
70	Less than 2% of 69	0.314	PASS
127	40 - 60% of 198	40.4	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.62	PASS
275	10 - 30% of 198	20	PASS
365	1 - 200% of 198	2.17	PASS
441	0.001 - 100% of 443	75.3	PASS
442	40 - 200% of 198	77.2	PASS
443	17 - 23% of 442	19.8	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Lab File ID:	SEQ-TUN1.D	Injection Date:	02/22/11
Instrument ID:	MS-BNA1	Injection Time:	17:21
Sequence:	1B05516	Lab Sample ID:	1B05516-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	38.3	PASS
68	Less than 2% of 69	0	PASS
69	Less than 200% of 198	60.9	PASS
70	Less than 2% of 69	0.448	PASS
127	40 - 60% of 198	45.8	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.71	PASS
275	10 - 30% of 198	17.2	PASS
365	1 - 200% of 198	1.37	PASS
441	0.001 - 100% of 443	74.2	PASS
442	40 - 200% of 198	45.7	PASS
443	17 - 23% of 442	18.6	PASS

ANALYSIS SEQUENCE SUMMARY

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B03208
Instrument: MS-BNA1
Calibration: 1032006

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	1B03208-TUN1	SEQ-TUN1.D	01/26/11 15:13
Cal Standard	1B03208-CAL1	SEQ-CAL1.D	01/26/11 15:40
Cal Standard	1B03208-CAL2	SEQ-CAL2.D	01/26/11 16:08
Cal Standard	1B03208-CAL3	SEQ-CAL3.D	01/26/11 16:37
Cal Standard	1B03208-CAL4	SEQ-CAL4.D	01/26/11 17:05
Cal Standard	1B03208-CAL5	SEQ-CAL5.D	01/26/11 17:34
Cal Standard	1B03208-CAL6	SEQ-CAL6.D	01/26/11 18:03
Cal Standard	1B03208-CAL7	SEQ-CAL7.D	01/26/11 18:31
Cal Standard	1B03208-CAL8	SEQ-CAL8.D	01/26/11 19:00
Cal Standard	1B03208-CAL9	SEQ-CAL9.D	01/26/11 19:29
Cal Standard	1B03208-CALA	SEQ-CALA.D	01/26/11 19:57
Cal Standard	1B03208-CALB	SEQ-CALB.D	01/26/11 20:26
Cal Standard	1B03208-CALC	SEQ-CALC.D	01/26/11 20:54
Cal Standard	1B03208-CALD	SEQ-CALD.D	01/26/11 21:23
Cal Standard	1B03208-CALE	SEQ-CALE.D	01/26/11 21:52
Cal Standard	1B03208-CALF	SEQ-CALF.D	01/26/11 22:20
Cal Standard	1B03208-CALG	SEQ-CALG.D	01/26/11 22:49
Initial Cal Check	1B03208-ICV1	SEQ-ICV1.D	01/26/11 23:17
Initial Cal Check	1B03208-ICV2	SEQ-ICV2.D	01/26/11 23:45
Initial Cal Check	1B03208-ICV3	SEQ-ICV3.D	01/27/11 00:13
MS Tune	1B03208-TUN2	SEQ-TUN1.D	01/28/11 09:18
Initial Cal Check	1B03208-ICV4	SEQ-ICV4.D	01/28/11 10:25

ANALYSIS SEQUENCE SUMMARY

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1B05516	Instrument:	MS-BNA1
Calibration:	1032006		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	1B05516-TUN1	SEQ-TUN1.D	02/22/11 17:21
Calibration Check	1B05516-CCV1	SEQ-CCV1.D	02/22/11 17:47
Blank	1B16021-BLK1	B16021B1.D	02/22/11 18:51
LCS	1B16021-BS1	B16021L1.D	02/22/11 19:48
LCS Dup	1B16021-BSD1	B16021L2.D	02/22/11 20:16
Backfilll (20110218)	1102180-01	0218001.D	02/22/11 23:07

INTERNAL STANDARD AREA AND RT SUMMARY
SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B05516
Instrument: MS-BNA1
Calibration: 1032006

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (1B05516-CCV1)			Lab File ID: SEQ-CCV1.D			Analyzed: 02/22/11 17:47			
1,4-Dichlorobenzene-d4	584790	6.126	488941	6.173	120	50 - 200	-0.0470	+/-0.50	
Naphthalene-d8	1862736	7.63	1584368	7.661	118	50 - 200	-0.0310	+/-0.50	
Acenaphthene-d10	886670	9.755	740127	9.783	120	50 - 200	-0.0280	+/-0.50	
Phenanthrene-d10	1260961	11.564	1111588	11.597	113	50 - 200	-0.0330	+/-0.50	
Chrysene-d12	867978	14.795	979203	14.854	89	50 - 200	-0.0590	+/-0.50	
Perylene-d12	631630	16.529	820355	16.6	77	50 - 200	-0.0710	+/-0.50	
Blank (1B16021-BLK1)			Lab File ID: B16021B1.D			Analyzed: 02/22/11 18:51			
1,4-Dichlorobenzene-d4	458324	6.121	584790	6.126	78	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8	1443029	7.621	1862736	7.63	77	50 - 200	-0.0090	+/-0.50	
Acenaphthene-d10	720098	9.745	886670	9.755	81	50 - 200	-0.0100	+/-0.50	
Phenanthrene-d10	1047134	11.551	1260961	11.564	83	50 - 200	-0.0130	+/-0.50	
Chrysene-d12	701666	14.787	867978	14.795	81	50 - 200	-0.0080	+/-0.50	
Perylene-d12	601328	16.525	631630	16.529	95	50 - 200	-0.0040	+/-0.50	
LCS (1B16021-BS1)			Lab File ID: B16021L1.D			Analyzed: 02/22/11 19:48			
1,4-Dichlorobenzene-d4	435560	6.127	584790	6.126	74	50 - 200	0.0010	+/-0.50	
Naphthalene-d8	1364858	7.62	1862736	7.63	73	50 - 200	-0.0100	+/-0.50	
Acenaphthene-d10	644135	9.747	886670	9.755	73	50 - 200	-0.0080	+/-0.50	
Phenanthrene-d10	914730	11.554	1260961	11.564	73	50 - 200	-0.0100	+/-0.50	
Chrysene-d12	702185	14.79	867978	14.795	81	50 - 200	-0.0050	+/-0.50	
Perylene-d12	417145	16.529	631630	16.529	66	50 - 200	0.0000	+/-0.50	
LCS Dup (1B16021-BSD1)			Lab File ID: B16021L2.D			Analyzed: 02/22/11 20:16			
1,4-Dichlorobenzene-d4	460838	6.128	584790	6.126	79	50 - 200	0.0020	+/-0.50	
Naphthalene-d8	1396474	7.623	1862736	7.63	75	50 - 200	-0.0070	+/-0.50	
Acenaphthene-d10	722620	9.746	886670	9.755	81	50 - 200	-0.0090	+/-0.50	
Phenanthrene-d10	993004	11.553	1260961	11.564	79	50 - 200	-0.0110	+/-0.50	
Chrysene-d12	701346	14.794	867978	14.795	81	50 - 200	-0.0010	+/-0.50	
Perylene-d12	548773	16.526	631630	16.529	87	50 - 200	-0.0030	+/-0.50	
Backfilll (20110218) (1102180-01)			Lab File ID: 0218001.D			Analyzed: 02/22/11 23:07			
1,4-Dichlorobenzene-d4	463826	6.126	584790	6.126	79	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	1399381	7.623	1862736	7.63	75	50 - 200	-0.0070	+/-0.50	
Acenaphthene-d10	679601	9.748	886670	9.755	77	50 - 200	-0.0070	+/-0.50	
Phenanthrene-d10	987377	11.554	1260961	11.564	78	50 - 200	-0.0100	+/-0.50	
Chrysene-d12	710661	14.786	867978	14.795	82	50 - 200	-0.0090	+/-0.50	
Perylene-d12	542351	16.528	631630	16.529	86	50 - 200	-0.0010	+/-0.50	

INITIAL CALIBRATION DATA

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3,3'-Dichlorobenzidine												
Acenaphthene	5	1.220878	10	1.118627	20	1.212567	40	1.085046	50	1.043914	60	1.052242
Acenaphthylene	5	1.94982	10	2.146404	20	1.823227	40	1.68579	50	1.661411	60	1.69419
Acetophenone												
Aniline	5	2.02499	10	2.162058	20	1.966631	40	2.001997	50	1.898633	60	1.897488
Anthracene	5	1.184955	10	1.081563	20	1.164455	40	1.091871	50	1.040675	60	0.9601388
Atrazine												
Benzaldehyde												
Benzidine												
Benzo(a)anthracene	5	1.162396	10	1.11186	20	1.213411	40	1.172758	50	1.123439	60	1.17446
Benzo(a)pyrene	5	1.028759	10	0.9828043	20	1.100819	40	1.122026	50	1.01213	60	1.049306
Benzo(b)fluoranthene	5	1.077629	10	1.039558	20	1.096949	40	1.152977	50	1.139324	60	1.106174
Benzo(g,h,i)perylene	5	0.8224602	10	0.7987842	20	0.8059861	40	0.7816645	50	0.7444304	60	0.6702291
Benzoic acid	5	0.1331081	10	0.1669506	20	0.2293678	40	0.2308795	50	0.2778284	60	0.2809271
Benzo(k)fluoranthene	5	1.29056	10	1.251448	20	1.316401	40	1.277549	50	1.091518	60	1.245353
Benzyl alcohol	5	0.8918595	10	0.9057471	20	0.8810121	40	0.8683949	50	0.8673854	60	0.8174535
1,1-Biphenyl												
4-Bromophenyl-phenylether	5	0.231972	10	0.2409782	20	0.260483	40	0.2108992	50	0.239031	60	0.2319426
Butylbenzylphthalate	5	0.7540163	10	0.7862457	20	0.8246928	40	0.8176434	50	0.7199546	60	0.8287041
Caprolactam												
Carbazole	5	1.128219	10	1.02969	20	1.000536	40	0.8835432	50	0.8901069	60	0.8548234
4-Chloro-3-methylphenol	5	0.310694	10	0.2887984	20	0.2948105	40	0.2876101	50	0.2892545	60	0.2792311
4-Chloroaniline	5	0.4857113	10	0.4592316	20	0.4857785	40	0.4309516	50	0.4412442	60	0.4082374
Bis(2-chloroethoxy)methane	5	0.5100818	10	0.4912081	20	0.5153237	40	0.445233	50	0.4453259	60	0.4436365
Bis(2-chloroethyl)ether	5	1.442472	10	1.590034	20	1.374359	40	1.269574	50	1.300273	60	1.297892
2,2'-Oxybis-1-chloropropane	5	2.184818	10	2.306427	20	2.189966	40	2.011674	50	1.717134	60	1.712654
2-Chloronaphthalene	5	1.247416	10	1.208501	20	1.26931	40	1.16149	50	1.088393	60	1.064578
2-Chlorophenol	5	1.438581	10	1.288788	20	1.365938	40	1.295661	50	1.283665	60	1.204709
4-Chlorophenyl phenyl ether	5	0.5713084	10	0.574376	20	0.5688825	40	0.5386735	50	0.5253523	60	0.5281174
Chrysene	5	1.181379	10	1.170608	20	1.189425	40	1.176048	50	1.091368	60	1.142452
Dibenz(a,h)anthracene	5	0.7898291	10	0.7836814	20	0.7617359	40	0.8067768	50	0.7553903	60	0.6819198

INITIAL CALIBRATION DATA

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Dibenzofuran	5	1.576125	10	1.695587	20	1.726036	40	1.527336	50	1.475582	60	1.426709
Di-n-butylphthalate	5	1.469552	10	1.493537	20	1.485016	40	1.459402	50	1.385354	60	1.243875
1,4-Dichlorobenzene	5	1.565822	10	1.580467	20	1.482342	40	1.374248	50	1.327094	60	1.312307
1,3-Dichlorobenzene	5	1.564366	10	1.550635	20	1.466796	40	1.395741	50	1.410471	60	1.324776
1,2-Dichlorobenzene	5	1.485698	10	1.514043	20	1.430022	40	1.33701	50	1.283084	60	1.19311
2,6-Dichlorophenol												
2,4-Dichlorophenol	5	0.318596	10	0.3480627	20	0.326904	40	0.2954511	50	0.3200354	60	0.319605
Diethylphthalate	5	1.660709	10	1.577697	20	1.524236	40	1.261	50	1.233003	60	1.223311
2,4-Dimethylphenol	5	0.3868736	10	0.3553646	20	0.3612512	40	0.3462765	50	0.3329041	60	0.3471536
Dimethyl phthalate	5	1.371102	10	1.473182	20	1.50951	40	1.243328	50	1.313868	60	1.251818
4,6-Dinitro-2-methylphenol	5	5.478294E-02	10	6.840982E-02	20	0.1071133	40	0.1333907	50	0.1503998	60	0.1421705
2,4-Dinitrophenol	5	~~5.062163E-02~~	10	6.237037E-02	20	0.1011521	40	0.1317647	50	0.1515695	60	0.1605612
2,4-Dinitrotoluene	5	0.3090174	10	0.3793169	20	0.4185296	40	0.3974313	50	0.3875191	60	0.3787391
2,6-Dinitrotoluene	5	0.3183163	10	0.3493131	20	0.3754144	40	0.3444299	50	0.3554451	60	0.3624102
Di-n-octylphthalate	5	1.6316	10	1.635798	20	1.910787	40	1.92312	50	1.690144	60	1.92358
1,4-Dioxane												
1,2-Diphenylhydrazine	5	0.9580609	10	1.008812	20	0.8802152	40	0.8420501	50	0.8308116	60	0.7998217
Bis(2-ethylhexyl)phthalate	5	0.9781605	10	1.042781	20	1.141739	40	1.073501	50	1.024078	60	1.086512
Fluoranthene	5	1.174554	10	1.119604	20	1.158582	40	1.010021	50	1.108267	60	1.002067
Fluorene	5	1.293421	10	1.21811	20	1.266726	40	1.122978	50	1.117687	60	1.11628
2-Fluorobiphenyl	5	1.345385	10	1.322831	20	1.520308	40	1.324401	50	1.225178	60	1.232052
2-Fluorophenol	10	1.351626	20	1.413124	40	1.336365	80	1.187975	100	1.20463	120	1.147633
Hexachlorobenzene	5	0.2665323	10	0.2655703	20	0.2697611	40	0.2648784	50	0.2590678	60	0.2544472
Hexachlorobutadiene	5	0.2026878	10	0.1856802	20	0.1853857	40	0.1781549	50	0.170282	60	0.1647461
Hexachlorocyclopentadiene	5	0.2904279	10	0.3291612	20	0.3651913	40	0.3514916	50	0.367711	60	0.3489062
Hexachloroethane	5	0.6518942	10	0.6308284	20	0.5940863	40	0.5416978	50	0.5772956	60	0.5438372
Indeno(1,2,3-cd)pyrene	5	0.9892853	10	0.9494004	20	0.9327697	40	0.9464554	50	0.9040208	60	0.8189074
Isophorone	5	0.8217078	10	0.8399116	20	0.7783914	40	0.749957	50	0.7902478	60	0.746112
1-Methylnaphthalene	5	0.5974456	10	0.5823433	20	0.5405367	40	0.4803757	50	0.4934924	60	0.4820733
2-Methylnaphthalene	5	0.5430144	10	0.5513543	20	0.5312456	40	0.4988653	50	0.4906804	60	0.4548918
2-Methylphenol	5	1.286482	10	1.250346	20	1.247537	40	1.126521	50	1.096435	60	1.008644

INITIAL CALIBRATION DATA

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3-Methylphenol	5	1.253529	10	1.307357	20	1.301847	40	1.200152	50	1.183712	60	1.087107
4-Methylphenol	5	1.253529	10	1.307357	20	1.301847	40	1.200152	50	1.183712	60	1.087107
Naphthalene	5	1.116486	10	1.119735	20	1.067584	40	0.9710557	50	0.9156539	60	0.8994825
4-Nitroaniline	5	0.2224683	10	0.2128799	20	0.1693595	40	0.2175572	50	0.2554806	60	0.2397759
3-Nitroaniline	5	0.3255846	10	0.3423936	20	0.370489	40	0.3366752	50	0.3401997	60	0.3519287
2-Nitroaniline	5	0.2654652	10	0.3352421	20	0.3339656	40	0.3505404	50	0.3128571	60	0.3442502
Nitrobenzene	5	0.3891568	10	0.4016634	20	0.3673868	40	0.3628202	50	0.3639734	60	0.3552985
Nitrobenzene-d5	5	0.3956987	10	0.3972185	20	0.3663041	40	0.3665365	50	0.3848744	60	0.3536817
4-Nitrophenol	5	0.1497267	10	0.1860405	20	0.2060501	40	0.1954678	50	0.2163265	60	0.210757
2-Nitrophenol	5	0.2103668	10	0.2175712	20	0.2231657	40	0.2457888	50	0.2287002	60	0.2342643
N-Nitrosodimethylamine	5	0.4875362	10	0.5489131	20	0.5766275	40	0.6186587	50	0.5975275	60	0.5849924
N-Nitrosodiphenylamine	5	0.692447	10	0.7515103	20	0.7118897	40	0.6351698	50	0.6608435	60	0.6252076
N-Nitroso-di-n-propylamine	5	0.9311666	10	0.9269374	20	0.9262252	40	0.819147	50	0.8173453	60	0.7504894
Pentachlorophenol	5	0.1241727	10	0.1201355	20	0.1663006	40	0.1612227	50	0.1801354	60	0.1769821
Phenanthrene	5	1.200445	10	1.166657	20	1.130055	40	1.056359	50	1.059757	60	0.986977
Phenol	5	1.751446	10	1.879768	20	1.637272	40	1.637659	50	1.575537	60	1.559301
Phenol-d6	10	1.647681	20	1.763422	40	1.626008	80	1.603414	100	1.524433	120	1.494738
Pyrene	5	1.419325	10	1.399579	20	1.383023	40	1.359213	50	1.24653	60	1.29918
Pyridine	5	1.537536	10	1.635782	20	1.541409	40	1.602552	50	1.575985	60	1.509723
Terphenyl-d14	5	0.7926602	10	0.8057548	20	0.8474803	40	0.8784666	50	0.8111087	60	0.848248
1,2,4,5-Tetrachlorobenzene												
2,3,4,6-Tetrachlorophenol	5	0.2994616	10	0.3272414	20	0.3682806	40	0.3554998	50	0.3512989	60	0.3437278
2,4,6-Tribromophenol	10	0.1431756	20	0.1442165	40	0.1561332	80	0.1413181	100	0.1487108	120	0.1437723
1,2,4-Trichlorobenzene	5	0.3682245	10	0.3577617	20	0.3747519	40	0.3449513	50	0.3420562	60	0.3493295
2,4,6-Trichlorophenol	5	0.3758167	10	0.3963889	20	0.4193174	40	0.4066011	50	0.3828678	60	0.38452
2,4,5-Trichlorophenol	5	0.4069373	10	0.4358068	20	0.4686353	40	0.4421245	50	0.4433099	60	0.420189

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3,3'-Dichlorobenzidine					5	0.345776	10	0.3735446	20	0.3383405	40	0.4092793
Acenaphthene	80	1.018418	100	0.9095531								
Acenaphthylene	80	1.475834	100	1.517921								
Acetophenone					5	1.718495	10	1.63753	20	1.524418	40	1.571136
Aniline	80	1.838443	100	1.811652								
Anthracene	80	0.986327	100	0.9420685								
Atrazine					5	0.1907566	10	0.1974337	20	0.2066576	40	0.208239
Benzaldehyde					5	1.141413	10	1.160982	20	1.025443	40	1.064124
Benzidine					5	0.4873597	10	0.5759976	20	0.629192	40	0.6726627
Benzo(a)anthracene	80	1.085961	100	1.065421								
Benzo(a)pyrene	80	1.049837	100	1.00649								
Benzo(b)fluoranthene	80	1.072877	100	1.114459								
Benzo(g,h,i)perylene	80	0.781589	100	0.6663042								
Benzoic acid	80	0.2779468	100	0.2820542								
Benzo(k)fluoranthene	80	1.178262	100	1.066763								
Benzyl alcohol	80	0.7987832	100	0.7636324								
1,1-Biphenyl					5	1.660318	10	1.616332	20	1.415179	40	1.433678
4-Bromophenyl-phenylether	80	0.2214796	100	0.2055715								
Butylbenzylphthalate	80	0.732991	100	0.6918112								
Caprolactam					5	0.119707	10	0.1253949	20	0.1145069	40	0.1360062
Carbazole	80	0.7878224	100	0.7760328								
4-Chloro-3-methylphenol	80	0.2602546	100	0.2512146								
4-Chloroaniline	80	0.4006734	100	0.4141308								
Bis(2-chloroethoxy)methane	80	0.4141729	100	0.4082329								
Bis(2-chloroethyl)ether	80	1.290856	100	1.209098								
2,2'-Oxybis-1-chloropropane	80	1.555193	100	1.808949								
2-Chloronaphthalene	80	1.019875	100	1.06234								
2-Chlorophenol	80	1.275381	100	1.260114								
4-Chlorophenyl phenyl ether	80	0.5055696	100	0.4550214								
Chrysene	80	1.03431	100	0.996392								
Dibenz(a,h)anthracene	80	0.8216482	100	0.7302443								

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Dibenzofuran	80	1.272312	100	1.282609								
Di-n-butylphthalate	80	1.25377	100	1.212919								
1,4-Dichlorobenzene	80	1.202188	100	1.192058								
1,3-Dichlorobenzene	80	1.268259	100	1.304134								
1,2-Dichlorobenzene	80	1.152838	100	1.120647								
2,6-Dichlorophenol					5	0.3378312	10	0.327105	20	0.2967903	40	0.2951475
2,4-Dichlorophenol	80	0.3094633	100	0.3044136								
Diethylphthalate	80	1.164583	100	1.135723								
2,4-Dimethylphenol	80	0.310377	100	0.2939744								
Dimethyl phthalate	80	1.246383	100	1.163514								
4,6-Dinitro-2-methylphenol	80	0.141276	100	0.1458094								
2,4-Dinitrophenol	80	0.1730286	100	0.1784883								
2,4-Dinitrotoluene	80	0.3429866	100	0.3779481								
2,6-Dinitrotoluene	80	0.3355308	100	0.3457358								
Di-n-octylphthalate	80	1.727296	100	1.901108								
1,4-Dioxane					5	0.7076939	10	0.7115041	20	0.6327187	40	0.6201284
1,2-Diphenylhydrazine	80	0.7293861	100	0.6287272								
Bis(2-ethylhexyl)phthalate	80	0.9241547	100	0.9297745								
Fluoranthene	80	1.007233	100	1.002433								
Fluorene	80	1.079617	100	0.961522								
2-Fluorobiphenyl	80	1.237633	100	1.19141								
2-Fluorophenol	160	1.052205	200	1.104915								
Hexachlorobenzene	80	0.2593156	100	0.2389274								
Hexachlorobutadiene	80	0.1585373	100	0.1651874								
Hexachlorocyclopentadiene	80	0.3745824	100	0.3733203								
Hexachloroethane	80	0.5195182	100	0.5209373								
Indeno(1,2,3-cd)pyrene	80	0.9751703	100	0.8667418								
Isophorone	80	0.7366049	100	0.7091168								
1-Methylnaphthalene	80	0.4428706	100	0.4445212								
2-Methylnaphthalene	80	0.4483581	100	0.4288413								
2-Methylphenol	80	1.011912	100	1.054777								

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3-Methylphenol	80	1.08938	100	1.065014								
4-Methylphenol	80	1.08938	100	1.065014								
Naphthalene	80	0.803674	100	0.8087121								
4-Nitroaniline	80	0.265351	100	0.2644746								
3-Nitroaniline	80	0.3683457	100	0.3506128								
2-Nitroaniline	80	0.3309131	100	0.3278767								
Nitrobenzene	80	0.316403	100	0.3115827								
Nitrobenzene-d5	80	0.3468868	100	0.3422753								
4-Nitrophenol	80	0.2207467	100	0.1969781								
2-Nitrophenol	80	0.2149201	100	0.2181142								
N-Nitrosodimethylamine	80	0.5484751	100	0.6183085								
N-Nitrosodiphenylamine	80	0.6238943	100	0.5782682								
N-Nitroso-di-n-propylamine	80	0.7585171	100	0.743702								
Pentachlorophenol	80	0.1807552	100	0.1820394								
Phenanthrene	80	0.9344506	100	0.9248322								
Phenol	80	1.423146	100	1.454171								
Phenol-d6	160	1.34971	200	1.445646								
Pyrene	80	1.21817	100	1.066224								
Pyridine	80	1.577055	100	1.61602								
Terphenyl-d14	80	0.7819749	100	0.7308348								
1,2,4,5-Tetrachlorobenzene					5	0.3041409	10	0.2738675	20	0.2545837	40	0.3138555
2,3,4,6-Tetrachlorophenol	80	0.317592	100	0.3289565								
2,4,6-Tribromophenol	160	0.1452231	200	0.1366756								
1,2,4-Trichlorobenzene	80	0.3106524	100	0.3076826								
2,4,6-Trichlorophenol	80	0.4245115	100	0.4173965								
2,4,5-Trichlorophenol	80	0.429527	100	0.4083834								

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3,3'-Dichlorobenzidine	50	0.4022903	60	0.4065189	80	0.4043308	100	0.3922965				
Acenaphthene												
Acenaphthylene												
Acetophenone	50	1.546064	60	1.573002	80	1.455533	100	1.415772				
Aniline												
Anthracene												
Atrazine	50	0.2045953	60	0.2127531	80	0.205928	100	0.2134976				
Benzaldehyde	50	0.9565525	60	0.9552402	80	0.9441259	100	0.8525288				
Benzidine	50	0.6711953	60	0.6374861	80	0.6973172	100	0.6804112				
Benzo(a)anthracene												
Benzo(a)pyrene												
Benzo(b)fluoranthene												
Benzo(g,h,i)perylene												
Benzoic acid												
Benzo(k)fluoranthene												
Benzyl alcohol												
1,1-Biphenyl	50	1.271071	60	1.516557	80	1.359401	100	1.268587				
4-Bromophenyl-phenylether												
Butylbenzylphthalate												
Caprolactam	50	0.1337222	60	0.1317621	80	0.1321053	100	0.1188764				
Carbazole												
4-Chloro-3-methylphenol												
4-Chloroaniline												
Bis(2-chloroethoxy)methane												
Bis(2-chloroethyl)ether												
2,2'-Oxybis-1-chloropropane												
2-Chloronaphthalene												
2-Chlorophenol												
4-Chlorophenyl phenyl ether												
Chrysene												
Dibenz(a,h)anthracene												

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Dibenzofuran												
Di-n-butylphthalate												
1,4-Dichlorobenzene												
1,3-Dichlorobenzene												
1,2-Dichlorobenzene												
2,6-Dichlorophenol	50	0.3247614	60	0.3152692	80	0.3067876	100	0.3061151				
2,4-Dichlorophenol												
Diethylphthalate												
2,4-Dimethylphenol												
Dimethyl phthalate												
4,6-Dinitro-2-methylphenol												
2,4-Dinitrophenol												
2,4-Dinitrotoluene												
2,6-Dinitrotoluene												
Di-n-octylphthalate												
1,4-Dioxane	50	0.572512	60	0.6466837	80	0.6451679	100	0.6224177				
1,2-Diphenylhydrazine												
Bis(2-ethylhexyl)phthalate												
Fluoranthene												
Fluorene												
2-Fluorobiphenyl												
2-Fluorophenol												
Hexachlorobenzene												
Hexachlorobutadiene												
Hexachlorocyclopentadiene												
Hexachloroethane												
Indeno(1,2,3-cd)pyrene												
Isophorone												
1-Methylnaphthalene												
2-Methylnaphthalene												
2-Methylphenol												

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3-Methylphenol												
4-Methylphenol												
Naphthalene												
4-Nitroaniline												
3-Nitroaniline												
2-Nitroaniline												
Nitrobenzene												
Nitrobenzene-d5												
4-Nitrophenol												
2-Nitrophenol												
N-Nitrosodimethylamine												
N-Nitrosodiphenylamine												
N-Nitroso-di-n-propylamine												
Pentachlorophenol												
Phenanthrene												
Phenol												
Phenol-d6												
Pyrene												
Pyridine												
Terphenyl-d14												
1,2,4,5-Tetrachlorobenzene	50	0.3096277	60	0.285836	80	0.2829317	100	0.2756055				
2,3,4,6-Tetrachlorophenol												
2,4,6-Tribromophenol												
1,2,4-Trichlorobenzene												
2,4,6-Trichlorophenol												
2,4,5-Trichlorophenol												

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
3,3'-Dichlorobenzidine	0.3840471	7.376638	14.80975	2.744989E-02			15	
Acenaphthene	1.082656	9.483861	9.821625	5.657461E-02			CCC (30)	
Acenaphthylene	1.744325	12.75083	9.605125	6.858755E-02			15	
Acetophenone	1.555244	6.168212	6.634375	7.218448E-02			15	
Aniline	1.950237	5.831973	5.807375	0.1033171			15	
Anthracene	1.056507	8.585155	11.68625	5.730172E-02			15	
Atrazine	0.2049826	3.718523	11.27987	9.895935E-02			15	
Benzaldehyde	1.012551	10.43666	5.684375	9.183361E-02			15	
Benzidine	0.6314527	11.01948	13.25575	3.711405E-02			15	
Benzo(a)anthracene	1.138713	4.414255	14.83125	3.720446E-02			15	
Benzo(a)pyrene	1.044021	4.547513	16.52988	3.873379E-02			CCC (30)	
Benzo(b)fluoranthene	1.099993	3.348838	16.14687	3.650013E-02			15	
Benzo(g,h,i)perylene	0.758931	7.956935	18.3315	6.411751E-02			15	
Benzoic acid	0.2348828	24.43774	7.4215	0.7447993	0.9967614		0.995	
Benzo(k)fluoranthene	1.214732	7.667493	16.18175	5.256876E-02			15	
Benzyl alcohol	0.8492835	5.904117	6.339625	0.134646			15	
1,1-Biphenyl	1.44264	10.16426	9.0865	7.580724E-02			15	
4-Bromophenyl-phenylether	0.2302946	7.64967	11.058	3.698206E-02			15	
Butylbenzylphthalate	0.7695074	6.808174	14.17538	0.0181131			15	
Caprolactam	0.1265101	6.344437	8.16975	0.2428858			15	
Carbazole	0.9188467	13.42596	11.88687	4.735667E-02			15	
4-Chloro-3-methylphenol	0.2827335	6.739682	8.335875	5.589678E-02			CCC (30)	
4-Chloroaniline	0.4407449	7.602189	7.752375	5.839612E-02			15	
Bis(2-chloroethoxy)methane	0.4591519	9.024322	7.3845	9.015245E-02			15	
Bis(2-chloroethyl)ether	1.34682	8.949026	5.887375	0.1010167			15	
2,2'-Oxybis-1-chloropropane	1.935852	14.19111	6.495	7.787477E-02			15	
2-Chloronaphthalene	1.140238	8.268771	9.102	5.514584E-02			15	
2-Chlorophenol	1.301605	5.44966	5.93325	0.0640218			15	
4-Chlorophenyl phenyl ether	0.5334126	7.569953	10.46213	3.392237E-02			15	
Chrysene	1.122748	6.577449	14.87787	4.224206E-02			15	
Dibenz(a,h)anthracene	0.7664032	5.859635	17.97362	4.666747E-02			15	
Dibenzofuran	1.497787	11.31125	10.03125	6.286963E-02			15	

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1032006
Instrument: MS-BNA1
Matrix: Water
Calibration Date: 1/26/2011 3:40:11PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Di-n-butylphthalate	1.375428	8.7109	12.34463	0.0340847			15	
1,4-Dichlorobenzene	1.379566	10.94327	6.191375	6.203767E-02			CCC (30)	
1,3-Dichlorobenzene	1.410647	7.838891	6.106	5.463781E-02			15	
1,2-Dichlorobenzene	1.314556	11.58735	6.360125	4.155267E-02			15	
2,6-Dichlorophenol	0.3137259	4.852462	7.75425	4.420223E-02			15	
2,4-Dichlorophenol	0.3178164	4.983195	7.490125	8.883757E-02			CCC (30)	
Diethylphthalate	1.347533	15.27682	10.34412	9.254366E-02	0.9972915		0.995	
2,4-Dimethylphenol	0.3417719	8.563737	7.26575	0.1065429			15	
Dimethyl phthalate	1.321588	9.153659	9.484625	0.1434108			15	
4,6-Dinitro-2-methylphenol	0.1179191	31.66593	10.527	0.1204279	0.9973104		0.995	
2,4-Dinitrophenol	0.1369907	30.78159	9.873571	9.653076E-02	0.9960785		SPCC (0.05)	
2,4-Dinitrotoluene	0.373936	9.021128	10.03375	9.903814E-02			15	
2,6-Dinitrotoluene	0.3483244	4.936864	9.545375	0.1119241			15	
Di-n-octylphthalate	1.792929	7.459237	15.71263	0.024866			CCC (30)	
1,4-Dioxane	0.6448533	7.152144	3.019375	0.1113753			15	
1,2-Diphenylhydrazine	0.8347356	14.48987	10.65375	4.850528E-02			15	
Bis(2-ethylhexyl)phthalate	1.025088	7.512426	14.90587	0.0193314			15	
Fluoranthene	1.072845	6.98906	13.07425	4.253064E-02			CCC (30)	
Fluorene	1.147043	9.444569	10.45175	5.284617E-02			15	
2-Fluorobiphenyl	1.2999	8.100212	8.967125	3.987571E-02			15	
2-Fluorophenol	1.224809	10.50463	4.742625	0.1316694			15	
Hexachlorobenzene	0.2598125	3.761925	11.1185	4.707497E-02			15	
Hexachlorobutadiene	0.1763327	8.243307	7.8355	4.165048E-02			CCC (30)	
Hexachlorocyclopentadiene	0.350099	8.135736	8.706625	3.605388E-02			SPCC (0.05)	
Hexachloroethane	0.5725119	8.716146	6.7485	3.321397E-02			15	
Indeno(1,2,3-cd)pyrene	0.9228439	6.186788	17.94762	5.505283E-02			15	
Isophorone	0.7715062	5.758819	7.1245	0.1880514			15	
1-Methylnaphthalene	0.5079573	11.64757	8.633	4.208229E-02			15	
2-Methylnaphthalene	0.4934064	9.372333	8.513125	5.344917E-02			15	
2-Methylphenol	1.135332	9.877222	6.461875	0.1007337			15	
3-Methylphenol	1.186012	8.228414	6.647625	0.1700502			15	
4-Methylphenol	1.186012	8.228414	6.647625	0.1700502			15	

INITIAL CALIBRATION DATA (Continued)

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1032006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Date:	1/26/2011 3:40:11PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Naphthalene	0.9627979	13.28902	7.679625	6.733623E-02			15	
4-Nitroaniline	0.2309184	14.04035	10.48912	0.1289535			15	
3-Nitroaniline	0.3482787	4.427347	9.746125	0.1226337			15	
2-Nitroaniline	0.3251388	8.173008	9.237625	6.849578E-02			15	
Nitrobenzene	0.3585356	8.765722	6.833875	0.1095103			15	
Nitrobenzene-d5	0.3691845	5.802246	6.809875	9.945623E-02			15	
4-Nitrophenol	0.1977617	11.40524	9.955125	0.1174457			SPCC (0.05)	
2-Nitrophenol	0.2241114	5.190145	7.205375	6.189121E-02			CCC (30)	
N-Nitrosodimethylamine	0.5726299	7.635147	3.346125	0.1829083			15	
N-Nitrosodiphenylamine	0.6599038	8.482011	10.61075	6.517892E-02			CCC (30)	
N-Nitroso-di-n-propylamine	0.8341912	9.917143	6.653625	0.1894353			SPCC (0.05)	
Pentachlorophenol	0.1614679	15.71491	11.36463	3.521819E-02	0.9986717		CCC (30)	
Phenanthrene	1.057442	9.810503	11.62413	4.673016E-02			15	
Phenol	1.614787	9.276235	5.7815	0.2208323			CCC (30)	
Phenol-d6	1.556882	8.341379	5.768125	0.2252886			15	
Pyrene	1.298906	9.144153	13.35137	4.721813E-02			15	
Pyridine	1.574508	2.729928	3.381875	0.3664935			15	
Terphenyl-d14	0.812066	5.680172	13.56038	3.188842E-02			15	
1,2,4,5-Tetrachlorobenzene	0.2875561	7.072892	8.715	4.094783E-02			15	
2,3,4,6-Tetrachlorophenol	0.3365073	6.658431	10.18512	5.841319E-02			15	
2,4,6-Tribromophenol	0.1449031	3.921225	10.74725	8.448053E-02			15	
1,2,4-Trichlorobenzene	0.3444263	7.098695	7.588375	0.0361532			15	
2,4,6-Trichlorophenol	0.4009275	4.66083	8.857625	4.361742E-02			CCC (30)	
2,4,5-Trichlorophenol	0.4318641	4.727981	8.89625	5.449523E-02			15	

INITIAL CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-ICV1.D	Calibration Date:	01/26/11 15:40
Sequence:	1B03208	Injection Date:	01/26/11
Lab Sample ID:	1B03208-ICV1	Injection Time:	23:17

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Acenaphthene	A	50.00	48.86	1.082656	1.057895		-2.3	20
Acenaphthylene	A	50.00	53.91	1.744325	1.88061		7.8	20
Aniline	A	50.00	54.01	1.950237	2.106816		8.0	20
Anthracene	A	50.00	54.49	1.056507	1.151439		9.0	20
Benzo(a)anthracene	A	50.00	48.79	1.138713	1.111173		-2.4	20
Benzo(a)pyrene	A	50.00	51.01	1.044021	1.065141		2.0	20
Benzo(b)fluoranthene	A	50.00	53.46	1.099993	1.176117		6.9	20
Benzo(g,h,i)perylene	A	50.00	48.22	0.758931	0.7319486		-3.6	20
Benzoic acid	L	50.00	49.49	0.2348828	0.2661538		-1.0	20
Benzo(k)fluoranthene	A	50.00	51.57	1.214732	1.252919		3.1	20
Benzyl alcohol	A	50.00	57.60	0.8492835	0.9783686		15.2	20
4-Bromophenyl-phenylether	A	50.00	50.34	0.2302946	0.2318677		0.7	20
Butylbenzylphthalate	A	50.00	48.50	0.7695074	0.7463976		-3.0	20
Carbazole	A	50.00	49.83	0.9188467	0.9156435		-0.3	20
4-Chloro-3-methylphenol	A	50.00	48.88	0.2827335	0.2763814		-2.2	20
4-Chloroaniline	A	50.00	48.88	0.4407449	0.4308957		-2.2	20
Bis(2-chloroethoxy)methane	A	50.00	48.87	0.4591519	0.4488008		-2.3	20
Bis(2-chloroethyl)ether	A	50.00	51.95	1.34682	1.39927		3.9	20
2,2'-Oxybis-1-chloropropane	A	50.00	52.78	1.935852	2.04349		5.6	20
2-Chloronaphthalene	A	50.00	54.43	1.140238	1.241253		8.9	20
2-Chlorophenol	A	50.00	55.87	1.301605	1.45441		11.7	20
4-Chlorophenyl phenyl ether	A	50.00	53.91	0.5334126	0.5751643		7.8	20
Chrysene	A	50.00	49.81	1.122748	1.118473		-0.4	20
Dibenz(a,h)anthracene	A	50.00	51.54	0.7664032	0.7899782		3.1	20
Dibenzofuran	A	50.00	53.13	1.497787	1.591559		6.3	20
Di-n-butylphthalate	A	50.00	53.06	1.375428	1.459543		6.1	20
1,4-Dichlorobenzene	A	50.00	51.08	1.379566	1.409312		2.2	20
1,3-Dichlorobenzene	A	50.00	51.11	1.410647	1.442095		2.2	20
1,2-Dichlorobenzene	A	50.00	54.74	1.314556	1.43909		9.5	20

INITIAL CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-ICV1.D	Calibration Date:	01/26/11 15:40
Sequence:	1B03208	Injection Date:	01/26/11
Lab Sample ID:	1B03208-ICV1	Injection Time:	23:17

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
2,4-Dichlorophenol	A	50.00	50.78	0.3178164	0.3228019		1.6	20
2,4-Dimethylphenol	A	50.00	53.12	0.3417719	0.363117		6.2	20
Dimethyl phthalate	A	50.00	46.62	1.321588	1.232204		-6.8	20
4,6-Dinitro-2-methylphenol	L	50.00	57.23	0.1179191	0.1614366		14.5	20
2,4-Dinitrotoluene	A	50.00	56.52	0.373936	0.4227034		13.0	20
2,6-Dinitrotoluene	A	50.00	56.02	0.3483244	0.3902734		12.0	20
Di-n-octylphthalate	A	50.00	54.25	1.792929	1.945241		8.5	20
1,2-Diphenylhydrazine	A	50.00	55.94	0.8347356	0.9339785		11.9	20
Bis(2-ethylhexyl)phthalate	A	50.00	48.68	1.025088	0.9980238		-2.6	20
Fluoranthene	A	50.00	53.77	1.072845	1.153832		7.5	20
Fluorene	A	50.00	54.89	1.147043	1.25925		9.8	20
Hexachlorobenzene	A	50.00	52.99	0.2598125	0.2753324		6.0	20
Hexachlorobutadiene	A	50.00	50.82	0.1763327	0.1792089		1.6	20
Hexachlorocyclopentadiene	A	50.00	53.52	0.350099	0.3747613	0.05	7.0	20
Hexachloroethane	A	50.00	51.75	0.5725119	0.5925988		3.5	20
Indeno(1,2,3-cd)pyrene	A	50.00	50.45	0.9228439	0.9311681		0.9	20
Isophorone	A	50.00	44.69	0.7715062	0.6895249		-10.6	20
1-Methylnaphthalene	A	50.00	47.14	0.5079573	0.4789479		-5.7	20
2-Methylnaphthalene	A	50.00	47.28	0.4934064	0.4665976		-5.4	20
2-Methylphenol	A	50.00	55.42	1.135332	1.258309		10.8	20
3-Methylphenol	A	50.00	48.86	1.186012	1.158893		-2.3	20
4-Methylphenol	A	50.00	48.86	1.186012	1.158893		-2.3	20
Naphthalene	A	50.00	47.81	0.9627979	0.9207078		-4.4	20
3-Nitroaniline	A	50.00	56.90	0.3482787	0.3963161		13.8	20
2-Nitroaniline	A	50.00	53.24	0.3251388	0.3462363		6.5	20
Nitrobenzene	A	50.00	45.58	0.3585356	0.3268608		-8.8	20
4-Nitrophenol	A	50.00	55.39	0.1977617	0.2190963	0.05	10.8	20
2-Nitrophenol	A	50.00	54.79	0.2241114	0.2455745		9.6	20
N-Nitrosodimethylamine	A	50.00	56.16	0.5726299	0.6431284		12.3	20

INITIAL CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-ICV1.D	Calibration Date:	01/26/11 15:40
Sequence:	1B03208	Injection Date:	01/26/11
Lab Sample ID:	1B03208-ICV1	Injection Time:	23:17

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
N-Nitrosodiphenylamine	A	50.00	56.39	0.6599038	0.7442938		12.8	20
N-Nitroso-di-n-propylamine	A	50.00	49.68	0.8341912	0.8288013	0.05	-0.6	20
Phenanthrene	A	50.00	56.16	1.057442	1.187789		12.3	20
Phenol	A	50.00	56.47	1.614787	1.823722		12.9	20
Pyrene	A	50.00	48.44	1.298906	1.258473		-3.1	20
Pyridine	A	50.00	55.30	1.574508	1.74145		10.6	20
2,3,4,6-Tetrachlorophenol	A	50.00	50.10	0.3365073	0.337209		0.2	20
1,2,4-Trichlorobenzene	A	50.00	48.91	0.3444263	0.336941		-2.2	20
2,4,6-Trichlorophenol	A	50.00	54.97	0.4009275	0.440817		9.9	20
2,4,5-Trichlorophenol	A	50.00	53.87	0.4318641	0.4652694		7.7	20
2-Fluorobiphenyl	A	50.00	56.18	1.2999	1.460568		12.4	20
2-Fluorophenol	A	100.0	113.8	1.224809	1.394017		13.8	20
Nitrobenzene-d5	A	50.00	51.69	0.3691845	0.3816462		3.4	20
Terphenyl-d14	A	50.00	45.39	0.812066	0.7371136		-9.2	20
2,4,6-Tribromophenol	A	100.0	118.8	0.1449031	0.1721949		18.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-ICV2.D	Calibration Date:	01/26/11 15:40
Sequence:	1B03208	Injection Date:	01/26/11
Lab Sample ID:	1B03208-ICV2	Injection Time:	23:45

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
3,3'-Dichlorobenzidine	A	50.00	51.60	0.3840471	0.3963298		3.2	20
Acetophenone	A	50.00	51.76	1.555244	1.609954		3.5	20
Atrazine	A	50.00	52.28	0.2049826	0.214327		4.6	20
Benzaldehyde	A	50.00	43.46	1.012551	0.8801513		-13.1	20
Benzidine	A	50.00	50.30	0.6314527	0.6352446		0.6	20
1,1-Biphenyl	A	50.00	55.15	1.44264	1.591358		10.3	20
Caprolactam	A	50.00	55.66	0.1265101	0.1408405		11.3	20
1,4-Dioxane	A	50.00	48.42	0.6448533	0.6244631		-3.2	20
1,2,4,5-Tetrachlorobenzene	A	50.00	48.77	0.2875561	0.2804966		-2.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-ICV3.D	Calibration Date:	01/26/11 15:40
Sequence:	1B03208	Injection Date:	01/27/11
Lab Sample ID:	1B03208-ICV3	Injection Time:	00:13

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Diethylphthalate	L	50.00	48.25	1.347533	1.174754		-3.5	20
2,4-Dinitrophenol	L	50.00	57.52	0.1369907	0.1861539	0.05	15.0	20
Pentachlorophenol	L	50.00	58.37	0.1614679	0.2074009		16.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-ICV4.D	Calibration Date:	01/26/11 15:40
Sequence:	1B03208	Injection Date:	01/28/11
Lab Sample ID:	1B03208-ICV4	Injection Time:	10:25

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
4-Nitroaniline	A	50.00	42.68	0.2309184	0.1971107		-14.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-CCV1.D	Calibration Date:	01/26/11 15:40
Sequence:	1B05516	Injection Date:	02/22/11
Lab Sample ID:	1B05516-CCV1	Injection Time:	17:47

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
3,3'-Dichlorobenzidine	A	50.00	31.18	0.3840471	0.2394992		-37.6	20 *
Acenaphthene	A	50.00	50.14	1.082656	1.085744		0.3	20
Acenaphthylene	A	50.00	49.64	1.744325	1.7316		-0.7	20
Acetophenone	A	50.00	48.19	1.555244	1.499011		-3.6	20
Aniline	A	50.00	45.54	1.950237	1.776255		-8.9	20
Anthracene	A	50.00	52.98	1.056507	1.119375		6.0	20
Benzo(a)anthracene	A	50.00	47.52	1.138713	1.082326		-5.0	20
Benzo(a)pyrene	A	50.00	48.94	1.044021	1.021878		-2.1	20
Benzo(b)fluoranthene	A	50.00	52.48	1.099993	1.154615		5.0	20
Benzo(g,h,i)perylene	A	50.00	46.60	0.758931	0.7072862		-6.8	20
Benzoic acid	L	50.00	51.96	0.2348828	0.2807853		3.9	20
Benzo(k)fluoranthene	A	50.00	49.26	1.214732	1.196654		-1.5	20
Benzyl alcohol	A	50.00	47.17	0.8492835	0.8011601		-5.7	20
1,1-Biphenyl	A	50.00	47.52	1.44264	1.371257		-4.9	20
4-Bromophenyl-phenylether	A	50.00	47.99	0.2302946	0.2210505		-4.0	20
Butylbenzylphthalate	A	50.00	50.37	0.7695074	0.7751791		0.7	20
Caprolactam	A	50.00	50.69	0.1265101	0.1282565		1.4	20
Carbazole	A	50.00	44.56	0.9188467	0.8189823		-10.9	20
4-Chloro-3-methylphenol	A	50.00	50.26	0.2827335	0.2842056		0.5	20
4-Chloroaniline	A	50.00	42.35	0.4407449	0.3733137		-15.3	20
Bis(2-chloroethoxy)methane	A	50.00	47.14	0.4591519	0.4328832		-5.7	20
Bis(2-chloroethyl)ether	A	50.00	44.23	1.34682	1.191387		-11.5	20
2,2'-Oxybis-1-chloropropane	A	50.00	47.21	1.935852	1.827949		-5.6	20
2-Chloronaphthalene	A	50.00	64.36	1.140238	1.467804		28.7	20 *
2-Chlorophenol	A	50.00	47.60	1.301605	1.239043		-4.8	20
4-Chlorophenyl phenyl ether	A	50.00	49.00	0.5334126	0.5227875		-2.0	20
Chrysene	A	50.00	48.14	1.122748	1.08103		-3.7	20
Dibenz(a,h)anthracene	A	50.00	47.30	0.7664032	0.7250485		-5.4	20
Dibenzofuran	A	50.00	47.64	1.497787	1.427111		-4.7	20

CONTINUING CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-CCV1.D	Calibration Date:	01/26/11 15:40
Sequence:	1B05516	Injection Date:	02/22/11
Lab Sample ID:	1B05516-CCV1	Injection Time:	17:47

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Di-n-butylphthalate	A	50.00	46.58	1.375428	1.281479		-6.8	20	
1,4-Dichlorobenzene	A	50.00	50.54	1.379566	1.394456		1.1	20	
1,3-Dichlorobenzene	A	50.00	49.43	1.410647	1.394526		-1.1	20	
1,2-Dichlorobenzene	A	50.00	49.72	1.314556	1.307218		-0.6	20	
2,4-Dichlorophenol	A	50.00	49.74	0.3178164	0.3161358		-0.5	20	
Diethylphthalate	L	50.00	50.82	1.347533	1.231244		1.6	20	
2,4-Dimethylphenol	A	50.00	50.36	0.3417719	0.3442205		0.7	20	
Dimethyl phthalate	A	50.00	50.49	1.321588	1.334543		1.0	20	
4,6-Dinitro-2-methylphenol	L	50.00	65.06	0.1179191	0.1854015		30.1	20	*
2,4-Dinitrophenol	L	50.00	67.44	0.1369907	0.2249198	0.05	34.9	20	*
2,4-Dinitrotoluene	A	50.00	51.23	0.373936	0.3831288		2.5	20	
2,6-Dinitrotoluene	A	50.00	51.87	0.3483244	0.3613304		3.7	20	
Di-n-octylphthalate	A	50.00	58.74	1.792929	2.106414		17.5	20	
1,4-Dioxane	A	50.00	51.24	0.6448533	0.6607897		2.5	20	
1,2-Diphenylhydrazine	A	50.00	54.62	0.8347356	0.9118265		9.2	20	
Bis(2-ethylhexyl)phthalate	A	50.00	49.01	1.025088	1.004796		-2.0	20	
Fluoranthene	A	50.00	48.87	1.072845	1.048673		-2.3	20	
Fluorene	A	50.00	48.39	1.147043	1.110167		-3.2	20	
Hexachlorobenzene	A	50.00	50.88	0.2598125	0.2643673		1.8	20	
Hexachlorobutadiene	A	50.00	45.14	0.1763327	0.1592075		-9.7	20	
Hexachlorocyclopentadiene	A	50.00	53.56	0.350099	0.3749941	0.05	7.1	20	
Hexachloroethane	A	50.00	50.79	0.5725119	0.5815804		1.6	20	
Indeno(1,2,3-cd)pyrene	A	50.00	46.70	0.9228439	0.8620009		-6.6	20	
Isophorone	A	50.00	50.47	0.7715062	0.7787581		0.9	20	
1-Methylnaphthalene	A	50.00	47.34	0.5079573	0.4809515		-5.3	20	
2-Methylnaphthalene	A	50.00	50.34	0.4934064	0.4968184		0.7	20	
2-Methylphenol	A	50.00	48.49	1.135332	1.101108		-3.0	20	
3-Methylphenol	A	50.00	44.20	1.186012	1.048525		-11.6	20	
4-Methylphenol	A	50.00	44.20	1.186012	1.048525		-11.6	20	

CONTINUING CALIBRATION CHECK

SW8270C

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	MS-BNA1	Calibration:	1032006
Lab File ID:	SEQ-CCV1.D	Calibration Date:	01/26/11 15:40
Sequence:	1B05516	Injection Date:	02/22/11
Lab Sample ID:	1B05516-CCV1	Injection Time:	17:47

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Naphthalene	A	50.00	49.74	0.9627979	0.9578225		-0.5	20	
4-Nitroaniline	A	50.00	52.49	0.2309184	0.2424099		5.0	20	
3-Nitroaniline	A	50.00	40.91	0.3482787	0.2849863		-18.2	20	
2-Nitroaniline	A	50.00	60.03	0.3251388	0.3903865		20.1	20	*
Nitrobenzene	A	50.00	51.95	0.3585356	0.3725518		3.9	20	
4-Nitrophenol	A	50.00	46.53	0.1977617	0.1840288	0.05	-6.9	20	
2-Nitrophenol	A	50.00	54.02	0.2241114	0.2421161		8.0	20	
N-Nitrosodimethylamine	A	50.00	52.81	0.5726299	0.6047915		5.6	20	
N-Nitrosodiphenylamine	A	50.00	53.45	0.6599038	0.7054784		6.9	20	
N-Nitroso-di-n-propylamine	A	50.00	42.70	0.8341912	0.7124869	0.05	-14.6	20	
Pentachlorophenol	L	50.00	55.83	0.1614679	0.1979056		11.7	20	
Phenanthrene	A	50.00	49.96	1.057442	1.056541		-0.09	20	
Phenol	A	50.00	51.04	1.614787	1.64831		2.1	20	
Pyrene	A	50.00	59.42	1.298906	1.543541		18.8	20	
Pyridine	A	50.00	49.87	1.574508	1.57051		-0.3	20	
1,2,4,5-Tetrachlorobenzene	A	50.00	47.21	0.2875561	0.271521		-5.6	20	
2,3,4,6-Tetrachlorophenol	A	50.00	49.94	0.3365073	0.3361187		-0.1	20	
1,2,4-Trichlorobenzene	A	50.00	50.33	0.3444263	0.346733		0.7	20	
2,4,6-Trichlorophenol	A	50.00	53.40	0.4009275	0.4281828		6.8	20	
2,4,5-Trichlorophenol	A	50.00	53.49	0.4318641	0.4620307		7.0	20	
2-Fluorobiphenyl	A	50.00	52.62	1.2999	1.36791		5.2	20	
2-Fluorophenol	A	100.0	93.68	1.224809	1.147472		-6.3	20	
Nitrobenzene-d5	A	50.00	52.50	0.3691845	0.3876216		5.0	20	
Phenol-d6	A	100.0	99.08	1.556882	1.542638		-0.9	20	
Terphenyl-d14	A	50.00	52.55	0.812066	0.8535507		5.1	20	
2,4,6-Tribromophenol	A	100.0	107.8	0.1449031	0.1561438		7.8	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BLK1 File ID: B16021B1.D

Sampled: Prepared: Analyzed: 02/22/11 18:51

Solids: Preparation: EXT 3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine		31.0	330	Q, Y, U
83-32-9	Acenaphthene		26.0	330	U
208-96-8	Acenaphthylene		20.0	330	U
98-86-2	Acetophenone		41.0	330	U
62-53-3	Aniline		41.0	330	U
120-12-7	Anthracene		27.0	330	U
56-55-3	Benzo(a)anthracene		36.0	330	U
50-32-8	Benzo(a)pyrene		23.0	330	U
205-99-2	Benzo(b)fluoranthene		32.0	330	U
191-24-2	Benzo(g,h,i)perylene		70.0	330	U
65-85-0	Benzoic acid		19.0	1300	U
207-08-9	Benzo(k)fluoranthene		39.0	330	U
100-51-6	Benzyl alcohol		45.0	330	U
101-55-3	4-Bromophenyl-phenylether		26.0	330	U
85-68-7	Butylbenzylphthalate		30.0	330	U
105-60-2	Caprolactam		67.0	330	U
86-74-8	Carbazole		36.0	330	U
59-50-7	4-Chloro-3-methylphenol		28.0	330	U
106-47-8	4-Chloroaniline		48.0	330	U
111-91-1	Bis(2-chloroethoxy)methane		31.0	330	U
111-44-4	Bis(2-chloroethyl)ether		41.0	330	U
108-60-1	2,2'-Oxybis-1-chloropropane		51.0	330	U
91-58-7	2-Chloronaphthalene		32.0	330	X, U
95-57-8	2-Chlorophenol		41.0	330	U
7005-72-3	4-Chlorophenyl phenyl ether		31.0	330	U
218-01-9	Chrysene		31.0	330	U
53-70-3	Dibenz(a,h)anthracene		60.0	330	U
132-64-9	Dibenzofuran		24.0	330	U
84-74-2	Di-n-butylphthalate		30.0	330	U
106-46-7	1,4-Dichlorobenzene		42.0	330	U
541-73-1	1,3-Dichlorobenzene		40.0	330	U
95-50-1	1,2-Dichlorobenzene		39.0	330	U
120-83-2	2,4-Dichlorophenol		19.0	330	U
84-66-2	Diethylphthalate		34.0	330	U
105-67-9	2,4-Dimethylphenol		21.0	1300	Q, U
131-11-3	Dimethyl phthalate		30.0	330	U
534-52-1	4,6-Dinitro-2-methylphenol		22.0	3300	X, U
51-28-5	2,4-Dinitrophenol		130	3300	X, U
121-14-2	2,4-Dinitrotoluene		24.0	330	U
606-20-2	2,6-Dinitrotoluene		38.0	330	U

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BLK1 File ID: B16021B1.D

Sampled: Prepared: Analyzed: 02/22/11 18:51

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
117-84-0	Di-n-octylphthalate		27.0	330	U
122-66-7	1,2-Diphenylhydrazine		27.0	330	U
117-81-7	Bis(2-ethylhexyl)phthalate		36.0	330	U
206-44-0	Fluoranthene		54.0	330	U
86-73-7	Fluorene		26.0	330	U
118-74-1	Hexachlorobenzene		35.0	330	U
87-68-3	Hexachlorobutadiene		33.0	330	U
77-47-4	Hexachlorocyclopentadiene		61.0	330	U
67-72-1	Hexachloroethane		39.0	330	U
193-39-5	Indeno(1,2,3-cd)pyrene		46.0	330	U
78-59-1	Isophorone		28.0	330	U
90-12-0	1-Methylnaphthalene		100	330	U
91-57-6	2-Methylnaphthalene		35.0	330	U
95-48-7	2-Methylphenol		39.0	330	U
108-39-4	3-Methylphenol		27.0	330	U
106-44-5	4-Methylphenol		26.0	330	U
91-20-3	Naphthalene		32.0	330	U
100-01-6	4-Nitroaniline		100	1300	U
99-09-2	3-Nitroaniline		47.0	1300	U
88-74-4	2-Nitroaniline		32.0	1300	X, U
98-95-3	Nitrobenzene		34.0	330	U
100-02-7	4-Nitrophenol		81.0	1300	U
88-75-5	2-Nitrophenol		22.0	330	U
62-75-9	N-Nitrosodimethylamine		95.0	330	U
86-30-6	N-Nitrosodiphenylamine		32.0	330	U
621-64-7	N-Nitroso-di-n-propylamine		55.0	330	U
87-86-5	Pentachlorophenol		34.0	1300	Q, U
85-01-8	Phenanthrene		23.0	330	U
108-95-2	Phenol		36.0	330	Q, U
129-00-0	Pyrene		40.0	330	U
110-86-1	Pyridine		54.0	1300	U
95-94-3	1,2,4,5-Tetrachlorobenzene		100	330	U
58-90-2	2,3,4,6-Tetrachlorophenol		100	330	U
120-82-1	1,2,4-Trichlorobenzene		26.0	330	U
88-06-2	2,4,6-Trichlorophenol		35.0	330	U
95-95-4	2,4,5-Trichlorophenol		27.0	330	U
532-27-4	2-Chloroacetophenone		67.0	330	U
2698-41-1	2-Chlorobenzalmalononitrile		67.0	330	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3333	2046	61.4	45 - 105	

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BLK1 File ID: B16021B1.D

Sampled: Prepared: Analyzed: 02/22/11 18:51

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2-Fluorophenol	6667	4264	64.0	35 - 105	
Nitrobenzene-d5	3333	2082	62.5	35 - 100	
Phenol-d6	6667	4198	63.0	40 - 100	
Terphenyl-d14	3333	2650	79.5	30 - 125	
2,4,6-Tribromophenol	6667	3948	59.2	35 - 125	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BS1 File ID: B16021L1.D

Sampled: Prepared: Analyzed: 02/22/11 19:48

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	1986	31.0	330	Y
83-32-9	Acenaphthene	2642	26.0	330	
208-96-8	Acenaphthylene	2523	20.0	330	
98-86-2	Acetophenone	2098	41.0	330	
62-53-3	Aniline	2300	41.0	330	
120-12-7	Anthracene	2753	27.0	330	
56-55-3	Benzo(a)anthracene	2620	36.0	330	
50-32-8	Benzo(a)pyrene	2736	23.0	330	
205-99-2	Benzo(b)fluoranthene	3146	32.0	330	
191-24-2	Benzo(g,h,i)perylene	2628	70.0	330	
65-85-0	Benzoic acid	2645	19.0	1300	
207-08-9	Benzo(k)fluoranthene	3225	39.0	330	
100-51-6	Benzyl alcohol	2454	45.0	330	
101-55-3	4-Bromophenyl-phenylether	2963	26.0	330	
85-68-7	Butylbenzylphthalate	2953	30.0	330	
105-60-2	Caprolactam	2314	67.0	330	
86-74-8	Carbazole	2841	36.0	330	
59-50-7	4-Chloro-3-methylphenol	2831	28.0	330	
106-47-8	4-Chloroaniline	2207	48.0	330	
111-91-1	Bis(2-chloroethoxy)methane	2753	31.0	330	
111-44-4	Bis(2-chloroethyl)ether	2656	41.0	330	
108-60-1	2,2'-Oxybis-1-chloropropane	2725	51.0	330	
91-58-7	2-Chloronaphthalene	2873	32.0	330	X
95-57-8	2-Chlorophenol	2589	41.0	330	
7005-72-3	4-Chlorophenyl phenyl ether	2641	31.0	330	
218-01-9	Chrysene	2627	31.0	330	
53-70-3	Dibenz(a,h)anthracene	2548	60.0	330	
132-64-9	Dibenzofuran	2640	24.0	330	
84-74-2	Di-n-butylphthalate	2775	30.0	330	
106-46-7	1,4-Dichlorobenzene	2621	42.0	330	
541-73-1	1,3-Dichlorobenzene	2644	40.0	330	
95-50-1	1,2-Dichlorobenzene	2674	39.0	330	
120-83-2	2,4-Dichlorophenol	2642	19.0	330	
84-66-2	Diethylphthalate	2784	34.0	330	
105-67-9	2,4-Dimethylphenol	2992	21.0	1300	
131-11-3	Dimethyl phthalate	2833	30.0	330	
534-52-1	4,6-Dinitro-2-methylphenol	3579	22.0	3300	X
51-28-5	2,4-Dinitrophenol	3371	130	3300	X
121-14-2	2,4-Dinitrotoluene	2821	24.0	330	
606-20-2	2,6-Dinitrotoluene	2524	38.0	330	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BS1 File ID: B16021L1.D

Sampled: Prepared: Analyzed: 02/22/11 19:48

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
117-84-0	Di-n-octylphthalate	3997	27.0	330	
122-66-7	1,2-Diphenylhydrazine	2792	27.0	330	
117-81-7	Bis(2-ethylhexyl)phthalate	2849	36.0	330	
206-44-0	Fluoranthene	2577	54.0	330	
86-73-7	Fluorene	2532	26.0	330	
118-74-1	Hexachlorobenzene	2844	35.0	330	
87-68-3	Hexachlorobutadiene	2769	33.0	330	
77-47-4	Hexachlorocyclopentadiene	2020	61.0	330	
67-72-1	Hexachloroethane	2586	39.0	330	
193-39-5	Indeno(1,2,3-cd)pyrene	2458	46.0	330	
78-59-1	Isophorone	2337	28.0	330	
90-12-0	1-Methylnaphthalene	2509	100	330	
91-57-6	2-Methylnaphthalene	2824	35.0	330	
95-48-7	2-Methylphenol	2774	39.0	330	
106-44-5	4-Methylphenol	2436	26.0	330	
91-20-3	Naphthalene	2564	32.0	330	
100-01-6	4-Nitroaniline	3235	100	1300	
99-09-2	3-Nitroaniline	2213	47.0	1300	
88-74-4	2-Nitroaniline	2586	32.0	1300	X
98-95-3	Nitrobenzene	2561	34.0	330	
100-02-7	4-Nitrophenol	2660	81.0	1300	
88-75-5	2-Nitrophenol	2807	22.0	330	
62-75-9	N-Nitrosodimethylamine	2764	95.0	330	
86-30-6	N-Nitrosodiphenylamine	2124	32.0	330	
621-64-7	N-Nitroso-di-n-propylamine	2311	55.0	330	
87-86-5	Pentachlorophenol	3094	34.0	1300	
85-01-8	Phenanthrene	2786	23.0	330	
108-95-2	Phenol	2943	36.0	330	
129-00-0	Pyrene	2934	40.0	330	
110-86-1	Pyridine	2305	54.0	1300	
95-94-3	1,2,4,5-Tetrachlorobenzene	2328	100	330	
58-90-2	2,3,4,6-Tetrachlorophenol	2078	100	330	
120-82-1	1,2,4-Trichlorobenzene	2348	26.0	330	
88-06-2	2,4,6-Trichlorophenol	2813	35.0	330	
95-95-4	2,4,5-Trichlorophenol	2808	27.0	330	
532-27-4	2-Chloroacetophenone		67.0	330	U
2698-41-1	2-Chlorobenzalmalononitrile		67.0	330	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3333	2381	71.4	45 - 105	
2-Fluorophenol	6667	5377	80.7	35 - 105	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BS1 File ID: B16021L1.D

Sampled: Prepared: Analyzed: 02/22/11 19:48

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Nitrobenzene-d5	3333	2314	69.4	35 - 100	
Phenol-d6	6667	4752	71.3	40 - 100	
Terphenyl-d14	3333	2684	80.5	30 - 125	
2,4,6-Tribromophenol	6667	5272	79.1	35 - 125	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BSD1 File ID: B16021L2.D

Sampled: Prepared: Analyzed: 02/22/11 20:16

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
91-94-1	3,3'-Dichlorobenzidine	2834	31.0	330	Y
83-32-9	Acenaphthene	3070	26.0	330	
208-96-8	Acenaphthylene	2703	20.0	330	
98-86-2	Acetophenone	2359	41.0	330	
62-53-3	Aniline	2751	41.0	330	
120-12-7	Anthracene	3039	27.0	330	
56-55-3	Benzo(a)anthracene	3120	36.0	330	
50-32-8	Benzo(a)pyrene	2895	23.0	330	
205-99-2	Benzo(b)fluoranthene	3545	32.0	330	
191-24-2	Benzo(g,h,i)perylene	2739	70.0	330	
65-85-0	Benzoic acid	3156	19.0	1300	
207-08-9	Benzo(k)fluoranthene	3093	39.0	330	
100-51-6	Benzyl alcohol	2743	45.0	330	
101-55-3	4-Bromophenyl-phenylether	3528	26.0	330	
85-68-7	Butylbenzylphthalate	3940	30.0	330	
105-60-2	Caprolactam	2773	67.0	330	
86-74-8	Carbazole	3284	36.0	330	
59-50-7	4-Chloro-3-methylphenol	3295	28.0	330	
106-47-8	4-Chloroaniline	2743	48.0	330	
111-91-1	Bis(2-chloroethoxy)methane	3226	31.0	330	
111-44-4	Bis(2-chloroethyl)ether	2833	41.0	330	
108-60-1	2,2'-Oxybis-1-chloropropane	2994	51.0	330	
91-58-7	2-Chloronaphthalene	2883	32.0	330	X
95-57-8	2-Chlorophenol	3048	41.0	330	
7005-72-3	4-Chlorophenyl phenyl ether	2925	31.0	330	
218-01-9	Chrysene	3227	31.0	330	
53-70-3	Dibenz(a,h)anthracene	2773	60.0	330	
132-64-9	Dibenzofuran	3160	24.0	330	
84-74-2	Di-n-butylphthalate	3384	30.0	330	
106-46-7	1,4-Dichlorobenzene	2955	42.0	330	
541-73-1	1,3-Dichlorobenzene	2893	40.0	330	
95-50-1	1,2-Dichlorobenzene	2964	39.0	330	
120-83-2	2,4-Dichlorophenol	3035	19.0	330	
84-66-2	Diethylphthalate	3298	34.0	330	
105-67-9	2,4-Dimethylphenol	3573	21.0	1300	
131-11-3	Dimethyl phthalate	3109	30.0	330	
534-52-1	4,6-Dinitro-2-methylphenol	4083	22.0	3300	X
51-28-5	2,4-Dinitrophenol	4226	130	3300	X
121-14-2	2,4-Dinitrotoluene	3346	24.0	330	
606-20-2	2,6-Dinitrotoluene	2980	38.0	330	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B16021-BSD1 File ID: B16021L2.D

Sampled: Prepared: Analyzed: 02/22/11 20:16

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B16021 Sequence: 1B05516 Calibration: 1032006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
117-84-0	Di-n-octylphthalate	3973	27.0	330	
122-66-7	1,2-Diphenylhydrazine	2966	27.0	330	
117-81-7	Bis(2-ethylhexyl)phthalate	3440	36.0	330	
206-44-0	Fluoranthene	3103	54.0	330	
86-73-7	Fluorene	2889	26.0	330	
118-74-1	Hexachlorobenzene	3259	35.0	330	
87-68-3	Hexachlorobutadiene	3167	33.0	330	
77-47-4	Hexachlorocyclopentadiene	2366	61.0	330	
67-72-1	Hexachloroethane	2867	39.0	330	
193-39-5	Indeno(1,2,3-cd)pyrene	2756	46.0	330	
78-59-1	Isophorone	2692	28.0	330	
90-12-0	1-Methylnaphthalene	2948	100	330	
91-57-6	2-Methylnaphthalene	3077	35.0	330	
95-48-7	2-Methylphenol	3151	39.0	330	
106-44-5	4-Methylphenol	2920	26.0	330	
91-20-3	Naphthalene	3054	32.0	330	
100-01-6	4-Nitroaniline	3739	100	1300	
99-09-2	3-Nitroaniline	2621	47.0	1300	
88-74-4	2-Nitroaniline	3089	32.0	1300	X
98-95-3	Nitrobenzene	2914	34.0	330	
100-02-7	4-Nitrophenol	3329	81.0	1300	
88-75-5	2-Nitrophenol	3527	22.0	330	
62-75-9	N-Nitrosodimethylamine	3138	95.0	330	
86-30-6	N-Nitrosodiphenylamine	2448	32.0	330	
621-64-7	N-Nitroso-di-n-propylamine	2746	55.0	330	
87-86-5	Pentachlorophenol	4059	34.0	1300	
85-01-8	Phenanthrene	3106	23.0	330	
108-95-2	Phenol	3465	36.0	330	
129-00-0	Pyrene	3840	40.0	330	
110-86-1	Pyridine	2345	54.0	1300	
95-94-3	1,2,4,5-Tetrachlorobenzene	2763	100	330	
58-90-2	2,3,4,6-Tetrachlorophenol	2492	100	330	
120-82-1	1,2,4-Trichlorobenzene	2906	26.0	330	
88-06-2	2,4,6-Trichlorophenol	3128	35.0	330	
95-95-4	2,4,5-Trichlorophenol	3331	27.0	330	
532-27-4	2-Chloroacetophenone		67.0	330	U
2698-41-1	2-Chlorobenzalmalononitrile		67.0	330	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	3333	2716	81.5	45 - 105	
2-Fluorophenol	6667	5539	83.1	35 - 105	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant201(
Matrix:
Laboratory ID: 1B16021-BSD1
File ID: B16021L2.D
Sampled:
Prepared:
Analyzed: 02/22/11 20:16
Solids:
Preparation: EXT_3546
Dilution:
Batch: 1B16021
Sequence: 1B05516
Calibration: 1032006
Instrument: MS-BNA1

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Nitrobenzene-d5	3333	2834	85.0	35 - 100	
Phenol-d6	6667	5412	81.2	40 - 100	
Terphenyl-d14	3333	3435	103	30 - 125	
2,4,6-Tribromophenol	6667	5780	86.7	35 - 125	

HOLDING TIME SUMMARY

SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
Backfilll (20110218)	02/18/11 16:15	02/19/11 09:30	02/21/11 13:31	2.89	14.00	02/22/11 23:07	1.40	40.00	

Data for SW8270C
Supporting Raw Data / Logs

Sequence Name: C:\HPCHEM\1\SEQUENCE\012611B1.S
Comment: 8270C/8270D/625
Operator: MEC
Data Path: C:\HPCHEM\1\DATA\012611B1.b\
Pre-Seq Cmd:
Post-Seq Cmd:

8375

1/29/11

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

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

Line	Type	Vial	DataFile	Method	Sample Name
1	Tune	1	SEQ-TUN1	DFTPPBN1	DF0126B1;;;;;10L0963
2	ICal	2	SEQ-CAL1	IXBN1	CAL5PPM;;;;;;11A0525
3	ICal	3	SEQ-CAL2	IXBN1	CAL10PPM;;;;;;11A0526
4	ICal	4	SEQ-CAL3	IXBN1	CAL20PPM;;;;;;11A0527
5	ICal	5	SEQ-CAL4	IXBN1	CAL40PPM;;;;;;11A0528
6	ICal	6	SEQ-CAL5	IXBN1	CAL50PPM;;;;;;11A0529
7	ICal	7	SEQ-CAL6	IXBN1	CAL60PPM;;;;;;11A0530
8	ICal	8	SEQ-CAL7	IXBN1	CAL80PPM;;;;;;11A0531
9	ICal	9	SEQ-CAL8	IXBN1	CAL100PPM;;;;;;11A0532
10	ICal	10	SEQ-CAL9	IXBN1	CAL5PPM;;;;;;11A0534
11	ICal	11	SEQ-CALA	IXBN1	CAL10PPM;;;;;;11A0537
12	ICal	12	SEQ-CALB	IXBN1	CAL20PPM;;;;;;11A0538
13	ICal	13	SEQ-CALC	IXBN1	CAL40PPM;;;;;;11A0539
14	ICal	14	SEQ-CALD	IXBN1	CAL50PPM;;;;;;11A0540
15	ICal	15	SEQ-CALE	IXBN1	CAL60PPM;;;;;;11A0541
16	ICal	16	SEQ-CALF	IXBN1	CAL80PPM;;;;;;11A0542
17	ICal	17	SEQ-CALG	IXBN1	CAL100PPM;;;;;;11A0543
18	ICal	18	SEQ-ICV1	IXBN1	ICV50PPM;;;;;;11A0288
19	ICal	19	SEQ-ICV2	IXBN1	ICV50PPM;;;;;;11A0290
20	ICal	20	SEQ-ICV3	IXBN1	ICV50PPM;;;;;;11A0569
21	Tune	1	SEQ-TUN2	DFTPPBN1	DF0126B2;;;;;10L0963
22	CCal	20	SEQ-CCV1	IXBN1	CCV50PPM;;;;;;11A0569
23	QC	21	A04005B1	IXBN1	1A04005-BLK1;;15;1000;;UG/KG;04-JAN-2
24	QC	22	A04005R1	IXBN1	1A04005-MRL1;;15;1000;;UG/KG;04-JAN-2
25	QC	23	A04005R2	IXBN1	1A04005-MRL2;;15;1000;;UG/KG;04-JAN-2
26	QC	24	A04005R3	IXBN1	1A04005-MRL3;;15;1000;;UG/KG;04-JAN-2
27	QC	25	A06001B1	IXBN1	1A06001-BLK1;;1000;1000;;UG/L;06-JAN-
28	QC	26	A06001R1	IXBN1	1A06001-MRL1;;1000;1000;;UG/L;06-JAN-
29	QC	27	A06001R2	IXBN1	1A06001-MRL2;;1000;1000;;UG/L;06-JAN-
30	QC	28	A06001R3	IXBN1	1A06001-MRL3;;1000;1000;;UG/L;06-JAN-
31	QC	29	A11009L1	IXBN1	1A11009-BS1;;1000;1000;;UG/L;12-JAN-2
32	QC	30	A11009L2	IXBN1	1A11009-BSD1;;1000;1000;;UG/L;12-JAN-
33	QC	31	A11009B1	IXBN1	1A11009-BLK1;;1000;1000;;UG/L;12-JAN-
34	Sample	32	0102615	IXBN1	1101026-15;;1000;1000;;UG/L;12-JAN-20
35	Sample	33	0102622	IXBN1	1101026-22;;1000;1000;;UG/L;12-JAN-20
36	Sample	34	0102615D	IXBN1	1101026-15;10;1000;1000;;UG/L;12-JAN-
37	Sample	35	0102622D	IXBN1	1101026-22;10;1000;1000;;UG/L;12-JAN-
38	Tune	1	SEQ-TUN3	DFTPPBN1	DF0126B3;;;;;10L0963
39	QC	36	A23006B1	IXBN1	1A23006-BLK1;;1000;1000;;UG/L;20-JAN-
40	QC	37	A23006L1	IXBN1	1A23006-BS1;;1000;1000;;UG/L;20-JAN-2
41	Sample	38	0112804	IXBN1	1101128-04;;1000;1000;;UG/L;20-JAN-20
42	QC	39	0112804M	IXBN1	1A23006-MS1;;1000;1000;;UG/L;20-JAN-2
43	QC	36	A23006B2	IXBN1	1A23006-BLK1;;1000;1000;;UG/L;20-JAN-

Last Modified: Sat Jan 29 14:31:48 2011 Page: 1

Sequence Name: C:\HPCHEM\1\SEQUENCE\012611B1.S

8376

Line	Type	Vial	DataFile	Method	Sample Name
44	QC	37	A23006L2	IXBN1	1A23006-BS1;;1000;1000;;UG/L;20-JAN-2
45	Sample	38	0112804D	IXBN1	1101128-04;;1000;1000;;UG/L;20-JAN-20
46	QC	39	112804MD	IXBN1	1A23006-MS1;;1000;1000;;UG/L;20-JAN-2

1/27/11

Sequence Name: C:\HPCHEM\1\SEQUENCE\012811B1.S
Comment: 8270C/8270D/625
Operator: MEC
Data Path: C:\HPCHEM\1\DATA\012811B1.b\
Pre-Seq Cmd:
Post-Seq Cmd:

8277

1/29/11

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

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

Line	Type	Vial	DataFile	Method	Sample Name
1	Tune	1	SEQ-TUN1	DFTPPBN1	DF0128B1;;;;;10L0963
2	ICal	2	SEQ-ICV4	IXBN1	ICV50PPM;;;;;;11A0779
3	Tune	1	SEQ-TUN2	DFTPPBN1	DF0128B2;;;;;10L0963
4	CCal	3	SEQ-CCV1	IXBN1	CCV50PPM;;;;;;11A0798
5	QC	4	A19014L1	IXBN1	1A19014-BS1;;15;1000;;UG/KG;20-JAN-20
6	QC	5	A19014L2	IXBN1	1A19014-BSD1;;15;1000;;UG/KG;20-JAN-2
7	QC	6	A19014B1	IXBN1	1A19014-BLK1;;15;1000;;UG/KG;20-JAN-2
8	Sample	7	0106621	IXBN1	1101066-21;;15.4;1000;;UG/KG;20-JAN-2
9	Sample	8	0106622	IXBN1	1101066-22;;15;1000;;UG/KG;20-JAN-201
10	QC	9	A21004L1	IXBN1	1A21004-BS1;;1000;1000;;UG/L;21-JAN-2
11	QC	10	A21004L2	IXBN1	1A21004-BSD1;;1000;1000;;UG/L;21-JAN-
12	QC	11	A21004B1	IXBN1	1A21004-BLK1;;1000;1000;;UG/L;21-JAN-
13	Sample	12	0107501	IXBN1	1101075-01;;1070;1000;;UG/L;21-JAN-20
14	Sample	13	0107601	IXBN1	1101076-01;;1000;1000;;UG/L;21-JAN-20
15	Sample	14	0107701	IXBN1	1101077-01;;1040;1000;;UG/L;21-JAN-20
16	QC	15	A23003L1	IXBN1	1A23003-BS1;;1000;1000;;UG/L;24-JAN-2
17	QC	16	A23003L2	IXBN1	1A23003-BSD1;;1000;1000;;UG/L;24-JAN-
18	QC	17	A23003B1	IXBN1	1A23003-BLK1;;1000;1000;;UG/L;24-JAN-
19	Sample	18	0111302	IXBN1	1101113-02;;1070;1000;;UG/L;24-JAN-20
20	Sample	19	0111303	IXBN1	1101113-03;;1070;1000;;UG/L;24-JAN-20
21	Sample	20	0111304	IXBN1	1101113-04;;1060;1000;;UG/L;24-JAN-20
22	Sample	21	0111305	IXBN1	1101113-05;;1070;1000;;UG/L;24-JAN-20
23	Sample	22	0111306	IXBN1	1101113-06;;1070;1000;;UG/L;24-JAN-20
24	Sample	23	0106623D	IXBN1	1101066-23;10;15.2;1000;;UG/KG;20-JAN
25	Sample	24	0113303D	IXBN1	1101133-03;20;1080;1000;;UG/L;24-JAN-
26	Sample	25	0111701D	IXBN1	1101117-01;20;1000;1000;;UG/L;24-JAN-
27	Sample	26	0111801D	IXBN1	1101118-01;20;1000;1000;;UG/L;24-JAN-
28	Tune	1	SEQ-TUN3	DFTPPBN1	DF0128B3;;;;;10L0963

ANALYSIS SEQUENCE

1B03208

Instrument: MS-BNA1

Calibnration ID: UNASSIGNED

Printed: 2/1/2011 1:49:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1B03208-TUN1	QC		1		10L0963			
1B03208-CAL1	QC		2		11A0525	10H0528		
1B03208-CAL2	QC		3		11A0526	10H0528		
1B03208-CAL3	QC		4		11A0527	10H0528		
1B03208-CAL4	QC		5		11A0528	10H0528		
1B03208-CAL5	QC		6		11A0529	10H0528		
1B03208-CAL6	QC		7		11A0530	10H0528		
1B03208-CAL7	QC		8		11A0531	10H0528		
1B03208-CAL8	QC		9		11A0532	10H0528		
1B03208-CAL9	QC		10		11A0534	10H0528		
1B03208-CALA	QC		11		11A0537	10H0528		
1B03208-CALB	QC		12		11A0538	10H0528		
1B03208-CALC	QC		13		11A0539	10H0528		
1B03208-CALD	QC		14		11A0540	10H0528		
1B03208-CALE	QC		15		11A0541	10H0528		
1B03208-CALF	QC		16		11A0542	10H0528		
1B03208-CALG	QC		17		11A0543	10H0528		
1B03208-ICV1	QC		18		11A0288	10H0528		
1B03208-ICV2	QC		19		11A0290	10H0528		
1B03208-ICV3	QC		20		11A0569	10H0528		
1B03208-TUN2	QC		21		10L0963			
1B03208-ICV4	QC		22		11A0779	10H0528		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

266

1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1.D

Date : 26-JAN-2011 15:13

Client ID: 50ppm DFTPP

Instrument: bna1.i

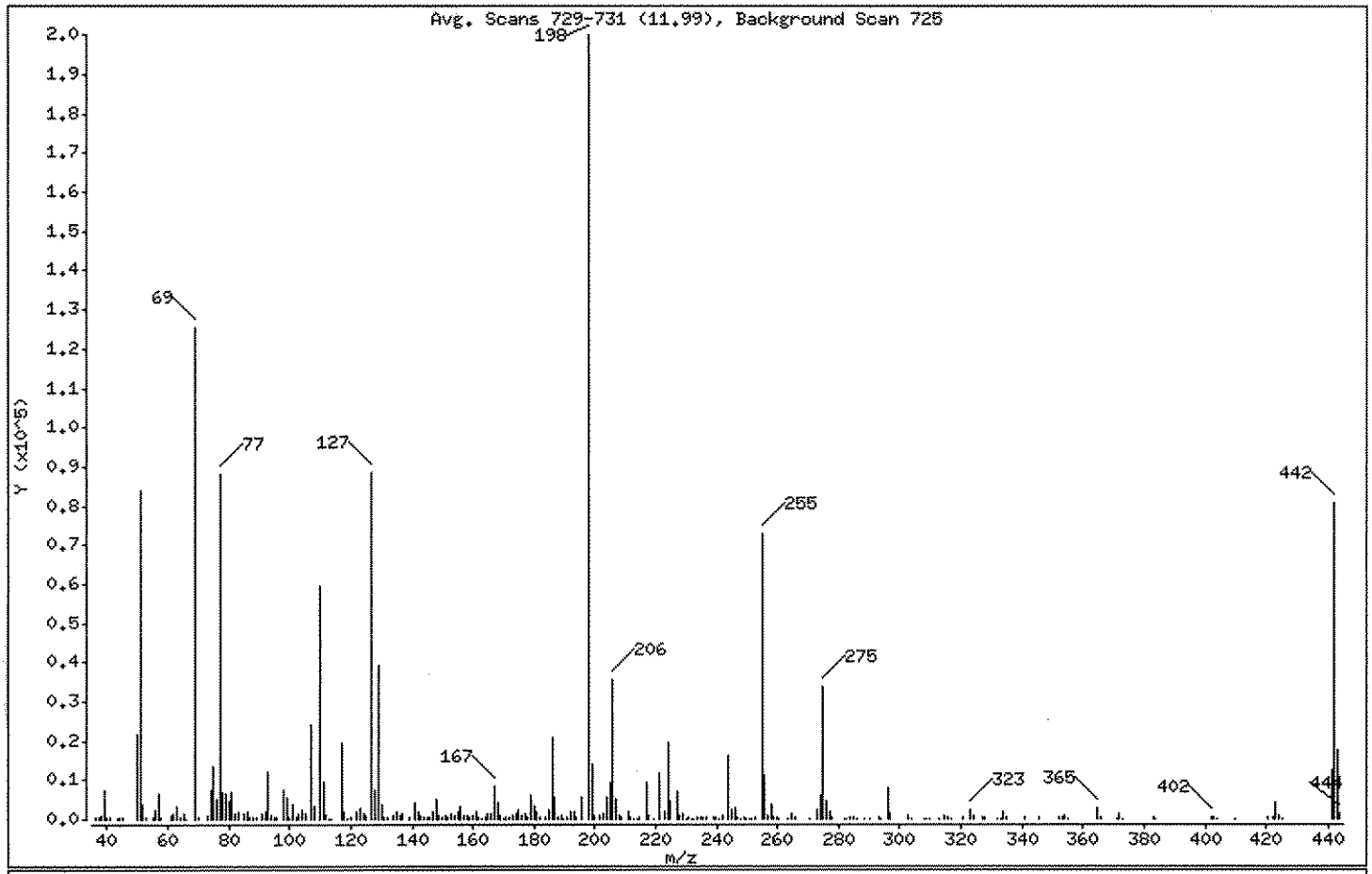
Sample Info: DF0126B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.89
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	62.75
70	Less than 2.00% of mass 69	0.22 (0.35)
127	40.00 - 60.00% of mass 198	44.35
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.89
275	10.00 - 30.00% of mass 198	16.81
365	Greater than 1.00% of mass 198	1.47
441	Present, but less than mass 443	6.14
442	Greater than 40.00% of mass 198	40.33
443	17.00 - 23.00% of mass 442	8.74 (21.66)

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1.D

Date : 26-JAN-2011 15:13

Client ID: 50ppm DFTPP Instrument: bna1.i

Sample Info: DF0126B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS Column diameter: 0.25

Data File: SEQ-TUN1.D
Spectrum: Avg. Scans 729-731 (11.99), Background Scan 725
Location of Maximum: 197.90
Number of points: 255

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	339	118.85	164	188.95	1149	265.75	384
37.10	494	119.95	277	189.65	224	270.70	154
38.10	1149	121.85	1882	190.95	439	272.90	2344
39.00	7197	122.95	2787	191.95	1768	273.90	5810
39.90	486	123.95	1598	192.95	1768	274.90	33656
41.00	309	124.90	1059	193.75	425	275.90	4751
43.05	223	126.90	88776	195.90	5698	276.90	1921
43.85	671	128.00	7358	197.90	200192	277.95	522
44.95	296	128.90	39416	198.90	13787	282.15	130
50.05	21768	129.90	3533	199.80	1066	282.75	194
51.05	83864	130.90	595	201.30	1004	283.85	250
51.95	3901	131.80	334	202.90	1238	284.85	242
52.75	280	133.80	716	204.00	5388	285.95	142
55.00	569	134.90	1944	205.00	9078	288.65	165
56.00	2513	135.95	985	205.90	35352	290.00	142
57.00	6351	136.95	1353	206.95	4983	293.00	496
57.90	359	138.95	281	207.85	1036	293.70	118
60.90	745	140.95	4104	208.95	264	295.90	8062
62.00	1574	141.85	1627	210.85	1651	296.90	1189
63.00	3171	142.95	1104	211.75	281	302.95	1086
63.90	496	143.95	323	212.85	141	303.85	176
65.05	1284	144.85	420	213.95	138	307.75	177
65.95	202	145.85	662	214.75	366	308.75	103
68.95	125624	146.85	1990	216.85	9179	309.65	155
69.95	434	147.90	4955	217.85	1030	312.55	120
73.05	709	148.90	822	219.20	169	314.80	768
74.05	7419	150.00	475	220.90	11727	315.90	249
74.95	13232	151.00	711	222.90	2067	316.80	141
76.05	4927	151.60	395	224.00	19304	320.60	231
77.00	88056	152.90	1482	224.90	4632	322.90	2498
78.00	7019	154.00	1023	226.90	6808	323.80	812
79.00	6549	154.90	2019	227.90	907	326.85	383
80.00	4555	156.00	3171	228.90	1564	327.65	263
80.90	6733	157.00	1040	229.90	133	331.65	124
82.10	1312	158.00	836	230.95	446	332.85	140

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1.D

Date : 26-JAN-2011 15:13

Client ID: 50ppm DFTPP

Instrument: bna1.i

Sample Info: DF0126B1;;;;;10L0963

Operator: MEC

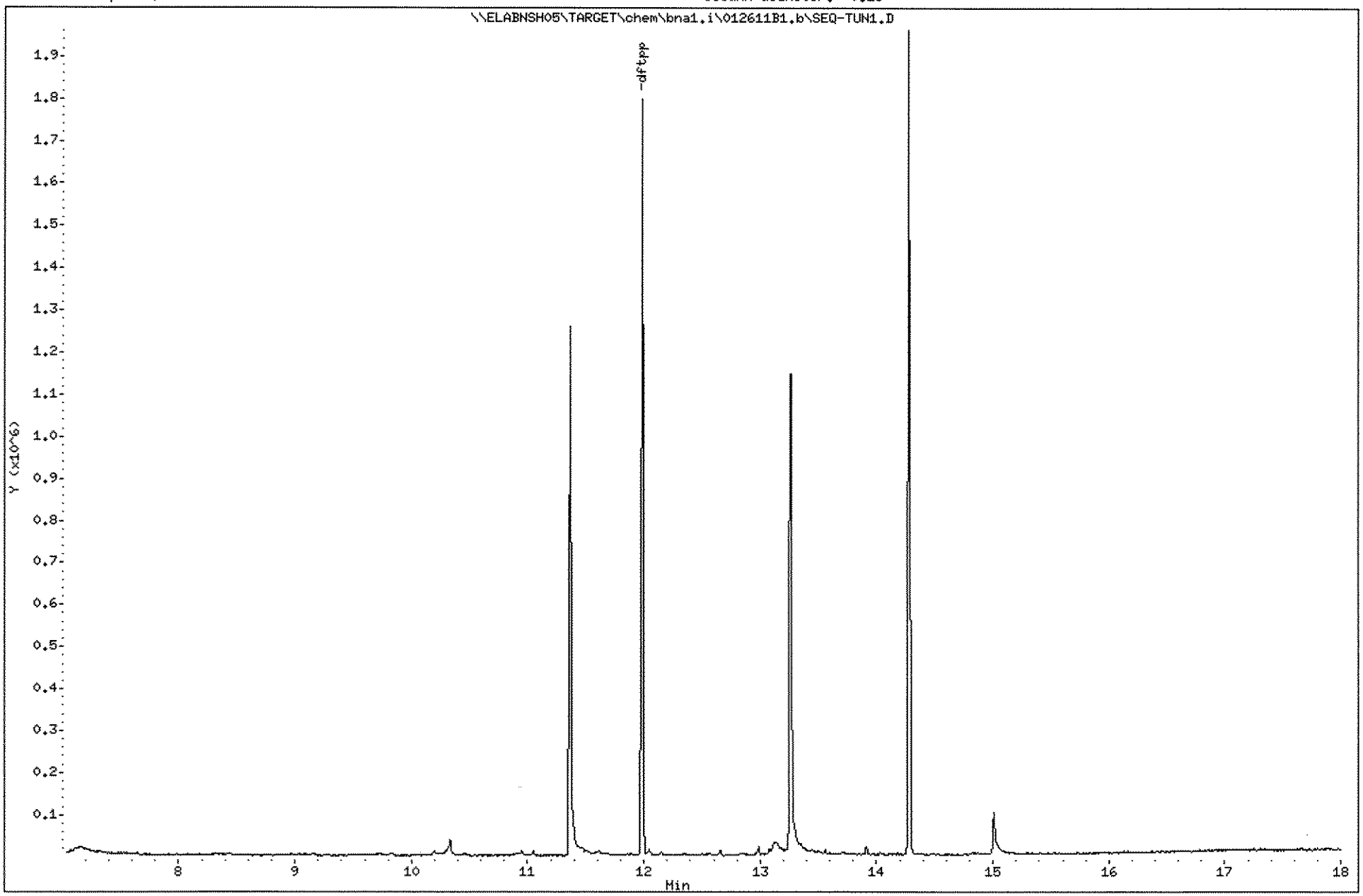
Column phase: DB5-MS

Column diameter: 0.25

Data File: SEQ-TUN1.D
Spectrum: Avg. Scans 729-731 (11.99), Background Scan 725
Location of Maximum: 197.90
Number of points: 255

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.90	2055	159.00	489	231.75	169	333.85	1737
84.90	1420	159.95	1104	232.75	205	334.85	233
85.90	1805	160.85	1779	233.85	352	340.80	263
86.90	599	161.85	448	234.95	618	345.70	614
87.80	277	162.95	137	235.75	378	351.85	625
88.95	366	163.95	261	236.95	371	352.95	608
90.95	1460	164.85	1265	238.85	242	353.85	881
92.05	1961	166.05	1460	239.85	406	354.75	141
92.95	11856	166.95	8151	241.05	215	364.80	2952
93.95	780	167.95	4174	241.85	745	365.80	381
94.85	243	168.85	735	244.00	15941	371.00	173
95.95	459	169.85	186	245.00	2448	371.90	1288
97.95	7544	170.55	281	245.90	2787	372.95	203
98.95	5635	171.80	372	246.80	629	382.75	561
100.05	500	173.00	1097	247.70	224	383.85	100
101.00	3463	174.00	1612	248.90	543	402.05	662
102.00	319	175.00	2263	249.50	130	402.75	638
102.90	1238	176.00	1153	250.70	106	403.85	176
103.90	2263	176.90	1464	251.60	170	409.90	104
104.90	1546	177.90	676	252.70	256	420.75	293
107.00	24080	178.90	6041	254.95	73024	421.95	606
107.90	3347	179.90	3395	255.95	10978	422.85	4342
109.90	59408	180.80	1949	256.75	957	423.85	850
110.90	9028	181.90	458	257.95	3868	424.95	174
111.90	1361	183.95	532	258.95	589	441.00	12287
112.95	212	185.05	2534	260.05	276	441.90	80736
113.75	141	185.95	20608	260.65	193	442.90	17488
116.95	19568	186.95	5666	263.45	116	443.85	1374
117.95	1706	187.95	555	264.85	1473		

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1.D
Date : 26-JAN-2011 15:13
Client ID: 50ppm DFTPP
Instrument: bna1.i
Sample Info: DF0126B1;;;;;;10L0963
Operator: MEC
Column phase: DB5-MS
Column diameter: 0.25



270
1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1ex.D
Report Date: 27-Jan-2011 10:07

Laboratory Name

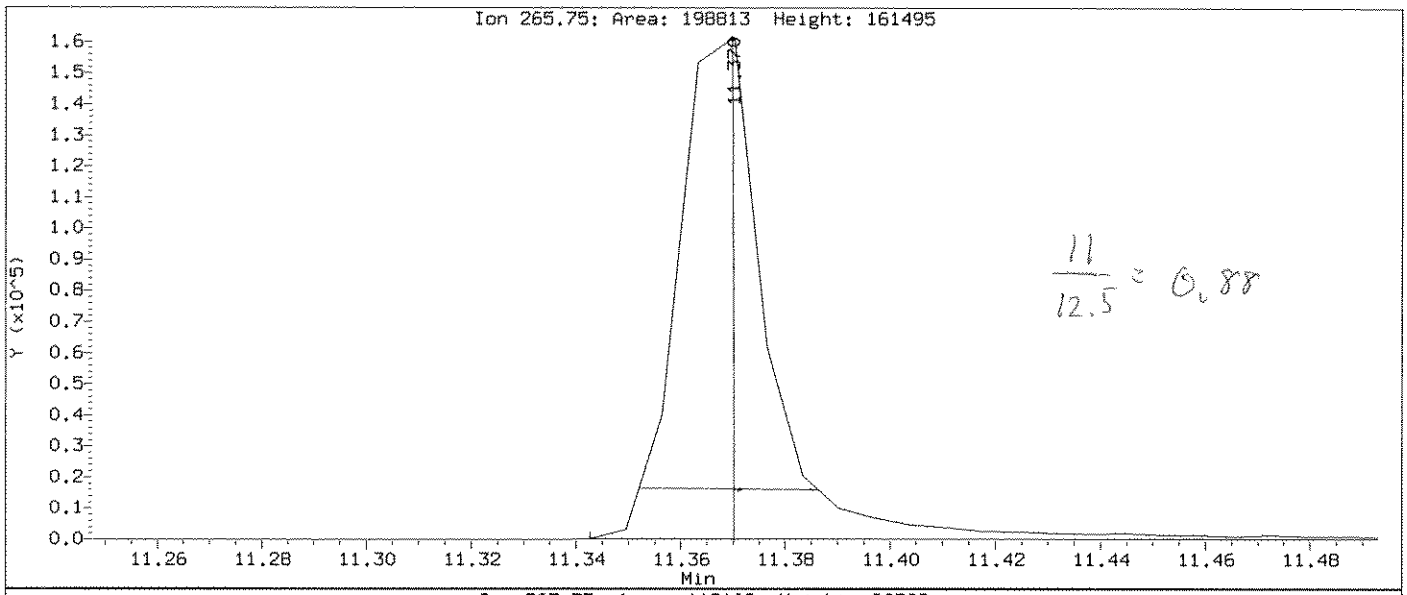
Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1ex.D
Lab Smp Id: SEQ-TUN1 Client Smp ID: 50ppm DFTPP
Inj Date : 26-JAN-2011 15:13 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : DF0126B1;;;;;10L0963
Misc Info : ;;;;;;all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\dftppbn1ex.m
Meth Date : 27-Jan-2011 10:06 gquick Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: dftppex.sub
Target Version: 4.04

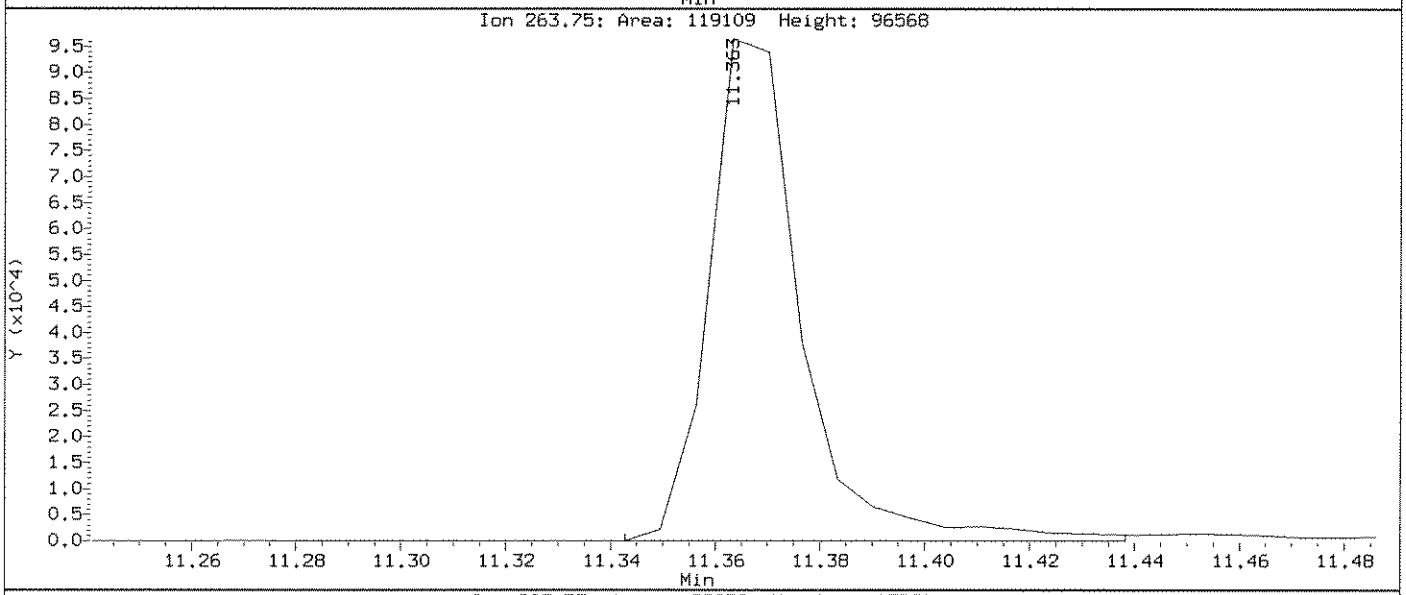
Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
1 Pentachlorophenol	266	11.370	11.370	0.000	198813		
2 Benzidine	184	13.265	13.265	0.000	624057		
4 4,4'-DDD	235	13.912	13.912	0.000	2986		
5 4,4'-DDT	235	14.279	14.279	0.000	380080		

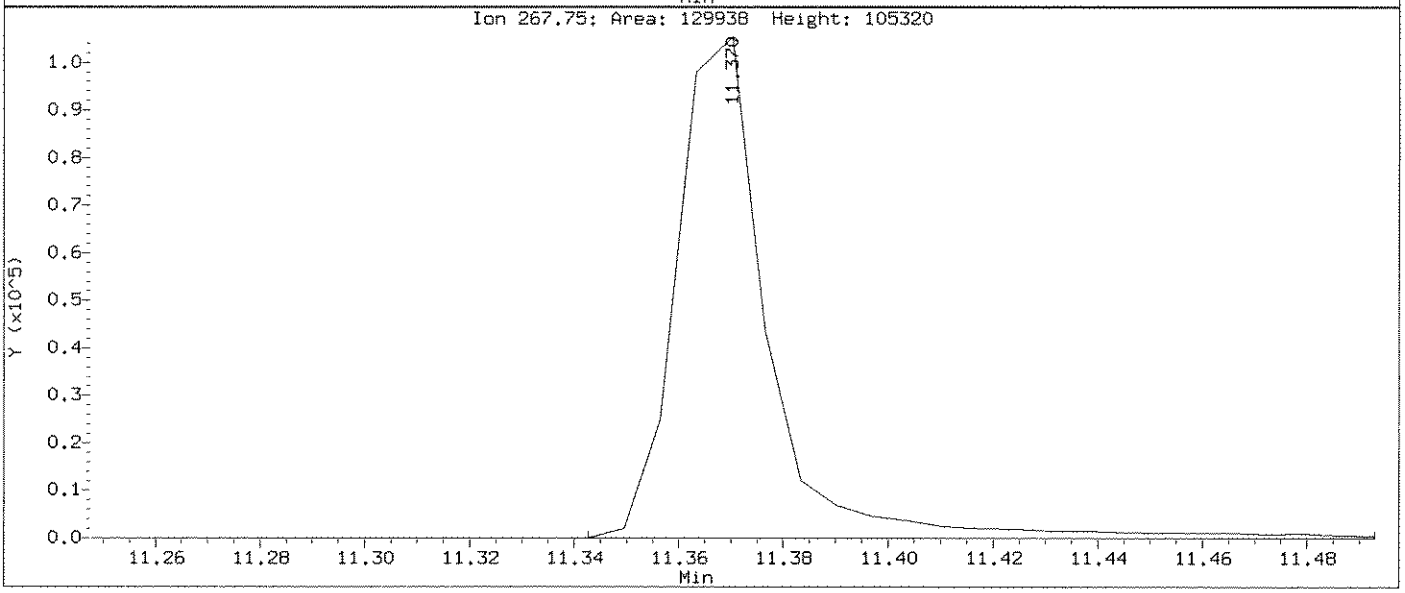
DDT % BREAKDOWN = $\frac{2986}{383066} \times 100\% = 0.8\%$

Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1ex.D
Injection Date: 26-JAN-2011 15:13
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5

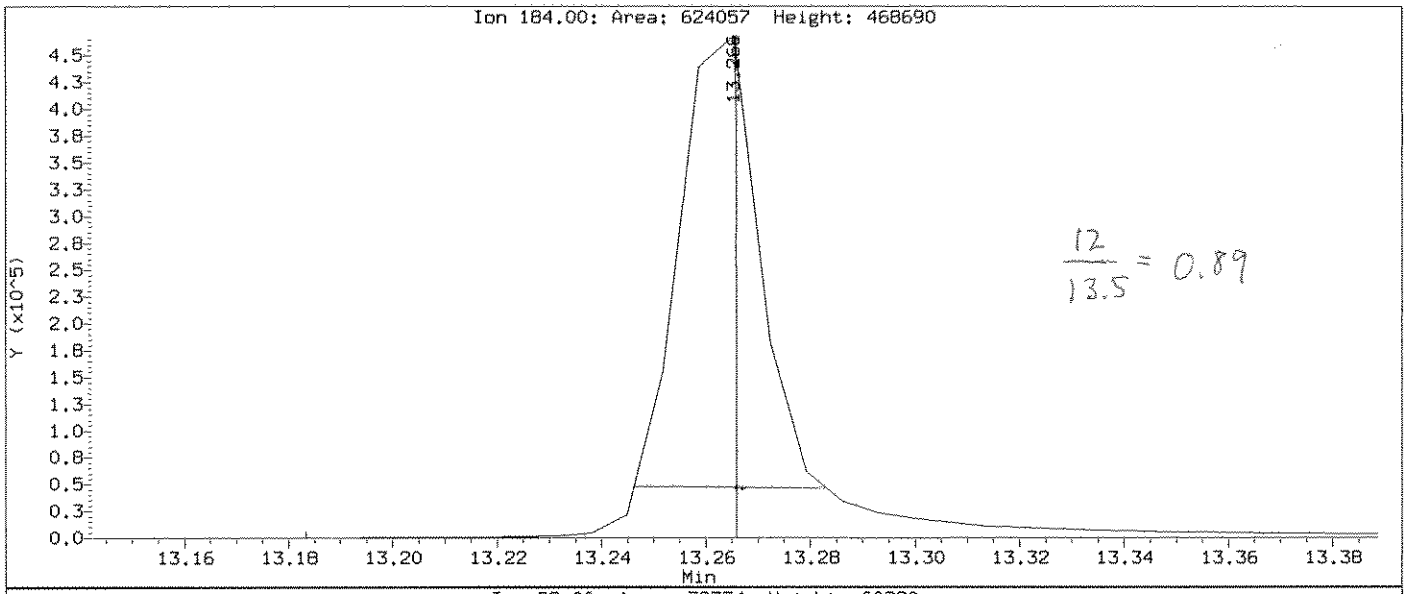




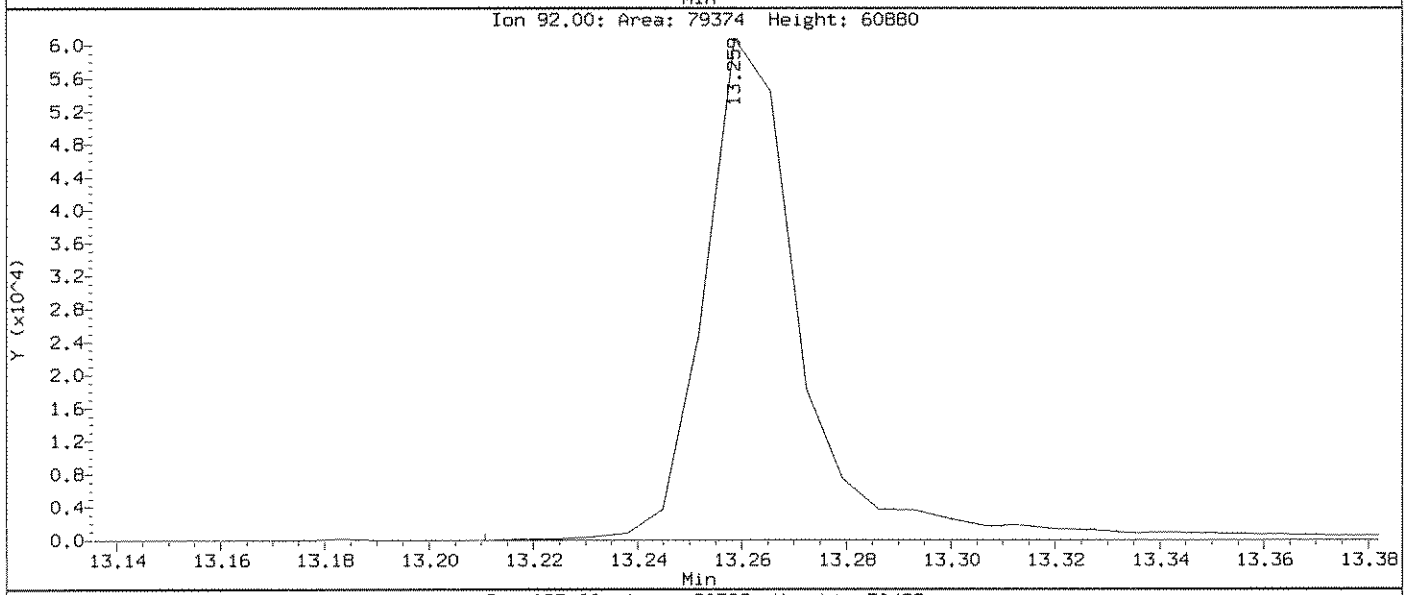


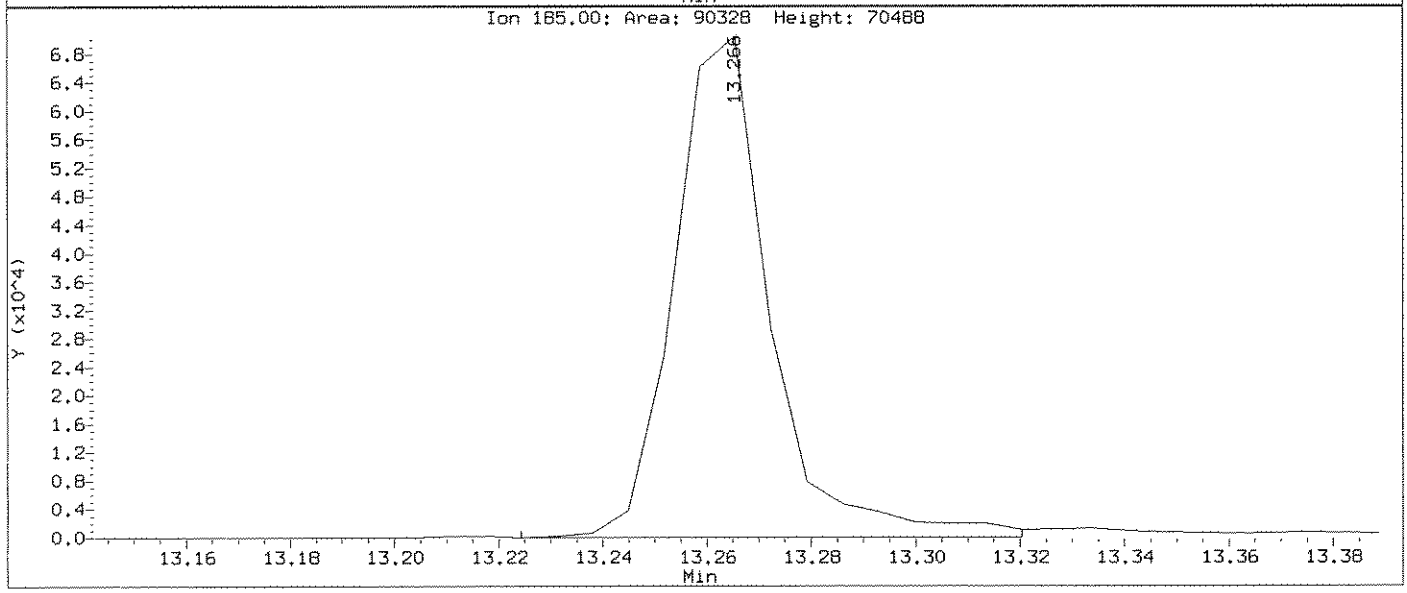
Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012611B1.b\SEQ-TUN1ex.D
Injection Date: 26-JAN-2011 15:13
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: Benzidine
CAS Number: 92-87-5



$\frac{12}{13.5} = 0.89$





Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1.D

Date : 28-JAN-2011 09:18

Client ID: 50ppm DFTPP

Instrument: bna1.i

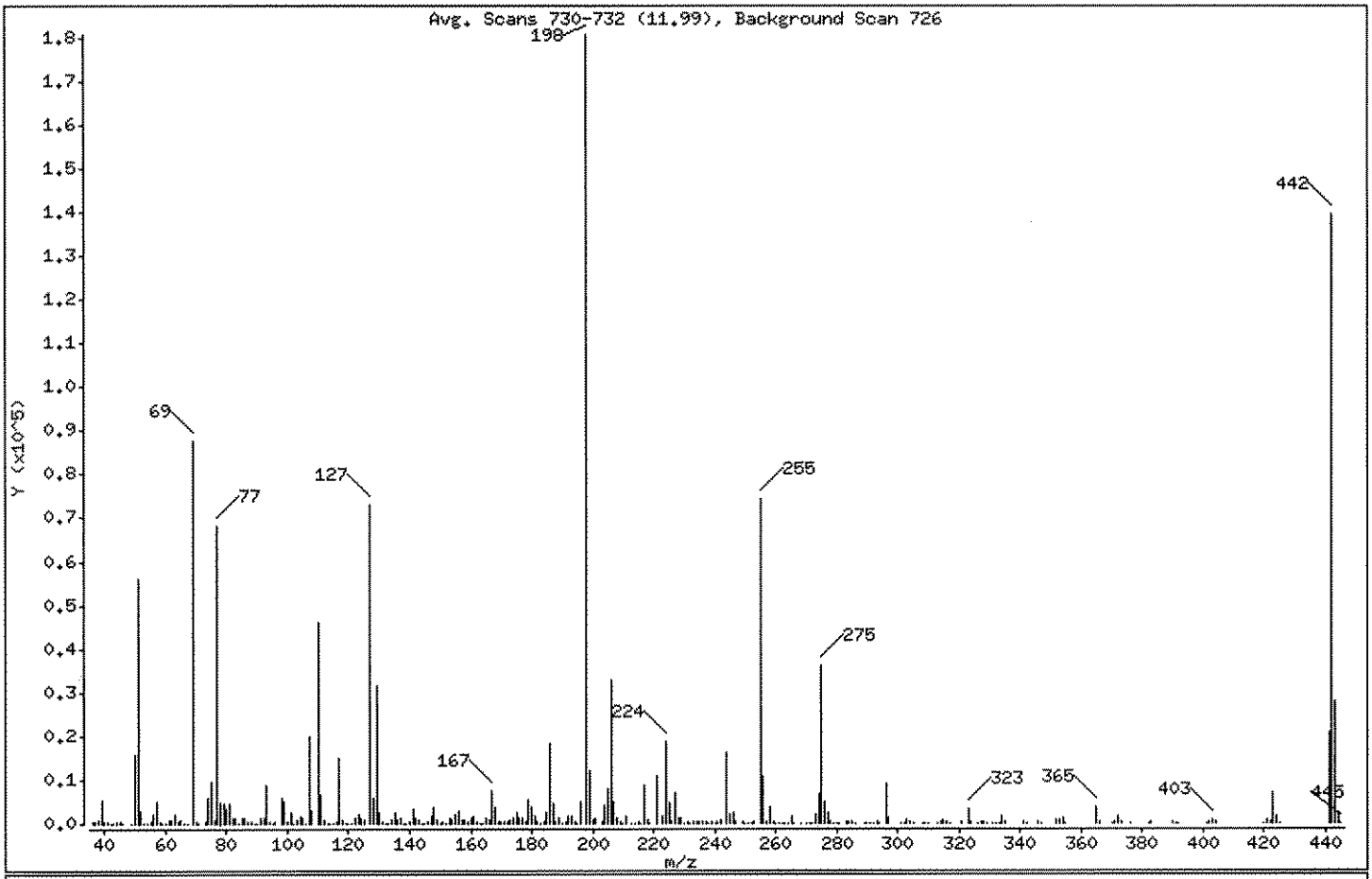
Sample Info: DF0128B1;;;;;;10L0963

Operator: MEC

Column phase: DB5-MS

Column diameter: 0.25

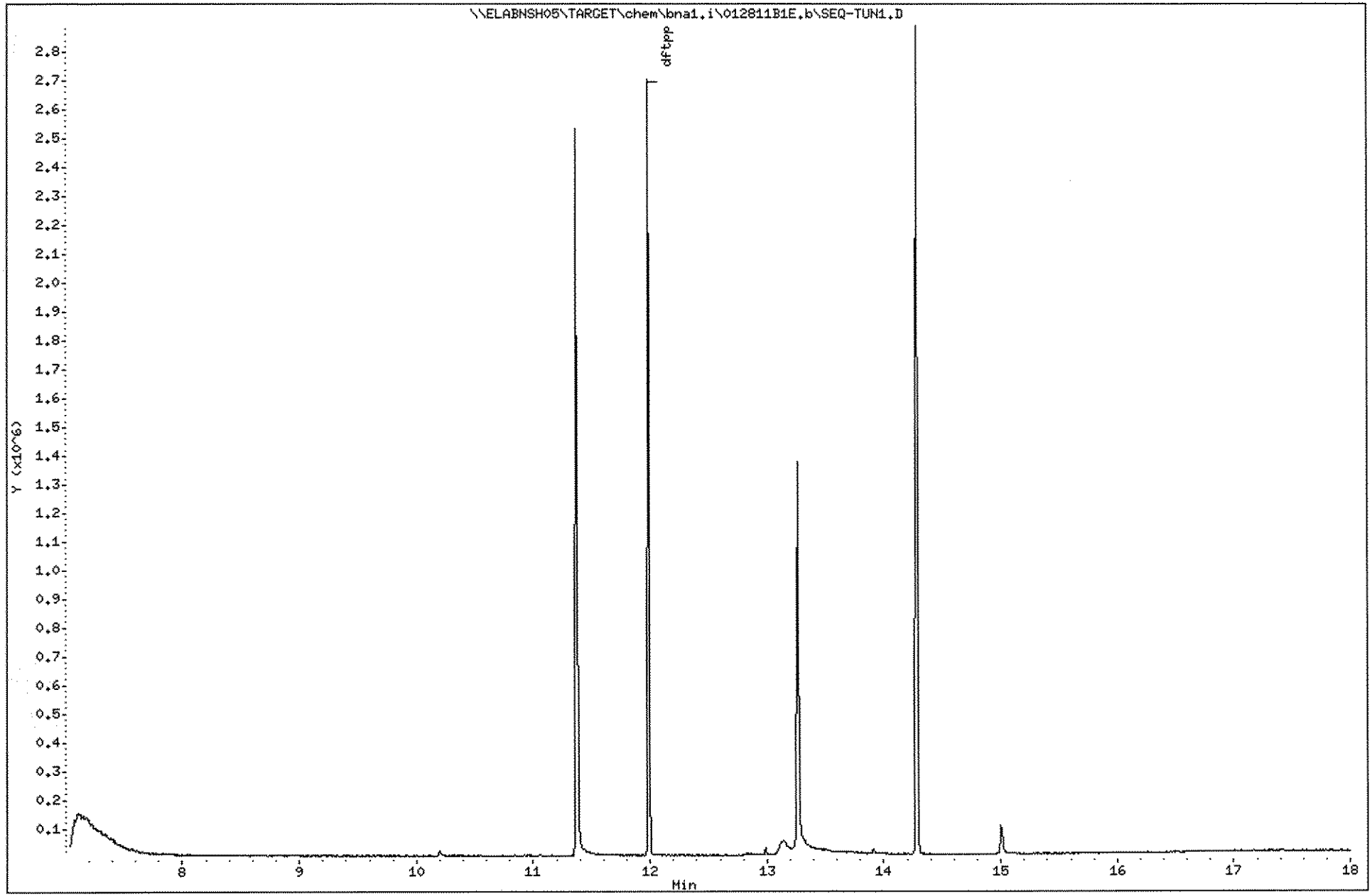
1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	31.10
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.46
70	Less than 2.00% of mass 69	0.15 (0.31)
127	40.00 - 60.00% of mass 198	40.43
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.62
275	10.00 - 30.00% of mass 198	19.97
365	Greater than 1.00% of mass 198	2.17
441	Present, but less than mass 443	11.52
442	Greater than 40.00% of mass 198	77.15
443	17.00 - 23.00% of mass 442	15.30 (19.83)

1/29/11
GLQ
1/29/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1.D
Date : 28-JAN-2011 09:18
Client ID: 50ppm DFTPP
Instrument: bna1.i
Sample Info: DF0128B1;;;;;10L0963
Operator: MEC
Column phase: DB5-MS
Column diameter: 0.25



275

1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1.D

Date : 28-JAN-2011 09:18

Client ID: 50ppm DFTPP Instrument: bna1.i

Sample Info: DF0128B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS Column diameter: 0.25

Data File: SEQ-TUN1.D

Spectrum: Avg. Scans 730-732 (11,99), Background Scan 726

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	262	118.00	1037	195.00	85	281.00	32
37.00	390	119.00	160	196.00	4872	283.00	322
38.00	934	120.00	183	198.00	180672	284.00	224
39.00	5210	121.00	51	199.00	11965	285.00	399
40.00	527	122.00	1229	200.00	964	286.00	57
41.00	361	123.00	1939	201.00	1141	289.00	115
42.00	22	124.00	1159	203.00	580	290.00	56
43.00	167	125.00	749	204.00	4307	291.00	40
44.00	603	127.00	73048	205.00	7783	292.00	99
45.00	227	128.00	5873	206.00	32944	293.00	605
46.00	21	129.00	31760	207.00	4961	294.00	135
49.00	82	130.00	2519	208.00	1098	296.00	9299
50.00	15639	131.00	510	209.00	410	297.00	1067
51.00	56184	132.00	204	210.00	69	301.00	145
52.00	2741	133.00	135	211.00	1580	302.00	44
53.00	130	134.00	825	213.00	56	303.00	933
54.00	31	135.00	2360	214.00	27	304.00	281
55.00	571	136.00	773	215.00	341	305.00	20
56.00	2135	137.00	1268	216.00	47	308.00	105
57.00	4820	138.00	68	217.00	8567	309.00	112
58.00	249	139.00	125	218.00	1014	310.00	124
59.00	36	140.00	366	219.00	74	313.00	69
60.00	26	141.00	3380	221.00	10754	314.00	401
61.00	766	142.00	1365	223.00	1611	315.00	831
62.00	898	143.00	746	224.00	18776	316.00	607
63.00	2067	144.00	102	225.00	4477	317.00	78
64.00	274	145.00	172	226.00	285	321.00	210
65.00	992	146.00	465	227.00	6994	323.00	3278
66.00	87	147.00	1608	228.00	1241	324.00	618
67.00	200	148.00	3691	229.00	1417	326.00	61
69.00	87552	149.00	942	230.00	173	327.00	536
70.00	275	150.00	177	231.00	608	328.00	297
71.00	78	151.00	524	232.00	158	329.00	60
73.00	453	152.00	55	233.00	236	331.00	63
74.00	5967	153.00	1225	234.00	362	332.00	192

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1.D

Date : 28-JAN-2011 09:18

Client ID: 50ppm DFTPP Instrument: bna1.i

Sample Info: DF0128B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS Column diameter: 0.25

Data File: SEQ-TUN1.D

Spectrum: Avg. Scans 730-732 (11.99), Background Scan 726

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
75.00	9430	154.00	919	235.00	502	333.00	170
76.00	943	155.00	1890	236.00	279	334.00	1849
77.00	68312	156.00	2867	237.00	591	335.00	401
78.00	5097	157.00	654	238.00	48	341.00	276
79.00	4547	158.00	706	239.00	295	342.00	22
80.00	3339	159.00	434	240.00	119	346.00	534
81.00	4645	160.00	1073	241.00	377	347.00	47
82.00	1359	161.00	1654	242.00	999	352.00	974
83.00	1168	162.00	471	244.00	16157	353.00	722
84.00	139	163.00	123	245.00	2255	354.00	1048
85.00	1143	164.00	46	246.00	2485	355.00	137
86.00	1378	165.00	1396	247.00	503	365.00	3918
87.00	595	166.00	799	249.00	536	366.00	389
88.00	247	167.00	7346	250.00	88	370.00	120
89.00	174	168.00	3859	251.00	80	371.00	279
90.00	23	169.00	556	252.00	167	372.00	1798
91.00	1336	170.00	209	253.00	238	373.00	324
92.00	1295	171.00	288	255.00	74192	376.00	22
93.00	8568	172.00	615	256.00	10783	382.00	38
94.00	580	173.00	806	257.00	502	383.00	482
95.00	122	174.00	1438	258.00	3931	390.00	253
96.00	516	175.00	2544	259.00	605	391.00	167
98.00	5729	176.00	1143	260.00	79	392.00	59
99.00	5010	177.00	1265	261.00	130	401.00	101
100.00	435	178.00	208	262.00	75	402.00	595
101.00	2614	179.00	5357	263.00	32	403.00	978
102.00	93	180.00	3576	264.00	129	404.00	282
103.00	1007	181.00	1691	265.00	1506	420.00	29
104.00	1554	182.00	271	266.00	151	421.00	838
105.00	1394	183.00	187	268.00	137	422.00	547
106.00	79	184.00	341	270.00	62	423.00	7028
107.00	19872	185.00	2455	271.00	77	424.00	1614
108.00	3068	186.00	18352	272.00	57	425.00	75
110.00	46024	187.00	4636	273.00	2261	441.00	20808
111.00	6506	188.00	594	274.00	6711	442.00	139392

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1.D

Date : 28-JAN-2011 09:18

Client ID: 50ppm DFTPP

Instrument: bna1.i

Sample Info: DF0128B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS

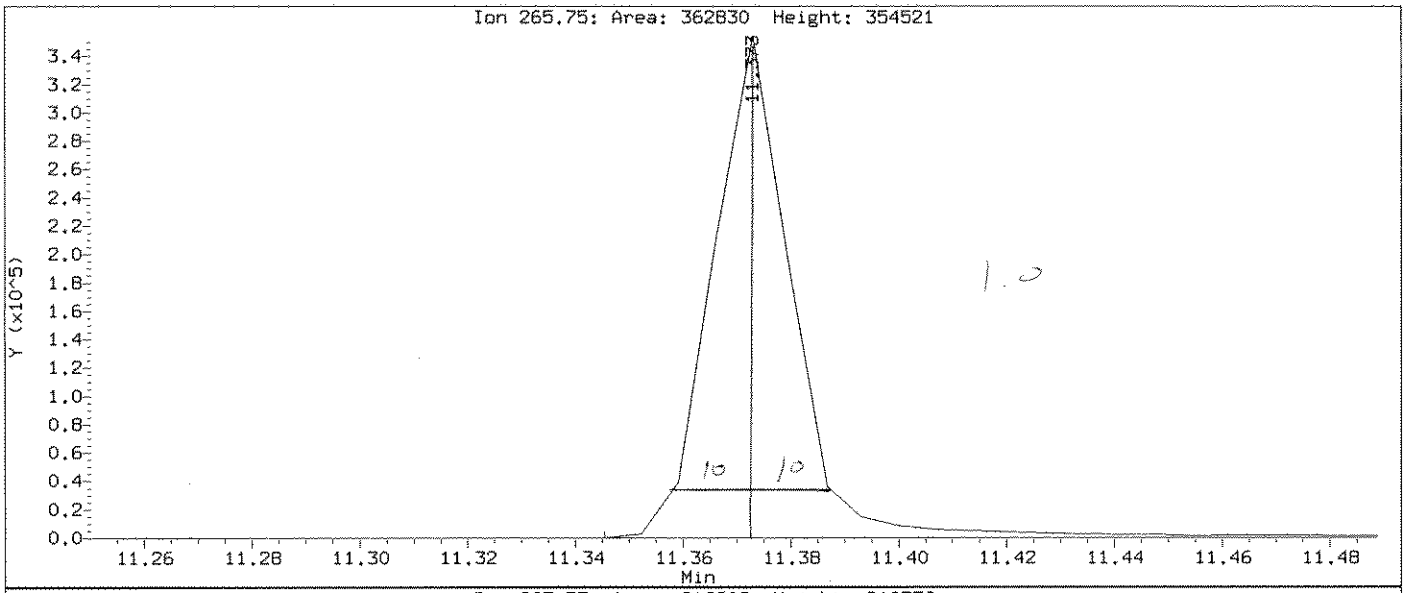
Column diameter: 0.25

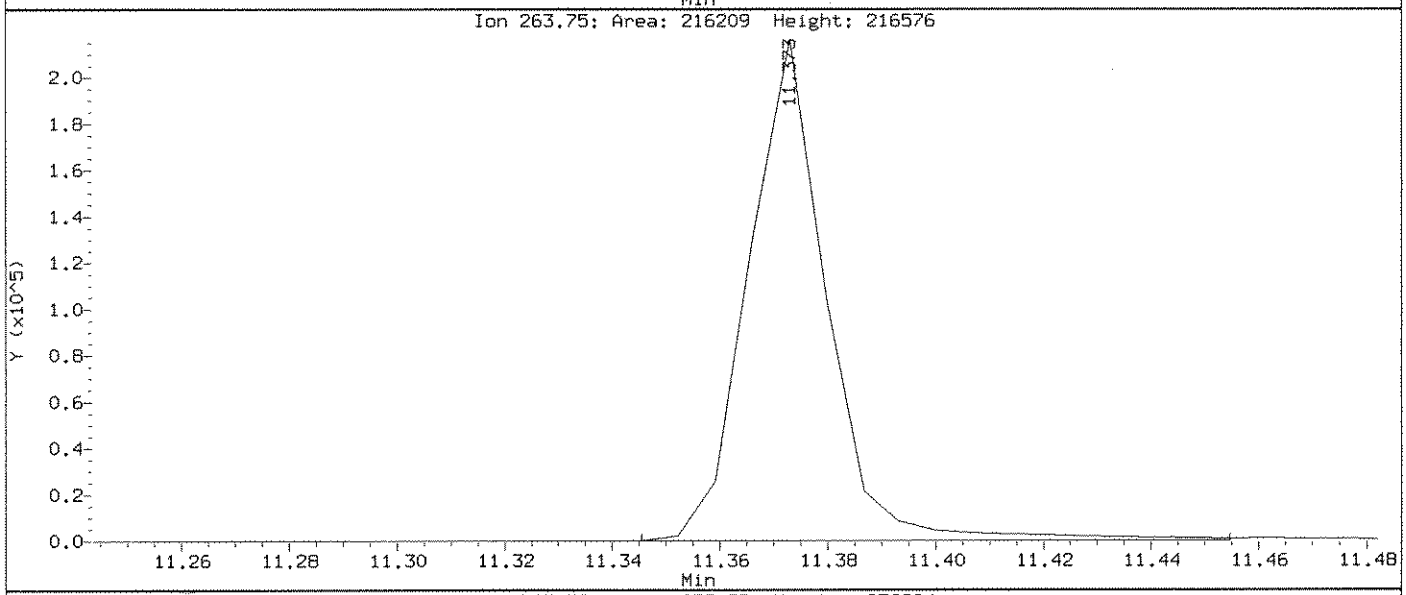
Data File: SEQ-TUN1.D
Spectrum: Avg. Scans 730-732 (11.99), Background Scan 726
Location of Maximum: 198.00
Number of points: 301

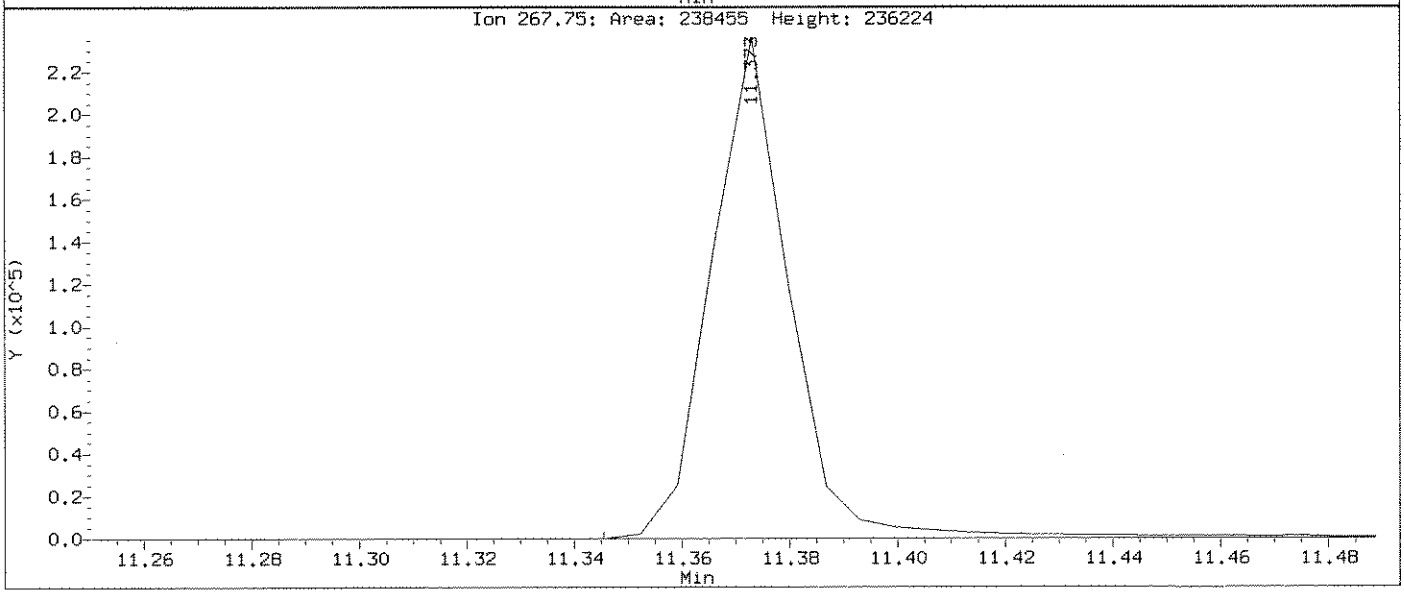
m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	693	189.00	1050	275.00	36088	443.00	27648
113.00	176	190.00	128	276.00	4959	444.00	2362
114.00	52	191.00	352	277.00	2575	445.00	47
115.00	169	192.00	1593	278.00	459		
116.00	382	193.00	1641	279.00	107		
117.00	15085	194.00	328	280.00	31		

Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1ex.D
Injection Date: 28-JAN-2011 09:18
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5

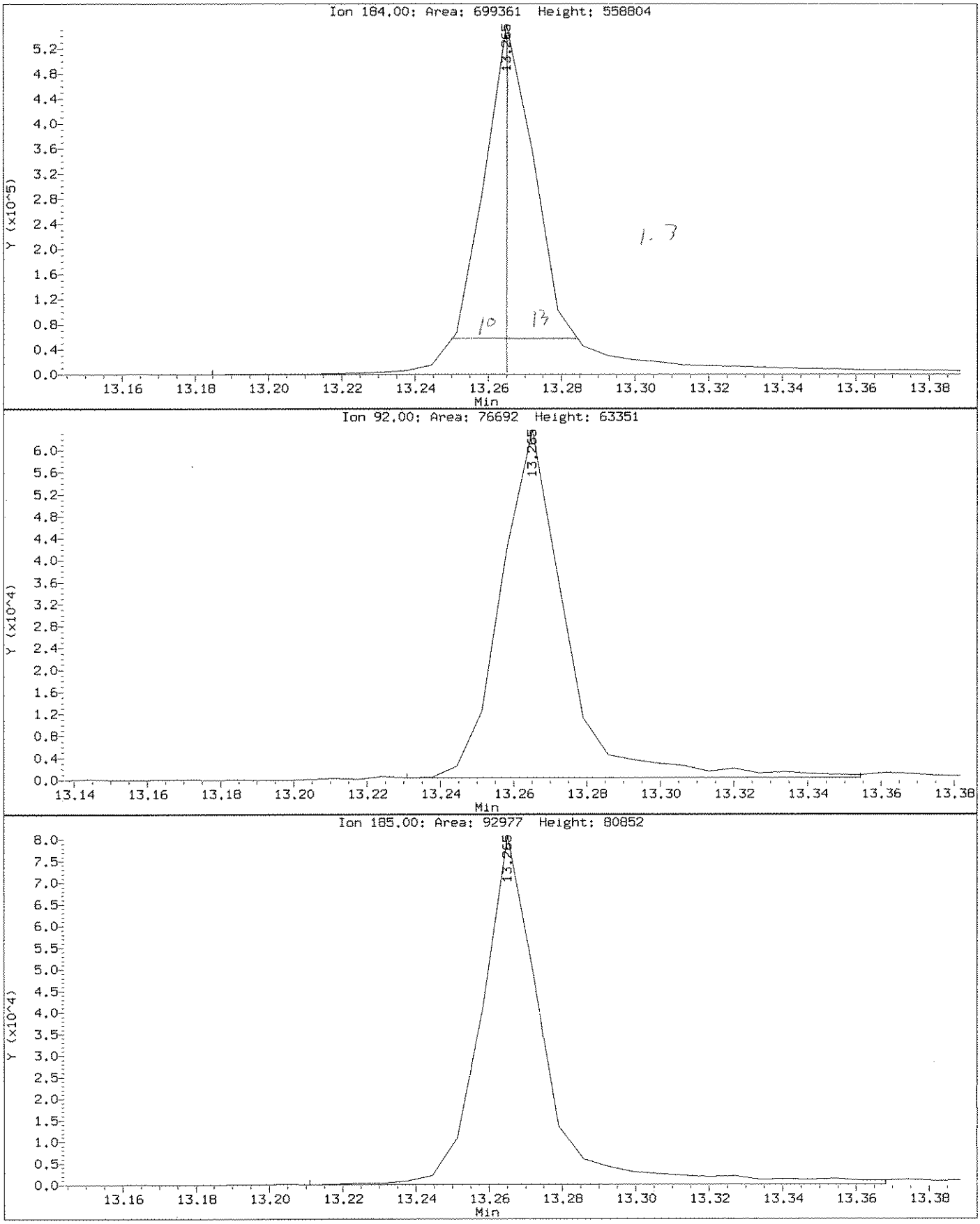






Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1ex.D
Injection Date: 28-JAN-2011 09:18
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: Benzidine
CAS Number: 92-87-5



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1ex.D
Report Date: 29-Jan-2011 17:26

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-TUN1ex.D
Lab Smp Id: SEQ-TUN2 Client Smp ID: 50ppm DFTPP
Inj Date : 28-JAN-2011 09:18 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : DF0128B1;;;;;10L0963
Misc Info : ;;;;;;all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\dftppbn1ex.m
Meth Date : 27-Jan-2011 10:06 gquick Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.04
Processing Host: TARGET09_VM

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
1 Pentachlorophenol	266	11.372	11.370	0.002	362830		
2 Benzidine	184	13.265	13.265	0.000	699361		
4 4,4'-DDD	235	13.913	13.912	0.001	2651		
5 4,4'-DDT	235	14.287	14.279	0.008	655975		

DDT breakdown = $\frac{2651}{658626} \times 100 = 0.40\ \%$

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Report Date: 27-Jan-2011 15:25

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Lab Smp Id: SEQ-CAL1 Client Smp ID: CAL5PPM
Inj Date : 26-JAN-2011 15:40 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL5PPM;;;;;;11A0525
Misc Info : ;1;;;1;;cal_1.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	587985	40.0000	
$	2 2-Fluorophenol	112	4.738	4.746	(0.768)	198684	11.0354	11.04(R)
$	3 Phenol-d6	99	5.751	5.773	(0.932)	242203	10.5832	10.58(R)
	4 Pyridine	79	3.406	3.379	(0.552)	113006	4.88259	4.882
	6 N-Nitroso-di-methylamine	42	3.358	3.345	(0.544)	35833	4.25699	4.257
	7 Aniline	93	5.799	5.814	(0.939)	148833	5.19165	5.192
	10 Phenol	94	5.764	5.787	(0.934)	128728	5.42315	5.423
	11 bis(2-Chloroethyl)ether	93	5.880	5.889	(0.953)	106019	5.35510	5.355
	12 2-Chlorophenol	128	5.928	5.937	(0.960)	105733	5.52618	5.526
	13 1,3-Dichlorobenzene	146	6.105	6.107	(0.989)	114978	5.54485	5.545
	14 1,4-Dichlorobenzene	146	6.187	6.196	(1.002)	115085	5.67505	5.675
	15 Benzyl alcohol	108	6.330	6.339	(1.025)	65550	5.25066	5.251
	16 1,2-Dichlorobenzene	146	6.357	6.360	(1.030)	109196	5.65095	5.651
	17 2-Methylphenol	108	6.453	6.462	(1.045)	94554	5.66567	5.666
	18 2,2'-Oxybis-1-chloropropane	45	6.487	6.496	(1.051)	160580	5.64304	5.643
	19 3-Methylphenol	108	6.637	6.654	(1.075)	92132	5.28464	5.285
	20 4-Methylphenol	108	6.637	6.654	(1.075)	92132	5.28464	5.285
	21 N-Nitroso-di-n-propylamine	70	6.637	6.660	(1.075)	68439	5.58125	5.581
	22 Hexachloroethane	117	6.746	6.749	(1.093)	47913	5.69328	5.693
*	33 Naphthalene-d8	136	7.652	7.659	(1.000)	1793971	40.0000	
$	34 Nitrobenzene-d5	82	6.800	6.811	(0.889)	88734	5.35909	5.359(R)
	35 Nitrobenzene	77	6.828	6.838	(0.892)	87267	5.42703	5.427
	39 Isophorone	82	7.107	7.132	(0.929)	184265	5.32535	5.325
	40 2-Nitrophenol	139	7.202	7.207	(0.941)	47174	4.69335	4.693
	42 2,4-Dimethylphenol	107	7.256	7.269	(0.948)	86755	5.65982	5.660
	43 Benzoic acid	105	7.338	7.447	(0.959)	29849	6.64945	6.649

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.379	7.385	(0.964)	114384	5.55461	5.555
	47 2,4-Dichlorophenol	162	7.482	7.495	(0.978)	71444	5.01227	5.012
	50 1,2,4-Trichlorobenzene	180	7.584	7.591	(0.991)	82573	5.34548	5.345
	51 Naphthalene	128	7.673	7.680	(1.003)	250368	5.79813	5.798
	52 4-Chloroaniline	127	7.748	7.755	(1.013)	108919	5.51012	5.510
	53 Hexachlorobutadiene	225	7.830	7.837	(1.023)	45452	5.74731	5.747
	54 4-Chloro-3-methylphenol	107	8.334	8.336	(1.089)	69672	5.49447	5.494
	55 2-Methylnaphthalene	141	8.511	8.513	(1.112)	121769	5.50271	5.503
	56 1-Methylnaphthalene	141	8.627	8.637	(1.127)	133975	5.88086	5.881
*	69 Acenaphthene-d10	164	9.780	9.784	(1.000)	965279	40.0000	
	70 Hexachlorocyclopentadiene	237	8.702	8.706	(0.890)	35043	4.14780	4.148
	71 2,4,6-Trichlorophenol	196	8.852	8.857	(0.905)	45346	4.68684	4.687
	72 2,4,5-Trichlorophenol	196	8.893	8.898	(0.909)	49101	4.71140	4.711
	73 2-Chloronaphthalene	162	9.098	9.104	(0.930)	150513	5.46998	5.470
$	74 2-Fluorobiphenyl	172	8.962	8.967	(0.916)	162334	5.17496	5.175(R)
	75 2-Nitroaniline	65	9.228	9.242	(0.944)	32031	4.08234	4.082
	76 Dimethylphthalate	163	9.466	9.489	(0.968)	165437	5.18733	5.187
	77 Acenaphthylene	152	9.596	9.606	(0.981)	235265	5.58904	5.589
	78 2,6-Dinitrotoluene	165	9.534	9.551	(0.975)	38408	4.56925	4.569
	79 3-Nitroaniline	138	9.732	9.750	(0.995)	39285	4.67420	4.674
	80 Acenaphthene	153	9.814	9.825	(1.004)	147311	5.63835	5.638
	81 2,4-Dinitrophenol	184	9.862	9.881	(1.008)	6108	11.1838	11.18(M)
	83 4-Nitrophenol	65	9.944	9.956	(1.017)	18066	3.78553	3.786
	84 Dibenzofuran	168	10.026	10.032	(1.025)	190175	5.26151	5.262
	85 2,4-Dinitrotoluene	165	10.019	10.039	(1.024)	37286	4.13196	4.132
	86 Diethylphthalate	149	10.334	10.347	(1.057)	200381	2.36875	2.369
	87 4-Chlorophenyl-phenylether	204	10.457	10.464	(1.069)	68934	5.35522	5.355
	88 Fluorene	166	10.444	10.457	(1.068)	156064	5.63807	5.638
	89 4-Nitroaniline	138	10.471	10.492	(1.071)	26843	4.81703	4.817(M)
	96 2,3,4,6-Tetrachlorophenol	232	10.177	10.190	(1.041)	36133	4.44956	4.450
*	102 Phenanthrene-d10	188	11.589	11.595	(1.000)	1367579	40.0000	
	103 1,2-Diphenylhydrazine	77	10.649	10.657	(0.919)	163778	5.73871	5.739
	104 Carbazole	167	11.882	11.890	(1.025)	192866	6.13932	6.139
	105 4,6-Dinitro-2-methylphenol	198	10.512	10.533	(0.907)	9365	6.26552	6.266(M)
	106 N-Nitrosodiphenylamine	169	10.601	10.616	(0.915)	118372	5.24658	5.246
$	107 2,4,6-Tribromophenol	330	10.737	10.753	(0.926)	48951	9.88078	9.881(R)
	108 4-Bromophenyl-phenylether	248	11.051	11.062	(0.954)	39655	5.03642	5.036
	109 Hexachlorobenzene	284	11.112	11.122	(0.959)	45563	5.12932	5.129
	110 Pentachlorophenol	266	11.357	11.369	(0.980)	21227	6.25783	6.258
	111 Phenanthrene	178	11.616	11.629	(1.002)	205213	5.67618	5.676
	112 Anthracene	178	11.678	11.691	(1.008)	202565	5.60789	5.608
	115 Di-n-butylphthalate	149	12.338	12.349	(1.065)	251216	5.34216	5.342
	116 Fluoranthene	202	13.065	13.075	(1.127)	200787	5.47402	5.474
*	132 Chrysene-d12	240	14.839	14.849	(1.000)	1182489	40.0000	
	134 Pyrene	202	13.344	13.355	(0.899)	209792	5.46354	5.464
$	135 Terphenyl-d14	244	13.555	13.560	(0.913)	117164	4.88052	4.880(R)
	136 Butylbenzylphthalate	149	14.173	14.180	(0.955)	111452	4.89934	4.899

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.826	14.836	(0.999)	171815	5.10399	5.104
139	Chrysene	228	14.873	14.884	(1.002)	174621	5.26111	5.261
140	Bis(2-ethylhexyl)phthalate	149	14.907	14.911	(1.005)	144583	4.77111	4.771
* 154	Perylene-d12	264	16.595	16.597	(1.000)	1096622	40.0000	
155	Di-n-octylphthalate	149	15.710	15.711	(0.947)	223656	4.55010	4.550
156	Benzo(b)fluoranthene	252	16.139	16.148	(0.973)	147719	4.89834	4.898
157	Benzo(k)fluoranthene	252	16.173	16.189	(0.975)	176907	5.31212	5.312
158	Benzo(a)pyrene	252	16.521	16.530	(0.996)	141020	4.92691	4.927
159	Indeno(1,2,3-cd)pyrene	276	17.935	17.956	(1.081)	135609	5.35998	5.360
160	Dibenz(a,h)anthracene	278	17.963	17.976	(1.082)	108268	5.15283	5.153(M)
161	Benzo(g,h,i)perylene	276	18.319	18.340	(1.104)	112741	5.41854	5.418

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Date : 26-JAN-2011 15:40
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Instrument: bna1.i
Sample Info: CAL5PPM;;;;;;11A0525
Operator: MEC
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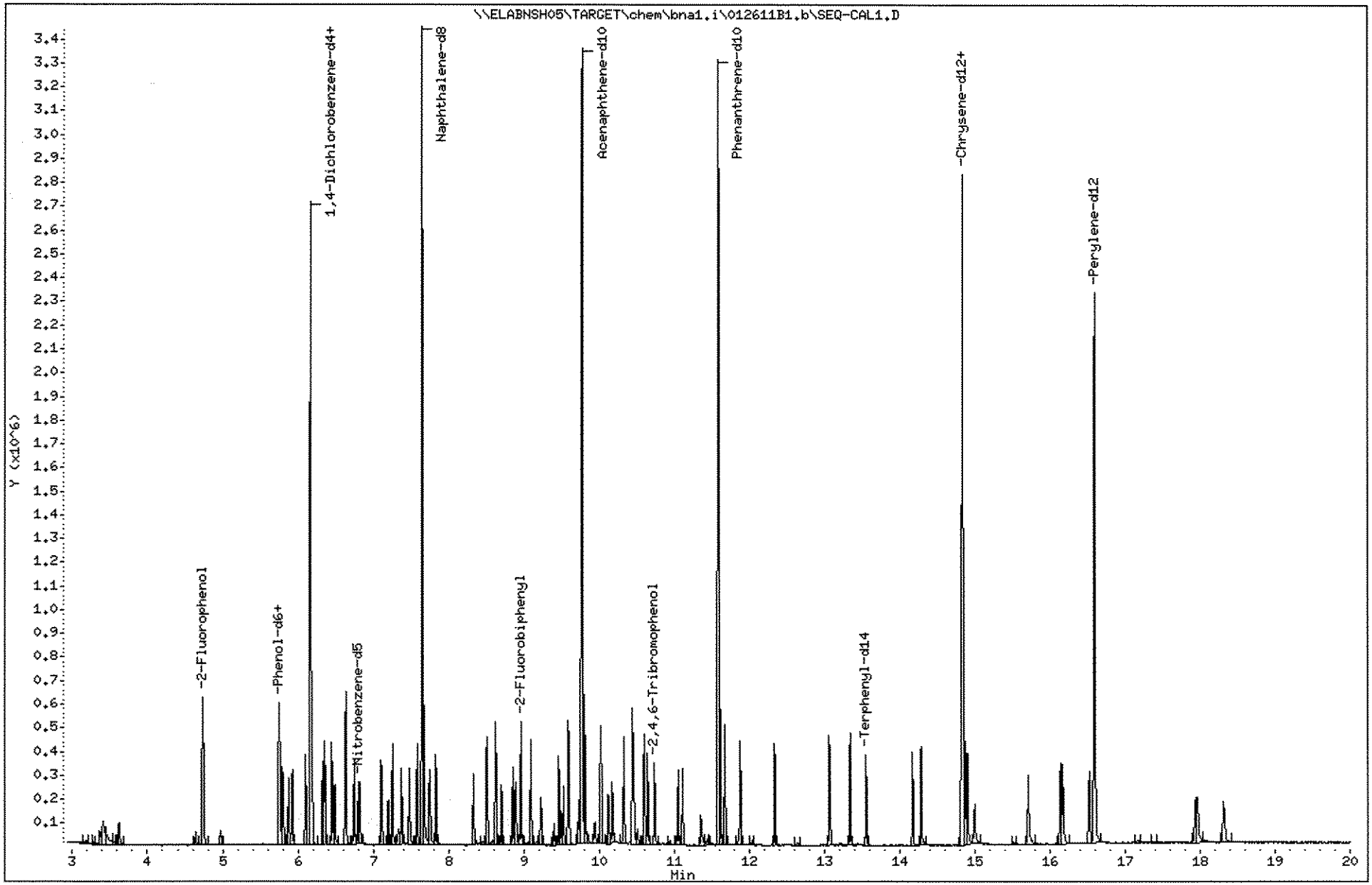
Column diameter: 0.25



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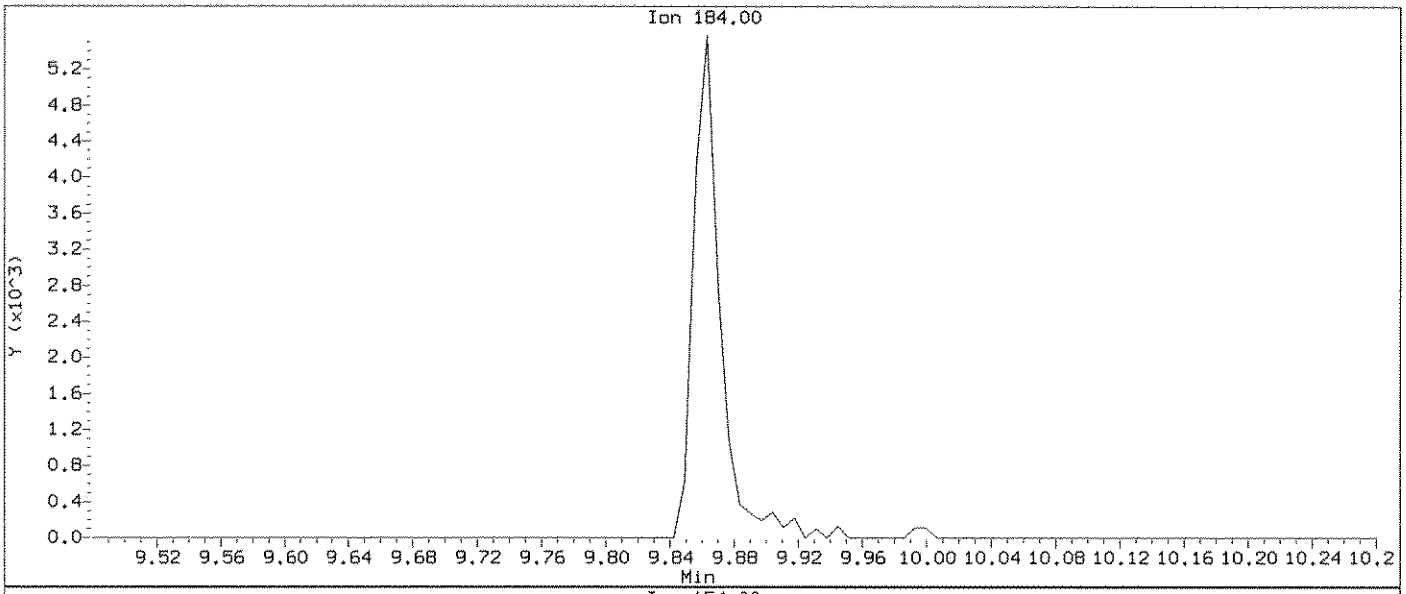
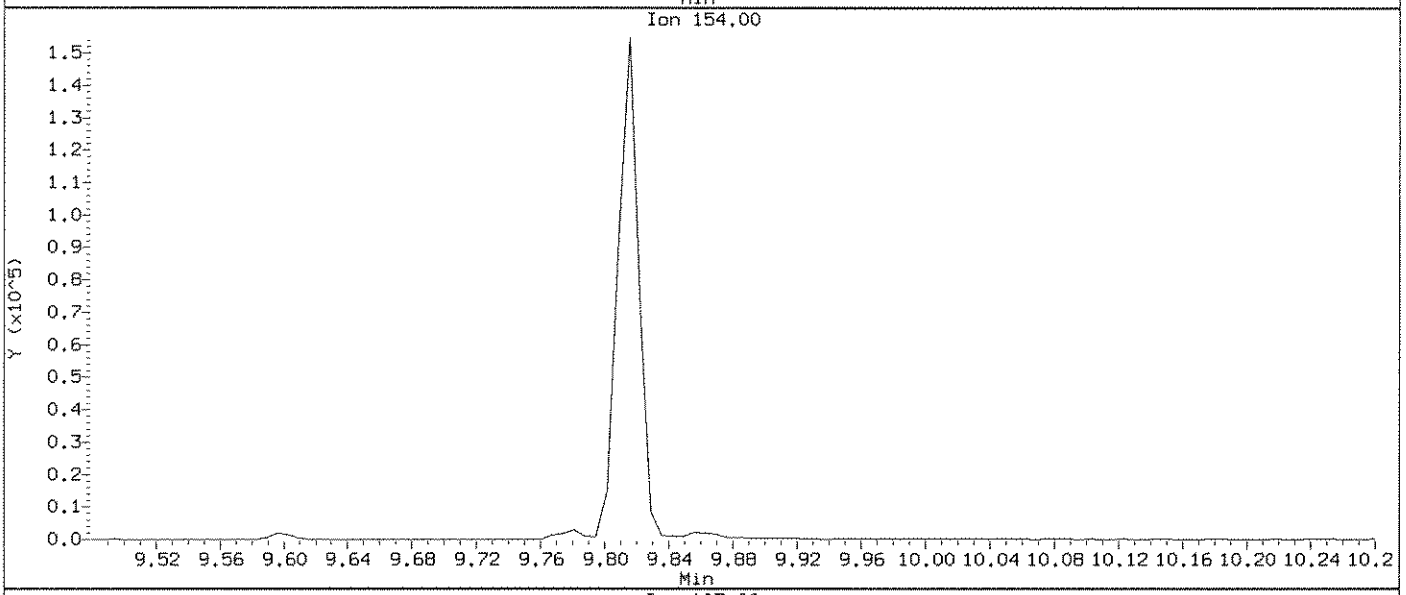
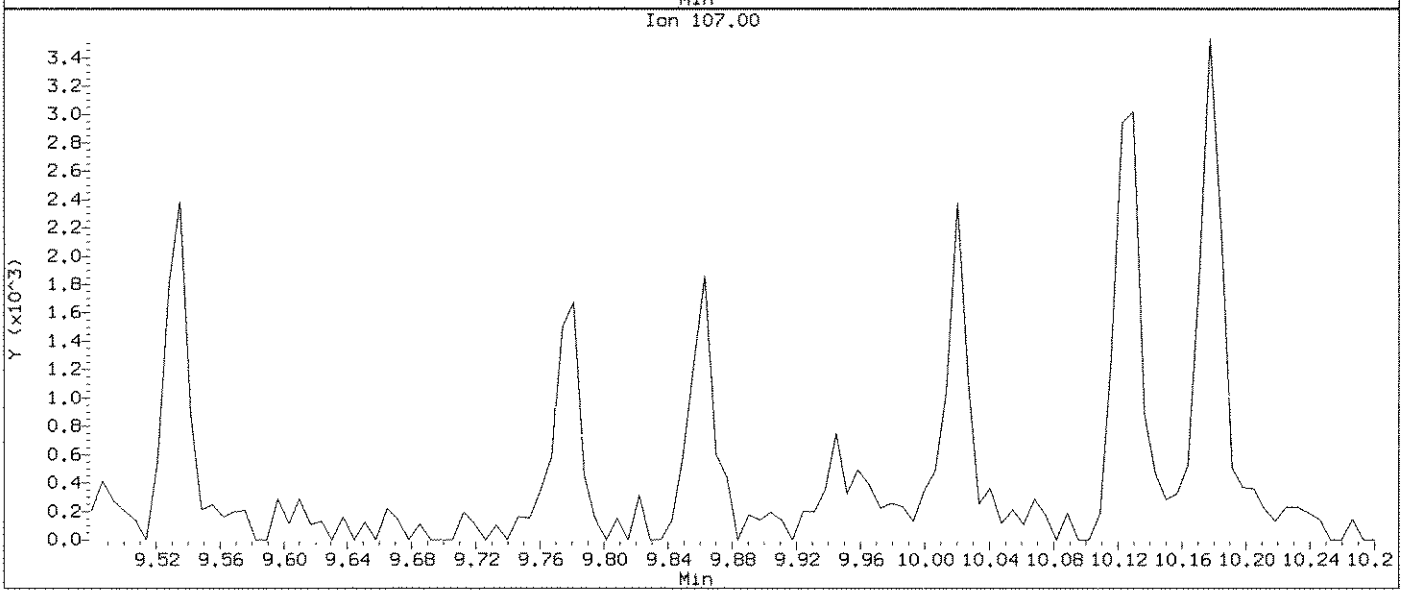
Injection Date: 26-JAN-2011 15:40
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: 2,4-Dinitrophenol
CAS Number: 51-28-5







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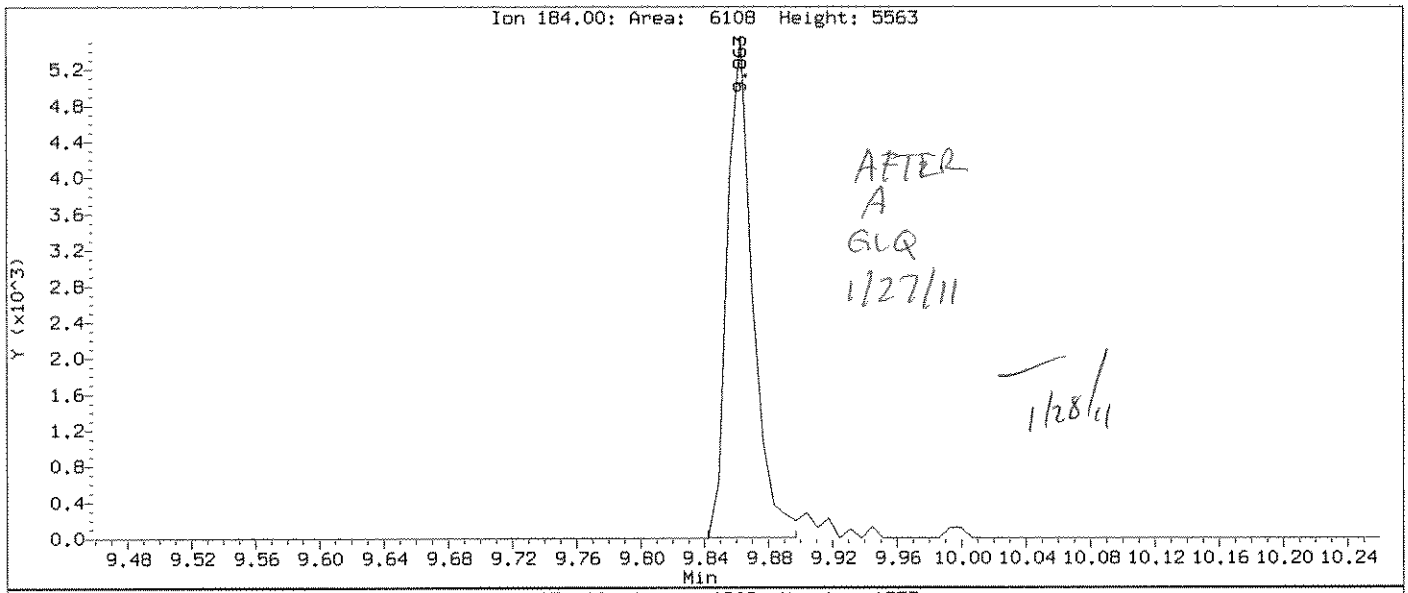
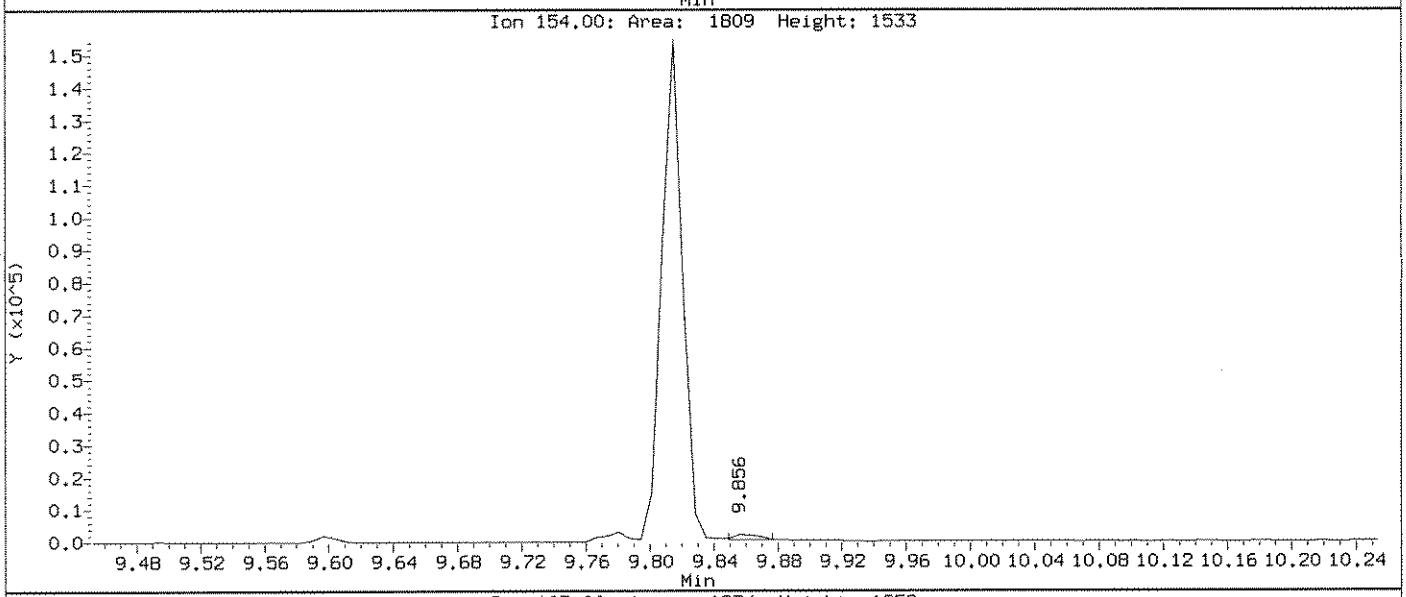
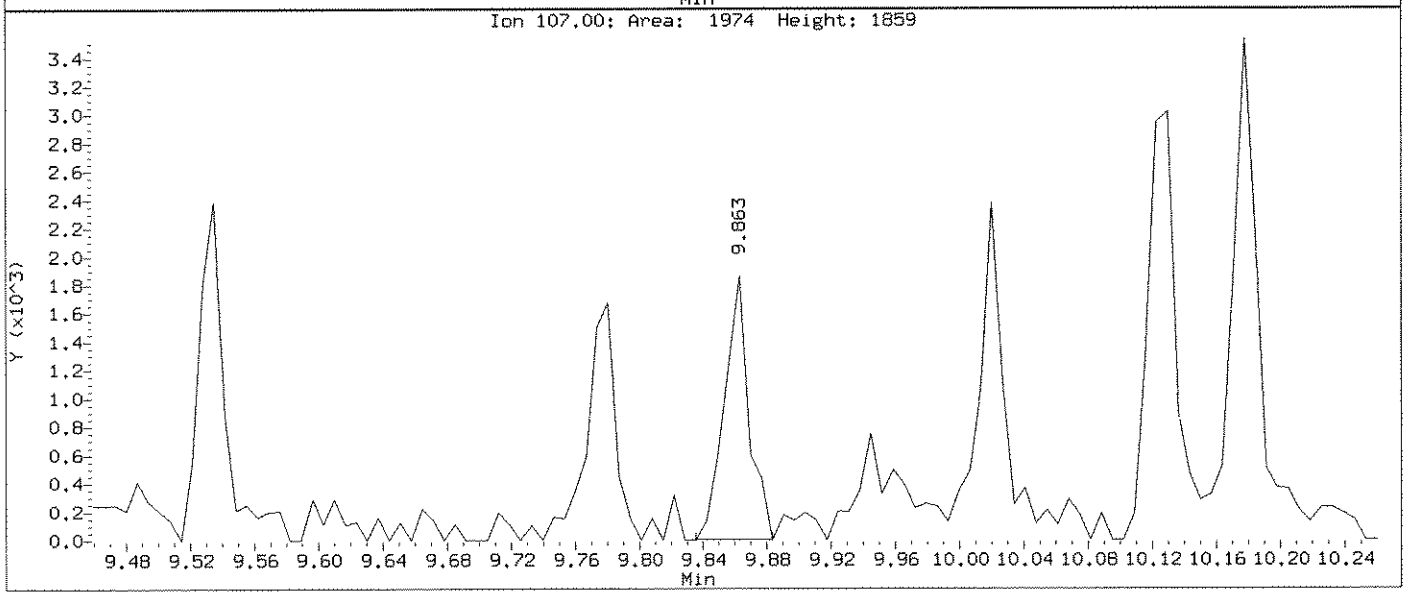
Client Sample ID: CAL5PPM

Compound: 2,4-Dinitrophenol
CAS Number: 51-28-5







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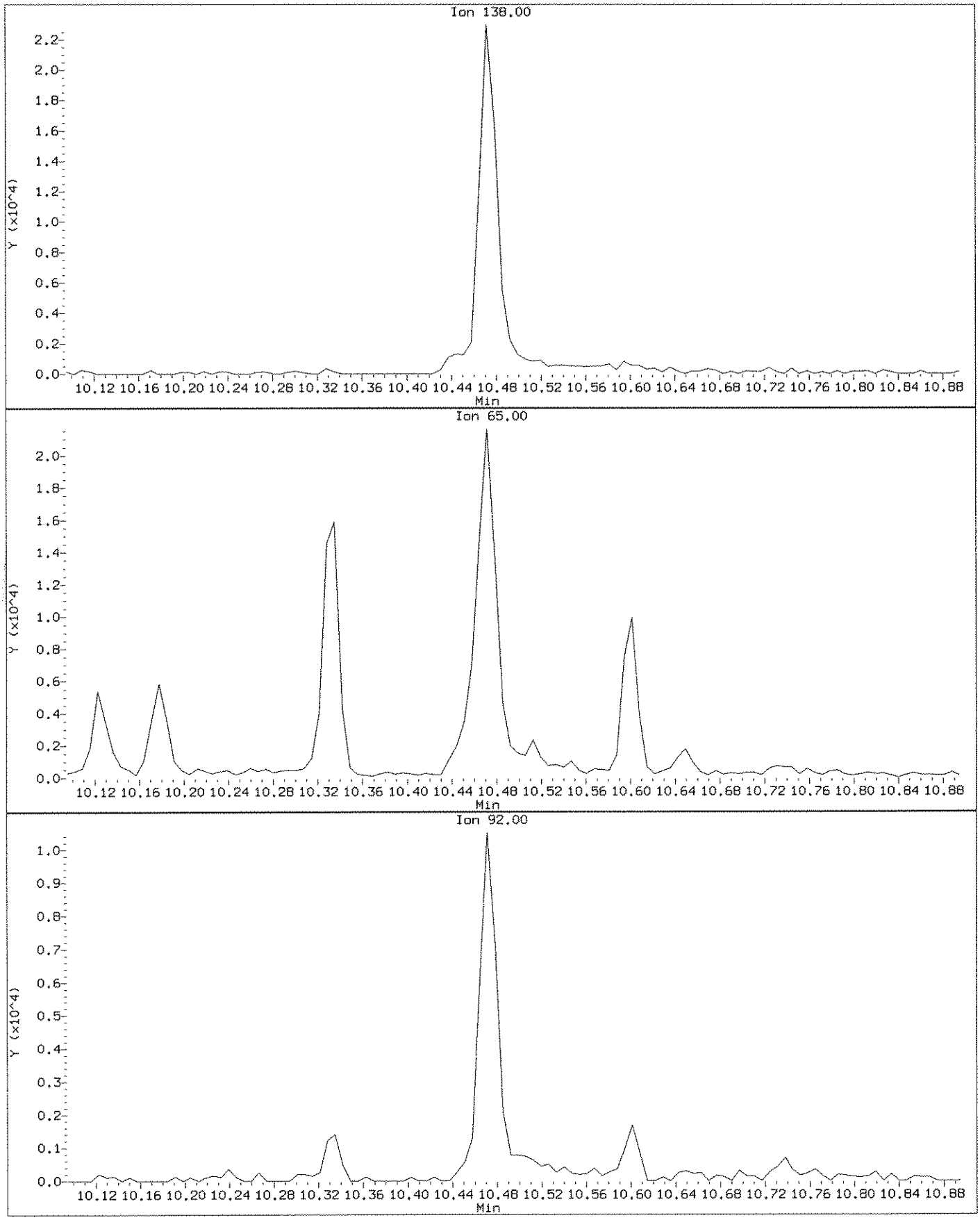
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: 4-Nitroaniline
CAS Number: 100-01-6



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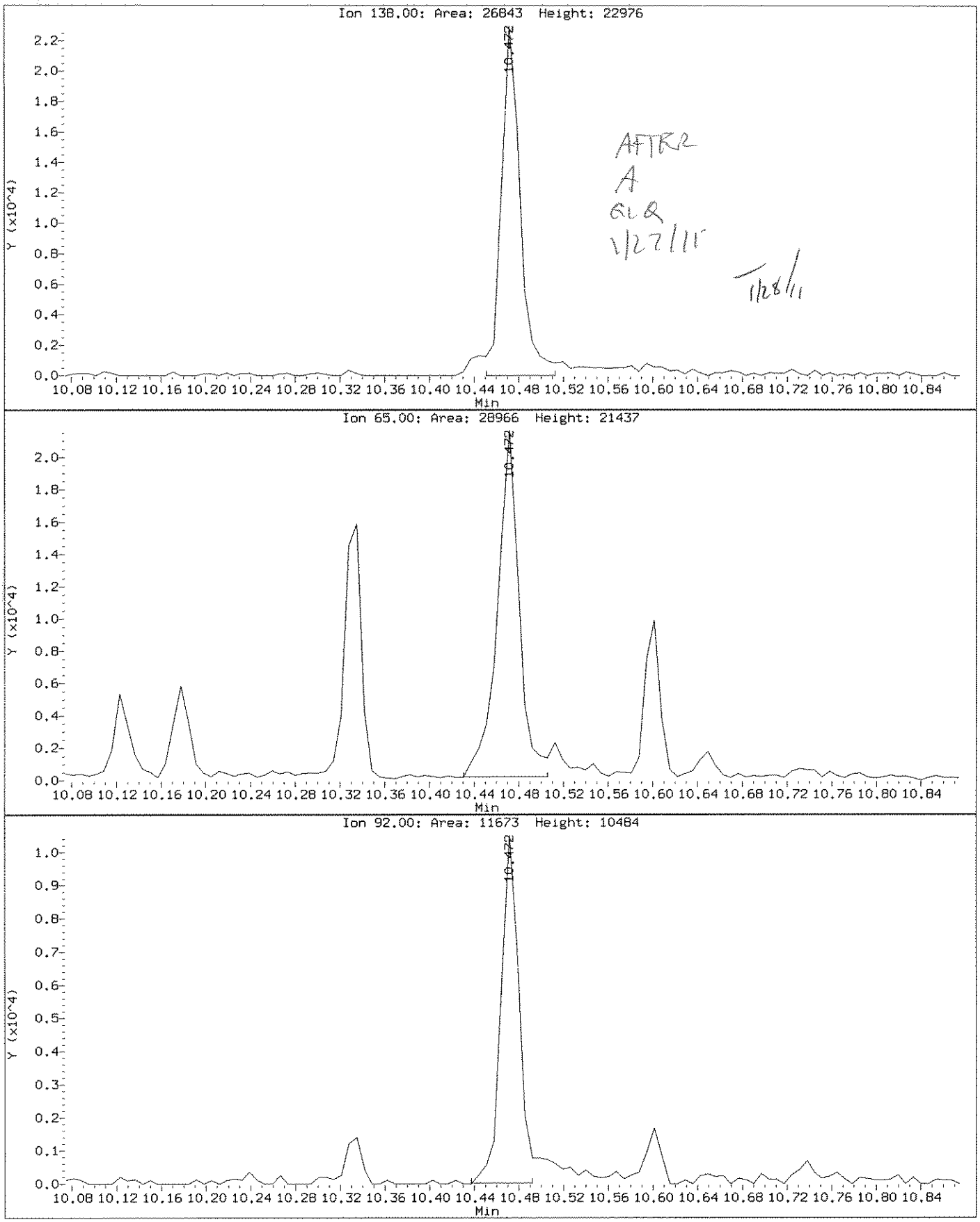
Compound: 4-Nitroaniline
CAS Number: 100-01-6



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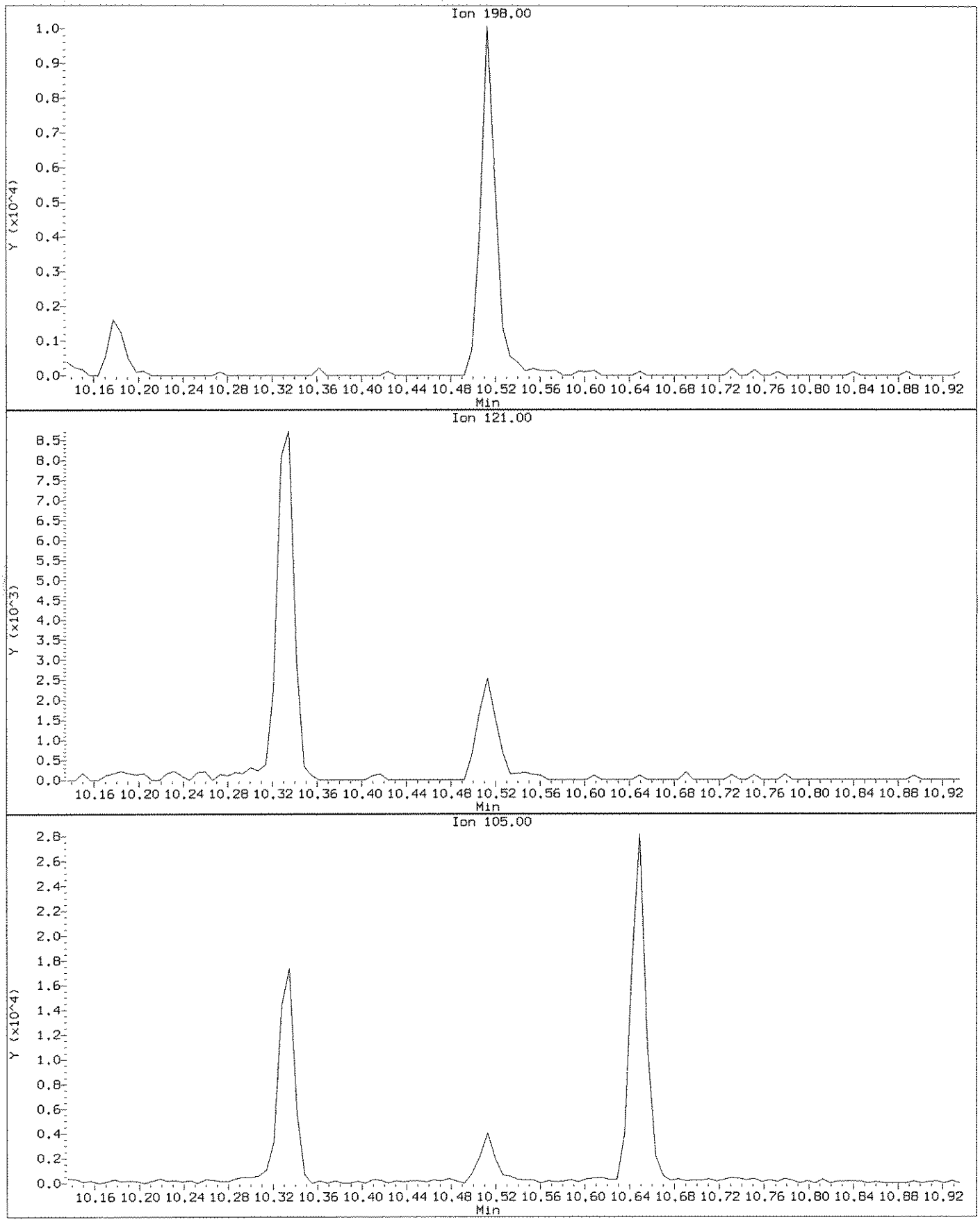
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1



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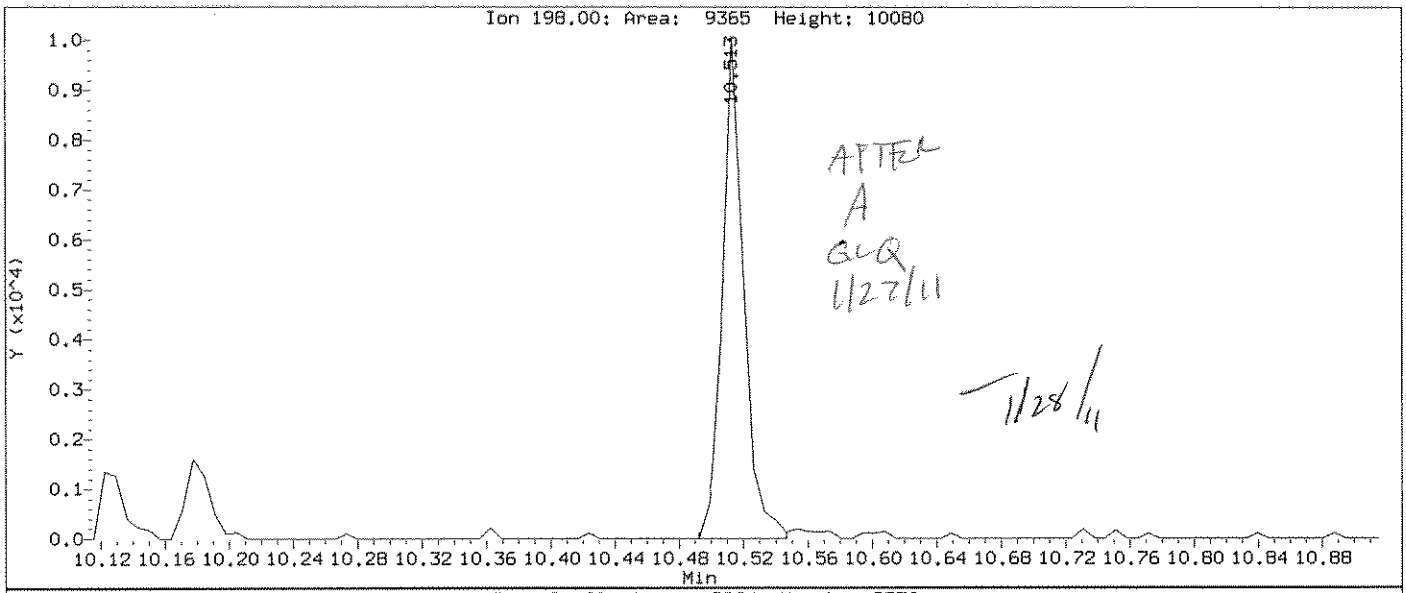
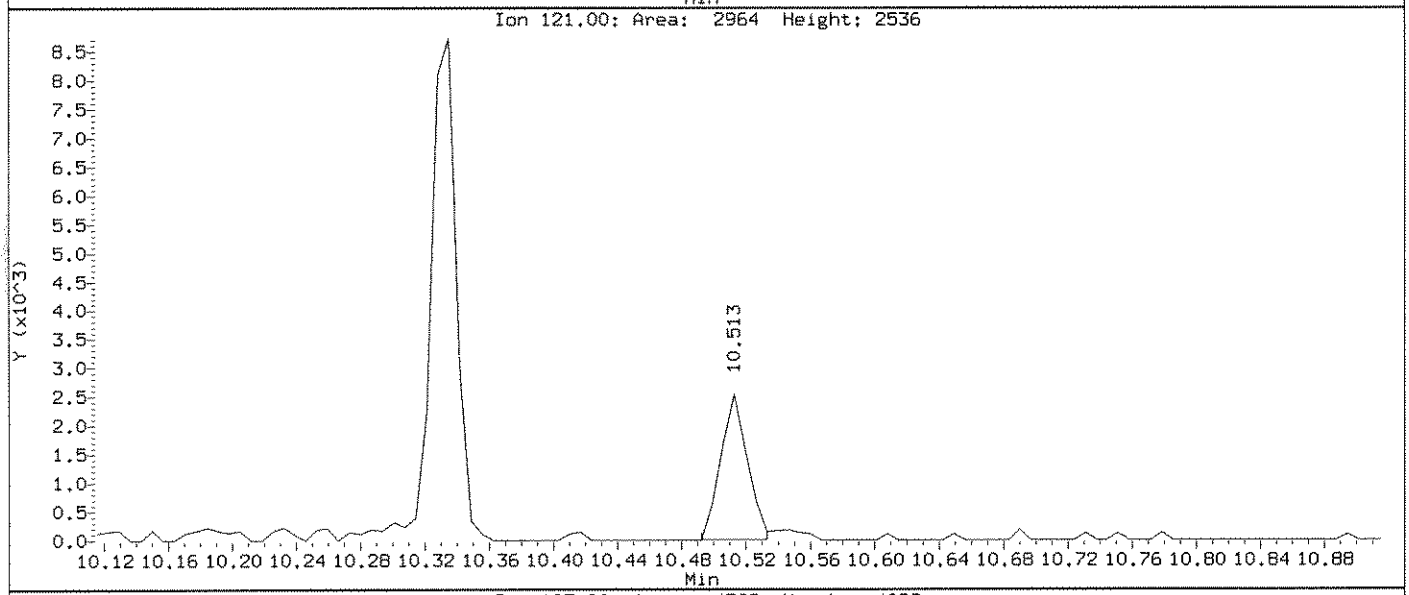
Client Sample ID: CAL5PPM

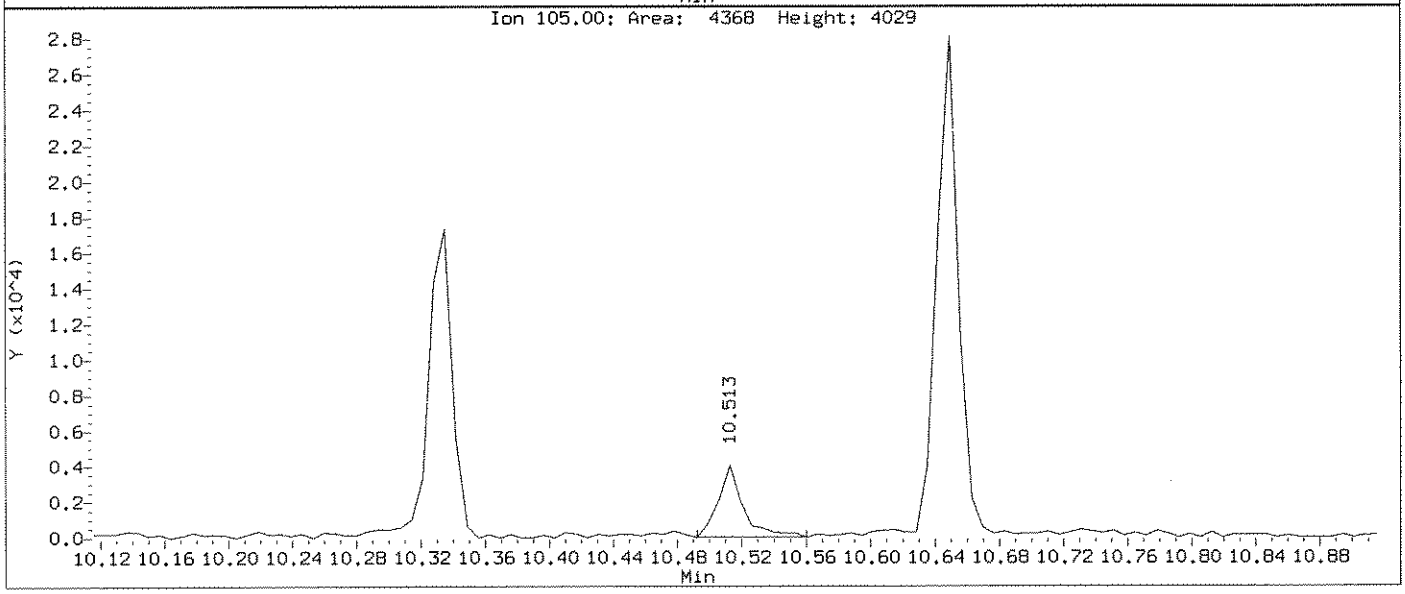
Compound: 4,6-Dinitro-2-methylphenol
CAS Number: 534-52-1



After A GLQ 1/27/11

1/28/11





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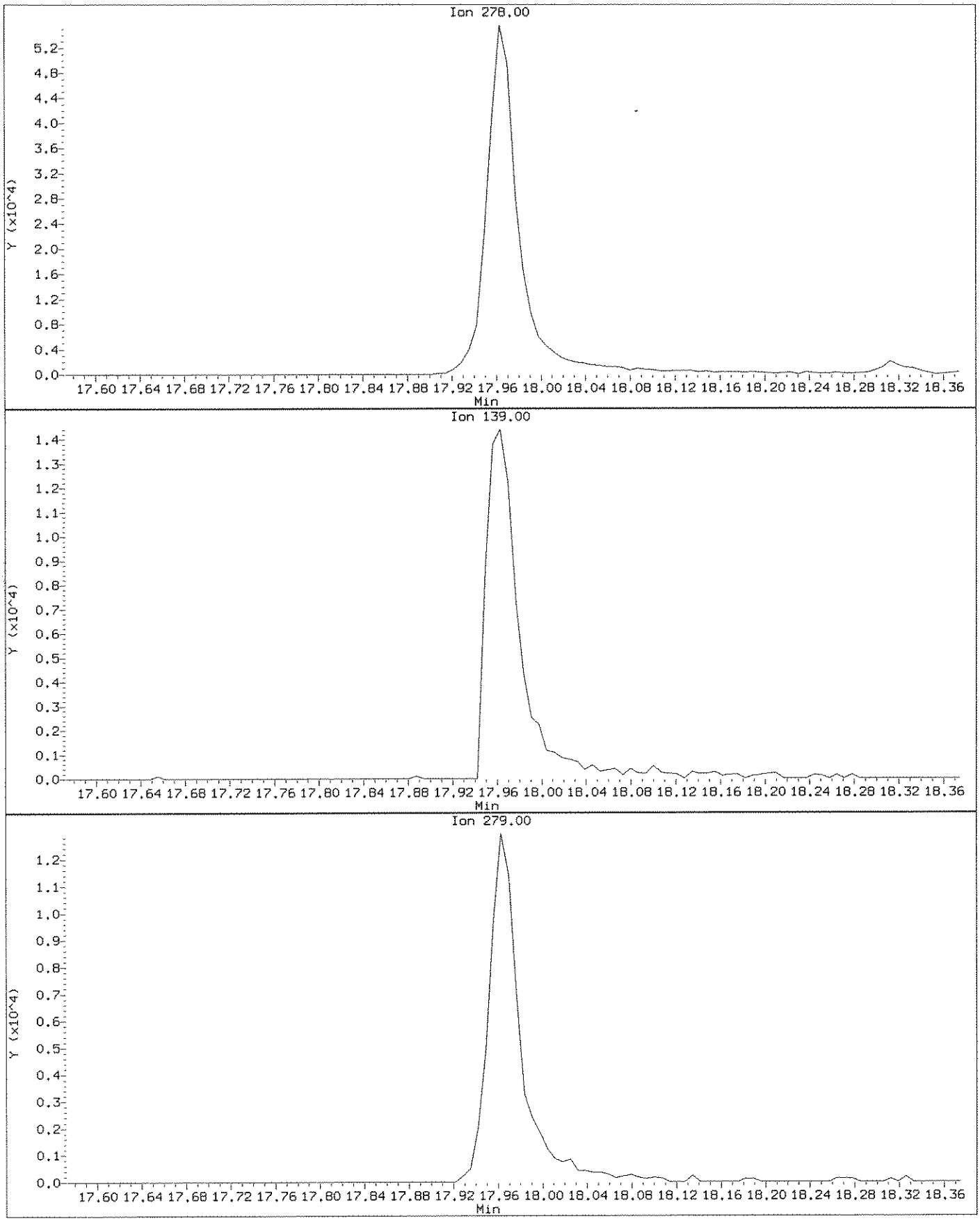
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: Dibenz(a,h)anthracene
CAS Number: 53-70-3



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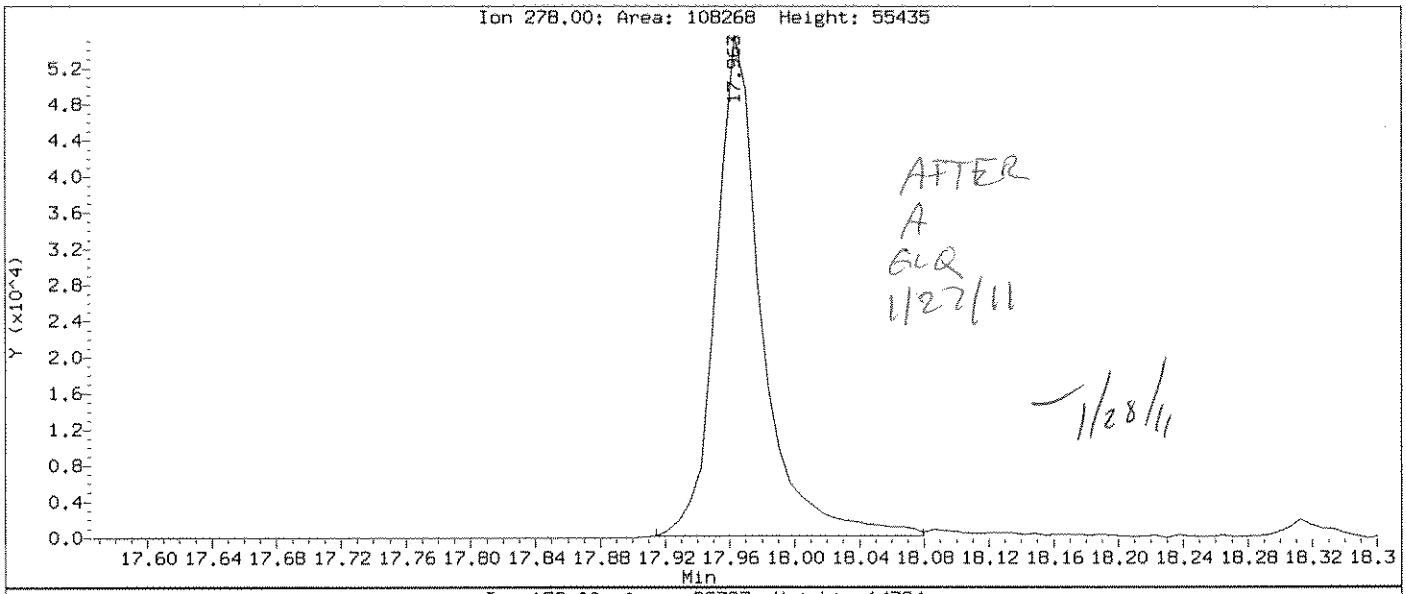
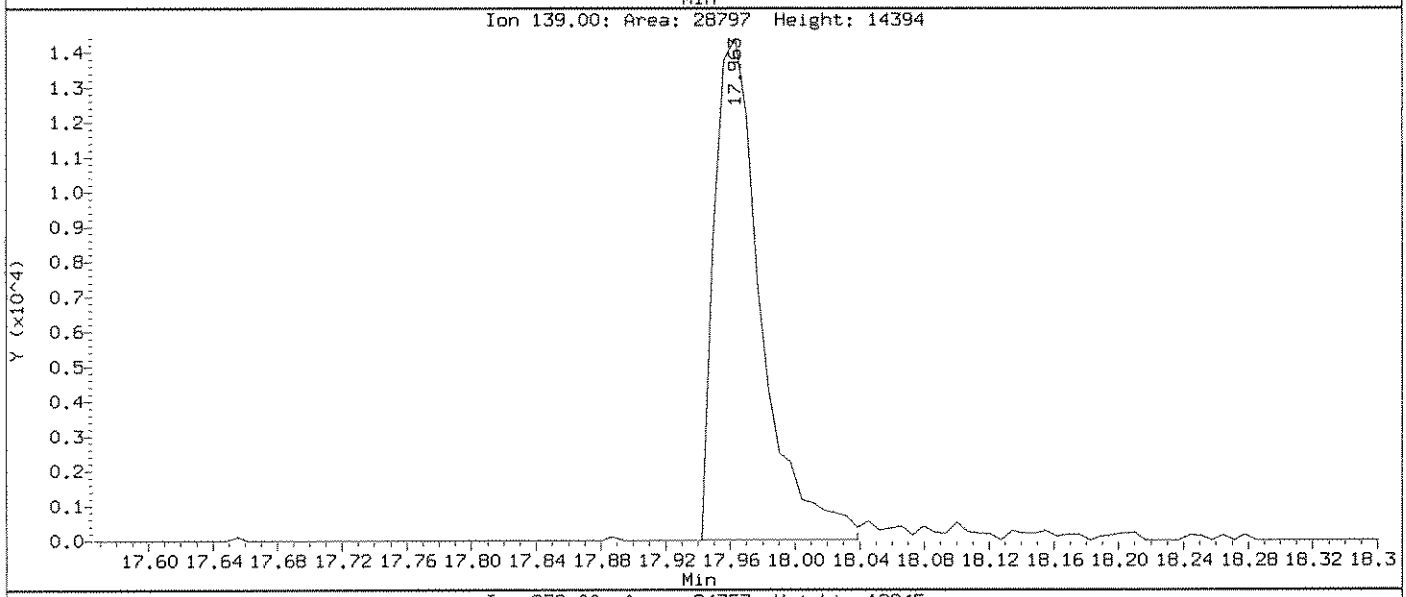
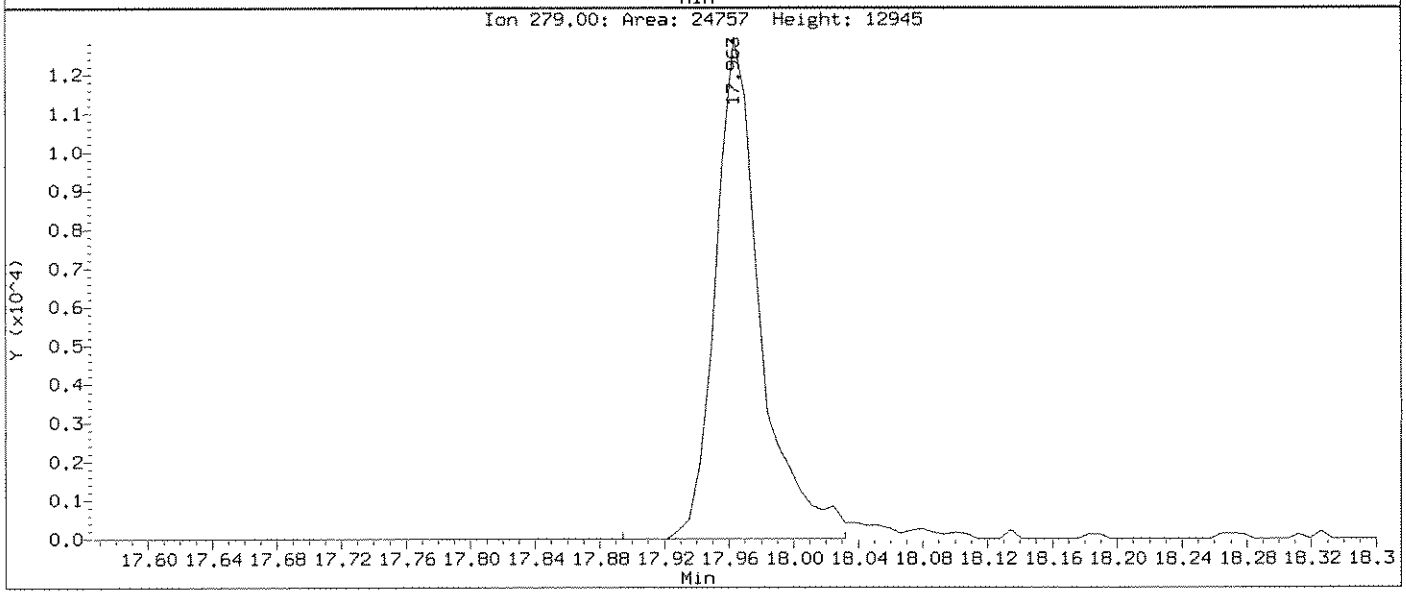
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: Dibenz(a,h)anthracene
CAS Number: 53-70-3







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Report Date: 27-Jan-2011 15:20

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Lab Smp Id: SEQ-CAL1 Client Smp ID: CAL5PPM
Inj Date : 26-JAN-2011 15:40 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL5PPM;;;;;;11A0525
Misc Info : ;1;;;1;;cal_1.sub;
Comment :
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Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	587985	40.0000	
$	2 2-Fluorophenol	112	4.738	4.746	(0.768)	198684	11.0354	11.04(R)
$	3 Phenol-d6	99	5.751	5.773	(0.932)	242203	10.5832	10.58(R)
	4 Pyridine	79	3.406	3.379	(0.552)	113006	4.88259	4.882
	6 N-Nitroso-di-methylamine	42	3.358	3.345	(0.544)	35833	4.25699	4.257
	7 Aniline	93	5.799	5.814	(0.939)	148833	5.19165	5.192
	10 Phenol	94	5.764	5.787	(0.934)	128728	5.42315	5.423
	11 bis(2-Chloroethyl)ether	93	5.880	5.889	(0.953)	106019	5.35510	5.355
	12 2-Chlorophenol	128	5.928	5.937	(0.960)	105733	5.52618	5.526
	13 1,3-Dichlorobenzene	146	6.105	6.107	(0.989)	114978	5.54485	5.545
	14 1,4-Dichlorobenzene	146	6.187	6.196	(1.002)	115085	5.67505	5.675
	15 Benzyl alcohol	108	6.330	6.339	(1.025)	65550	5.25066	5.251
	16 1,2-Dichlorobenzene	146	6.357	6.360	(1.030)	109196	5.65095	5.651
	17 2-Methylphenol	108	6.453	6.462	(1.045)	94554	5.66567	5.666
	18 2,2'-Oxybis-1-chloropropane	45	6.487	6.496	(1.051)	160580	5.64304	5.643
	19 3-Methylphenol	108	6.637	6.654	(1.075)	92132	5.28464	5.285
	20 4-Methylphenol	108	6.637	6.654	(1.075)	92132	5.28464	5.285
	21 N-Nitroso-di-n-propylamine	70	6.637	6.660	(1.075)	68439	5.58125	5.581
	22 Hexachloroethane	117	6.746	6.749	(1.093)	47913	5.69328	5.693
*	33 Naphthalene-d8	136	7.652	7.659	(1.000)	1793971	40.0000	
$	34 Nitrobenzene-d5	82	6.800	6.811	(0.889)	88734	5.35909	5.359(R)
	35 Nitrobenzene	77	6.828	6.838	(0.892)	87267	5.42703	5.427
	39 Isophorone	82	7.107	7.132	(0.929)	184265	5.32535	5.325
	40 2-Nitrophenol	139	7.202	7.207	(0.941)	47174	4.69335	4.693
	42 2,4-Dimethylphenol	107	7.256	7.269	(0.948)	86755	5.65982	5.660
	43 Benzoic acid	105	7.338	7.447	(0.959)	29849	6.64945	6.649

ALQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Report Date: 27-Jan-2011 15:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
44	bis(2-Chloroethoxy)methane	93	7.379	7.385	(0.964)	114384	5.55461	5.555
47	2,4-Dichlorophenol	162	7.482	7.495	(0.978)	71444	5.01227	5.012
50	1,2,4-Trichlorobenzene	180	7.584	7.591	(0.991)	82573	5.34548	5.345
51	Naphthalene	128	7.673	7.680	(1.003)	250368	5.79813	5.798
52	4-Chloroaniline	127	7.748	7.755	(1.013)	108919	5.51012	5.510
53	Hexachlorobutadiene	225	7.830	7.837	(1.023)	45452	5.74731	5.747
54	4-Chloro-3-methylphenol	107	8.334	8.336	(1.089)	69672	5.49447	5.494
55	2-Methylnaphthalene	141	8.511	8.513	(1.112)	121769	5.50271	5.503
56	1-Methylnaphthalene	141	8.627	8.637	(1.127)	133975	5.88086	5.881
* 69	Acenaphthene-d10	164	9.780	9.784	(1.000)	965279	40.0000	
70	Hexachlorocyclopentadiene	237	8.702	8.706	(0.890)	35043	4.14780	4.148
71	2,4,6-Trichlorophenol	196	8.852	8.857	(0.905)	45346	4.68684	4.687
72	2,4,5-Trichlorophenol	196	8.893	8.898	(0.909)	49101	4.71140	4.711
73	2-Chloronaphthalene	162	9.098	9.104	(0.930)	150513	5.46998	5.470
$ 74	2-Fluorobiphenyl	172	8.962	8.967	(0.916)	162334	5.17496	5.175(R)
75	2-Nitroaniline	65	9.228	9.242	(0.944)	32031	4.08234	4.082
76	Dimethylphthalate	163	9.466	9.489	(0.968)	165437	5.18733	5.187
77	Acenaphthylene	152	9.596	9.606	(0.981)	235265	5.58904	5.589
78	2,6-Dinitrotoluene	165	9.534	9.551	(0.975)	38408	4.56925	4.569
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81	2,4-Dinitrophenol	184	9.862	9.881	(1.008)	6108	11.1838	11.18(M)
83	4-Nitrophenol	65	9.944	9.956	(1.017)	18066	3.78553	3.786
84	Dibenzofuran	168	10.026	10.032	(1.025)	190175	5.26151	5.262
85	2,4-Dinitrotoluene	165	10.019	10.039	(1.024)	37286	4.13196	4.132
86	Diethylphthalate	149	10.334	10.347	(1.057)	200381	2.36875	2.369
87	4-Chlorophenyl-phenylether	204	10.457	10.464	(1.069)	68934	5.35522	5.355
88	Fluorene	166	10.444	10.457	(1.068)	156064	5.63807	5.638
89	4-Nitroaniline	138	10.471	10.492	(1.071)	26843	4.81703	4.817(M)
96	2,3,4,6-Tetrachlorophenol	232	10.177	10.190	(1.041)	36133	4.44956	4.450
* 102	Phenanthrene-d10	188	11.589	11.595	(1.000)	1367579	40.0000	
103	1,2-Diphenylhydrazine	77	10.649	10.657	(0.919)	163778	5.73871	5.739
104	Carbazole	167	11.882	11.890	(1.025)	192866	6.13932	6.139
105	4,6-Dinitro-2-methylphenol	198	10.512	10.533	(0.907)	9365	6.26552	6.266(M)
106	N-Nitrosodiphenylamine	169	10.601	10.616	(0.915)	118372	5.24658	5.246
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108	4-Bromophenyl-phenylether	248	11.051	11.062	(0.954)	39655	5.03642	5.036
109	Hexachlorobenzene	284	11.112	11.122	(0.959)	45563	5.12932	5.129
110	Pentachlorophenol	266	11.357	11.369	(0.980)	21227	6.25783	6.258
111	Phenanthrene	178	11.616	11.629	(1.002)	205213	5.67618	5.676
112	Anthracene	178	11.678	11.691	(1.008)	202565	5.60789	5.608
115	Di-n-butylphthalate	149	12.338	12.349	(1.065)	251216	5.34216	5.342
116	Fluoranthene	202	13.065	13.075	(1.127)	200787	5.47402	5.474
* 132	Chrysene-d12	240	14.839	14.849	(1.000)	1182489	40.0000	
134	Pyrene	202	13.344	13.355	(0.899)	209792	5.46354	5.464
$ 135	Terphenyl-d14	244	13.555	13.560	(0.913)	117164	4.88052	4.880(R)
136	Butylbenzylphthalate	149	14.173	14.180	(0.955)	111452	4.89934	4.899

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Report Date: 27-Jan-2011 15:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.826	14.836	(0.999)	171815	5.10399	5.104
139	Chrysene	228	14.873	14.884	(1.002)	174621	5.26111	5.261
140	Bis(2-ethylhexyl)phthalate	149	14.907	14.911	(1.005)	144583	4.77111	4.771
* 154	Perylene-d12	264	16.595	16.597	(1.000)	1096622	40.0000	
155	Di-n-octylphthalate	149	15.710	15.711	(0.947)	223656	4.55010	4.550
156	Benzo(b)fluoranthene	252	16.139	16.148	(0.973)	147719	4.89834	4.898
157	Benzo(k)fluoranthene	252	16.173	16.189	(0.975)	176907	5.31212	5.312
158	Benzo(a)pyrene	252	16.521	16.530	(0.996)	141020	4.92691	4.927
159	Indeno(1,2,3-cd)pyrene	276	17.935	17.956	(1.081)	135609	5.35998	5.360
160	Dibenz(a,h)anthracene	278	17.963	17.976	(1.082)	108268	5.15283	5.153(M)
161	Benzo(g,h,i)perylene	276	18.319	18.340	(1.104)	112741	5.41854	5.418

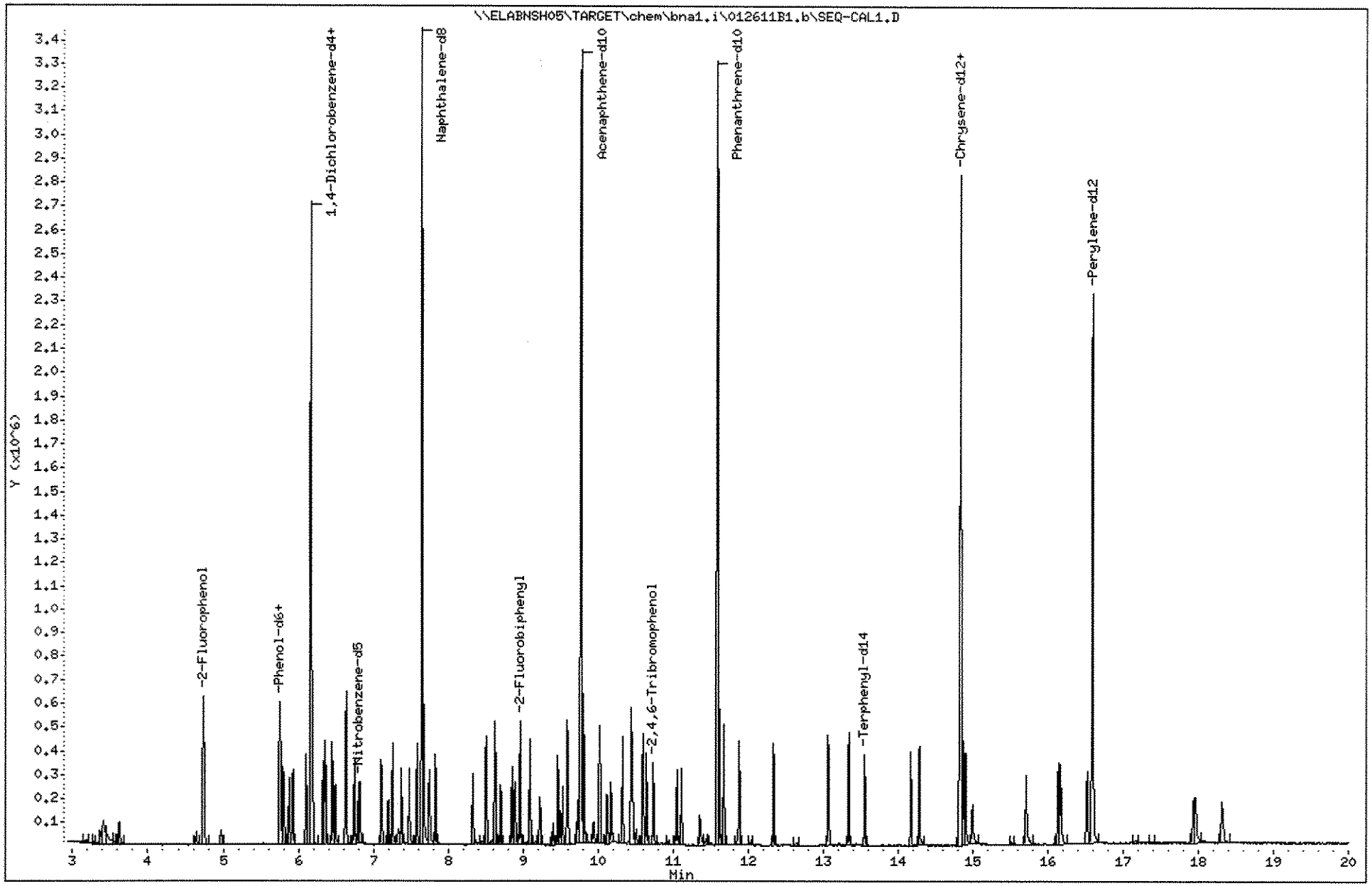
QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL1.D
Date : 26-JAN-2011 15:40
Client ID: CAL5PPM
Sample Info: CAL5PPM;;;;;;11A0525

Instrument: bna1.i

Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
Report Date: 27-Jan-2011 15:25

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
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Inj Date : 26-JAN-2011 16:08 MS Autotune Date: 08-DEC-2010 05:57
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Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.168	6.175	(1.000)	497587	40.0000	
$ 2	2-Fluorophenol	112	4.732	4.746	(0.767)	351576	23.0750	23.08(R)
$ 3	Phenol-d6	99	5.752	5.773	(0.933)	438728	22.6533	22.65(R)
4	Pyridine	79	3.393	3.379	(0.550)	203486	10.3892	10.39
6	N-Nitroso-di-methylamine	42	3.352	3.345	(0.544)	68283	9.58583	9.586
7	Aniline	93	5.800	5.814	(0.940)	268953	11.0861	11.09
10	Phenol	94	5.766	5.787	(0.935)	233837	11.6410	11.64
11	bis(2-Chloroethyl)ether	93	5.882	5.889	(0.954)	197795	11.8058	11.80
12	2-Chlorophenol	128	5.929	5.937	(0.961)	160321	9.90153	9.902
13	1,3-Dichlorobenzene	146	6.100	6.107	(0.989)	192894	10.9924	10.99
14	1,4-Dichlorobenzene	146	6.188	6.196	(1.003)	196605	11.4563	11.46
15	Benzyl alcohol	108	6.331	6.339	(1.027)	112672	10.6648	10.66
16	1,2-Dichlorobenzene	146	6.359	6.360	(1.031)	188342	11.5175	11.52
17	2-Methylphenol	108	6.454	6.462	(1.046)	155539	11.0130	11.01
18	2,2'-Oxybis-1-chloropropane	45	6.488	6.496	(1.052)	286912	11.9143	11.91
19	3-Methylphenol	108	6.632	6.654	(1.075)	162631	11.0231	11.02
20	4-Methylphenol	108	6.632	6.654	(1.075)	162631	11.0231	11.02
21	N-Nitroso-di-n-propylamine	70	6.638	6.660	(1.076)	115308	11.1118	11.11
22	Hexachloroethane	117	6.747	6.749	(1.094)	78473	11.0186	11.02
* 33	Naphthalene-d8	136	7.655	7.659	(1.000)	1591920	40.0000	
$ 34	Nitrobenzene-d5	82	6.802	6.811	(0.889)	158085	10.7593	10.76(R)
35	Nitrobenzene	77	6.822	6.838	(0.891)	159854	11.2029	11.20
39	Isophorone	82	7.108	7.132	(0.929)	334268	10.8866	10.89
40	2-Nitrophenol	139	7.197	7.207	(0.940)	86589	9.70817	9.708
42	2,4-Dimethylphenol	107	7.258	7.269	(0.948)	141428	10.3977	10.40
43	Benzoic acid	105	7.354	7.447	(0.961)	66443	10.0513	10.05

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.374	7.385	(0.963)	195491	10.6982	10.70
	47 2,4-Dichlorophenol	162	7.484	7.495	(0.978)	138522	10.9517	10.95
	50 1,2,4-Trichlorobenzene	180	7.586	7.591	(0.991)	142382	10.3872	10.39
	51 Naphthalene	128	7.675	7.680	(1.003)	445632	11.6300	11.63
	52 4-Chloroaniline	127	7.744	7.755	(1.012)	182765	10.4194	10.42
	53 Hexachlorobutadiene	225	7.833	7.837	(1.023)	73897	10.5301	10.53
	54 4-Chloro-3-methylphenol	107	8.330	8.336	(1.088)	114936	10.2145	10.21
	55 2-Methylnaphthalene	141	8.507	8.513	(1.111)	219428	11.1744	11.17
	56 1-Methylnaphthalene	141	8.630	8.637	(1.127)	231761	11.4644	11.46
*	69 Acenaphthene-d10	164	9.776	9.784	(1.000)	758437	40.0000	
	70 Hexachlorocyclopentadiene	237	8.705	8.706	(0.890)	62412	9.40195	9.402
	71 2,4,6-Trichlorophenol	196	8.855	8.857	(0.906)	75159	9.88680	9.887
	72 2,4,5-Trichlorophenol	196	8.889	8.898	(0.909)	82633	10.0913	10.09
	73 2-Chloronaphthalene	162	9.095	9.104	(0.930)	229143	10.5987	10.60
$	74 2-Fluorobiphenyl	172	8.965	8.967	(0.917)	250821	10.1764	10.18(R)
	75 2-Nitroaniline	65	9.230	9.242	(0.944)	63565	10.3107	10.31
	76 Dimethylphthalate	163	9.469	9.489	(0.969)	279329	11.1471	11.15
	77 Acenaphthylene	152	9.598	9.606	(0.982)	406978	12.3051	12.30
	78 2,6-Dinitrotoluene	165	9.531	9.551	(0.975)	66233	10.0284	10.03
	79 3-Nitroaniline	138	9.728	9.750	(0.995)	64921	9.83102	9.831
	80 Acenaphthene	153	9.817	9.825	(1.004)	212102	10.3323	10.33
	81 2,4-Dinitrophenol	184	9.858	9.881	(1.008)	11826	13.0803	13.08
	83 4-Nitrophenol	65	9.940	9.956	(1.017)	35275	9.40731	9.407
	84 Dibenzofuran	168	10.022	10.032	(1.025)	321499	11.3206	11.32
	85 2,4-Dinitrotoluene	165	10.022	10.039	(1.025)	71922	10.1439	10.14
	86 Diethylphthalate	149	10.330	10.347	(1.057)	299146	9.16796	9.168
	87 4-Chlorophenyl-phenylether	204	10.460	10.464	(1.070)	108907	10.7679	10.77
	88 Fluorene	166	10.446	10.457	(1.069)	230965	10.6196	10.62
	89 4-Nitroaniline	138	10.474	10.492	(1.071)	40364	9.21884	9.219(M)
	96 2,3,4,6-Tetrachlorophenol	232	10.179	10.190	(1.041)	62048	9.72464	9.725
*	102 Phenanthrene-d10	188	11.587	11.595	(1.000)	1142643	40.0000	
	103 1,2-Diphenylhydrazine	77	10.645	10.657	(0.919)	288178	12.0854	12.08
	104 Carbazole	167	11.880	11.890	(1.025)	294142	11.2063	11.21
	105 4,6-Dinitro-2-methylphenol	198	10.515	10.533	(0.907)	19542	8.94636	8.946
	106 N-Nitrosodiphenylamine	169	10.604	10.616	(0.915)	214677	11.3882	11.39
$	107 2,4,6-Tribromophenol	330	10.734	10.753	(0.926)	82394	19.9052	19.90(R)
	108 4-Bromophenyl-phenylether	248	11.055	11.062	(0.954)	68838	10.4639	10.46
	109 Hexachlorobenzene	284	11.110	11.122	(0.959)	75863	10.2216	10.22
	110 Pentachlorophenol	266	11.362	11.369	(0.981)	34318	9.36064	9.361
	111 Phenanthrene	178	11.615	11.629	(1.002)	333268	11.0328	11.03
	112 Anthracene	178	11.676	11.691	(1.008)	308960	10.2372	10.24
	115 Di-n-butylphthalate	149	12.343	12.349	(1.065)	426645	10.8587	10.86
	116 Fluoranthene	202	13.071	13.075	(1.128)	319827	10.4358	10.44
*	132 Chrysene-d12	240	14.840	14.849	(1.000)	923055	40.0000	
	134 Pyrene	202	13.343	13.355	(0.899)	322972	10.7751	10.78
$	135 Terphenyl-d14	244	13.555	13.560	(0.913)	185939	9.92228	9.922(R)
	136 Butylbenzylphthalate	149	14.173	14.180	(0.955)	181437	10.2175	10.22

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.826	14.836	(0.999)	256577	9.76418	9.764
139	Chrysene	228	14.867	14.884	(1.002)	270134	10.4263	10.43
140	Bis(2-ethylhexyl)phthalate	149	14.901	14.911	(1.004)	240636	10.1726	10.17
* 154	Perylene-d12	264	16.591	16.597	(1.000)	931746	40.0000	
155	Di-n-octylphthalate	149	15.711	15.711	(0.947)	381037	9.12361	9.124
156	Benzo(b)fluoranthene	252	16.140	16.148	(0.973)	242151	9.45058	9.450
157	Benzo(k)fluoranthene	252	16.168	16.189	(0.974)	291508	10.3023	10.30
158	Benzo(a)pyrene	252	16.523	16.530	(0.996)	228931	9.41364	9.414
159	Indeno(1,2,3-cd)pyrene	276	17.937	17.956	(1.081)	221150	10.2878	10.29
160	Dibenz(a,h)anthracene	278	17.964	17.976	(1.083)	182548	10.2254	10.22
161	Benzo(g,h,i)perylene	276	18.314	18.340	(1.104)	186066	10.5251	10.52

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
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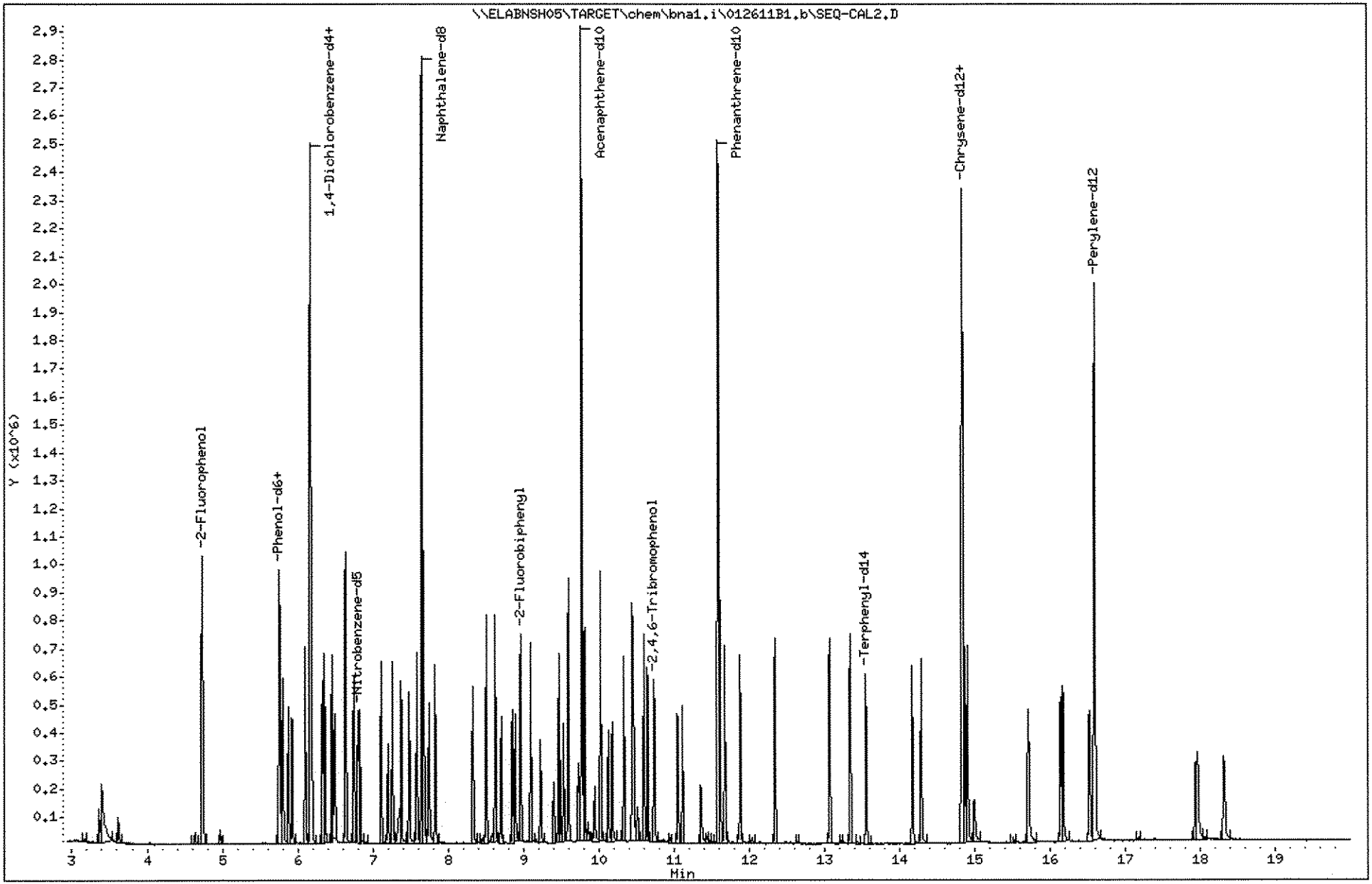

301

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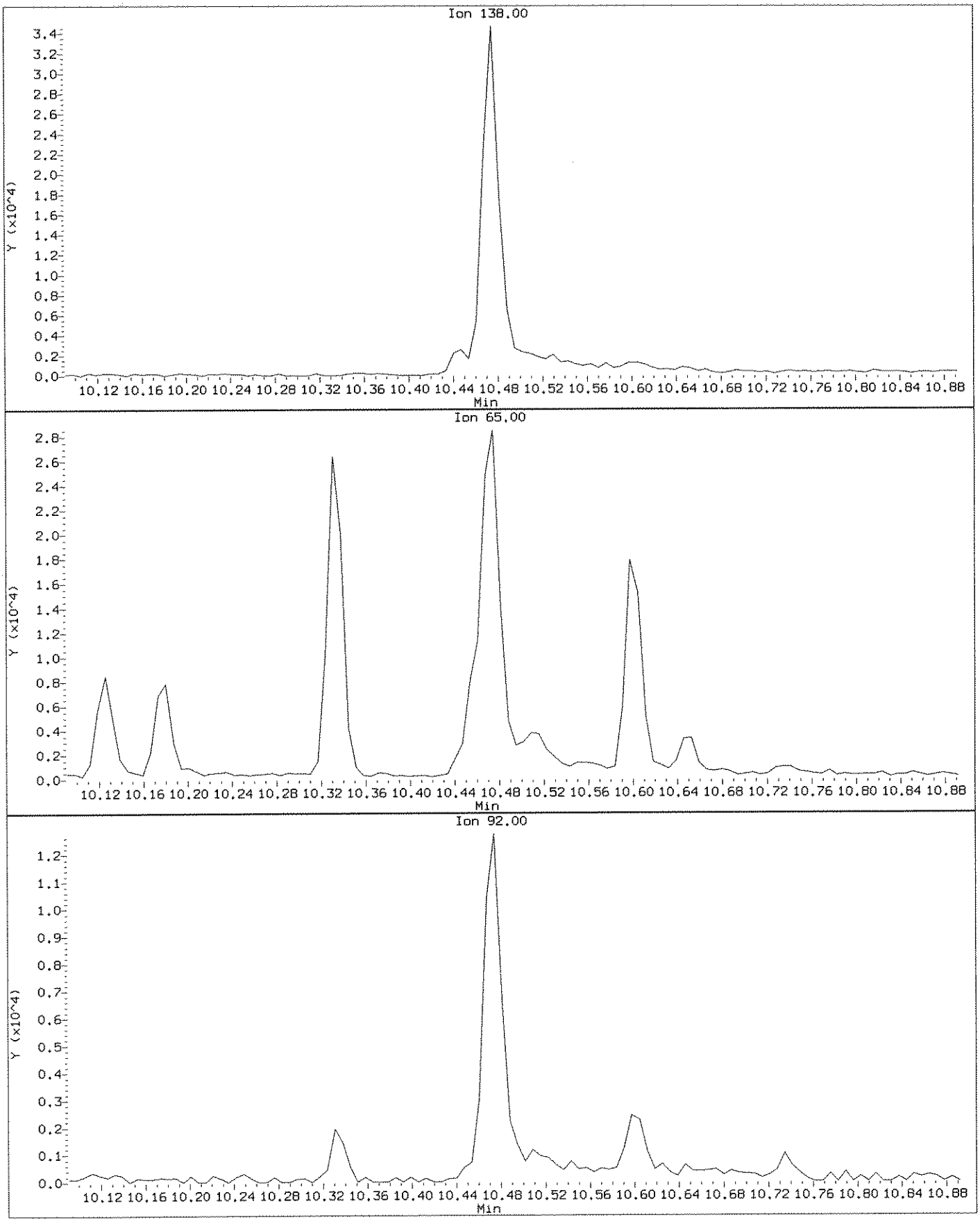
Instrument: bna1.i
Client Sample ID: CAL10PPM

Compound: 4-Nitroaniline
CAS Number: 100-01-6



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Injection Date: 26-JAN-2011 16:08
Instrument: bna1.i
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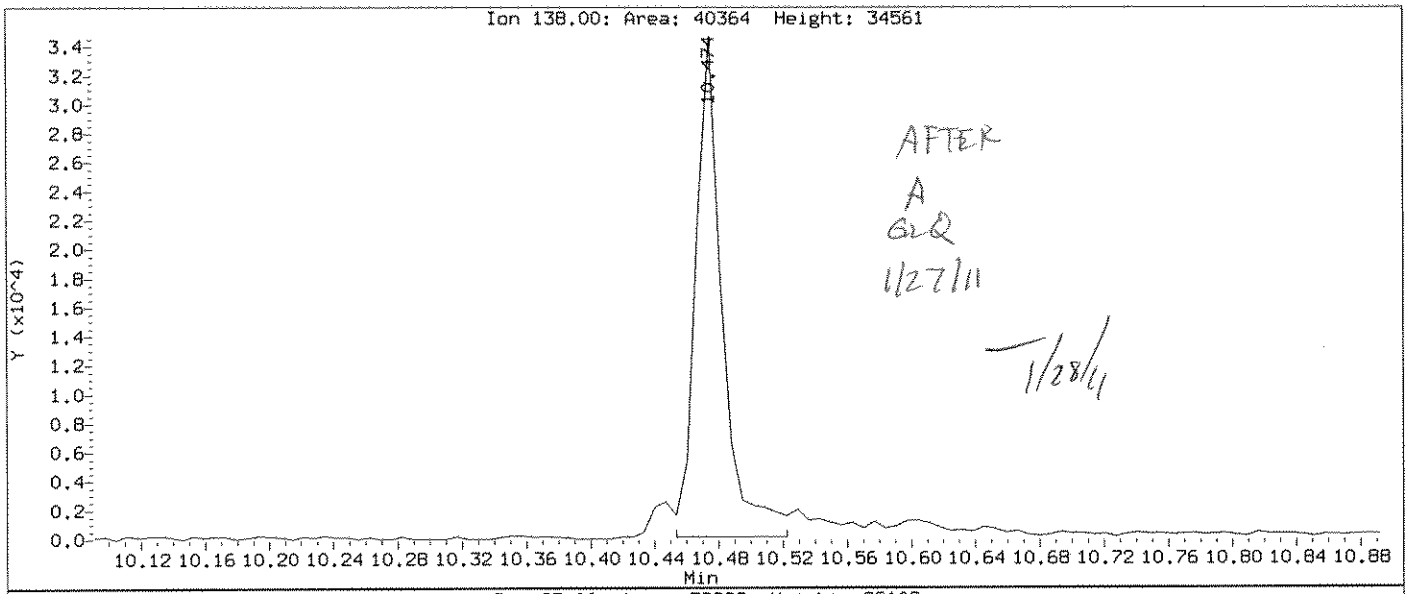
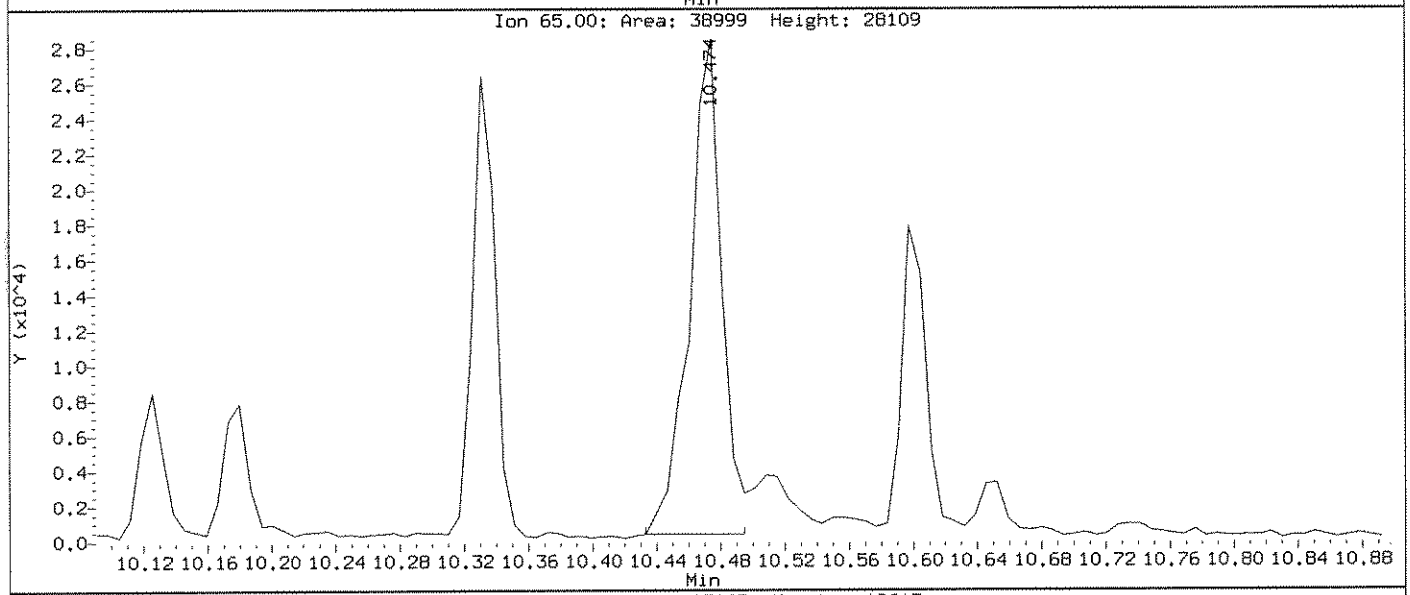
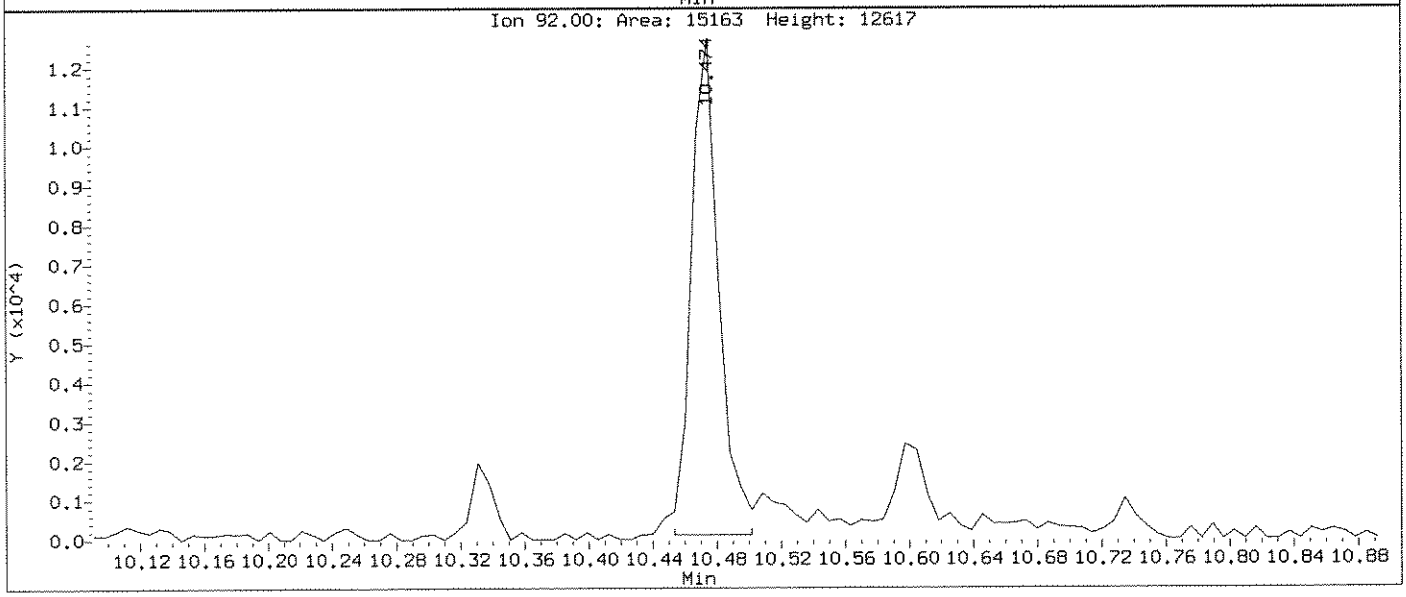
Compound: 4-Nitroaniline
CAS Number: 100-01-6







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Report Date: 27-Jan-2011 15:21

Laboratory Name

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Inj Date : 26-JAN-2011 16:08 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
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Misc Info : ;1;;;2;;cal_1.sub;
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Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.168	6.175	(1.000)	497587	40.0000	
$	2 2-Fluorophenol	112	4.732	4.746	(0.767)	351576	23.0750	23.08(R)
$	3 Phenol-d6	99	5.752	5.773	(0.933)	438728	22.6533	22.65(R)
	4 Pyridine	79	3.393	3.379	(0.550)	203486	10.3892	10.39
	6 N-Nitroso-di-methylamine	42	3.352	3.345	(0.544)	68283	9.58583	9.586
	7 Aniline	93	5.800	5.814	(0.940)	268953	11.0861	11.09
	10 Phenol	94	5.766	5.787	(0.935)	233837	11.6410	11.64
	11 bis(2-Chloroethyl)ether	93	5.882	5.889	(0.954)	197795	11.8058	11.80
	12 2-Chlorophenol	128	5.929	5.937	(0.961)	160321	9.90153	9.902
	13 1,3-Dichlorobenzene	146	6.100	6.107	(0.989)	192894	10.9924	10.99
	14 1,4-Dichlorobenzene	146	6.188	6.196	(1.003)	196605	11.4563	11.46
	15 Benzyl alcohol	108	6.331	6.339	(1.027)	112672	10.6648	10.66
	16 1,2-Dichlorobenzene	146	6.359	6.360	(1.031)	188342	11.5175	11.52
	17 2-Methylphenol	108	6.454	6.462	(1.046)	155539	11.0130	11.01
	18 2,2'-Oxybis-1-chloropropane	45	6.488	6.496	(1.052)	286912	11.9143	11.91
	19 3-Methylphenol	108	6.632	6.654	(1.075)	162631	11.0231	11.02
	20 4-Methylphenol	108	6.632	6.654	(1.075)	162631	11.0231	11.02
	21 N-Nitroso-di-n-propylamine	70	6.638	6.660	(1.076)	115308	11.1118	11.11
	22 Hexachloroethane	117	6.747	6.749	(1.094)	78473	11.0186	11.02
*	33 Naphthalene-d8	136	7.655	7.659	(1.000)	1591920	40.0000	
$	34 Nitrobenzene-d5	82	6.802	6.811	(0.889)	158085	10.7593	10.76(R)
	35 Nitrobenzene	77	6.822	6.838	(0.891)	159854	11.2029	11.20
	39 Isophorone	82	7.108	7.132	(0.929)	334268	10.8866	10.89
	40 2-Nitrophenol	139	7.197	7.207	(0.940)	86589	9.70817	9.708
	42 2,4-Dimethylphenol	107	7.258	7.269	(0.948)	141428	10.3977	10.40
	43 Benzoic acid	105	7.354	7.447	(0.961)	66443	10.0513	10.05

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.374	7.385	(0.963)	195491	10.6982	10.70
	47 2,4-Dichlorophenol	162	7.484	7.495	(0.978)	138522	10.9517	10.95
	50 1,2,4-Trichlorobenzene	180	7.586	7.591	(0.991)	142382	10.3872	10.39
	51 Naphthalene	128	7.675	7.680	(1.003)	445632	11.6300	11.63
	52 4-Chloroaniline	127	7.744	7.755	(1.012)	182765	10.4194	10.42
	53 Hexachlorobutadiene	225	7.833	7.837	(1.023)	73897	10.5301	10.53
	54 4-Chloro-3-methylphenol	107	8.330	8.336	(1.088)	114936	10.2145	10.21
	55 2-Methylnaphthalene	141	8.507	8.513	(1.111)	219428	11.1744	11.17
	56 1-Methylnaphthalene	141	8.630	8.637	(1.127)	231761	11.4644	11.46
*	69 Acenaphthene-d10	164	9.776	9.784	(1.000)	758437	40.0000	
	70 Hexachlorocyclopentadiene	237	8.705	8.706	(0.890)	62412	9.40195	9.402
	71 2,4,6-Trichlorophenol	196	8.855	8.857	(0.906)	75159	9.88680	9.887
	72 2,4,5-Trichlorophenol	196	8.889	8.898	(0.909)	82633	10.0913	10.09
	73 2-Chloronaphthalene	162	9.095	9.104	(0.930)	229143	10.5987	10.60
$	74 2-Fluorobiphenyl	172	8.965	8.967	(0.917)	250821	10.1764	10.18(R)
	75 2-Nitroaniline	65	9.230	9.242	(0.944)	63565	10.3107	10.31
	76 Dimethylphthalate	163	9.469	9.489	(0.969)	279329	11.1471	11.15
	77 Acenaphthylene	152	9.598	9.606	(0.982)	406978	12.3051	12.30
	78 2,6-Dinitrotoluene	165	9.531	9.551	(0.975)	66233	10.0284	10.03
	79 3-Nitroaniline	138	9.728	9.750	(0.995)	64921	9.83102	9.831
	80 Acenaphthene	153	9.817	9.825	(1.004)	212102	10.3323	10.33
	81 2,4-Dinitrophenol	184	9.858	9.881	(1.008)	11826	13.0803	13.08
	83 4-Nitrophenol	65	9.940	9.956	(1.017)	35275	9.40731	9.407
	84 Dibenzofuran	168	10.022	10.032	(1.025)	321499	11.3206	11.32
	85 2,4-Dinitrotoluene	165	10.022	10.039	(1.025)	71922	10.1439	10.14
	86 Diethylphthalate	149	10.330	10.347	(1.057)	299146	9.16796	9.168
	87 4-Chlorophenyl-phenylether	204	10.460	10.464	(1.070)	108907	10.7679	10.77
	88 Fluorene	166	10.446	10.457	(1.069)	230965	10.6196	10.62
	89 4-Nitroaniline	138	10.474	10.492	(1.071)	40364	9.21884	9.219(M)
	96 2,3,4,6-Tetrachlorophenol	232	10.179	10.190	(1.041)	62048	9.72464	9.725
*	102 Phenanthrene-d10	188	11.587	11.595	(1.000)	1142643	40.0000	
	103 1,2-Diphenylhydrazine	77	10.645	10.657	(0.919)	288178	12.0854	12.08
	104 Carbazole	167	11.880	11.890	(1.025)	294142	11.2063	11.21
	105 4,6-Dinitro-2-methylphenol	198	10.515	10.533	(0.907)	19542	8.94636	8.946
	106 N-Nitrosodiphenylamine	169	10.604	10.616	(0.915)	214677	11.3882	11.39
$	107 2,4,6-Tribromophenol	330	10.734	10.753	(0.926)	82394	19.9052	19.90(R)
	108 4-Bromophenyl-phenylether	248	11.055	11.062	(0.954)	68838	10.4639	10.46
	109 Hexachlorobenzene	284	11.110	11.122	(0.959)	75863	10.2216	10.22
	110 Pentachlorophenol	266	11.362	11.369	(0.981)	34318	9.36064	9.361
	111 Phenanthrene	178	11.615	11.629	(1.002)	333268	11.0328	11.03
	112 Anthracene	178	11.676	11.691	(1.008)	308960	10.2372	10.24
	115 Di-n-butylphthalate	149	12.343	12.349	(1.065)	426645	10.8587	10.86
	116 Fluoranthene	202	13.071	13.075	(1.128)	319827	10.4358	10.44
*	132 Chrysene-d12	240	14.840	14.849	(1.000)	923055	40.0000	
	134 Pyrene	202	13.343	13.355	(0.899)	322972	10.7751	10.78
$	135 Terphenyl-d14	244	13.555	13.560	(0.913)	185939	9.92228	9.922(R)
	136 Butylbenzylphthalate	149	14.173	14.180	(0.955)	181437	10.2175	10.22

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.826	14.836	(0.999)	256577	9.76418	9.764
139	Chrysene	228	14.867	14.884	(1.002)	270134	10.4263	10.43
140	Bis(2-ethylhexyl)phthalate	149	14.901	14.911	(1.004)	240636	10.1726	10.17
* 154	Perylene-d12	264	16.591	16.597	(1.000)	931746	40.0000	
155	Di-n-octylphthalate	149	15.711	15.711	(0.947)	381037	9.12361	9.124
156	Benzo(b)fluoranthene	252	16.140	16.148	(0.973)	242151	9.45058	9.450
157	Benzo(k)fluoranthene	252	16.168	16.189	(0.974)	291508	10.3023	10.30
158	Benzo(a)pyrene	252	16.523	16.530	(0.996)	228931	9.41364	9.414
159	Indeno(1,2,3-cd)pyrene	276	17.937	17.956	(1.081)	221150	10.2878	10.29
160	Dibenz(a,h)anthracene	278	17.964	17.976	(1.083)	182548	10.2254	10.22
161	Benzo(g,h,i)perylene	276	18.314	18.340	(1.104)	186066	10.5251	10.52

QC Flag Legend

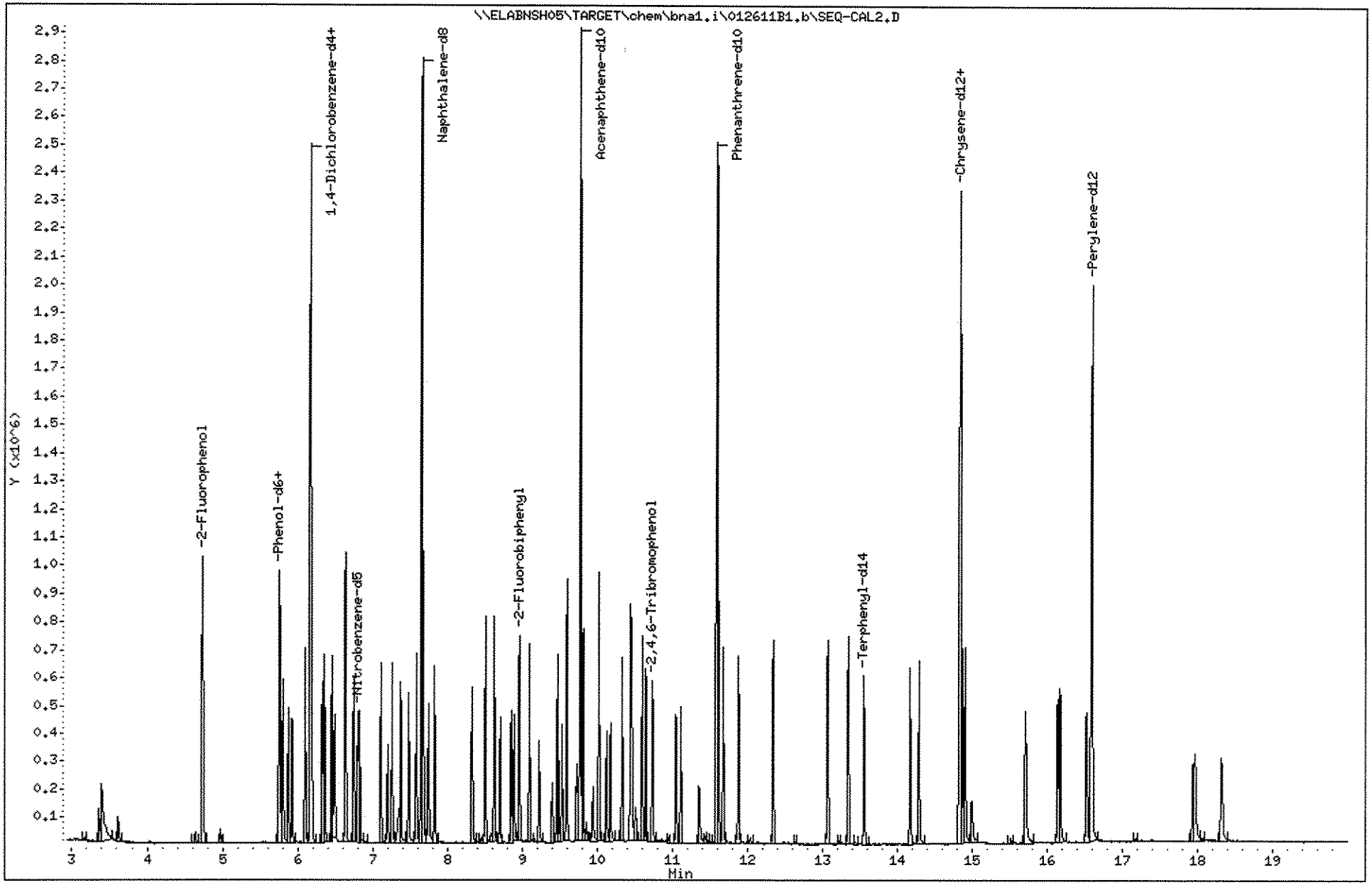
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL2.D
Date : 26-JAN-2011 16:08
Client ID: CAL10PPM
Sample Info: CAL10PPM;;;;;;11A0526

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Report Date: 27-Jan-2011 15:25

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Lab Smp Id: SEQ-CAL3 Client Smp ID: CAL20PPM
Inj Date : 26-JAN-2011 16:37 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL20PPM;;;;;;11A0527
Misc Info : ;1;;;3;;cal_1.sub;
Comment :
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Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.174	6.175	(1.000)	572092	40.0000	
$	2 2-Fluorophenol	112	4.738	4.746	(0.767)	764524	43.6432	43.64(R)
$	3 Phenol-d6	99	5.758	5.773	(0.933)	930226	41.7760	41.78(R)
	4 Pyridine	79	3.385	3.379	(0.548)	440914	19.5796	19.58
	6 N-Nitroso-di-methylamine	42	3.344	3.345	(0.542)	164942	20.1396	20.14
	7 Aniline	93	5.806	5.814	(0.940)	562547	20.1681	20.17
	10 Phenol	94	5.772	5.787	(0.935)	468335	20.2785	20.28
	11 bis(2-Chloroethyl)ether	93	5.881	5.889	(0.953)	393130	20.4090	20.41
	12 2-Chlorophenol	128	5.929	5.937	(0.960)	390721	20.9885	20.99
	13 1,3-Dichlorobenzene	146	6.106	6.107	(0.989)	419571	20.7961	20.80
	14 1,4-Dichlorobenzene	146	6.188	6.196	(1.002)	424018	21.4900	21.49
	15 Benzyl alcohol	108	6.331	6.339	(1.025)	252010	20.7472	20.75
	16 1,2-Dichlorobenzene	146	6.358	6.360	(1.030)	409052	21.7567	21.76
	17 2-Methylphenol	108	6.461	6.462	(1.046)	356853	21.9766	21.98
	18 2,2'-Oxybis-1-chloropropane	45	6.495	6.496	(1.052)	626431	22.6253	22.62
	19 3-Methylphenol	108	6.638	6.654	(1.075)	372388	21.9533	21.95
	20 4-Methylphenol	108	6.638	6.654	(1.075)	372388	21.9533	21.95
	21 N-Nitroso-di-n-propylamine	70	6.645	6.660	(1.076)	264943	22.2065	22.21
	22 Hexachloroethane	117	6.748	6.749	(1.093)	169936	20.7537	20.75
*	33 Naphthalene-d8	136	7.655	7.659	(1.000)	1745528	40.0000	
$	34 Nitrobenzene-d5	82	6.809	6.811	(0.889)	319697	19.8440	19.84(R)
	35 Nitrobenzene	77	6.829	6.838	(0.892)	320642	20.4937	20.49
	39 Isophorone	82	7.115	7.132	(0.929)	679352	20.1785	20.18
	40 2-Nitrophenol	139	7.204	7.207	(0.941)	194771	19.9156	19.92
	42 2,4-Dimethylphenol	107	7.258	7.269	(0.948)	315287	21.1399	21.14
	43 Benzoic acid	105	7.388	7.447	(0.965)	200184	19.9381	19.94

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1/27/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.381	7.385	(0.964)	449756	22.4468	22.45
	47 2,4-Dichlorophenol	162	7.484	7.495	(0.978)	285310	20.5719	20.57
	50 1,2,4-Trichlorobenzene	180	7.587	7.591	(0.991)	327070	21.7609	21.76
	51 Naphthalene	128	7.676	7.680	(1.003)	931749	22.1767	22.18
	52 4-Chloroaniline	127	7.751	7.755	(1.013)	423970	22.0435	22.04
	53 Hexachlorobutadiene	225	7.833	7.837	(1.023)	161798	21.0268	21.03
	54 4-Chloro-3-methylphenol	107	8.331	8.336	(1.088)	257300	20.8543	20.85
	55 2-Methylnaphthalene	141	8.509	8.513	(1.112)	463652	21.5338	21.53
	56 1-Methylnaphthalene	141	8.632	8.637	(1.128)	471761	21.2828	21.28
*	69 Acenaphthene-d10	164	9.781	9.784	(1.000)	837709	40.0000	
	70 Hexachlorocyclopentadiene	237	8.707	8.706	(0.890)	152962	20.8622	20.86
	71 2,4,6-Trichlorophenol	196	8.857	8.857	(0.906)	175633	20.9174	20.92
	72 2,4,5-Trichlorophenol	196	8.892	8.898	(0.909)	196290	21.7029	21.70
	73 2-Chloronaphthalene	162	9.097	9.104	(0.930)	531656	22.2639	22.26
$	74 2-Fluorobiphenyl	172	8.967	8.967	(0.917)	636788	23.3912	23.39(R)
	75 2-Nitroaniline	65	9.234	9.242	(0.944)	139883	20.5430	20.54
	76 Dimethylphthalate	163	9.474	9.489	(0.969)	632265	22.8439	22.84
	77 Acenaphthylene	152	9.603	9.606	(0.982)	763667	20.9047	20.90
	78 2,6-Dinitrotoluene	165	9.535	9.551	(0.975)	157244	21.5554	21.56
	79 3-Nitroaniline	138	9.740	9.750	(0.996)	155181	21.2754	21.28
	80 Acenaphthene	153	9.816	9.825	(1.004)	507889	22.3999	22.40
	81 2,4-Dinitrophenol	184	9.864	9.881	(1.008)	42368	20.2415	20.24
	83 4-Nitrophenol	65	9.946	9.956	(1.017)	86305	20.8382	20.84
	84 Dibenzofuran	168	10.028	10.032	(1.025)	722958	23.0478	23.05
	85 2,4-Dinitrotoluene	165	10.028	10.039	(1.025)	175303	22.3851	22.38
	86 Diethylphthalate	149	10.337	10.347	(1.057)	638433	22.5488	22.55
	87 4-Chlorophenyl-phenylether	204	10.460	10.464	(1.069)	238279	21.3299	21.33
	88 Fluorene	166	10.446	10.457	(1.068)	530574	22.0868	22.09
	89 4-Nitroaniline	138	10.481	10.492	(1.071)	70937	14.6683	14.67
	96 2,3,4,6-Tetrachlorophenol	232	10.179	10.190	(1.041)	154256	21.8884	21.89
*	102 Phenanthrene-d10	188	11.595	11.595	(1.000)	1299839	40.0000	
	103 1,2-Diphenylhydrazine	77	10.652	10.657	(0.919)	572069	21.0897	21.09
	104 Carbazole	167	11.882	11.890	(1.025)	650268	21.7781	21.78
	105 4,6-Dinitro-2-methylphenol	198	10.515	10.533	(0.907)	69615	18.4765	18.48
	106 N-Nitrosodiphenylamine	169	10.604	10.616	(0.915)	462671	21.5756	21.58
$	107 2,4,6-Tribromophenol	330	10.740	10.753	(0.926)	202948	43.1000	43.10(R)
	108 4-Bromophenyl-phenylether	248	11.055	11.062	(0.953)	169293	22.6217	22.62
	109 Hexachlorobenzene	284	11.116	11.122	(0.959)	175323	20.7658	20.76
	110 Pentachlorophenol	266	11.362	11.369	(0.980)	108082	20.7172	20.72
	111 Phenanthrene	178	11.622	11.629	(1.002)	734445	21.3734	21.37
	112 Anthracene	178	11.684	11.691	(1.008)	756802	22.0435	22.04
	115 Di-n-butylphthalate	149	12.340	12.349	(1.064)	965141	21.5935	21.59
	116 Fluoranthene	202	13.069	13.075	(1.127)	752985	21.5983	21.60
*	132 Chrysene-d12	240	14.847	14.849	(1.000)	1111483	40.0000	
	134 Pyrene	202	13.348	13.355	(0.899)	768603	21.2952	21.30
$	135 Terphenyl-d14	244	13.559	13.560	(0.913)	470980	20.8722	20.87(R)
	136 Butylbenzylphthalate	149	14.172	14.180	(0.955)	458316	21.4343	21.43

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.826	14.836	(0.999)	674343	21.3120	21.31
139	Chrysene	228	14.873	14.884	(1.002)	661013	21.1878	21.19
140	Bis(2-ethylhexyl)phthalate	149	14.901	14.911	(1.004)	634512	22.2759	22.28
* 154	Perylene-d12	264	16.592	16.597	(1.000)	1074887	40.0000	
155	Di-n-octylphthalate	149	15.712	15.711	(0.947)	1026940	21.3147	21.31
156	Benzo(b)fluoranthene	252	16.142	16.148	(0.973)	589548	19.9446	19.94
157	Benzo(k)fluoranthene	252	16.176	16.189	(0.975)	707491	21.6739	21.67
158	Benzo(a)pyrene	252	16.524	16.530	(0.996)	591628	21.0881	21.09
159	Indeno(1,2,3-cd)pyrene	276	17.939	17.956	(1.081)	501311	20.2151	20.22
160	Dibenz(a,h)anthracene	278	17.967	17.976	(1.083)	409390	19.8782	19.88
161	Benzo(g,h,i)perylene	276	18.323	18.340	(1.104)	433172	21.2400	21.24

QC Flag Legend

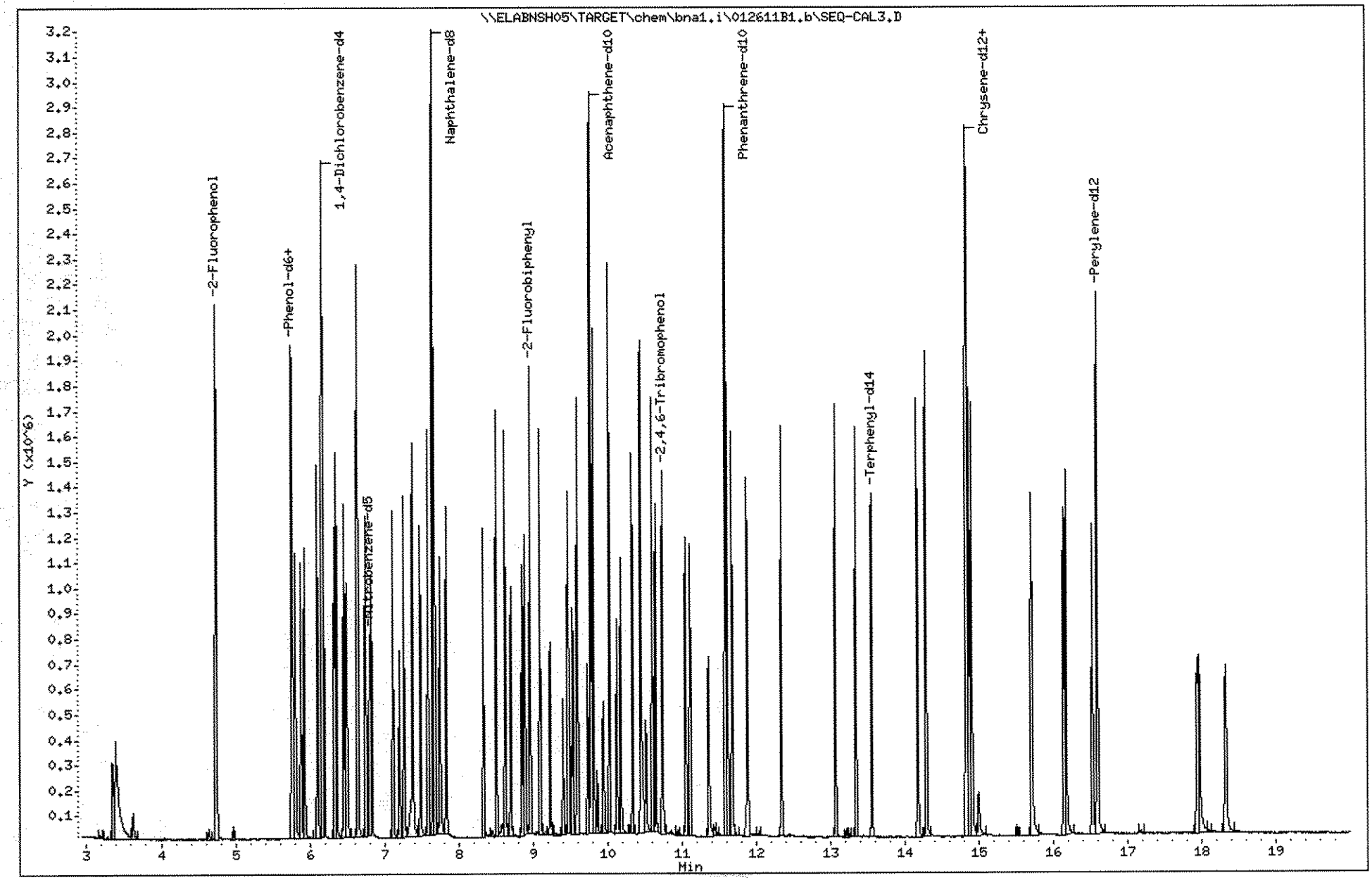
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Date : 26-JAN-2011 16:37
Client ID: CAL20PPM
Sample Info: CAL20PPM;;;;;;11A0527

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



311

1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Lab Smp Id: SEQ-CAL3 Client Smp ID: CAL20PPM
Inj Date : 26-JAN-2011 16:37 MS Autotune Date: 08-DEC-2010 05:57
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Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.174	6.175	(1.000)	572092	40.0000	
$	2 2-Fluorophenol	112	4.738	4.746	(0.767)	764524	43.6432	43.64(R)
$	3 Phenol-d6	99	5.758	5.773	(0.933)	930226	41.7760	41.78(R)
	4 Pyridine	79	3.385	3.379	(0.548)	440914	19.5796	19.58
	6 N-Nitroso-di-methylamine	42	3.344	3.345	(0.542)	164942	20.1396	20.14
	7 Aniline	93	5.806	5.814	(0.940)	562547	20.1681	20.17
	10 Phenol	94	5.772	5.787	(0.935)	468335	20.2785	20.28
	11 bis(2-Chloroethyl)ether	93	5.881	5.889	(0.953)	393130	20.4090	20.41
	12 2-Chlorophenol	128	5.929	5.937	(0.960)	390721	20.9885	20.99
	13 1,3-Dichlorobenzene	146	6.106	6.107	(0.989)	419571	20.7961	20.80
	14 1,4-Dichlorobenzene	146	6.188	6.196	(1.002)	424018	21.4900	21.49
	15 Benzyl alcohol	108	6.331	6.339	(1.025)	252010	20.7472	20.75
	16 1,2-Dichlorobenzene	146	6.358	6.360	(1.030)	409052	21.7567	21.76
	17 2-Methylphenol	108	6.461	6.462	(1.046)	356853	21.9766	21.98
	18 2,2'-Oxybis-1-chloropropane	45	6.495	6.496	(1.052)	626431	22.6253	22.62
	19 3-Methylphenol	108	6.638	6.654	(1.075)	372388	21.9533	21.95
	20 4-Methylphenol	108	6.638	6.654	(1.075)	372388	21.9533	21.95
	21 N-Nitroso-di-n-propylamine	70	6.645	6.660	(1.076)	264943	22.2065	22.21
	22 Hexachloroethane	117	6.748	6.749	(1.093)	169936	20.7537	20.75
*	33 Naphthalene-d8	136	7.655	7.659	(1.000)	1745528	40.0000	
$	34 Nitrobenzene-d5	82	6.809	6.811	(0.889)	319697	19.8440	19.84(R)
	35 Nitrobenzene	77	6.829	6.838	(0.892)	320642	20.4937	20.49
	39 Isophorone	82	7.115	7.132	(0.929)	679352	20.1785	20.18
	40 2-Nitrophenol	139	7.204	7.207	(0.941)	194771	19.9156	19.92
	42 2,4-Dimethylphenol	107	7.258	7.269	(0.948)	315287	21.1399	21.14
	43 Benzoic acid	105	7.388	7.447	(0.965)	200184	19.9381	19.94

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1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
44	bis(2-Chloroethoxy)methane	93	7.381	7.385	(0.964)	449756	22.4468	22.45
47	2,4-Dichlorophenol	162	7.484	7.495	(0.978)	285310	20.5719	20.57
50	1,2,4-Trichlorobenzene	180	7.587	7.591	(0.991)	327070	21.7609	21.76
51	Naphthalene	128	7.676	7.680	(1.003)	931749	22.1767	22.18
52	4-Chloroaniline	127	7.751	7.755	(1.013)	423970	22.0435	22.04
53	Hexachlorobutadiene	225	7.833	7.837	(1.023)	161798	21.0268	21.03
54	4-Chloro-3-methylphenol	107	8.331	8.336	(1.088)	257300	20.8543	20.85
55	2-Methylnaphthalene	141	8.509	8.513	(1.112)	463652	21.5338	21.53
56	1-Methylnaphthalene	141	8.632	8.637	(1.128)	471761	21.2828	21.28
* 69	Acenaphthene-d10	164	9.781	9.784	(1.000)	837709	40.0000	
70	Hexachlorocyclopentadiene	237	8.707	8.706	(0.890)	152962	20.8622	20.86
71	2,4,6-Trichlorophenol	196	8.857	8.857	(0.906)	175633	20.9174	20.92
72	2,4,5-Trichlorophenol	196	8.892	8.898	(0.909)	196290	21.7029	21.70
73	2-Chloronaphthalene	162	9.097	9.104	(0.930)	531656	22.2639	22.26
$ 74	2-Fluorobiphenyl	172	8.967	8.967	(0.917)	636788	23.3912	23.39(R)
75	2-Nitroaniline	65	9.234	9.242	(0.944)	139883	20.5430	20.54
76	Dimethylphthalate	163	9.474	9.489	(0.969)	632265	22.8439	22.84
77	Acenaphthylene	152	9.603	9.606	(0.982)	763667	20.9047	20.90
78	2,6-Dinitrotoluene	165	9.535	9.551	(0.975)	157244	21.5554	21.56
79	3-Nitroaniline	138	9.740	9.750	(0.996)	155181	21.2754	21.28
80	Acenaphthene	153	9.816	9.825	(1.004)	507889	22.3999	22.40
81	2,4-Dinitrophenol	184	9.864	9.881	(1.008)	42368	20.2415	20.24
83	4-Nitrophenol	65	9.946	9.956	(1.017)	86305	20.8382	20.84
84	Dibenzofuran	168	10.028	10.032	(1.025)	722958	23.0478	23.05
85	2,4-Dinitrotoluene	165	10.028	10.039	(1.025)	175303	22.3851	22.38
86	Diethylphthalate	149	10.337	10.347	(1.057)	638433	22.5488	22.55
87	4-Chlorophenyl-phenylether	204	10.460	10.464	(1.069)	238279	21.3299	21.33
88	Fluorene	166	10.446	10.457	(1.068)	530574	22.0868	22.09
89	4-Nitroaniline	138	10.481	10.492	(1.071)	70937	14.6683	14.67
96	2,3,4,6-Tetrachlorophenol	232	10.179	10.190	(1.041)	154256	21.8884	21.89
* 102	Phenanthrene-d10	188	11.595	11.595	(1.000)	1299839	40.0000	
103	1,2-Diphenylhydrazine	77	10.652	10.657	(0.919)	572069	21.0897	21.09
104	Carbazole	167	11.882	11.890	(1.025)	650268	21.7781	21.78
105	4,6-Dinitro-2-methylphenol	198	10.515	10.533	(0.907)	69615	18.4765	18.48
106	N-Nitrosodiphenylamine	169	10.604	10.616	(0.915)	462671	21.5756	21.58
$ 107	2,4,6-Tribromophenol	330	10.740	10.753	(0.926)	202948	43.1000	43.10(R)
108	4-Bromophenyl-phenylether	248	11.055	11.062	(0.953)	169293	22.6217	22.62
109	Hexachlorobenzene	284	11.116	11.122	(0.959)	175323	20.7658	20.76
110	Pentachlorophenol	266	11.362	11.369	(0.980)	108082	20.7172	20.72
111	Phenanthrene	178	11.622	11.629	(1.002)	734445	21.3734	21.37
112	Anthracene	178	11.684	11.691	(1.008)	756802	22.0435	22.04
115	Di-n-butylphthalate	149	12.340	12.349	(1.064)	965141	21.5935	21.59
116	Fluoranthene	202	13.069	13.075	(1.127)	752985	21.5983	21.60
* 132	Chrysene-d12	240	14.847	14.849	(1.000)	1111483	40.0000	
134	Pyrene	202	13.348	13.355	(0.899)	768603	21.2952	21.30
$ 135	Terphenyl-d14	244	13.559	13.560	(0.913)	470980	20.8722	20.87(R)
136	Butylbenzylphthalate	149	14.172	14.180	(0.955)	458316	21.4343	21.43

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.826	14.836	(0.999)	674343	21.3120	21.31
139	Chrysene	228	14.873	14.884	(1.002)	661013	21.1878	21.19
140	Bis(2-ethylhexyl)phthalate	149	14.901	14.911	(1.004)	634512	22.2759	22.28
* 154	Perylene-d12	264	16.592	16.597	(1.000)	1074887	40.0000	
155	Di-n-octylphthalate	149	15.712	15.711	(0.947)	1026940	21.3147	21.31
156	Benzo(b)fluoranthene	252	16.142	16.148	(0.973)	589548	19.9446	19.94
157	Benzo(k)fluoranthene	252	16.176	16.189	(0.975)	707491	21.6739	21.67
158	Benzo(a)pyrene	252	16.524	16.530	(0.996)	591628	21.0881	21.09
159	Indeno(1,2,3-cd)pyrene	276	17.939	17.956	(1.081)	501311	20.2151	20.22
160	Dibenz(a,h)anthracene	278	17.967	17.976	(1.083)	409390	19.8782	19.88
161	Benzo(g,h,i)perylene	276	18.323	18.340	(1.104)	433172	21.2400	21.24

QC Flag Legend

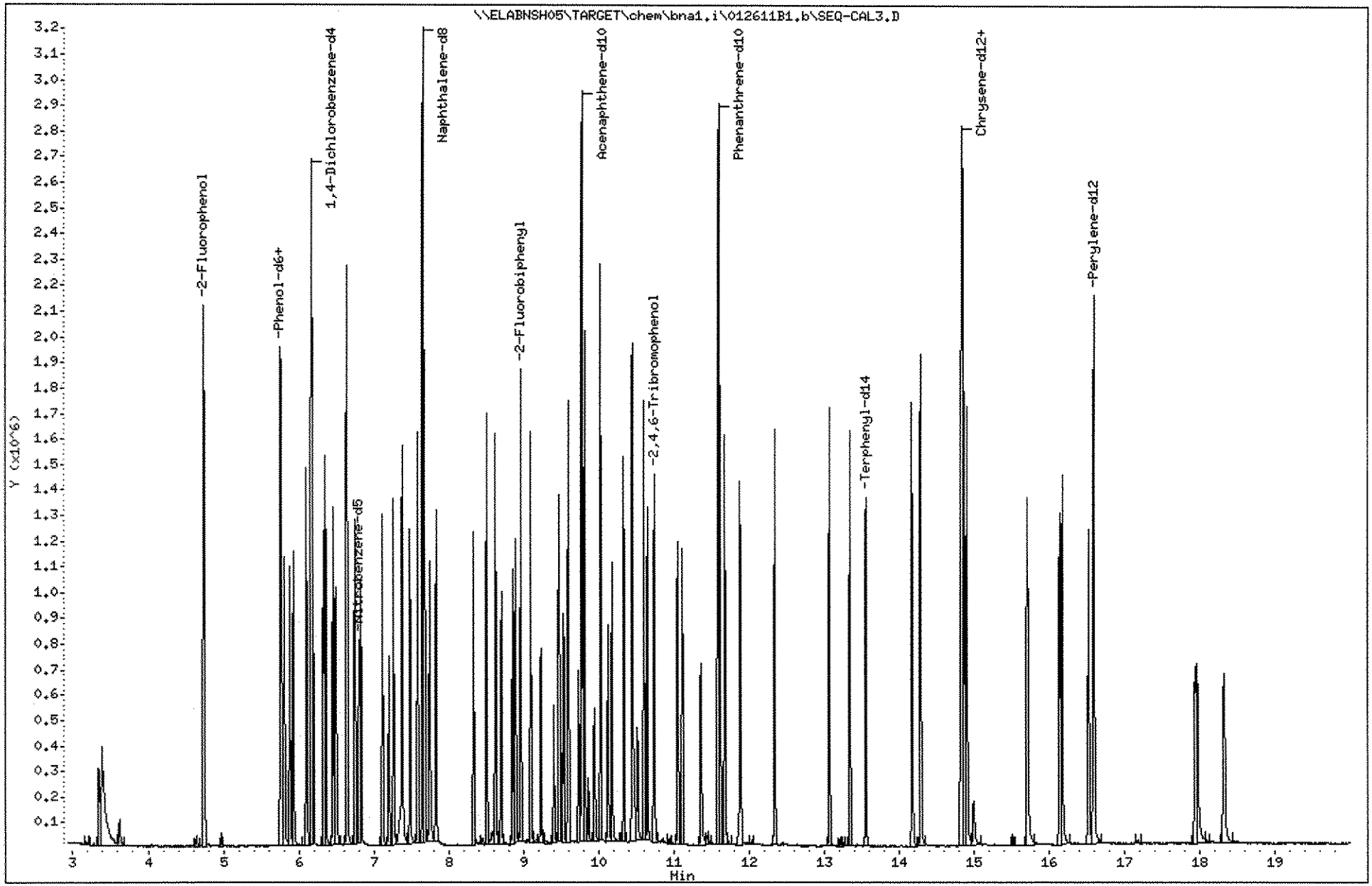
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL3.D
Date : 26-JAN-2011 16:37
Client ID: CAL20PPM
Sample Info: CAL20PPM;;;;;;11A0527

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



315

1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
Report Date: 27-Jan-2011 15:25

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
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Inj Date : 26-JAN-2011 17:05 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
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Misc Info : ;1;;;4;;cal_1.sub;
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Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.175	6.175	(1.000)	592249	40.0000	
$ 2	2-Fluorophenol	112	4.745	4.746	(0.768)	1407154	77.5941	77.59(R)
$ 3	Phenol-d6	99	5.772	5.773	(0.935)	1899241	82.3911	82.39(R)
4	Pyridine	79	3.379	3.379	(0.547)	949110	40.7125	40.71
6	N-Nitroso-di-methylamine	42	3.345	3.345	(0.542)	366400	43.2153	43.22
7	Aniline	93	5.806	5.814	(0.940)	1185681	41.0616	41.06
10	Phenol	94	5.786	5.787	(0.937)	969902	40.5666	40.57
11	bis(2-Chloroethyl)ether	93	5.888	5.889	(0.954)	751904	37.7058	37.70
12	2-Chlorophenol	128	5.936	5.937	(0.961)	767354	39.8173	39.82
13	1,3-Dichlorobenzene	146	6.107	6.107	(0.989)	826626	39.5773	39.58
14	1,4-Dichlorobenzene	146	6.189	6.196	(1.002)	813897	39.8458	39.84
15	Benzyl alcohol	108	6.339	6.339	(1.027)	514306	40.9001	40.90
16	1,2-Dichlorobenzene	146	6.359	6.360	(1.030)	791843	40.6832	40.68
17	2-Methylphenol	108	6.462	6.462	(1.046)	667181	39.6896	39.69
18	2,2'-Oxybis-1-chloropropane	45	6.496	6.496	(1.052)	1191412	41.5667	41.57
19	3-Methylphenol	108	6.646	6.654	(1.076)	710789	40.4769	40.48
20	4-Methylphenol	108	6.646	6.654	(1.076)	710789	40.4769	40.48
21	N-Nitroso-di-n-propylamine	70	6.653	6.660	(1.077)	485139	39.2786	39.28
22	Hexachloroethane	117	6.749	6.749	(1.093)	320820	37.8471	37.85
* 33	Naphthalene-d8	136	7.658	7.659	(1.000)	1801286	40.0000	
$ 34	Nitrobenzene-d5	82	6.810	6.811	(0.889)	660237	39.7131	39.71(R)
35	Nitrobenzene	77	6.831	6.838	(0.892)	653543	40.4780	40.48
39	Isophorone	82	7.124	7.132	(0.930)	1350887	38.8827	38.88
40	2-Nitrophenol	139	7.206	7.207	(0.941)	442736	43.8690	43.87
42	2,4-Dimethylphenol	107	7.268	7.269	(0.949)	623743	40.5272	40.53
43	Benzoic acid	105	7.432	7.447	(0.970)	415880	35.6867	35.69

QLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.384	7.385	(0.964)	801992	38.7874	38.79
	47 2,4-Dichlorophenol	162	7.487	7.495	(0.978)	532192	37.1851	37.18
	50 1,2,4-Trichlorobenzene	180	7.590	7.591	(0.991)	621356	40.0610	40.06
	51 Naphthalene	128	7.679	7.680	(1.003)	1749149	40.3431	40.34
	52 4-Chloroaniline	127	7.754	7.755	(1.013)	776267	39.1112	39.11
	53 Hexachlorobutadiene	225	7.837	7.837	(1.023)	320908	40.4134	40.41
	54 4-Chloro-3-methylphenol	107	8.336	8.336	(1.088)	518068	40.6899	40.69
	55 2-Methylnaphthalene	141	8.513	8.513	(1.112)	898599	40.4425	40.44
	56 1-Methylnaphthalene	141	8.630	8.637	(1.127)	865294	37.8280	37.83
*	69 Acenaphthene-d10	164	9.781	9.784	(1.000)	890428	40.0000	
	70 Hexachlorocyclopentadiene	237	8.705	8.706	(0.890)	312978	40.1591	40.16
	71 2,4,6-Trichlorophenol	196	8.855	8.857	(0.905)	362049	40.5660	40.57
	72 2,4,5-Trichlorophenol	196	8.896	8.898	(0.910)	393680	40.9503	40.95
	73 2-Chloronaphthalene	162	9.102	9.104	(0.931)	1034223	40.7455	40.74
$	74 2-Fluorobiphenyl	172	8.965	8.967	(0.917)	1179284	40.7540	40.75(R)
	75 2-Nitroaniline	65	9.239	9.242	(0.945)	312131	43.1250	43.12
	76 Dimethylphthalate	163	9.486	9.489	(0.970)	1107094	37.6313	37.63
	77 Acenaphthylene	152	9.603	9.606	(0.982)	1501075	38.6577	38.66
	78 2,6-Dinitrotoluene	165	9.548	9.551	(0.976)	306690	39.5528	39.55
	79 3-Nitroaniline	138	9.747	9.750	(0.996)	299785	38.6673	38.67
	80 Acenaphthene	153	9.823	9.825	(1.004)	966155	40.0883	40.09
	81 2,4-Dinitrophenol	184	9.871	9.881	(1.009)	117327	36.8608	36.86
	83 4-Nitrophenol	65	9.953	9.956	(1.018)	174050	39.5360	39.54
	84 Dibenzofuran	168	10.029	10.032	(1.025)	1359983	40.7891	40.79
	85 2,4-Dinitrotoluene	165	10.036	10.039	(1.026)	353884	42.5133	42.51
	86 Diethylphthalate	149	10.344	10.347	(1.057)	1122830	40.7039	40.70
	87 4-Chlorophenyl-phenylether	204	10.461	10.464	(1.069)	479650	40.3945	40.39
	88 Fluorene	166	10.454	10.457	(1.069)	999931	39.1608	39.16
	89 4-Nitroaniline	138	10.488	10.492	(1.072)	193719	37.6856	37.68
	96 2,3,4,6-Tetrachlorophenol	232	10.186	10.190	(1.041)	316547	42.2576	42.26
*	102 Phenanthrene-d10	188	11.591	11.595	(1.000)	1324268	40.0000	
	103 1,2-Diphenylhydrazine	77	10.653	10.657	(0.919)	1115100	40.3505	40.35
	104 Carbazole	167	11.886	11.890	(1.025)	1170048	38.4631	38.46
	105 4,6-Dinitro-2-methylphenol	198	10.523	10.533	(0.908)	176645	39.3474	39.35
	106 N-Nitrosodiphenylamine	169	10.612	10.616	(0.916)	841135	38.5007	38.50
$	107 2,4,6-Tribromophenol	330	10.750	10.753	(0.927)	374286	78.0207	78.02(R)
	108 4-Bromophenyl-phenylether	248	11.058	11.062	(0.954)	279287	36.6312	36.63
	109 Hexachlorobenzene	284	11.120	11.122	(0.959)	350770	40.7799	40.78
	110 Pentachlorophenol	266	11.366	11.369	(0.981)	213502	37.4096	37.41
	111 Phenanthrene	178	11.626	11.629	(1.003)	1398903	39.9591	39.96
	112 Anthracene	178	11.687	11.691	(1.008)	1445930	41.3389	41.34
	115 Di-n-butylphthalate	149	12.345	12.349	(1.065)	1932640	42.4421	42.44
	116 Fluoranthene	202	13.076	13.075	(1.128)	1337539	37.6577	37.66
*	132 Chrysene-d12	240	14.843	14.849	(1.000)	1034440	40.0000	
	134 Pyrene	202	13.350	13.355	(0.899)	1406024	41.8572	41.86
$	135 Terphenyl-d14	244	13.562	13.560	(0.914)	908721	43.2707	43.27(R)
	136 Butylbenzylphthalate	149	14.175	14.180	(0.955)	845803	42.5022	42.50

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.830	14.836	(0.999)	1213148	41.1959	41.20
139	Chrysene	228	14.877	14.884	(1.002)	1216551	41.8989	41.90
140	Bis(2-ethylhexyl)phthalate	149	14.905	14.911	(1.004)	1110472	41.8891	41.89
* 154	Perylene-d12	264	16.597	16.597	(1.000)	925603	40.0000	
155	Di-n-octylphthalate	149	15.710	15.711	(0.947)	1780046	42.9046	42.90
156	Benzo(b)fluoranthene	252	16.148	16.148	(0.973)	1067199	41.9267	41.93
157	Benzo(k)fluoranthene	252	16.182	16.189	(0.975)	1182503	42.0685	42.07
158	Benzo(a)pyrene	252	16.531	16.530	(0.996)	1038551	42.9886	42.99
159	Indeno(1,2,3-cd)pyrene	276	17.946	17.956	(1.081)	876042	41.0234	41.02
160	Dibenz(a,h)anthracene	278	17.972	17.976	(1.083)	746755	42.1072	42.11
161	Benzo(g,h,i)perylene	276	18.331	18.340	(1.104)	723511	41.1982	41.20

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
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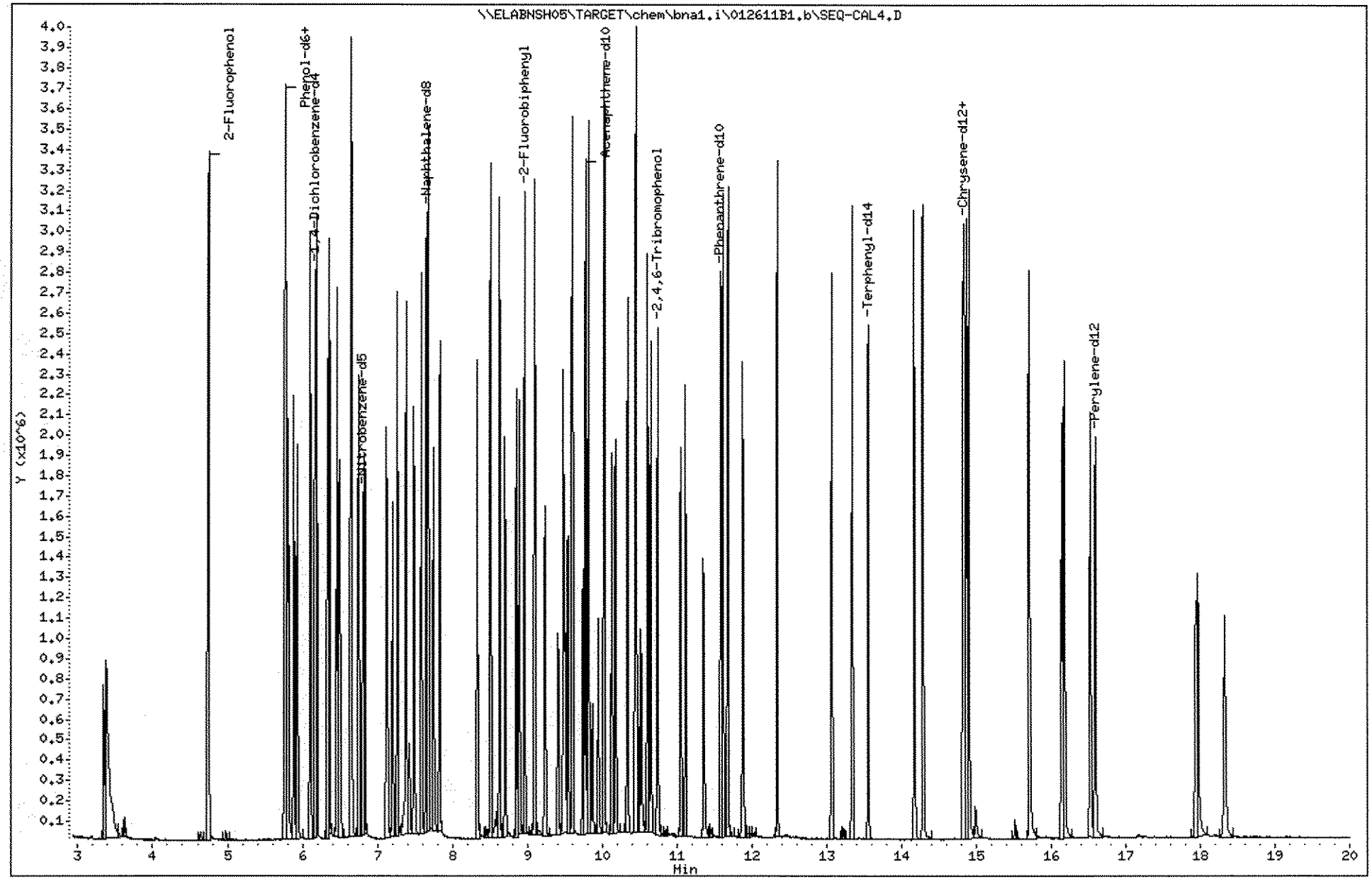

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Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
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Inj Date : 26-JAN-2011 17:05 MS Autotune Date: 08-DEC-2010 05:57
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Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.175	6.175	(1.000)	592249	40.0000	
$	2 2-Fluorophenol	112	4.745	4.746	(0.768)	1407154	77.5941	77.59(R)
$	3 Phenol-d6	99	5.772	5.773	(0.935)	1899241	82.3911	82.39(R)
	4 Pyridine	79	3.379	3.379	(0.547)	949110	40.7125	40.71
	6 N-Nitroso-di-methylamine	42	3.345	3.345	(0.542)	366400	43.2153	43.22
	7 Aniline	93	5.806	5.814	(0.940)	1185681	41.0616	41.06
	10 Phenol	94	5.786	5.787	(0.937)	969902	40.5666	40.57
	11 bis(2-Chloroethyl)ether	93	5.888	5.889	(0.954)	751904	37.7058	37.70
	12 2-Chlorophenol	128	5.936	5.937	(0.961)	767354	39.8173	39.82
	13 1,3-Dichlorobenzene	146	6.107	6.107	(0.989)	826626	39.5773	39.58
	14 1,4-Dichlorobenzene	146	6.189	6.196	(1.002)	813897	39.8458	39.84
	15 Benzyl alcohol	108	6.339	6.339	(1.027)	514306	40.9001	40.90
	16 1,2-Dichlorobenzene	146	6.359	6.360	(1.030)	791843	40.6832	40.68
	17 2-Methylphenol	108	6.462	6.462	(1.046)	667181	39.6896	39.69
	18 2,2'-Oxybis-1-chloropropane	45	6.496	6.496	(1.052)	1191412	41.5667	41.57
	19 3-Methylphenol	108	6.646	6.654	(1.076)	710789	40.4769	40.48
	20 4-Methylphenol	108	6.646	6.654	(1.076)	710789	40.4769	40.48
	21 N-Nitroso-di-n-propylamine	70	6.653	6.660	(1.077)	485139	39.2786	39.28
	22 Hexachloroethane	117	6.749	6.749	(1.093)	320820	37.8471	37.85
*	33 Naphthalene-d8	136	7.658	7.659	(1.000)	1801286	40.0000	
$	34 Nitrobenzene-d5	82	6.810	6.811	(0.889)	660237	39.7131	39.71(R)
	35 Nitrobenzene	77	6.831	6.838	(0.892)	653543	40.4780	40.48
	39 Isophorone	82	7.124	7.132	(0.930)	1350887	38.8827	38.88
	40 2-Nitrophenol	139	7.206	7.207	(0.941)	442736	43.8690	43.87
	42 2,4-Dimethylphenol	107	7.268	7.269	(0.949)	623743	40.5272	40.53
	43 Benzoic acid	105	7.432	7.447	(0.970)	415880	35.6867	35.69

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
Report Date: 27-Jan-2011 15:21

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44	bis(2-Chloroethoxy)methane	93	7.384	7.385	(0.964)	801992	38.7874	38.79
	47	2,4-Dichlorophenol	162	7.487	7.495	(0.978)	532192	37.1851	37.18
	50	1,2,4-Trichlorobenzene	180	7.590	7.591	(0.991)	621356	40.0610	40.06
	51	Naphthalene	128	7.679	7.680	(1.003)	1749149	40.3431	40.34
	52	4-Chloroaniline	127	7.754	7.755	(1.013)	776267	39.1112	39.11
	53	Hexachlorobutadiene	225	7.837	7.837	(1.023)	320908	40.4134	40.41
	54	4-Chloro-3-methylphenol	107	8.336	8.336	(1.088)	518068	40.6899	40.69
	55	2-Methylnaphthalene	141	8.513	8.513	(1.112)	898599	40.4425	40.44
	56	1-Methylnaphthalene	141	8.630	8.637	(1.127)	865294	37.8280	37.83
*	69	Acenaphthene-d10	164	9.781	9.784	(1.000)	890428	40.0000	
	70	Hexachlorocyclopentadiene	237	8.705	8.706	(0.890)	312978	40.1591	40.16
	71	2,4,6-Trichlorophenol	196	8.855	8.857	(0.905)	362049	40.5660	40.57
	72	2,4,5-Trichlorophenol	196	8.896	8.898	(0.910)	393680	40.9503	40.95
	73	2-Chloronaphthalene	162	9.102	9.104	(0.931)	1034223	40.7455	40.74
$	74	2-Fluorobiphenyl	172	8.965	8.967	(0.917)	1179284	40.7540	40.75(R)
	75	2-Nitroaniline	65	9.239	9.242	(0.945)	312131	43.1250	43.12
	76	Dimethylphthalate	163	9.486	9.489	(0.970)	1107094	37.6313	37.63
	77	Acenaphthylene	152	9.603	9.606	(0.982)	1501075	38.6577	38.66
	78	2,6-Dinitrotoluene	165	9.548	9.551	(0.976)	306690	39.5528	39.55
	79	3-Nitroaniline	138	9.747	9.750	(0.996)	299785	38.6673	38.67
	80	Acenaphthene	153	9.823	9.825	(1.004)	966155	40.0883	40.09
	81	2,4-Dinitrophenol	184	9.871	9.881	(1.009)	117327	36.8608	36.86
	83	4-Nitrophenol	65	9.953	9.956	(1.018)	174050	39.5360	39.54
	84	Dibenzofuran	168	10.029	10.032	(1.025)	1359983	40.7891	40.79
	85	2,4-Dinitrotoluene	165	10.036	10.039	(1.026)	353884	42.5133	42.51
	86	Diethylphthalate	149	10.344	10.347	(1.057)	1122830	40.7039	40.70
	87	4-Chlorophenyl-phenylether	204	10.461	10.464	(1.069)	479650	40.3945	40.39
	88	Fluorene	166	10.454	10.457	(1.069)	999931	39.1608	39.16
	89	4-Nitroaniline	138	10.488	10.492	(1.072)	193719	37.6856	37.68
	96	2,3,4,6-Tetrachlorophenol	232	10.186	10.190	(1.041)	316547	42.2576	42.26
*	102	Phenanthrene-d10	188	11.591	11.595	(1.000)	1324268	40.0000	
	103	1,2-Diphenylhydrazine	77	10.653	10.657	(0.919)	1115100	40.3505	40.35
	104	Carbazole	167	11.886	11.890	(1.025)	1170048	38.4631	38.46
	105	4,6-Dinitro-2-methylphenol	198	10.523	10.533	(0.908)	176645	39.3474	39.35
	106	N-Nitrosodiphenylamine	169	10.612	10.616	(0.916)	841135	38.5007	38.50
$	107	2,4,6-Tribromophenol	330	10.750	10.753	(0.927)	374286	78.0207	78.02(R)
	108	4-Bromophenyl-phenylether	248	11.058	11.062	(0.954)	279287	36.6312	36.63
	109	Hexachlorobenzene	284	11.120	11.122	(0.959)	350770	40.7799	40.78
	110	Pentachlorophenol	266	11.366	11.369	(0.981)	213502	37.4096	37.41
	111	Phenanthrene	178	11.626	11.629	(1.003)	1398903	39.9591	39.96
	112	Anthracene	178	11.687	11.691	(1.008)	1445930	41.3389	41.34
	115	Di-n-butylphthalate	149	12.345	12.349	(1.065)	1932640	42.4421	42.44
	116	Fluoranthene	202	13.076	13.075	(1.128)	1337539	37.6577	37.66
*	132	Chrysene-d12	240	14.843	14.849	(1.000)	1034440	40.0000	
	134	Pyrene	202	13.350	13.355	(0.899)	1406024	41.8572	41.86
$	135	Terphenyl-d14	244	13.562	13.560	(0.914)	908721	43.2707	43.27(R)
	136	Butylbenzylphthalate	149	14.175	14.180	(0.955)	845803	42.5022	42.50

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.830	14.836	(0.999)	1213148	41.1959	41.20
139	Chrysene	228	14.877	14.884	(1.002)	1216551	41.8989	41.90
140	Bis(2-ethylhexyl)phthalate	149	14.905	14.911	(1.004)	1110472	41.8891	41.89
* 154	Perylene-d12	264	16.597	16.597	(1.000)	925603	40.0000	
155	Di-n-octylphthalate	149	15.710	15.711	(0.947)	1780046	42.9046	42.90
156	Benzo(b)fluoranthene	252	16.148	16.148	(0.973)	1067199	41.9267	41.93
157	Benzo(k)fluoranthene	252	16.182	16.189	(0.975)	1182503	42.0685	42.07
158	Benzo(a)pyrene	252	16.531	16.530	(0.996)	1038551	42.9886	42.99
159	Indeno(1,2,3-cd)pyrene	276	17.946	17.956	(1.081)	876042	41.0234	41.02
160	Dibenz(a,h)anthracene	278	17.972	17.976	(1.083)	746755	42.1072	42.11
161	Benzo(g,h,i)perylene	276	18.331	18.340	(1.104)	723511	41.1982	41.20

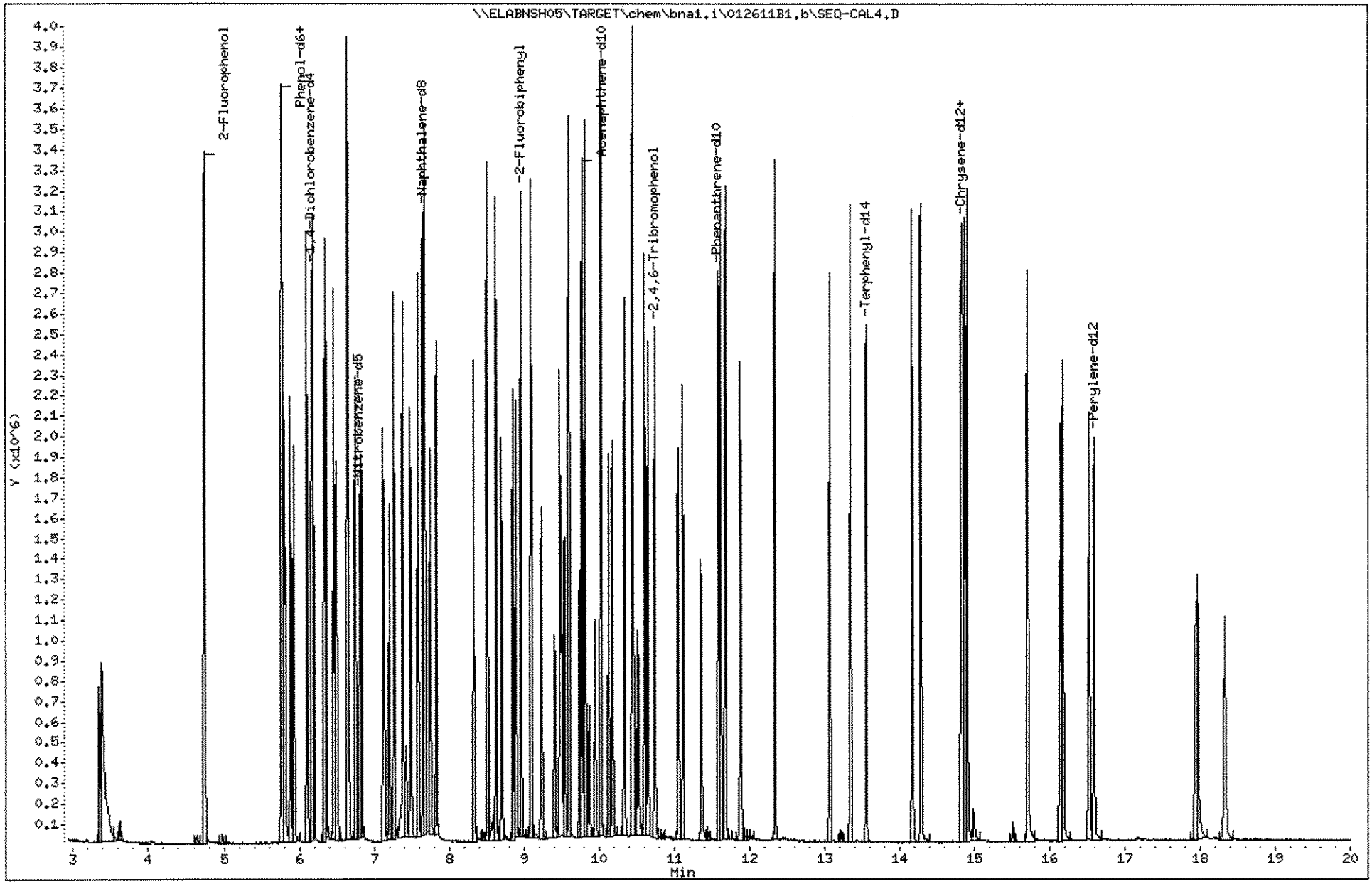
QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL4.D
Date : 26-JAN-2011 17:05
Client ID: CAL40PPM
Sample Info: CAL40PPM;;;;;;11A0528

Instrument: bna1.i

Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Report Date: 27-Jan-2011 15:25

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Lab Smp Id: SEQ-CAL5 Client Smp ID: CAL50PPM
Inj Date : 26-JAN-2011 17:34 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL50PPM;;;;;;11A0529
Misc Info : ;1;;;5;;cal_1.sub;
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Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
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Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.175	6.175	(1.000)	589208	40.0000	
$ 2	2-Fluorophenol	112	4.745	4.746	(0.769)	1774444	98.3524	98.35(R)
$ 3	Phenol-d6	99	5.773	5.773	(0.935)	2245521	97.9158	97.92(R)
4	Pyridine	79	3.378	3.379	(0.547)	1160729	50.0469	50.05
6	N-Nitroso-di-methylamine	42	3.344	3.345	(0.542)	440085	52.1740	52.17
7	Aniline	93	5.814	5.814	(0.942)	1398362	48.6770	48.68
10	Phenol	94	5.786	5.787	(0.937)	1160399	48.7847	48.78
11	bis(2-Chloroethyl)ether	93	5.889	5.889	(0.954)	957664	48.2720	48.27
12	2-Chlorophenol	128	5.936	5.937	(0.961)	945432	49.3109	49.31
13	1,3-Dichlorobenzene	146	6.106	6.107	(0.989)	1038826	49.9938	49.99
14	1,4-Dichlorobenzene	146	6.195	6.196	(1.003)	977418	48.0982	48.10
15	Benzyl alcohol	108	6.339	6.339	(1.027)	638838	51.0657	51.06
16	1,2-Dichlorobenzene	146	6.359	6.360	(1.030)	945004	48.8029	48.80
17	2-Methylphenol	108	6.462	6.462	(1.046)	807535	48.2870	48.29
18	2,2'-Oxybis-1-chloropropane	45	6.496	6.496	(1.052)	1264686	44.3509	44.35
19	3-Methylphenol	108	6.653	6.654	(1.077)	871816	49.9030	49.90
20	4-Methylphenol	108	6.653	6.654	(1.077)	871816	49.9030	49.90
21	N-Nitroso-di-n-propylamine	70	6.660	6.660	(1.079)	601983	48.9903	48.99
22	Hexachloroethane	117	6.749	6.749	(1.093)	425184	50.4178	50.42
* 33	Naphthalene-d8	136	7.659	7.659	(1.000)	1805123	40.0000	
$ 34	Nitrobenzene-d5	82	6.810	6.811	(0.889)	868432	52.1249	52.12(R)
35	Nitrobenzene	77	6.838	6.838	(0.893)	821271	50.7583	50.76
39	Isophorone	82	7.131	7.132	(0.931)	1783118	51.2146	51.21
40	2-Nitrophenol	139	7.207	7.207	(0.941)	516040	51.0238	51.02
42	2,4-Dimethylphenol	107	7.268	7.269	(0.949)	751166	48.7027	48.70
43	Benzoic acid	105	7.446	7.447	(0.972)	626893	51.4639	51.46

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Report Date: 27-Jan-2011 15:25

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44	bis(2-Chloroethoxy)methane	93	7.384	7.385	(0.964)	1004835	48.4944	48.49
	47	2,4-Dichlorophenol	162	7.494	7.495	(0.978)	722129	50.3491	50.35
	50	1,2,4-Trichlorobenzene	180	7.590	7.591	(0.991)	771817	49.6559	49.66
	51	Naphthalene	128	7.679	7.680	(1.003)	2066085	47.5517	47.55
	52	4-Chloroaniline	127	7.754	7.755	(1.012)	995625	50.0566	50.06
	53	Hexachlorobutadiene	225	7.837	7.837	(1.023)	384225	48.2843	48.28
	54	4-Chloro-3-methylphenol	107	8.336	8.336	(1.088)	652675	51.1532	51.15
	55	2-Methylnaphthalene	141	8.513	8.513	(1.112)	1107173	49.7238	49.72
	56	1-Methylnaphthalene	141	8.637	8.637	(1.128)	1113518	48.5762	48.58
*	69	Acenaphthene-d10	164	9.784	9.784	(1.000)	929802	40.0000	
	70	Hexachlorocyclopentadiene	237	8.706	8.706	(0.890)	427373	52.5153	52.52
	71	2,4,6-Trichlorophenol	196	8.856	8.857	(0.905)	444989	47.7478	47.75
	72	2,4,5-Trichlorophenol	196	8.897	8.898	(0.909)	515238	51.3252	51.32
	73	2-Chloronaphthalene	162	9.104	9.104	(0.931)	1264988	47.7266	47.73
$	74	2-Fluorobiphenyl	172	8.966	8.967	(0.916)	1423966	47.1259	47.12(R)
	75	2-Nitroaniline	65	9.241	9.242	(0.945)	363619	48.1113	48.11
	76	Dimethylphthalate	163	9.488	9.489	(0.970)	1527046	49.7079	49.71
	77	Acenaphthylene	152	9.605	9.606	(0.982)	1930979	47.6233	47.62
	78	2,6-Dinitrotoluene	165	9.550	9.551	(0.976)	413117	51.0221	51.02
	79	3-Nitroaniline	138	9.749	9.750	(0.996)	395398	48.8402	48.84
	80	Acenaphthene	153	9.825	9.825	(1.004)	1213292	48.2108	48.21
	81	2,4-Dinitrophenol	184	9.880	9.881	(1.010)	176162	48.6715	48.67
	83	4-Nitrophenol	65	9.956	9.956	(1.018)	251426	54.6937	54.69
	84	Dibenzofuran	168	10.031	10.032	(1.025)	1714999	49.2587	49.26
	85	2,4-Dinitrotoluene	165	10.038	10.039	(1.026)	450395	51.8162	51.82
	86	Diethylphthalate	149	10.347	10.347	(1.058)	1433061	50.9027	50.90
	87	4-Chlorophenyl-phenylether	204	10.464	10.464	(1.070)	610592	49.2445	49.24
	88	Fluorene	166	10.457	10.457	(1.069)	1299035	48.7204	48.72
	89	4-Nitroaniline	138	10.491	10.492	(1.072)	296933	55.3184	55.32
	96	2,3,4,6-Tetrachlorophenol	232	10.189	10.190	(1.041)	408298	52.1978	52.20
*	102	Phenanthrene-d10	188	11.594	11.595	(1.000)	1336901	40.0000	
	103	1,2-Diphenylhydrazine	77	10.657	10.657	(0.919)	1388391	49.7650	49.76
	104	Carbazole	167	11.889	11.890	(1.025)	1487481	48.4361	48.44
	105	4,6-Dinitro-2-methylphenol	198	10.533	10.533	(0.908)	251337	53.6237	53.62
	106	N-Nitrosodiphenylamine	169	10.615	10.616	(0.916)	1104353	50.0712	50.07
$	107	2,4,6-Tribromophenol	330	10.753	10.753	(0.927)	497029	102.628	102.6(AR)
	108	4-Bromophenyl-phenylether	248	11.061	11.062	(0.954)	399451	51.8968	51.90
	109	Hexachlorobenzene	284	11.122	11.122	(0.959)	432935	49.8567	49.86
	110	Pentachlorophenol	266	11.369	11.369	(0.981)	301029	51.0817	51.08
	111	Phenanthrene	178	11.628	11.629	(1.003)	1770988	50.1095	50.11
	112	Anthracene	178	11.690	11.691	(1.008)	1739100	49.2508	49.25
	115	Di-n-butylphthalate	149	12.349	12.349	(1.065)	2315102	50.3608	50.36
	116	Fluoranthene	202	13.074	13.075	(1.128)	1852054	51.6508	51.65
*	132	Chrysene-d12	240	14.849	14.849	(1.000)	1158442	40.0000	
	134	Pyrene	202	13.355	13.355	(0.899)	1805041	47.9839	47.98
$	135	Terphenyl-d14	244	13.559	13.560	(0.913)	1174528	49.9411	49.94(R)
	136	Butylbenzylphthalate	149	14.180	14.180	(0.955)	1042532	46.7802	46.78

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.836	14.836	(0.999)	1626799	49.3293	49.33
139	Chrysene	228	14.883	14.884	(1.002)	1580358	48.6025	48.60
140	Bis(2-ethylhexyl)phthalate	149	14.910	14.911	(1.004)	1482919	49.9508	49.95
* 154	Perylene-d12	264	16.598	16.597	(1.000)	1074977	40.0000	
155	Di-n-octylphthalate	149	15.710	15.711	(0.947)	2271082	47.1336	47.13
156	Benzo(b)fluoranthene	252	16.148	16.148	(0.973)	1530934	51.7878	51.79
157	Benzo(k)fluoranthene	252	16.189	16.189	(0.975)	1466696	44.9284	44.93
158	Benzo(a)pyrene	252	16.531	16.530	(0.996)	1360020	48.4726	48.47
159	Indeno(1,2,3-cd)pyrene	276	17.955	17.956	(1.082)	1214752	48.9802	48.98
160	Dibenz(a,h)anthracene	278	17.976	17.976	(1.083)	1015034	49.2815	49.28
161	Benzo(g,h,i)perylene	276	18.340	18.340	(1.105)	1000307	49.0447	49.04

QC Flag Legend

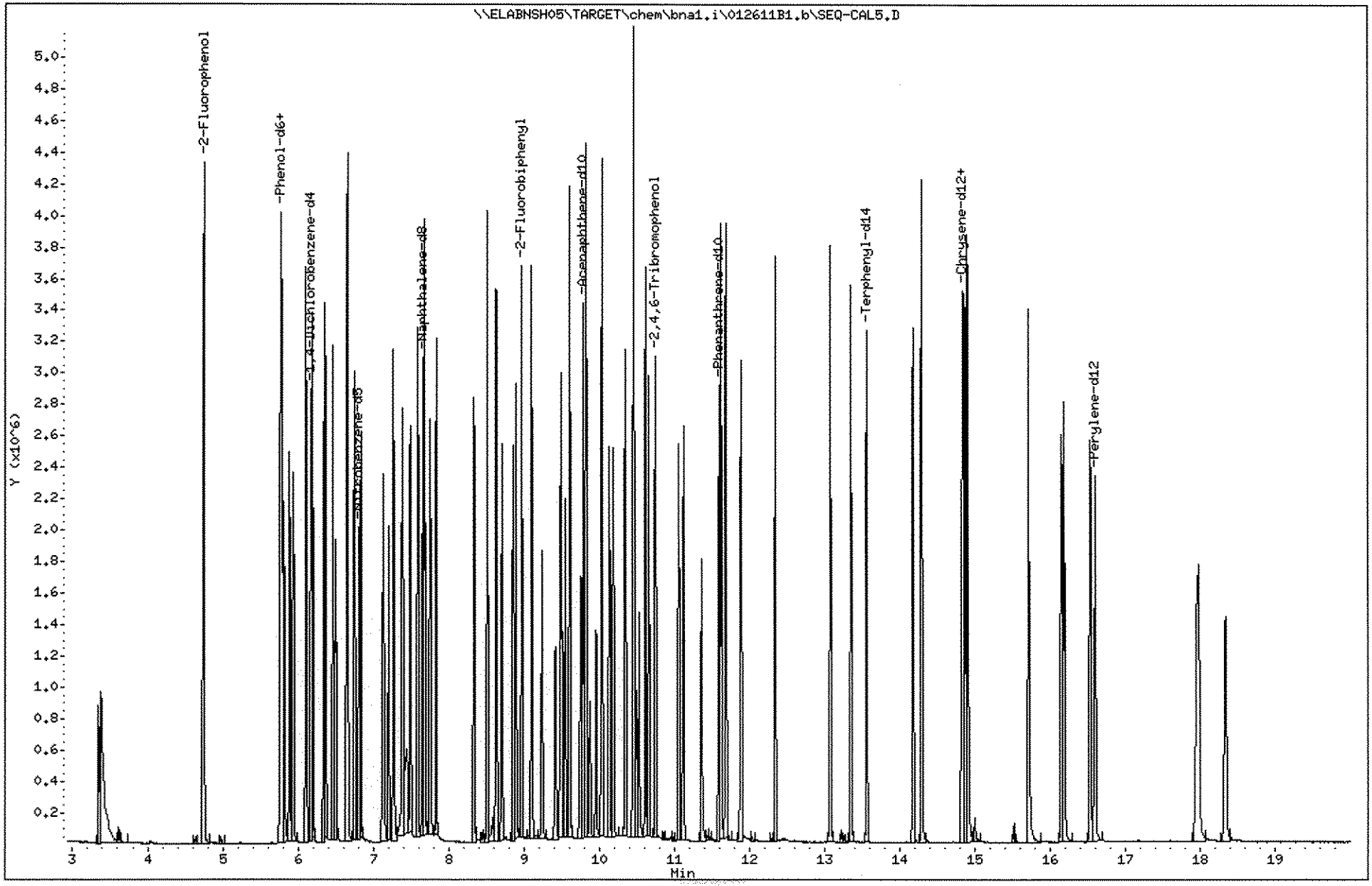
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Date : 26-JAN-2011 17:34
Client ID: CAL50PPM
Sample Info: CAL50PPM;;;;;;11A0529

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
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Inj Date : 26-JAN-2011 17:34 MS Autotune Date: 08-DEC-2010 05:57
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Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.175	6.175	(1.000)	589208	40.0000	
$	2 2-Fluorophenol	112	4.745	4.746	(0.769)	1774444	98.3524	98.35(R)
$	3 Phenol-d6	99	5.773	5.773	(0.935)	2245521	97.9158	97.92(R)
	4 Pyridine	79	3.378	3.379	(0.547)	1160729	50.0469	50.05
	6 N-Nitroso-di-methylamine	42	3.344	3.345	(0.542)	440085	52.1740	52.17
	7 Aniline	93	5.814	5.814	(0.942)	1398362	48.6770	48.68
	10 Phenol	94	5.786	5.787	(0.937)	1160399	48.7847	48.78
	11 bis(2-Chloroethyl)ether	93	5.889	5.889	(0.954)	957664	48.2720	48.27
	12 2-Chlorophenol	128	5.936	5.937	(0.961)	945432	49.3109	49.31
	13 1,3-Dichlorobenzene	146	6.106	6.107	(0.989)	1038826	49.9938	49.99
	14 1,4-Dichlorobenzene	146	6.195	6.196	(1.003)	977418	48.0982	48.10
	15 Benzyl alcohol	108	6.339	6.339	(1.027)	638838	51.0657	51.06
	16 1,2-Dichlorobenzene	146	6.359	6.360	(1.030)	945004	48.8029	48.80
	17 2-Methylphenol	108	6.462	6.462	(1.046)	807535	48.2870	48.29
	18 2,2'-Oxybis-1-chloropropane	45	6.496	6.496	(1.052)	1264686	44.3509	44.35
	19 3-Methylphenol	108	6.653	6.654	(1.077)	871816	49.9030	49.90
	20 4-Methylphenol	108	6.653	6.654	(1.077)	871816	49.9030	49.90
	21 N-Nitroso-di-n-propylamine	70	6.660	6.660	(1.079)	601983	48.9903	48.99
	22 Hexachloroethane	117	6.749	6.749	(1.093)	425184	50.4178	50.42
*	33 Naphthalene-d8	136	7.659	7.659	(1.000)	1805123	40.0000	
$	34 Nitrobenzene-d5	82	6.810	6.811	(0.889)	868432	52.1249	52.12(R)
	35 Nitrobenzene	77	6.838	6.838	(0.893)	821271	50.7583	50.76
	39 Isophorone	82	7.131	7.132	(0.931)	1783118	51.2146	51.21
	40 2-Nitrophenol	139	7.207	7.207	(0.941)	516040	51.0238	51.02
	42 2,4-Dimethylphenol	107	7.268	7.269	(0.949)	751166	48.7027	48.70
	43 Benzoic acid	105	7.446	7.447	(0.972)	626893	51.4639	51.46

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
44	bis(2-Chloroethoxy)methane	93	7.384	7.385	(0.964)	1004835	48.4944	48.49
47	2,4-Dichlorophenol	162	7.494	7.495	(0.978)	722129	50.3491	50.35
50	1,2,4-Trichlorobenzene	180	7.590	7.591	(0.991)	771817	49.6559	49.66
51	Naphthalene	128	7.679	7.680	(1.003)	2066085	47.5517	47.55
52	4-Chloroaniline	127	7.754	7.755	(1.012)	995625	50.0566	50.06
53	Hexachlorobutadiene	225	7.837	7.837	(1.023)	384225	48.2843	48.28
54	4-Chloro-3-methylphenol	107	8.336	8.336	(1.088)	652675	51.1532	51.15
55	2-Methylnaphthalene	141	8.513	8.513	(1.112)	1107173	49.7238	49.72
56	1-Methylnaphthalene	141	8.637	8.637	(1.128)	1113518	48.5762	48.58
* 69	Acenaphthene-d10	164	9.784	9.784	(1.000)	929802	40.0000	
70	Hexachlorocyclopentadiene	237	8.706	8.706	(0.890)	427373	52.5153	52.52
71	2,4,6-Trichlorophenol	196	8.856	8.857	(0.905)	444989	47.7478	47.75
72	2,4,5-Trichlorophenol	196	8.897	8.898	(0.909)	515238	51.3252	51.32
73	2-Chloronaphthalene	162	9.104	9.104	(0.931)	1264988	47.7266	47.73
$ 74	2-Fluorobiphenyl	172	8.966	8.967	(0.916)	1423966	47.1259	47.12(R)
75	2-Nitroaniline	65	9.241	9.242	(0.945)	363619	48.1113	48.11
76	Dimethylphthalate	163	9.488	9.489	(0.970)	1527046	49.7079	49.71
77	Acenaphthylene	152	9.605	9.606	(0.982)	1930979	47.6233	47.62
78	2,6-Dinitrotoluene	165	9.550	9.551	(0.976)	413117	51.0221	51.02
79	3-Nitroaniline	138	9.749	9.750	(0.996)	395398	48.8402	48.84
80	Acenaphthene	153	9.825	9.825	(1.004)	1213292	48.2108	48.21
81	2,4-Dinitrophenol	184	9.880	9.881	(1.010)	176162	48.6715	48.67
83	4-Nitrophenol	65	9.956	9.956	(1.018)	251426	54.6937	54.69
84	Dibenzofuran	168	10.031	10.032	(1.025)	1714999	49.2587	49.26
85	2,4-Dinitrotoluene	165	10.038	10.039	(1.026)	450395	51.8162	51.82
86	Diethylphthalate	149	10.347	10.347	(1.058)	1433061	50.9027	50.90
87	4-Chlorophenyl-phenylether	204	10.464	10.464	(1.070)	610592	49.2445	49.24
88	Fluorene	166	10.457	10.457	(1.069)	1299035	48.7204	48.72
89	4-Nitroaniline	138	10.491	10.492	(1.072)	296933	55.3184	55.32
96	2,3,4,6-Tetrachlorophenol	232	10.189	10.190	(1.041)	408298	52.1978	52.20
* 102	Phenanthrene-d10	188	11.594	11.595	(1.000)	1336901	40.0000	
103	1,2-Diphenylhydrazine	77	10.657	10.657	(0.919)	1388391	49.7650	49.76
104	Carbazole	167	11.889	11.890	(1.025)	1487481	48.4361	48.44
105	4,6-Dinitro-2-methylphenol	198	10.533	10.533	(0.908)	251337	53.6237	53.62
106	N-Nitrosodiphenylamine	169	10.615	10.616	(0.916)	1104353	50.0712	50.07
$ 107	2,4,6-Tribromophenol	330	10.753	10.753	(0.927)	497029	102.628	102.6(AR)
108	4-Bromophenyl-phenylether	248	11.061	11.062	(0.954)	399451	51.8968	51.90
109	Hexachlorobenzene	284	11.122	11.122	(0.959)	432935	49.8567	49.86
110	Pentachlorophenol	266	11.369	11.369	(0.981)	301029	51.0817	51.08
111	Phenanthrene	178	11.628	11.629	(1.003)	1770988	50.1095	50.11
112	Anthracene	178	11.690	11.691	(1.008)	1739100	49.2508	49.25
115	Di-n-butylphthalate	149	12.349	12.349	(1.065)	2315102	50.3608	50.36
116	Fluoranthene	202	13.074	13.075	(1.128)	1852054	51.6508	51.65
* 132	Chrysene-d12	240	14.849	14.849	(1.000)	1158442	40.0000	
134	Pyrene	202	13.355	13.355	(0.899)	1805041	47.9839	47.98
$ 135	Terphenyl-d14	244	13.559	13.560	(0.913)	1174528	49.9411	49.94(R)
136	Butylbenzylphthalate	149	14.180	14.180	(0.955)	1042532	46.7802	46.78

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.836	14.836	(0.999)	1626799	49.3293	49.33
139	Chrysene	228	14.883	14.884	(1.002)	1580358	48.6025	48.60
140	Bis(2-ethylhexyl)phthalate	149	14.910	14.911	(1.004)	1482919	49.9508	49.95
* 154	Perylene-d12	264	16.598	16.597	(1.000)	1074977	40.0000	
155	Di-n-octylphthalate	149	15.710	15.711	(0.947)	2271082	47.1336	47.13
156	Benzo(b)fluoranthene	252	16.148	16.148	(0.973)	1530934	51.7878	51.79
157	Benzo(k)fluoranthene	252	16.189	16.189	(0.975)	1466696	44.9284	44.93
158	Benzo(a)pyrene	252	16.531	16.530	(0.996)	1360020	48.4726	48.47
159	Indeno(1,2,3-cd)pyrene	276	17.955	17.956	(1.082)	1214752	48.9802	48.98
160	Dibenz(a,h)anthracene	278	17.976	17.976	(1.083)	1015034	49.2815	49.28
161	Benzo(g,h,i)perylene	276	18.340	18.340	(1.105)	1000307	49.0447	49.04

QC Flag Legend

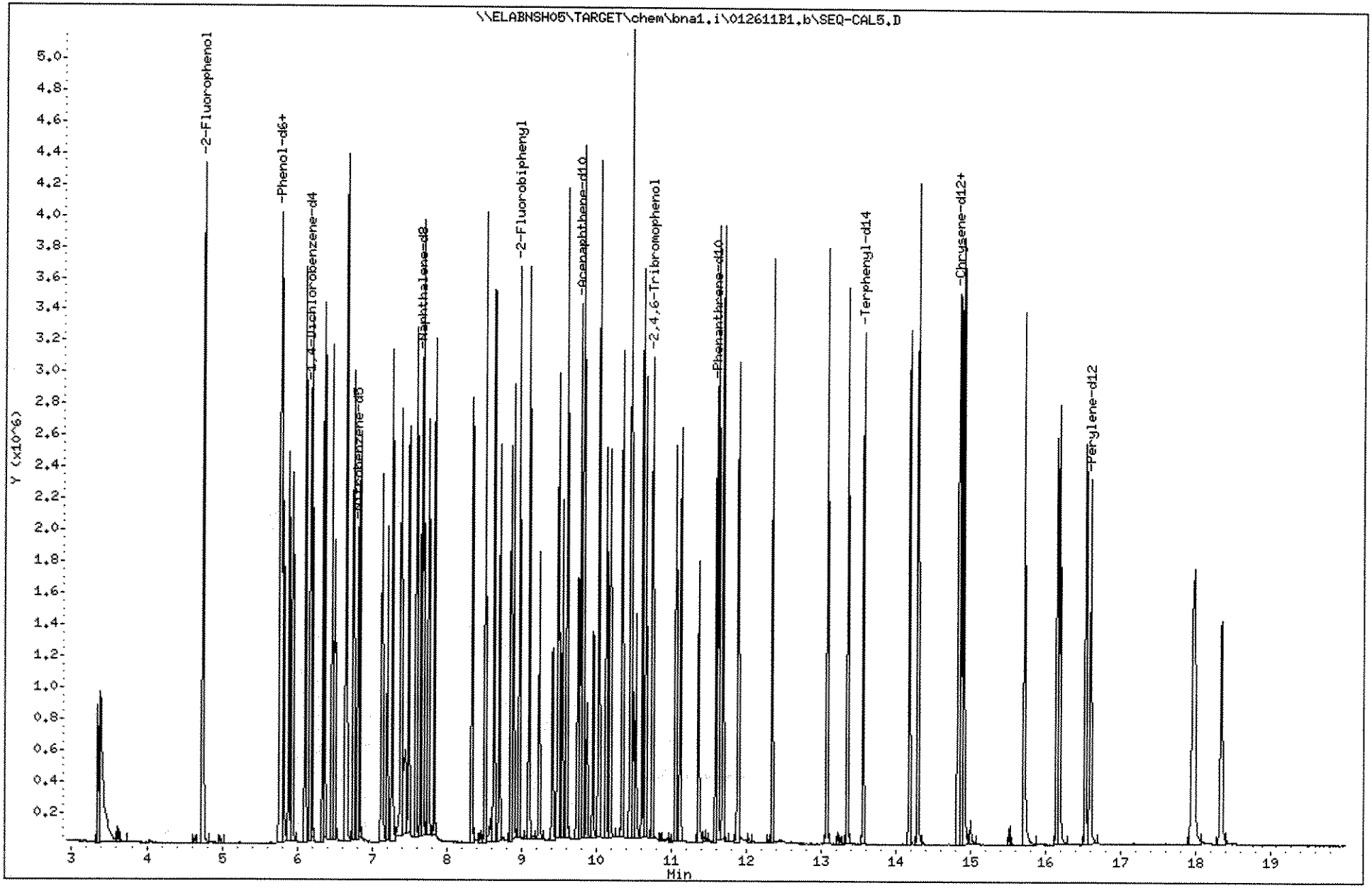
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL5.D
Date : 26-JAN-2011 17:34
Client ID: CAL50PPM
Sample Info: CAL50PPM;;;;;;11A0529

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



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Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Report Date: 27-Jan-2011 15:25

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Lab Smp Id: SEQ-CAL6 Client Smp ID: CAL60PPM
Inj Date : 26-JAN-2011 18:03 MS Autotune Date: 08-DEC-2010 05:57
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Als bottle: 7
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Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.175	6.175	(1.000)	553271	40.0000	
$ 2	2-Fluorophenol	112	4.745	4.746	(0.768)	1904857	112.439	112.4(AR)
$ 3	Phenol-d6	99	5.773	5.773	(0.935)	2480986	115.210	115.2(AR)
4	Pyridine	79	3.372	3.379	(0.546)	1252929	57.5312	57.53
6	N-Nitroso-di-methylamine	42	3.338	3.345	(0.540)	485489	61.2953	61.30
7	Aniline	93	5.807	5.814	(0.940)	1574738	58.3772	58.38
10	Phenol	94	5.786	5.787	(0.937)	1294074	57.9383	57.94
11	bis(2-Chloroethyl)ether	93	5.889	5.889	(0.954)	1077129	57.8203	57.82
12	2-Chlorophenol	128	5.937	5.937	(0.961)	999796	55.5334	55.53
13	1,3-Dichlorobenzene	146	6.107	6.107	(0.989)	1099440	56.3476	56.35
14	1,4-Dichlorobenzene	146	6.196	6.196	(1.003)	1089092	57.0748	57.07
15	Benzyl alcohol	108	6.346	6.339	(1.028)	678410	57.7513	57.75
16	1,2-Dichlorobenzene	146	6.360	6.360	(1.030)	990170	54.4569	54.46
17	2-Methylphenol	108	6.463	6.462	(1.046)	837080	53.3048	53.30
18	2,2'-Oxybis-1-chloropropane	45	6.497	6.496	(1.052)	1421343	53.0822	53.08
19	3-Methylphenol	108	6.653	6.654	(1.077)	902197	54.9964	55.00
20	4-Methylphenol	108	6.653	6.654	(1.077)	902197	54.9964	55.00
21	N-Nitroso-di-n-propylamine	70	6.660	6.660	(1.078)	622836	53.9797	53.98
22	Hexachloroethane	117	6.749	6.749	(1.093)	451334	56.9949	56.99
* 33	Naphthalene-d8	136	7.658	7.659	(1.000)	1667066	40.0000	
$ 34	Nitrobenzene-d5	82	6.811	6.811	(0.889)	884416	57.4805	57.48(R)
35	Nitrobenzene	77	6.838	6.838	(0.893)	888459	59.4583	59.46
39	Isophorone	82	7.131	7.132	(0.931)	1865727	58.0251	58.02
40	2-Nitrophenol	139	7.206	7.207	(0.941)	585801	62.7182	62.72
42	2,4-Dimethylphenol	107	7.268	7.269	(0.949)	868092	60.9448	60.94
43	Benzoic acid	105	7.452	7.447	(0.973)	702486	61.5077	61.51

GLQ 1/27/11

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Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Report Date: 27-Jan-2011 15:25

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44	bis(2-Chloroethoxy)methane	93	7.390	7.385	(0.965)	1109357	57.9725	57.97
	47	2,4-Dichlorophenol	162	7.493	7.495	(0.978)	799204	60.3377	60.34
	50	1,2,4-Trichlorobenzene	180	7.589	7.591	(0.991)	873533	60.8542	60.85
	51	Naphthalene	128	7.685	7.680	(1.004)	2249245	56.0543	56.05
	52	4-Chloroaniline	127	7.754	7.755	(1.013)	1020838	55.5747	55.57
	53	Hexachlorobutadiene	225	7.837	7.837	(1.023)	411964	56.0575	56.06
	54	4-Chloro-3-methylphenol	107	8.336	8.336	(1.089)	698245	59.2567	59.26
	55	2-Methylnaphthalene	141	8.513	8.513	(1.112)	1137502	55.3165	55.32
	56	1-Methylnaphthalene	141	8.637	8.637	(1.128)	1205472	56.9426	56.94
*	69	Acenaphthene-d10	164	9.782	9.784	(1.000)	823163	40.0000	
	70	Hexachlorocyclopentadiene	237	8.706	8.706	(0.890)	430810	59.7956	59.80
	71	2,4,6-Trichlorophenol	196	8.863	8.857	(0.906)	474784	57.5446	57.54
	72	2,4,5-Trichlorophenol	196	8.898	8.898	(0.910)	518826	58.3779	58.38
	73	2-Chloronaphthalene	162	9.103	9.104	(0.931)	1314482	56.0187	56.02
$	74	2-Fluorobiphenyl	172	8.972	8.967	(0.917)	1521269	56.8683	56.87(R)
	75	2-Nitroaniline	65	9.240	9.242	(0.945)	425061	63.5267	63.53
	76	Dimethylphthalate	163	9.494	9.489	(0.970)	1545676	56.8325	56.83
	77	Acenaphthylene	152	9.611	9.606	(0.982)	2091892	58.2755	58.28
	78	2,6-Dinitrotoluene	165	9.549	9.551	(0.976)	447484	62.4263	62.43
	79	3-Nitroaniline	138	9.755	9.750	(0.997)	434542	60.6288	60.63
	80	Acenaphthene	153	9.824	9.825	(1.004)	1299250	58.3145	58.31
	81	2,4-Dinitrophenol	184	9.879	9.881	(1.010)	198252	59.1890	59.19
	83	4-Nitrophenol	65	9.961	9.956	(1.018)	260231	63.9427	63.94
	84	Dibenzofuran	168	10.037	10.032	(1.026)	1761621	57.1527	57.15
	85	2,4-Dinitrotoluene	165	10.037	10.039	(1.026)	467646	60.7707	60.77
	86	Diethylphthalate	149	10.352	10.347	(1.058)	1510477	61.5913	61.59
	87	4-Chlorophenyl-phenylether	204	10.462	10.464	(1.070)	652090	59.4044	59.40
	88	Fluorene	166	10.455	10.457	(1.069)	1378321	58.3909	58.39
	89	4-Nitroaniline	138	10.497	10.492	(1.073)	296062	62.3015	62.30
	96	2,3,4,6-Tetrachlorophenol	232	10.188	10.190	(1.041)	424416	61.2874	61.29
*	102	Phenanthrene-d10	188	11.594	11.595	(1.000)	1198242	40.0000	
	103	1,2-Diphenylhydrazine	77	10.655	10.657	(0.919)	1437570	57.4904	57.49
	104	Carbazole	167	11.888	11.890	(1.025)	1536428	55.8193	55.82
	105	4,6-Dinitro-2-methylphenol	198	10.531	10.533	(0.908)	255532	60.2263	60.23
	106	N-Nitrosodiphenylamine	169	10.613	10.616	(0.915)	1123725	56.8453	56.84
$	107	2,4,6-Tribromophenol	330	10.751	10.753	(0.927)	516822	119.063	119.1(AR)
	108	4-Bromophenyl-phenylether	248	11.059	11.062	(0.954)	416885	60.4294	60.43
	109	Hexachlorobenzene	284	11.121	11.122	(0.959)	457334	58.7610	58.76
	110	Pentachlorophenol	266	11.368	11.369	(0.980)	318101	59.6989	59.70
	111	Phenanthrene	178	11.628	11.629	(1.003)	1773956	56.0018	56.00
	112	Anthracene	178	11.689	11.691	(1.008)	1725718	54.5272	54.53
	115	Di-n-butylphthalate	149	12.347	12.349	(1.065)	2235695	54.2613	54.26
	116	Fluoranthene	202	13.080	13.075	(1.128)	1801078	56.0416	56.04
*	132	Chrysene-d12	240	14.846	14.849	(1.000)	940552	40.0000	
	134	Pyrene	202	13.353	13.355	(0.899)	1832919	60.0127	60.01
$	135	Terphenyl-d14	244	13.564	13.560	(0.914)	1196732	62.6733	62.67(R)
	136	Butylbenzylphthalate	149	14.177	14.180	(0.955)	1169159	64.6157	64.62

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Report Date: 27-Jan-2011 15:25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.833	14.836	(0.999)	1656961	61.8835	61.88
139	Chrysene	228	14.880	14.884	(1.002)	1611803	61.0530	61.05
140	Bis(2-ethylhexyl)phthalate	149	14.908	14.911	(1.004)	1532881	63.5952	63.60
* 154	Perylene-d12	264	16.594	16.597	(1.000)	848481	40.0000	
155	Di-n-octylphthalate	149	15.713	15.711	(0.947)	2448182	64.3722	64.37
156	Benzo(b)fluoranthene	252	16.151	16.148	(0.973)	1407852	60.3371	60.34
157	Benzo(k)fluoranthene	252	16.185	16.189	(0.975)	1584988	61.5125	61.51
158	Benzo(a)pyrene	252	16.533	16.530	(0.996)	1335474	60.3037	60.30
159	Indeno(1,2,3-cd)pyrene	276	17.952	17.956	(1.082)	1042241	53.2424	53.24
160	Dibenz(a,h)anthracene	278	17.979	17.976	(1.083)	867894	53.3860	53.38
161	Benzo(g,h,i)perylene	276	18.336	18.340	(1.105)	853015	52.9874	52.99

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Date : 26-JAN-2011 18:03
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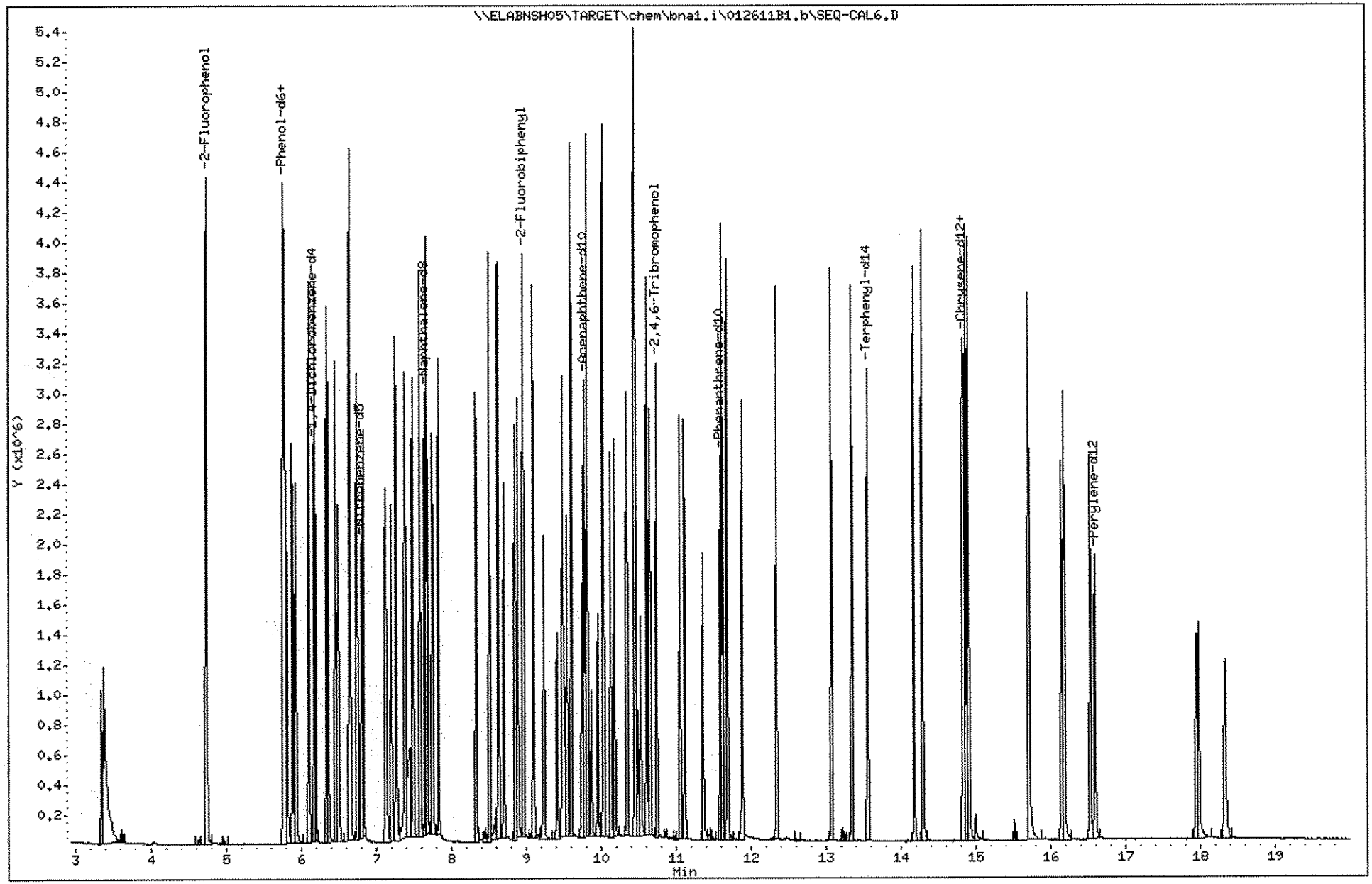
Sample Info: CAL60PPM;;;;;;;11A0530

Instrument: bna1.i

Operator: MEC
Column phase: fused silica
Column diameter: 0.25



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Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Lab Smp Id: SEQ-CAL6 Client Smp ID: CAL60PPM
Inj Date : 26-JAN-2011 18:03 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL60PPM;;;;;;11A0530
Misc Info : ;1;;;6;;cal_1.sub;
Comment :
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Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.175	6.175	(1.000)	553271	40.0000	
$	2 2-Fluorophenol	112	4.745	4.746	(0.768)	1904857	112.439	112.4(AR)
$	3 Phenol-d6	99	5.773	5.773	(0.935)	2480986	115.210	115.2(AR)
	4 Pyridine	79	3.372	3.379	(0.546)	1252929	57.5312	57.53
	6 N-Nitroso-di-methylamine	42	3.338	3.345	(0.540)	485489	61.2953	61.30
	7 Aniline	93	5.807	5.814	(0.940)	1574738	58.3772	58.38
	10 Phenol	94	5.786	5.787	(0.937)	1294074	57.9383	57.94
	11 bis(2-Chloroethyl)ether	93	5.889	5.889	(0.954)	1077129	57.8203	57.82
	12 2-Chlorophenol	128	5.937	5.937	(0.961)	999796	55.5334	55.53
	13 1,3-Dichlorobenzene	146	6.107	6.107	(0.989)	1099440	56.3476	56.35
	14 1,4-Dichlorobenzene	146	6.196	6.196	(1.003)	1089092	57.0748	57.07
	15 Benzyl alcohol	108	6.346	6.339	(1.028)	678410	57.7513	57.75
	16 1,2-Dichlorobenzene	146	6.360	6.360	(1.030)	990170	54.4569	54.46
	17 2-Methylphenol	108	6.463	6.462	(1.046)	837080	53.3048	53.30
	18 2,2'-Oxybis-1-chloropropane	45	6.497	6.496	(1.052)	1421343	53.0822	53.08
	19 3-Methylphenol	108	6.653	6.654	(1.077)	902197	54.9964	55.00
	20 4-Methylphenol	108	6.653	6.654	(1.077)	902197	54.9964	55.00
	21 N-Nitroso-di-n-propylamine	70	6.660	6.660	(1.078)	622836	53.9797	53.98
	22 Hexachloroethane	117	6.749	6.749	(1.093)	451334	56.9949	56.99
*	33 Naphthalene-d8	136	7.658	7.659	(1.000)	1667066	40.0000	
$	34 Nitrobenzene-d5	82	6.811	6.811	(0.889)	884416	57.4805	57.48(R)
	35 Nitrobenzene	77	6.838	6.838	(0.893)	888459	59.4583	59.46
	39 Isophorone	82	7.131	7.132	(0.931)	1865727	58.0251	58.02
	40 2-Nitrophenol	139	7.206	7.207	(0.941)	585801	62.7182	62.72
	42 2,4-Dimethylphenol	107	7.268	7.269	(0.949)	868092	60.9448	60.94
	43 Benzoic acid	105	7.452	7.447	(0.973)	702486	61.5077	61.51

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.390	7.385	(0.965)	1109357	57.9725	57.97
	47 2,4-Dichlorophenol	162	7.493	7.495	(0.978)	799204	60.3377	60.34
	50 1,2,4-Trichlorobenzene	180	7.589	7.591	(0.991)	873533	60.8542	60.85
	51 Naphthalene	128	7.685	7.680	(1.004)	2249245	56.0543	56.05
	52 4-Chloroaniline	127	7.754	7.755	(1.013)	1020838	55.5747	55.57
	53 Hexachlorobutadiene	225	7.837	7.837	(1.023)	411964	56.0575	56.06
	54 4-Chloro-3-methylphenol	107	8.336	8.336	(1.089)	698245	59.2567	59.26
	55 2-Methylnaphthalene	141	8.513	8.513	(1.112)	1137502	55.3165	55.32
	56 1-Methylnaphthalene	141	8.637	8.637	(1.128)	1205472	56.9426	56.94
*	69 Acenaphthene-d10	164	9.782	9.784	(1.000)	823163	40.0000	
	70 Hexachlorocyclopentadiene	237	8.706	8.706	(0.890)	430810	59.7956	59.80
	71 2,4,6-Trichlorophenol	196	8.863	8.857	(0.906)	474784	57.5446	57.54
	72 2,4,5-Trichlorophenol	196	8.898	8.898	(0.910)	518826	58.3779	58.38
	73 2-Chloronaphthalene	162	9.103	9.104	(0.931)	1314482	56.0187	56.02
$	74 2-Fluorobiphenyl	172	8.972	8.967	(0.917)	1521269	56.8683	56.87(R)
	75 2-Nitroaniline	65	9.240	9.242	(0.945)	425061	63.5267	63.53
	76 Dimethylphthalate	163	9.494	9.489	(0.970)	1545676	56.8325	56.83
	77 Acenaphthylene	152	9.611	9.606	(0.982)	2091892	58.2755	58.28
	78 2,6-Dinitrotoluene	165	9.549	9.551	(0.976)	447484	62.4263	62.43
	79 3-Nitroaniline	138	9.755	9.750	(0.997)	434542	60.6288	60.63
	80 Acenaphthene	153	9.824	9.825	(1.004)	1299250	58.3145	58.31
	81 2,4-Dinitrophenol	184	9.879	9.881	(1.010)	198252	59.1890	59.19
	83 4-Nitrophenol	65	9.961	9.956	(1.018)	260231	63.9427	63.94
	84 Dibenzofuran	168	10.037	10.032	(1.026)	1761621	57.1527	57.15
	85 2,4-Dinitrotoluene	165	10.037	10.039	(1.026)	467646	60.7707	60.77
	86 Diethylphthalate	149	10.352	10.347	(1.058)	1510477	61.5913	61.59
	87 4-Chlorophenyl-phenylether	204	10.462	10.464	(1.070)	652090	59.4044	59.40
	88 Fluorene	166	10.455	10.457	(1.069)	1378321	58.3909	58.39
	89 4-Nitroaniline	138	10.497	10.492	(1.073)	296062	62.3015	62.30
	96 2,3,4,6-Tetrachlorophenol	232	10.188	10.190	(1.041)	424416	61.2874	61.29
*	102 Phenanthrene-d10	188	11.594	11.595	(1.000)	1198242	40.0000	
	103 1,2-Diphenylhydrazine	77	10.655	10.657	(0.919)	1437570	57.4904	57.49
	104 Carbazole	167	11.888	11.890	(1.025)	1536428	55.8193	55.82
	105 4,6-Dinitro-2-methylphenol	198	10.531	10.533	(0.908)	255532	60.2263	60.23
	106 N-Nitrosodiphenylamine	169	10.613	10.616	(0.915)	1123725	56.8453	56.84
$	107 2,4,6-Tribromophenol	330	10.751	10.753	(0.927)	516822	119.063	119.1(AR)
	108 4-Bromophenyl-phenylether	248	11.059	11.062	(0.954)	416885	60.4294	60.43
	109 Hexachlorobenzene	284	11.121	11.122	(0.959)	457334	58.7610	58.76
	110 Pentachlorophenol	266	11.368	11.369	(0.980)	318101	59.6989	59.70
	111 Phenanthrene	178	11.628	11.629	(1.003)	1773956	56.0018	56.00
	112 Anthracene	178	11.689	11.691	(1.008)	1725718	54.5272	54.53
	115 Di-n-butylphthalate	149	12.347	12.349	(1.065)	2235695	54.2613	54.26
	116 Fluoranthene	202	13.080	13.075	(1.128)	1801078	56.0416	56.04
*	132 Chrysene-d12	240	14.846	14.849	(1.000)	940552	40.0000	
	134 Pyrene	202	13.353	13.355	(0.899)	1832919	60.0127	60.01
$	135 Terphenyl-d14	244	13.564	13.560	(0.914)	1196732	62.6733	62.67(R)
	136 Butylbenzylphthalate	149	14.177	14.180	(0.955)	1169159	64.6157	64.62

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
	138 Benzo(a)anthracene	228	14.833	14.836	(0.999)	1656961	61.8835	61.88
	139 Chrysene	228	14.880	14.884	(1.002)	1611803	61.0530	61.05
	140 Bis(2-ethylhexyl)phthalate	149	14.908	14.911	(1.004)	1532881	63.5952	63.60
*	154 Perylene-d12	264	16.594	16.597	(1.000)	848481	40.0000	
	155 Di-n-octylphthalate	149	15.713	15.711	(0.947)	2448182	64.3722	64.37
	156 Benzo(b)fluoranthene	252	16.151	16.148	(0.973)	1407852	60.3371	60.34
	157 Benzo(k)fluoranthene	252	16.185	16.189	(0.975)	1584988	61.5125	61.51
	158 Benzo(a)pyrene	252	16.533	16.530	(0.996)	1335474	60.3037	60.30
	159 Indeno(1,2,3-cd)pyrene	276	17.952	17.956	(1.082)	1042241	53.2424	53.24
	160 Dibenz(a,h)anthracene	278	17.979	17.976	(1.083)	867894	53.3860	53.38
	161 Benzo(g,h,i)perylene	276	18.336	18.340	(1.105)	853015	52.9874	52.99

QC Flag Legend

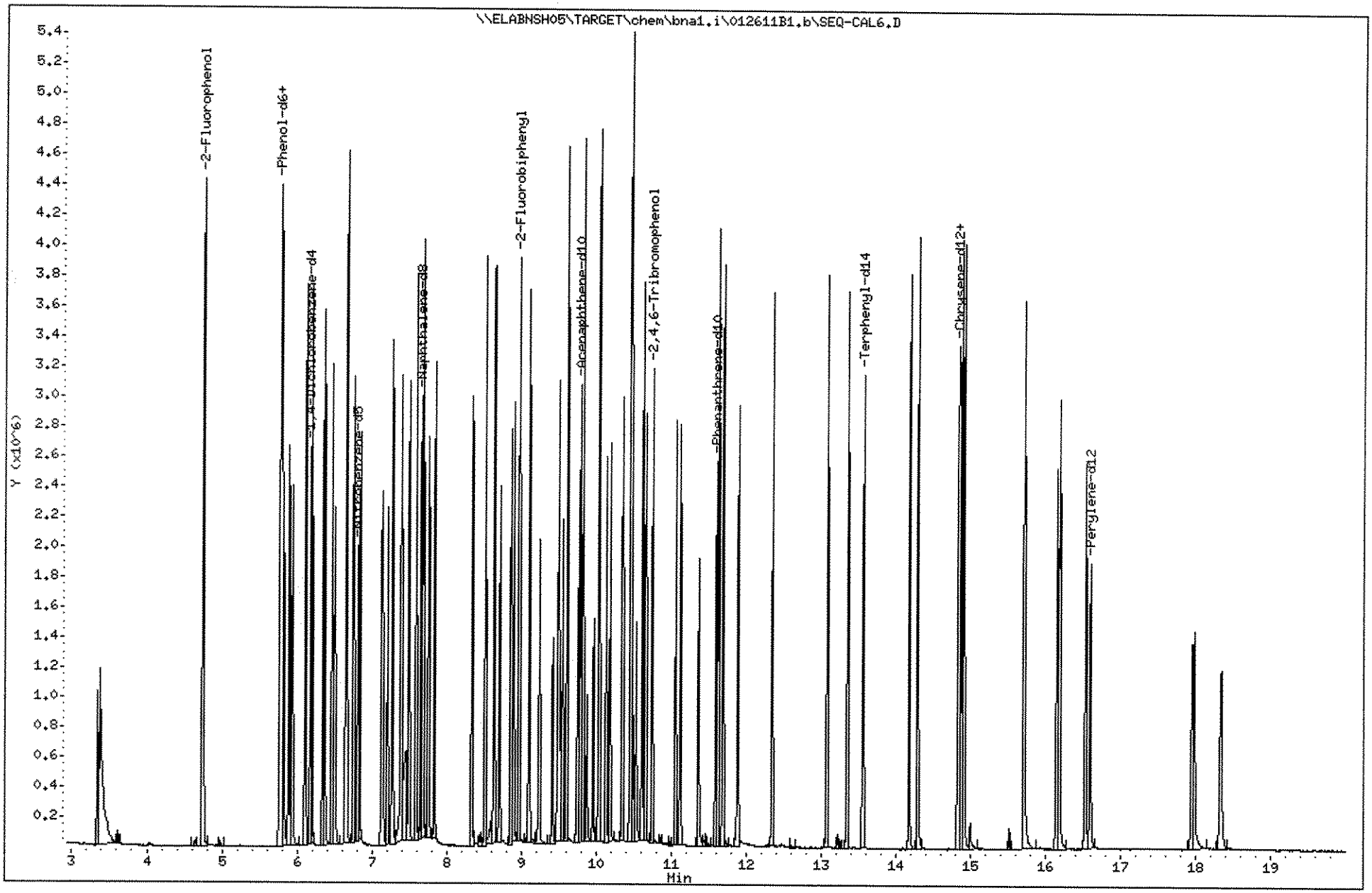
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL6.D
Date : 26-JAN-2011 18:03
Client ID: CAL60PPM
Sample Info: CAL60PPM;;;;;;11A0530

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



339

1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Report Date: 27-Jan-2011 15:26

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Lab Smp Id: SEQ-CAL7 Client Smp ID: CAL80PPM
Inj Date : 26-JAN-2011 18:31 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
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Misc Info : ;1;;;7;;cal_1.sub;
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Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	553356	40.0000	
$	2 2-Fluorophenol	112	4.746	4.746	(0.769)	2328976	137.452	137.4(AR)
$	3 Phenol-d6	99	5.780	5.773	(0.936)	2987480	138.709	138.7(AR)
	4 Pyridine	79	3.370	3.379	(0.546)	1745346	80.1294	80.13
	6 N-Nitroso-di-methylamine	42	3.343	3.345	(0.542)	607004	76.6254	76.62
	7 Aniline	93	5.814	5.814	(0.942)	2034627	75.4142	75.41
	10 Phenol	94	5.793	5.787	(0.938)	1575013	70.5057	70.50
	11 bis(2-Chloroethyl)ether	93	5.896	5.889	(0.955)	1428606	76.6758	76.68
	12 2-Chlorophenol	128	5.936	5.937	(0.962)	1411480	78.3883	78.39
	13 1,3-Dichlorobenzene	146	6.105	6.107	(0.989)	1403597	71.9249	71.92
	14 1,4-Dichlorobenzene	146	6.194	6.196	(1.003)	1330476	69.7140	69.71
	15 Benzyl alcohol	108	6.350	6.339	(1.029)	884023	75.2430	75.24
	16 1,2-Dichlorobenzene	146	6.364	6.360	(1.031)	1275860	70.1583	70.16
	17 2-Methylphenol	108	6.467	6.462	(1.048)	1119895	71.3033	71.30
	18 2,2'-Oxybis-1-chloropropane	45	6.501	6.496	(1.053)	1721151	64.2691	64.27
	19 3-Methylphenol	108	6.658	6.654	(1.079)	1205630	73.4819	73.48
	20 4-Methylphenol	108	6.658	6.654	(1.079)	1205630	73.4819	73.48
	21 N-Nitroso-di-n-propylamine	70	6.665	6.660	(1.080)	839460	72.7428	72.74
	22 Hexachloroethane	117	6.747	6.749	(1.093)	574957	72.5949	72.59
*	33 Naphthalene-d8	136	7.655	7.659	(1.000)	1693655	40.0000	
$	34 Nitrobenzene-d5	82	6.816	6.811	(0.890)	1175013	75.1682	75.17(R)
	35 Nitrobenzene	77	6.843	6.838	(0.894)	1071755	70.5990	70.60
	39 Isophorone	82	7.137	7.132	(0.932)	2495109	76.3810	76.38
	40 2-Nitrophenol	139	7.211	7.207	(0.942)	728001	76.7190	76.72
	42 2,4-Dimethylphenol	107	7.272	7.269	(0.950)	1051343	72.6513	72.65
	43 Benzoic acid	105	7.478	7.447	(0.977)	941492	79.7377	79.74

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Report Date: 27-Jan-2011 15:26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.389	7.385	(0.965)	1402932	72.1631	72.16
	47 2,4-Dichlorophenol	162	7.499	7.495	(0.980)	1048248	77.8974	77.90
	50 1,2,4-Trichlorobenzene	180	7.588	7.591	(0.991)	1052276	72.1553	72.16
	51 Naphthalene	128	7.682	7.680	(1.004)	2722293	66.7782	66.78
	52 4-Chloroaniline	127	7.758	7.755	(1.013)	1357205	72.7266	72.73
	53 Hexachlorobutadiene	225	7.840	7.837	(1.024)	537015	71.9265	71.93
	54 4-Chloro-3-methylphenol	107	8.342	8.336	(1.090)	881563	73.6396	73.64
	55 2-Methylnaphthalene	141	8.520	8.513	(1.113)	1518728	72.6960	72.70
	56 1-Methylnaphthalene	141	8.635	8.637	(1.128)	1500140	69.7493	69.75
*	69 Acenaphthene-d10	164	9.783	9.784	(1.000)	774297	40.0000	
	70 Hexachlorocyclopentadiene	237	8.711	8.706	(0.890)	580076	85.5946	85.59
	71 2,4,6-Trichlorophenol	196	8.861	8.857	(0.906)	657396	84.7059	84.70
	72 2,4,5-Trichlorophenol	196	8.901	8.898	(0.910)	665163	79.5671	79.57
	73 2-Chloronaphthalene	162	9.109	9.104	(0.931)	1579373	71.5553	71.56
$	74 2-Fluorobiphenyl	172	8.969	8.967	(0.917)	1916591	76.1679	76.17(R)
	75 2-Nitroaniline	65	9.244	9.242	(0.945)	512450	81.4208	81.42
	76 Dimethylphthalate	163	9.497	9.489	(0.971)	1930142	75.4476	75.45
	77 Acenaphthylene	152	9.613	9.606	(0.983)	2285467	67.6862	67.69
	78 2,6-Dinitrotoluene	165	9.558	9.551	(0.977)	519601	77.0617	77.06
	79 3-Nitroaniline	138	9.756	9.750	(0.997)	570418	84.6094	84.61
	80 Acenaphthene	153	9.824	9.825	(1.004)	1577116	75.2533	75.25
	81 2,4-Dinitrophenol	184	9.879	9.881	(1.010)	267951	80.7267	80.73
	83 4-Nitrophenol	65	9.968	9.956	(1.019)	341847	89.2981	89.30
	84 Dibenzofuran	168	10.036	10.032	(1.026)	1970295	67.9569	67.96
	85 2,4-Dinitrotoluene	165	10.042	10.039	(1.027)	531147	73.3787	73.38
	86 Diethylphthalate	149	10.354	10.347	(1.058)	1803466	79.5759	79.58
	87 4-Chlorophenyl-phenylether	204	10.468	10.464	(1.070)	782922	75.8242	75.82
	88 Fluorene	166	10.454	10.457	(1.069)	1671889	75.2974	75.30
	89 4-Nitroaniline	138	10.500	10.492	(1.073)	410921	91.9289	91.93
	96 2,3,4,6-Tetrachlorophenol	232	10.192	10.190	(1.042)	491821	75.5031	75.50
*	102 Phenanthrene-d10	188	11.596	11.595	(1.000)	1172124	40.0000	
	103 1,2-Diphenylhydrazine	77	10.658	10.657	(0.919)	1709862	69.9034	69.90
	104 Carbazole	167	11.895	11.890	(1.026)	1846851	68.5923	68.59
	105 4,6-Dinitro-2-methylphenol	198	10.542	10.533	(0.909)	331186	78.3423	78.34
	106 N-Nitrosodiphenylamine	169	10.617	10.616	(0.916)	1462563	75.6346	75.63
$	107 2,4,6-Tribromophenol	330	10.753	10.753	(0.927)	680878	160.353	160.4(AR)
	108 4-Bromophenyl-phenylether	248	11.062	11.062	(0.954)	519203	76.9378	76.94
	109 Hexachlorobenzene	284	11.123	11.122	(0.959)	607900	79.8470	79.85
	110 Pentachlorophenol	266	11.365	11.369	(0.980)	423735	80.2322	80.23
	111 Phenanthrene	178	11.629	11.629	(1.003)	2190584	70.6952	70.70
	112 Anthracene	178	11.689	11.691	(1.008)	2312195	74.6859	74.68
	115 Di-n-butylphthalate	149	12.350	12.349	(1.065)	2939148	72.9239	72.92
	116 Fluoranthene	202	13.079	13.075	(1.128)	2361205	75.1075	75.11
*	132 Chrysene-d12	240	14.853	14.849	(1.000)	937869	40.0000	
	134 Pyrene	202	13.357	13.355	(0.899)	2284968	75.0275	75.03
$	135 Terphenyl-d14	244	13.565	13.560	(0.913)	1466780	77.0356	77.04(R)
	136 Butylbenzylphthalate	149	14.177	14.180	(0.954)	1374899	76.2037	76.20

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Report Date: 27-Jan-2011 15:26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.832	14.836	(0.999)	2036979	76.2939	76.29
139	Chrysene	228	14.884	14.884	(1.002)	1940094	73.6985	73.70
140	Bis(2-ethylhexyl)phthalate	149	14.909	14.911	(1.004)	1733472	72.1230	72.12
* 154	Perylene-d12	264	16.598	16.597	(1.000)	897434	40.0000	
155	Di-n-octylphthalate	149	15.716	15.711	(0.947)	3100269	77.0715	77.07
156	Benzo(b)fluoranthene	252	16.154	16.148	(0.973)	1925673	78.0279	78.03
157	Benzo(k)fluoranthene	252	16.187	16.189	(0.975)	2114824	77.5981	77.60
158	Benzo(a)pyrene	252	16.540	16.530	(0.996)	1884318	80.4456	80.44
159	Indeno(1,2,3-cd)pyrene	276	17.959	17.956	(1.082)	1750302	84.5361	84.54
160	Dibenz(a,h)anthracene	278	17.984	17.976	(1.083)	1474750	85.7667	85.77
161	Benzo(g,h,i)perylene	276	18.345	18.340	(1.105)	1402849	82.3884	82.39

QC Flag Legend

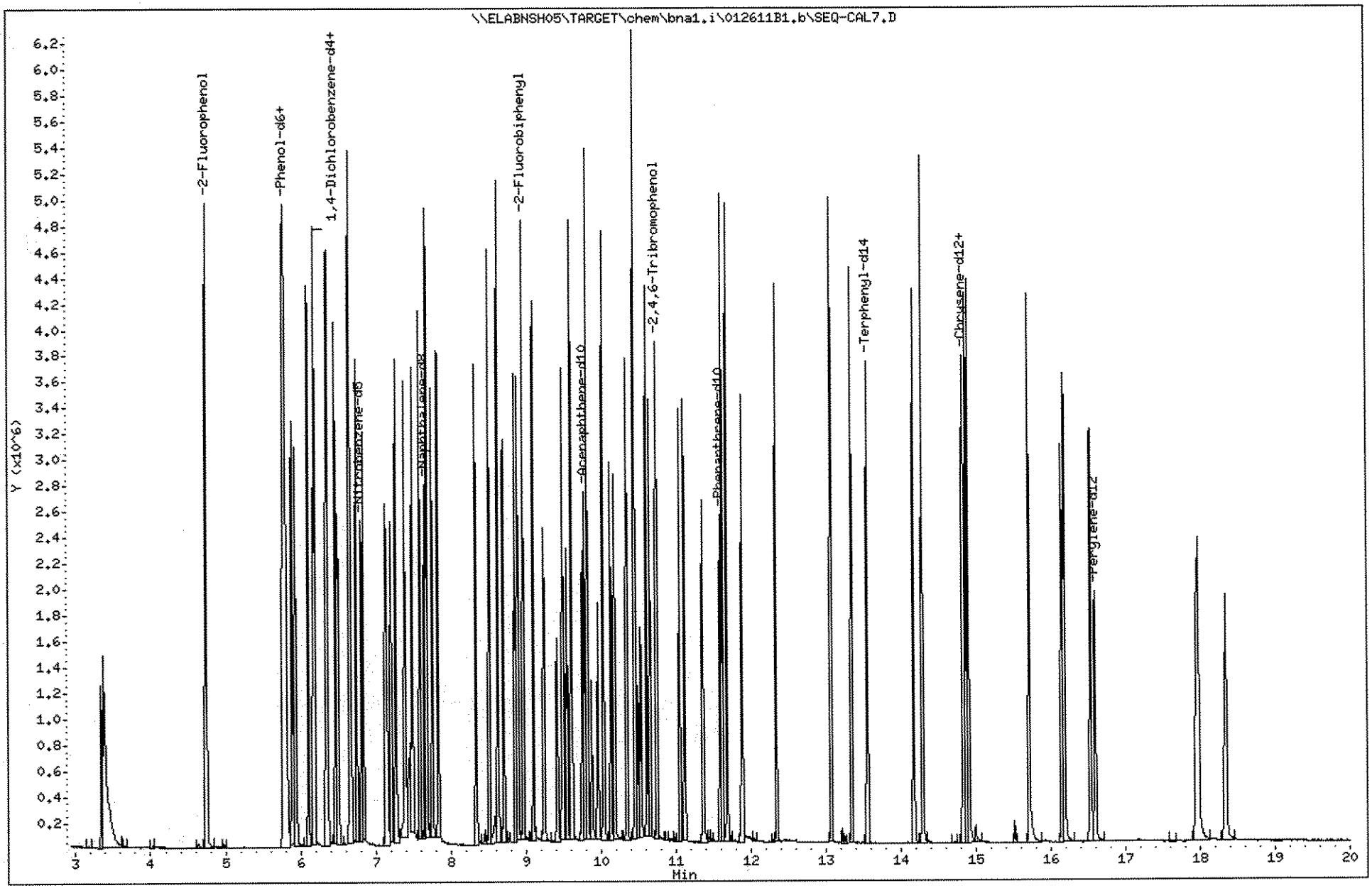
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Date : 26-JAN-2011 18:31
Client ID: CAL80PPM
Sample Info: CAL80PPM;;;;;;11A0531

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



343

1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Lab Smp Id: SEQ-CAL7 Client Smp ID: CAL80PPM
Inj Date : 26-JAN-2011 18:31 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL80PPM;;;;;;11A0531
Misc Info : ;1;;;7;;cal_1.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	553356	40.0000	
$	2 2-Fluorophenol	112	4.746	4.746	(0.769)	2328976	137.452	137.4(AR)
$	3 Phenol-d6	99	5.780	5.773	(0.936)	2987480	138.709	138.7(AR)
	4 Pyridine	79	3.370	3.379	(0.546)	1745346	80.1294	80.13
	6 N-Nitroso-di-methylamine	42	3.343	3.345	(0.542)	607004	76.6254	76.62
	7 Aniline	93	5.814	5.814	(0.942)	2034627	75.4142	75.41
	10 Phenol	94	5.793	5.787	(0.938)	1575013	70.5057	70.50
	11 bis(2-Chloroethyl)ether	93	5.896	5.889	(0.955)	1428606	76.6758	76.68
	12 2-Chlorophenol	128	5.936	5.937	(0.962)	1411480	78.3883	78.39
	13 1,3-Dichlorobenzene	146	6.105	6.107	(0.989)	1403597	71.9249	71.92
	14 1,4-Dichlorobenzene	146	6.194	6.196	(1.003)	1330476	69.7140	69.71
	15 Benzyl alcohol	108	6.350	6.339	(1.029)	884023	75.2430	75.24
	16 1,2-Dichlorobenzene	146	6.364	6.360	(1.031)	1275860	70.1583	70.16
	17 2-Methylphenol	108	6.467	6.462	(1.048)	1119895	71.3033	71.30
	18 2,2'-Oxybis-1-chloropropane	45	6.501	6.496	(1.053)	1721151	64.2691	64.27
	19 3-Methylphenol	108	6.658	6.654	(1.079)	1205630	73.4819	73.48
	20 4-Methylphenol	108	6.658	6.654	(1.079)	1205630	73.4819	73.48
	21 N-Nitroso-di-n-propylamine	70	6.665	6.660	(1.080)	839460	72.7428	72.74
	22 Hexachloroethane	117	6.747	6.749	(1.093)	574957	72.5949	72.59
*	33 Naphthalene-d8	136	7.655	7.659	(1.000)	1693655	40.0000	
$	34 Nitrobenzene-d5	82	6.816	6.811	(0.890)	1175013	75.1682	75.17(R)
	35 Nitrobenzene	77	6.843	6.838	(0.894)	1071755	70.5990	70.60
	39 Isophorone	82	7.137	7.132	(0.932)	2495109	76.3810	76.38
	40 2-Nitrophenol	139	7.211	7.207	(0.942)	728001	76.7190	76.72
	42 2,4-Dimethylphenol	107	7.272	7.269	(0.950)	1051343	72.6513	72.65
	43 Benzoic acid	105	7.478	7.447	(0.977)	941492	79.7377	79.74

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Report Date: 27-Jan-2011 15:21

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
	44	bis(2-Chloroethoxy)methane	93	7.389	7.385	(0.965)	1402932	72.1631	72.16
	47	2,4-Dichlorophenol	162	7.499	7.495	(0.980)	1048248	77.8974	77.90
	50	1,2,4-Trichlorobenzene	180	7.588	7.591	(0.991)	1052276	72.1553	72.16
	51	Naphthalene	128	7.682	7.680	(1.004)	2722293	66.7782	66.78
	52	4-Chloroaniline	127	7.758	7.755	(1.013)	1357205	72.7266	72.73
	53	Hexachlorobutadiene	225	7.840	7.837	(1.024)	537015	71.9265	71.93
	54	4-Chloro-3-methylphenol	107	8.342	8.336	(1.090)	881563	73.6396	73.64
	55	2-Methylnaphthalene	141	8.520	8.513	(1.113)	1518728	72.6960	72.70
	56	1-Methylnaphthalene	141	8.635	8.637	(1.128)	1500140	69.7493	69.75
*	69	Acenaphthene-d10	164	9.783	9.784	(1.000)	774297	40.0000	
	70	Hexachlorocyclopentadiene	237	8.711	8.706	(0.890)	580076	85.5946	85.59
	71	2,4,6-Trichlorophenol	196	8.861	8.857	(0.906)	657396	84.7059	84.70
	72	2,4,5-Trichlorophenol	196	8.901	8.898	(0.910)	665163	79.5671	79.57
	73	2-Chloronaphthalene	162	9.109	9.104	(0.931)	1579373	71.5553	71.56
$	74	2-Fluorobiphenyl	172	8.969	8.967	(0.917)	1916591	76.1679	76.17(R)
	75	2-Nitroaniline	65	9.244	9.242	(0.945)	512450	81.4208	81.42
	76	Dimethylphthalate	163	9.497	9.489	(0.971)	1930142	75.4476	75.45
	77	Acenaphthylene	152	9.613	9.606	(0.983)	2285467	67.6862	67.69
	78	2,6-Dinitrotoluene	165	9.558	9.551	(0.977)	519601	77.0617	77.06
	79	3-Nitroaniline	138	9.756	9.750	(0.997)	570418	84.6094	84.61
	80	Acenaphthene	153	9.824	9.825	(1.004)	1577116	75.2533	75.25
	81	2,4-Dinitrophenol	184	9.879	9.881	(1.010)	267951	80.7267	80.73
	83	4-Nitrophenol	65	9.968	9.956	(1.019)	341847	89.2981	89.30
	84	Dibenzofuran	168	10.036	10.032	(1.026)	1970295	67.9569	67.96
	85	2,4-Dinitrotoluene	165	10.042	10.039	(1.027)	531147	73.3787	73.38
	86	Diethylphthalate	149	10.354	10.347	(1.058)	1803466	79.5759	79.58
	87	4-Chlorophenyl-phenylether	204	10.468	10.464	(1.070)	782922	75.8242	75.82
	88	Fluorene	166	10.454	10.457	(1.069)	1671889	75.2974	75.30
	89	4-Nitroaniline	138	10.500	10.492	(1.073)	410921	91.9289	91.93
	96	2,3,4,6-Tetrachlorophenol	232	10.192	10.190	(1.042)	491821	75.5031	75.50
*	102	Phenanthrene-d10	188	11.596	11.595	(1.000)	1172124	40.0000	
	103	1,2-Diphenylhydrazine	77	10.658	10.657	(0.919)	1709862	69.9034	69.90
	104	Carbazole	167	11.895	11.890	(1.026)	1846851	68.5923	68.59
	105	4,6-Dinitro-2-methylphenol	198	10.542	10.533	(0.909)	331186	78.3423	78.34
	106	N-Nitrosodiphenylamine	169	10.617	10.616	(0.916)	1462563	75.6346	75.63
$	107	2,4,6-Tribromophenol	330	10.753	10.753	(0.927)	680878	160.353	160.4(AR)
	108	4-Bromophenyl-phenylether	248	11.062	11.062	(0.954)	519203	76.9378	76.94
	109	Hexachlorobenzene	284	11.123	11.122	(0.959)	607900	79.8470	79.85
	110	Pentachlorophenol	266	11.365	11.369	(0.980)	423735	80.2322	80.23
	111	Phenanthrene	178	11.629	11.629	(1.003)	2190584	70.6952	70.70
	112	Anthracene	178	11.689	11.691	(1.008)	2312195	74.6859	74.68
	115	Di-n-butylphthalate	149	12.350	12.349	(1.065)	2939148	72.9239	72.92
	116	Fluoranthene	202	13.079	13.075	(1.128)	2361205	75.1075	75.11
*	132	Chrysene-d12	240	14.853	14.849	(1.000)	937869	40.0000	
	134	Pyrene	202	13.357	13.355	(0.899)	2284968	75.0275	75.03
$	135	Terphenyl-d14	244	13.565	13.560	(0.913)	1466780	77.0356	77.04(R)
	136	Butylbenzylphthalate	149	14.177	14.180	(0.954)	1374899	76.2037	76.20

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.832	14.836	(0.999)	2036979	76.2939	76.29
139	Chrysene	228	14.884	14.884	(1.002)	1940094	73.6985	73.70
140	Bis(2-ethylhexyl)phthalate	149	14.909	14.911	(1.004)	1733472	72.1230	72.12
* 154	Perylene-d12	264	16.598	16.597	(1.000)	897434	40.0000	
155	Di-n-octylphthalate	149	15.716	15.711	(0.947)	3100269	77.0715	77.07
156	Benzo(b)fluoranthene	252	16.154	16.148	(0.973)	1925673	78.0279	78.03
157	Benzo(k)fluoranthene	252	16.187	16.189	(0.975)	2114824	77.5981	77.60
158	Benzo(a)pyrene	252	16.540	16.530	(0.996)	1884318	80.4456	80.44
159	Indeno(1,2,3-cd)pyrene	276	17.959	17.956	(1.082)	1750302	84.5361	84.54
160	Dibenz(a,h)anthracene	278	17.984	17.976	(1.083)	1474750	85.7667	85.77
161	Benzo(g,h,i)perylene	276	18.345	18.340	(1.105)	1402849	82.3884	82.39

QC Flag Legend

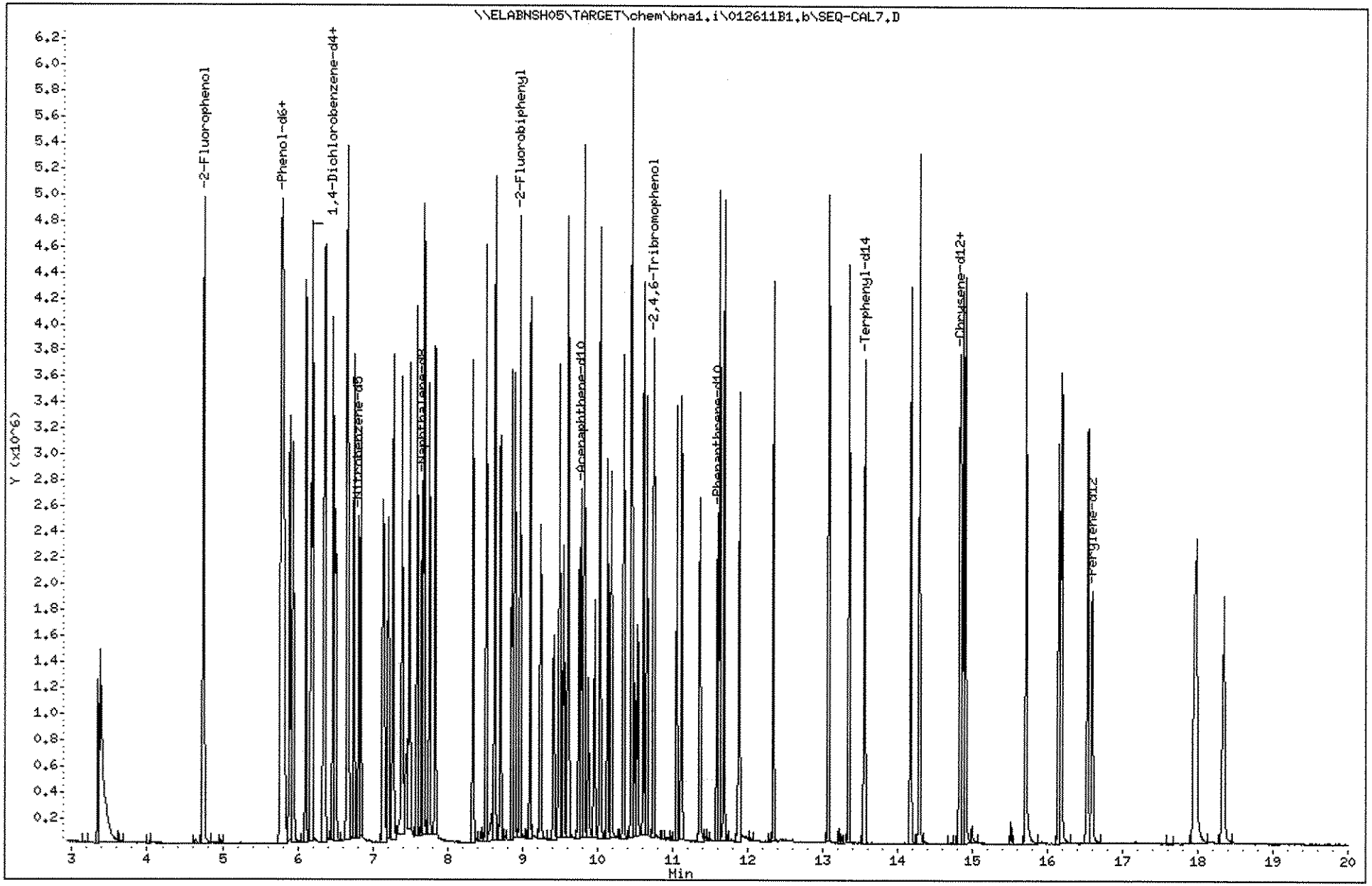
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL7.D
Date : 26-JAN-2011 18:31
Client ID: CAL80PPM
Sample Info: CAL80PPM;;;;;;11A0531

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



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Report Date: 27-Jan-2011 15:26

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Lab Smp Id: SEQ-CAL8 Client Smp ID: CAL100PPM
Inj Date : 26-JAN-2011 19:00 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
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Misc Info : ;1;;;8;;cal_1.sub;
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Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	488941	40.0000	
$	2 2-Fluorophenol	112	4.752	4.746	(0.770)	2701192	180.422	180.4(AR)
$	3 Phenol-d6	99	5.786	5.773	(0.937)	3534178	185.710	185.7(AR)
	4 Pyridine	79	3.372	3.379	(0.546)	1975346	102.637	102.6(A)
	6 N-Nitroso-di-methylamine	42	3.345	3.345	(0.542)	755791	107.977	108.0(A)
	7 Aniline	93	5.813	5.814	(0.942)	2214477	92.8939	92.89
	10 Phenol	94	5.799	5.787	(0.939)	1777509	90.0534	90.05
	11 bis(2-Chloroethyl)ether	93	5.894	5.889	(0.955)	1477944	89.7743	89.77
	12 2-Chlorophenol	128	5.935	5.937	(0.961)	1540304	96.8124	96.81
	13 1,3-Dichlorobenzene	146	6.112	6.107	(0.990)	1594112	92.4494	92.45
	14 1,4-Dichlorobenzene	146	6.194	6.196	(1.003)	1457115	86.4082	86.41
	15 Benzyl alcohol	108	6.351	6.339	(1.029)	933428	89.9149	89.91
	16 1,2-Dichlorobenzene	146	6.365	6.360	(1.031)	1369826	85.2491	85.25
	17 2-Methylphenol	108	6.473	6.462	(1.048)	1289309	92.9047	92.90
	18 2,2'-Oxybis-1-chloropropane	45	6.500	6.496	(1.053)	2211173	93.4446	93.44
	19 3-Methylphenol	108	6.664	6.654	(1.079)	1301822	89.7979	89.80
	20 4-Methylphenol	108	6.664	6.654	(1.079)	1301822	89.7979	89.80
	21 N-Nitroso-di-n-propylamine	70	6.671	6.660	(1.081)	909066	89.1525	89.15
	22 Hexachloroethane	117	6.753	6.749	(1.094)	636769	90.9915	90.99
*	33 Naphthalene-d8	136	7.661	7.659	(1.000)	1584368	40.0000	
$	34 Nitrobenzene-d5	82	6.821	6.811	(0.890)	1355725	92.7112	92.71(R)
	35 Nitrobenzene	77	6.842	6.838	(0.893)	1234154	86.9042	86.90
	39 Isophorone	82	7.143	7.132	(0.932)	2808755	91.9133	91.91
	40 2-Nitrophenol	139	7.210	7.207	(0.941)	863933	97.3240	97.32
	42 2,4-Dimethylphenol	107	7.278	7.269	(0.950)	1164409	86.0148	86.01
	43 Benzoic acid	105	7.484	7.447	(0.977)	1117194	99.9652	99.96

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Report Date: 27-Jan-2011 15:26

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
44	bis(2-Chloroethoxy)methane	93	7.395	7.385	(0.965)	1616978	88.9102	88.91
47	2,4-Dichlorophenol	162	7.498	7.495	(0.979)	1205758	95.7829	95.78
50	1,2,4-Trichlorobenzene	180	7.593	7.591	(0.991)	1218706	89.3319	89.33
51	Naphthalene	128	7.688	7.680	(1.004)	3203244	83.9960	84.00
52	4-Chloroaniline	127	7.756	7.755	(1.012)	1640339	93.9616	93.96
53	Hexachlorobutadiene	225	7.837	7.837	(1.023)	654294	93.6794	93.68
54	4-Chloro-3-methylphenol	107	8.342	8.336	(1.089)	995041	88.8521	88.85
55	2-Methylnaphthalene	141	8.519	8.513	(1.112)	1698606	86.9144	86.91
56	1-Methylnaphthalene	141	8.636	8.637	(1.127)	1760713	87.5115	87.51
* 69	Acenaphthene-d10	164	9.783	9.784	(1.000)	740127	40.0000	
70	Hexachlorocyclopentadiene	237	8.711	8.706	(0.890)	690761	106.633	106.6(A)
71	2,4,6-Trichlorophenol	196	8.862	8.857	(0.906)	772316	104.108	104.1(A)
72	2,4,5-Trichlorophenol	196	8.904	8.898	(0.910)	755639	94.5629	94.56
73	2-Chloronaphthalene	162	9.108	9.104	(0.931)	1965666	93.1683	93.17
$ 74	2-Fluorobiphenyl	172	8.971	8.967	(0.917)	2204486	91.6540	91.65(R)
75	2-Nitroaniline	65	9.245	9.242	(0.945)	606676	100.842	100.8(A)
76	Dimethylphthalate	163	9.503	9.489	(0.971)	2152871	88.0391	88.04
77	Acenaphthylene	152	9.612	9.606	(0.983)	2808636	87.0206	87.02
78	2,6-Dinitrotoluene	165	9.558	9.551	(0.977)	639721	99.2568	99.26
79	3-Nitroaniline	138	9.762	9.750	(0.998)	648745	100.670	100.7(A)
80	Acenaphthene	153	9.830	9.825	(1.005)	1682962	84.0113	84.01
81	2,4-Dinitrophenol	184	9.884	9.881	(1.010)	330260	101.230	101.2(A)
83	4-Nitrophenol	65	9.973	9.956	(1.019)	364472	99.6038	99.60
84	Dibenzofuran	168	10.041	10.032	(1.026)	2373233	85.6336	85.63
85	2,4-Dinitrotoluene	165	10.048	10.039	(1.027)	699324	101.073	101.1(A)
86	Diethylphthalate	149	10.355	10.347	(1.058)	2101448	98.1407	98.14
87	4-Chlorophenyl-phenylether	204	10.465	10.464	(1.070)	841934	85.3038	85.30
88	Fluorene	166	10.458	10.457	(1.069)	1779121	83.8262	83.83
89	4-Nitroaniline	138	10.511	10.492	(1.074)	489362	114.532	114.5(A)
96	2,3,4,6-Tetrachlorophenol	232	10.191	10.190	(1.042)	608674	97.7561	97.76
* 102	Phenanthrene-d10	188	11.597	11.595	(1.000)	1111588	40.0000	
103	1,2-Diphenylhydrazine	77	10.661	10.657	(0.919)	1747214	75.3205	75.32
104	Carbazole	167	11.893	11.890	(1.025)	2156572	84.4573	84.46
105	4,6-Dinitro-2-methylphenol	198	10.545	10.533	(0.909)	405200	99.7720	99.77
106	N-Nitrosodiphenylamine	169	10.620	10.616	(0.916)	1606990	87.6292	87.63
$ 107	2,4,6-Tribromophenol	330	10.760	10.753	(0.928)	759635	188.644	188.6(AR)
108	4-Bromophenyl-phenylether	248	11.063	11.062	(0.954)	571277	89.2646	89.26
109	Hexachlorobenzene	284	11.124	11.122	(0.959)	663972	91.9615	91.96
110	Pentachlorophenol	266	11.368	11.369	(0.980)	505882	100.242	100.2(A)
111	Phenanthrene	178	11.629	11.629	(1.003)	2570081	87.4594	87.46
112	Anthracene	178	11.697	11.691	(1.009)	2617980	89.1682	89.17
115	Di-n-butylphthalate	149	12.345	12.349	(1.064)	3370665	88.1848	88.18
116	Fluoranthene	202	13.080	13.075	(1.128)	2785731	93.4369	93.44
* 132	Chrysene-d12	240	14.854	14.849	(1.000)	979203	40.0000	
134	Pyrene	202	13.361	13.355	(0.899)	2610125	82.0864	82.09
$ 135	Terphenyl-d14	244	13.564	13.560	(0.913)	1789089	89.9970	90.00(R)
136	Butylbenzylphthalate	149	14.176	14.180	(0.954)	1693559	89.9031	89.90

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Report Date: 27-Jan-2011 15:26

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138 Benzo(a)anthracene	228	14.841	14.836	(0.999)	2608159	93.5636	93.56
139 Chrysene	228	14.886	14.884	(1.002)	2439175	88.7458	88.74
140 Bis(2-ethylhexyl)phthalate	149	14.906	14.911	(1.004)	2276095	90.7020	90.70
* 154 Perylene-d12	264	16.600	16.597	(1.000)	820355	40.0000	
155 Di-n-octylphthalate	149	15.719	15.711	(0.947)	3898958	106.034	106.0(A)
156 Benzo(b)fluoranthene	252	16.153	16.148	(0.973)	2285631	101.315	101.3(A)
157 Benzo(k)fluoranthene	252	16.194	16.189	(0.976)	2187810	87.8188	87.82
158 Benzo(a)pyrene	252	16.536	16.530	(0.996)	2064198	96.4051	96.40
159 Indeno(1,2,3-cd)pyrene	276	17.958	17.956	(1.082)	1777590	93.9207	93.92
160 Dibenz(a,h)anthracene	278	17.984	17.976	(1.083)	1497649	95.2820	95.28
161 Benzo(g,h,i)perylene	276	18.344	18.340	(1.105)	1366515	87.7951	87.80

QC Flag Legend

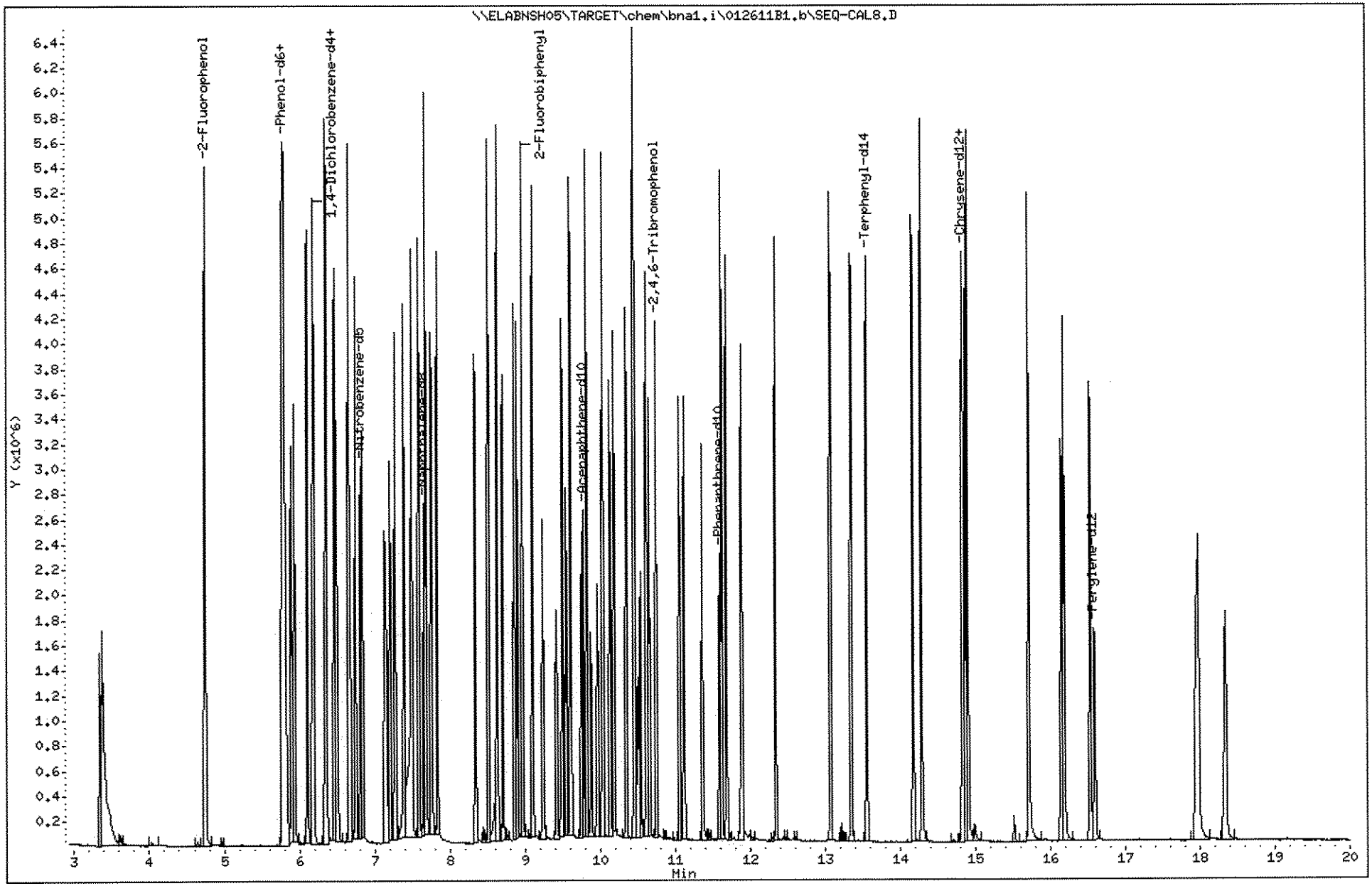
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Date : 26-JAN-2011 19:00
Client ID: CAL100PPM
Sample Info: CAL100PPM;;;;;;11A0532

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Lab Smp Id: SEQ-CAL8 Client Smp ID: CAL100PPM
Inj Date : 26-JAN-2011 19:00 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
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Misc Info : ;1;;;8;;cal_1.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	488941	40.0000	
$	2 2-Fluorophenol	112	4.752	4.746	(0.770)	2701192	180.422	180.4(AR)
$	3 Phenol-d6	99	5.786	5.773	(0.937)	3534178	185.710	185.7(AR)
	4 Pyridine	79	3.372	3.379	(0.546)	1975346	102.637	102.6(A)
	6 N-Nitroso-di-methylamine	42	3.345	3.345	(0.542)	755791	107.977	108.0(A)
	7 Aniline	93	5.813	5.814	(0.942)	2214477	92.8939	92.89
	10 Phenol	94	5.799	5.787	(0.939)	1777509	90.0534	90.05
	11 bis(2-Chloroethyl)ether	93	5.894	5.889	(0.955)	1477944	89.7743	89.77
	12 2-Chlorophenol	128	5.935	5.937	(0.961)	1540304	96.8124	96.81
	13 1,3-Dichlorobenzene	146	6.112	6.107	(0.990)	1594112	92.4494	92.45
	14 1,4-Dichlorobenzene	146	6.194	6.196	(1.003)	1457115	86.4082	86.41
	15 Benzyl alcohol	108	6.351	6.339	(1.029)	933428	89.9149	89.91
	16 1,2-Dichlorobenzene	146	6.365	6.360	(1.031)	1369826	85.2491	85.25
	17 2-Methylphenol	108	6.473	6.462	(1.048)	1289309	92.9047	92.90
	18 2,2'-Oxybis-1-chloropropane	45	6.500	6.496	(1.053)	2211173	93.4446	93.44
	19 3-Methylphenol	108	6.664	6.654	(1.079)	1301822	89.7979	89.80
	20 4-Methylphenol	108	6.664	6.654	(1.079)	1301822	89.7979	89.80
	21 N-Nitroso-di-n-propylamine	70	6.671	6.660	(1.081)	909066	89.1525	89.15
	22 Hexachloroethane	117	6.753	6.749	(1.094)	636769	90.9915	90.99
*	33 Naphthalene-d8	136	7.661	7.659	(1.000)	1584368	40.0000	
$	34 Nitrobenzene-d5	82	6.821	6.811	(0.890)	1355725	92.7112	92.71(R)
	35 Nitrobenzene	77	6.842	6.838	(0.893)	1234154	86.9042	86.90
	39 Isophorone	82	7.143	7.132	(0.932)	2808755	91.9133	91.91
	40 2-Nitrophenol	139	7.210	7.207	(0.941)	863933	97.3240	97.32
	42 2,4-Dimethylphenol	107	7.278	7.269	(0.950)	1164409	86.0148	86.01
	43 Benzoic acid	105	7.484	7.447	(0.977)	1117194	99.9652	99.96

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.395	7.385	(0.965)	1616978	88.9102	88.91
	47 2,4-Dichlorophenol	162	7.498	7.495	(0.979)	1205758	95.7829	95.78
	50 1,2,4-Trichlorobenzene	180	7.593	7.591	(0.991)	1218706	89.3319	89.33
	51 Naphthalene	128	7.688	7.680	(1.004)	3203244	83.9960	84.00
	52 4-Chloroaniline	127	7.756	7.755	(1.012)	1640339	93.9616	93.96
	53 Hexachlorobutadiene	225	7.837	7.837	(1.023)	654294	93.6794	93.68
	54 4-Chloro-3-methylphenol	107	8.342	8.336	(1.089)	995041	88.8521	88.85
	55 2-Methylnaphthalene	141	8.519	8.513	(1.112)	1698606	86.9144	86.91
	56 1-Methylnaphthalene	141	8.636	8.637	(1.127)	1760713	87.5115	87.51
*	69 Acenaphthene-d10	164	9.783	9.784	(1.000)	740127	40.0000	
	70 Hexachlorocyclopentadiene	237	8.711	8.706	(0.890)	690761	106.633	106.6(A)
	71 2,4,6-Trichlorophenol	196	8.862	8.857	(0.906)	772316	104.108	104.1(A)
	72 2,4,5-Trichlorophenol	196	8.904	8.898	(0.910)	755639	94.5629	94.56
	73 2-Chloronaphthalene	162	9.108	9.104	(0.931)	1965666	93.1683	93.17
$	74 2-Fluorobiphenyl	172	8.971	8.967	(0.917)	2204486	91.6540	91.65(R)
	75 2-Nitroaniline	65	9.245	9.242	(0.945)	606676	100.842	100.8(A)
	76 Dimethylphthalate	163	9.503	9.489	(0.971)	2152871	88.0391	88.04
	77 Acenaphthylene	152	9.612	9.606	(0.983)	2808636	87.0206	87.02
	78 2,6-Dinitrotoluene	165	9.558	9.551	(0.977)	639721	99.2568	99.26
	79 3-Nitroaniline	138	9.762	9.750	(0.998)	648745	100.670	100.7(A)
	80 Acenaphthene	153	9.830	9.825	(1.005)	1682962	84.0113	84.01
	81 2,4-Dinitrophenol	184	9.884	9.881	(1.010)	330260	101.230	101.2(A)
	83 4-Nitrophenol	65	9.973	9.956	(1.019)	364472	99.6038	99.60
	84 Dibenzofuran	168	10.041	10.032	(1.026)	2373233	85.6336	85.63
	85 2,4-Dinitrotoluene	165	10.048	10.039	(1.027)	699324	101.073	101.1(A)
	86 Diethylphthalate	149	10.355	10.347	(1.058)	2101448	98.1407	98.14
	87 4-Chlorophenyl-phenylether	204	10.465	10.464	(1.070)	841934	85.3038	85.30
	88 Fluorene	166	10.458	10.457	(1.069)	1779121	83.8262	83.83
	89 4-Nitroaniline	138	10.511	10.492	(1.074)	489362	114.532	114.5(A)
	96 2,3,4,6-Tetrachlorophenol	232	10.191	10.190	(1.042)	608674	97.7561	97.76
*	102 Phenanthrene-d10	188	11.597	11.595	(1.000)	1111588	40.0000	
	103 1,2-Diphenylhydrazine	77	10.661	10.657	(0.919)	1747214	75.3205	75.32
	104 Carbazole	167	11.893	11.890	(1.025)	2156572	84.4573	84.46
	105 4,6-Dinitro-2-methylphenol	198	10.545	10.533	(0.909)	405200	99.7720	99.77
	106 N-Nitrosodiphenylamine	169	10.620	10.616	(0.916)	1606990	87.6292	87.63
$	107 2,4,6-Tribromophenol	330	10.760	10.753	(0.928)	759635	188.644	188.6(AR)
	108 4-Bromophenyl-phenylether	248	11.063	11.062	(0.954)	571277	89.2646	89.26
	109 Hexachlorobenzene	284	11.124	11.122	(0.959)	663972	91.9615	91.96
	110 Pentachlorophenol	266	11.368	11.369	(0.980)	505882	100.242	100.2(A)
	111 Phenanthrene	178	11.629	11.629	(1.003)	2570081	87.4594	87.46
	112 Anthracene	178	11.697	11.691	(1.009)	2617980	89.1682	89.17
	115 Di-n-butylphthalate	149	12.345	12.349	(1.064)	3370665	88.1848	88.18
	116 Fluoranthene	202	13.080	13.075	(1.128)	2785731	93.4369	93.44
*	132 Chrysene-d12	240	14.854	14.849	(1.000)	979203	40.0000	
	134 Pyrene	202	13.361	13.355	(0.899)	2610125	82.0864	82.09
$	135 Terphenyl-d14	244	13.564	13.560	(0.913)	1789089	89.9970	90.00(R)
	136 Butylbenzylphthalate	149	14.176	14.180	(0.954)	1693559	89.9031	89.90

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Report Date: 27-Jan-2011 15:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
138	Benzo(a)anthracene	228	14.841	14.836	(0.999)	2608159	93.5636	93.56
139	Chrysene	228	14.886	14.884	(1.002)	2439175	88.7458	88.74
140	Bis(2-ethylhexyl)phthalate	149	14.906	14.911	(1.004)	2276095	90.7020	90.70
* 154	Perylene-d12	264	16.600	16.597	(1.000)	820355	40.0000	
155	Di-n-octylphthalate	149	15.719	15.711	(0.947)	3898958	106.034	106.0(A)
156	Benzo(b)fluoranthene	252	16.153	16.148	(0.973)	2285631	101.315	101.3(A)
157	Benzo(k)fluoranthene	252	16.194	16.189	(0.976)	2187810	87.8188	87.82
158	Benzo(a)pyrene	252	16.536	16.530	(0.996)	2064198	96.4051	96.40
159	Indeno(1,2,3-cd)pyrene	276	17.958	17.956	(1.082)	1777590	93.9207	93.92
160	Dibenz(a,h)anthracene	278	17.984	17.976	(1.083)	1497649	95.2820	95.28
161	Benzo(g,h,i)perylene	276	18.344	18.340	(1.105)	1366515	87.7951	87.80

QC Flag Legend

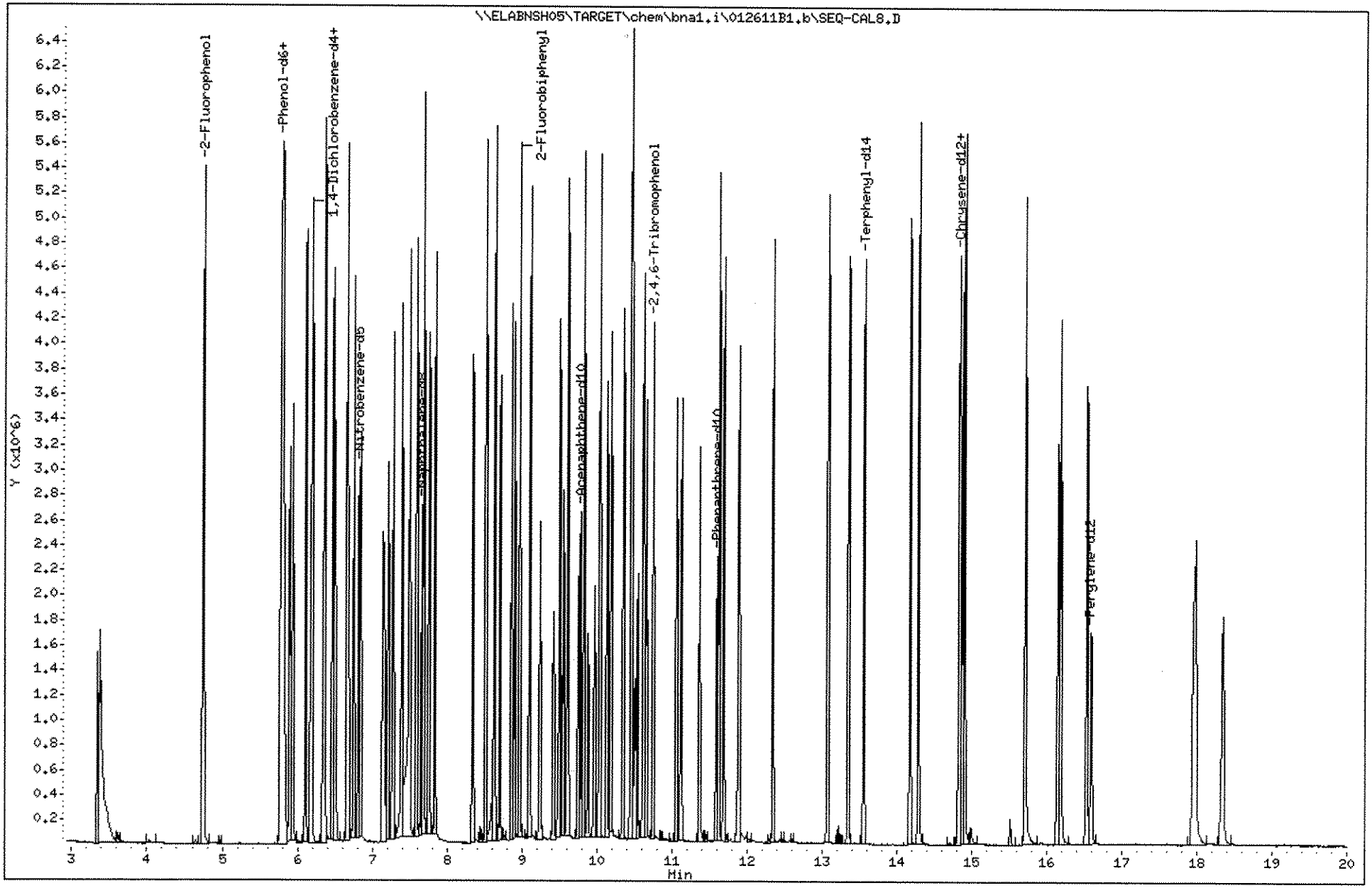
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL8.D
Date : 26-JAN-2011 19:00
Client ID: CAL100PPM
Sample Info: CAL100PPM;;;;;;11A0532

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



355

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Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL9.D
Report Date: 27-Jan-2011 15:26

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL9.D
Lab Smp Id: SEQ-CAL9 Client Smp ID: CAL5PPM
Inj Date : 26-JAN-2011 19:29 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL5PPM;;;;;;11A0534
Misc Info : ;1;;;1;;cal_2.sub;
Comment :
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Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.166	6.175	(1.000)	493185	40.0000	
5	1,4-Dioxane	88	3.022	3.023	(0.490)	43628	5.48725	5.487
32	Benzaldehyde	106	5.677	5.677	(0.921)	70366	5.63632	5.636
* 33	Naphthalene-d8	136	7.650	7.659	(1.000)	1447066	40.0000	
62	2,6-Dichlorophenol	162	7.753	7.753	(1.013)	61108	5.38418	5.384
57	Acetophenone	105	6.628	6.629	(1.075)	105942	5.52484	5.525
67	1,2,4,5-Tetrachlorobenzene	216	8.710	8.711	(1.139)	55014	5.28838	5.288(M)
68	Caprolactam	113	8.153	8.153	(1.066)	21653	4.73112	4.731
* 69	Acenaphthene-d10	164	9.778	9.784	(1.000)	678463	40.0000	
100	1,1'-Biphenyl	154	9.078	9.078	(0.928)	140808	5.75444	5.754
* 102	Phenanthrene-d10	188	11.587	11.595	(1.000)	953047	40.0000	
129	Atrazine	200	11.266	11.267	(0.972)	22725	4.65299	4.653
* 132	Chrysene-d12	240	14.835	14.849	(1.000)	833881	40.0000	
133	Benzidine	184	13.250	13.250	(0.893)	50800	3.85904	3.859
137	3,3'-Dichlorobenzidine	252	14.808	14.808	(0.998)	36042	4.50174	4.502
* 154	Perylene-d12	264	16.590	16.597	(1.000)	768284	40.0000	

GLQ 1/27/11

1/28/11

QC Flag Legend

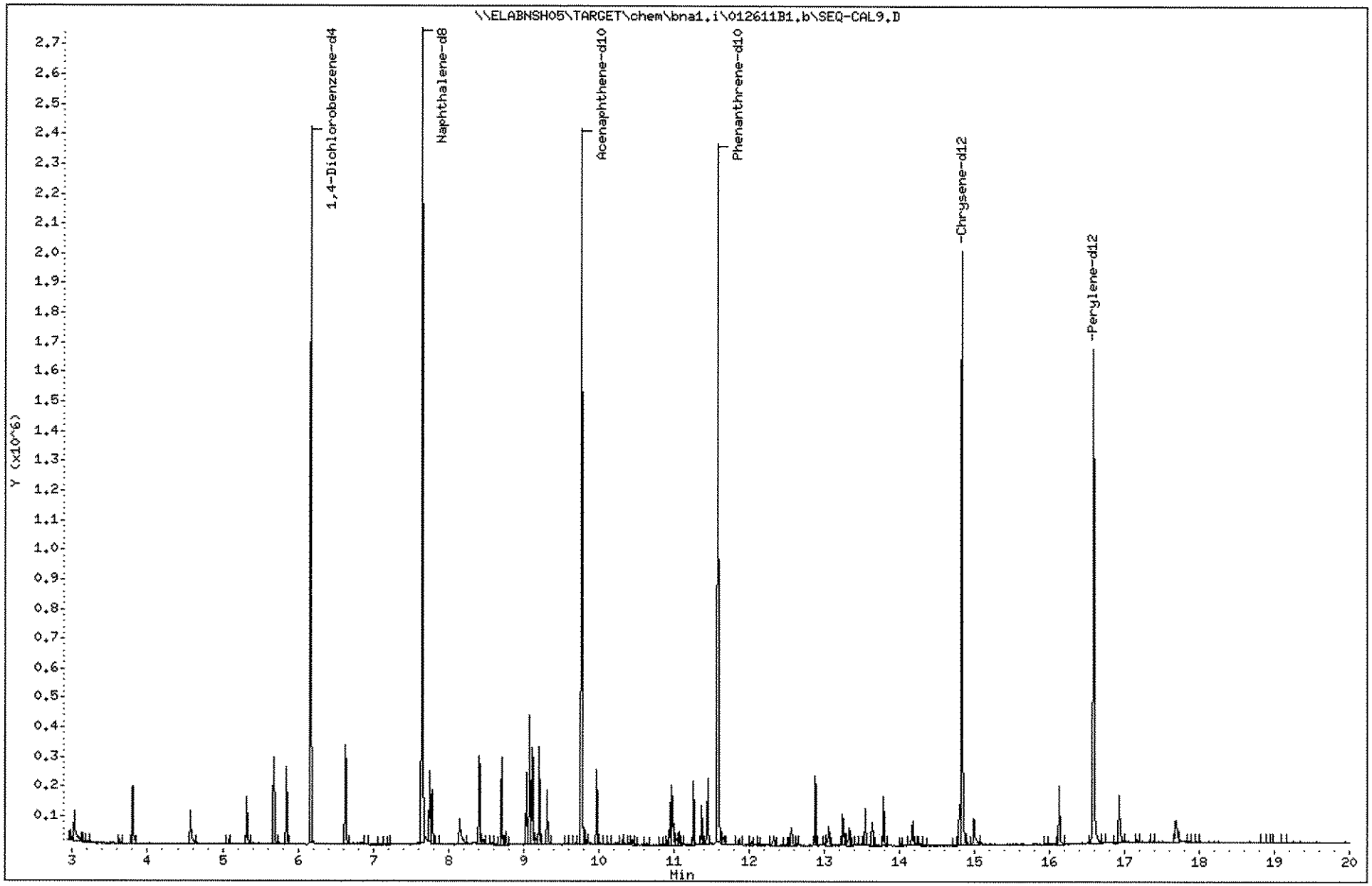
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL9.D
Date : 26-JAN-2011 19:29
Client ID: CAL5PPM
Sample Info: CAL5PPM;;;;;;11A0534

Instrument: bna1.i

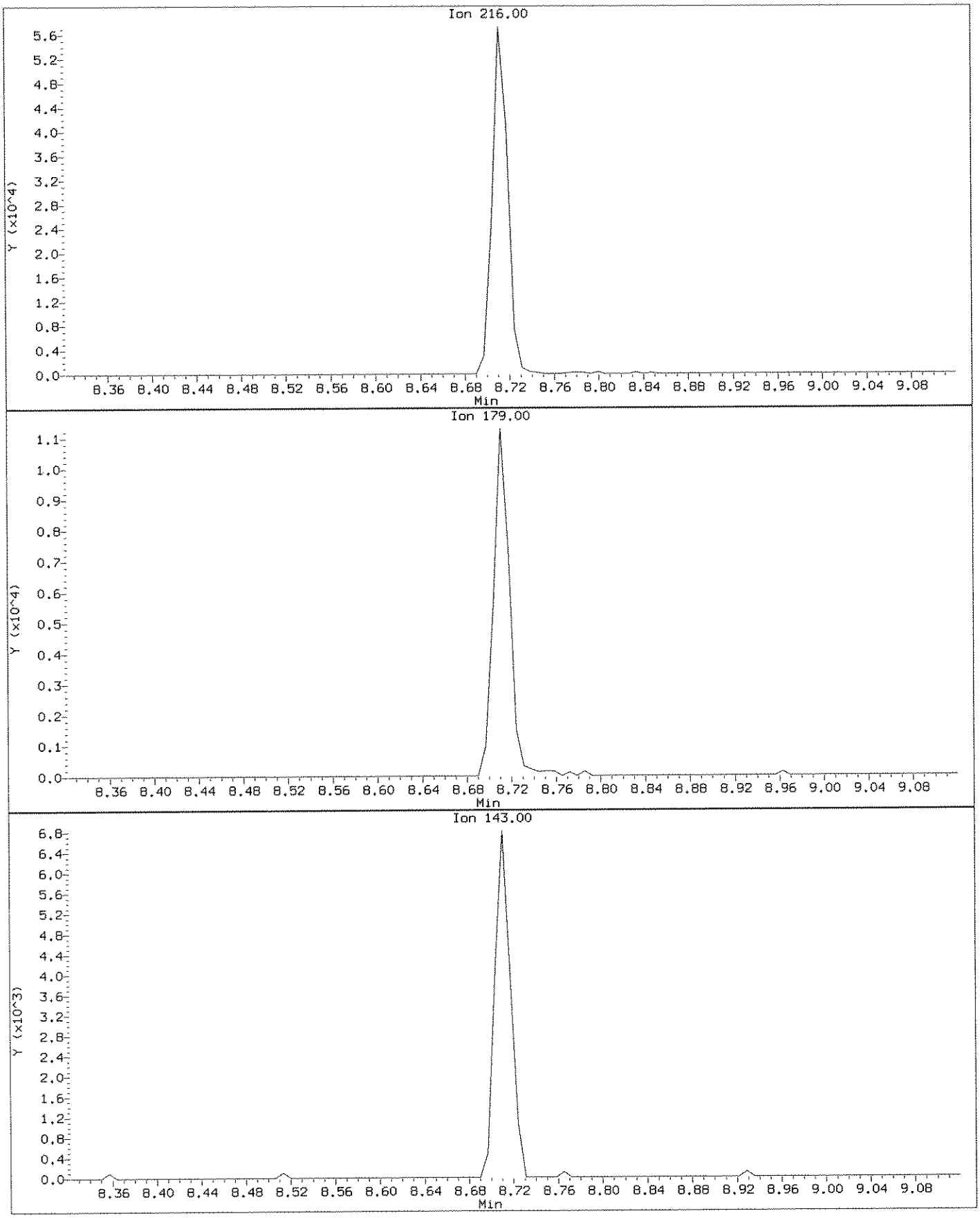
Operator: MEC
Column diameter: 0.25

Column phase: fused silica



Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL9.D
Injection Date: 26-JAN-2011 19:29
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: 1,2,4,5-Tetrachlorobenzene
CAS Number: 95-94-3



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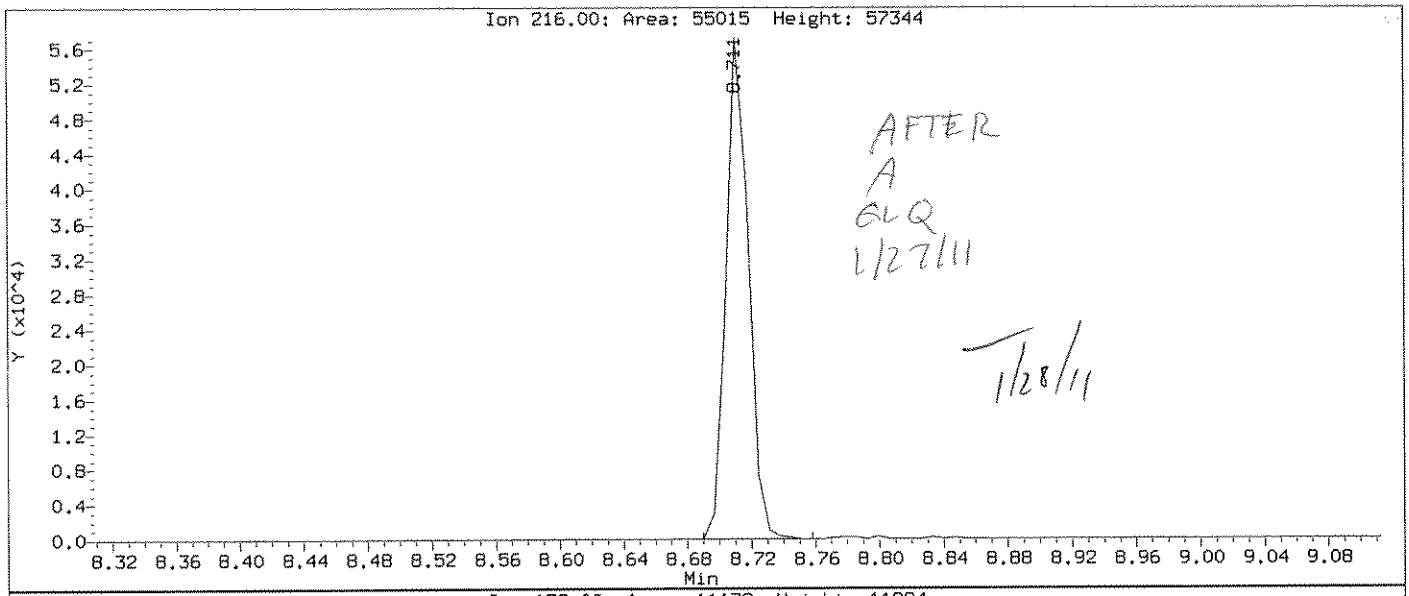
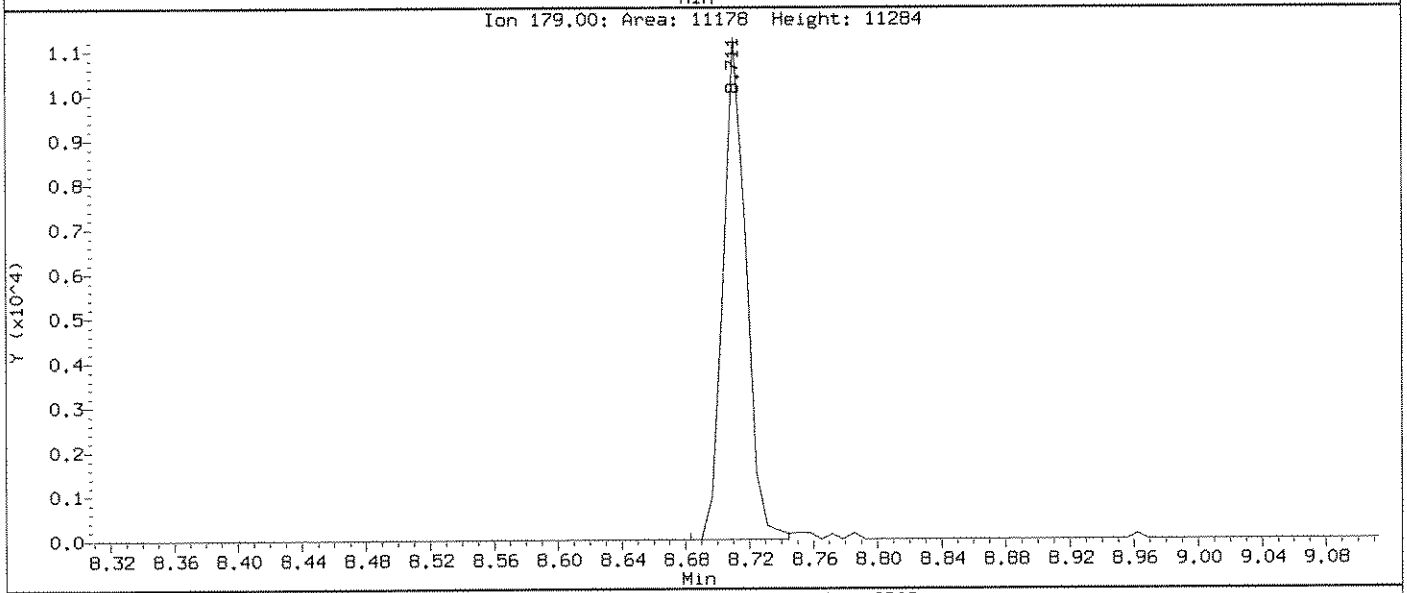
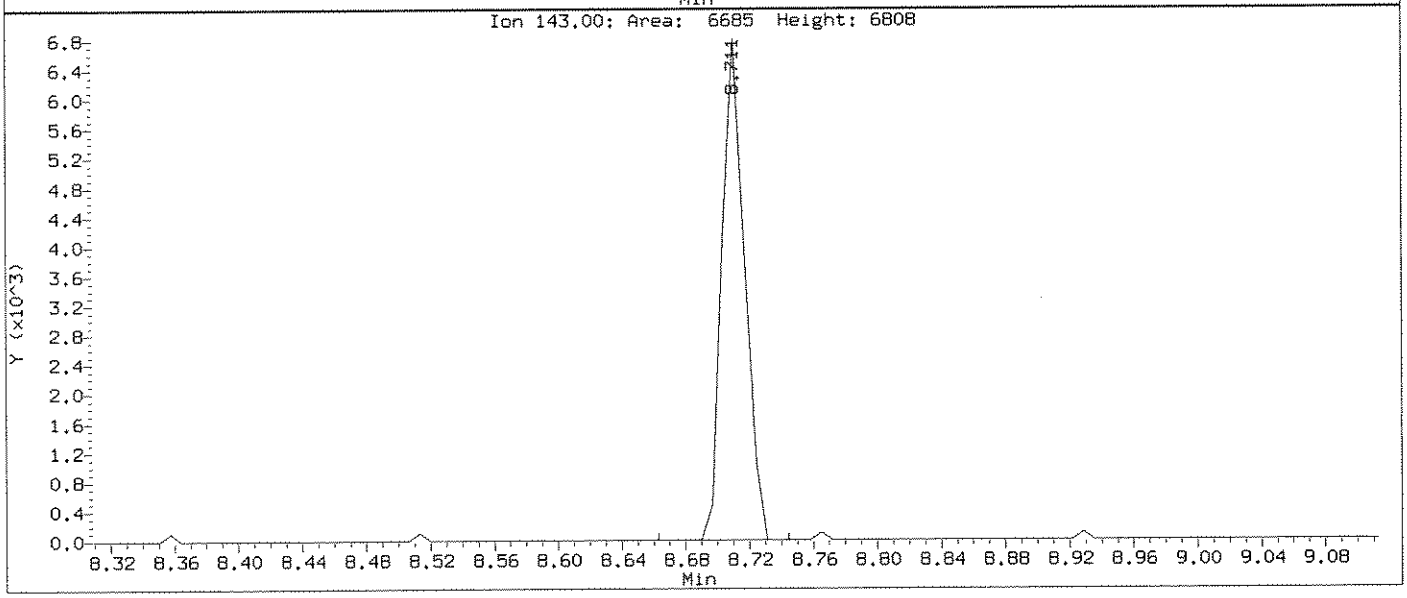
Injection Date: 26-JAN-2011 19:29
Instrument: bna1.i
Client Sample ID: CAL5PPM

Compound: 1,2,4,5-Tetrachlorobenzene
CAS Number: 95-94-3







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Report Date: 27-Jan-2011 15:21

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL9.D
Lab Smp Id: SEQ-CAL9 Client Smp ID: CAL5PPM
Inj Date : 26-JAN-2011 19:29 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL5PPM;;;;;;11A0534
Misc Info : ;1;;;1;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.166	6.175	(1.000)	493185	40.0000	
	5 1,4-Dioxane	88	3.022	3.018	(0.490)	43628	5.48725	5.487
	32 Benzaldehyde	106	5.677	5.692	(0.921)	70366	5.63632	5.636
*	33 Naphthalene-d8	136	7.650	7.659	(1.000)	1447066	40.0000	
	62 2,6-Dichlorophenol	162	7.753	7.763	(1.013)	61108	5.38418	5.384
	57 Acetophenone	105	6.628	6.642	(1.075)	105942	5.52484	5.525
	67 1,2,4,5-Tetrachlorobenzene	216	8.710	8.722	(1.139)	55014	5.28838	5.288(M)
	68 Caprolactam	113	8.153	8.198	(1.066)	21653	4.73112	4.731
*	69 Acenaphthene-d10	164	9.778	9.784	(1.000)	678463	40.0000	
	100 1,1'-Biphenyl	154	9.078	9.096	(0.928)	140808	5.75444	5.754
*	102 Phenanthrene-d10	188	11.587	11.595	(1.000)	953047	40.0000	
	129 Atrazine	200	11.266	11.296	(0.972)	22725	4.65299	4.653
*	132 Chrysene-d12	240	14.835	14.849	(1.000)	833881	40.0000	
	133 Benzidine	184	13.250	13.264	(0.893)	50800	3.85904	3.859
	137 3,3'-Dichlorobenzidine	252	14.808	14.815	(0.998)	36042	4.50174	4.502
*	154 Perylene-d12	264	16.590	16.597	(1.000)	768284	40.0000	

GCQ 1/27/11

1/28/11

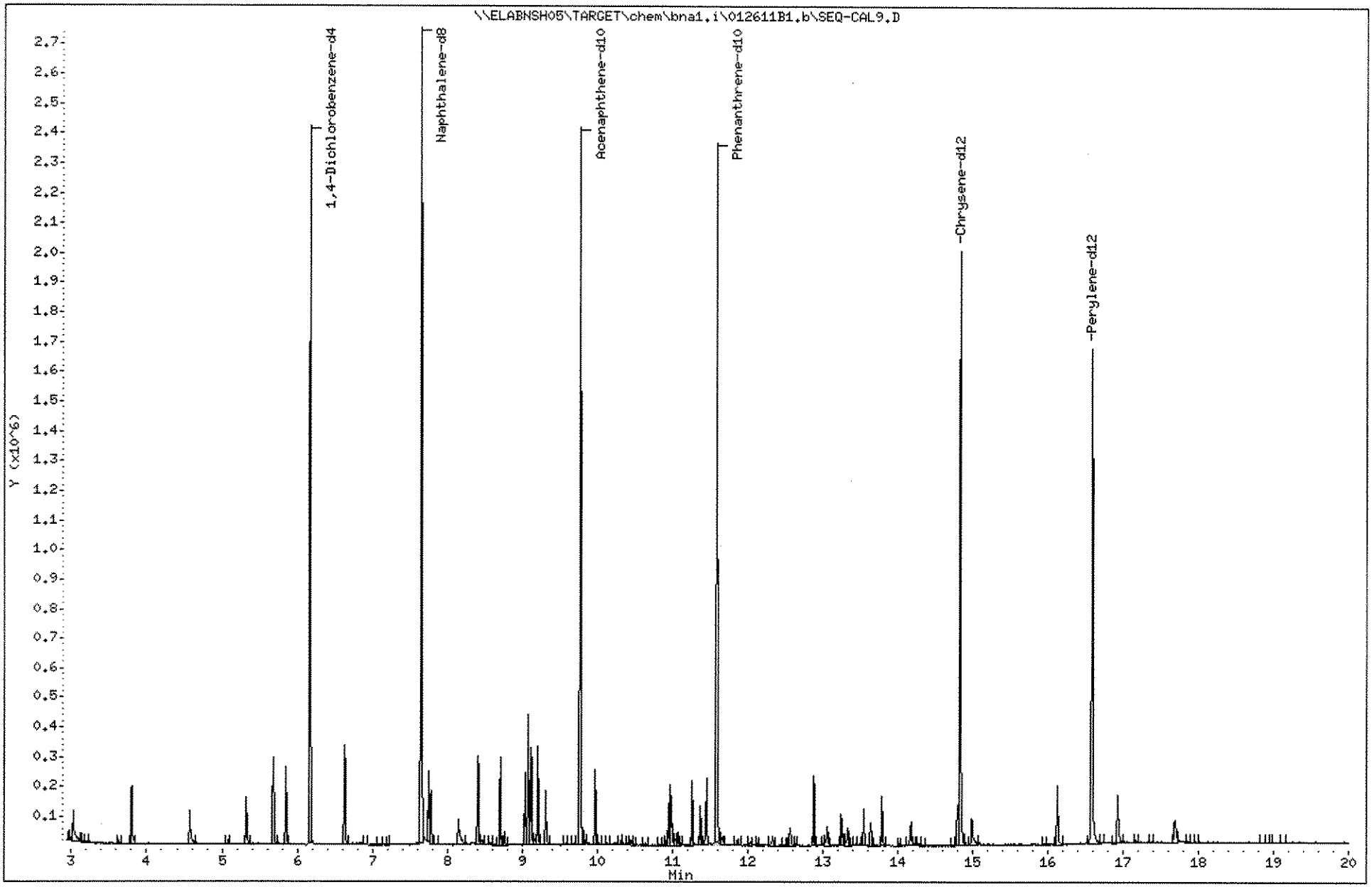
QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CAL9.D
Date : 26-JAN-2011 19:29
Client ID: CAL5PPM
Sample Info: CAL5PPM;;;;;;11A0534

Instrument: bna1.i

Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Report Date: 27-Jan-2011 15:26

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Lab Smp Id: SEQ-CALA Client Smp ID: CAL10PPM
Inj Date : 26-JAN-2011 19:57 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL10PPM;;;;;;11A0537
Misc Info : ;1;;;2;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.170	6.175	(1.000)	528115	40.0000	
5	1,4-Dioxane	88	3.024	3.023	(0.490)	93939	11.0336	11.03
32	Benzaldehyde	106	5.681	5.677	(0.921)	153283	11.4659	11.46
* 33	Naphthalene-d8	136	7.648	7.659	(1.000)	1604659	40.0000	
62	2,6-Dichlorophenol	162	7.750	7.753	(1.013)	131223	10.4265	10.43
57	Acetophenone	105	6.631	6.629	(1.075)	216201	10.5291	10.53
67	1,2,4,5-Tetrachlorobenzene	216	8.713	8.711	(1.139)	109866	9.52397	9.524(M)
68	Caprolactam	113	8.142	8.153	(1.065)	50304	9.91184	9.912
* 69	Acenaphthene-d10	164	9.778	9.784	(1.000)	731439	40.0000	
100	1,1'-Biphenyl	154	9.079	9.078	(0.928)	295562	11.2040	11.20
* 102	Phenanthrene-d10	188	11.587	11.595	(1.000)	1037837	40.0000	
129	Atrazine	200	11.266	11.267	(0.972)	51226	9.63173	9.632
* 132	Chrysene-d12	240	14.837	14.849	(1.000)	868073	40.0000	
133	Benzidine	184	13.255	13.250	(0.893)	125002	9.12179	9.122
137	3,3'-Dichlorobenzidine	252	14.805	14.808	(0.998)	81066	9.72653	9.726
* 154	Perylene-d12	264	16.595	16.597	(1.000)	807223	40.0000	

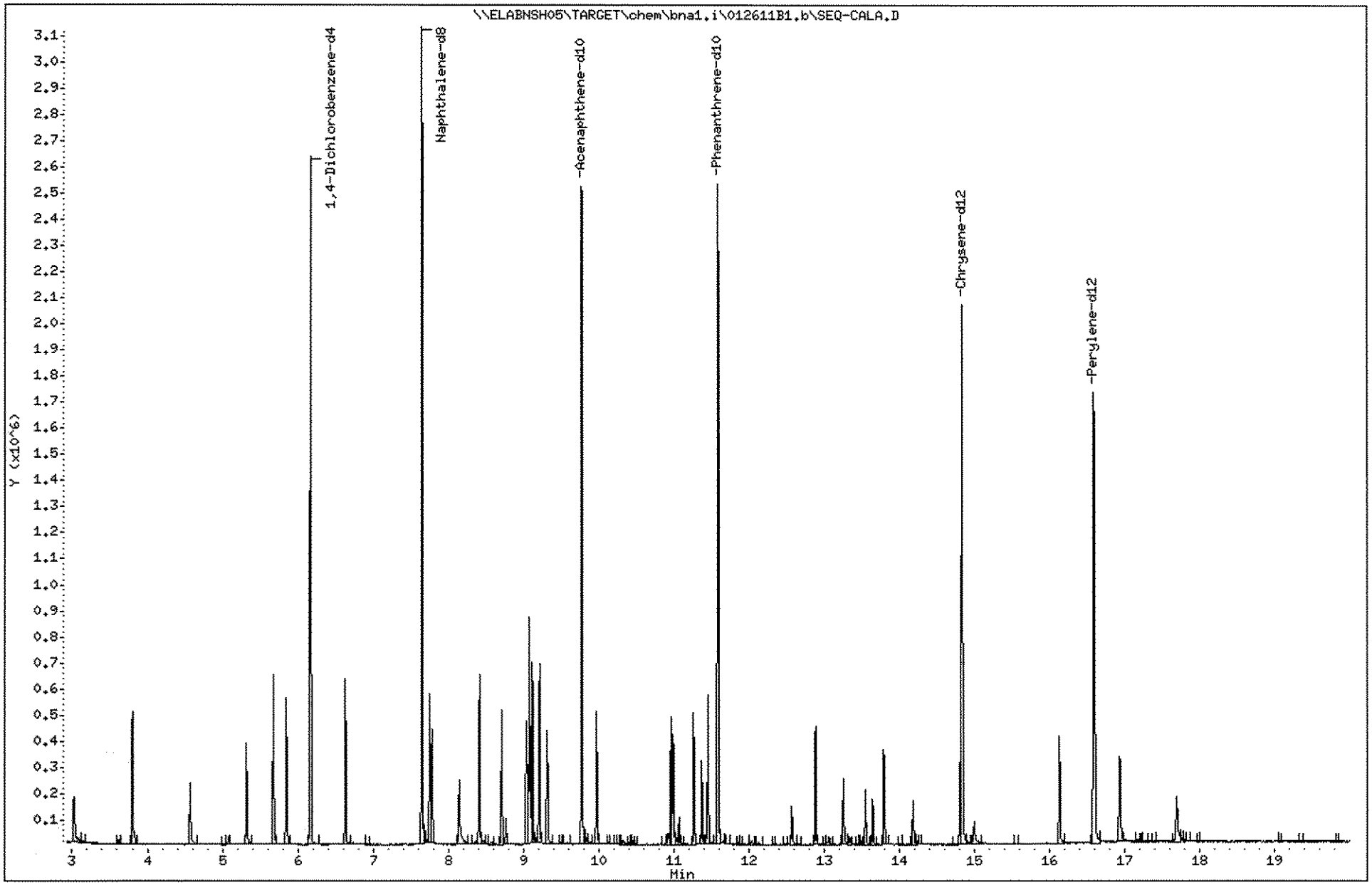
GLQ 1/27/11

1/28/11

QC Flag Legend

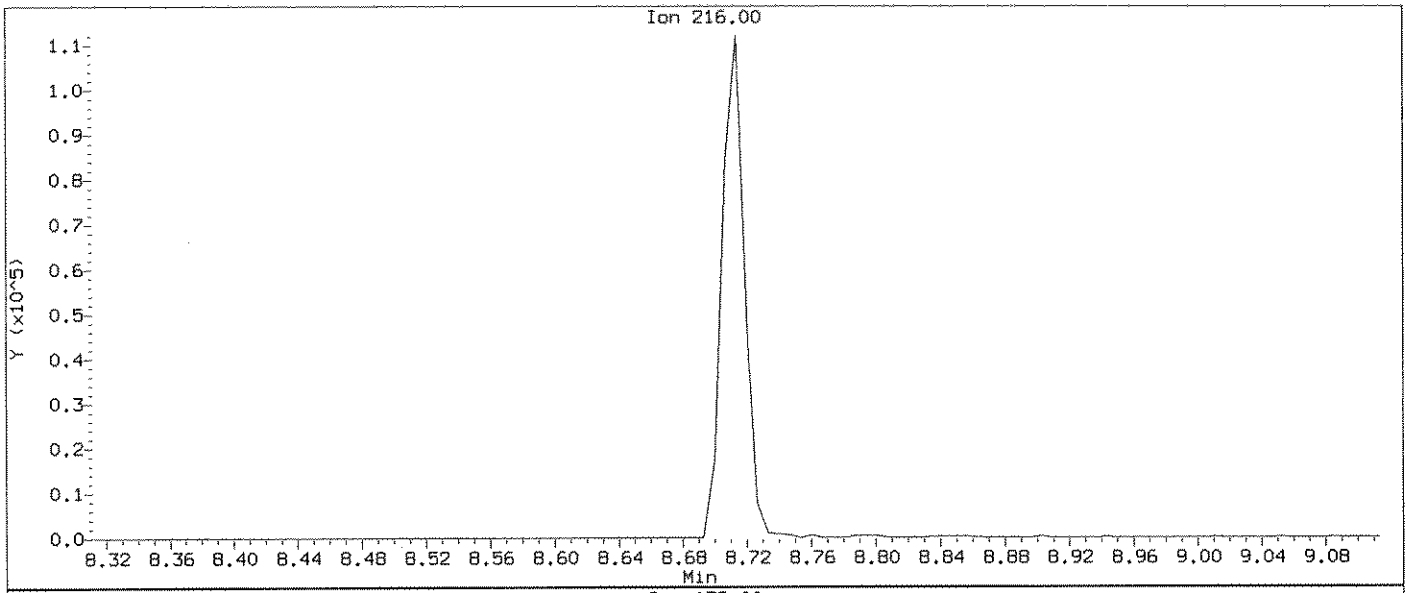
M - Compound response manually integrated.

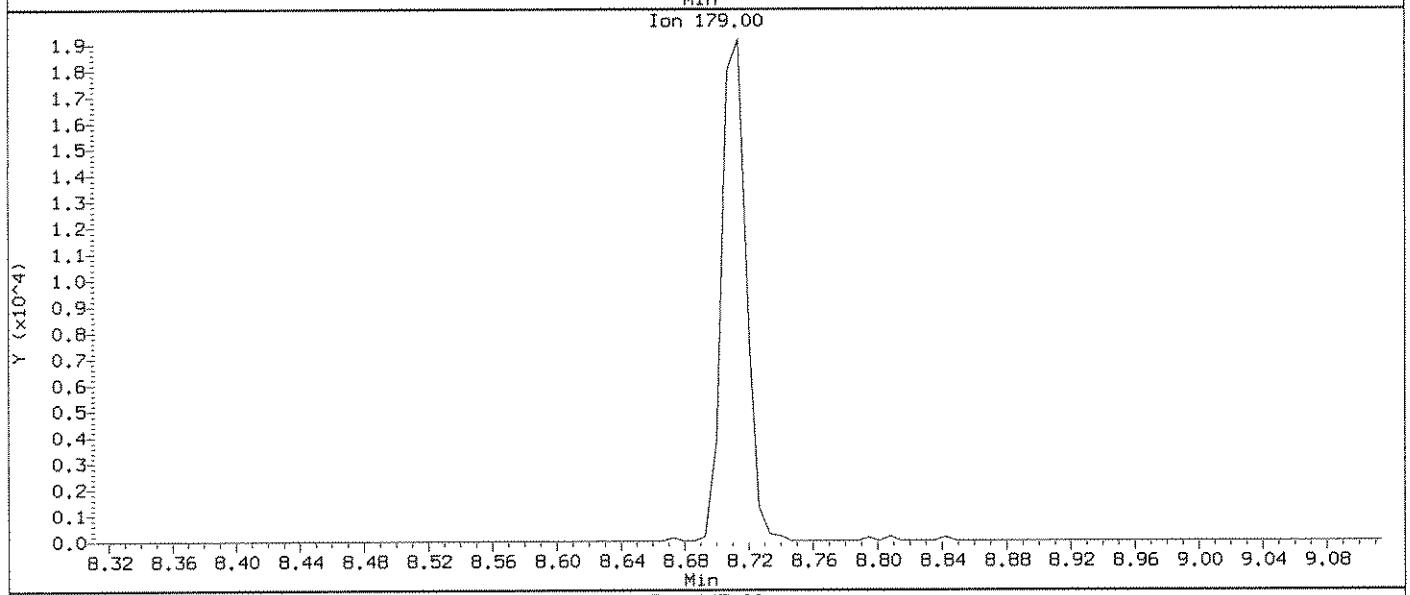
Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Date : 26-JAN-2011 19:57
Client ID: CAL10PPM
Instrument: bna1.i
Sample Info: CAL10PPM;;;;;;11A0537
Operator: MEC
Column phase: fused silica
Column diameter: 0.25

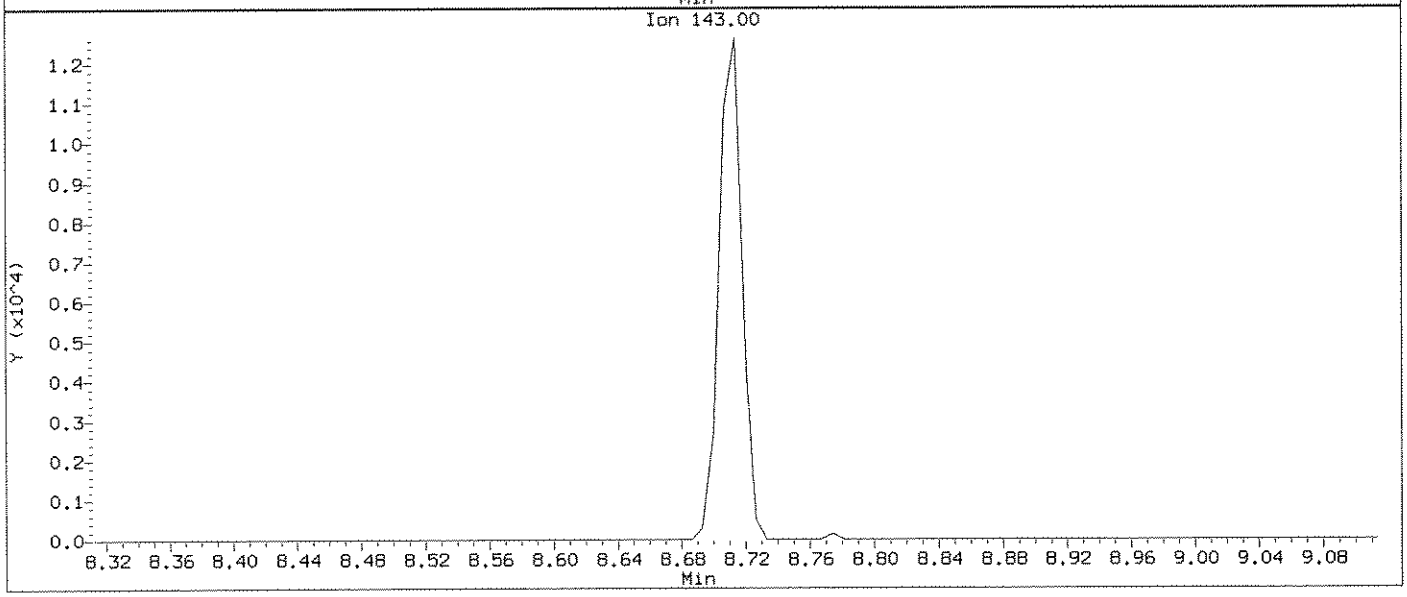


Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Injection Date: 26-JAN-2011 19:57
Instrument: bna1.i
Client Sample ID: CAL10PPM

Compound: 1,2,4,5-Tetrachlorobenzene
CAS Number: 95-94-3

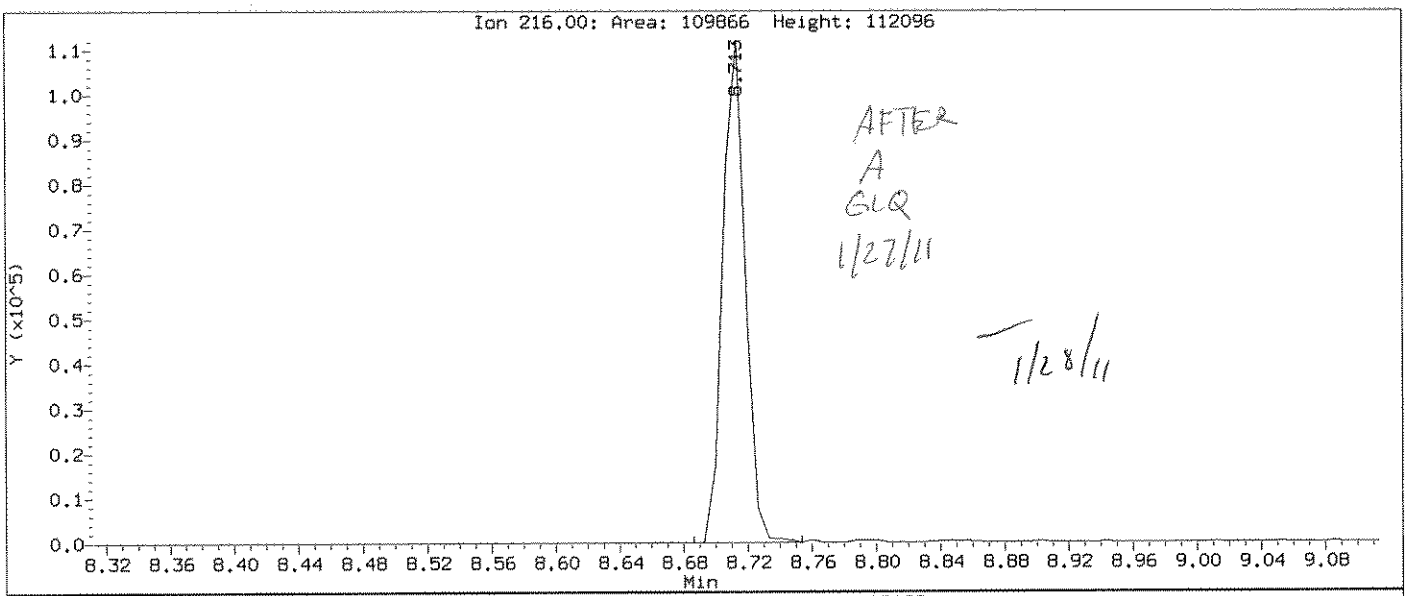






Data File: \\ELABNSHO5\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Injection Date: 26-JAN-2011 19:57
Instrument: bna1.i
Client Sample ID: CAL10PPM

Compound: 1,2,4,5-Tetrachlorobenzene
CAS Number: 95-94-3



AFTER
A
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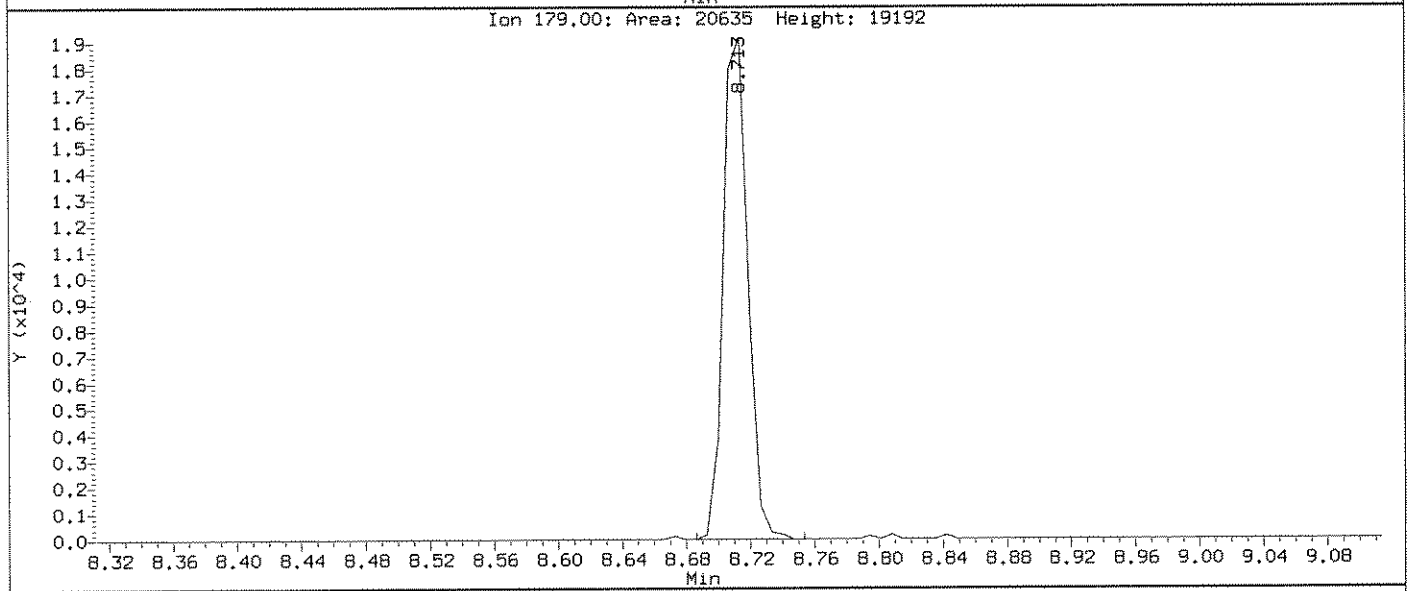
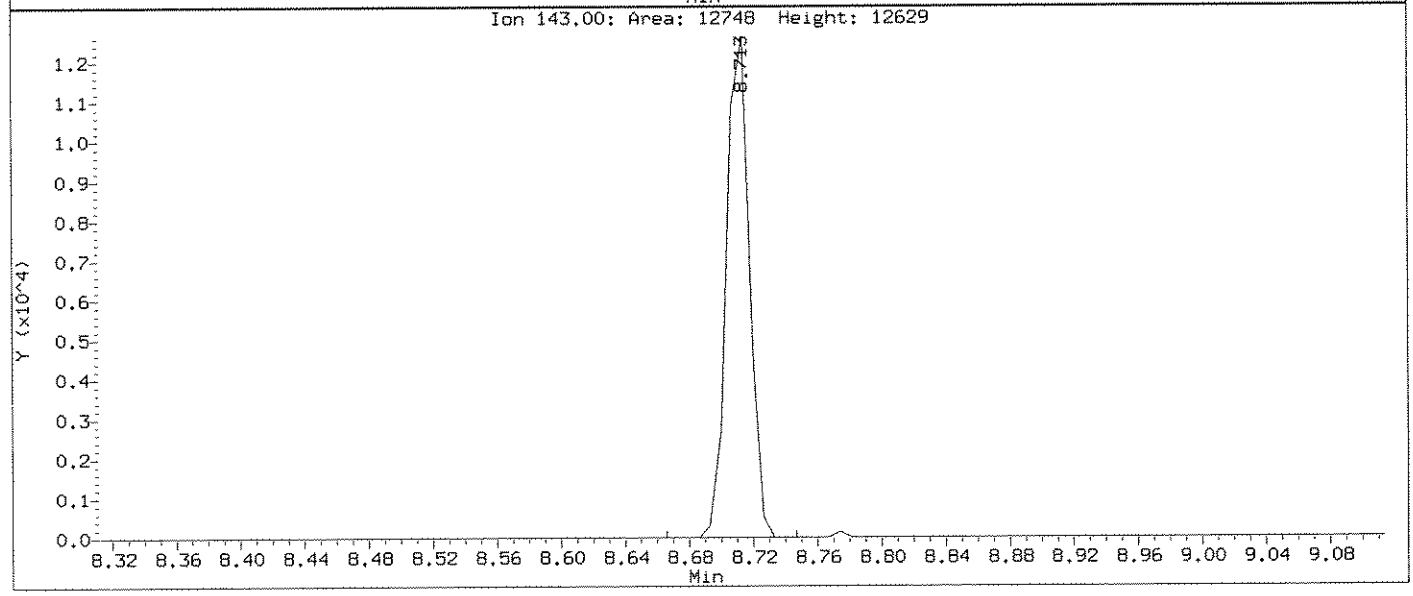
1/28/11





Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Lab Smp Id: SEQ-CALA Client Smp ID: CAL10PPM
Inj Date : 26-JAN-2011 19:57 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL10PPM;;;;;;11A0537
Misc Info : ;1;;;2;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.170	6.175	(1.000)	528115	40.0000	
	5 1,4-Dioxane	88	3.024	3.018	(0.490)	93939	11.0336	11.03
	32 Benzaldehyde	106	5.681	5.692	(0.921)	153283	11.4659	11.46
*	33 Naphthalene-d8	136	7.648	7.659	(1.000)	1604659	40.0000	
	62 2,6-Dichlorophenol	162	7.750	7.763	(1.013)	131223	10.4265	10.43
	57 Acetophenone	105	6.631	6.642	(1.075)	216201	10.5291	10.53
	67 1,2,4,5-Tetrachlorobenzene	216	8.713	8.722	(1.139)	109866	9.52397	9.524 (M)
	68 Caprolactam	113	8.142	8.198	(1.065)	50304	9.91184	9.912
*	69 Acenaphthene-d10	164	9.778	9.784	(1.000)	731439	40.0000	
	100 1,1'-Biphenyl	154	9.079	9.096	(0.928)	295562	11.2040	11.20
*	102 Phenanthrene-d10	188	11.587	11.595	(1.000)	1037837	40.0000	
	129 Atrazine	200	11.266	11.296	(0.972)	51226	9.63173	9.632
*	132 Chrysene-d12	240	14.837	14.849	(1.000)	868073	40.0000	
	133 Benzidine	184	13.255	13.264	(0.893)	125002	9.12179	9.122
	137 3,3'-Dichlorobenzidine	252	14.805	14.815	(0.998)	81066	9.72653	9.726
*	154 Perylene-d12	264	16.595	16.597	(1.000)	807223	40.0000	

GLQ 1/27/11

1/28/11

QC Flag Legend

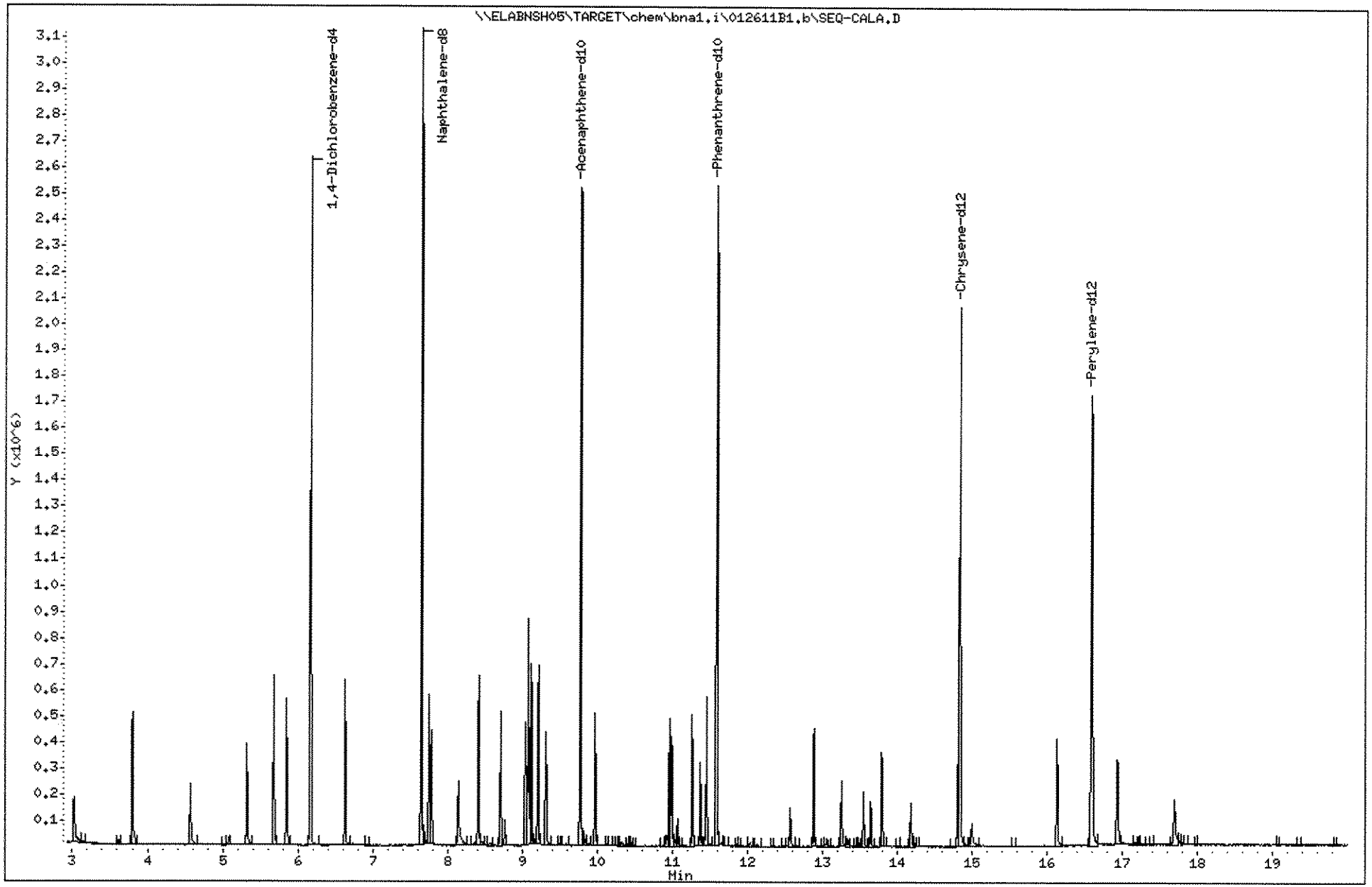
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALA.D
Date : 26-JAN-2011 19:57
Client ID: CAL10PPM
Sample Info: CAL10PPM;;;;;;11A0537

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALB.D
Report Date: 27-Jan-2011 15:26

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALB.D
Lab Smp Id: SEQ-CALB Client Smp ID: CAL20PPM
Inj Date : 26-JAN-2011 20:26 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL20PPM;;;;;;11A0538
Misc Info : ;1;;;3;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1 1,4-Dichlorobenzene-d4	152	6.166	6.175	(1.000)	520503	40.0000	
5 1,4-Dioxane	88	3.024	3.023	(0.490)	164666	19.6236	19.62
32 Benzaldehyde	106	5.680	5.677	(0.921)	266873	20.2546	20.25
* 33 Naphthalene-d8	136	7.650	7.659	(1.000)	1585773	40.0000	
62 2,6-Dichlorophenol	162	7.753	7.753	(1.013)	235321	18.9204	18.92
57 Acetophenone	105	6.629	6.629	(1.075)	396732	19.6036	19.60
67 1,2,4,5-Tetrachlorobenzene	216	8.713	8.711	(1.139)	201856	17.7067	17.71
68 Caprolactam	113	8.150	8.153	(1.065)	90791	18.1024	18.10
* 69 Acenaphthene-d10	164	9.773	9.784	(1.000)	689801	40.0000	
100 1,1'-Biphenyl	154	9.080	9.078	(0.929)	488096	19.6193	19.62
* 102 Phenanthrene-d10	188	11.588	11.595	(1.000)	926673	40.0000	
129 Atrazine	200	11.270	11.267	(0.973)	95752	20.1634	20.16
* 132 Chrysene-d12	240	14.838	14.849	(1.000)	776685	40.0000	
133 Benzidine	184	13.249	13.250	(0.893)	244342	19.9284	19.93
137 3,3'-Dichlorobenzidine	252	14.804	14.808	(0.998)	131392	17.6197	17.62
* 154 Perylene-d12	264	16.590	16.597	(1.000)	717072	40.0000	

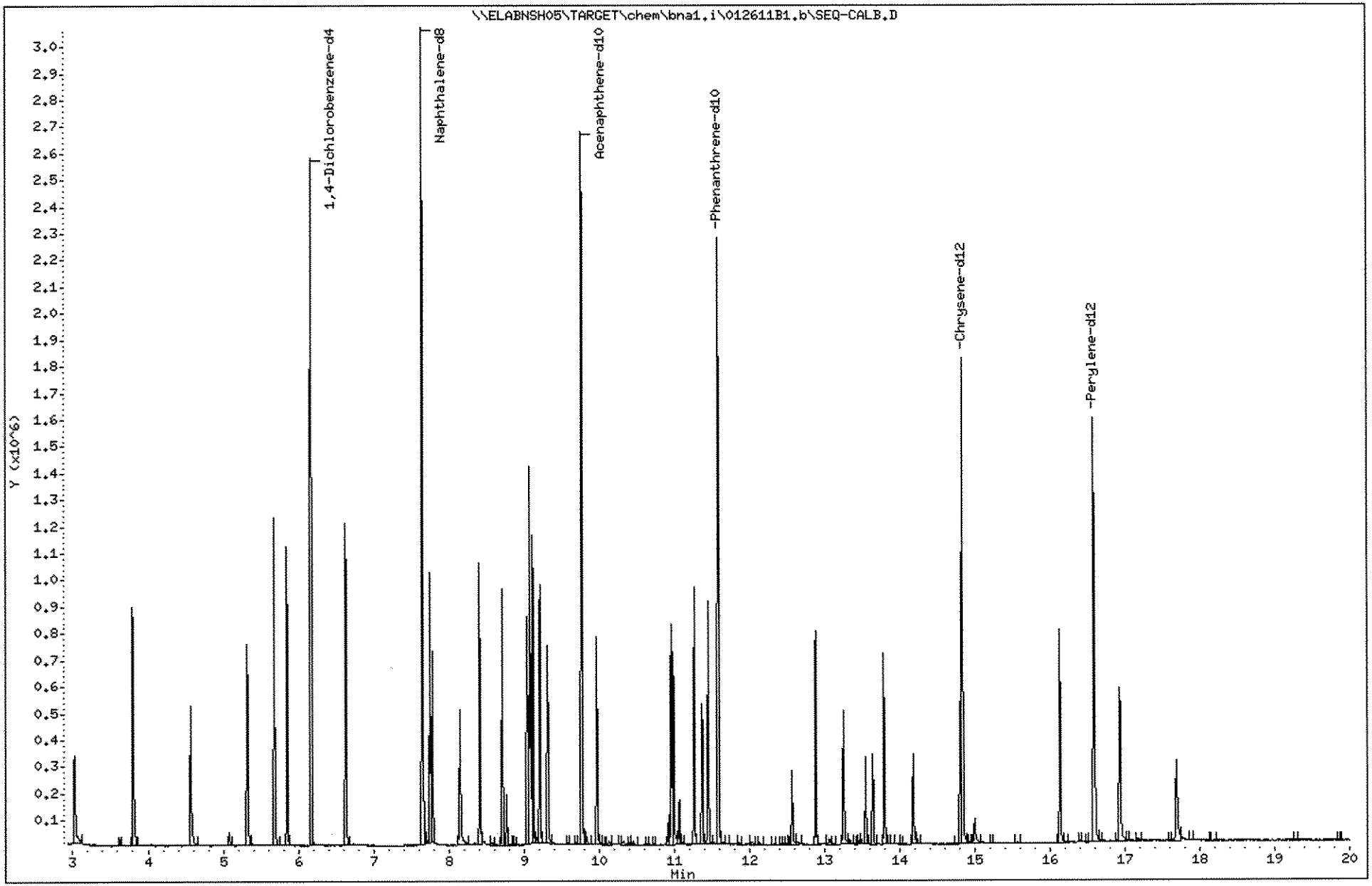
GLA 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALB.D
Date : 26-JAN-2011 20:26
Client ID: CAL20PPM
Sample Info: CAL20PPM;;;;;;11A0538

Instrument: bna1.i

Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALB.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALB.D
Lab Smp Id: SEQ-CALB Client Smp ID: CAL20PPM
Inj Date : 26-JAN-2011 20:26 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL20PPM;;;;;;11A0538
Misc Info : ;1;;;3;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.166	6.175	(1.000)	520503	40.0000	
	5 1,4-Dioxane	88	3.024	3.018	(0.490)	164666	19.6236	19.62
	32 Benzaldehyde	106	5.680	5.692	(0.921)	266873	20.2546	20.25
*	33 Naphthalene-d8	136	7.650	7.659	(1.000)	1585773	40.0000	
	62 2,6-Dichlorophenol	162	7.753	7.763	(1.013)	235321	18.9204	18.92
	57 Acetophenone	105	6.629	6.642	(1.075)	396732	19.6036	19.60
	67 1,2,4,5-Tetrachlorobenzene	216	8.713	8.722	(1.139)	201856	17.7067	17.71
	68 Caprolactam	113	8.150	8.198	(1.065)	90791	18.1024	18.10
*	69 Acenaphthene-d10	164	9.773	9.784	(1.000)	689801	40.0000	
	100 1,1'-Biphenyl	154	9.080	9.096	(0.929)	488096	19.6193	19.62
*	102 Phenanthrene-d10	188	11.588	11.595	(1.000)	926673	40.0000	
	129 Atrazine	200	11.270	11.296	(0.973)	95752	20.1634	20.16
*	132 Chrysene-d12	240	14.838	14.849	(1.000)	776685	40.0000	
	133 Benzidine	184	13.249	13.264	(0.893)	244342	19.9284	19.93
	137 3,3'-Dichlorobenzidine	252	14.804	14.815	(0.998)	131392	17.6197	17.62
*	154 Perylene-d12	264	16.590	16.597	(1.000)	717072	40.0000	

GLQ 1/27/11

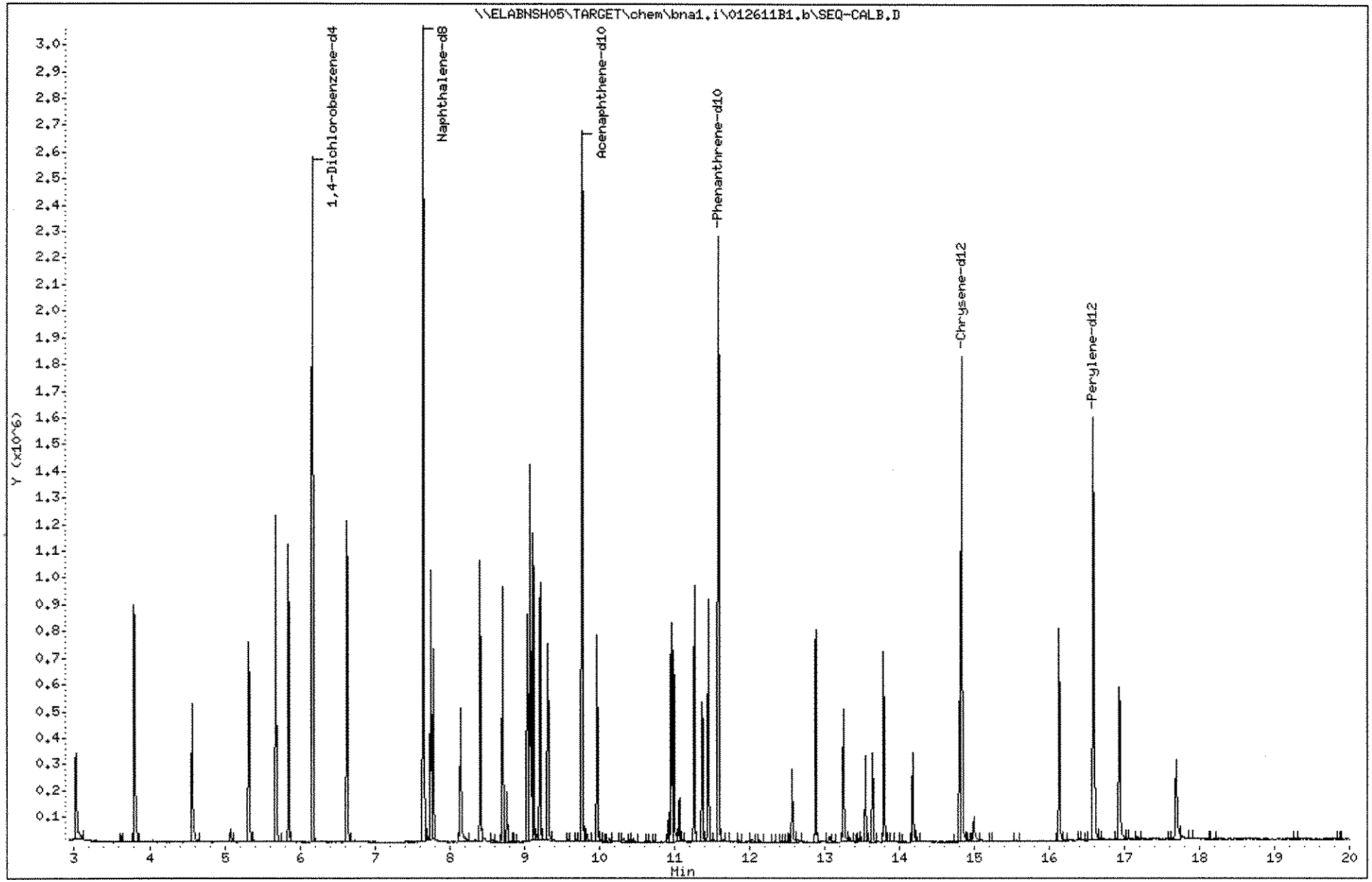
1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALB.D
Date : 26-JAN-2011 20:26
Client ID: CAL20PPM
Sample Info: CAL20PPM;;;;;;11A0538

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Report Date: 27-Jan-2011 15:26

Laboratory Name

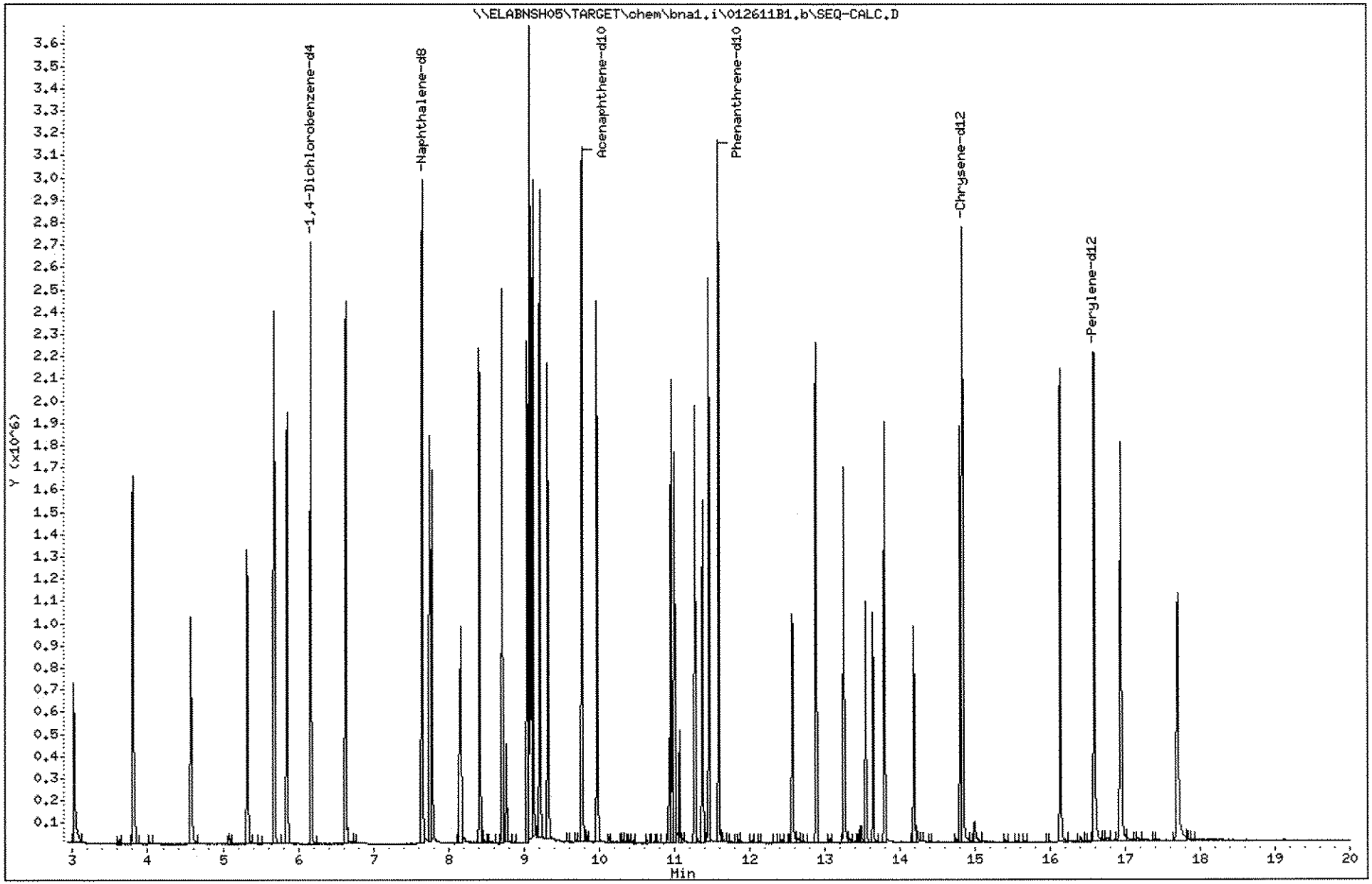
Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Lab Smp Id: SEQ-CALC Client Smp ID: CAL40PPM
Inj Date : 26-JAN-2011 20:54 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL40PPM;;;;;;11A0539
Misc Info : ;1;;;4;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1 1,4-Dichlorobenzene-d4	152	6.172	6.175	(1.000)	546940	40.0000	
5 1,4-Dioxane	88	3.017	3.023	(0.489)	339173	38.4663	38.47
32 Benzaldehyde	106	5.685	5.677	(0.921)	582012	42.0373	42.04
* 33 Naphthalene-d8	136	7.653	7.659	(1.000)	1660895	40.0000	
62 2,6-Dichlorophenol	162	7.755	7.753	(1.013)	490209	37.6313	37.63
57 Acetophenone	105	6.636	6.629	(1.075)	859317	40.4087	40.41
67 1,2,4,5-Tetrachlorobenzene	216	8.714	8.711	(1.139)	521281	43.6583	43.66
68 Caprolactam	113	8.169	8.153	(1.067)	225892	43.0025	43.00
* 69 Acenaphthene-d10	164	9.779	9.784	(1.000)	899064	40.0000	
100 1,1'-Biphenyl	154	9.087	9.078	(0.929)	1288968	39.7515	39.75
* 102 Phenanthrene-d10	188	11.592	11.595	(1.000)	1307190	40.0000	
129 Atrazine	200	11.284	11.267	(0.973)	272208	40.6355	40.64
* 132 Chrysene-d12	240	14.841	14.849	(1.000)	1165104	40.0000	
133 Benzidine	184	13.257	13.250	(0.893)	783722	42.6105	42.61
137 3,3'-Dichlorobenzidine	252	14.809	14.808	(0.998)	476853	42.6280	42.63
* 154 Perylene-d12	264	16.596	16.597	(1.000)	1116311	40.0000	

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Date : 26-JAN-2011 20:54
Client ID: CAL40PPM
Instrument: bna1.i
Sample Info: CAL40PPM;;;;;;11A0539
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Lab Smp Id: SEQ-CALC Client Smp ID: CAL40PPM
Inj Date : 26-JAN-2011 20:54 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL40PPM;;;;;;11A0539
Misc Info : ;1;;;4;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.172	6.175	(1.000)	546940	40.0000	
	5 1,4-Dioxane	88	3.017	3.018	(0.489)	339173	38.4663	38.47
	32 Benzaldehyde	106	5.685	5.692	(0.921)	582012	42.0373	42.04
*	33 Naphthalene-d8	136	7.653	7.659	(1.000)	1660895	40.0000	
	62 2,6-Dichlorophenol	162	7.755	7.763	(1.013)	490209	37.6313	37.63
	57 Acetophenone	105	6.636	6.642	(1.075)	859317	40.4087	40.41
	67 1,2,4,5-Tetrachlorobenzene	216	8.714	8.722	(1.139)	521281	43.6583	43.66
	68 Caprolactam	113	8.169	8.198	(1.067)	225892	43.0025	43.00
*	69 Acenaphthene-d10	164	9.779	9.784	(1.000)	899064	40.0000	
	100 1,1'-Biphenyl	154	9.087	9.096	(0.929)	1288968	39.7515	39.75
*	102 Phenanthrene-d10	188	11.592	11.595	(1.000)	1307190	40.0000	
	129 Atrazine	200	11.284	11.296	(0.973)	272208	40.6355	40.64
*	132 Chrysene-d12	240	14.841	14.849	(1.000)	1165104	40.0000	
	133 Benzidine	184	13.257	13.264	(0.893)	783722	42.6105	42.61
	137 3,3'-Dichlorobenzidine	252	14.809	14.815	(0.998)	476853	42.6280	42.63
*	154 Perylene-d12	264	16.596	16.597	(1.000)	1116311	40.0000	

GLQ 1/27/11

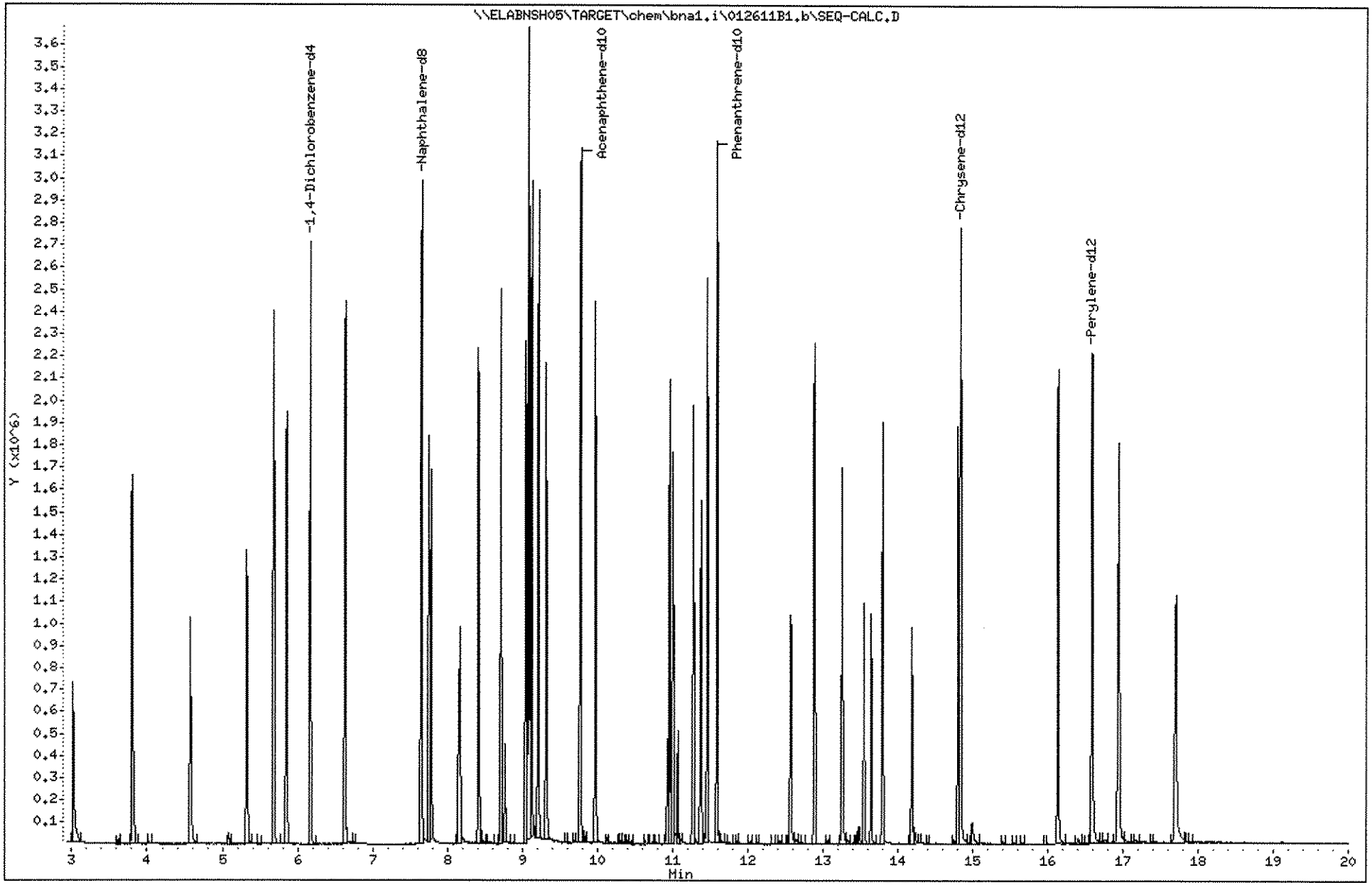
1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Date : 26-JAN-2011 20:54
Client ID: CAL40PPM
Sample Info: CAL40PPM;;;;;;11A0539

Column phase: fused silica

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALD.D
Report Date: 27-Jan-2011 15:26

Laboratory Name

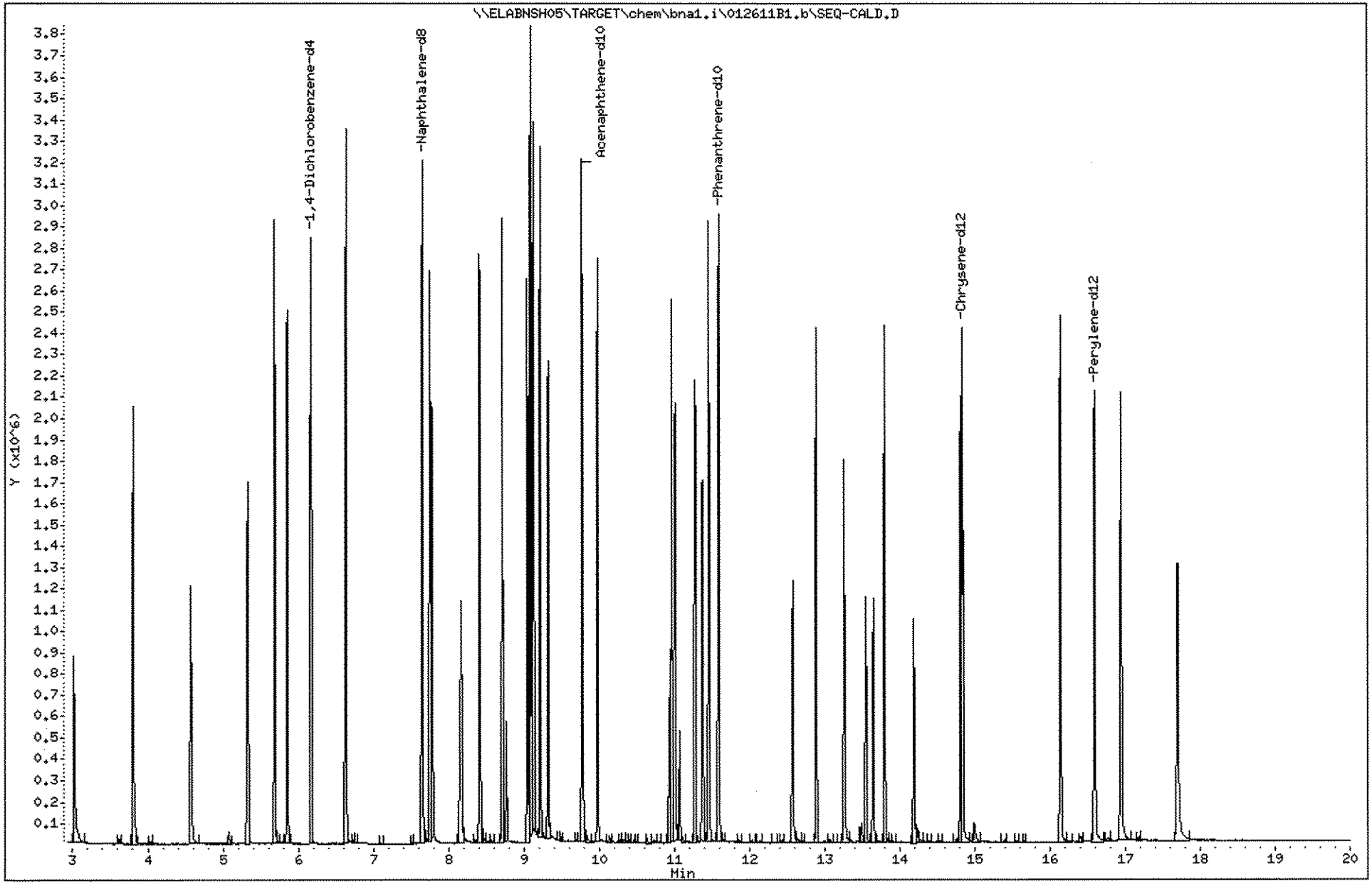
Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALD.D
Lab Smp Id: SEQ-CALD Client Smp ID: CAL50PPM
Inj Date : 26-JAN-2011 21:23 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL50PPM;;;;;;11A0540
Misc Info : ;1;;;5;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1 1,4-Dichlorobenzene-d4	152	6.167	6.175	(1.000)	585659	40.0000	
5 1,4-Dioxane	88	3.017	3.023	(0.489)	419121	44.3909	44.39
32 Benzaldehyde	106	5.685	5.677	(0.922)	700267	47.2348	47.23
* 33 Naphthalene-d8	136	7.653	7.659	(1.000)	1682599	40.0000	
62 2,6-Dichlorophenol	162	7.754	7.753	(1.013)	683054	51.7588	51.76
57 Acetophenone	105	6.635	6.629	(1.076)	1131833	49.7049	49.70
67 1,2,4,5-Tetrachlorobenzene	216	8.714	8.711	(1.139)	651224	53.8378	53.84
68 Caprolactam	113	8.177	8.153	(1.069)	281251	52.8504	52.85
* 69 Acenaphthene-d10	164	9.777	9.784	(1.000)	841647	40.0000	
100 1,1'-Biphenyl	154	9.089	9.078	(0.930)	1337241	44.0536	44.05
* 102 Phenanthrene-d10	188	11.596	11.595	(1.000)	1253804	40.0000	
129 Atrazine	200	11.287	11.267	(0.973)	320653	49.9055	49.90
* 132 Chrysene-d12	240	14.837	14.849	(1.000)	1093811	40.0000	
133 Benzidine	184	13.255	13.250	(0.893)	917701	53.1469	53.15
137 3,3'-Dichlorobenzidine	252	14.811	14.808	(0.998)	550037	52.3751	52.38
* 154 Perylene-d12	264	16.594	16.597	(1.000)	1039324	40.0000	

GLQ 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALD.D
Date : 26-JAN-2011 21:23
Client ID: CAL50PPM
Instrument: bna1.i
Sample Info: CAL50PPM;;;;;;;11A0540
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



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Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALD.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALD.D
Lab Smp Id: SEQ-CALD Client Smp ID: CAL50PPM
Inj Date : 26-JAN-2011 21:23 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL50PPM;;;;;;11A0540
Misc Info : ;1;;;5;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.167	6.175	(1.000)	585659	40.0000	
5	1,4-Dioxane	88	3.017	3.018	(0.489)	419121	44.3909	44.39
32	Benzaldehyde	106	5.685	5.692	(0.922)	700267	47.2348	47.23
* 33	Naphthalene-d8	136	7.653	7.659	(1.000)	1682599	40.0000	
62	2,6-Dichlorophenol	162	7.754	7.763	(1.013)	683054	51.7588	51.76
57	Acetophenone	105	6.635	6.642	(1.076)	1131833	49.7049	49.70
67	1,2,4,5-Tetrachlorobenzene	216	8.714	8.722	(1.139)	651224	53.8378	53.84
68	Caprolactam	113	8.177	8.198	(1.069)	281251	52.8504	52.85
* 69	Acenaphthene-d10	164	9.777	9.784	(1.000)	841647	40.0000	
100	1,1'-Biphenyl	154	9.089	9.096	(0.930)	1337241	44.0536	44.05
* 102	Phenanthrene-d10	188	11.596	11.595	(1.000)	1253804	40.0000	
129	Atrazine	200	11.287	11.296	(0.973)	320653	49.9055	49.90
* 132	Chrysene-d12	240	14.837	14.849	(1.000)	1093811	40.0000	
133	Benzidine	184	13.255	13.264	(0.893)	917701	53.1469	53.15
137	3,3'-Dichlorobenzidine	252	14.811	14.815	(0.998)	550037	52.3751	52.38
* 154	Perylene-d12	264	16.594	16.597	(1.000)	1039324	40.0000	

GLQ 1/27/11

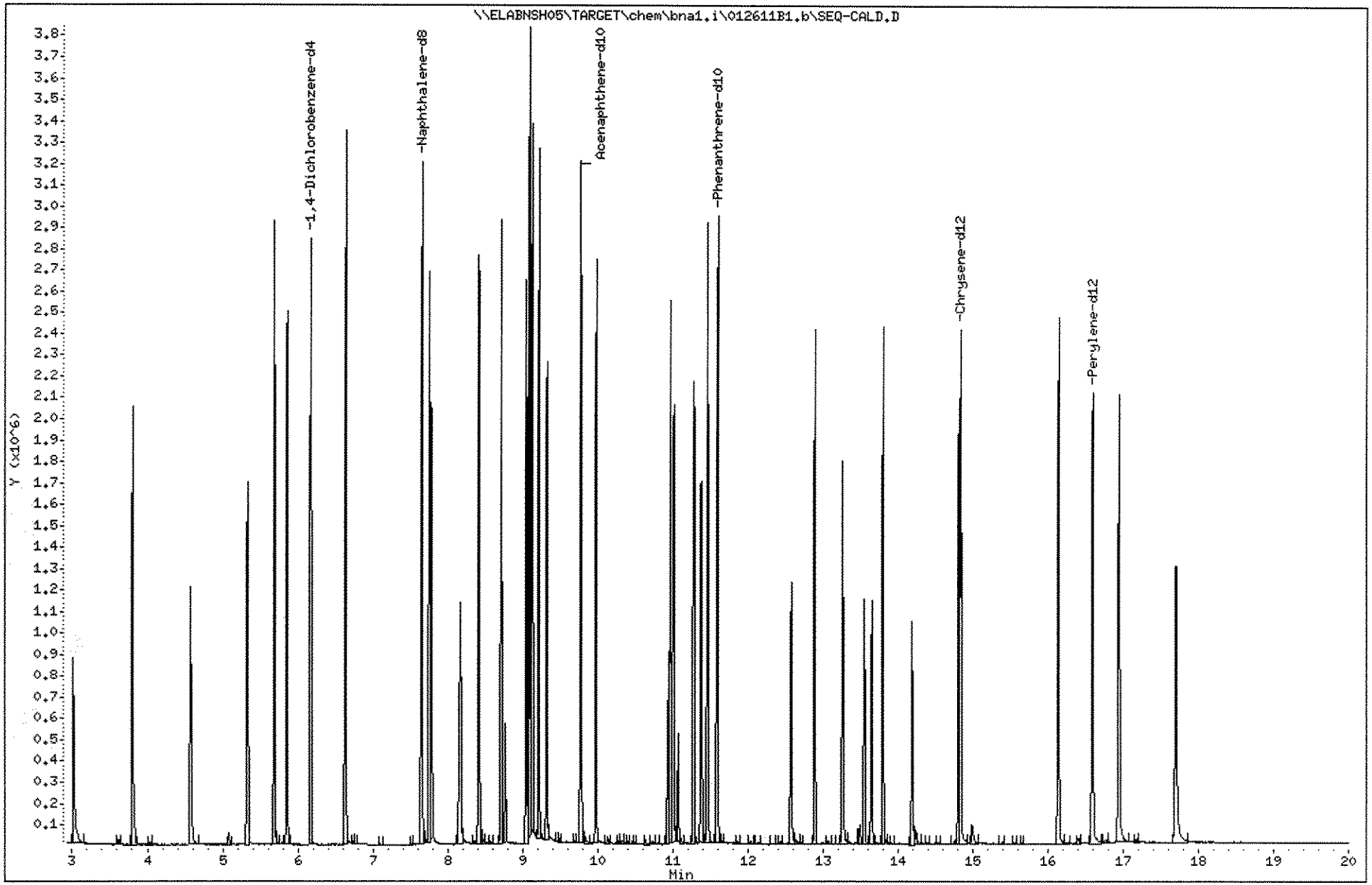
1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALD.D
Date : 26-JAN-2011 21:23
Client ID: CAL50PPM
Sample Info: CAL50PPM;;;;;;11A0540

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



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Report Date: 27-Jan-2011 15:26

Laboratory Name

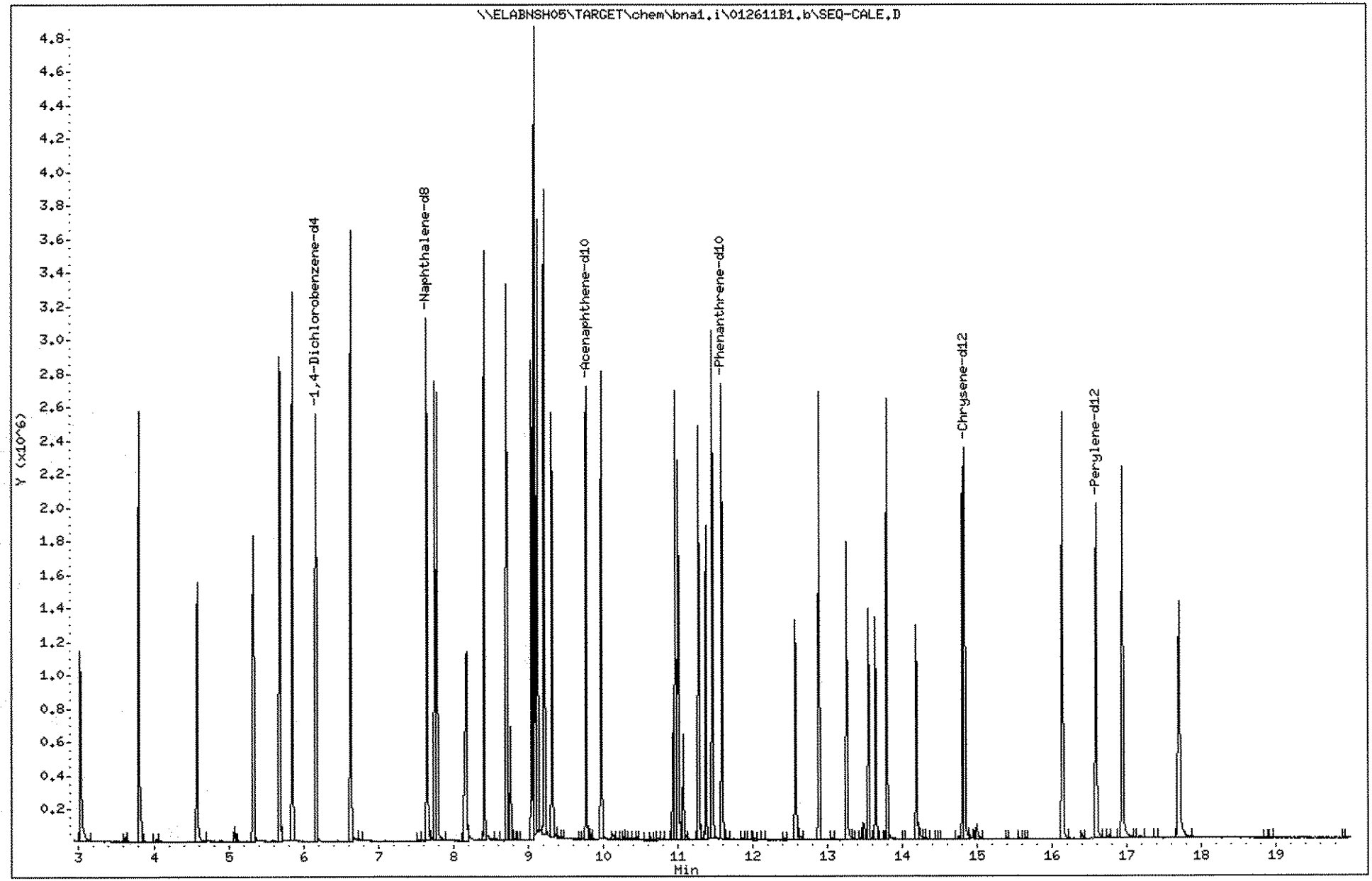
Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALE.D
Lab Smp Id: SEQ-CALE Client Smp ID: CAL60PPM
Inj Date : 26-JAN-2011 21:52 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL60PPM;;;;;;11A0541
Misc Info : ;1;;;6;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	540627	40.0000	
5	1,4-Dioxane	88	3.017	3.023	(0.489)	524422	60.1703	60.17
32	Benzaldehyde	106	5.684	5.677	(0.921)	774643	56.6040	56.60
* 33	Naphthalene-d8	136	7.651	7.659	(1.000)	1637223	40.0000	
62	2,6-Dichlorophenol	162	7.753	7.753	(1.013)	774249	60.2952	60.30
57	Acetophenone	105	6.635	6.629	(1.075)	1275611	60.6851	60.68
67	1,2,4,5-Tetrachlorobenzene	216	8.717	8.711	(1.139)	701966	59.6411	59.64
68	Caprolactam	113	8.181	8.153	(1.069)	323586	62.4909	62.49
* 69	Acenaphthene-d10	164	9.780	9.784	(1.000)	765843	40.0000	
100	1,1'-Biphenyl	154	9.090	9.078	(0.929)	1742167	63.0742	63.07
* 102	Phenanthrene-d10	188	11.594	11.595	(1.000)	1096752	40.0000	
129	Atrazine	200	11.283	11.267	(0.973)	350006	62.2745	62.27
* 132	Chrysene-d12	240	14.838	14.849	(1.000)	969823	40.0000	
133	Benzidine	184	13.256	13.250	(0.893)	927373	60.5733	60.57
137	3,3'-Dichlorobenzidine	252	14.813	14.808	(0.998)	591377	63.5108	63.51
* 154	Perylene-d12	264	16.592	16.597	(1.000)	926169	40.0000	

GLA 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALE.D
Date : 26-JAN-2011 21:52
Client ID: CAL60PPM
Instrument: bna1.i
Sample Info: CAL60PPM;;;;;;11A0541
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALE.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALE.D
Lab Smp Id: SEQ-CALE Client Smp ID: CAL60PPM
Inj Date : 26-JAN-2011 21:52 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL60PPM;;;;;;11A0541
Misc Info : ;1;;;6;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	540627	40.0000	
	5 1,4-Dioxane	88	3.017	3.018	(0.489)	524422	60.1703	60.17
	32 Benzaldehyde	106	5.684	5.692	(0.921)	774643	56.6040	56.60
*	33 Naphthalene-d8	136	7.651	7.659	(1.000)	1637223	40.0000	
	62 2,6-Dichlorophenol	162	7.753	7.763	(1.013)	774249	60.2952	60.30
	57 Acetophenone	105	6.635	6.642	(1.075)	1275611	60.6851	60.68
	67 1,2,4,5-Tetrachlorobenzene	216	8.717	8.722	(1.139)	701966	59.6411	59.64
	68 Caprolactam	113	8.181	8.198	(1.069)	323586	62.4909	62.49
*	69 Acenaphthene-d10	164	9.780	9.784	(1.000)	765843	40.0000	
	100 1,1'-Biphenyl	154	9.090	9.096	(0.929)	1742167	63.0742	63.07
*	102 Phenanthrene-d10	188	11.594	11.595	(1.000)	1096752	40.0000	
	129 Atrazine	200	11.283	11.296	(0.973)	350006	62.2745	62.27
*	132 Chrysene-d12	240	14.838	14.849	(1.000)	969823	40.0000	
	133 Benzidine	184	13.256	13.264	(0.893)	927373	60.5733	60.57
	137 3,3'-Dichlorobenzidine	252	14.813	14.815	(0.998)	591377	63.5108	63.51
*	154 Perylene-d12	264	16.592	16.597	(1.000)	926169	40.0000	

GLQ 1/27/11

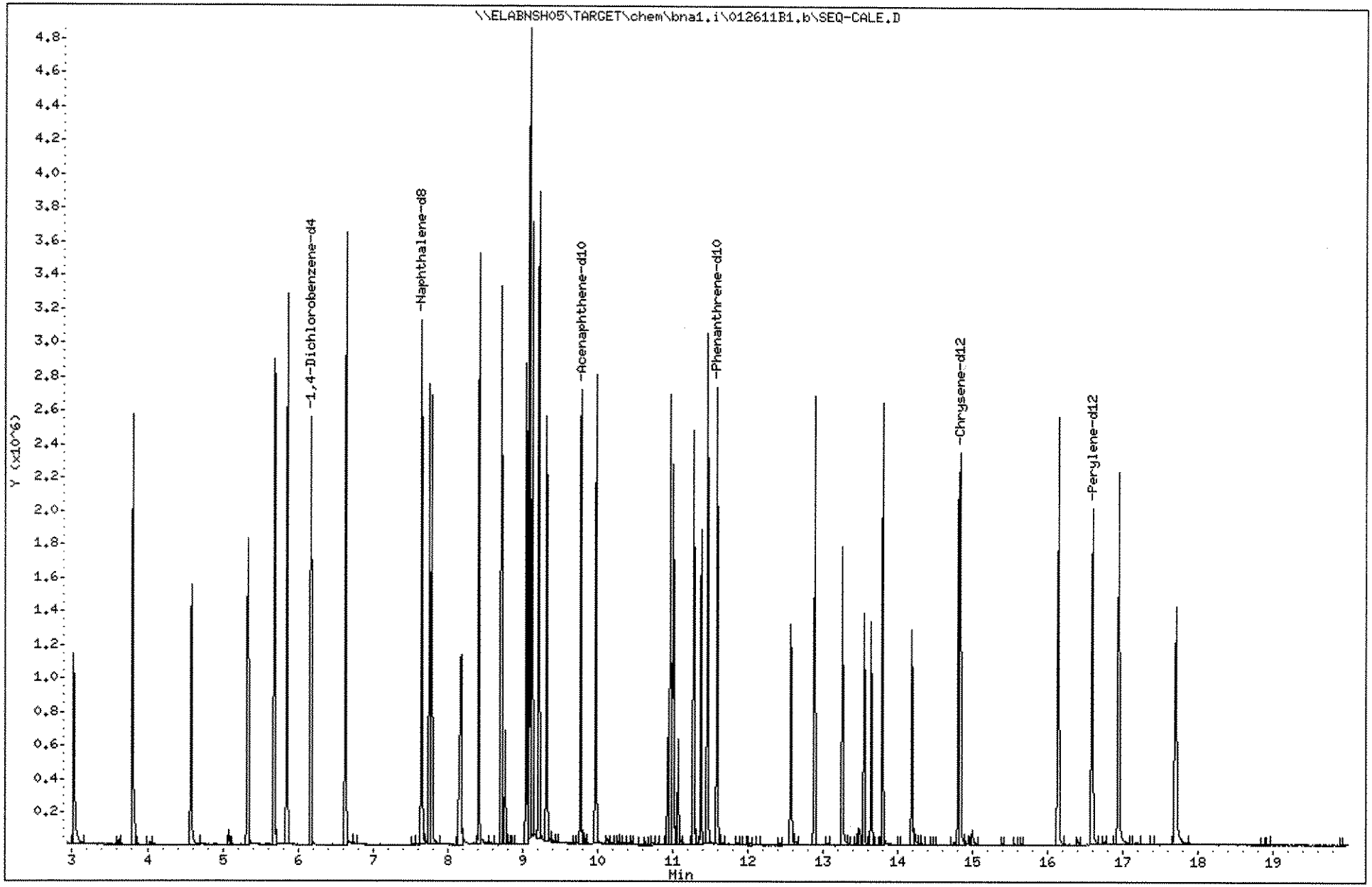
1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALE.D
Date : 26-JAN-2011 21:52
Client ID: CAL60PPM
Sample Info: CAL60PPM;;;;;;11A0541

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25

Column phase: fused silica



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Report Date: 27-Jan-2011 15:27

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALF.D
Lab Smp Id: SEQ-CALF Client Smp ID: CAL80PPM
Inj Date : 26-JAN-2011 22:20 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
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Misc Info : ;1;;;7;;cal_2.sub;
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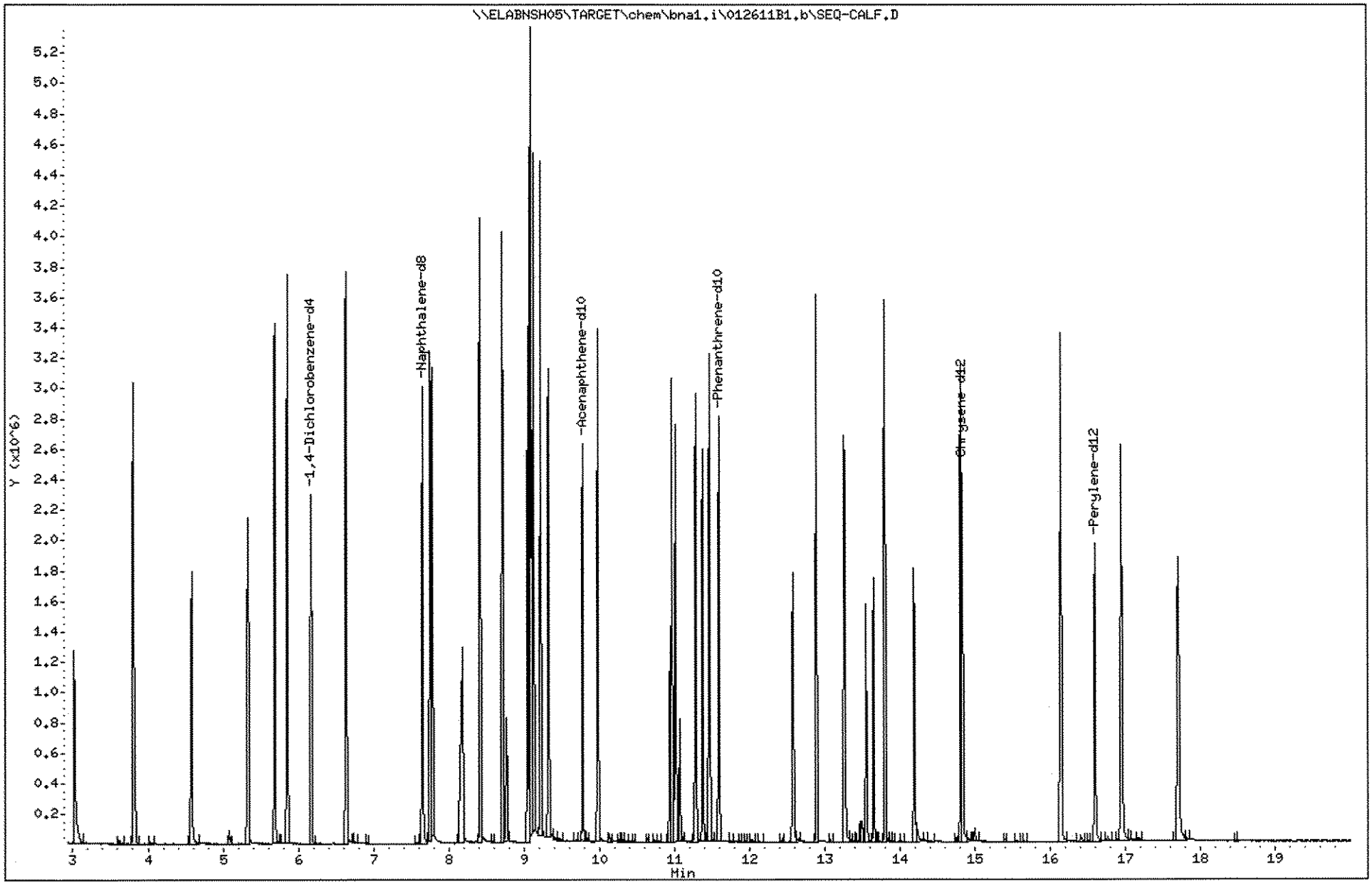
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.174	6.175	(1.000)	502308	40.0000	
5	1,4-Dioxane	88	3.017	3.023	(0.489)	648146	80.0390	80.04
32	Benzaldehyde	106	5.692	5.677	(0.922)	948484	74.5938	74.59
* 33	Naphthalene-d8	136	7.652	7.659	(1.000)	1559074	40.0000	
62	2,6-Dichlorophenol	162	7.754	7.753	(1.013)	956609	78.2307	78.23
57	Acetophenone	105	6.640	6.629	(1.076)	1462252	74.8710	74.87
67	1,2,4,5-Tetrachlorobenzene	216	8.718	8.711	(1.139)	882223	78.7135	78.71
68	Caprolactam	113	8.188	8.153	(1.070)	411924	83.5382	83.54
* 69	Acenaphthene-d10	164	9.780	9.784	(1.000)	689335	40.0000	
100	1,1'-Biphenyl	154	9.093	9.078	(0.930)	1874165	75.3840	75.38
* 102	Phenanthrene-d10	188	11.595	11.595	(1.000)	1178815	40.0000	
129	Atrazine	200	11.287	11.267	(0.973)	485502	80.3690	80.37
* 132	Chrysene-d12	240	14.838	14.849	(1.000)	1052711	40.0000	
133	Benzidine	184	13.260	13.250	(0.894)	1468147	88.3445	88.34
137	3,3'-Dichlorobenzidine	252	14.813	14.808	(0.998)	851287	84.2253	84.22
* 154	Perylene-d12	264	16.593	16.597	(1.000)	911234	40.0000	

QC 1/27/11

1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALF.D
Date : 26-JAN-2011 22:20
Client ID: CAL80PPM
Instrument: bna1.i
Sample Info: CAL80PPM;;;;;;11A0542
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



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Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALF.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALF.D
Lab Smp Id: SEQ-CALF Client Smp ID: CAL80PPM
Inj Date : 26-JAN-2011 22:20 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL80PPM;;;;;;11A0542
Misc Info : ;1;;;7;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.174	6.175	(1.000)	502308	40.0000	
	5 1,4-Dioxane	88	3.017	3.018	(0.489)	648146	80.0390	80.04
	32 Benzaldehyde	106	5.692	5.692	(0.922)	948484	74.5938	74.59
*	33 Naphthalene-d8	136	7.652	7.659	(1.000)	1559074	40.0000	
	62 2,6-Dichlorophenol	162	7.754	7.763	(1.013)	956609	78.2307	78.23
	57 Acetophenone	105	6.640	6.642	(1.076)	1462252	74.8710	74.87
	67 1,2,4,5-Tetrachlorobenzene	216	8.718	8.722	(1.139)	882223	78.7135	78.71
	68 Caprolactam	113	8.188	8.198	(1.070)	411924	83.5382	83.54
*	69 Acenaphthene-d10	164	9.780	9.784	(1.000)	689335	40.0000	
	100 1,1'-Biphenyl	154	9.093	9.096	(0.930)	1874165	75.3840	75.38
*	102 Phenanthrene-d10	188	11.595	11.595	(1.000)	1178815	40.0000	
	129 Atrazine	200	11.287	11.296	(0.973)	485502	80.3690	80.37
*	132 Chrysene-d12	240	14.838	14.849	(1.000)	1052711	40.0000	
	133 Benzidine	184	13.260	13.264	(0.894)	1468147	88.3445	88.34
	137 3,3'-Dichlorobenzidine	252	14.813	14.815	(0.998)	851287	84.2253	84.22
*	154 Perylene-d12	264	16.593	16.597	(1.000)	911234	40.0000	

GLQ 1/27/11

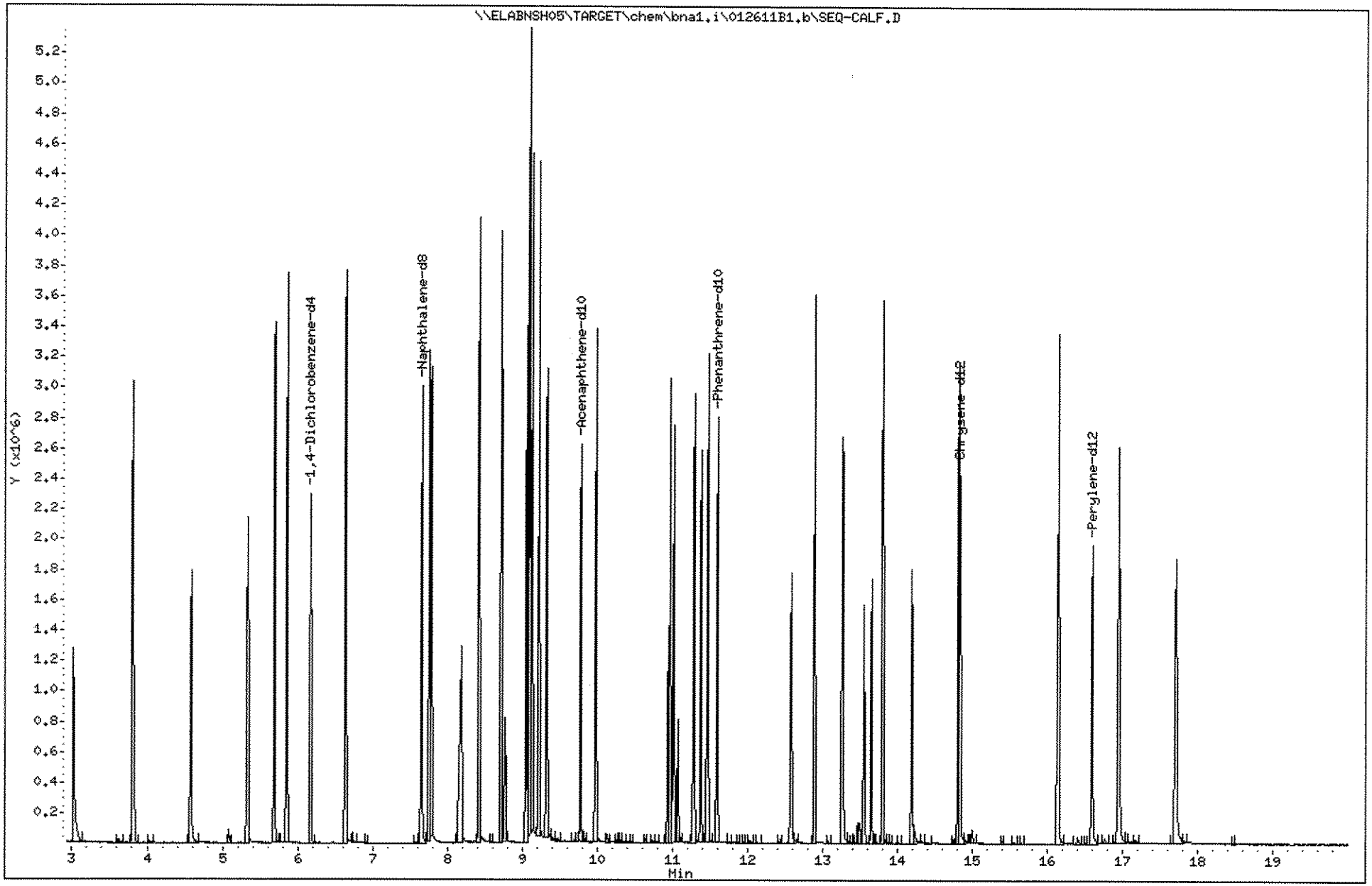
1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALF.D
Date : 26-JAN-2011 22:20
Client ID: CAL80PPM
Sample Info: CAL80PPM;;;;;;11A0542

Column phase: fused silica

Instrument: bna1.i

Operator: MEC
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALG.D
Report Date: 27-Jan-2011 15:27

Laboratory Name

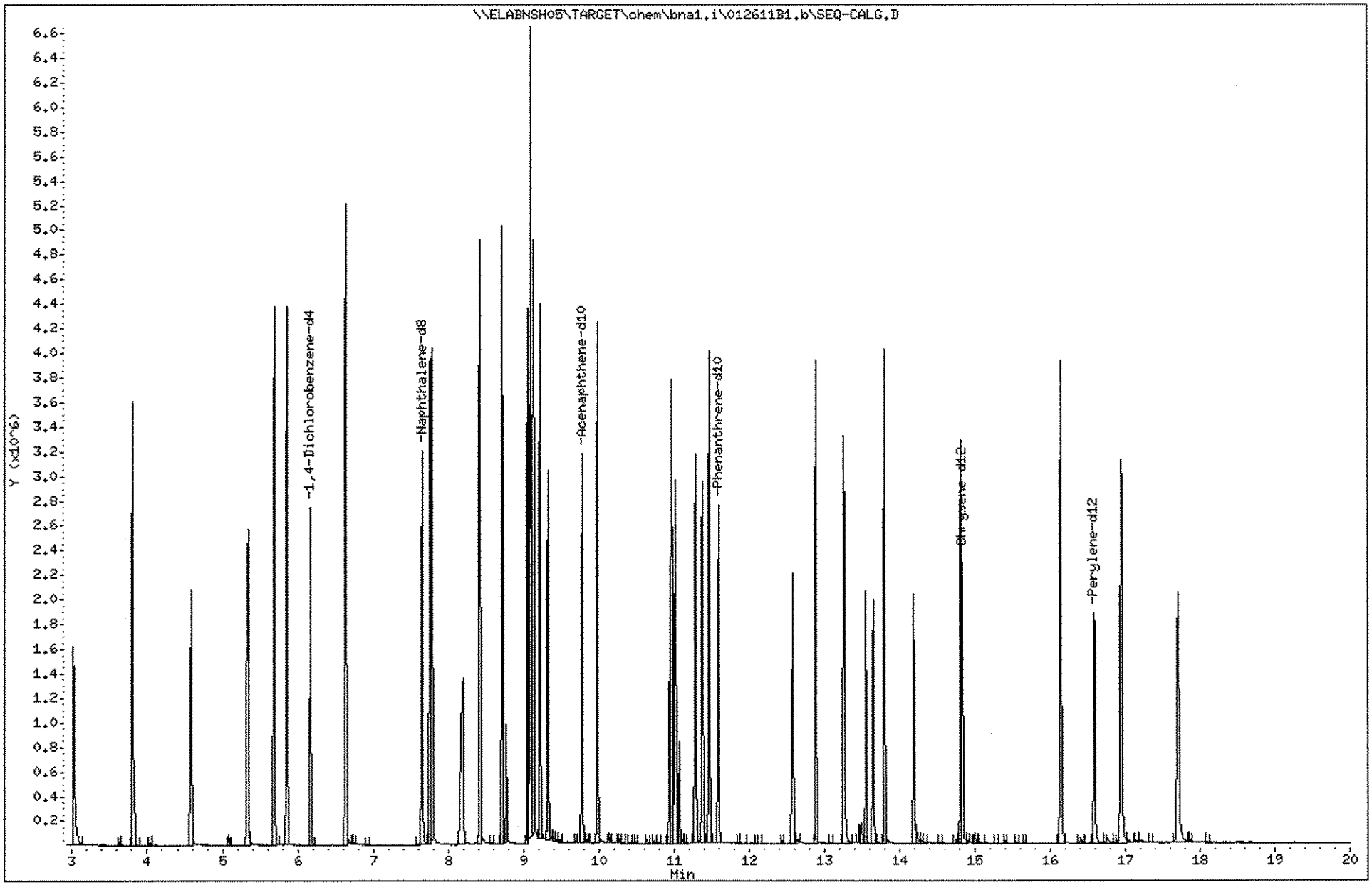
Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALG.D
Lab Smp Id: SEQ-CALG Client Smp ID: CAL100PPM
Inj Date : 26-JAN-2011 22:49 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL100PPM;;;;;;11A0543
Misc Info : ;1;;;8;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:24 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.172	6.175	(1.000)	537968	40.0000	
5	1,4-Dioxane	88	3.017	3.023	(0.489)	837102	96.5208	96.52
32	Benzaldehyde	106	5.691	5.677	(0.922)	1146583	84.1961	84.20
* 33	Naphthalene-d8	136	7.653	7.659	(1.000)	1642233	40.0000	
62	2,6-Dichlorophenol	162	7.762	7.753	(1.014)	1256781	97.5741	97.57
57	Acetophenone	105	6.641	6.629	(1.076)	1904100	91.0322	91.03
67	1,2,4,5-Tetrachlorobenzene	216	8.721	8.711	(1.140)	1131521	95.8441	95.84
68	Caprolactam	113	8.198	8.153	(1.071)	488057	93.9659	93.96
* 69	Acenaphthene-d10	164	9.779	9.784	(1.000)	783714	40.0000	
100	1,1'-Biphenyl	154	9.096	9.078	(0.930)	2485524	87.9351	87.94
* 102	Phenanthrene-d10	188	11.597	11.595	(1.000)	1089157	40.0000	
129	Atrazine	200	11.296	11.267	(0.974)	581331	104.154	104.2(A)
* 132	Chrysene-d12	240	14.840	14.849	(1.000)	993474	40.0000	
133	Benzidine	184	13.264	13.250	(0.894)	1689927	107.753	107.8(A)
137	3,3'-Dichlorobenzidine	252	14.815	14.808	(0.998)	974341	102.148	102.1(A)
* 154	Perylene-d12	264	16.597	16.597	(1.000)	932715	40.0000	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALC.D
Date : 26-JAN-2011 22:49
Client ID: CAL100PPM
Instrument: bna1.i
Sample Info: CAL100PPM;;;;;;11A0543
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALG.D
Report Date: 27-Jan-2011 15:22

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALG.D
Lab Smp Id: SEQ-CALG Client Smp ID: CAL100PPM
Inj Date : 26-JAN-2011 22:49 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CAL100PPM;;;;;;11A0543
Misc Info : ;1;;;8;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1D.m
Meth Date : 27-Jan-2011 15:19 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 1 1,4-Dichlorobenzene-d4	152	6.172	6.175	(1.000)	537968	40.0000	
5 1,4-Dioxane	88	3.017	3.018	(0.489)	837102	96.5208	96.52
32 Benzaldehyde	106	5.691	5.692	(0.922)	1146583	84.1961	84.20
* 33 Naphthalene-d8	136	7.653	7.659	(1.000)	1642233	40.0000	
62 2,6-Dichlorophenol	162	7.762	7.763	(1.014)	1256781	97.5741	97.57
57 Acetophenone	105	6.641	6.642	(1.076)	1904100	91.0322	91.03
67 1,2,4,5-Tetrachlorobenzene	216	8.721	8.722	(1.140)	1131521	95.8441	95.84
68 Caprolactam	113	8.198	8.198	(1.071)	488057	93.9659	93.96
* 69 Acenaphthene-d10	164	9.779	9.784	(1.000)	783714	40.0000	
100 1,1'-Biphenyl	154	9.096	9.096	(0.930)	2485524	87.9351	87.94
* 102 Phenanthrene-d10	188	11.597	11.595	(1.000)	1089157	40.0000	
129 Atrazine	200	11.296	11.296	(0.974)	581331	104.154	104.2(A)
* 132 Chrysene-d12	240	14.840	14.849	(1.000)	993474	40.0000	
133 Benzidine	184	13.264	13.264	(0.894)	1689927	107.753	107.8(A)
137 3,3'-Dichlorobenzidine	252	14.815	14.815	(0.998)	974341	102.148	102.1(A)
* 154 Perylene-d12	264	16.597	16.597	(1.000)	932715	40.0000	

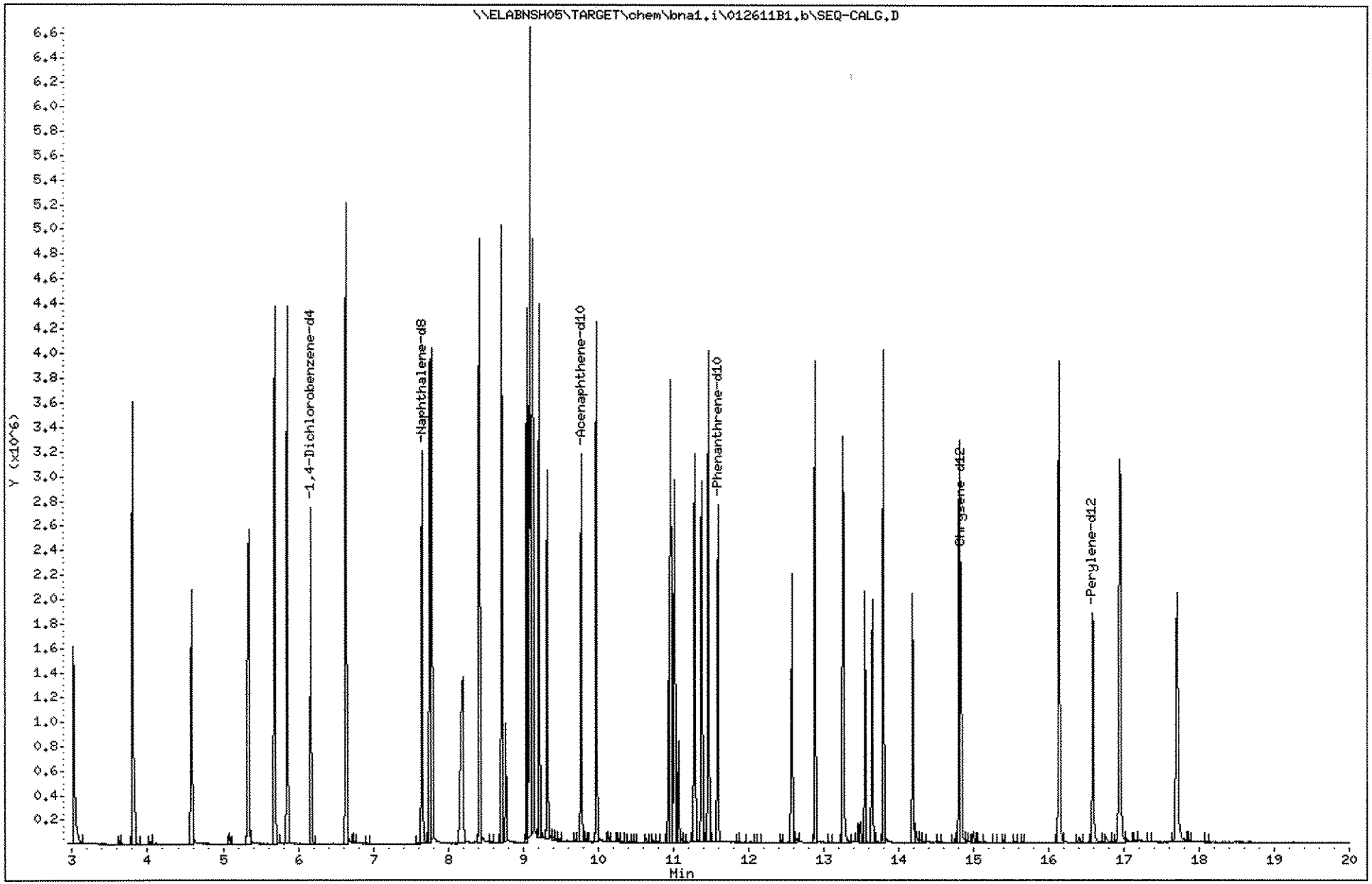
GLQ 1/27/11

1/28/11

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-CALG.D
Date : 26-JAN-2011 22:49
Client ID: CAL100PPM
Instrument: bna1.i
Sample Info: CAL100PPM;;;;;;11A0543
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV1.D
Report Date: 30-Jan-2011 15:48

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV1.D
Lab Smp Id: SEQ-ICV1 Client Smp ID: ICV50PPM
Inj Date : 26-JAN-2011 23:17 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : ICV50PPM;;;;;;11A0288
Misc Info : ;3;LCS;;;;cal_1.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 17:43 mcobb Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET09_VM

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1	1,4-Dichlorobenzene-d4	152	6.172	6.178	(1.000)	511700	40.0000	
$	2	2-Fluorophenol	112	4.742	4.745	(0.768)	1783296	113.815	113.8(AR)
$	3	Phenol-d6	99	5.770	5.775	(0.935)	2107964	105.841	105.8(AR)
	4	Pyridine	79	3.378	3.376	(0.547)	1113875	55.3014	55.30
	6	N-Nitroso-di-methylamine	42	3.344	3.342	(0.542)	411361	56.1557	56.16
	7	Aniline	93	5.811	5.816	(0.941)	1347572	54.0144	54.01
	10	Phenol	94	5.790	5.789	(0.938)	1166498	56.4694	56.47
	11	bis(2-Chloroethyl)ether	93	5.893	5.892	(0.955)	895008	51.9472	51.95
	12	2-Chlorophenol	128	5.934	5.940	(0.961)	930277	55.8699	55.87
	13	1,3-Dichlorobenzene	146	6.111	6.110	(0.990)	922400	51.1147	51.11
	14	1,4-Dichlorobenzene	146	6.193	6.192	(1.003)	901431	51.0781	51.08
	15	Benzyl alcohol	108	6.343	6.342	(1.028)	625789	57.5996	57.60
	16	1,2-Dichlorobenzene	146	6.363	6.363	(1.031)	920478	54.7367	54.74
	17	2-Methylphenol	108	6.465	6.465	(1.047)	804846	55.4159	55.42
	18	2,2'-Oxybis-1-chloropropane	45	6.500	6.500	(1.053)	1307067	52.7801	52.78
	19	3-Methylphenol	108	6.650	6.650	(1.077)	741257	48.8567	48.86
	20	4-Methylphenol	108	6.650	6.650	(1.077)	741257	48.8567	48.86
	21	N-Nitroso-di-n-propylamine	70	6.657	6.663	(1.078)	530122	49.6769	49.68
	22	Hexachloroethane	117	6.751	6.752	(1.094)	379041	51.7543	51.75
*	33	Naphthalene-d8	136	7.658	7.656	(1.000)	1720446	40.0000	
$	34	Nitrobenzene-d5	82	6.813	6.814	(0.890)	820752	51.6877	51.69(R)
	35	Nitrobenzene	77	6.840	6.840	(0.893)	702933	45.5828	45.58
	39	Isophorone	82	7.132	7.132	(0.931)	1482863	44.6869	44.69
	40	2-Nitrophenol	139	7.207	7.206	(0.941)	528122	54.7885	54.79
	42	2,4-Dimethylphenol	107	7.268	7.274	(0.949)	780904	53.1227	53.12
	43	Benzoic acid	105	7.446	7.445	(0.972)	572379	49.4859	49.48

1/30/11
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1/31/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV1.D
Report Date: 30-Jan-2011 15:48

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
	44 bis(2-Chloroethoxy)methane	93	7.391	7.390	(0.965)	965172	48.8728	48.87
	47 2,4-Dichlorophenol	162	7.494	7.493	(0.979)	694204	50.7843	50.78
	50 1,2,4-Trichlorobenzene	180	7.590	7.595	(0.991)	724611	48.9134	48.91
	51 Naphthalene	128	7.684	7.683	(1.003)	1980035	47.8142	47.81
	52 4-Chloroaniline	127	7.753	7.759	(1.012)	926666	48.8827	48.88
	53 Hexachlorobutadiene	225	7.834	7.841	(1.023)	385399	50.8156	50.82
	54 4-Chloro-3-methylphenol	107	8.340	8.353	(1.089)	594374	48.8767	48.88
	55 2-Methylnaphthalene	141	8.518	8.516	(1.112)	1003445	47.2833	47.28
	56 1-Methylnaphthalene	141	8.634	8.638	(1.127)	1030005	47.1445	47.14
*	69 Acenaphthene-d10	164	9.780	9.783	(1.000)	772767	40.0000	
	70 Hexachlorocyclopentadiene	237	8.708	8.713	(0.890)	362004	53.5222	53.52
	71 2,4,6-Trichlorophenol	196	8.859	8.862	(0.906)	425811	54.9746	54.97
	72 2,4,5-Trichlorophenol	196	8.900	8.910	(0.910)	449431	53.8676	53.87
	73 2-Chloronaphthalene	162	9.104	9.109	(0.931)	1198999	54.4296	54.43
$	74 2-Fluorobiphenyl	172	8.968	8.972	(0.917)	1410848	56.1800	56.18(R)
	75 2-Nitroaniline	65	9.240	9.242	(0.945)	334450	53.2444	53.24
	76 Dimethylphthalate	163	9.486	9.489	(0.970)	1190258	46.6183	46.62
	77 Acenaphthylene	152	9.609	9.611	(0.982)	1816592	53.9065	53.91
	78 2,6-Dinitrotoluene	165	9.548	9.550	(0.976)	376988	56.0215	56.02
	79 3-Nitroaniline	138	9.753	9.755	(0.997)	382825	56.8964	56.90
	80 Acenaphthene	153	9.822	9.824	(1.004)	1021883	48.8565	48.86
	83 4-Nitrophenol	65	9.959	9.960	(1.018)	211638	55.3940	55.39
	84 Dibenzofuran	168	10.035	10.035	(1.026)	1537380	53.1303	53.13
	85 2,4-Dinitrotoluene	165	10.041	10.042	(1.027)	408314	56.5208	56.52
	87 4-Chlorophenyl-phenylether	204	10.463	10.465	(1.070)	555585	53.9136	53.91
	88 Fluorene	166	10.456	10.458	(1.069)	1216384	54.8912	54.89
	89 4-Nitroaniline	138	10.497	10.499	(1.073)	308527	69.1586	69.16(H)
	96 2,3,4,6-Tetrachlorophenol	232	10.185	10.193	(1.041)	325730	50.1043	50.10
*	102 Phenanthrene-d10	188	11.596	11.598	(1.000)	1115940	40.0000	
	103 1,2-Diphenylhydrazine	77	10.660	10.656	(0.919)	1302830	55.9446	55.94
	104 Carbazole	167	11.888	11.891	(1.025)	1277254	49.8257	49.82
	105 4,6-Dinitro-2-methylphenol	198	10.531	10.533	(0.908)	225192	57.2304	57.23
	106 N-Nitrosodiphenylamine	169	10.613	10.615	(0.915)	1038234	56.3941	56.39
$	107 2,4,6-Tribromophenol	330	10.749	10.751	(0.927)	480398	118.834	118.8(AR)
	108 4-Bromophenyl-phenylether	248	11.062	11.066	(0.954)	323438	50.3415	50.34
	109 Hexachlorobenzene	284	11.123	11.126	(0.959)	384068	52.9867	52.99
	111 Phenanthrene	178	11.629	11.631	(1.003)	1656876	56.1633	56.16
	112 Anthracene	178	11.691	11.692	(1.008)	1606171	54.4927	54.49
	115 Di-n-butylphthalate	149	12.347	12.348	(1.065)	2035953	53.0578	53.06
	116 Fluoranthene	202	13.078	13.080	(1.128)	1609509	53.7744	53.77
*	132 Chrysene-d12	240	14.850	14.851	(1.000)	1052908	40.0000	
	134 Pyrene	202	13.358	13.353	(0.899)	1656321	48.4436	48.44
$	135 Terphenyl-d14	244	13.562	13.563	(0.913)	970141	45.3851	45.38(R)
	136 Butylbenzylphthalate	149	14.177	14.179	(0.955)	982360	48.4984	48.50
	138 Benzo(a)anthracene	228	14.832	14.838	(0.999)	1462454	48.7907	48.79
	139 Chrysene	228	14.883	14.883	(1.002)	1472061	49.8096	49.81
	140 Bis(2-ethylhexyl)phthalate	149	14.910	14.909	(1.004)	1313534	48.6799	48.68

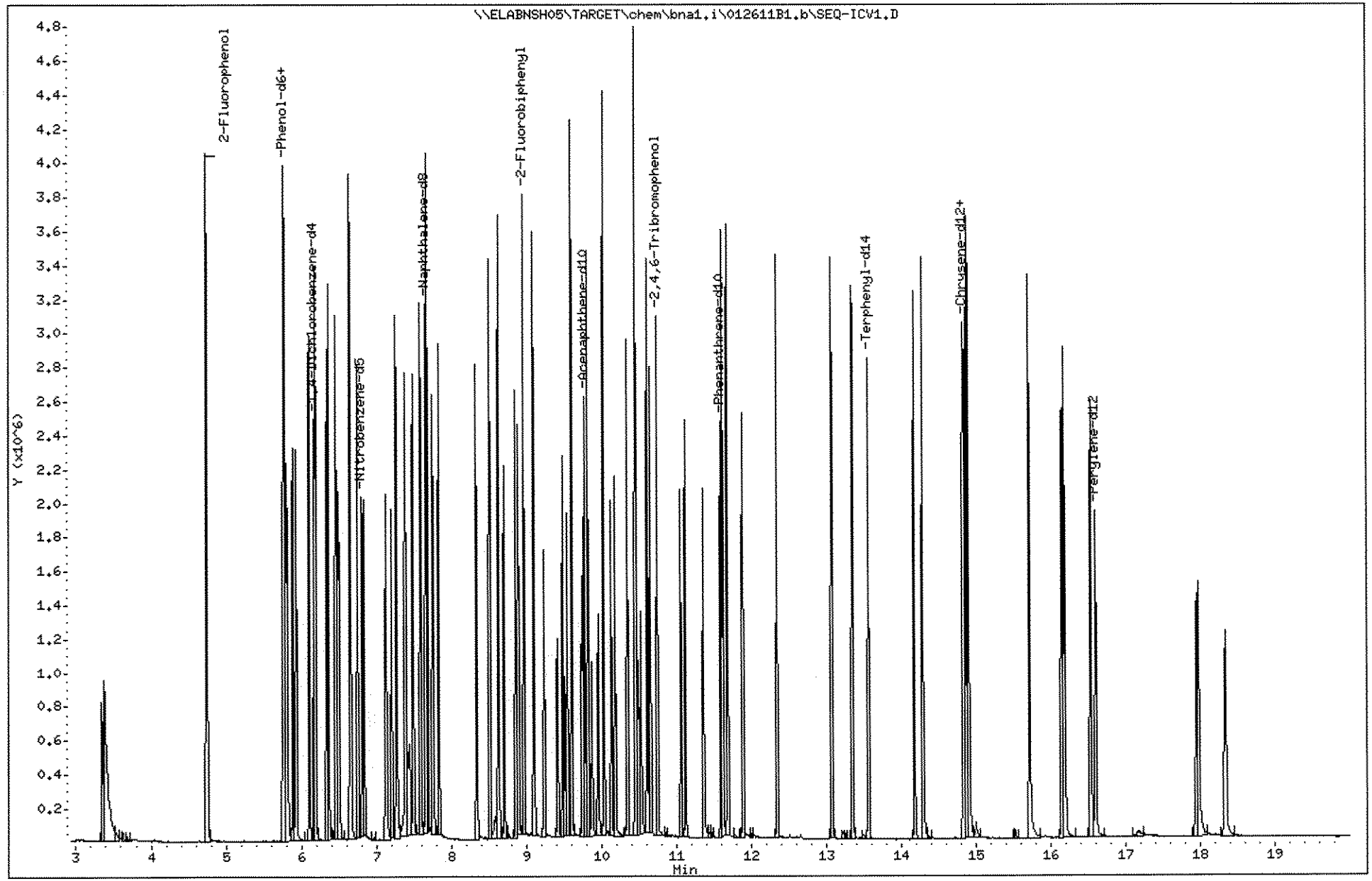
Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV1.D
Report Date: 30-Jan-2011 15:48

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
* 154 Perylene-d12	264	16.603	16.602	(1.000)	949694	40.0000	
155 Di-n-octylphthalate	149	15.714	15.714	(0.946)	2309230	54.2476	54.25
156 Benzo(b)fluoranthene	252	16.155	16.163	(0.973)	1396189	53.4602	53.46
157 Benzo(k)fluoranthene	252	16.189	16.189	(0.975)	1487362	51.5718	51.57
158 Benzo(a)pyrene	252	16.535	16.537	(0.996)	1264448	51.0115	51.01
159 Indeno(1,2,3-cd)pyrene	276	17.955	17.962	(1.081)	1105406	50.4510	50.45
160 Dibenz(a,h)anthracene	278	17.980	17.983	(1.083)	937797	51.5380	51.54
161 Benzo(g,h,i)perylene	276	18.342	18.346	(1.105)	868909	48.2223	48.22

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV1.D
Date : 26-JAN-2011 23:17
Client ID: ICV50PPM
Instrument: bna1.i
Sample Info: ICV50PPM;;;;;;11A0288
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV2.D
Report Date: 27-Jan-2011 15:42

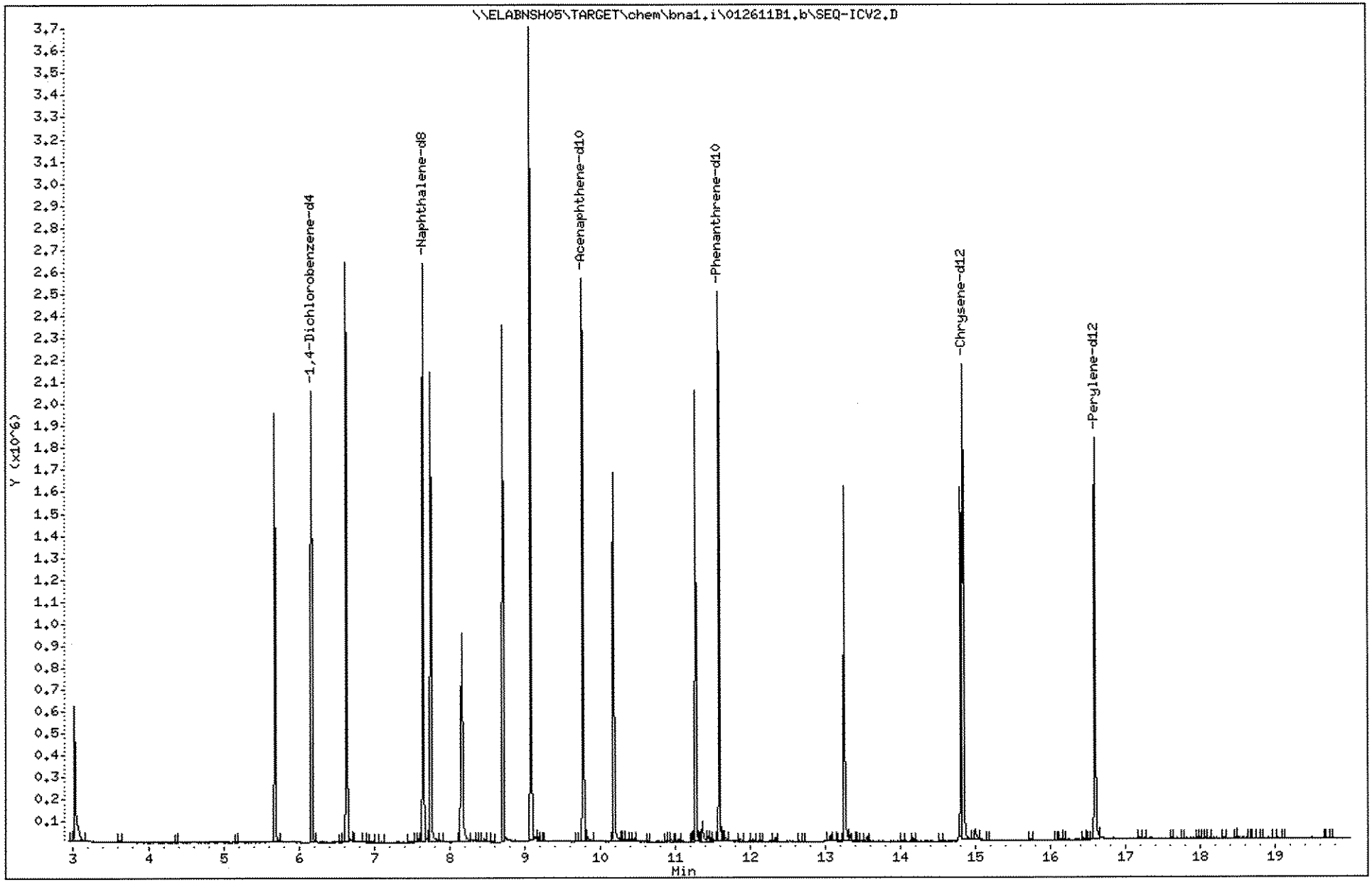
Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV2.D
Lab Smp Id: SEQ-ICV2 Client Smp ID: ICV50PPM
Inj Date : 26-JAN-2011 23:45 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : ICV50PPM;;;;;;11A0290
Misc Info : ;3;LCS;;;;cal_2.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 15:30 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 19 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_2.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.175	(1.000)	446206	40.0000	
	5 1,4-Dioxane	88	3.018	3.023	(0.489)	348299	48.4190	48.42
	32 Benzaldehyde	106	5.685	5.677	(0.921)	490911	43.4621	43.46
*	33 Naphthalene-d8	136	7.652	7.659	(1.000)	1366970	40.0000	
	62 2,6-Dichlorophenol	162	7.755	7.753	(1.013)	524969	48.9648	48.96
	57 Acetophenone	105	6.633	6.629	(1.074)	897964	51.7589	51.76
	67 1,2,4,5-Tetrachlorobenzene	216	8.717	8.711	(1.139)	479288	48.7725	48.77
	68 Caprolactam	113	8.169	8.153	(1.068)	240656	55.6637	55.66
*	69 Acenaphthene-d10	164	9.776	9.784	(1.000)	674313	40.0000	
	100 1,1'-Biphenyl	154	9.085	9.078	(0.929)	1341342	55.1544	55.15
*	102 Phenanthrene-d10	188	11.590	11.595	(1.000)	1044240	40.0000	
	129 Atrazine	200	11.284	11.267	(0.974)	279761	52.2793	52.28
*	132 Chrysene-d12	240	14.840	14.849	(1.000)	885065	40.0000	
	133 Benzidine	184	13.258	13.250	(0.893)	702791	50.3003	50.30
	137 3,3'-Dichlorobenzidine	252	14.808	14.808	(0.998)	438472	51.5991	51.60
*	154 Perylene-d12	264	16.593	16.597	(1.000)	834806	40.0000	

1/29/11
GLQ
1/29/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV2.D
Date : 26-JAN-2011 23:45
Client ID: ICV50PPM
Instrument: bna1.i
Sample Info: ICV50PPM;;;;;;11A0290
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV3.D
Report Date: 29-Jan-2011 17:10

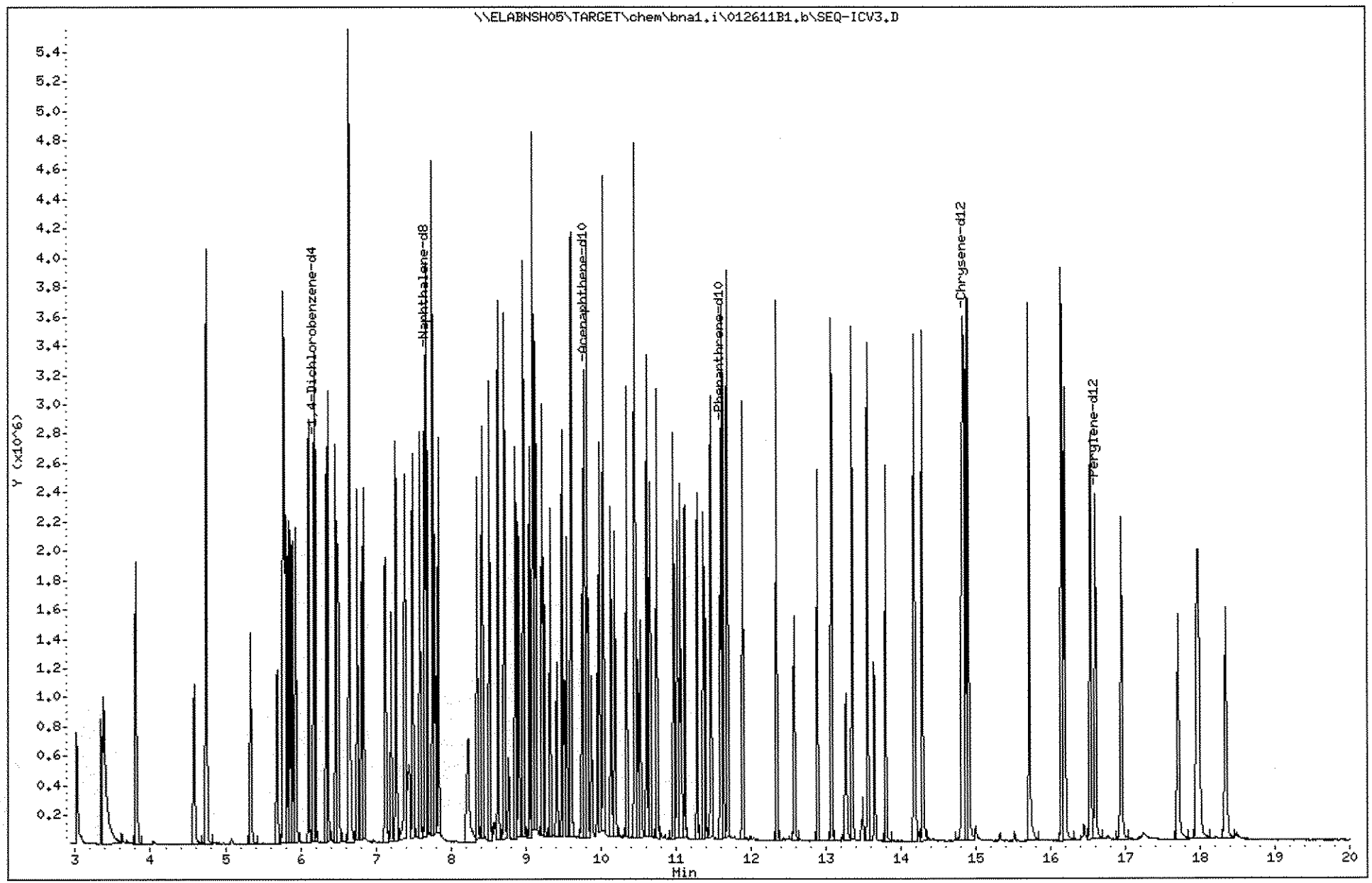
Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV3.D
Lab Smp Id: SEQ-ICV3 Client Smp ID: ICV50PPM
Inj Date : 27-JAN-2011 00:13 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : ICV50PPM;;;;;;11A0569
Misc Info : ;3;LCS;;;;ppbnax.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\IXBN1.m
Meth Date : 27-Jan-2011 17:43 mcobb Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 20 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ppbnax.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)
*	1 1,4-Dichlorobenzene-d4	152	6.173	6.178	(1.000)	549021	40.0000	
*	33 Naphthalene-d8	136	7.659	7.656	(1.000)	1780691	40.0000	
*	69 Acenaphthene-d10	164	9.783	9.783	(1.000)	940379	40.0000	
	81 2,4-Dinitrophenol	184	9.879	9.879	(1.010)	218819	57.5208	57.52
	86 Diethylphthalate	149	10.351	10.349	(1.058)	1380892	48.2530	48.25
*	102 Phenanthrene-d10	188	11.603	11.598	(1.000)	1322590	40.0000	
	110 Pentachlorophenol	266	11.371	11.372	(0.980)	342883	58.3686	58.37
*	132 Chrysene-d12	240	14.853	14.851	(1.000)	1258322	40.0000	
*	154 Perylene-d12	264	16.606	16.602	(1.000)	1222043	40.0000	

1/29/11
GLQ
1/29/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012611B1.b\SEQ-ICV3.D
Date : 27-JAN-2011 00:13
Client ID: ICV50PPM
Instrument: bna1.i
Sample Info: ICV50PPM;;;;;;11A0569
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-ICV4.D
Report Date: 29-Jan-2011 17:37

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-ICV4.D
Lab Smp Id: SEQ-ICV4 Client Smp ID: SEQ-ICV4
Inj Date : 28-JAN-2011 10:25 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : ICV50PPM;;;;;;11A0779
Misc Info : ;3;LCS;;;;cal_1.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\IXBN1.m
Meth Date : 28-Jan-2011 14:12 mcobb Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: cal_1.sub
Target Version: 4.04
Processing Host: TARGET09_VM

						CONCENTRATIONS	
	QUANT SIG					ON-COLUMN	FINAL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng/ul)	(ng/ul)
* 1 1,4-Dichlorobenzene-d4	152	6.183	6.188	(1.000)	628010	40.0000	
* 33 Naphthalene-d8	136	7.670	7.671	(1.000)	1999540	40.0000	
* 69 Acenaphthene-d10	164	9.797	9.796	(1.000)	1075282	40.0000	
89 4-Nitroaniline	138	10.504	10.508	(1.072)	264937	42.6797	42.68
* 102 Phenanthrene-d10	188	11.607	11.617	(1.000)	1491981	40.0000	
* 132 Chrysene-d12	240	14.863	14.860	(1.000)	1186331	40.0000	
* 154 Perylene-d12	264	16.615	16.613	(1.000)	1265459	40.0000	

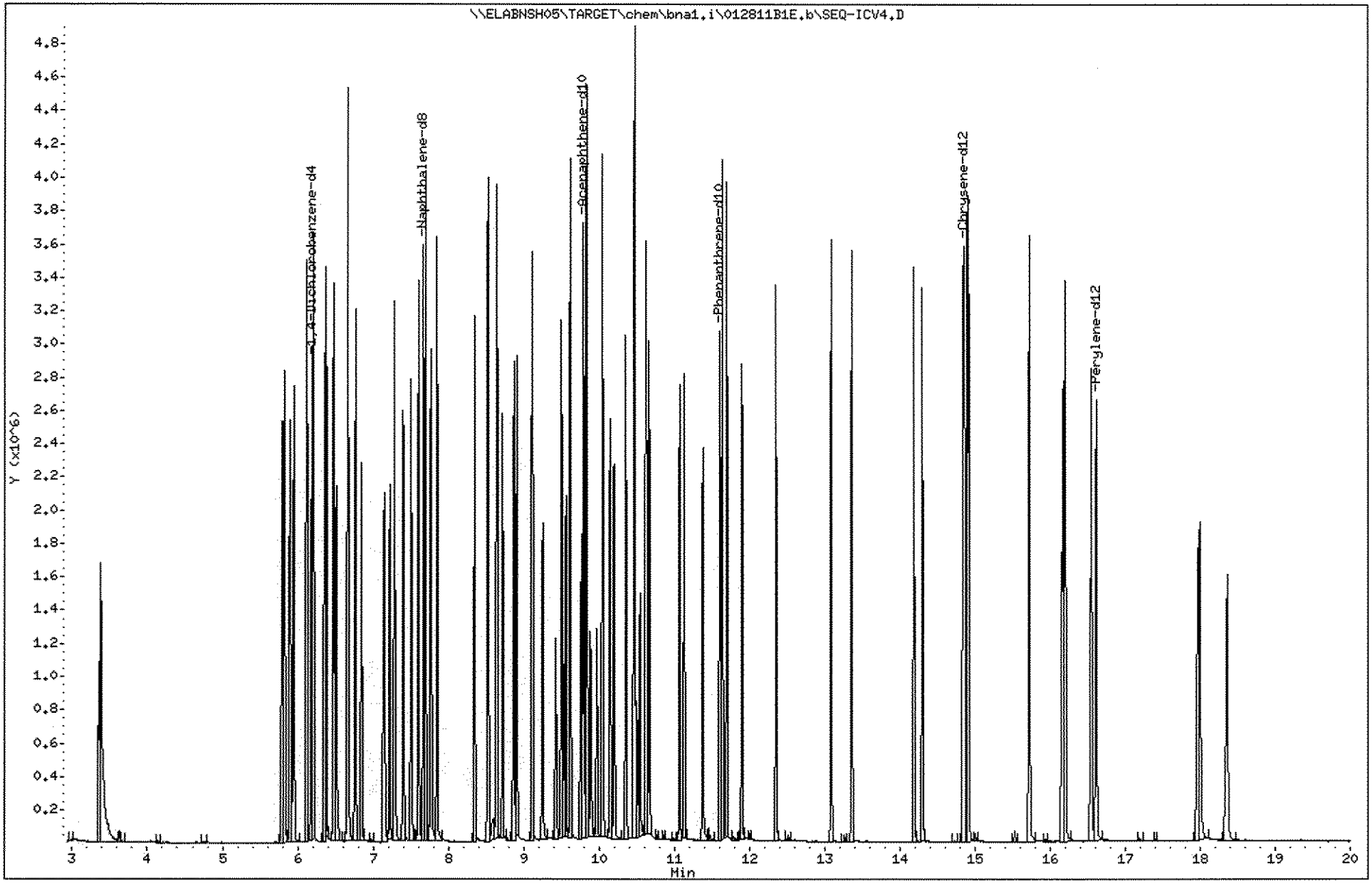
1/29/11

GLQ
1/28/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\012811B1E.b\SEQ-ICV4.D
Date : 28-JAN-2011 10:25
Client ID: SEQ-ICV4
Sample Info: ICV50PPM;;;;;;11A

Instrument: bna1.i

Operator: MEC
Column phase: fused silica
Column diameter: 0.25



ANALYSIS SEQUENCE

1B05516

Instrument: MS-BNA1

Calibnration ID: 1032006

Printed: 2/24/2011 1:07:23PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1B05516-TUN1	QC		1		10L0963			
1B05516-CCV1	QC		2		11B0567	10H0528		
1B16021-BLK1	QC		3			10H0528		
1B17016-BLK1	QC		4			10H0528		
1B16021-BS1	QC		5			10H0528		
1B16021-BSD1	QC		6			10H0528		
1B17016-BS1	QC		7			10H0528		
1B17016-BSD1	QC		8			10H0528		
1102147-02	MS_BNA_8270D_3546_RE	F	9			10H0528	Jordan Environmental	
1102180-01	MS_BNA_8270C_3546_RE	D	10			10H0528	Arcadis (A285)	
1102152-01	MS_BNA_8270C_3510_RE	E	11			10H0528	CH2M Hill, Inc.	
1102153-01	MS_BNA_8270C_3510_RE	F	12			10H0528	CH2M Hill, Inc.	
1102154-01	MS_BNA_8270C_3510_RE	E	13			10H0528	CH2M Hill, Inc.	
1102147-01	SMS_BNA_625	D	14			10H0528	Jordan Environmental	

Samples Loaded By Date

Data Processed By Date

402

1102180

Sequence Name: C:\HPCHEM\1\SEQUENCE\022211B1.S
Comment: 8270C/8270D/625
Operator: MEC
Data Path: C:\HPCHEM\1\DATA\022211B1.b\
Pre-Seq Cmd:
Post-Seq Cmd:

8395

SLC
2/23/11

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

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

Line	Type	Vial	DataFile	Method	Sample Name
1	Tune	1	SEQ-TUN1	DFTPPBN1	DF0222B1;;;;;10L0963
2	CCal	2	SEQ-CCV1	IXBN1	CCV50PPM;;;;;;11B0567
3	Sample	3	BLANK	IXBN1	BLANK
4	QC	4	B16021B1	IXBN1	1B16021-BLK1;;15;1000;UG/KG;;21-FEB-2
5	QC	5	B17016B1	IXBN1	1B17016-BLK1;;1000;1000;UG/L;;17-FEB-
6	QC	6	B16021L1	IXBN1	1B16021-BS1;;15;1000;UG/KG;;21-FEB-20
7	QC	7	B16021L2	IXBN1	1B16021-BSD1;;15;1000;UG/KG;;21-FEB-2
8	QC	8	B17016L1	IXBN1	1B17016-BS1;;1000;1000;UG/L;;17-FEB-2
9	QC	9	B17016L2	IXBN1	1B17016-BSD1;;1000;1000;UG/L;;17-FEB-
10	QC	10	B1103L1R	IXBN1	1B11003-BS1;;1000;1000;UG/L;;11-FEB-2 FOR CONFIRMATION ONLY
11	QC	11	B1103L2R	IXBN1	1B11003-BSD1;;1000;1000;UG/L;;11-FEB- FOR CONFIRMATION ONLY
12	Sample	12	0214702	IXBN1	1102147-02;;15.4;1000;UG/KG;;21-FEB-2
13	Sample	13	0218001	IXBN1	1102180-01;;15;1000;UG/KG;;21-FEB-201
14	Sample	14	0215201	IXBN1	1102152-01;;1000;1000;UG/L;;17-FEB-20
15	Sample	15	0215301	IXBN1	1102153-01;;1020;1000;UG/L;;17-FEB-20
16	Sample	16	0215401	IXBN1	1102154-01;;1040;1000;UG/L;;17-FEB-20
17	Sample	17	0214701	IXBN1	1102147-01;;900;1000;UG/L;;17-FEB-201

Last Modified: Wed Feb 23 09:47:53 2011 Page: 1

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1.D

Date : 22-FEB-2011 17:21

Client ID: 50ppm DFTPP

Instrument: bna1.i

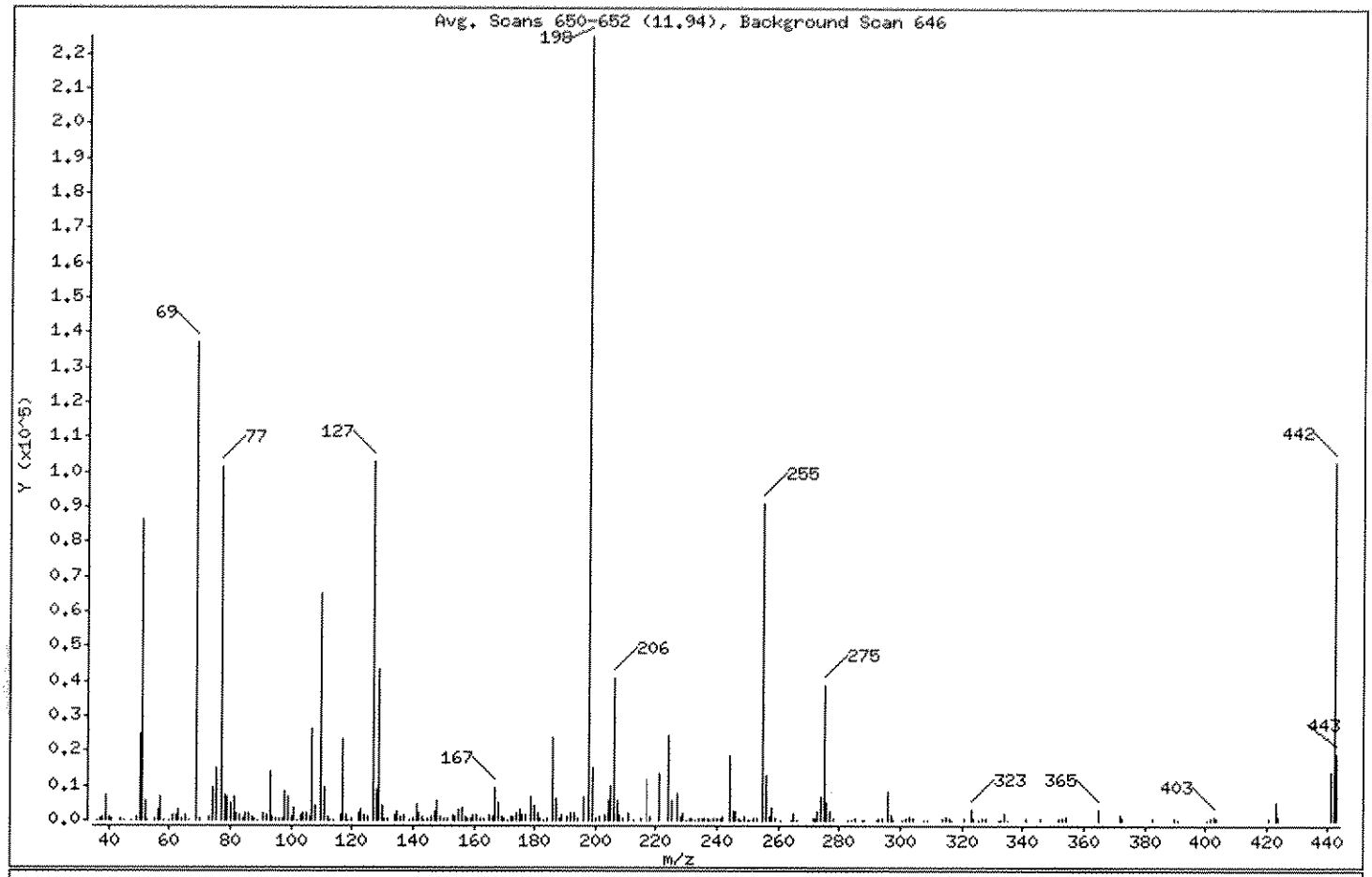
Sample Info: DF0222B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.30
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	60.88
70	Less than 2.00% of mass 69	0.27 (0.45)
127	40.00 - 60.00% of mass 198	45.81
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.71
275	10.00 - 30.00% of mass 198	17.19
365	Greater than 1.00% of mass 198	1.37
441	Present, but less than mass 443	6.30
442	Greater than 40.00% of mass 198	45.69
443	17.00 - 23.00% of mass 442	8.49 (18.57)

GCQ 2/22/11

2/28/2011

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1.D

Date : 22-FEB-2011 17:21

Client ID: 50ppm DFTPP

Instrument: bna1.i

Sample Info: DF0222B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS

Column diameter: 0.25

Data File: SEQ-TUN1.D

Spectrum: Avg, Scans 650-652 (11.94), Background Scan 646

Location of Maximum: 197.90

Number of points: 251

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.80	183	111.90	949	182.70	113	264.85	1939
37.00	362	112.85	231	183.95	457	265.85	240
38.00	1157	113.75	187	185.95	23880	271.30	286
39.00	7298	116.05	1565	186.95	6025	271.80	276
40.00	890	116.95	23176	187.95	675	272.90	2648
40.80	320	117.95	1722	188.85	1370	273.90	6772
43.95	753	118.85	197	190.85	800	274.90	38672
45.05	251	119.95	298	191.95	1839	275.90	5040
47.25	208	121.95	2311	192.85	2155	276.90	2550
48.95	1266	122.95	2886	193.95	384	277.80	416
50.05	24944	123.85	1430	196.00	6715	282.85	251
51.05	86168	124.90	1125	197.90	224960	283.75	115
51.95	5811	127.00	103064	198.90	15093	284.85	340
52.75	160	128.00	8544	199.90	753	287.45	193
54.90	679	128.90	43584	201.30	971	288.35	132
56.00	2936	129.90	4071	202.90	1447	292.10	114
57.00	6809	130.80	488	204.00	5511	292.90	619
58.00	253	132.00	533	204.90	10081	293.80	271
59.90	216	133.90	1321	205.90	40832	295.90	8312
61.00	1426	134.90	2595	206.95	5589	296.90	1603
62.00	1321	135.95	1231	207.95	1456	297.90	255
63.00	2886	136.85	1329	208.85	339	300.70	177
64.00	455	139.05	228	210.95	2068	301.95	320
65.05	1753	139.85	442	212.85	158	302.85	1205
66.05	177	140.95	4582	214.95	397	303.95	338
68.95	136960	141.95	2032	216.85	11663	307.65	123
69.95	613	142.85	946	217.75	1235	308.65	117
73.05	1067	143.85	248	220.90	13601	313.90	512
74.05	9256	144.85	273	223.90	24080	314.90	905
74.95	14807	145.85	1031	224.90	5511	315.80	375
77.00	101400	146.95	2709	226.90	7756	316.90	113
78.00	7258	147.90	5747	227.80	977	320.90	307
79.00	6943	148.80	1057	228.90	2032	323.00	3320
80.00	4970	150.00	354	229.80	224	323.80	672
81.00	6772	151.20	756	230.95	705	325.85	135

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1.D

Date : 22-FEB-2011 17:21

Client ID: 50ppm DFTPP

Instrument: bna1.i

Sample Info: DF0222B1;;;;;10L0963

Operator: MEC

Column phase: DB5-MS

Column diameter: 0.25

Data File: SEQ-TUN1.D

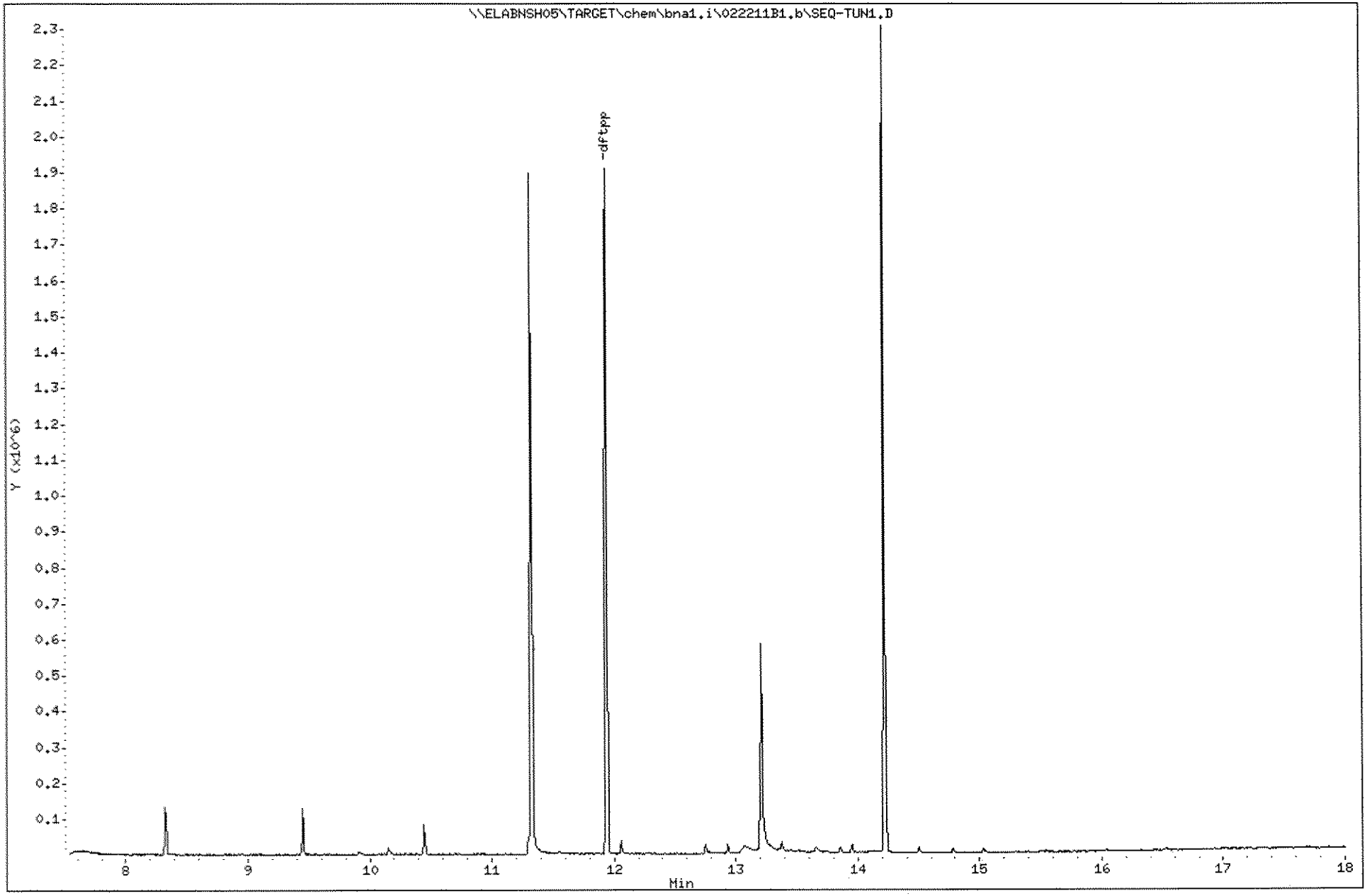
Spectrum: Avg. Scans 650-652 (11.94), Background Scan 646

Location of Maximum: 197.90

Number of points: 251

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	1860	152.90	1379	231.75	269	326.75	648
82.90	1483	153.90	949	232.95	216	327.75	354
83.90	435	154.90	3047	233.95	476	331.95	184
84.90	2219	155.90	3708	234.95	506	332.85	179
85.90	2199	157.00	1015	235.95	320	333.85	2149
86.90	1005	157.80	679	236.75	731	334.85	197
87.90	347	158.90	576	237.75	203	340.80	340
88.95	101	159.95	1358	238.85	416	345.70	619
90.95	2105	160.95	1806	239.85	373	351.85	710
91.95	1687	161.95	684	240.85	717	352.85	661
92.95	13902	162.95	373	241.85	876	353.85	961
93.95	867	164.85	1707	243.90	18376	364.80	3091
94.95	311	166.05	1246	245.00	2764	371.90	1496
95.95	756	166.95	9256	245.90	2702	372.75	434
96.95	306	167.85	5212	246.90	419	382.75	430
97.95	8381	168.95	854	247.70	226	389.90	367
98.95	6477	170.05	411	248.90	800	390.90	129
100.05	823	170.85	143	249.80	123	400.75	100
101.00	3836	171.90	961	250.70	156	401.75	519
102.00	240	172.90	1005	252.10	287	402.95	851
103.00	1452	173.90	2174	252.90	399	403.65	264
103.90	2193	175.00	2878	254.95	90976	420.95	670
105.00	2251	176.00	1632	255.85	12769	422.95	5359
105.90	873	176.80	1421	257.05	1031	423.75	1143
107.00	26416	178.90	6586	257.85	3666	440.90	14172
107.90	4014	179.90	4259	258.95	584	441.90	102784
109.90	65328	180.90	1822	260.85	189	442.90	19088
110.90	9515	181.90	310	264.15	255		

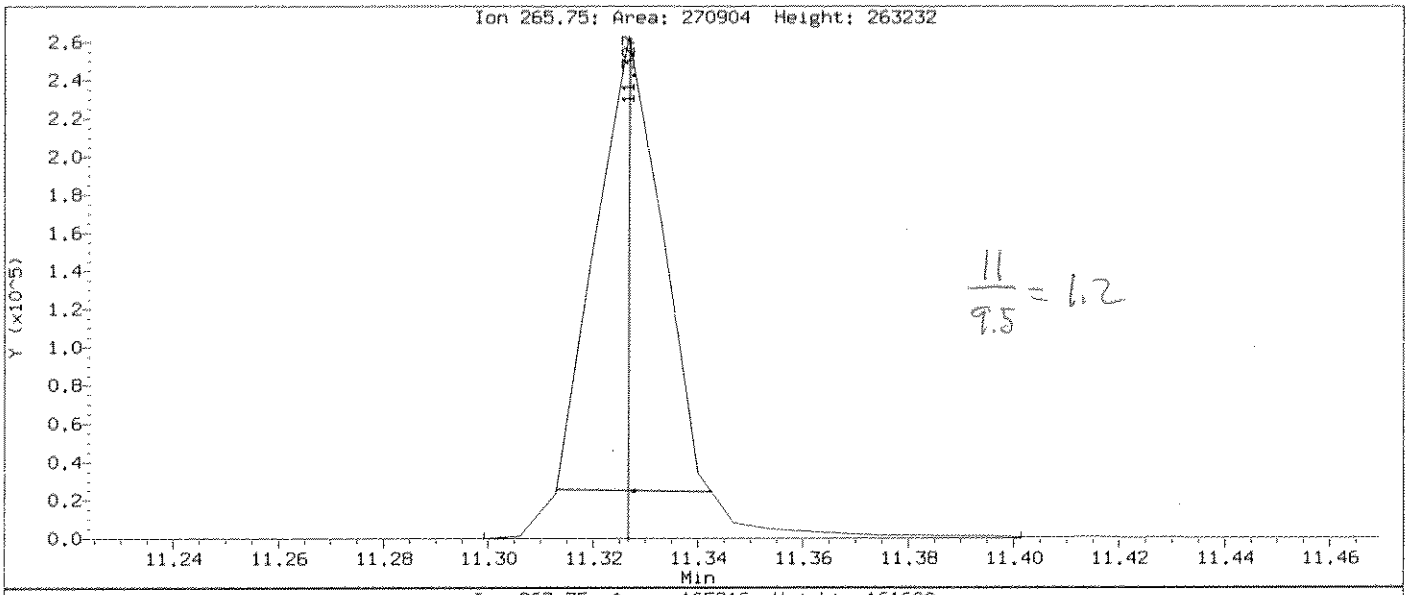
Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1.D
Date : 22-FEB-2011 17:21
Client ID: 50ppm DFTPP
Instrument: bna1.i
Sample Info: DF0222B1;;;;;10L0963
Operator: MEC
Column phase: DB5-MS
Column diameter: 0.25



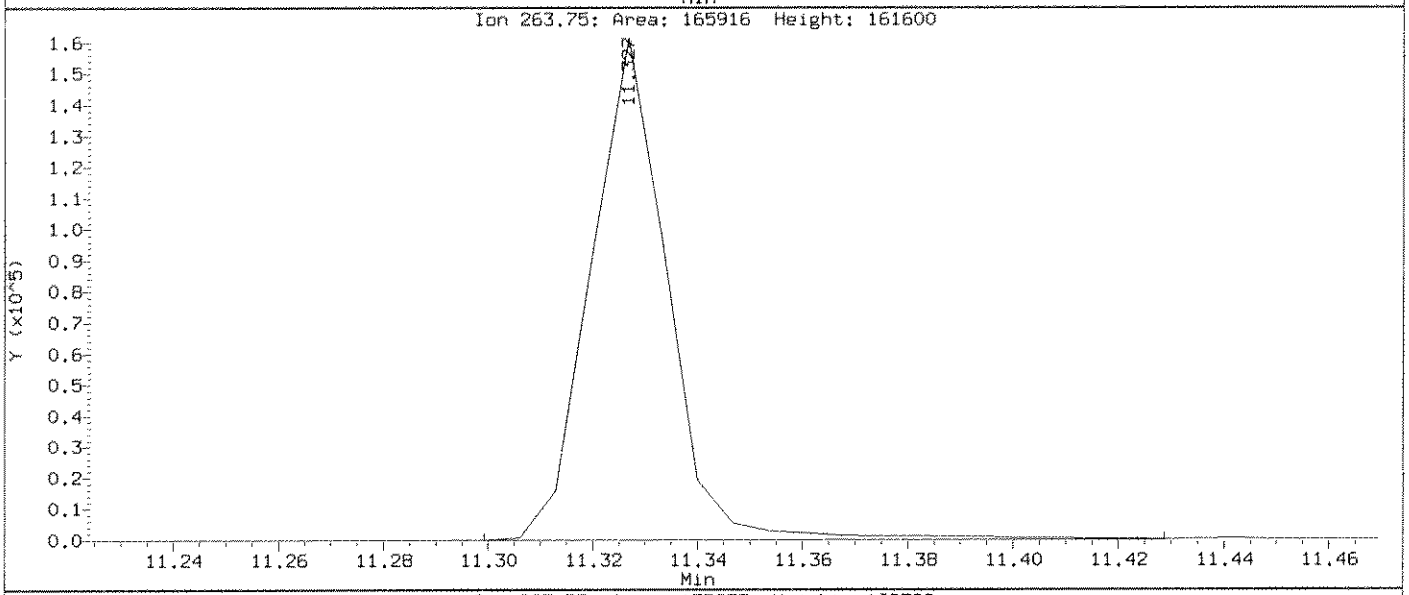
407
1102180

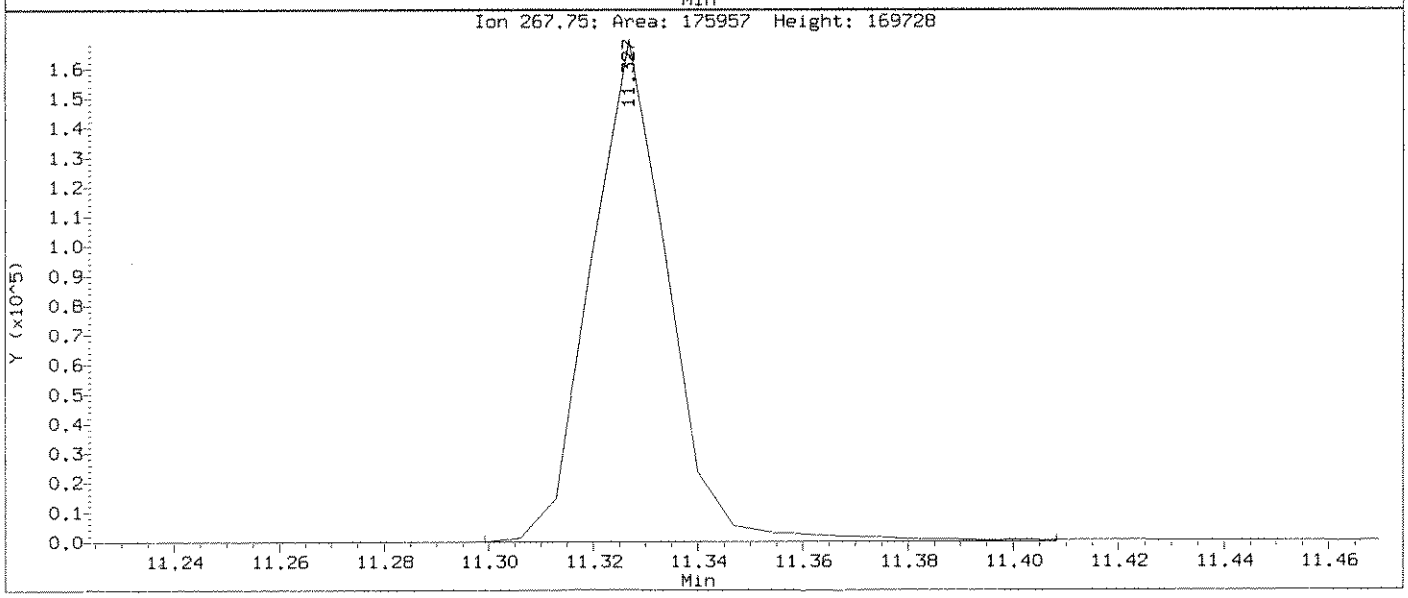
Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1ex.D
Injection Date: 22-FEB-2011 17:21
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: Pentachlorophenol
CAS Number: 87-86-5



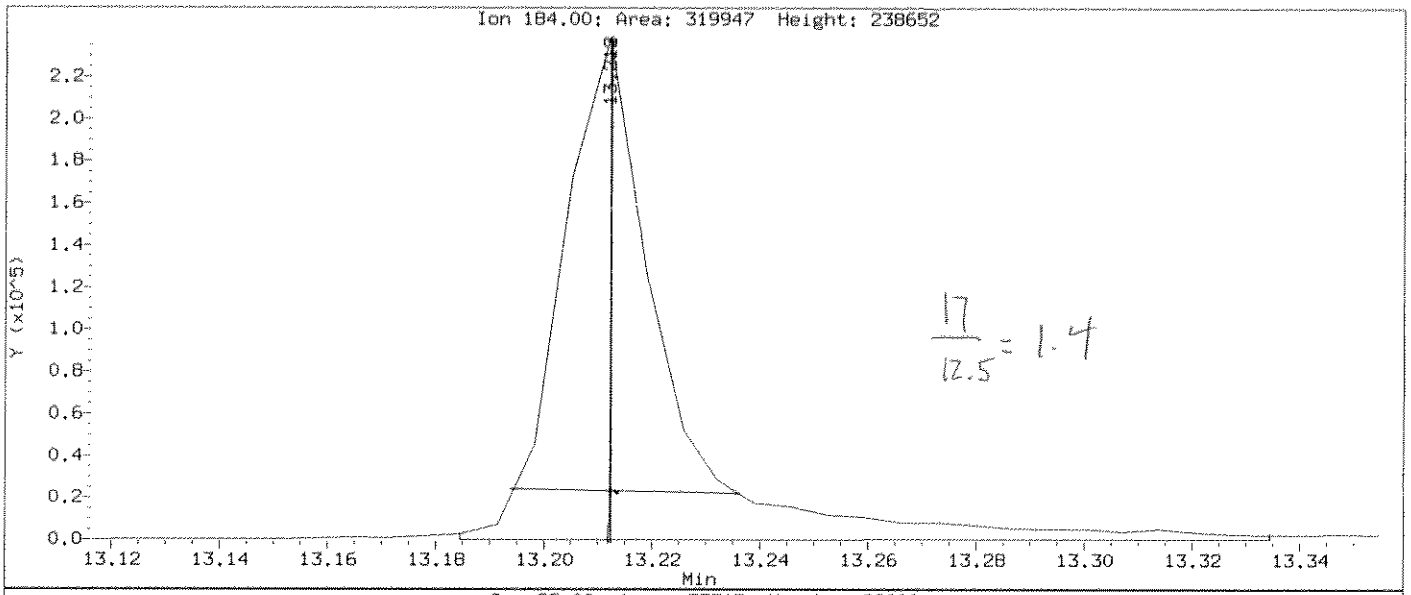
$\frac{11}{9.5} = 1.2$

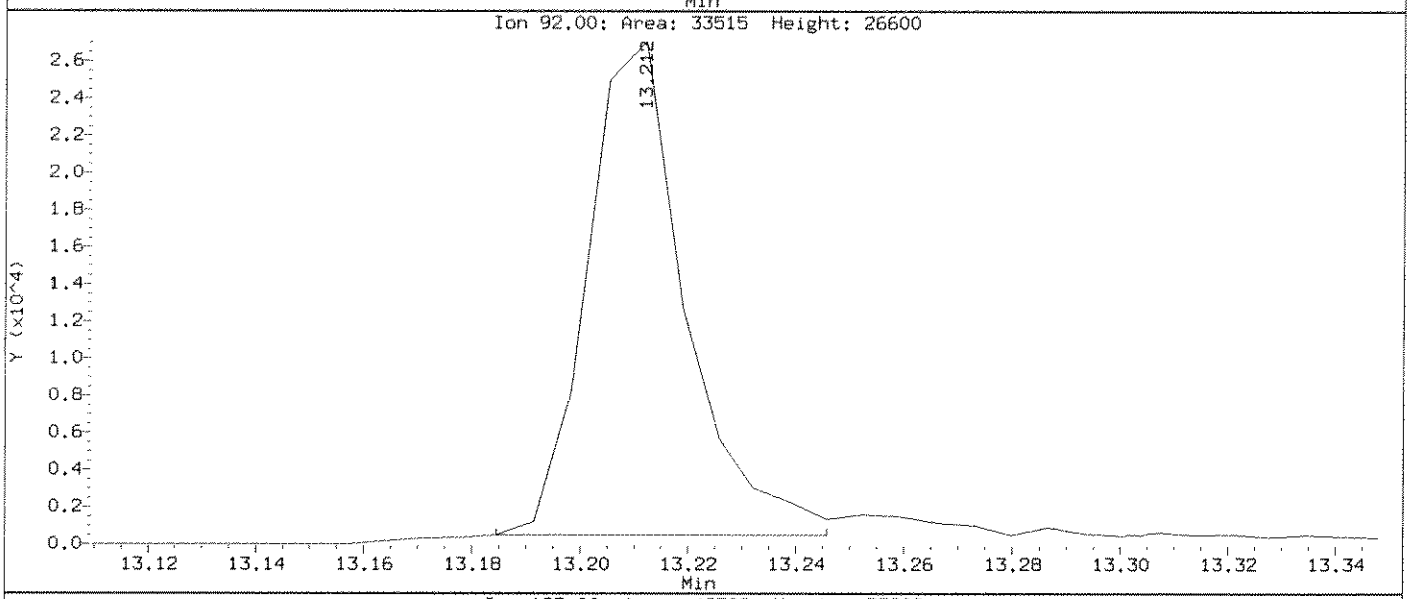


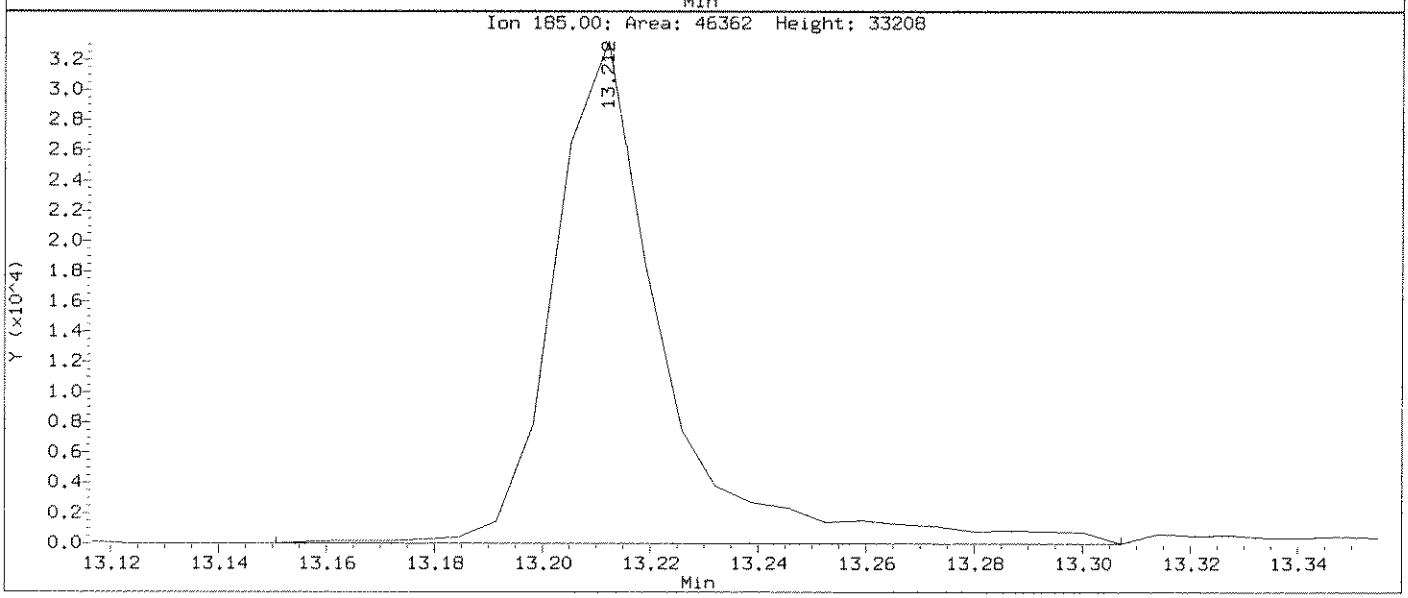


Data File: \\ELABNSHO5\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1ex.D
Injection Date: 22-FEB-2011 17:21
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: Benzidine
CAS Number: 92-87-5







Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1ex.D
Report Date: 22-Feb-2011 17:39

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1ex.D
Lab Smp Id: SEQ-TUN1 Client Smp ID: 50ppm DFTPP
Inj Date : 22-FEB-2011 17:21 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : DF0222B1;;;;;10L0963
Misc Info : ;;;;;;all.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\dftppbn1ex.m
Meth Date : 16-Feb-2011 12:02 gquick Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: dftppex.sub
Target Version: 4.04

Compounds	QUANT SIG MASS	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ng/ul)	
1 Pentachlorophenol	266	11.326	11.346	-0.020	270904			
2 Benzidine	184	13.212	13.235	-0.023	319947			
3 4,4'-DDE	246	13.443	13.466	-0.023	539			(QM)
4 4,4'-DDD	235	13.858	13.875	-0.017	2785			
5 4,4'-DDT	235	14.224	14.242	-0.018	472197			

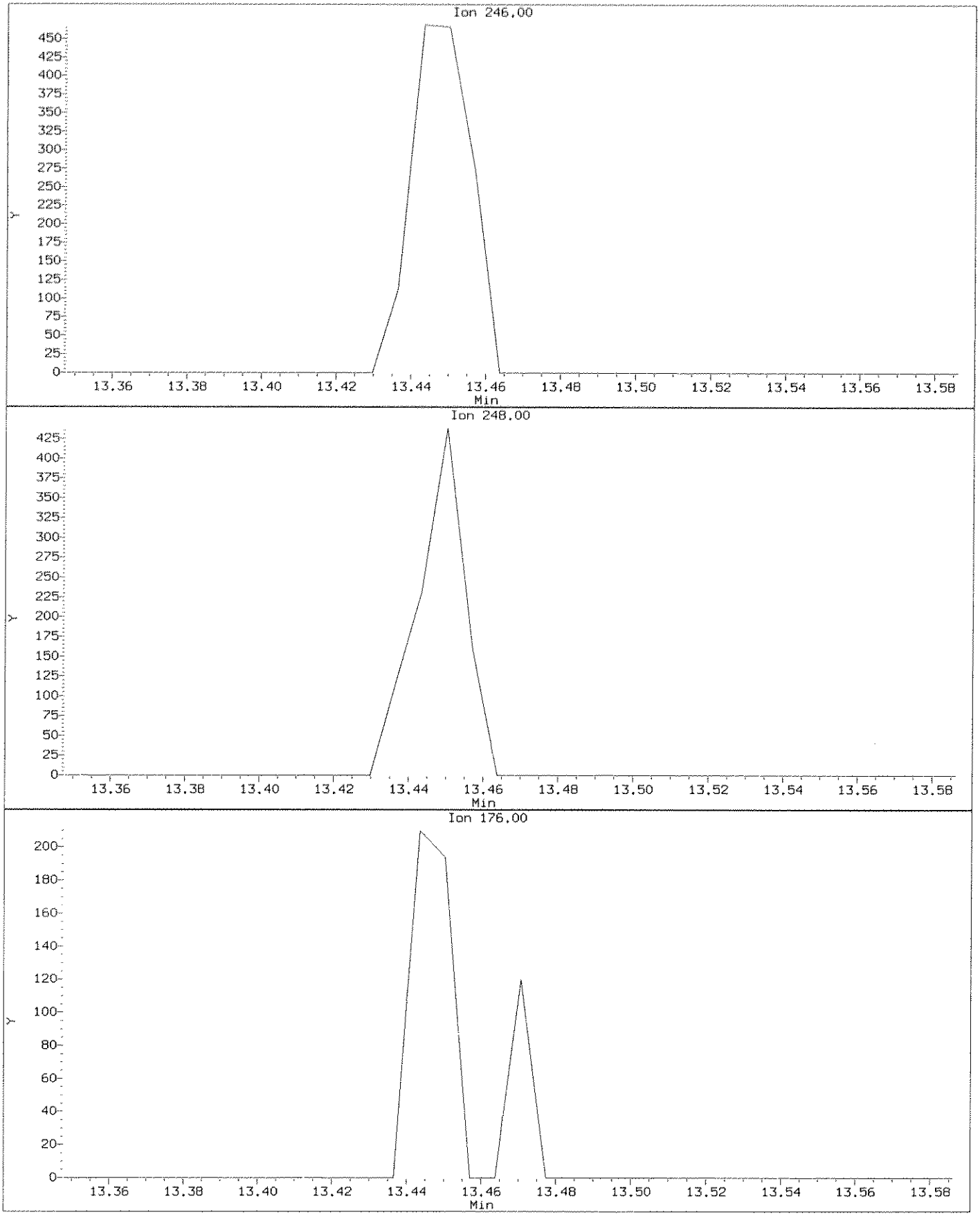
QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

DDT % BREAKDOWN = $\frac{539+2785}{475521} \times 100\% = 0.7\%$

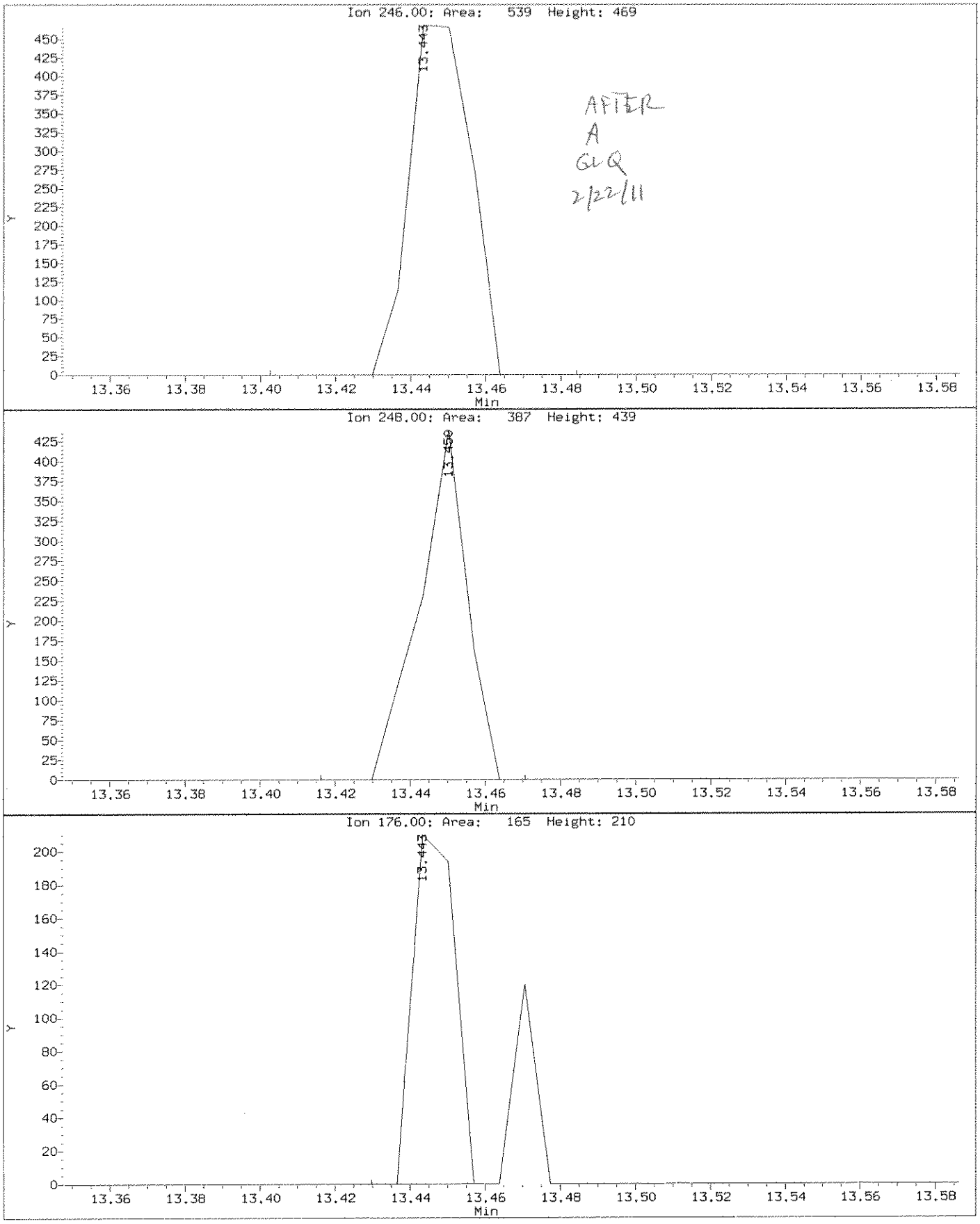
Data File: \\ELABNSHO5\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1ex.D
Injection Date: 22-FEB-2011 17:21
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: 4,4'-DDE
CAS Number: 72-55-9



Data File: \\ELABNSHO5\TARGET\chem\bna1.i\022211B1.b\SEQ-TUN1ex.D
Injection Date: 22-FEB-2011 17:21
Instrument: bna1.i
Client Sample ID: 50ppm DFTPP

Compound: 4,4'-DDE
CAS Number: 72-55-9



Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-CCV1.D
Report Date: 24-Feb-2011 17:34

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-CCV1.D
Lab Smp Id: SEQ-CCV1 Client Smp ID: CCV50PPM
Inj Date : 22-FEB-2011 17:47 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : CCV50PPM;;;;;;11B0567
Misc Info : ;2;CCV;;;;ppbnax.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\IXBN1.m
Meth Date : 24-Feb-2011 12:05 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ppbnax.sub
Target Version: 4.04
Processing Host: TARGET17_VM

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 1	1,4-Dichlorobenzene-d4	152	6.126	6.126	(1.000)	584790	40.0000	
$ 2	2-Fluorophenol	112	4.663	4.663	(0.761)	1677575	100.000	93.68
$ 3	Phenol-d6	99	5.730	5.730	(0.935)	2255298	100.000	99.08
4	Pyridine	79	3.168	3.168	(0.517)	1148023	50.0000	49.87
5	1,4-Dioxane	88	2.774	2.774	(0.453)	483029	50.0000	51.24
6	N-Nitroso-di-methylamine	42	3.141	3.141	(0.513)	442095	50.0000	52.81
7	Aniline	93	5.757	5.757	(0.940)	1298420	50.0000	45.54
10	Phenol	94	5.750	5.750	(0.939)	1204894	50.0000	51.04(Q)
11	bis(2-Chloroethyl)ether	93	5.846	5.846	(0.954)	870889	50.0000	44.23
12	2-Chlorophenol	128	5.887	5.887	(0.961)	905725	50.0000	47.60
13	1,3-Dichlorobenzene	146	6.058	6.058	(0.989)	1019381	50.0000	49.43
14	1,4-Dichlorobenzene	146	6.147	6.147	(1.003)	1019330	50.0000	50.54
15	Benzyl alcohol	108	6.304	6.304	(1.029)	585638	50.0000	47.17
16	1,2-Dichlorobenzene	146	6.317	6.317	(1.031)	955560	50.0000	49.72
17	2-Methylphenol	108	6.433	6.433	(1.050)	804896	50.0000	48.49
18	2,2'-Oxybis-1-chloropropane	45	6.461	6.461	(1.055)	1336208	50.0000	47.21
19	3-Methylphenol	108	6.625	6.625	(1.081)	766459	50.0000	44.20
20	4-Methylphenol	108	6.625	6.625	(1.081)	766459	50.0000	44.20
21	N-Nitroso-di-n-propylamine	70	6.625	6.625	(1.081)	520819	50.0000	42.70
22	Hexachloroethane	117	6.714	6.714	(1.096)	425128	50.0000	50.79
32	Benzaldehyde	106	5.628	5.628	(0.919)	452116	50.0000	30.54
* 33	Naphthalene-d8	136	7.630	7.630	(1.000)	1862736	40.0000	
$ 34	Nitrobenzene-d5	82	6.782	6.782	(0.889)	902546	50.0000	52.50
35	Nitrobenzene	77	6.803	6.803	(0.892)	867457	50.0000	51.95
39	Isophorone	82	7.096	7.096	(0.930)	1813276	50.0000	50.47
40	2-Nitrophenol	139	7.178	7.178	(0.941)	563748	50.0000	54.02

RLQ 2/24/11

CV 2/25

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-CCV1.D
Report Date: 24-Feb-2011 17:34

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/ul)	ON-COL (ng/ul)
	42	2,4-Dimethylphenol	107	7.246	7.246	(0.950)	801490	50.0000	50.36
	43	Benzoic acid	105	7.424	7.424	(0.973)	653786	50.0000	51.96
	44	bis(2-Chloroethoxy)methane	93	7.356	7.356	(0.964)	1007934	50.0000	47.14
	47	2,4-Dichlorophenol	162	7.465	7.465	(0.978)	736097	50.0000	49.74
	62	2,6-Dichlorophenol	162	7.733	7.733	(1.013)	706237	50.0000	48.34
	50	1,2,4-Trichlorobenzene	180	7.561	7.561	(0.991)	807340	50.0000	50.33
	51	Naphthalene	128	7.650	7.650	(1.003)	2230213	50.0000	49.74
	52	4-Chloroaniline	127	7.733	7.733	(1.013)	869231	50.0000	42.35
	53	Hexachlorobutadiene	225	7.809	7.809	(1.023)	370702	50.0000	45.14
	54	4-Chloro-3-methylphenol	107	8.335	8.335	(1.092)	661750	50.0000	50.26
	55	2-Methylnaphthalene	141	8.492	8.492	(1.113)	1156802	50.0000	50.34
	56	1-Methylnaphthalene	141	8.608	8.608	(1.128)	1119857	50.0000	47.34
	57	Acetophenone	105	6.611	6.611	(1.079)	1095758	50.0000	48.19
	67	1,2,4,5-Tetrachlorobenzene	216	8.697	8.697	(1.140)	632215	50.0000	47.21
	68	Caprolactam	113	8.192	8.192	(1.074)	298635	50.0000	50.69
*	69	Acenaphthene-d10	164	9.755	9.755	(1.000)	886670	40.0000	
	70	Hexachlorocyclopentadiene	237	8.683	8.683	(0.890)	415620	50.0000	53.56
	71	2,4,6-Trichlorophenol	196	8.835	8.835	(0.906)	474571	50.0000	53.40
	72	2,4,5-Trichlorophenol	196	8.883	8.883	(0.911)	512086	50.0000	53.49
	73	2-Chloronaphthalene	162	9.082	9.082	(0.931)	1626822	50.0000	64.36
$	74	2-Fluorobiphenyl	172	8.945	8.945	(0.917)	1516106	50.0000	52.62
	75	2-Nitroaniline	65	9.213	9.213	(0.944)	432680	50.0000	60.03
	76	Dimethylphthalate	163	9.460	9.460	(0.970)	1479124	50.0000	50.49(M)
	77	Acenaphthylene	152	9.583	9.583	(0.982)	1919197	50.0000	49.64
	78	2,6-Dinitrotoluene	165	9.522	9.522	(0.976)	400476	50.0000	51.87
	79	3-Nitroaniline	138	9.720	9.720	(0.996)	315861	50.0000	40.91
	80	Acenaphthene	153	9.796	9.796	(1.004)	1203371	50.0000	50.14
	81	2,4-Dinitrophenol	184	9.844	9.844	(1.009)	249287	50.0000	67.44
	83	4-Nitrophenol	65	9.934	9.934	(1.018)	203966	50.0000	46.53
	84	Dibenzofuran	168	10.002	10.002	(1.025)	1581721	50.0000	47.64
	85	2,4-Dinitrotoluene	165	10.009	10.009	(1.026)	424636	50.0000	51.23
	86	Diethylphthalate	149	10.311	10.311	(1.057)	1364634	50.0000	50.82
	87	4-Chlorophenyl-phenylether	204	10.428	10.428	(1.069)	579425	50.0000	49.00
	88	Fluorene	166	10.421	10.421	(1.068)	1230440	50.0000	48.39
	89	4-Nitroaniline	138	10.462	10.462	(1.072)	268672	50.0000	52.49
	96	2,3,4,6-Tetrachlorophenol	232	10.160	10.160	(1.042)	372533	50.0000	49.94
	100	1,1'-Biphenyl	154	9.061	9.061	(0.929)	1519816	50.0000	47.52
*	102	Phenanthrene-d10	188	11.564	11.564	(1.000)	1260961	40.0000	
	103	1,2-Diphenylhydrazine	77	10.627	10.627	(0.919)	1437222	50.0000	54.62
	104	Carbazole	167	11.858	11.858	(1.025)	1290881	50.0000	44.56
	105	4,6-Dinitro-2-methylphenol	198	10.496	10.496	(0.908)	292230	50.0000	65.06
	106	N-Nitrosodiphenylamine	169	10.578	10.578	(0.915)	1111976	50.0000	53.45
$	107	2,4,6-Tribromophenol	330	10.715	10.715	(0.927)	492228	100.000	107.8(A)
	108	4-Bromophenyl-phenylether	248	11.023	11.023	(0.953)	348420	50.0000	47.99
	109	Hexachlorobenzene	284	11.091	11.091	(0.959)	416696	50.0000	50.88
	110	Pentachlorophenol	266	11.336	11.336	(0.980)	311939	50.0000	55.83
	111	Phenanthrene	178	11.591	11.591	(1.002)	1665322	50.0000	49.96

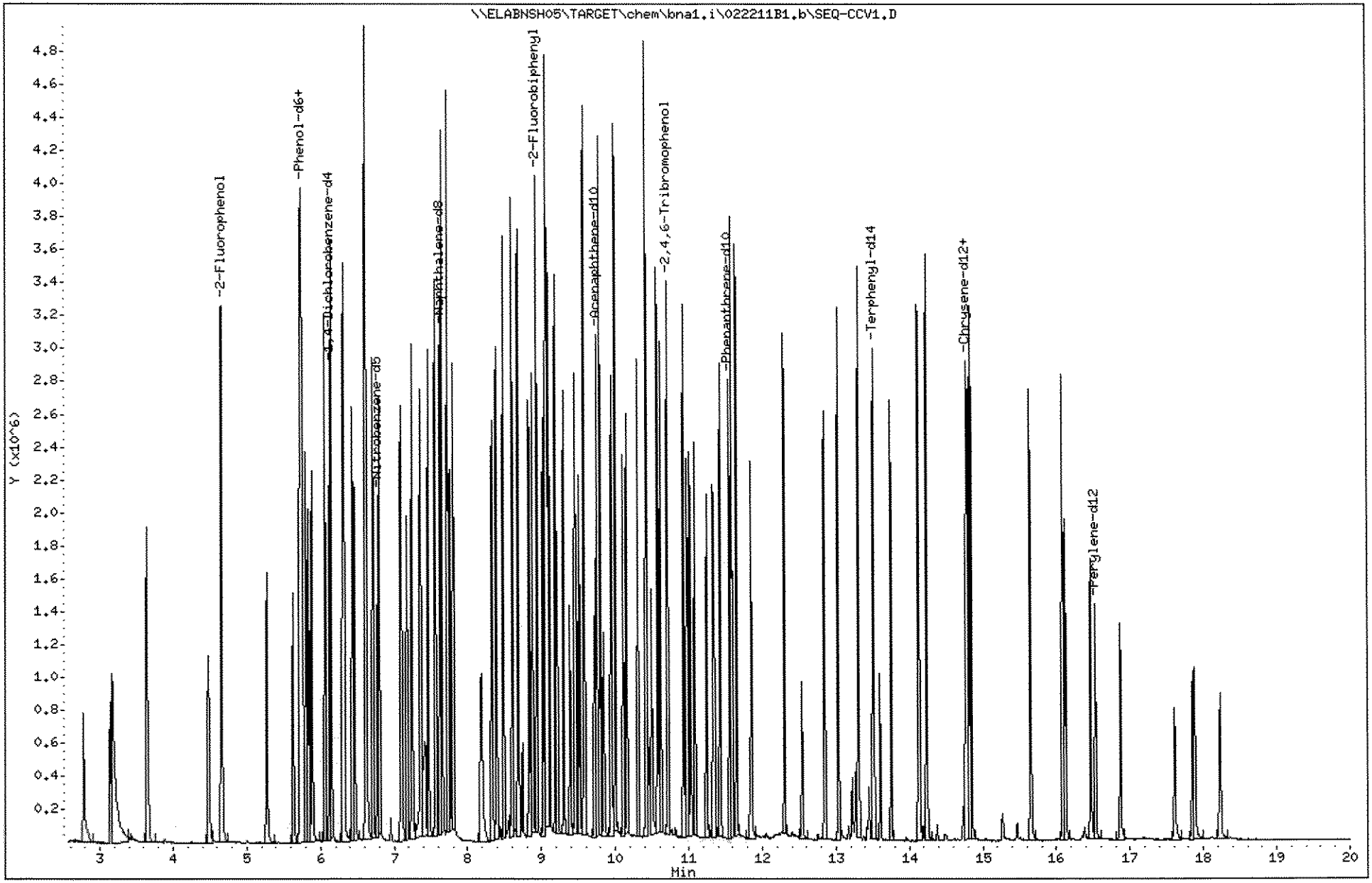
Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-CCV1.D
Report Date: 24-Feb-2011 17:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
	112 Anthracene	178	11.651	11.651	(1.008)	1764360	50.0000	52.98
	115 Di-n-butylphthalate	149	12.305	12.305	(1.064)	2019869	50.0000	46.58
	116 Fluoranthene	202	13.034	13.034	(1.127)	1652920	50.0000	48.87
	129 Atrazine	200	11.248	11.248	(0.973)	253659	50.0000	39.25
*	132 Chrysene-d12	240	14.795	14.795	(1.000)	867978	40.0000	
	133 Benzidine	184	13.219	13.219	(0.893)	193900	50.0000	14.15
	134 Pyrene	202	13.309	13.309	(0.900)	1674700	50.0000	59.42
$	135 Terphenyl-d14	244	13.514	13.514	(0.913)	926079	50.0000	52.55
	136 Butylbenzylphthalate	149	14.126	14.126	(0.955)	841048	50.0000	50.37
	137 3,3'-Dichlorobenzidine	252	14.764	14.764	(0.998)	259850	50.0000	31.18
	138 Benzo(a)anthracene	228	14.783	14.783	(0.999)	1174294	50.0000	47.52
	139 Chrysene	228	14.827	14.827	(1.002)	1172888	50.0000	48.14
	140 Bis(2-ethylhexyl)phthalate	149	14.848	14.848	(1.004)	1090176	50.0000	49.01
*	154 Perylene-d12	264	16.529	16.529	(1.000)	631630	40.0000	
	155 Di-n-octylphthalate	149	15.647	15.647	(0.947)	1663093	50.0000	58.74
	156 Benzo(b)fluoranthene	252	16.092	16.092	(0.974)	911612	50.0000	52.48
	157 Benzo(k)fluoranthene	252	16.126	16.126	(0.976)	944803	50.0000	49.26
	158 Benzo(a)pyrene	252	16.469	16.469	(0.996)	806811	50.0000	48.94
	159 Indeno(1,2,3-cd)pyrene	276	17.860	17.860	(1.080)	680582	50.0000	46.70
	160 Dibenz(a,h)anthracene	278	17.880	17.880	(1.082)	572453	50.0000	47.30
	161 Benzo(g,h,i)perylene	276	18.231	18.231	(1.103)	558429	50.0000	46.60

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\SEQ-CCV1.D
Date : 22-FEB-2011 17:47
Client ID: CCV50PPM
Instrument: bna1.i
Sample Info: CCV50PPM;;;;;;11B0567
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



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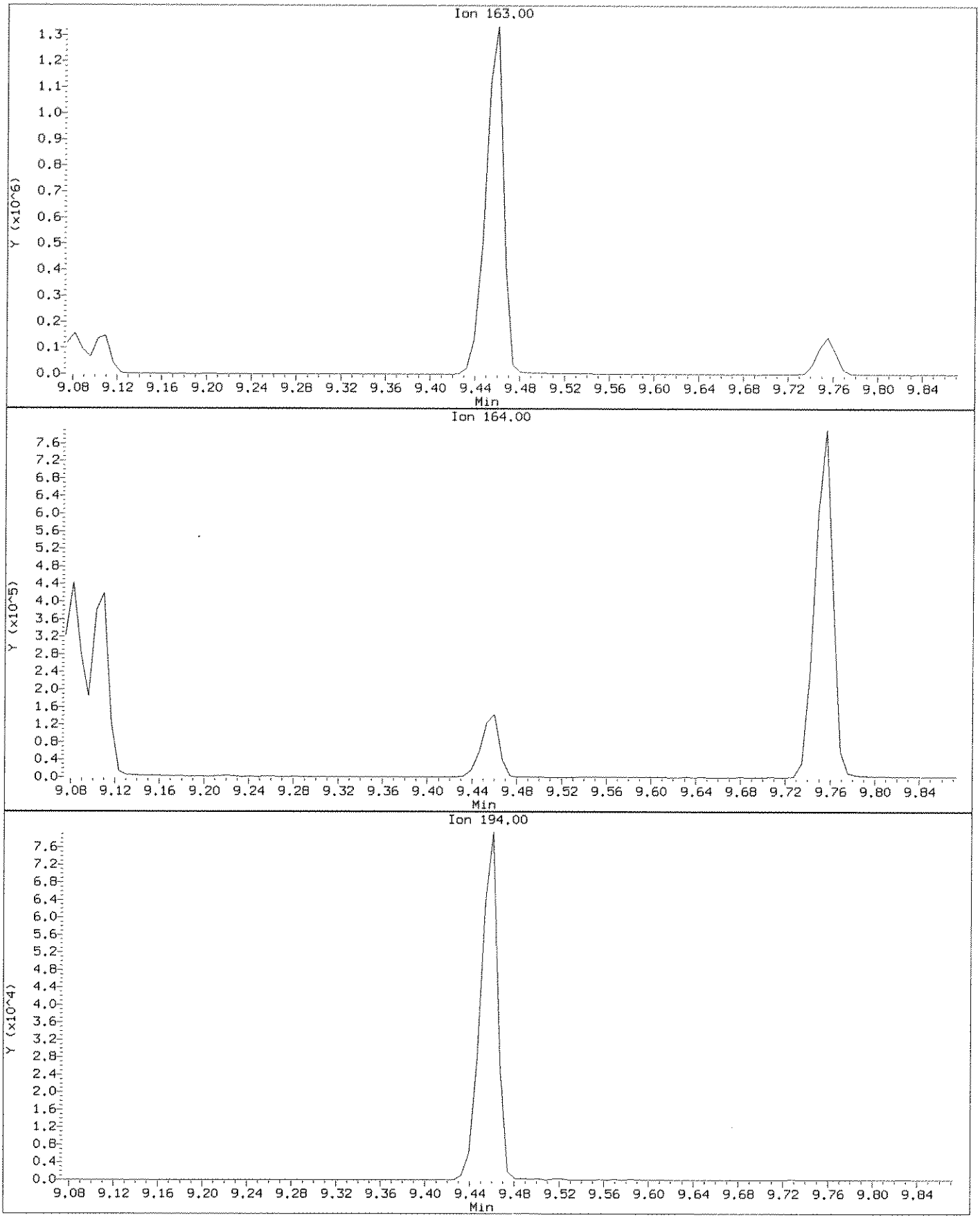
Injection Date: 22-FEB-2011 17:47
Instrument: bna1.i
Client Sample ID: CCV50PPM

Compound: Dimethylphthalate
CAS Number: 131-11-3



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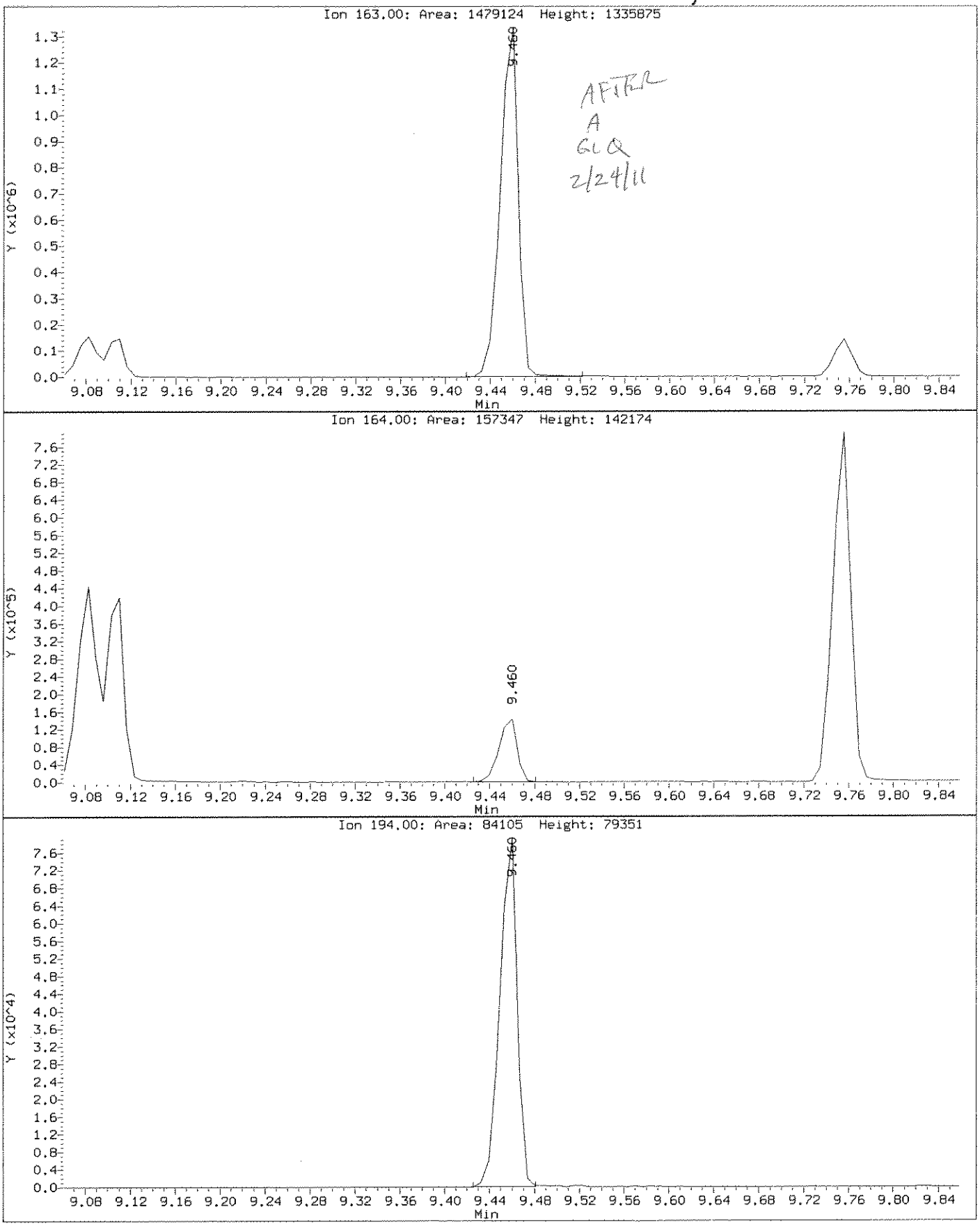
Injection Date: 22-FEB-2011 17:47
Instrument: bna1.i
Client Sample ID: CCV50PPM

Compound: Dimethylphthalate
CAS Number: 131-11-3



AFTER A GLC 2/24/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021B1.D
Report Date: 24-Feb-2011 11:58

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021B1.D
Lab Smp Id: 1B16021-BLK1 Client Smp ID: 1B16021-BLK1
Inj Date : 22-FEB-2011 18:51 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : 1B16021-BLK1;;15;1000;UG/KG;;21-FEB-2011
Misc Info : ;3;BLANK;;;1B16021;ppbnax.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\IXBN1.m
Meth Date : 24-Feb-2011 11:39 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ppbnax.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Concentration Formula: Amt * DF * Uf * Vt*Vi/(Amt * Vi * (Solids/100))

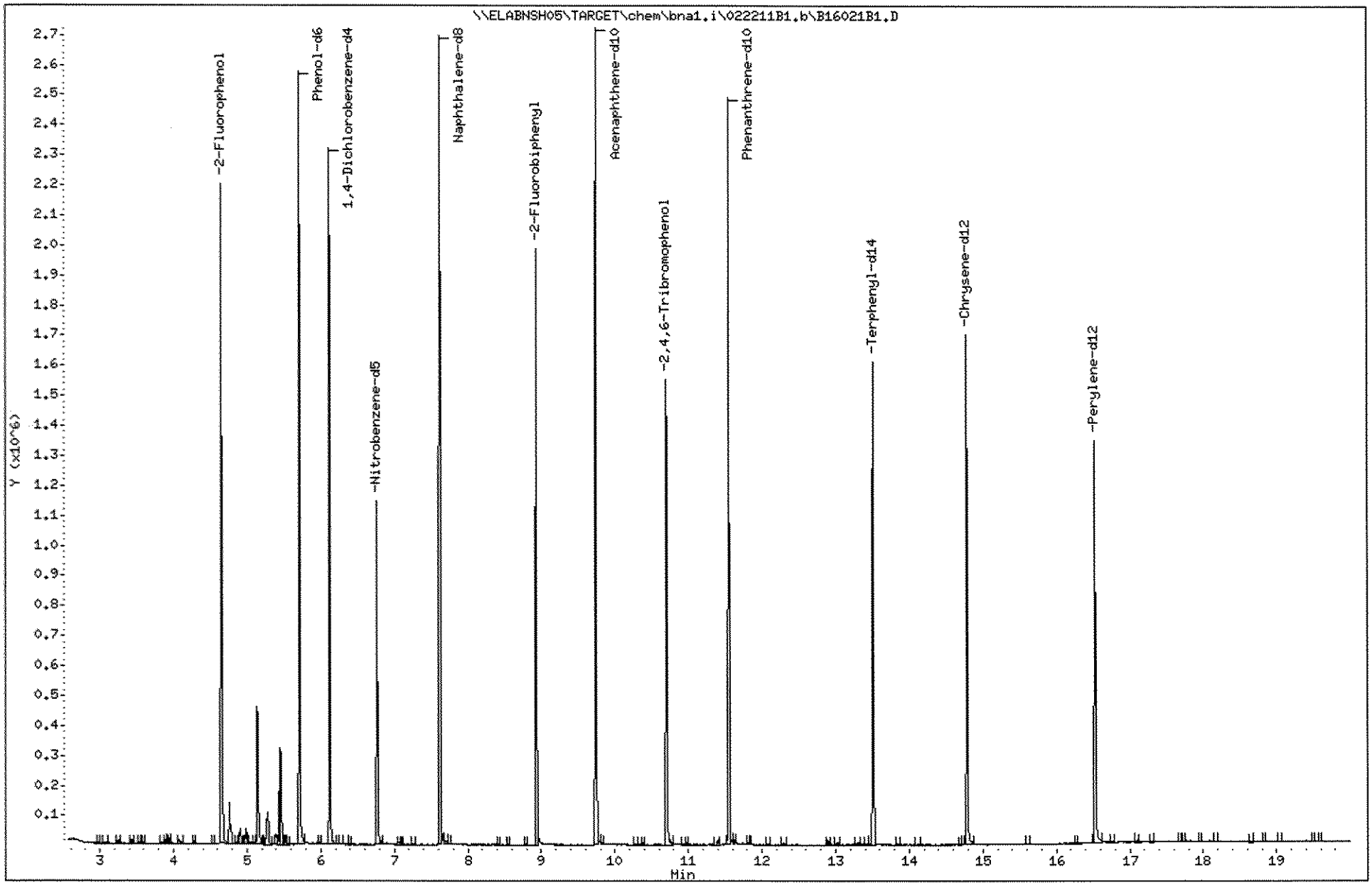
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Amt	15.000	Mass of initial extraction
Vi	0.500	Volume injected (uL)
Solids	100.000	Percent Solids

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152	6.121	6.126	(1.000)	458324	40.0000	
$ 2 2-Fluorophenol	112	4.647	4.663	(0.759)	897643	63.9621	4264
$ 3 Phenol-d6	99	5.714	5.730	(0.933)	1123350	62.9719	4198
* 33 Naphthalene-d8	136	7.621	7.630	(1.000)	1443029	40.0000	
$ 34 Nitrobenzene-d5	82	6.766	6.782	(0.888)	416009	31.2352	2082
* 69 Acenaphthene-d10	164	9.745	9.755	(1.000)	720098	40.0000	
$ 74 2-Fluorobiphenyl	172	8.937	8.945	(0.917)	718160	30.6888	2046
* 102 Phenanthrene-d10	188	11.551	11.564	(1.000)	1047134	40.0000	
$ 107 2,4,6-Tribromophenol	330	10.708	10.715	(0.927)	224656	59.2240	3948
* 132 Chrysene-d12	240	14.787	14.795	(1.000)	701666	40.0000	
$ 135 Terphenyl-d14	244	13.511	13.514	(0.914)	566258	39.7514	2650
* 154 Perylene-d12	264	16.525	16.529	(1.000)	601328	40.0000	

GLQ 2/24/11

LO 2/25/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021B1.D
Date : 22-FEB-2011 18:51
Client ID: 1B16021-BLK1
Instrument: bna1.i
Sample Info: 1B16021-BLK1;;15;1000;UG/KG;;21-FEB-2011
Volume Injected (uL): 0.5
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



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1102180

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L1.D
Report Date: 24-Feb-2011 11:58

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L1.D
Lab Smp Id: 1B16021-BS1 Client Smp ID: 1B16021-BS1
Inj Date : 22-FEB-2011 19:48 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : 1B16021-BS1;;15;1000;UG/KG;;21-FEB-2011
Misc Info : ;3;LCS;;;1B16021;ppbnax.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\IXBN1.m
Meth Date : 24-Feb-2011 11:39 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ppbnax.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Concentration Formula: Amt * DF * Uf * Vt*Vi/(Amt * Vi * (Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Amt	15.000	Mass of initial extraction
Vi	0.500	Volume injected (uL)
Solids	100.000	Percent Solids

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
* 1	1,4-Dichlorobenzene-d4	152	6.127	6.126	(1.000)	435560	40.0000	
$ 2	2-Fluorophenol	112	4.663	4.663	(0.761)	1075741	80.6587	5377
$ 3	Phenol-d6	99	5.724	5.730	(0.934)	1208427	71.2815	4752
4	Pyridine	79	3.182	3.168	(0.519)	592758	34.5736	2305
5	1,4-Dioxane	88	2.787	2.774	(0.455)	220275	31.3701	2091
6	N-Nitroso-di-methylamine	42	3.148	3.141	(0.514)	258528	41.4616	2764
7	Aniline	93	5.752	5.757	(0.939)	732547	34.4953	2300
10	Phenol	94	5.738	5.750	(0.937)	776332	44.1514	2943
11	bis(2-Chloroethyl)ether	93	5.840	5.846	(0.953)	584372	39.8467	2656
12	2-Chlorophenol	128	5.888	5.887	(0.961)	550483	38.8398	2589
13	1,3-Dichlorobenzene	146	6.058	6.058	(0.989)	609250	39.6633	2644
14	1,4-Dichlorobenzene	146	6.147	6.147	(1.003)	590600	39.3154	2621
15	Benzyl alcohol	108	6.296	6.304	(1.028)	340458	36.8148	2454

GLQ 2/24/11

LC 2/25/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L1.D
Report Date: 24-Feb-2011 11:58

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
	16	1,2-Dichlorobenzene	146	6.316	6.317	(1.031)	574102	40.1071	2674
	17	2-Methylphenol	108	6.432	6.433	(1.050)	514431	41.6118	2774
	18	2,2'-Oxybis-1-chloropropane	45	6.459	6.461	(1.054)	861470	40.8677	2724
	19	3-Methylphenol	108	6.609	6.625	(1.079)	471930	36.5427	2436
	20	4-Methylphenol	108	6.609	6.625	(1.079)	471930	36.5427	2436
	21	N-Nitroso-di-n-propylamine	70	6.609	6.625	(1.079)	314870	34.6639	2311
	22	Hexachloroethane	117	6.712	6.714	(1.095)	241815	38.7892	2586
	32	Benzaldehyde	106	5.629	5.628	(0.919)	369587	33.5206	2235
*	33	Naphthalene-d8	136	7.620	7.630	(1.000)	1364858	40.0000	
$	34	Nitrobenzene-d5	82	6.773	6.782	(0.889)	437286	34.7132	2314
	35	Nitrobenzene	77	6.794	6.803	(0.892)	469895	38.4097	2561
	39	Isophorone	82	7.087	7.096	(0.930)	922810	35.0546	2337
	40	2-Nitrophenol	139	7.169	7.178	(0.941)	321956	42.1022	2807
	42	2,4-Dimethylphenol	107	7.237	7.246	(0.950)	523459	44.8868	2992
	43	Benzoic acid	105	7.387	7.424	(0.969)	355322	39.6791	2645
	44	bis(2-Chloroethoxy)methane	93	7.353	7.356	(0.965)	647081	41.3024	2753
	47	2,4-Dichlorophenol	162	7.462	7.465	(0.979)	429768	39.6306	2642
	62	2,6-Dichlorophenol	162	7.729	7.733	(1.014)	356545	33.3071	2220
	50	1,2,4-Trichlorobenzene	180	7.558	7.561	(0.992)	413984	35.2257	2348
	51	Naphthalene	128	7.647	7.650	(1.004)	1263296	38.4541	2564
	52	4-Chloroaniline	127	7.723	7.733	(1.013)	497844	33.1039	2207
	53	Hexachlorobutadiene	225	7.805	7.809	(1.024)	249918	41.5372	2769
	54	4-Chloro-3-methylphenol	107	8.324	8.335	(1.092)	409704	42.4684	2831
	55	2-Methylnaphthalene	141	8.481	8.492	(1.113)	713122	42.3576	2824
	56	1-Methylnaphthalene	141	8.604	8.608	(1.129)	652173	37.6277	2508
	57	Acetophenone	105	6.602	6.611	(1.078)	532836	31.4635	2098
	67	1,2,4,5-Tetrachlorobenzene	216	8.686	8.697	(1.140)	342694	34.9266	2328
	68	Caprolactam	113	8.160	8.192	(1.071)	149813	34.7054	2314
*	69	Acenaphthene-d10	164	9.747	9.755	(1.000)	644135	40.0000	
	70	Hexachlorocyclopentadiene	237	8.679	8.683	(0.890)	170837	30.3022	2020
	71	2,4,6-Trichlorophenol	196	8.830	8.835	(0.906)	272436	42.1970	2813
	72	2,4,5-Trichlorophenol	196	8.878	8.883	(0.911)	292927	42.1207	2808
	73	2-Chloronaphthalene	162	9.070	9.082	(0.930)	791324	43.0965	2873
$	74	2-Fluorobiphenyl	172	8.940	8.945	(0.917)	747486	35.7089	2380
	75	2-Nitroaniline	65	9.207	9.213	(0.945)	203082	38.7870	2586
	76	Dimethylphthalate	163	9.439	9.475	(0.968)	904275	42.4901	2833
	77	Acenaphthylene	152	9.569	9.583	(0.982)	1063105	37.8470	2523
	78	2,6-Dinitrotoluene	165	9.508	9.522	(0.975)	212343	37.8562	2524
	79	3-Nitroaniline	138	9.706	9.720	(0.996)	186163	33.1932	2213
	80	Acenaphthene	153	9.789	9.796	(1.004)	690999	39.6342	2642
	81	2,4-Dinitrophenol	184	9.837	9.844	(1.009)	127982	50.5601	3371
	83	4-Nitrophenol	65	9.926	9.934	(1.018)	127059	39.8976	2660
	84	Dibenzofuran	168	9.994	10.002	(1.025)	955035	39.5961	2640
	85	2,4-Dinitrotoluene	165	9.994	10.009	(1.025)	254778	42.3105	2821
	86	Diethylphthalate	149	10.301	10.311	(1.057)	830992	41.7625	2784
	87	4-Chlorophenyl-phenylether	204	10.425	10.428	(1.069)	340228	39.6086	2640
	88	Fluorene	166	10.418	10.421	(1.069)	701479	37.9768	2532

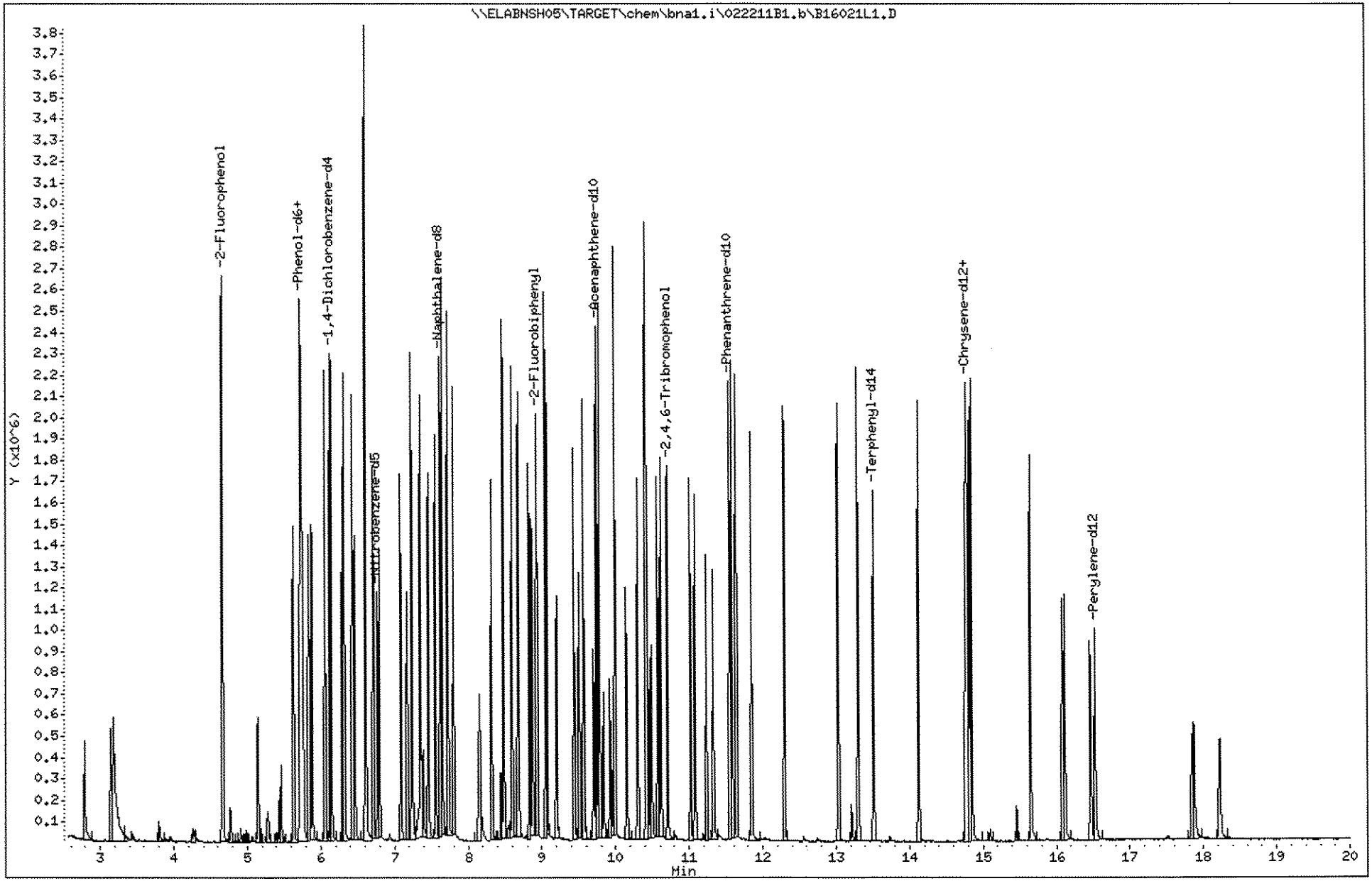
Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L1.D
Report Date: 24-Feb-2011 11:58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
89	4-Nitroaniline	138	10.451	10.462	(1.072)	180419	48.5184	3234
96	2,3,4,6-Tetrachlorophenol	232	10.151	10.160	(1.041)	168883	31.1655	2078
100	1,1'-Biphenyl	154	9.056	9.061	(0.929)	845384	36.3898	2426
* 102	Phenanthrene-d10	188	11.554	11.564	(1.000)	914730	40.0000	
103	1,2-Diphenylhydrazine	77	10.616	10.627	(0.919)	799334	41.8742	2792
104	Carbazole	167	11.848	11.858	(1.025)	895503	42.6178	2841
105	4,6-Dinitro-2-methylphenol	198	10.493	10.496	(0.908)	172174	53.6823	3579
106	N-Nitrosodiphenylamine	169	10.575	10.578	(0.915)	480873	31.8652	2124
$ 107	2,4,6-Tribromophenol	330	10.712	10.715	(0.927)	262062	79.0848	5272
108	4-Bromophenyl-phenylether	248	11.019	11.023	(0.954)	234059	44.4435	2963
109	Hexachlorobenzene	284	11.081	11.091	(0.959)	253487	42.6641	2844
110	Pentachlorophenol	266	11.328	11.336	(0.980)	185971	46.4074	3094
111	Phenanthrene	178	11.588	11.591	(1.003)	1010599	41.7916	2786
112	Anthracene	178	11.643	11.651	(1.008)	997800	41.2989	2753
115	Di-n-butylphthalate	149	12.298	12.305	(1.064)	1309194	41.6230	2775
116	Fluoranthene	202	13.034	13.034	(1.128)	948242	38.6500	2577
129	Atrazine	200	11.239	11.248	(0.973)	154206	32.8966	2193
* 132	Chrysene-d12	240	14.790	14.795	(1.000)	702185	40.0000	
133	Benzidine	184	13.211	13.219	(0.893)	70748	6.38237	425.5(a)
134	Pyrene	202	13.307	13.309	(0.900)	1003654	44.0164	2934
$ 135	Terphenyl-d14	244	13.511	13.514	(0.914)	573992	40.2646	2684
136	Butylbenzylphthalate	149	14.124	14.126	(0.955)	598281	44.2895	2953
137	3,3'-Dichlorobenzidine	252	14.757	14.764	(0.998)	200823	29.7877	1986
138	Benzo(a)anthracene	228	14.777	14.783	(0.999)	785618	39.3012	2620
139	Chrysene	228	14.823	14.827	(1.002)	776580	39.4015	2627
140	Bis(2-ethylhexyl)phthalate	149	14.851	14.848	(1.004)	768927	42.7300	2849
* 154	Perylene-d12	264	16.529	16.529	(1.000)	417145	40.0000	
155	Di-n-octylphthalate	149	15.648	15.647	(0.947)	1121046	59.9561	3997
156	Benzo(b)fluoranthene	252	16.084	16.092	(0.973)	541365	47.1925	3146
157	Benzo(k)fluoranthene	252	16.119	16.126	(0.975)	612831	48.3764	3225
158	Benzo(a)pyrene	252	16.460	16.469	(0.996)	446902	41.0465	2736
159	Indeno(1,2,3-cd)pyrene	276	17.849	17.860	(1.080)	354893	36.8759	2458
160	Dibenz(a,h)anthracene	278	17.876	17.880	(1.081)	305528	38.2267	2548
161	Benzo(g,h,i)perylene	276	18.226	18.231	(1.103)	312040	39.4258	2628

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L1.D
Date : 22-FEB-2011 19:48
Client ID: 1B16021-BS1
Instrument: bna1.i
Sample Info: 1B16021-BS1;;15;1000;UG/KG;;21-FEB-2011
Volume Injected (uL): 0.5
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L2.D
Report Date: 24-Feb-2011 11:58

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L2.D
Lab Smp Id: 1B16021-BSD1 Client Smp ID: 1B16021-BSD1
Inj Date : 22-FEB-2011 20:16 MS Autotune Date: 08-DEC-2010 05:57
Operator : MEC Inst ID: bna1.i
Smp Info : 1B16021-BSD1;;15;1000;UG/KG;;21-FEB-2011
Misc Info : ;3;LCSD;;;1B16021;ppbnax.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\IXBN1.m
Meth Date : 24-Feb-2011 11:39 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 7 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ppbnax.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Concentration Formula: Amt * DF * Uf * Vt*Vi/(Amt * Vi * (Solids/100))

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Amt	15.000	Mass of initial extraction
Vi	0.500	Volume injected (uL)
Solids	100.000	Percent Solids

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
*	1 1,4-Dichlorobenzene-d4	152	6.128	6.126	(1.000)	460838	40.0000	
$	2 2-Fluorophenol	112	4.664	4.663	(0.761)	1172507	83.0919	5539
$	3 Phenol-d6	99	5.725	5.730	(0.934)	1456201	81.1853	5412
	4 Pyridine	79	3.175	3.168	(0.518)	638100	35.1767	2345
	5 1,4-Dioxane	88	2.788	2.774	(0.455)	231611	31.1753	2078
	6 N-Nitroso-di-methylamine	42	3.148	3.141	(0.514)	310521	47.0683	3138
	7 Aniline	93	5.753	5.757	(0.939)	927104	41.2622	2751
	10 Phenol	94	5.746	5.750	(0.938)	966822	51.9688	3464(R)
	11 bis(2-Chloroethyl)ether	93	5.841	5.846	(0.953)	659444	42.4991	2833
	12 2-Chlorophenol	128	5.889	5.887	(0.961)	685644	45.7226	3048
	13 1,3-Dichlorobenzene	146	6.060	6.058	(0.989)	705362	43.4016	2893
	14 1,4-Dichlorobenzene	146	6.149	6.147	(1.003)	704445	44.3217	2955
	15 Benzyl alcohol	108	6.299	6.304	(1.028)	402576	41.1440	2743

GLQ 2/24/11

LQ 4151

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L2.D
Report Date: 24-Feb-2011 11:58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
	16 1,2-Dichlorobenzene	146	6.319	6.317	(1.031)	673322	44.4585	2964
	17 2-Methylphenol	108	6.435	6.433	(1.050)	618269	47.2679	3151
	18 2,2'-Oxybis-1-chloropropane	45	6.456	6.461	(1.053)	1001490	44.9041	2994
	19 3-Methylphenol	108	6.613	6.625	(1.079)	598575	43.8068	2920
	20 4-Methylphenol	108	6.613	6.625	(1.079)	598575	43.8068	2920
	21 N-Nitroso-di-n-propylamine	70	6.613	6.625	(1.079)	395834	41.1869	2746
	22 Hexachloroethane	117	6.708	6.714	(1.095)	283657	43.0052	2867
	32 Benzaldehyde	106	5.630	5.628	(0.919)	433336	37.1466	2476
*	33 Naphthalene-d8	136	7.623	7.630	(1.000)	1396474	40.0000	
$	34 Nitrobenzene-d5	82	6.777	6.782	(0.889)	547814	42.5027	2834
	35 Nitrobenzene	77	6.797	6.803	(0.892)	547114	43.7092	2914
	39 Isophorone	82	7.091	7.096	(0.930)	1087610	40.3795	2692
	40 2-Nitrophenol	139	7.172	7.178	(0.941)	413930	52.9042	3527
	42 2,4-Dimethylphenol	107	7.240	7.246	(0.950)	639466	53.5930	3573(R)
	43 Benzoic acid	105	7.404	7.424	(0.971)	442437	47.3353	3156
	44 bis(2-Chloroethoxy)methane	93	7.356	7.356	(0.965)	775730	48.3929	3226
	47 2,4-Dichlorophenol	162	7.466	7.465	(0.979)	505189	45.5307	3035
	62 2,6-Dichlorophenol	162	7.733	7.733	(1.014)	455224	41.5625	2771
	50 1,2,4-Trichlorobenzene	180	7.561	7.561	(0.992)	524223	43.5960	2906
	51 Naphthalene	128	7.651	7.650	(1.004)	1540064	45.8174	3054
	52 4-Chloroaniline	127	7.726	7.733	(1.013)	633163	41.1486	2743
	53 Hexachlorobutadiene	225	7.802	7.809	(1.023)	292480	47.5106	3167
	54 4-Chloro-3-methylphenol	107	8.321	8.335	(1.091)	487923	49.4312	3295
	55 2-Methylnaphthalene	141	8.485	8.492	(1.113)	795054	46.1550	3077
	56 1-Methylnaphthalene	141	8.601	8.608	(1.128)	784230	44.2225	2948
	57 Acetophenone	105	6.606	6.611	(1.078)	634098	35.3891	2359
	67 1,2,4,5-Tetrachlorobenzene	216	8.691	8.697	(1.140)	416043	41.4422	2763
	68 Caprolactam	113	8.171	8.192	(1.072)	183712	41.5948	2773
*	69 Acenaphthene-d10	164	9.746	9.755	(1.000)	722620	40.0000	
	70 Hexachlorocyclopentadiene	237	8.677	8.683	(0.890)	224440	35.4862	2366
	71 2,4,6-Trichlorophenol	196	8.835	8.835	(0.907)	339799	46.9144	3128
	72 2,4,5-Trichlorophenol	196	8.876	8.883	(0.911)	389834	49.9669	3331
	73 2-Chloronaphthalene	162	9.074	9.082	(0.931)	890831	43.2464	2883
$	74 2-Fluorobiphenyl	172	8.937	8.945	(0.917)	956719	40.7403	2716
	75 2-Nitroaniline	65	9.204	9.213	(0.944)	272193	46.3402	3089
	76 Dimethylphthalate	163	9.444	9.475	(0.969)	1113258	46.6283	3108
	77 Acenaphthylene	152	9.574	9.583	(0.982)	1277632	40.5442	2703
	78 2,6-Dinitrotoluene	165	9.513	9.522	(0.976)	281243	44.6939	2980
	79 3-Nitroaniline	138	9.711	9.720	(0.996)	247356	39.3138	2621
	80 Acenaphthene	153	9.787	9.796	(1.004)	900811	46.0568	3070
	81 2,4-Dinitrophenol	184	9.842	9.844	(1.010)	188889	63.3962	4226
	83 4-Nitrophenol	65	9.930	9.934	(1.019)	178387	49.9311	3329
	84 Dibenzofuran	168	9.999	10.002	(1.026)	1282536	47.3990	3160
	85 2,4-Dinitrotoluene	165	9.999	10.009	(1.026)	339090	50.1958	3346
	86 Diethylphthalate	149	10.307	10.311	(1.058)	1085179	49.4643	3298
	87 4-Chlorophenyl-phenylether	204	10.430	10.428	(1.070)	422844	43.8800	2925
	88 Fluorene	166	10.416	10.421	(1.069)	897884	43.3302	2889

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L2.D
Report Date: 24-Feb-2011 11:58

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	CONCENTRATIONS FINAL (ug/Kg)
89	4-Nitroaniline	138	10.458	10.462	(1.073)	233987	56.0897	3739
96	2,3,4,6-Tetrachlorophenol	232	10.156	10.160	(1.042)	227247	37.3812	2492
100	1,1'-Biphenyl	154	9.054	9.061	(0.929)	952557	36.5496	2437
* 102	Phenanthrene-d10	188	11.553	11.564	(1.000)	993004	40.0000	
103	1,2-Diphenylhydrazine	77	10.622	10.627	(0.919)	921784	44.4825	2966
104	Carbazole	167	11.853	11.858	(1.026)	1123716	49.2632	3284
105	4,6-Dinitro-2-methylphenol	198	10.492	10.496	(0.908)	215647	61.2486	4083
106	N-Nitrosodiphenylamine	169	10.574	10.578	(0.915)	601495	36.7164	2448
$ 107	2,4,6-Tribromophenol	330	10.712	10.715	(0.927)	311892	86.7033	5780
108	4-Bromophenyl-phenylether	248	11.019	11.023	(0.954)	302516	52.9144	3528
109	Hexachlorobenzene	284	11.088	11.091	(0.960)	315264	48.8791	3259
110	Pentachlorophenol	266	11.327	11.336	(0.980)	269137	60.8877	4059(R)
111	Phenanthrene	178	11.586	11.591	(1.003)	1222914	46.5853	3106
112	Anthracene	178	11.648	11.651	(1.008)	1195643	45.5867	3039
115	Di-n-butylphthalate	149	12.304	12.305	(1.065)	1733406	50.7658	3384
116	Fluoranthene	202	13.035	13.034	(1.128)	1239756	46.5488	3103
129	Atrazine	200	11.245	11.248	(0.973)	199657	39.2353	2616
* 132	Chrysene-d12	240	14.794	14.795	(1.000)	701346	40.0000	
133	Benzidine	184	13.212	13.219	(0.893)	123019	11.1112	740.7(a)
134	Pyrene	202	13.308	13.309	(0.900)	1311912	57.6043	3840
$ 135	Terphenyl-d14	244	13.513	13.514	(0.913)	733626	51.5242	3435
136	Butylbenzylphthalate	149	14.127	14.126	(0.955)	797439	59.1034	3940
137	3,3'-Dichlorobenzidine	252	14.760	14.764	(0.998)	286269	42.5126	2834
138	Benzo(a)anthracene	228	14.780	14.783	(0.999)	934375	46.7988	3120
139	Chrysene	228	14.821	14.827	(1.002)	952930	48.4068	3227
140	Bis(2-ethylhexyl)phthalate	149	14.848	14.848	(1.004)	927563	51.6072	3440
* 154	Perylene-d12	264	16.526	16.529	(1.000)	548773	40.0000	
155	Di-n-octylphthalate	149	15.647	15.647	(0.947)	1465915	59.5954	3973
156	Benzo(b)fluoranthene	252	16.084	16.092	(0.973)	802397	53.1700	3545
157	Benzo(k)fluoranthene	252	16.118	16.126	(0.975)	773126	46.3914	3093
158	Benzo(a)pyrene	252	16.465	16.469	(0.996)	622023	43.4274	2895
159	Indeno(1,2,3-cd)pyrene	276	17.854	17.860	(1.080)	523415	41.3414	2756
160	Dibenz(a,h)anthracene	278	17.874	17.880	(1.082)	437274	41.5876	2772
161	Benzo(g,h,i)perylene	276	18.223	18.231	(1.103)	427724	41.0798	2739

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\B16021L2.D
Date : 22-FEB-2011 20:16
Client ID: 1B16021-BSD1
Instrument: bna1.i
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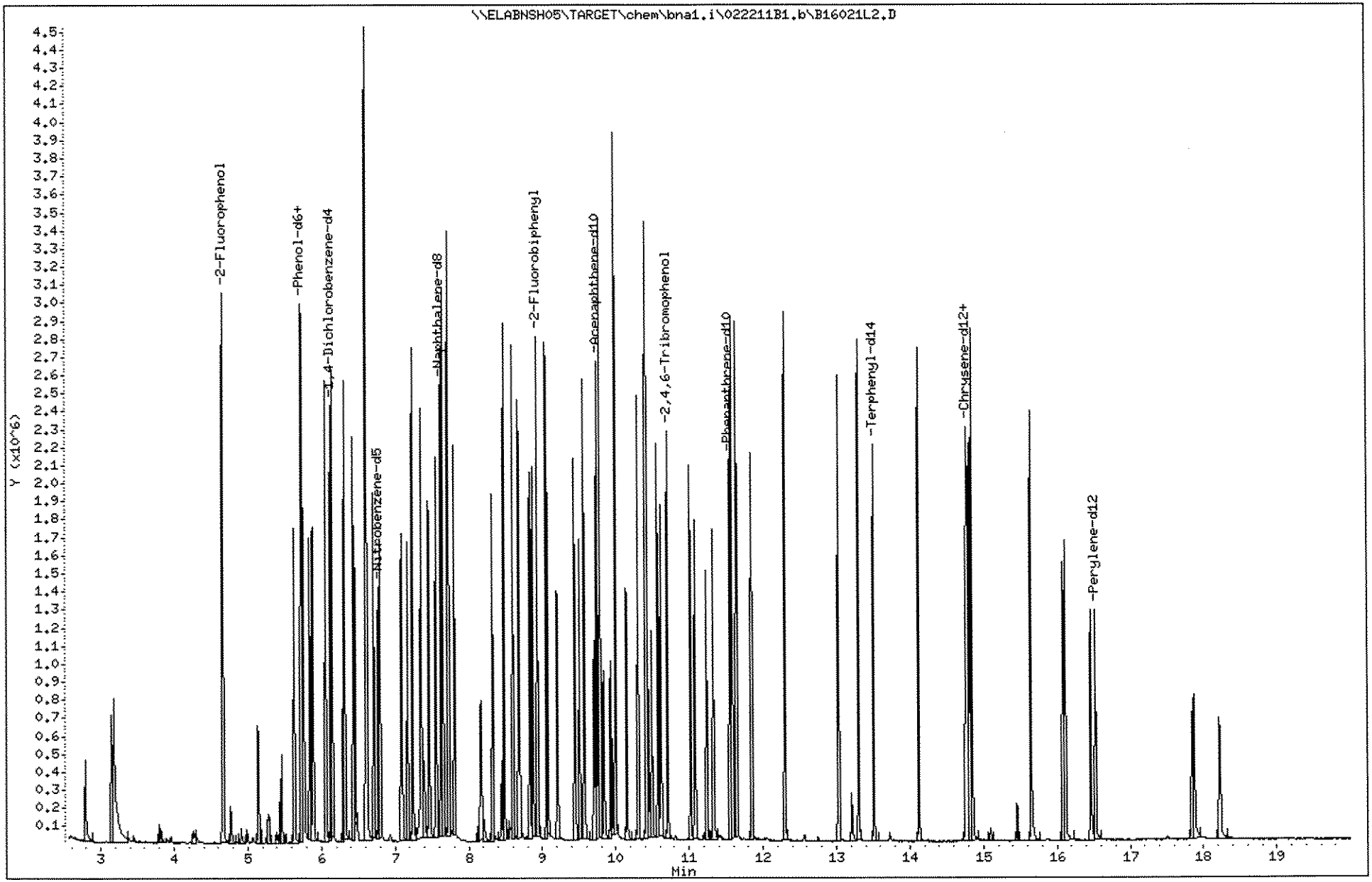
Volume Injected (uL): 0.5
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



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Report Date: 24-Feb-2011 12:56

Laboratory Name

Data file : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\0218001.D
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Inj Date : 22-FEB-2011 23:07
Operator : MEC Inst ID: bna1.i
Smp Info : 1102180-01;;15;1000;UG/KG;;21-FEB-2011
Misc Info : ;0;;;;1B16021;ppbnax.sub;
Comment :
Method : \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\IXBN1.m
Meth Date : 24-Feb-2011 12:05 gquick Quant Type: ISTD
Cal Date : 26-JAN-2011 19:29 Cal File: SEQ-CAL9.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ppbnax.sub
Target Version: 4.04
Processing Host: TARGET17_VM

Concentration Formula: Amt * DF * Uf * Vt*Vi/(Amt * Vi * (Solids/100))

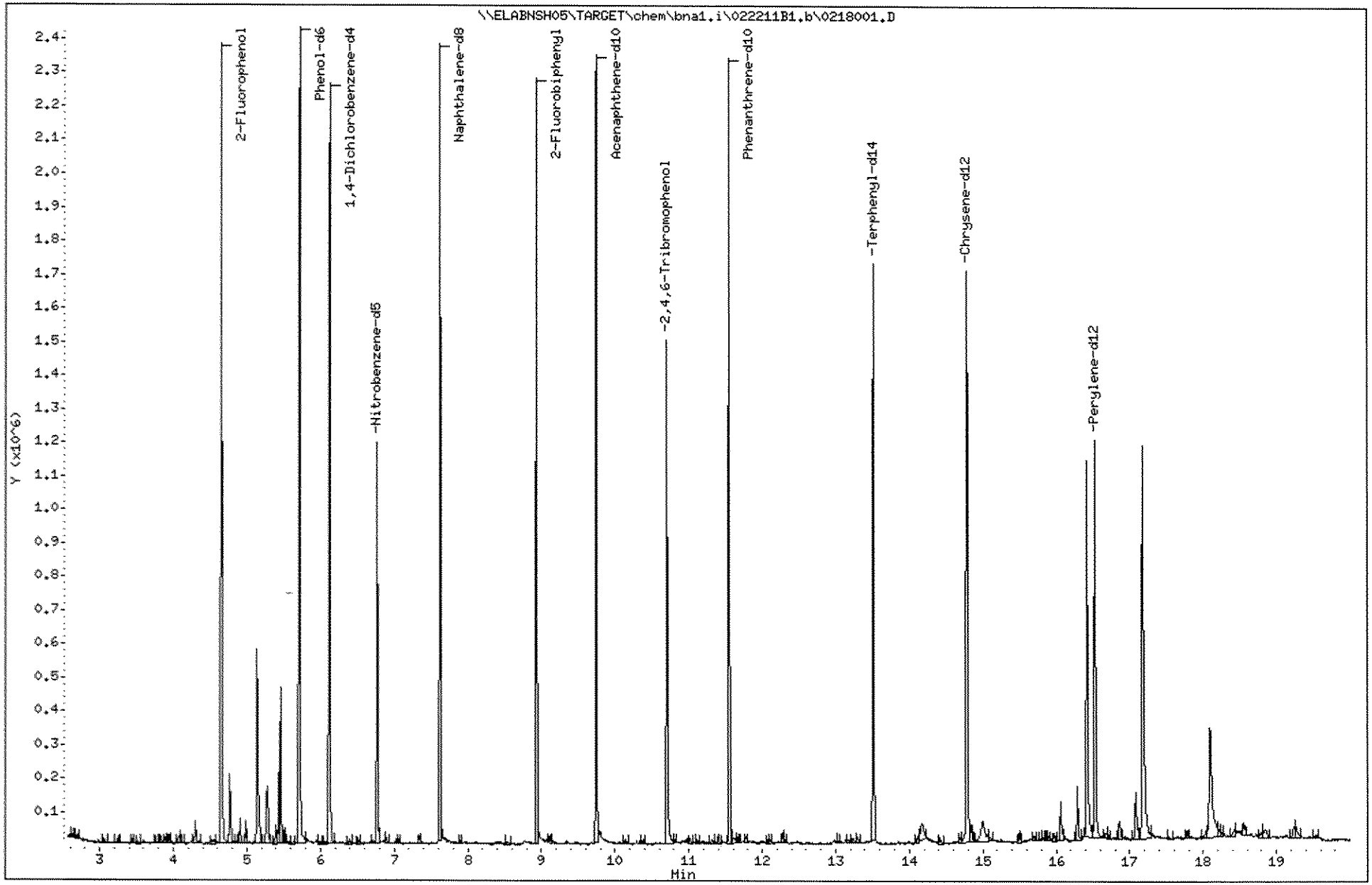
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Amt	15.000	Mass of initial extraction
Vi	0.500	Volume injected (uL)
Solids	100.000	Percent Solids

4212B

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 1 1,4-Dichlorobenzene-d4	152	6.126	6.126	(1.000)	463826	40.0000	
$ 2 2-Fluorophenol	112	4.649	4.663	(0.759)	949284	66.8394	4456
$ 3 Phenol-d6	99	5.717	5.730	(0.933)	1123443	62.2301	4149
* 33 Naphthalene-d8	136	7.623	7.630	(1.000)	1399381	40.0000	
$ 34 Nitrobenzene-d5	82	6.772	6.782	(0.888)	472220	36.5616	2437
* 69 Acenaphthene-d10	164	9.748	9.755	(1.000)	679601	40.0000	
$ 74 2-Fluorobiphenyl	172	8.937	8.945	(0.917)	803925	36.4009	2427
* 102 Phenanthrene-d10	188	11.554	11.564	(1.000)	987377	40.0000	
$ 107 2,4,6-Tribromophenol	330	10.708	10.715	(0.927)	235532	65.8490	4390
* 132 Chrysene-d12	240	14.786	14.795	(1.000)	710661	40.0000	
$ 135 Terphenyl-d14	244	13.511	13.514	(0.914)	600804	41.6427	2776
* 154 Perylene-d12	264	16.528	16.529	(1.000)	542351	40.0000	

GLQ 2/24/11

Data File: \\ELABNSH05\TARGET\chem\bna1.i\022211B1.b\0218001.D
Date : 22-FEB-2011 23:07
Client ID:
Instrument: bna1.i
Sample Info: 1102180-01;;15;1000;UG/KG;;21-FEB-2011
Volume Injected (uL): 0.5
Operator: MEC
Column phase: fused silica
Column diameter: 0.25



430

1102180

PREPARATION BENCH SHEET

1B16021

Empirical Laboratories, LLC

Printed: 3/4/2011 11:07:30AM

Matrix: Solid **Prepared using: EXT - EXT_3546** **Surrogate used: 11B0517**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102147-02	SMS_BNA_8270D_3546_REG	02/21/2011 13:31	15.4	1				500	
1102180-01	SMS_BNA_8270C_3546_REG	02/21/2011 13:31	15	1				500	
1B16021-BLK1	QC	02/21/2011 13:31	15	1				500	
1B16021-BS1	QC	02/21/2011 13:31	15	1	11A0336		500	500	
1B16021-BSD1	QC	02/21/2011 13:31	15	1	11A0336		500	500	

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

431

1102180

Data for SW8081A Forms

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1A02810
Instrument: GL-ECD3
Calibration: 1040001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1A02810-CAL1	003R0301.D	01/27/11 12:39
Cal Standard	1A02810-CAL1	003F0301.D	01/27/11 12:39
Cal Standard	1A02810-CAL2	004F0401.D	01/27/11 12:58
Cal Standard	1A02810-CAL2	004R0401.D	01/27/11 12:58
Cal Standard	1A02810-CAL3	005F0501.D	01/27/11 13:16
Cal Standard	1A02810-CAL3	005R0501.D	01/27/11 13:16
Cal Standard	1A02810-CAL4	006F0601.D	01/27/11 13:35
Cal Standard	1A02810-CAL4	006R0601.D	01/27/11 13:35
Cal Standard	1A02810-CAL5	007F0701.D	01/27/11 13:53
Cal Standard	1A02810-CAL5	007R0701.D	01/27/11 13:53
Cal Standard	1A02810-CAL6	008F0801.D	01/27/11 14:12
Cal Standard	1A02810-CAL6	008R0801.D	01/27/11 14:12
Initial Cal Check	1A02810-ICV1	009R0901.D	01/27/11 14:31
Initial Cal Check	1A02810-ICV1	009F0901.D	01/27/11 14:31
Cal Standard	1A02810-CAL7	011R1101.D	01/27/11 15:08
Cal Standard	1A02810-CAL7	011F1101.D	01/27/11 15:08
Cal Standard	1A02810-CAL8	012R1201.D	01/27/11 15:26
Cal Standard	1A02810-CAL8	012F1201.D	01/27/11 15:26
Cal Standard	1A02810-CAL9	013F1301.D	01/27/11 15:45
Cal Standard	1A02810-CAL9	013R1301.D	01/27/11 15:45
Cal Standard	1A02810-CALA	014F1401.D	01/27/11 16:04
Cal Standard	1A02810-CALA	014R1401.D	01/27/11 16:04
Cal Standard	1A02810-CALB	015F1501.D	01/27/11 16:22
Cal Standard	1A02810-CALB	015R1501.D	01/27/11 16:22
Cal Standard	1A02810-CALC	016F1601.D	01/27/11 16:41
Cal Standard	1A02810-CALC	016R1601.D	01/27/11 16:41
Initial Cal Check	1A02810-ICV2	017R1701.D	01/27/11 16:59
Initial Cal Check	1A02810-ICV2	017F1701.D	01/27/11 16:59

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B04026
Instrument: GL-ECD3
Calibration: 1040001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Performance Mix	1B04026-PEM1	002F0201.D	02/08/11 16:47
Performance Mix	1B04026-PEM1	002R0201.D	02/08/11 16:47
Cal Standard	1B04026-CAL7	011R1101.D	02/08/11 19:37
Cal Standard	1B04026-CAL7	011F1101.D	02/08/11 19:37
Cal Standard	1B04026-CAL8	012F1201.D	02/08/11 19:56
Cal Standard	1B04026-CAL8	012R1201.D	02/08/11 19:56
Cal Standard	1B04026-CAL9	013F1301.D	02/08/11 20:15
Cal Standard	1B04026-CAL9	013R1301.D	02/08/11 20:15
Cal Standard	1B04026-CALA	014R1401.D	02/08/11 20:34
Cal Standard	1B04026-CALA	014F1401.D	02/08/11 20:34
Cal Standard	1B04026-CALB	015R1501.D	02/08/11 20:53
Cal Standard	1B04026-CALB	015F1501.D	02/08/11 20:53
Cal Standard	1B04026-CALC	016F1601.D	02/08/11 21:12
Cal Standard	1B04026-CALC	016R1601.D	02/08/11 21:12
Cal Standard	1B04026-CALD	017F1701.D	02/08/11 21:31
Cal Standard	1B04026-CALD	017R1701.D	02/08/11 21:31
Initial Cal Check	1B04026-ICV2	018F1801.D	02/08/11 21:50
Initial Cal Check	1B04026-ICV2	018R1801.D	02/08/11 21:50

ANALYSIS SEQUENCE SUMMARY

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C06009	Instrument:	GL-ECD3
Calibration:	1040001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Performance Mix	1C06009-PEM1	002F0201.D	02/28/11 13:48
Performance Mix	1C06009-PEM1	002R0201.D	02/28/11 13:48
Calibration Check	1C06009-CCV1	003R0301.D	02/28/11 14:10
Calibration Check	1C06009-CCV1	003F0301.D	02/28/11 14:10
Calibration Check	1C06009-CCV2	004R0401.D	02/28/11 14:28
Calibration Check	1C06009-CCV2	004F0401.D	02/28/11 14:28
Calibration Check	1C06009-CCV3	005R0501.D	02/28/11 14:47
Calibration Check	1C06009-CCV3	005F0501.D	02/28/11 14:47
Blank	1B21019-BLK1	007F0701.D	02/28/11 15:24
Blank	1B21019-BLK1	007R0701.D	02/28/11 15:24
LCS	1B21019-BS1	008F0801.D	02/28/11 15:43
LCS	1B21019-BS1	008R0801.D	02/28/11 15:43
LCS Dup	1B21019-BSD1	010R1001.D	02/28/11 16:20
LCS Dup	1B21019-BSD1	010F1001.D	02/28/11 16:20
Backfilll (20110218)	1102180-01	012R1201.D	02/28/11 16:57
Backfilll (20110218)	1102180-01	012F1201.D	02/28/11 16:57
Calibration Check	1C06009-CCV5	021F2101.D	02/28/11 19:44
Calibration Check	1C06009-CCV5	021R2101.D	02/28/11 19:44
Calibration Check	1C06009-CCV6	022F2201.D	02/28/11 20:03
Calibration Check	1C06009-CCV6	022R2201.D	02/28/11 20:03
Calibration Check	1C06009-CCV7	023F2301.D	02/28/11 20:21
Calibration Check	1C06009-CCV7	023R2301.D	02/28/11 20:21

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 012F1201.D

Sampled: 02/18/11 16:15 Prepared: 02/25/11 11:49 Analyzed: 02/28/11 16:57

Solids: 80.80 Preparation: EXT_3546 Dilution: 1

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
72-55-9	4,4'-DDE		0.413	1.63	U
72-54-8	4,4'-DDD		0.413	1.63	U
50-29-3	4,4'-DDT		0.413	1.63	U
309-00-2	Aldrin		0.267	1.63	U
319-84-6	alpha-BHC		0.267	1.63	U
5103-71-9	alpha-Chlordane		0.267	1.63	U
319-85-7	beta-BHC		0.267	1.63	U
319-86-8	delta-BHC		0.267	1.63	U
60-57-1	Dieldrin		0.413	1.63	U
959-98-8	Endosulfan I		0.267	1.63	U
33213-65-9	Endosulfan II		0.413	1.63	U
1031-07-8	Endosulfan sulfate [2C]		0.413	1.63	U
72-20-8	Endrin		0.413	1.63	U
7421-93-4	Endrin aldehyde		0.413	1.63	U
53494-70-5	Endrin ketone		0.413	1.63	U
58-89-9	gamma-BHC (Lindane)		0.267	1.63	U
5103-74-2	gamma-Chlordane		58.2	58.2	UZ-01
76-44-8	Heptachlor		0.267	1.63	U
1024-57-3	Heptachlor epoxide		0.267	1.63	U
72-43-5	Methoxychlor		0.267	1.63	U
57-74-9	Chlordane (tech)		1.38	4.13	UX
8001-35-2	Toxaphene		26.7	80.1	UX

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	20.22	16.75	82.8	70 - 125	
Tetrachloro-m-xylene [2C]	20.22	17.82	88.1	70 - 125	
Decachlorobiphenyl	20.22	17.64	87.2	55 - 130	
Decachlorobiphenyl [2C]	20.22	18.52	91.6	55 - 130	

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B21019	Laboratory ID:	1B21019-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 10 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
4,4'-DDE	33.33	31.57	94.7	70 - 125
4,4'-DDE [2C]	33.33	34.27	103	70 - 125
4,4'-DDD	33.33	29.85	89.6	30 - 135
4,4'-DDD [2C]	33.33	31.36	94.1	30 - 135
4,4'-DDT	33.33	32.70	98.1	45 - 140
4,4'-DDT [2C]	33.33	35.82	107	45 - 140
Aldrin	33.33	30.38	91.1	45 - 140
Aldrin [2C]	33.33	32.44	97.3	45 - 140
alpha-BHC	33.33	31.10	93.3	60 - 125
alpha-BHC [2C]	33.33	32.23	96.7	60 - 125
alpha-Chlordane	33.33	36.17	109	65 - 120
alpha-Chlordane [2C]	33.33	38.40	115	65 - 120
beta-BHC	33.33	31.87	95.6	60 - 125
beta-BHC [2C]	33.33	32.14	96.4	60 - 125
delta-BHC	33.33	31.19	93.6	55 - 130
delta-BHC [2C]	33.33	33.14	99.4	55 - 130
Dieldrin	33.33	29.62	88.9	65 - 125
Dieldrin [2C]	33.33	30.89	92.7	65 - 125
Endosulfan I	33.33	34.46	103	15 - 135
Endosulfan I [2C]	33.33	33.99	102	15 - 135
Endosulfan II	33.33	29.29	87.9	35 - 140
Endosulfan II [2C]	33.33	30.59	91.8	35 - 140
Endosulfan sulfate	33.33	26.75	80.2	60 - 135
Endosulfan sulfate [2C]	33.33	28.27	84.8	60 - 135
Endrin	33.33	33.42	100	60 - 135
Endrin [2C]	33.33	36.03	108	60 - 135
Endrin aldehyde	33.33	25.02	75.1	35 - 145
Endrin aldehyde [2C]	33.33	26.06	78.2	35 - 145
Endrin ketone	33.33	27.37	82.1	65 - 135
Endrin ketone [2C]	33.33	29.05	87.1	65 - 135

LCS / LCS DUPLICATE RECOVERY

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B21019	Laboratory ID:	1B21019-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 10 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
gamma-BHC (Lindane)	33.33	31.39	94.2	60 - 125
gamma-BHC (Lindane) [2C]	33.33	33.09	99.3	60 - 125
gamma-Chlordane	33.33	30.03	90.1	65 - 125
gamma-Chlordane [2C]	**33.33**	**60.76**	**182**	**65 - 125**
Heptachlor	33.33	36.26	109	50 - 140
Heptachlor [2C]	33.33	34.14	102	50 - 140
Heptachlor epoxide	33.33	30.66	92.0	65 - 130
Heptachlor epoxide [2C]	33.33	32.81	98.4	65 - 130
Methoxychlor	33.33	34.24	103	55 - 145
Methoxychlor [2C]	33.33	32.05	96.1	55 - 145

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
4,4'-DDE	33.33	32.05	96.1	1.50	30	70 - 125
4,4'-DDE [2C]	33.33	34.68	104	1.19	30	70 - 125
4,4'-DDD	33.33	30.17	90.5	1.06	30	30 - 135
4,4'-DDD [2C]	33.33	32.00	96.0	2.03	30	30 - 135
4,4'-DDT	33.33	33.11	99.3	1.22	30	45 - 140
4,4'-DDT [2C]	33.33	36.57	110	2.09	30	45 - 140
Aldrin	33.33	30.68	92.1	0.986	30	45 - 140
Aldrin [2C]	33.33	32.76	98.3	0.995	30	45 - 140
alpha-BHC	33.33	31.50	94.5	1.29	30	60 - 125
alpha-BHC [2C]	33.33	32.68	98.0	1.39	30	60 - 125
alpha-Chlordane	33.33	33.65	101	7.22	30	65 - 120
alpha-Chlordane [2C]	33.33	35.97	108	6.52	30	65 - 120
beta-BHC	33.33	32.62	97.9	2.31	30	60 - 125
beta-BHC [2C]	33.33	32.81	98.4	2.05	30	60 - 125
delta-BHC	33.33	31.51	94.5	1.01	30	55 - 130
delta-BHC [2C]	33.33	33.61	101	1.41	30	55 - 130
Dieldrin	33.33	30.30	90.9	2.26	30	65 - 125

LCS / LCS DUPLICATE RECOVERY

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B21019
Laboratory ID: 1B21019-BSD1
Preparation: EXT_3546
Initial/Final: 15 g / 10 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Dieldrin [2C]	33.33	32.52	97.6	5.13	30	65 - 125
Endosulfan I	33.33	33.17	99.5	3.80	30	15 - 135
Endosulfan I [2C]	33.33	32.59	97.8	4.22	30	15 - 135
Endosulfan II	33.33	29.43	88.3	0.475	30	35 - 140
Endosulfan II [2C]	33.33	31.40	94.2	2.64	30	35 - 140
Endosulfan sulfate	33.33	28.28	84.8	5.59	30	60 - 135
Endosulfan sulfate [2C]	33.33	30.44	91.3	7.39	30	60 - 135
Endrin	33.33	34.43	103	2.98	30	60 - 135
Endrin [2C]	33.33	37.22	112	3.25	30	60 - 135
Endrin aldehyde	33.33	24.98	74.9	0.161	30	35 - 145
Endrin aldehyde [2C]	33.33	30.69	92.1	16.3	30	35 - 145
Endrin ketone	33.33	28.85	86.5	5.26	30	65 - 135
Endrin ketone [2C]	33.33	30.79	92.4	5.83	30	65 - 135
gamma-BHC (Lindane)	33.33	31.79	95.4	1.28	30	60 - 125
gamma-BHC (Lindane) [2C]	33.33	33.40	100	0.940	30	60 - 125
gamma-Chlordane	33.33	31.16	93.5	3.69	30	65 - 125
gamma-Chlordane [2C]	**33.33**	**42.93**	**129 ***	**34.4 ***	**30**	**65 - 125**
Heptachlor	33.33	37.11	111	2.30	30	50 - 140
Heptachlor [2C]	33.33	35.17	106	2.96	30	50 - 140
Heptachlor epoxide	33.33	31.15	93.5	1.61	30	65 - 130
Heptachlor epoxide [2C]	33.33	33.23	99.7	1.28	30	65 - 130
Methoxychlor	33.33	36.06	108	5.19	30	55 - 145
Methoxychlor [2C]	33.33	35.59	107	10.5	30	55 - 145

PREPARATION BATCH SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1B21019 Batch Matrix: Solid Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	02/25/11 11:49	15.30	10.00
Blank	1B21019-BLK1	02/25/11 11:49	15.00	10.00
LCS	1B21019-BS1	02/25/11 11:49	15.00	10.00
LCS Dup	1B21019-BSD1	02/25/11 11:49	15.00	10.00

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BLK1 File ID: 007F0701.D

Sampled: Prepared: 02/25/11 11:49 Analyzed: 02/28/11 15:24

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
72-55-9	4,4'-DDE		0.340	1.34	U
72-54-8	4,4'-DDD		0.340	1.34	U
50-29-3	4,4'-DDT		0.340	1.34	U
309-00-2	Aldrin		0.220	1.34	U
319-84-6	alpha-BHC		0.220	1.34	U
5103-71-9	alpha-Chlordane		0.220	1.34	U
319-85-7	beta-BHC		0.220	1.34	U
319-86-8	delta-BHC		0.220	1.34	U
60-57-1	Dieldrin		0.340	1.34	U
959-98-8	Endosulfan I		0.220	1.34	U
33213-65-9	Endosulfan II		0.340	1.34	U
1031-07-8	Endosulfan sulfate		0.340	1.34	U
72-20-8	Endrin		0.340	1.34	U
7421-93-4	Endrin aldehyde		0.340	1.34	U
53494-70-5	Endrin ketone		0.340	1.34	U
58-89-9	gamma-BHC (Lindane)		0.220	1.34	U
5103-74-2	gamma-Chlordane		0.220	1.34	U
76-44-8	Heptachlor		0.220	1.34	U
1024-57-3	Heptachlor epoxide		0.220	1.34	U
72-43-5	Methoxychlor		0.220	1.34	U
57-74-9	Chlordane (tech)		1.14	3.40	UX
8001-35-2	Toxaphene		22.0	66.0	UX

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	13.87	83.2	70 - 125	
Tetrachloro-m-xylene [2C]	16.67	15.09	90.5	70 - 125	
Decachlorobiphenyl	16.67	12.75	76.5	55 - 130	
Decachlorobiphenyl [2C]	16.67	13.07	78.4	55 - 130	

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1A02810	Instrument:	GL-ECD3
Calibration:	1040001		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10L0070	Chlordane CAL1 200ppb	1A02810-CAL1	003R0301.D	01/27/11 12:39
10L0070	Chlordane CAL1 200ppb	1A02810-CAL1	003F0301.D	01/27/11 12:39
10L0071	Chlordane CAL2 100ppb	1A02810-CAL2	004F0401.D	01/27/11 12:58
10L0071	Chlordane CAL2 100ppb	1A02810-CAL2	004R0401.D	01/27/11 12:58
10L0072	Chlordane CAL3 50ppb	1A02810-CAL3	005F0501.D	01/27/11 13:16
10L0072	Chlordane CAL3 50ppb	1A02810-CAL3	005R0501.D	01/27/11 13:16
10L0073	Chlordane CAL4 20ppb	1A02810-CAL4	006F0601.D	01/27/11 13:35
10L0073	Chlordane CAL4 20ppb	1A02810-CAL4	006R0601.D	01/27/11 13:35
10L0074	Chlordane CAL5 10ppb	1A02810-CAL5	007F0701.D	01/27/11 13:53
10L0074	Chlordane CAL5 10ppb	1A02810-CAL5	007R0701.D	01/27/11 13:53
10L0075	Chlordane SING PT (CAL6) 5ppb	1A02810-CAL6	008F0801.D	01/27/11 14:12
10L0075	Chlordane SING PT (CAL6) 5ppb	1A02810-CAL6	008R0801.D	01/27/11 14:12
10L0486	Toxaphene CAL1 @2000ppb	1A02810-CAL7	011R1101.D	01/27/11 15:08
10L0486	Toxaphene CAL1 @2000ppb	1A02810-CAL7	011F1101.D	01/27/11 15:08
10L0487	Toxaphene CAL2 @1000ppb	1A02810-CAL8	012F1201.D	01/27/11 15:26
10L0487	Toxaphene CAL2 @1000ppb	1A02810-CAL8	012R1201.D	01/27/11 15:26
10L0488	Toxaphene CAL3 @750ppb	1A02810-CAL9	013F1301.D	01/27/11 15:45
10L0488	Toxaphene CAL3 @750ppb	1A02810-CAL9	013R1301.D	01/27/11 15:45
10L0489	Toxaphene CAL4 @500ppb	1A02810-CALA	014F1401.D	01/27/11 16:04
10L0489	Toxaphene CAL4 @500ppb	1A02810-CALA	014R1401.D	01/27/11 16:04
10L0490	Toxaphene CAL5 @250ppb	1A02810-CALB	015F1501.D	01/27/11 16:22
10L0490	Toxaphene CAL5 @250ppb	1A02810-CALB	015R1501.D	01/27/11 16:22
10L0491	Toxaphene CAL6 @100ppb	1A02810-CALC	016R1601.D	01/27/11 16:41
10L0491	Toxaphene CAL6 @100ppb	1A02810-CALC	016F1601.D	01/27/11 16:41

INITIAL CALIBRATION STANDARDS

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1B04026	Instrument:	GL-ECD3
Calibration:	1040001		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10I0162	Pest_ICAL7@1ppb	1B04026-CAL7	011F1101.D	02/08/11 19:37
10I0162	Pest_ICAL7@1ppb	1B04026-CAL7	011R1101.D	02/08/11 19:37
10I0161	Pest_ICAL6@5ppb	1B04026-CAL8	012F1201.D	02/08/11 19:56
10I0161	Pest_ICAL6@5ppb	1B04026-CAL8	012R1201.D	02/08/11 19:56
10I0160	Pest_ICAL5@10ppb	1B04026-CAL9	013R1301.D	02/08/11 20:15
10I0160	Pest_ICAL5@10ppb	1B04026-CAL9	013F1301.D	02/08/11 20:15
10I0159	Pest_ICAL4@25ppb	1B04026-CALA	014F1401.D	02/08/11 20:34
10I0159	Pest_ICAL4@25ppb	1B04026-CALA	014R1401.D	02/08/11 20:34
10I0158	Pest_ICAL3@50ppb	1B04026-CALB	015F1501.D	02/08/11 20:53
10I0158	Pest_ICAL3@50ppb	1B04026-CALB	015R1501.D	02/08/11 20:53
10I0157	Pest. AB/Sur CCV @ 100ppb	1B04026-CALC	016F1601.D	02/08/11 21:12
10I0157	Pest. AB/Sur CCV @ 100ppb	1B04026-CALC	016R1601.D	02/08/11 21:12
10I0155	Pest_ICAL1@200ppb	1B04026-CALD	017R1701.D	02/08/11 21:31
10I0155	Pest_ICAL1@200ppb	1B04026-CALD	017F1701.D	02/08/11 21:31

INITIAL CALIBRATION DATA

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
4,4'-DDE												
4,4'-DDE [2C]												
4,4'-DDD												
4,4'-DDD [2C]												
4,4'-DDT												
4,4'-DDT [2C]												
Aldrin												
Aldrin [2C]												
alpha-BHC												
alpha-BHC [2C]												
alpha-Chlordane												
alpha-Chlordane [2C]												
beta-BHC												
beta-BHC [2C]												
delta-BHC												
delta-BHC [2C]												
Dieldrin												
Dieldrin [2C]												
Endosulfan I												
Endosulfan I [2C]												
Endosulfan II												
Endosulfan II [2C]												
Endosulfan sulfate												
Endosulfan sulfate [2C]												
Endrin												
Endrin [2C]												
Endrin aldehyde												
Endrin aldehyde [2C]												
Endrin ketone												
Endrin ketone [2C]												
gamma-BHC (Lindane)												

INITIAL CALIBRATION DATA

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
gamma-BHC (Lindane) [2C]												
gamma-Chlordane												
gamma-Chlordane [2C]												
Heptachlor												
Heptachlor [2C]												
Heptachlor epoxide												
Heptachlor epoxide [2C]												
Methoxychlor												
Methoxychlor [2C]												
Mirex	100	23522.09	50	23201.98	25	23205.6	10	23585.6	5	25600.4	1	25905
Mirex [2C]	100	19362.62	50	19882.06	25	20378.36	10	21111.2	5	23395	1	24618
Chlordane (tech)												
Chlordane (1)												
Chlordane (2)												
Chlordane (3)												
Chlordane (4)												
Chlordane (5)												
Chlordane (tech) [2C]												
Chlordane (1) [2C]												
Chlordane (2) [2C]												
Chlordane (3) [2C]												
Chlordane (4) [2C]												
Chlordane (5) [2C]												
Toxaphene (1)												
Toxaphene (2)												
Toxaphene (3)												
Toxaphene (4)												
Toxaphene (5)												
Toxaphene (1) [2C]												
Toxaphene (2) [2C]												
Toxaphene (3) [2C]												

INITIAL CALIBRATION DATA

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Toxaphene (4) [2C]												
Toxaphene (5) [2C]												
Tetrachloro-m-xylene	0		0		0		0		0		0	
Tetrachloro-m-xylene [2C]	0		0		0		0		0		0	
Decachlorobiphenyl	0		0		0		0		0		0	
Decachlorobiphenyl [2C]	0		0		0		0		0		0	

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
4,4'-DDE	1	24055	5	26149.4	10	27853.7	25	27086.92	50	30379.26	100	32883.02
4,4'-DDE [2C]	1	19414	5	22123.8	10	22893.7	25	23059.72	50	24928.1	100	24434.17
4,4'-DDD	1	18353	5	21801.6	10	22124.1	25	22220.12	50	25013.08	100	26353.55
4,4'-DDD [2C]	1	16188	5	19579.6	10	19951.8	25	19146.32	50	20870.68	100	21277.19
4,4'-DDT	1	18411	5	20030.8	10	20934.1	25	22541.52	50	26709.32	100	29099.06
4,4'-DDT [2C]	1	14192	5	15512.6	10	15366.4	25	14948.12	50	17291.86	100	17349.9
Aldrin	1	31707	5	34771.6	10	36815.5	25	37661.08	50	40346.18	100	41126.14
Aldrin [2C]	1	29354	5	30411.4	10	31360.7	25	31436.92	50	32277.12	100	31496.51
alpha-BHC	1	32477	5	36726.8	10	39720.8	25	40955.6	50	44247.18	100	45560.79
alpha-BHC [2C]	1	33779	5	34628.8	10	36430.5	25	35391.04	50	36315.5	100	35302.91
alpha-Chlordane	1	29824	5	32352.4	10	33412.7	25	33255.24	50	35818.38	100	36938.71
alpha-Chlordane [2C]	1	29130	5	28760.2	10	29165.9	25	27930.96	50	28649.72	100	27807.64
beta-BHC	1	13986	5	14060	10	14223.3	25	14144.4	50	15036.52	100	15233.8
beta-BHC [2C]	1	18322	5	14928	10	14424.5	25	13436.44	50	13727.88	100	13376.58
delta-BHC	1	23776	5	27921.8	10	29952	25	31271.12	50	34744.3	100	36460.23
delta-BHC [2C]	1	25170	5	26811.2	10	27853.6	25	27747.44	50	29250	100	28770.87
Dieldrin	1	29677	5	32587	10	34178.5	25	34912.76	50	37860.06	100	41089.35
Dieldrin [2C]	1	26743	5	28545	10	30543.6	25	31307.36	50	32987.08	100	31994.06
Endosulfan I	1	28106	5	31641	10	33347.7	25	33599.52	50	35765.46	100	36907.66
Endosulfan I [2C]	1	29089	5	31357.2	10	31988.5	25	31435.44	50	31822.14	100	30340.81
Endosulfan II	1	25687	5	28862.4	10	29566.5	25	30513.36	50	33976.68	100	35036.18
Endosulfan II [2C]	1	23327	5	24455	10	24590.5	25	24468.28	50	25441.62	100	26088.71
Endosulfan sulfate	1	22065	5	24562	10	24810.3	25	24705	50	27065.16	100	29824.88
Endosulfan sulfate [2C]	1	20693	5	21809.4	10	21085.5	25	20569.04	50	21572.68	100	22212.75
Endrin	1	23346	5	24741.4	10	25792.6	25	27648.64	50	30005.32	100	30761.62
Endrin [2C]	1	20633	5	23125.4	10	23364.4	25	23171.04	50	24195.1	100	23811.18
Endrin aldehyde	1	20606	5	22833	10	23231.8	25	22762.28	50	25669.92	100	27746.65
Endrin aldehyde [2C]	1	24700	5	25369	10	26013.3	25	24237.2	50	24465.68	100	26819.32
Endrin ketone	1	29644	5	34409.8	10	34084.3	25	33794.52	50	37027.42	100	38017.84
Endrin ketone [2C]	1	29441	5	30574	10	29855.4	25	29179	50	30079.3	100	29813.64
gamma-BHC (Lindane)	1	30450	5	32997.6	10	34907.2	25	35811.8	50	38725.78	100	40101.3

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
gamma-BHC (Lindane) [2C]	1	30771	5	30020.2	10	32091	25	31115.32	50	32182.2	100	31274.73
gamma-Chlordane	1	28280	5	32556.2	10	33762.5	25	34034.68	50	36867.56	100	38184.9
gamma-Chlordane [2C]	1	27332	5	27338	10	27279	25	26814.76	50	27985.62	100	27441.58
Heptachlor	1	24249	5	27722	10	29284.8	25	30714.96	50	34346.88	100	35868.63
Heptachlor [2C]	1	27177	5	28211	10	29366.8	25	28947.16	50	29934.24	100	28862.97
Heptachlor epoxide	1	30465	5	32721.6	10	34809.2	25	34178.92	50	37194.84	100	37098.27
Heptachlor epoxide [2C]	1	28611	5	28854.6	10	30339.9	25	29165	50	29815.74	100	29008.58
Methoxychlor	1	9224	5	10923.4	10	10646.9	25	10575.08	50	12530.62	100	12520.37
Methoxychlor [2C]	1	9090	5	11395.2	10	10224.3	25	9948.48	50	11017.94	100	10876.71
Mirex												
Mirex [2C]												
Chlordane (tech)												
Chlordane (1)												
Chlordane (2)												
Chlordane (3)												
Chlordane (4)												
Chlordane (5)												
Chlordane (tech) [2C]												
Chlordane (1) [2C]												
Chlordane (2) [2C]												
Chlordane (3) [2C]												
Chlordane (4) [2C]												
Chlordane (5) [2C]												
Toxaphene (1)	0		0		0		0		0		0	
Toxaphene (2)	0		0		0		0		0		0	
Toxaphene (3)	0		0		0		0		0		0	
Toxaphene (4)	0		0		0		0		0		0	
Toxaphene (5)	0		0		0		0		0		0	
Toxaphene (1) [2C]	0		0		0		0		0		0	
Toxaphene (2) [2C]	0		0		0		0		0		0	
Toxaphene (3) [2C]	0		0		0		0		0		0	

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Toxaphene (4) [2C]	0		0		0		0		0		0	
Toxaphene (5) [2C]	0		0		0		0		0		0	
Tetrachloro-m-xylene	1	25310	5	26097.4	10	26856.7	25	26818.36	50	28276.56	100	28485.65
Tetrachloro-m-xylene [2C]	1	27921	5	26831.2	10	27307.9	25	25751.72	50	25906.98	100	24638.04
Decachlorobiphenyl	1	31730	5	33655	10	31909.7	25	29718.64	50	30460.08	100	31456.51
Decachlorobiphenyl [2C]	1	27023	5	26598	10	24624.2	25	22610.52	50	21915.44	100	21813.62

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
4,4'-DDE	200	32836.98										
4,4'-DDE [2C]	200	23288.73										
4,4'-DDD	200	26371.81										
4,4'-DDD [2C]	200	20111.33										
4,4'-DDT	200	28019.51										
4,4'-DDT [2C]	200	18244.11										
Aldrin	200	41401.82										
Aldrin [2C]	200	29475.07										
alpha-BHC	200	46847.02										
alpha-BHC [2C]	200	33791.5										
alpha-Chlordane	200	36671.97										
alpha-Chlordane [2C]	200	26234.04										
beta-BHC	200	15261.66										
beta-BHC [2C]	200	12711.2										
delta-BHC	200	37497.14										
delta-BHC [2C]	200	27732.54										
Dieldrin	200	39758.12										
Dieldrin [2C]	200	29727.27										
Endosulfan I	200	35959.52										
Endosulfan I [2C]	200	27601.65										
Endosulfan II	200	33579.71										
Endosulfan II [2C]	200	23967.91										
Endosulfan sulfate	200	28651.48										
Endosulfan sulfate [2C]	200	20573.16										
Endrin	200	30313.15										
Endrin [2C]	200	22245.69										
Endrin aldehyde	200	26401.84										
Endrin aldehyde [2C]	200	23435.27										
Endrin ketone	200	37734.13										
Endrin ketone [2C]	200	27315.96										
gamma-BHC (Lindane)	200	40786.95										

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
gamma-BHC (Lindane) [2C]	200	30095.58										
gamma-Chlordane	200	38209.5										
gamma-Chlordane [2C]	200	25791.58										
Heptachlor	200	37358.41										
Heptachlor [2C]	200	27608.98										
Heptachlor epoxide	200	37152.52										
Heptachlor epoxide [2C]	200	27065.22										
Methoxychlor	200	12795.03										
Methoxychlor [2C]	200	10536.03										
Mirex												
Mirex [2C]												
Chlordane (tech)			200	2186.715	100	2121.154	50	2062.132	20	1978.7	10	2036.72
Chlordane (1)			200	4566.51	100	4282.9	50	4337.14	20	4081.8	10	4193.2
Chlordane (2)			200	961.665	100	918.37	50	919.9	20	928.15	10	870.3
Chlordane (3)			200	914.98	100	945.27	50	904.58	20	926.3	10	949.9
Chlordane (4)			200	3627.18	100	3585.9	50	3362.4	20	3216.1	10	3373.8
Chlordane (5)			200	863.24	100	873.33	50	786.64	20	741.15	10	796.4
Chlordane (tech) [2C]			200	1656.494	100	1651.124	50	1668.404	20	1734.65	10	1810.44
Chlordane (1) [2C]			200	3818.53	100	3711.43	50	3861.96	20	3924.6	10	3934.4
Chlordane (2) [2C]			200	711.615	100	682.38	50	741.64	20	820.4	10	807.2
Chlordane (3) [2C]			200	839.65	100	813.1	50	863.78	20	941.55	10	969.7
Chlordane (4) [2C]			200	2222.295	100	2330.66	50	2174.98	20	2252.55	10	2421.9
Chlordane (5) [2C]			200	690.38	100	718.05	50	699.66	20	734.15	10	919
Toxaphene (1)												
Toxaphene (2)												
Toxaphene (3)												
Toxaphene (4)												
Toxaphene (5)												
Toxaphene (1) [2C]												
Toxaphene (2) [2C]												
Toxaphene (3) [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Toxaphene (4) [2C]												
Toxaphene (5) [2C]												
Tetrachloro-m-xylene	200	28429.19										
Tetrachloro-m-xylene [2C]	200	23173.81										
Decachlorobiphenyl	200	28516.62										
Decachlorobiphenyl [2C]	200	19058.85										

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
4,4'-DDE												
4,4'-DDE [2C]												
4,4'-DDD												
4,4'-DDD [2C]												
4,4'-DDT												
4,4'-DDT [2C]												
Aldrin												
Aldrin [2C]												
alpha-BHC												
alpha-BHC [2C]												
alpha-Chlordane												
alpha-Chlordane [2C]												
beta-BHC												
beta-BHC [2C]												
delta-BHC												
delta-BHC [2C]												
Dieldrin												
Dieldrin [2C]												
Endosulfan I												
Endosulfan I [2C]												
Endosulfan II												
Endosulfan II [2C]												
Endosulfan sulfate												
Endosulfan sulfate [2C]												
Endrin												
Endrin [2C]												
Endrin aldehyde												
Endrin aldehyde [2C]												
Endrin ketone												
Endrin ketone [2C]												
gamma-BHC (Lindane)												

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
gamma-BHC (Lindane) [2C]												
gamma-Chlordane												
gamma-Chlordane [2C]												
Heptachlor												
Heptachlor [2C]												
Heptachlor epoxide												
Heptachlor epoxide [2C]												
Methoxychlor												
Methoxychlor [2C]												
Mirex												
Mirex [2C]												
Chlordane (tech)	5	1745.2										
Chlordane (1)	5	3611										
Chlordane (2)	5	760.4										
Chlordane (3)	5	919.8										
Chlordane (4)	5	2838.2										
Chlordane (5)	5	596.6										
Chlordane (tech) [2C]	5	1796.04										
Chlordane (1) [2C]	5	3827.2										
Chlordane (2) [2C]	5	809.2										
Chlordane (3) [2C]	5	1009.2										
Chlordane (4) [2C]	5	2511.2										
Chlordane (5) [2C]	5	823.4										
Toxaphene (1)			2000	1349.956	1000	1134.097	750	1303.655	500	1288.156	250	897.844
Toxaphene (2)			2000	541.638	1000	471.312	750	531.152	500	481.36	250	317.86
Toxaphene (3)			2000	1294.937	1000	1110.459	750	1265.499	500	951.968	250	790.348
Toxaphene (4)			2000	1278.392	1000	1288.061	750	1251.117	500	1121.666	250	828.964
Toxaphene (5)			2000	663.218	1000	551.682	750	628.2653	500	587.404	250	415.152
Toxaphene (1) [2C]			2000	877.46	1000	839.724	750	934.2747	500	1234.54	250	783.436
Toxaphene (2) [2C]			2000	521.51	1000	463.726	750	518.3387	500	460.152	250	410.588
Toxaphene (3) [2C]			2000	1021.586	1000	919.775	750	1027.233	500	998.878	250	825.028

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Toxaphene (4) [2C]			2000	520.054	1000	439.665	750	501.572	500	440.032	250	490.096
Toxaphene (5) [2C]			2000	402.359	1000	341.003	750	403.6227	500	359.216	250	317.9
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1040001	Instrument:	GL-ECD3
Matrix:	Water	Calibration Date:	2/8/2011 12:00:12AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
4,4'-DDE	28749.18	11.77988	7.961286	1.642561E-02			20	
4,4'-DDE [2C]	22877.46	7.858824	6.516	6.020383E-03			20	
4,4'-DDD	23176.75	12.56147	8.584714	1.744604E-02			20	
4,4'-DDD [2C]	19589.27	8.506356	7.096286	1.672594E-02			20	
4,4'-DDT	23677.9	17.8591	8.959571	1.008618E-02			20	
4,4'-DDT [2C]	16129.28	9.273803	7.380429	2.341526E-03			20	
Aldrin	37689.9	9.549108	6.907714	4.03298E-03			20	
Aldrin [2C]	30830.25	3.596809	5.553714	9.018253E-03			20	
alpha-BHC	40933.6	12.53806	5.651857	1.513803E-02			20	
alpha-BHC [2C]	35091.32	3.089502	4.704714	1.056841E-02			20	
alpha-Chlordane	34039.06	7.597159	7.755286	1.250928E-02			20	
alpha-Chlordane [2C]	28239.78	3.655569	6.321571	0.0221633			20	
beta-BHC	14563.67	4.002656	6.186714	1.333271E-02			20	
beta-BHC [2C]	14418.09	12.95665	5.236571	9.012653E-03			20	
delta-BHC	31660.37	15.57141	6.435571	9.528374E-03			20	
delta-BHC [2C]	27619.38	4.839927	5.428714	1.142869E-02			20	
Dieldrin	35723.26	11.37525	8.136857	1.139184E-02			20	
Dieldrin [2C]	30263.91	7.037327	6.635143	9.217077E-03			20	
Endosulfan I	33618.12	9.02892	7.815857	6.914671E-03			20	
Endosulfan I [2C]	30519.25	5.34863	6.368143	1.929193E-02			20	
Endosulfan II	31031.69	10.75955	8.686714	1.035845E-02			20	
Endosulfan II [2C]	24619.86	3.70057	7.232714	1.931884E-02			20	
Endosulfan sulfate	25954.83	10.36514	9.135571	1.479809E-02			20	
Endosulfan sulfate [2C]	21216.51	3.099819	7.682857	0.0172373			20	
Endrin	27515.53	10.76372	8.409572	6.232736E-03			20	
Endrin [2C]	22935.12	5.160888	6.904571	1.186985E-02			20	
Endrin aldehyde	24178.78	10.3223	8.847714	1.178219E-02			20	
Endrin aldehyde [2C]	25005.68	4.582518	7.409571	1.622295E-02			20	
Endrin ketone	34958.86	8.421759	9.734714	1.293007E-02			20	
Endrin ketone [2C]	29465.47	3.554574	8.220143	1.435389E-02			20	
gamma-BHC (Lindane)	36254.38	10.54897	5.974571	9.005824E-03			20	
gamma-BHC (Lindane) [2C]	31078.58	2.775354	4.970429	1.532236E-02			20	

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
gamma-Chlordane	34556.48	10.30926	7.669286	9.139765E-03			20	
gamma-Chlordane [2C]	27140.36	2.52843	6.269286	1.676268E-02			20	
Heptachlor	31363.53	15.05403	6.550143	2.141588E-02			20	
Heptachlor [2C]	28586.88	3.41402	5.303	1.526153E-02			20	
Heptachlor epoxide	34802.91	7.423467	7.379857	1.017685E-02			20	
Heptachlor epoxide [2C]	28980.01	3.564121	6.001571	0.0130804			20	
Methoxychlor	11316.49	11.7678	9.565857	1.328028E-02			20	
Methoxychlor [2C]	10441.24	7.374153	8.003714	1.143515E-02			20	
Mirex	24170.11	5.129206	10.28983	9.428303E-03			20	
Mirex [2C]	21457.87	9.752755	8.502167	8.061354E-03			20	
Chlordane (tech)	2021.77	7.575304	9.146833	0.016453			20	
Chlordane (1)	4178.758	7.704306	8.115167	0.0130156			20	
Chlordane (2)	893.1308	7.982705	6.648833	8.802278E-03			20	
Chlordane (3)	926.805	1.904287	6.8765	0.0201127			20	
Chlordane (4)	3333.93	8.605028	8.024833	1.999336E-03			20	
Chlordane (5)	776.2267	13.01254	9.146833	0.016453			20	
Chlordane (tech) [2C]	1719.525	4.162397	7.562167	1.153342E-02			20	
Chlordane (1) [2C]	3846.353	2.126926	6.608167	8.463282E-03			20	
Chlordane (2) [2C]	762.0725	7.645571	5.3885	1.518744E-02			20	
Chlordane (3) [2C]	906.1633	8.659464	5.550667	2.020321E-02			20	
Chlordane (4) [2C]	2318.931	5.528349	6.5575	1.530925E-02			20	
Chlordane (5) [2C]	764.1067	11.72238	7.562167	1.153342E-02			20	
Toxaphene (1)	1169.846	15.05535	10.02283	8.578039E-03			20	
Toxaphene (2)	460.5687	17.93236	8.711834	1.617942E-02			20	
Toxaphene (3)	1037.727	21.21386	9.381667	2.076308E-02			20	*
Toxaphene (4)	1113.945	17.81188	9.493	2.043054E-02			20	
Toxaphene (5)	549.6869	17.83479	10.47683	8.711324E-03			20	
Toxaphene (1) [2C]	999.3291	22.5344	8.509	7.91141E-03			20	*
Toxaphene (2) [2C]	462.7424	10.99579	7.558667	9.707124E-03			20	
Toxaphene (3) [2C]	986.2367	10.41254	7.893167	1.284203E-02			20	
Toxaphene (4) [2C]	465.8332	9.615537	8.863833	1.233624E-02			20	
Toxaphene (5) [2C]	360.4401	9.840667	9.023	2.044507E-02			20	

INITIAL CALIBRATION DATA (Continued)

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1040001	Instrument:	GL-ECD3
Matrix:	Water	Calibration Date:	2/8/2011 12:00:12AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Tetrachloro-m-xylene	27181.98	4.59786	5.219571	3.420111E-03			20	
Tetrachloro-m-xylene [2C]	25932.95	6.291637	4.316	3.747731E-03			20	
Decachlorobiphenyl	31063.79	5.369053	11.37914	1.615789E-02			20	
Decachlorobiphenyl [2C]	23377.66	12.22895	9.664143	1.633927E-02			20	

BREAKDOWN REPORT

Lab Sample ID: 1C06009-PEM1 **Analyzed:** 02/28/2011

Column Number: 1

Analyte	% Breakdown
4.4'-DDT	0.00
Endrin	0.00

Column Number: 2

Analyte	% Breakdown
4.4'-DDT	2.33
Endrin	9.57

BREAKDOWN REPORT

Lab Sample ID: 1B04026-PEM1 **Analyzed:** 02/08/2011

Column Number: 1

Analyte	% Breakdown
4.4'-DDT	3.88
Endrin	0.00

Column Number: 2

Analyte	% Breakdown
4.4'-DDT	3.09
Endrin	7.49

INITIAL CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	009F0901.D	Calibration Date:	02/08/11 00:00
Sequence:	1A02810	Injection Date:	01/27/11
Lab Sample ID:	1A02810-ICV1	Injection Time:	14:31

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)	
Chlordane (1)	A	100.0	112.8	4178.758	4715.09		12.8	20	
Chlordane (2)	A	100.0	112.8	893.1308	1007.14		12.8	20	
Chlordane (3)	A	100.0	110.3	926.805	1022.14		10.3	20	
Chlordane (4)	A	100.0	118.1	3333.93	3937.22		18.1	20	
Chlordane (5)	A	100.0	129.9	776.2267	1008.3		29.9	20	*
Chlordane (1) [2C]	A	100.0	106.2	3846.353	4083.75		6.2	20	
Chlordane (2) [2C]	A	100.0	95.81	762.0725	730.12		-4.2	20	
Chlordane (3) [2C]	A	100.0	99.05	906.1633	897.55		-1.0	20	
Chlordane (4) [2C]	A	100.0	113.0	2318.931	2621.15		13.0	20	
Chlordane (5) [2C]	A	100.0	107.7	764.1067	822.81		7.7	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	017F1701.D	Calibration Date:	02/08/11 00:00
Sequence:	1A02810	Injection Date:	01/27/11
Lab Sample ID:	1A02810-ICV2	Injection Time:	16:59

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)	
Toxaphene (1)	A	1000	1167	1169.846	1365.317		16.7	20	
Toxaphene (2)	A	1000	1200	460.5687	552.569		20.0	20	
Toxaphene (3)	A	1000	1126	1037.727	1168.423		12.6	20	
Toxaphene (4)	A	1000	1190	1113.945	1325.08		19.0	20	
Toxaphene (5)	A	1000	1220	549.6869	670.421		22.0	20	*
Toxaphene (1) [2C]	A	1000	972.1	999.3291	971.47		-2.8	20	
Toxaphene (2) [2C]	A	1000	1144	462.7424	529.3		14.4	20	
Toxaphene (3) [2C]	A	1000	1094	986.2367	1079.302		9.4	20	
Toxaphene (4) [2C]	A	1000	1095	465.8332	510.136		9.5	20	
Toxaphene (5) [2C]	A	1000	1112	360.4401	400.633		11.2	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	018F1801.D	Calibration Date:	02/08/11 00:00
Sequence:	1B04026	Injection Date:	02/08/11
Lab Sample ID:	1B04026-ICV2	Injection Time:	21:50

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
4,4'-DDE	A	100.0	111.4	28749.18	32013.64		11.4	20
4,4'-DDE [2C]	A	100.0	110.2	22877.46	25223.56		10.3	20
4,4'-DDD	A	100.0	113.9	23176.75	26396.49		13.9	20
4,4'-DDD [2C]	A	100.0	111.4	19589.27	21831.78		11.4	20
4,4'-DDT	A	100.0	112.2	23677.9	26564.74		12.2	20
4,4'-DDT [2C]	A	100.0	113.0	16129.28	18222.65		13.0	20
Aldrin	A	100.0	109.8	37689.9	41394.13		9.8	20
Aldrin [2C]	A	100.0	103.4	30830.25	31885.83		3.4	20
alpha-BHC	A	100.0	114.6	40933.6	46899.67		14.6	20
alpha-BHC [2C]	A	100.0	103.3	35091.32	36241.97		3.3	20
alpha-Chlordane	A	100.0	109.6	34039.06	37322.71		9.6	20
alpha-Chlordane [2C]	A	100.0	100.1	28239.78	28268.02		0.1	20
beta-BHC	A	100.0	110.2	14563.67	16056.81		10.3	20
beta-BHC [2C]	A	100.0	97.92	14418.09	14118.08		-2.1	20
delta-BHC	A	100.0	117.1	31660.37	37068.19		17.1	20
delta-BHC [2C]	A	100.0	108.0	27619.38	29827.06		8.0	20
Dieldrin	A	100.0	108.8	35723.26	38856		8.8	20
Dieldrin [2C]	A	100.0	103.5	30263.91	31322.8		3.5	20
Endosulfan I	A	100.0	107.9	33618.12	36260.96		7.9	20
Endosulfan I [2C]	A	100.0	100.4	30519.25	30656.88		0.5	20
Endosulfan II	A	100.0	103.2	31031.69	32023.39		3.2	20
Endosulfan II [2C]	A	100.0	105.8	24619.86	26051.66		5.8	20
Endosulfan sulfate	A	100.0	109.0	25954.83	28293.24		9.0	20
Endosulfan sulfate [2C]	A	100.0	106.6	21216.51	22627.29		6.6	20
Endrin	A	100.0	112.7	27515.53	31022.71		12.7	20
Endrin [2C]	A	100.0	107.3	22935.12	24606.75		7.3	20
Endrin aldehyde	A	100.0	102.5	24178.78	24781.82		2.5	20
Endrin aldehyde [2C]	A	100.0	99.88	25005.68	24974.57		-0.1	20
Endrin ketone	A	100.0	105.8	34958.86	36986.54		5.8	20

INITIAL CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	018R1801.D	Calibration Date:	02/08/11 00:00
Sequence:	1B04026	Injection Date:	02/08/11
Lab Sample ID:	1B04026-ICV2	Injection Time:	21:50

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Endrin ketone [2C]	A	100.0	101.3	29465.47	29857.09		1.3	20
gamma-BHC (Lindane)	A	100.0	113.3	36254.38	41093.23		13.3	20
gamma-BHC (Lindane) [2C]	A	100.0	103.8	31078.58	32245.1		3.8	20
gamma-Chlordane	A	100.0	112.7	34556.48	38939.35		12.7	20
gamma-Chlordane [2C]	A	100.0	103.6	27140.36	28121.68		3.6	20
Heptachlor	A	100.0	114.4	31363.53	35873.74		14.4	20
Heptachlor [2C]	A	100.0	105.1	28586.88	30054.67		5.1	20
Heptachlor epoxide	A	100.0	109.2	34802.91	38023.76		9.3	20
Heptachlor epoxide [2C]	A	100.0	102.0	28980.01	29562.46		2.0	20
Methoxychlor	A	100.0	112.4	11316.49	12716.96		12.4	20
Methoxychlor [2C]	A	100.0	107.4	10441.24	11209.93		7.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	003F0301.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV1	Injection Time:	14:10

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	107.7	28749.18	30965.78		7.7	20
4,4'-DDE [2C]	A	100.0	111.1	22877.46	25408.57		11.1	20
4,4'-DDD	A	100.0	100.2	23176.75	23219.03		0.2	20
4,4'-DDD [2C]	A	100.0	106.5	19589.27	20857.87		6.5	20
4,4'-DDT	A	100.0	111.0	23677.9	26289.62		11.0	20
4,4'-DDT [2C]	A	100.0	114.9	16129.28	18530.24		14.9	20
Aldrin	A	100.0	104.2	37689.9	39265.03		4.2	20
Aldrin [2C]	A	100.0	103.3	30830.25	31849		3.3	20
alpha-BHC	A	100.0	106.9	40933.6	43749.16		6.9	20
alpha-BHC [2C]	A	100.0	103.0	35091.32	36142.06		3.0	20
alpha-Chlordane	A	100.0	101.3	34039.06	34482.76		1.3	20
alpha-Chlordane [2C]	A	100.0	103.1	28239.78	29106.86		3.1	20
beta-BHC	A	100.0	103.8	14563.67	15111.56		3.8	20
beta-BHC [2C]	A	100.0	98.92	14418.09	14262.04		-1.1	20
delta-BHC	A	100.0	110.6	31660.37	35018.25		10.6	20
delta-BHC [2C]	A	100.0	107.4	27619.38	29649.97		7.4	20
Dieldrin	A	100.0	105.1	35723.26	37545.49		5.1	20
Dieldrin [2C]	A	100.0	101.5	30263.91	30722.54		1.5	20
Endosulfan I	A	100.0	102.6	33618.12	34484.15		2.6	20
Endosulfan I [2C]	A	100.0	99.50	30519.25	30366.93		-0.5	20
Endosulfan II	A	100.0	97.16	31031.69	30149.97		-2.8	20
Endosulfan II [2C]	A	100.0	99.08	24619.86	24394.3		-0.9	20
Endosulfan sulfate	A	100.0	93.60	25954.83	24294.7		-6.4	20
Endosulfan sulfate [2C]	A	100.0	93.14	21216.51	19761.8		-6.9	20
Endrin	A	100.0	111.6	27515.53	30699.39		11.6	20
Endrin [2C]	A	100.0	111.2	22935.12	25510.04		11.2	20
Endrin aldehyde	A	100.0	98.70	24178.78	23863.58		-1.3	20
Endrin aldehyde [2C]	A	100.0	105.4	25005.68	26368.29		5.4	20
Endrin ketone	A	100.0	94.86	34958.86	33160.62		-5.1	20

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	003R0301.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV1	Injection Time:	14:10

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Endrin ketone [2C]	A	100.0	93.36	29465.47	27510.46		-6.6	20
gamma-BHC (Lindane)	A	100.0	105.6	36254.38	38292.96		5.6	20
gamma-BHC (Lindane) [2C]	A	100.0	104.1	31078.58	32367.33		4.1	20
gamma-Chlordane	A	100.0	104.1	34556.48	35964.27		4.1	20
gamma-Chlordane [2C]	A	100.0	105.9	27140.36	28734.84		5.9	20
Heptachlor	A	100.0	115.4	31363.53	36194.28		15.4	20
Heptachlor [2C]	A	100.0	106.4	28586.88	30419.91		6.4	20
Heptachlor epoxide	A	100.0	101.9	34802.91	35453.81		1.9	20
Heptachlor epoxide [2C]	A	100.0	100.9	28980.01	29233.57		0.9	20
Methoxychlor	A	100.0	109.2	11316.49	12361.42		9.2	20
Methoxychlor [2C]	A	100.0	101.5	10441.24	10602.88		1.5	20
Tetrachloro-m-xylene	A	100.0	102.5	27181.98	27853.82		2.5	20
Tetrachloro-m-xylene [2C]	A	100.0	99.20	25932.95	25726.34		-0.8	20
Decachlorobiphenyl	A	100.0	85.21	31063.79	26469.54		-14.8	20
Decachlorobiphenyl [2C]	A	100.0	87.19	23377.66	20382.98		-12.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	004F0401.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV2	Injection Time:	14:28

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Chlordane (1)	A	100.0	111.7	4178.758	4666.55		11.7	20	
Chlordane (2)	A	100.0	119.5	893.1308	1067.25		19.5	20	
Chlordane (3)	A	100.0	128.5	926.805	1190.9		28.5	20	*
Chlordane (4)	A	100.0	118.4	3333.93	3948.17		18.4	20	
Chlordane (5)	A	100.0	125.0	776.2267	970.18		25.0	20	*
Chlordane (1) [2C]	A	100.0	123.6	3846.353	4755.39		23.6	20	*
Chlordane (2) [2C]	A	100.0	118.6	762.0725	903.99		18.6	20	
Chlordane (3) [2C]	A	100.0	116.4	906.1633	1054.62		16.4	20	
Chlordane (4) [2C]	A	100.0	124.8	2318.931	2893.05		24.8	20	*
Chlordane (5) [2C]	A	100.0	121.2	764.1067	926.28		21.2	20	*

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	005F0501.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV3	Injection Time:	14:47

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Toxaphene (1)	A	1000	1026	1169.846	1199.811		2.6	20	
Toxaphene (2)	A	1000	1065	460.5687	490.654		6.5	20	
Toxaphene (3)	A	1000	1025	1037.727	1063.453		2.5	20	
Toxaphene (4)	A	1000	1131	1113.945	1259.502		13.1	20	
Toxaphene (5)	A	1000	1034	549.6869	568.301		3.4	20	
Toxaphene (1) [2C]	A	1000	1242	999.3291	1241.386		24.2	20	*
Toxaphene (2) [2C]	A	1000	1355	462.7424	626.899		35.5	20	*
Toxaphene (3) [2C]	A	1000	1246	986.2367	1228.724		24.6	20	*
Toxaphene (4) [2C]	A	1000	1870	465.8332	871.295		87.0	20	*
Toxaphene (5) [2C]	A	1000	1404	360.4401	506.199		40.4	20	*

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	021F2101.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV5	Injection Time:	19:44

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
4,4'-DDE	A	100.0	107.7	28749.18	30969.16		7.7	20
4,4'-DDE [2C]	A	100.0	116.9	22877.46	26753.24		16.9	20
4,4'-DDD	A	100.0	106.9	23176.75	24771.91		6.9	20
4,4'-DDD [2C]	A	100.0	115.3	19589.27	22581.81		15.3	20
4,4'-DDT	A	100.0	112.7	23677.9	26694.7		12.7	20
4,4'-DDT [2C]	A	100.0	116.2	16129.28	18742.41		16.2	20
Aldrin	A	100.0	107.6	37689.9	40537.41		7.6	20
Aldrin [2C]	A	100.0	105.6	30830.25	32574.48		5.7	20
alpha-BHC	A	100.0	111.8	40933.6	45752.93		11.8	20
alpha-BHC [2C]	A	100.0	107.1	35091.32	37599.05		7.1	20
alpha-Chlordane	A	100.0	103.9	34039.06	35369.35		3.9	20
alpha-Chlordane [2C]	A	100.0	105.2	28239.78	29716.84		5.2	20
beta-BHC	A	100.0	106.7	14563.67	15541.79		6.7	20
beta-BHC [2C]	A	100.0	103.1	14418.09	14867.17		3.1	20
delta-BHC	A	100.0	115.6	31660.37	36607.28		15.6	20
delta-BHC [2C]	A	100.0	113.8	27619.38	31426.91		13.8	20
Dieldrin	A	100.0	105.0	35723.26	37508.03		5.0	20
Dieldrin [2C]	A	100.0	105.7	30263.91	31993.67		5.7	20
Endosulfan I	A	100.0	101.0	33618.12	33944.14		1.0	20
Endosulfan I [2C]	A	100.0	100.7	30519.25	30735.06		0.7	20
Endosulfan II	A	100.0	98.38	31031.69	30527.69		-1.6	20
Endosulfan II [2C]	A	100.0	105.5	24619.86	25978.36		5.5	20
Endosulfan sulfate	A	100.0	97.18	25954.83	25223.2		-2.8	20
Endosulfan sulfate [2C]	A	100.0	102.7	21216.51	21799.61		2.7	20
Endrin	A	100.0	112.4	27515.53	30918.98		12.4	20
Endrin [2C]	A	100.0	112.5	22935.12	25804.93		12.5	20
Endrin aldehyde	A	100.0	103.6	24178.78	25063		3.7	20
Endrin aldehyde [2C]	A	100.0	116.0	25005.68	29004.44		16.0	20
Endrin ketone	A	100.0	99.52	34958.86	34790.65		-0.5	20

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	021R2101.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV5	Injection Time:	19:44

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Endrin ketone [2C]	A	100.0	104.1	29465.47	30672.38		4.1	20	
gamma-BHC (Lindane)	A	100.0	110.9	36254.38	40214.32		10.9	20	
gamma-BHC (Lindane) [2C]	A	100.0	109.0	31078.58	33883.93		9.0	20	
gamma-Chlordane	A	100.0	107.2	34556.48	37047.56		7.2	20	
gamma-Chlordane [2C]	A	100.0	111.8	27140.36	30347.6		11.8	20	
Heptachlor	A	100.0	121.1	31363.53	37993.35		21.1	20	*
Heptachlor [2C]	A	100.0	110.4	28586.88	31555.82		10.4	20	
Heptachlor epoxide	A	100.0	105.1	34802.91	36592.03		5.1	20	
Heptachlor epoxide [2C]	A	100.0	103.6	28980.01	30014.13		3.6	20	
Methoxychlor	A	100.0	110.8	11316.49	12545.31		10.9	20	
Methoxychlor [2C]	A	100.0	110.2	10441.24	11510.11		10.2	20	
Tetrachloro-m-xylene	A	100.0	104.0	27181.98	28274.1		4.0	20	
Tetrachloro-m-xylene [2C]	A	100.0	102.1	25932.95	26485.99		2.1	20	
Decachlorobiphenyl	A	100.0	89.12	31063.79	27683.21		-10.9	20	
Decachlorobiphenyl [2C]	A	100.0	95.40	23377.66	22301.21		-4.6	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	022F2201.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV6	Injection Time:	20:03

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Chlordane (1)	A	100.0	120.2	4178.758	5021.56		20.2	20 *
Chlordane (2)	A	100.0	125.1	893.1308	1116.98		25.1	20 *
Chlordane (3)	A	100.0	137.3	926.805	1272.51		37.3	20 *
Chlordane (4)	A	100.0	125.3	3333.93	4176.3		25.3	20 *
Chlordane (5)	A	100.0	138.4	776.2267	1073.95		38.4	20 *
Chlordane (1) [2C]	A	100.0	135.2	3846.353	5199.4		35.2	20 *
Chlordane (2) [2C]	A	100.0	122.7	762.0725	935.32		22.7	20 *
Chlordane (3) [2C]	A	100.0	125.1	906.1633	1133.53		25.1	20 *
Chlordane (4) [2C]	A	100.0	134.5	2318.931	3118.85		34.5	20 *
Chlordane (5) [2C]	A	100.0	146.2	764.1067	1116.93		46.2	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8081A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	023F2301.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV7	Injection Time:	20:21

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Toxaphene (1)	A	1000	1224	1169.846	1431.908		22.4	20 *
Toxaphene (2)	A	1000	1300	460.5687	598.898		30.0	20 *
Toxaphene (3)	A	1000	1292	1037.727	1340.951		29.2	20 *
Toxaphene (4)	A	1000	1510	1113.945	1682.583		51.0	20 *
Toxaphene (5)	A	1000	1293	549.6869	710.954		29.3	20 *
Toxaphene (1) [2C]	A	1000	1492	999.3291	1490.651		49.2	20 *
Toxaphene (2) [2C]	A	1000	1773	462.7424	820.605		77.3	20 *
Toxaphene (3) [2C]	A	1000	1542	986.2367	1520.365		54.2	20 *
Toxaphene (4) [2C]	A	1000	2193	465.8332	1021.422		119	20 *
Toxaphene (5) [2C]	A	1000	1499	360.4401	540.238		49.9	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C06009
Instrument: GL-ECD3
Calibration: 1040001

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1C06009-CCV1) ug/L				Lab File ID: 003F0301.D		Analyzed: 02/28/11 14:10		
Tetrachloro-m-xylene	100.0	102	80 - 120	5.023	5.023	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	99.2	80 - 120	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	85.2	80 - 120	11.082	11.082	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	87.2	80 - 120	9.404	9.404	0.0000	+/-0.030	
Blank (1B21019-BLK1) ug/Kg wet				Lab File ID: 007F0701.D		Analyzed: 02/28/11 15:24		
Tetrachloro-m-xylene	16.67	83.2	70 - 125	5.019	5.023	-0.0040	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	90.5	70 - 125	4.164	4.165	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	76.5	55 - 130	11.076	11.082	-0.0060	+/-0.030	
Decachlorobiphenyl [2C]	16.67	78.4	55 - 130	9.403	9.404	-0.0010	+/-0.030	
LCS (1B21019-BS1) ug/Kg wet				Lab File ID: 008F0801.D		Analyzed: 02/28/11 15:43		
Tetrachloro-m-xylene	16.67	82.6	70 - 125	5.018	5.023	-0.0050	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	86.5	70 - 125	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	16.67	72.5	55 - 130	11.077	11.082	-0.0050	+/-0.030	
Decachlorobiphenyl [2C]	16.67	78.7	55 - 130	9.402	9.404	-0.0020	+/-0.030	
LCS Dup (1B21019-BSD1) ug/Kg wet				Lab File ID: 010F1001.D		Analyzed: 02/28/11 16:20		
Tetrachloro-m-xylene	16.67	86.4	70 - 125	5.018	5.023	-0.0050	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	90.2	70 - 125	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	16.67	78.9	55 - 130	11.077	11.082	-0.0050	+/-0.030	
Decachlorobiphenyl [2C]	16.67	87.9	55 - 130	9.402	9.404	-0.0020	+/-0.030	
Backfilll (20110218) (1102180-01) ug/Kg dry				Lab File ID: 012F1201.D		Analyzed: 02/28/11 16:57		
Tetrachloro-m-xylene	20.22	82.8	70 - 125	5.018	5.023	-0.0050	+/-0.030	
Tetrachloro-m-xylene [2C]	20.22	88.1	70 - 125	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	20.22	87.2	55 - 130	11.074	11.082	-0.0080	+/-0.030	
Decachlorobiphenyl [2C]	20.22	91.6	55 - 130	9.4	9.404	-0.0040	+/-0.030	
Calibration Check (1C06009-CCV5) ug/L				Lab File ID: 021F2101.D		Analyzed: 02/28/11 19:44		
Tetrachloro-m-xylene	100.0	104	80 - 120	5.017	5.023	-0.0060	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	102	80 - 120	4.164	4.165	-0.0010	+/-0.030	
Decachlorobiphenyl	100.0	89.1	80 - 120	11.072	11.082	-0.0100	+/-0.030	
Decachlorobiphenyl [2C]	100.0	95.4	80 - 120	9.401	9.404	-0.0030	+/-0.030	

HOLDING TIME SUMMARY

SW8081A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
Backfilll (20110218)	02/18/11 16:15	02/19/11 09:30	02/25/11 11:49	6.82	14.00	02/28/11 16:57	3.21	40.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BS1 File ID: 008F0801.D

Sampled: Prepared: Analyzed: 02/28/11 15:43

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
72-55-9	4,4'-DDE	31.57	0.340	1.34	
72-54-8	4,4'-DDD	29.85	0.340	1.34	
50-29-3	4,4'-DDT	32.70	0.340	1.34	
309-00-2	Aldrin	30.38	0.220	1.34	
319-84-6	alpha-BHC	31.10	0.220	1.34	
5103-71-9	alpha-Chlordane	36.17	0.220	1.34	
319-85-7	beta-BHC	31.87	0.220	1.34	
319-86-8	delta-BHC	31.19	0.220	1.34	
60-57-1	Dieldrin	29.62	0.340	1.34	
959-98-8	Endosulfan I	34.46	0.220	1.34	
33213-65-9	Endosulfan II	29.29	0.340	1.34	
1031-07-8	Endosulfan sulfate	26.75	0.340	1.34	
72-20-8	Endrin	33.42	0.340	1.34	
7421-93-4	Endrin aldehyde	25.02	0.340	1.34	
53494-70-5	Endrin ketone	27.37	0.340	1.34	
58-89-9	gamma-BHC (Lindane)	31.39	0.220	1.34	
5103-74-2	gamma-Chlordane	30.03	0.220	1.34	
76-44-8	Heptachlor	36.26	0.220	1.34	X
1024-57-3	Heptachlor epoxide	30.66	0.220	1.34	
72-43-5	Methoxychlor	34.24	0.220	1.34	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	13.77	82.6	70 - 125	
Decachlorobiphenyl	16.67	12.09	72.5	55 - 130	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BS1 File ID: 008R0801.D

Sampled: Prepared: Analyzed: 02/28/11 15:43

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
72-55-9	4,4'-DDE [2C]	34.27	0.340	1.34	
72-54-8	4,4'-DDD [2C]	31.36	0.340	1.34	
50-29-3	4,4'-DDT [2C]	35.82	0.340	1.34	
309-00-2	Aldrin [2C]	32.44	0.220	1.34	
319-84-6	alpha-BHC [2C]	32.23	0.220	1.34	
5103-71-9	alpha-Chlordane [2C]	38.40	0.220	1.34	
319-85-7	beta-BHC [2C]	32.14	0.220	1.34	
319-86-8	delta-BHC [2C]	33.14	0.220	1.34	
60-57-1	Dieldrin [2C]	30.89	0.340	1.34	
959-98-8	Endosulfan I [2C]	33.99	0.220	1.34	
33213-65-9	Endosulfan II [2C]	30.59	0.340	1.34	
1031-07-8	Endosulfan sulfate [2C]	28.27	0.340	1.34	
72-20-8	Endrin [2C]	36.03	0.340	1.34	
7421-93-4	Endrin aldehyde [2C]	26.06	0.340	1.34	
53494-70-5	Endrin ketone [2C]	29.05	0.340	1.34	
58-89-9	gamma-BHC (Lindane) [2C]	33.09	0.220	1.34	
5103-74-2	gamma-Chlordane [2C]	60.76	0.220	1.34	
76-44-8	Heptachlor [2C]	34.14	0.220	1.34	
1024-57-3	Heptachlor epoxide [2C]	32.81	0.220	1.34	
72-43-5	Methoxychlor [2C]	32.05	0.220	1.34	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	14.41	86.5	70 - 125	
Decachlorobiphenyl [2C]	16.67	13.11	78.7	55 - 130	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BSD1 File ID: 010F1001.D

Sampled: Prepared: Analyzed: 02/28/11 16:20

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
72-55-9	4,4'-DDE	32.05	0.340	1.34	
72-54-8	4,4'-DDD	30.17	0.340	1.34	
50-29-3	4,4'-DDT	33.11	0.340	1.34	
309-00-2	Aldrin	30.68	0.220	1.34	
319-84-6	alpha-BHC	31.50	0.220	1.34	
5103-71-9	alpha-Chlordane	33.65	0.220	1.34	
319-85-7	beta-BHC	32.62	0.220	1.34	
319-86-8	delta-BHC	31.51	0.220	1.34	
60-57-1	Dieldrin	30.30	0.340	1.34	
959-98-8	Endosulfan I	33.17	0.220	1.34	
33213-65-9	Endosulfan II	29.43	0.340	1.34	
1031-07-8	Endosulfan sulfate	28.28	0.340	1.34	
72-20-8	Endrin	34.43	0.340	1.34	
7421-93-4	Endrin aldehyde	24.98	0.340	1.34	
53494-70-5	Endrin ketone	28.85	0.340	1.34	
58-89-9	gamma-BHC (Lindane)	31.79	0.220	1.34	
5103-74-2	gamma-Chlordane	31.16	0.220	1.34	
76-44-8	Heptachlor	37.11	0.220	1.34	X
1024-57-3	Heptachlor epoxide	31.15	0.220	1.34	
72-43-5	Methoxychlor	36.06	0.220	1.34	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	14.40	86.4	70 - 125	
Decachlorobiphenyl	16.67	13.15	78.9	55 - 130	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BSD1 File ID: 010R1001.D

Sampled: Prepared: Analyzed: 02/28/11 16:20

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
72-55-9	4,4'-DDE [2C]	34.68	0.340	1.34	
72-54-8	4,4'-DDD [2C]	32.00	0.340	1.34	
50-29-3	4,4'-DDT [2C]	36.57	0.340	1.34	
309-00-2	Aldrin [2C]	32.76	0.220	1.34	
319-84-6	alpha-BHC [2C]	32.68	0.220	1.34	
5103-71-9	alpha-Chlordane [2C]	35.97	0.220	1.34	
319-85-7	beta-BHC [2C]	32.81	0.220	1.34	
319-86-8	delta-BHC [2C]	33.61	0.220	1.34	
60-57-1	Dieldrin [2C]	32.52	0.340	1.34	
959-98-8	Endosulfan I [2C]	32.59	0.220	1.34	
33213-65-9	Endosulfan II [2C]	31.40	0.340	1.34	
1031-07-8	Endosulfan sulfate [2C]	30.44	0.340	1.34	
72-20-8	Endrin [2C]	37.22	0.340	1.34	
7421-93-4	Endrin aldehyde [2C]	30.69	0.340	1.34	
53494-70-5	Endrin ketone [2C]	30.79	0.340	1.34	
58-89-9	gamma-BHC (Lindane) [2C]	33.40	0.220	1.34	
5103-74-2	gamma-Chlordane [2C]	42.93	0.220	1.34	
76-44-8	Heptachlor [2C]	35.17	0.220	1.34	
1024-57-3	Heptachlor epoxide [2C]	33.23	0.220	1.34	
72-43-5	Methoxychlor [2C]	35.59	0.220	1.34	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	15.04	90.2	70 - 125	
Decachlorobiphenyl [2C]	16.67	14.64	87.9	55 - 130	

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1B21019-BS1 Date(s) Analyzed: 02/28/2011 02/28/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	8.30	8.55	8.61	29.85	
	2	6.86	7.07	7.13	31.36	5
4,4'-DDE	1	7.69	7.93	7.99	31.57	
	2	6.30	6.49	6.55	34.27	8
4,4'-DDT	1	8.67	8.93	8.99	32.70	
	2	7.15	7.35	7.41	35.82	9
Aldrin	1	6.65	6.88	6.94	30.38	
	2	5.36	5.52	5.58	32.44	7
alpha-BHC	1	5.44	5.62	5.68	31.10	
	2	4.55	4.67	4.73	32.23	4
alpha-Chlordane	1	7.48	7.73	7.79	36.17	
	2	6.10	6.29	6.35	38.40	6
beta-BHC	1	5.96	6.16	6.22	31.87	
	2	5.06	5.21	5.27	32.14	1
delta-BHC	1	6.20	6.41	6.47	31.19	
	2	5.25	5.40	5.46	33.14	6
Dieldrin	1	7.85	8.11	8.17	29.62	
	2	6.41	6.61	6.67	30.89	4
Endosulfan I	1	7.54	7.79	7.85	34.46	
	2	6.15	6.34	6.40	33.99	1
Endosulfan II	1	8.40	8.66	8.72	29.29	
	2	6.99	7.20	7.26	30.59	4
Endosulfan sulfate	1	8.84	9.11	9.17	26.75	
	2	7.43	7.65	7.71	28.27	6
Endrin	1	8.12	8.38	8.44	33.42	
	2	6.67	6.87	6.93	36.03	8
Endrin aldehyde	1	8.56	8.82	8.88	25.02	
	2	7.16	7.38	7.44	26.06	4
Endrin ketone	1	9.43	9.70	9.76	27.37	
	2	7.96	8.19	8.25	29.05	6
gamma-BHC (Lindane)	1	5.75	5.94	6.00	31.39	
	2	4.80	4.94	5.00	33.09	5
gamma-Chlordane	1	7.40	7.64	7.70	30.03	
	2	6.06	6.24	6.30	60.76	68
Heptachlor	1	6.30	6.52	6.58	36.26	
	2	5.12	5.27	5.33	34.14	6
Heptachlor epoxide	1	7.11	7.35	7.41	30.66	
	2	5.80	5.97	6.03	32.81	7
Methoxychlor	1	9.28	9.54	9.60	34.24	
	2	7.76	7.97	8.03	32.05	7

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS Dup

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1B21019-BSD1 Date(s) Analyzed: 02/28/2011 02/28/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	8.30	8.55	8.61	30.17	
	2	6.86	7.07	7.13	32.00	6
4,4'-DDE	1	7.69	7.93	7.99	32.05	
	2	6.30	6.49	6.55	34.68	8
4,4'-DDT	1	8.67	8.93	8.99	33.11	
	2	7.15	7.35	7.41	36.57	10
Aldrin	1	6.65	6.88	6.94	30.68	
	2	5.36	5.52	5.58	32.76	7
alpha-BHC	1	5.44	5.62	5.68	31.50	
	2	4.55	4.67	4.73	32.68	4
alpha-Chlordane	1	7.48	7.73	7.79	33.65	
	2	6.11	6.29	6.35	35.97	7
beta-BHC	1	5.96	6.16	6.22	32.62	
	2	5.06	5.21	5.27	32.81	1
delta-BHC	1	6.20	6.41	6.47	31.51	
	2	5.25	5.40	5.46	33.61	6
Dieldrin	1	7.85	8.11	8.17	30.30	
	2	6.41	6.61	6.67	32.52	7
Endosulfan I	1	7.54	7.79	7.85	33.17	
	2	6.15	6.34	6.40	32.59	2
Endosulfan II	1	8.39	8.66	8.72	29.43	
	2	6.99	7.20	7.26	31.40	6
Endosulfan sulfate	1	8.84	9.11	9.17	28.28	
	2	7.43	7.65	7.71	30.44	7
Endrin	1	8.12	8.38	8.44	34.43	
	2	6.67	6.87	6.93	37.22	8
Endrin aldehyde	1	8.55	8.82	8.88	24.98	
	2	7.16	7.38	7.44	30.69	21
Endrin ketone	1	9.43	9.70	9.76	28.85	
	2	7.96	8.19	8.25	30.79	7
gamma-BHC (Lindane)	1	5.75	5.94	6.00	31.79	
	2	4.80	4.94	5.00	33.40	5
gamma-Chlordane	1	7.40	7.64	7.70	31.16	
	2	6.06	6.24	6.30	42.93	32
Heptachlor	1	6.30	6.52	6.58	37.11	
	2	5.12	5.27	5.33	35.17	5
Heptachlor epoxide	1	7.11	7.35	7.41	31.15	
	2	5.79	5.97	6.03	33.23	6
Methoxychlor	1	9.28	9.54	9.60	36.06	
	2	7.76	7.97	8.03	35.59	1

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1102180

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** GL-ECD3

Analyte	MDL	MRL	Units	Method
4,4'-DDD	0.170	0.670	ug/Kg	SW8081A
4,4'-DDE	0.170	0.670	ug/Kg	SW8081A
4,4'-DDT	0.170	0.670	ug/Kg	SW8081A
Aldrin	0.110	0.670	ug/Kg	SW8081A
alpha-BHC	0.110	0.670	ug/Kg	SW8081A
alpha-Chlordane	0.110	0.670	ug/Kg	SW8081A
beta-BHC	0.110	0.670	ug/Kg	SW8081A
Chlordane (tech)	0.570	1.70	ug/Kg	SW8081A
delta-BHC	0.110	0.670	ug/Kg	SW8081A
Dieldrin	0.170	0.670	ug/Kg	SW8081A
Endosulfan I	0.110	0.670	ug/Kg	SW8081A
Endosulfan II	0.170	0.670	ug/Kg	SW8081A
Endosulfan sulfate [2C]	0.170	0.670	ug/Kg	SW8081A
Endrin	0.170	0.670	ug/Kg	SW8081A
Endrin aldehyde	0.170	0.670	ug/Kg	SW8081A
Endrin ketone	0.170	0.670	ug/Kg	SW8081A
gamma-BHC (Lindane)	0.110	0.670	ug/Kg	SW8081A
gamma-Chlordane	0.110	0.670	ug/Kg	SW8081A
Heptachlor	0.110	0.670	ug/Kg	SW8081A
Heptachlor epoxide	0.110	0.670	ug/Kg	SW8081A
Methoxychlor	0.110	0.670	ug/Kg	SW8081A
Toxaphene	11.0	33.0	ug/Kg	SW8081A

Data for SW8081A
Supporting Raw Data / Logs

Back

Sequence Table (Front Injector):

p: 318

Method and Injection Info Part:

1/28/11

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile	
1	Vial 1	PRIMER	8081_82	1	Sample			
2	Vial 2	SEQ-PEM1/0L0969	8081_82	1	Sample			
3	Vial 3	SEQ-CAL1/0L0070	8081_82	1	Sample			
4	Vial 4	SEQ-CAL2/0L0071	8081_82	1	Sample			
5	Vial 5	SEQ-CAL3/0L0072	8081_82	1	Sample			
6	Vial 6	SEQ-CAL4/0L0073	8081_82	1	Sample			chlor ICAL
7	Vial 7	SEQ-CAL5/0L0074	8081_82	1	Sample			
8	Vial 8	SEQ-CAL6/0L0075	8081_82	1	Sample			
9	Vial 9	SEQ-ICV1/0L0483	8081_82	1	Sample			
10	Vial 10	SEQ-PEM2/0L0969	8081_82	1	Sample			
11	Vial 11	SEQ-CAL7/0L0486	8081_82	1	Sample			
12	Vial 12	SEQ-CAL8/0L0487	8081_82	1	Sample			
13	Vial 13	SEQ-CAL9/0L0488	8081_82	1	Sample			
14	Vial 14	SEQ-CALA/0L0489	8081_82	1	Sample			TOX ICAL
15	Vial 15	SEQ-CALB/0L0490	8081_82	1	Sample			
16	Vial 16	SEQ-CALC/0L0491	8081_82	1	Sample			
17	Vial 17	SEQ-ICV2/1A0724	8081_82	1	Sample			
18	Vial 18	SEQ-CCV1/0I0157 AB	8081_82	1	Sample			
19	Vial 19	SEQ-CCV2/0L0071 chlor	8081_82	1	Sample			
20	Vial 20	SEQ-CCV3/0L0487 TOX	8081_82	1	Sample			
21	Vial 21	SEQ-CCV4/1A0053 1660	8081_82	1	Sample			
22	Vial 22	1A11010-MRL5 TOX LOQ	8081_82	1	Sample			1SHQ LOD/LOQ TOX
23	Vial 23	1A11010-MRL6 TOX LOQ	8081_82	1	Sample			
24	Vial 24	1A05002-MRL5 TOX LOD	8081_82	1	Sample			1SHQ LOD/LOQ TOX
25	Vial 25	1A05002-MRL6 TOX LOQ	8081_82	1	Sample			
26	Vial 26	1A24017-BLK1	8081_82	1	Sample			
27	Vial 27	1A24017-BS1	8081_82	1	Sample			
28	Vial 28	1A24017-BS2	8081_82	1	Sample			1A24017, 1X
29	Vial 29	1A24017-BSD2	8081_82	1	Sample			
30	Vial 30	1101133-01	8081_82	1	Sample			
31	Vial 31	1101133-02	8081_82	1	Sample			
32	~~Vial 32~~	~~1101133-04~~	8081_82	1	Sample			
33	~~Vial 33~~	~~1A24017-MS1~~	8081_82	1	Sample			rerun (sulfur)
34	~~Vial 34~~	~~1A24017-MSD1~~	8081_82	1	Sample			
35	~~Vial 35~~	~~1101133-05~~	8081_82	1	Sample			
36	~~Vial 36~~	~~1101133-06~~	8081_82	1	Sample			rerun (sulfur)
37	~~Vial 37~~	~~1101133-07~~	8081_82	1	Sample			
38	Vial 38	SEQ-CCV5/0I0157 AB	8081_82	1	Sample			
39	Vial 39	SEQ-CCV6/0L0071 chlor	8081_82	1	Sample			
40	Vial 40	SEQ-CCV7/0L0486 TOX	8081_82	1	Sample			
41	Vial 41	SEQ-CCV8/1A0053 1660	8081_82	1	Sample			
42	Vial 42	1101133-08	8081_82	1	Sample			
43	Vial 43	1101157-01	8081_82	1	Sample			
44	Vial 44	1101157-03	8081_82	1	Sample			
45	Vial 45	1101157-05	8081_82	1	Sample			1A24017, 1X
46	Vial 46	1101157-07	8081_82	1	Sample			
47	Vial 47	1101157-09	8081_82	1	Sample			
48	Vial 48	SEQ-CCV9/0I0157 AB	8081_82	1	Sample			
49	Vial 49	SEQ-CCVA/0L0071 chlor	8081_82	1	Sample			
50	Vial 50	SEQ-CCVB/0L0486 TOX	8081_82	1	Sample			
51	Vial 51	SEQ-CCVC/1A0053 1660	8081_82	1	Sample			
52	Vial 52	AR-1221	8081_82	1	Sample			
53	Vial 53	AR-1232	8081_82	1	Sample			
54	Vial 54	AR-1242	8081_82	1	Sample			
55	Vial 55	AR-1248	8081_82	1	Sample			Qualitative Only
56	Vial 56	AR-1254	8081_82	1	Sample			
57	Vial 57	AR-1262	8081_82	1	Sample			
58	Vial 58	AR-1268	8081_82	1	Sample			

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\003F0301.D
Lab Smp Id: SEQ-CAL1
Inj Date : 27-JAN-2011 12:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:15 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane					CAS #: 57-74-9			
8.115	8.115	(0.000)	913302	200.000	218.6	80.00-	120.00	100.00(A)
6.650	6.650	(0.000)	192333	200.000	215.3	16.85-	25.27	21.06
6.877	6.877	(0.000)	182996	200.000	197.4	16.03-	24.04	20.04
8.025	8.025	(0.000)	725436	200.000	217.6	63.54-	95.32	79.43
9.147	9.147	(0.000)	172648	200.000	222.4	15.12-	22.68	18.90
		Average of Peak Amounts =			214.3			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

1/29/11

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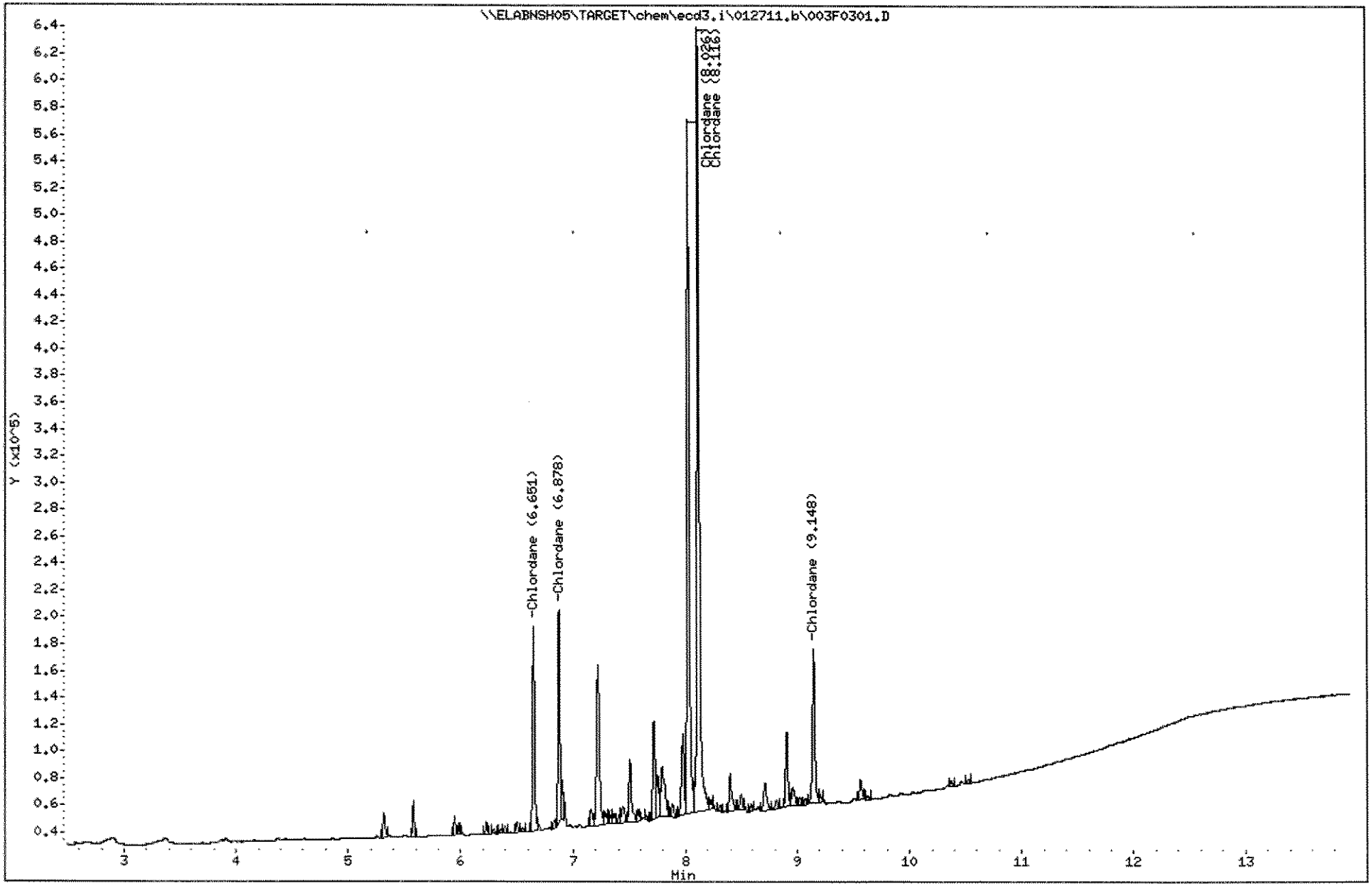
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\003F0301.D
Date : 27-JAN-2011 12:39
Client ID:
Sample Info: SEQ-CAL1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\004F0401.D
Lab Smp Id: SEQ-CAL2
Inj Date : 27-JAN-2011 12:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:15 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane					CAS #: 57-74-9			
8.115	8.115	(0.000)	428290	100.000	102.5	80.00-	120.00	100.00
6.650	6.650	(0.000)	91837	100.000	102.8	17.15-	25.73	21.44
6.877	6.877	(0.000)	94527	100.000	102.0	17.66-	26.48	22.07
8.025	8.025	(0.000)	358590	100.000	107.6	66.98-	100.47	83.73
9.147	9.147	(0.000)	87333	100.000	112.5	16.31-	24.47	20.39
Average of Peak Amounts =					105.5			

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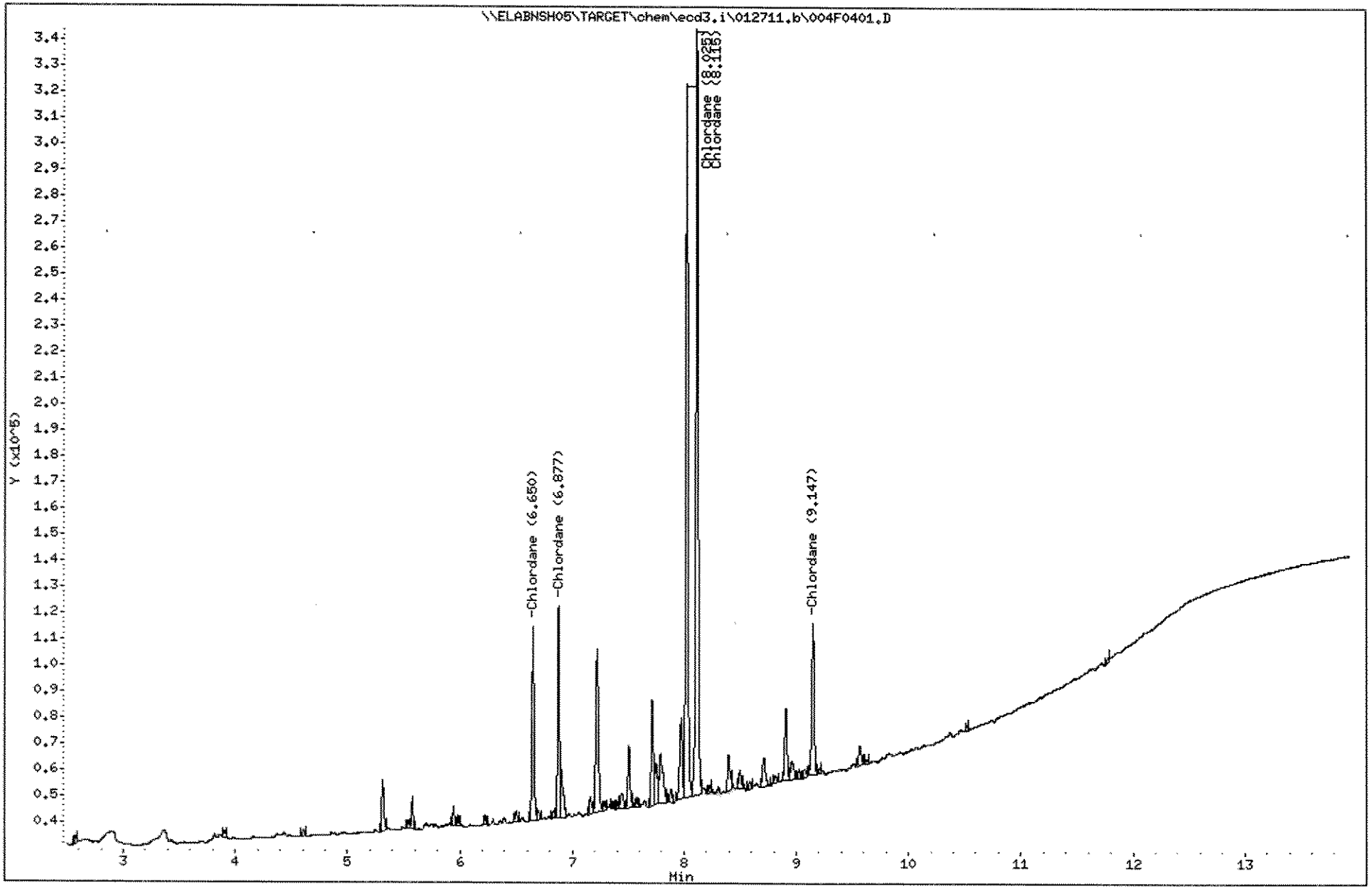
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\004F0401.D
Date : 27-JAN-2011 12:58
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\005F0501.D
Lab Smp Id: SEQ-CAL3
Inj Date : 27-JAN-2011 13:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane					CAS #: 57-74-9			
8.117	8.115	(0.002)	216857	50.0000	51.90	80.00-	120.00	100.00
6.650	6.650	(0.000)	45995	50.0000	51.50	16.97-	25.45	21.21
6.877	6.877	(0.000)	45229	50.0000	48.80	16.69-	25.03	20.86
8.025	8.025	(0.000)	168120	50.0000	50.43	62.02-	93.03	77.53
9.148	9.147	(0.001)	39332	50.0000	50.67	14.51-	21.76	18.14
Average of Peak Amounts =					50.66			

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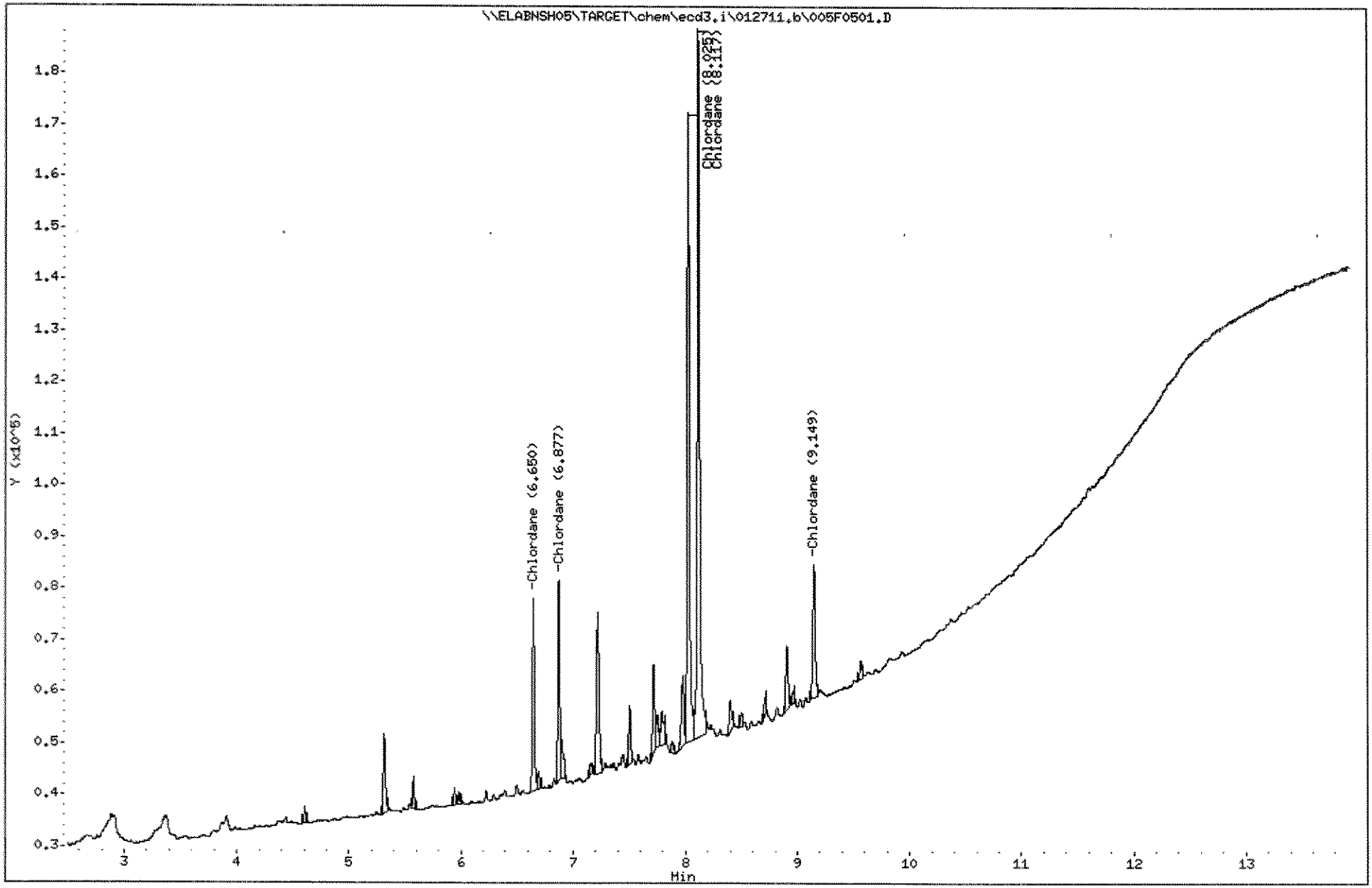
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\005F0501.D
Date : 27-JAN-2011 13:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\006F0601.D
Lab Smp Id: SEQ-CAL4
Inj Date : 27-JAN-2011 13:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
6 Chlordane					CAS #: 57-74-9		
8.114	8.115	(-0.001)	81636	20.0000	19.54	80.00- 120.00	100.00
6.648	6.650	(-0.002)	18563	20.0000	20.78	18.19- 27.29	22.74
6.876	6.877	(-0.001)	18526	20.0000	19.99	18.15- 27.23	22.69
8.024	8.025	(-0.001)	64322	20.0000	19.29	63.03- 94.55	78.79
9.146	9.147	(-0.001)	14823	20.0000	19.10	14.53- 21.79	18.16
		Average of Peak Amounts =			19.74		

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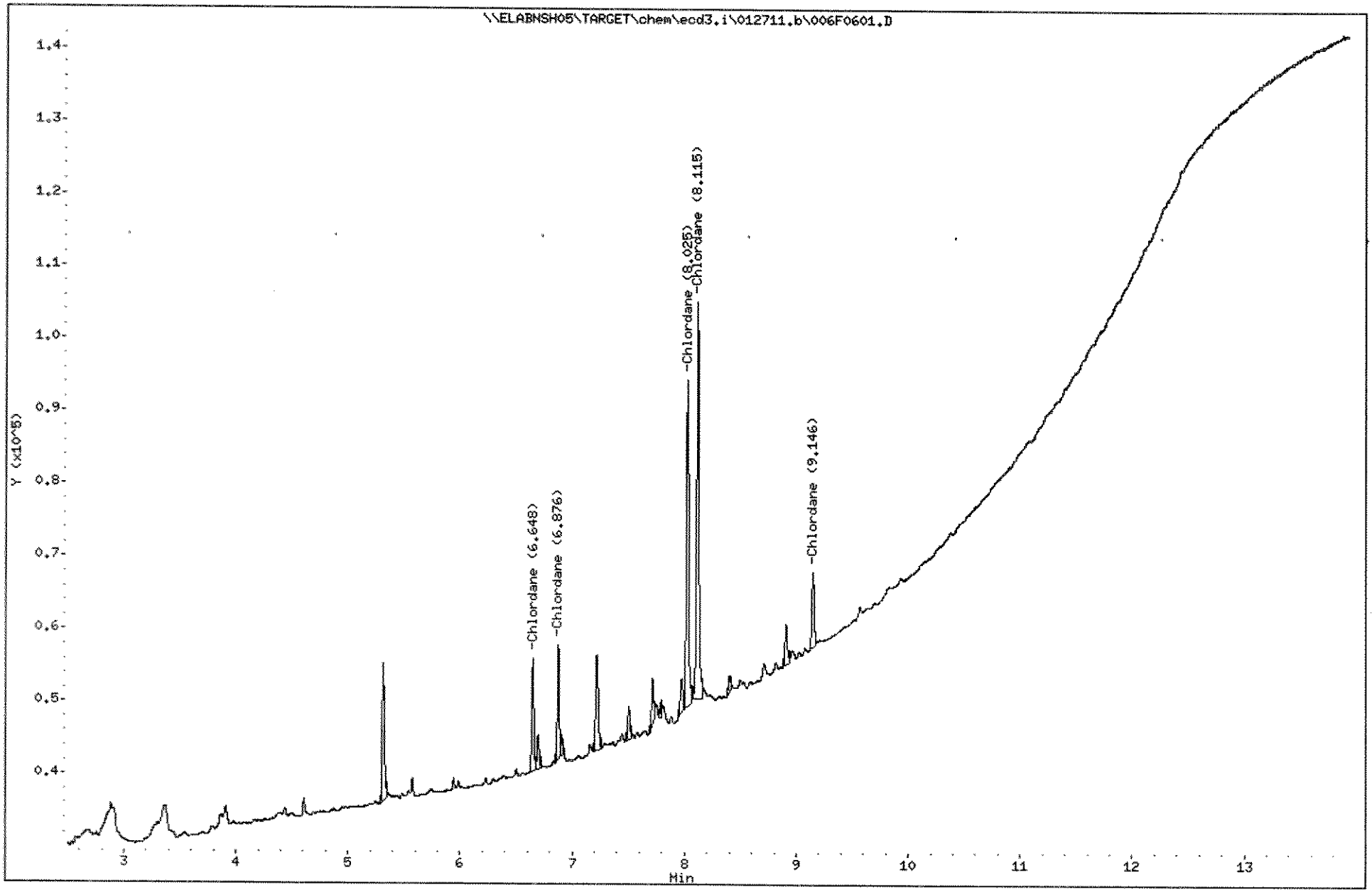
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\006F0601.D
Date : 27-JAN-2011 13:35
Client ID:
Sample Info: SEQ-CAL4

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\007F0701.D
Lab Smp Id: SEQ-CAL5
Inj Date : 27-JAN-2011 13:53
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane					CAS #: 57-74-9			
8.114	8.115	(-0.001)	41932	10.0000	10.03	80.00-	120.00	100.00
6.648	6.650	(-0.002)	8703	10.0000	9.744	16.60-	24.91	20.76
6.876	6.877	(-0.001)	9499	10.0000	10.25	18.12-	27.18	22.65
8.024	8.025	(-0.001)	33738	10.0000	10.12	64.37-	96.55	80.46
9.146	9.147	(-0.001)	7964	10.0000	10.26	15.19-	22.79	18.99
		Average of Peak Amounts =			10.08			

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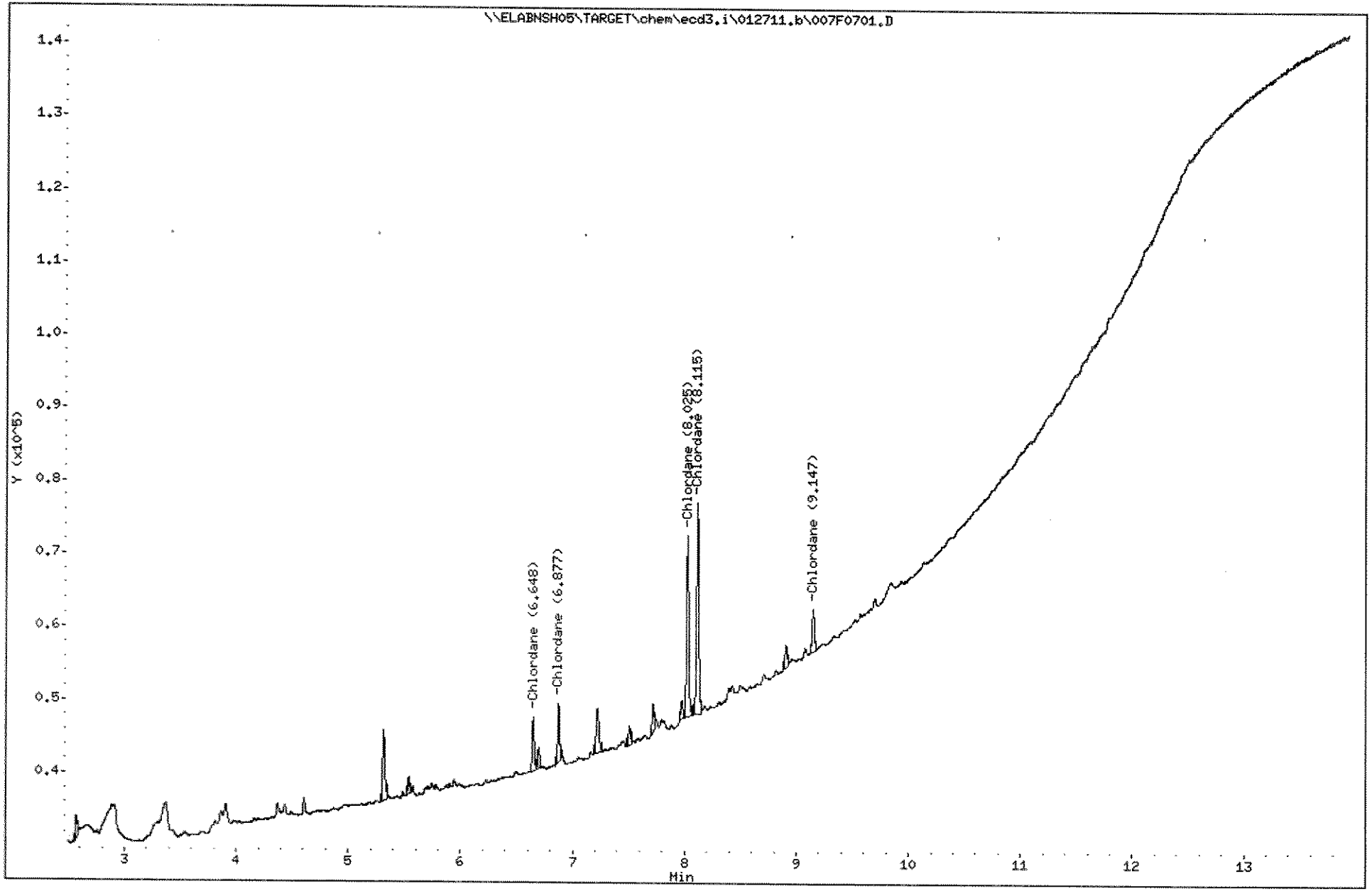
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\007F0701.D
Date : 27-JAN-2011 13:53
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\008F0801.D
Lab Smp Id: SEQ-CAL6
Inj Date : 27-JAN-2011 14:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
6 Chlordane					CAS #: 57-74-9		
8.116	8.115	(0.001)	18055	5.00000	4.321	80.00- 120.00	100.00
6.647	6.650	(-0.003)	3802	5.00000	4.257	16.85- 25.27	21.06
6.876	6.877	(-0.001)	4599	5.00000	4.962	20.38- 30.57	25.47
8.026	8.025	(0.001)	14191	5.00000	4.256	62.88- 94.32	78.60
9.147	9.147	(0.000)	2983	5.00000	3.843	13.22- 19.83	16.52
		Average of Peak Amounts =			4.328		

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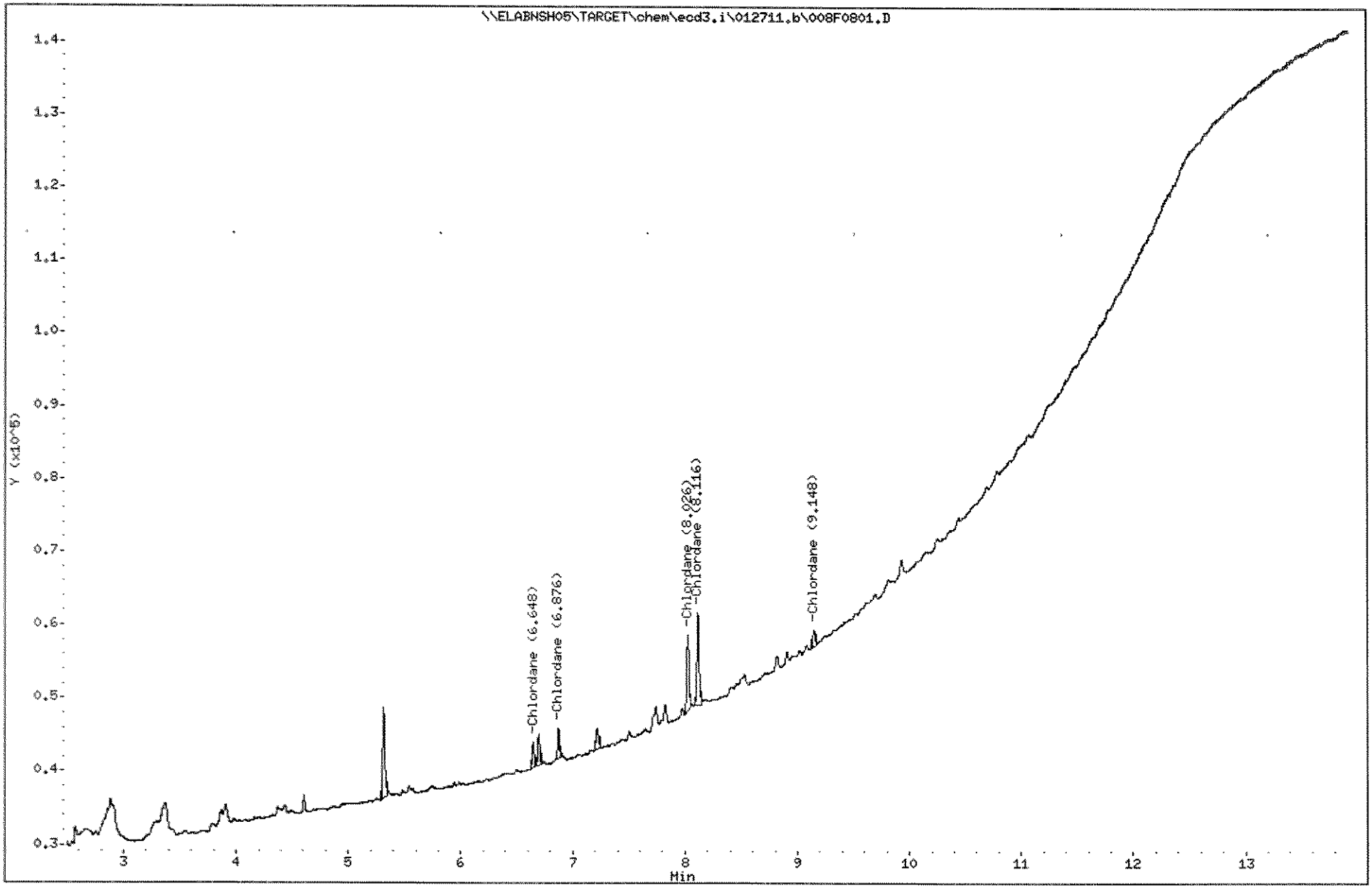
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\008F0801.D
Date : 27-JAN-2011 14:12
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\009F0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 27-JAN-2011 14:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011F1101.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
6 Chlordane					CAS #: 57-74-9		
8.115	8.115	(0.000)	471509	100.000	112.8	80.00- 120.00	100.00
6.649	6.650	(-0.001)	100714	100.000	112.8	17.09- 25.63	21.36
6.877	6.877	(0.000)	102214	100.000	110.3	17.34- 26.01	21.68
8.025	8.025	(0.000)	393722	100.000	118.1	66.80- 100.20	83.50
9.145	9.147	(-0.002)	100830	100.000	129.9	17.11- 25.66	21.38
		Average of Peak Amounts =			116.8		

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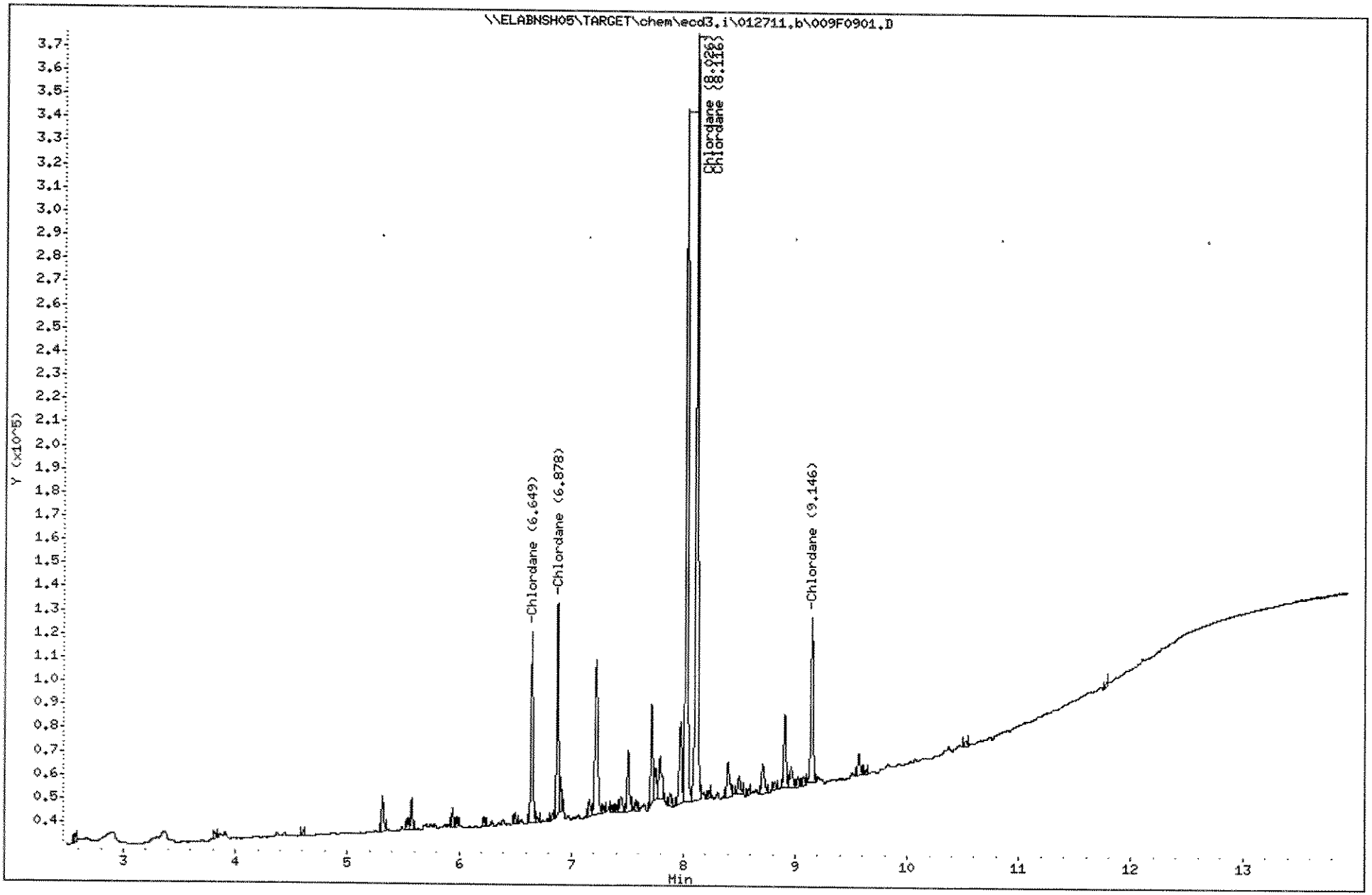
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\009F0901.D
Date : 27-JAN-2011 14:31
Client ID:
Sample Info: SEQ-ICV1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\003R0301.D
Lab Smp Id: SEQ-CAL1
Inj Date : 27-JAN-2011 12:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:15 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane [2C]					CAS #: 57-74-9			
6.609	6.607	(0.002)	763706	200.000	198.6	80.00-	120.00	100.00
5.389	5.389	(0.000)	142323	200.000	186.8	14.91-	22.36	18.64
5.551	5.552	(-0.001)	167930	200.000	185.3	17.59-	26.39	21.99
6.557	6.557	(0.000)	444459	200.000	191.7	46.56-	69.84	58.20
7.562	7.562	(0.000)	138076	200.000	180.7	14.46-	21.70	18.08
Average of Peak Amounts =					188.6			

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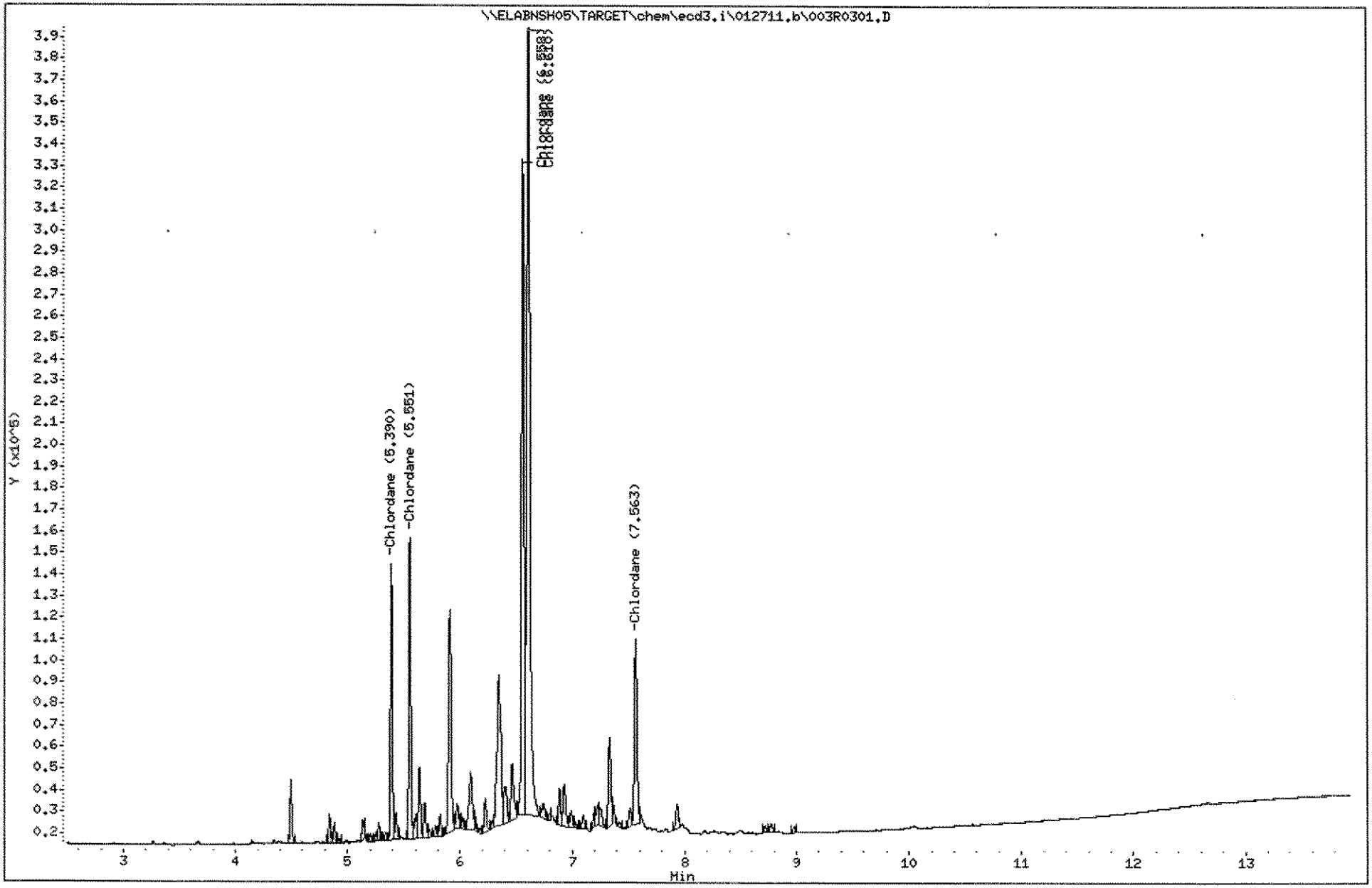
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\003R0301.D
Date : 27-JAN-2011 12:39
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: WAL
Column phase: ZB MR-2
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\004R0401.D
Lab Smp Id: SEQ-CAL2
Inj Date : 27-JAN-2011 12:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:15 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane [2C]					CAS #: 57-74-9			
6.607	6.607	(0.000)	371143	100.000	96.49	80.00-	120.00	100.00
5.389	5.389	(0.000)	68238	100.000	89.54	14.71-	22.06	18.39
5.552	5.552	(0.000)	81310	100.000	89.73	17.53-	26.29	21.91
6.557	6.557	(0.000)	233066	100.000	100.5	50.24-	75.36	62.80
7.562	7.562	(0.000)	71805	100.000	93.97	15.48-	23.22	19.35
Average of Peak Amounts =					94.05			

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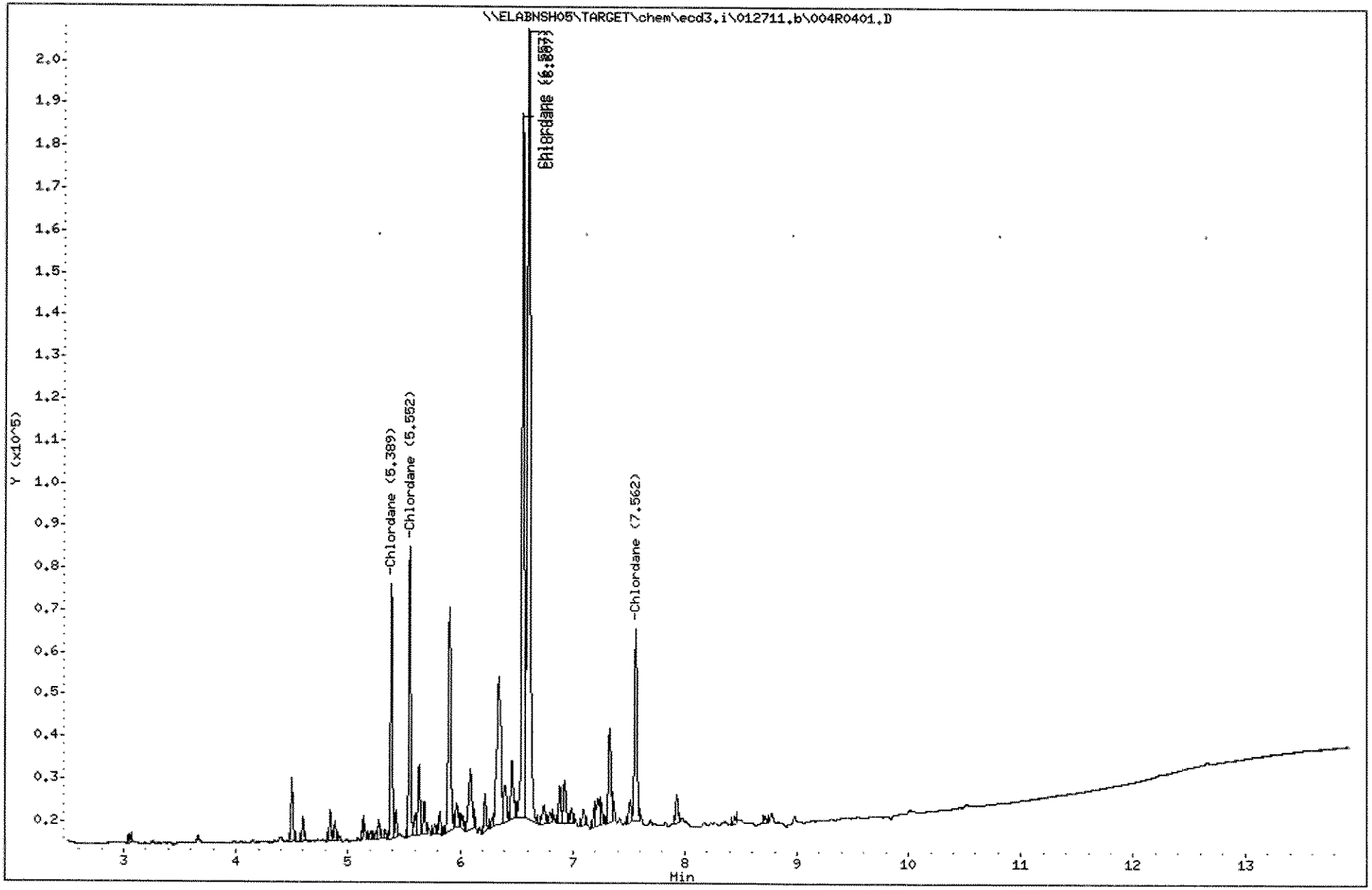
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\004R0401.D
Date : 27-JAN-2011 12:58
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\005R0501.D
Lab Smp Id: SEQ-CAL3
Inj Date : 27-JAN-2011 13:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane [2C]					CAS #: 57-74-9			
6.609	6.607	(0.002)	193098	50.0000	50.20	80.00-	120.00	100.00
5.389	5.389	(0.000)	37082	50.0000	48.66	15.36-	23.04	19.20
5.550	5.552	(-0.002)	43189	50.0000	47.66	17.89-	26.84	22.37
6.557	6.557	(0.000)	108749	50.0000	46.90	45.05-	67.58	56.32
7.562	7.562	(0.000)	34983	50.0000	45.78	14.49-	21.74	18.12
Average of Peak Amounts =					47.84			

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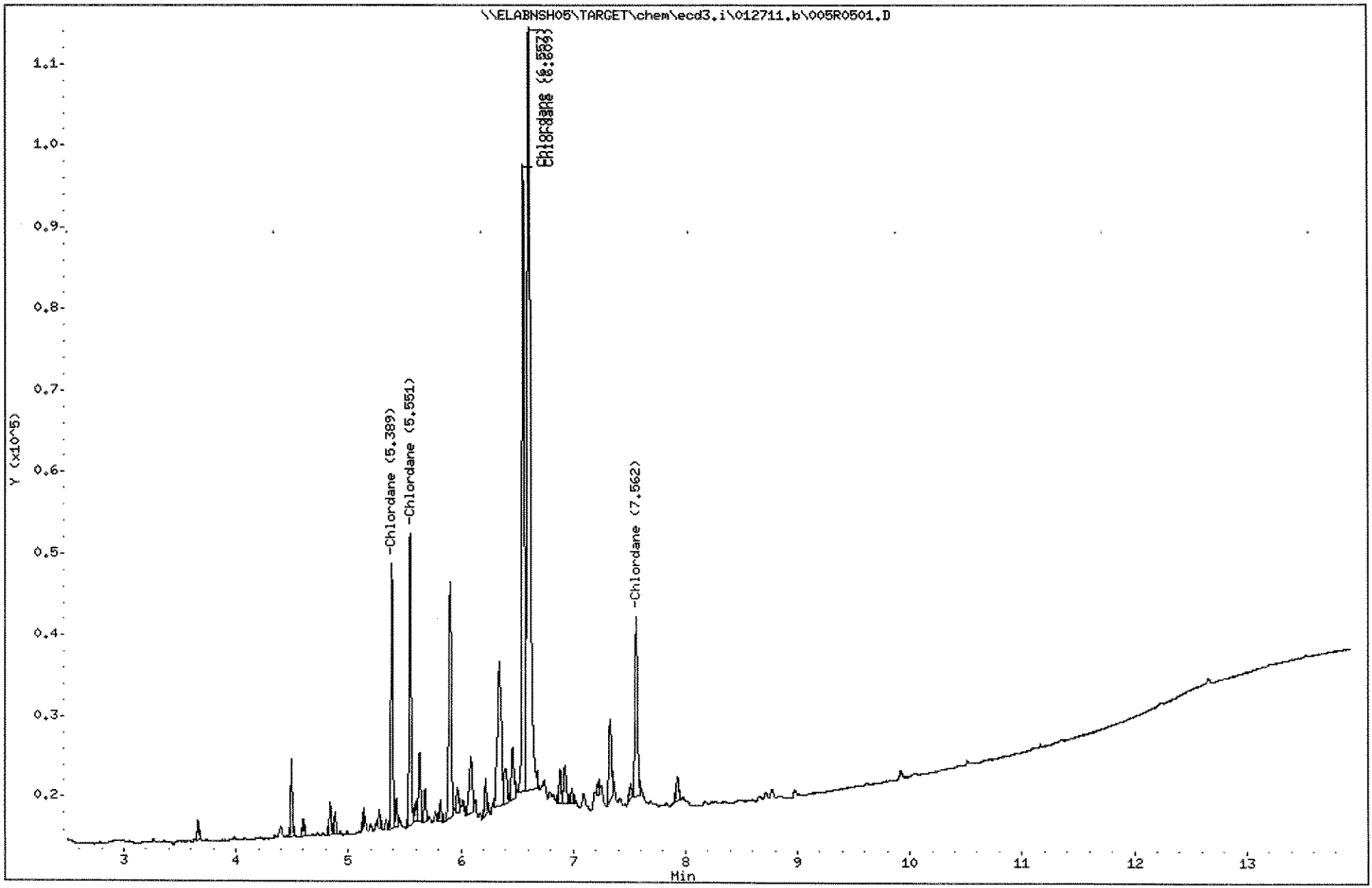
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\005R0501.D
Date : 27-JAN-2011 13:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\006R0601.D
Lab Smp Id: SEQ-CAL4
Inj Date : 27-JAN-2011 13:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane [2C]					CAS #: 57-74-9			
6.608	6.607	(0.001)	78492	20.0000	20.41	80.00-	120.00	100.00
5.388	5.389	(-0.001)	16408	20.0000	21.53	16.72-	25.08	20.90
5.551	5.552	(-0.001)	18831	20.0000	20.78	19.19-	28.79	23.99
6.558	6.557	(0.001)	45051	20.0000	19.43	45.92-	68.87	57.40
7.561	7.562	(-0.001)	14683	20.0000	19.22	14.97-	22.45	18.71
Average of Peak Amounts =					20.27			

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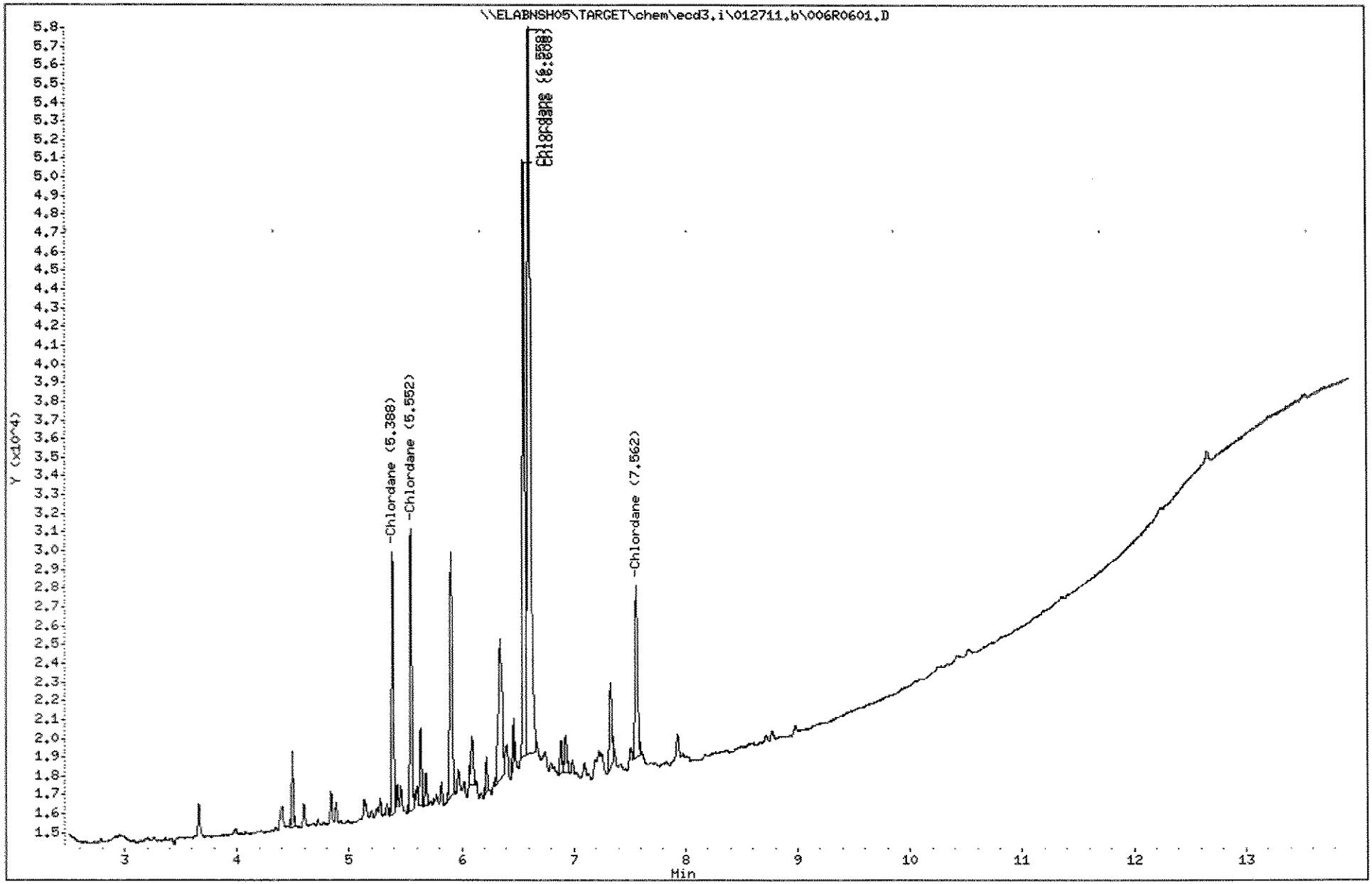
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\006R0601.D
Date : 27-JAN-2011 13:35
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\007R0701.D
Lab Smp Id: SEQ-CAL5
Inj Date : 27-JAN-2011 13:53
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane [2C]					CAS #: 57-74-9			
6.608	6.607	(0.001)	39344	10.0000	10.23	80.00-	120.00	100.00
5.388	5.389	(-0.001)	8072	10.0000	10.59	16.41-	24.62	20.52
5.551	5.552	(-0.001)	9697	10.0000	10.70	19.72-	29.58	24.65
6.558	6.557	(0.001)	24219	10.0000	10.44	49.25-	73.87	61.56
7.563	7.562	(0.001)	9190	10.0000	12.03	18.69-	28.03	23.36
		Average of Peak Amounts =			10.8			

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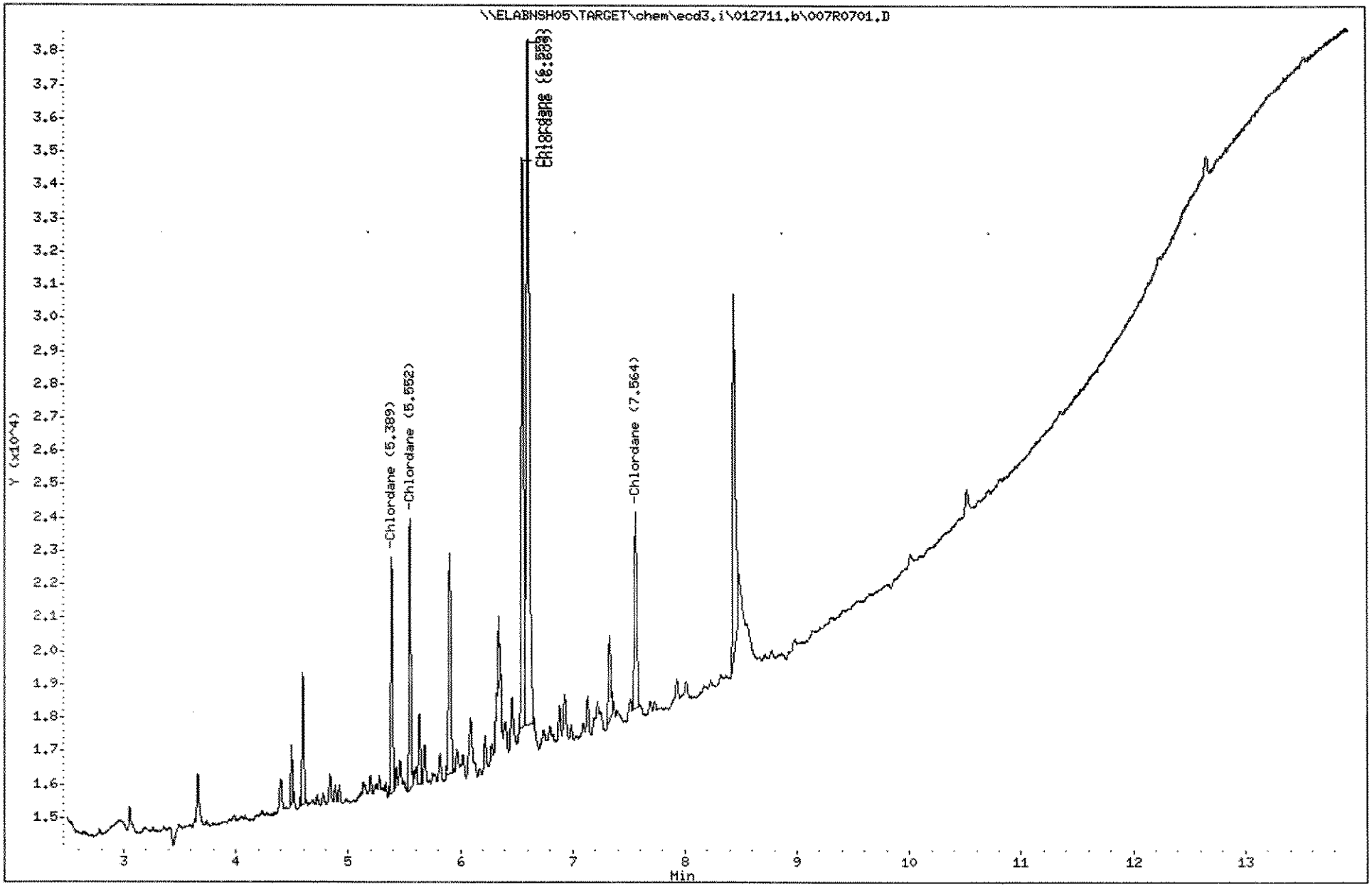
MC 1/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\007R0701.D
Date : 27-JAN-2011 13:53
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\008R0801.D
Lab Smp Id: SEQ-CAL6
Inj Date : 27-JAN-2011 14:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
**	======	========	========	=======	=======	============	=====
6 Chlordane [2C]					CAS #: 57-74-9		
6.608	6.607	(0.001)	19136	5.00000	4.975	80.00- 120.00	100.00
5.388	5.389	(-0.001)	4046	5.00000	5.309	16.91- 25.37	21.14
5.549	5.552	(-0.003)	5046	5.00000	5.568	21.10- 31.64	26.37
6.558	6.557	(0.001)	12556	5.00000	5.414	52.49- 78.74	65.61
7.563	7.562	(0.001)	4117	5.00000	5.388	17.21- 25.82	21.51
		Average of Peak Amounts =			5.331		

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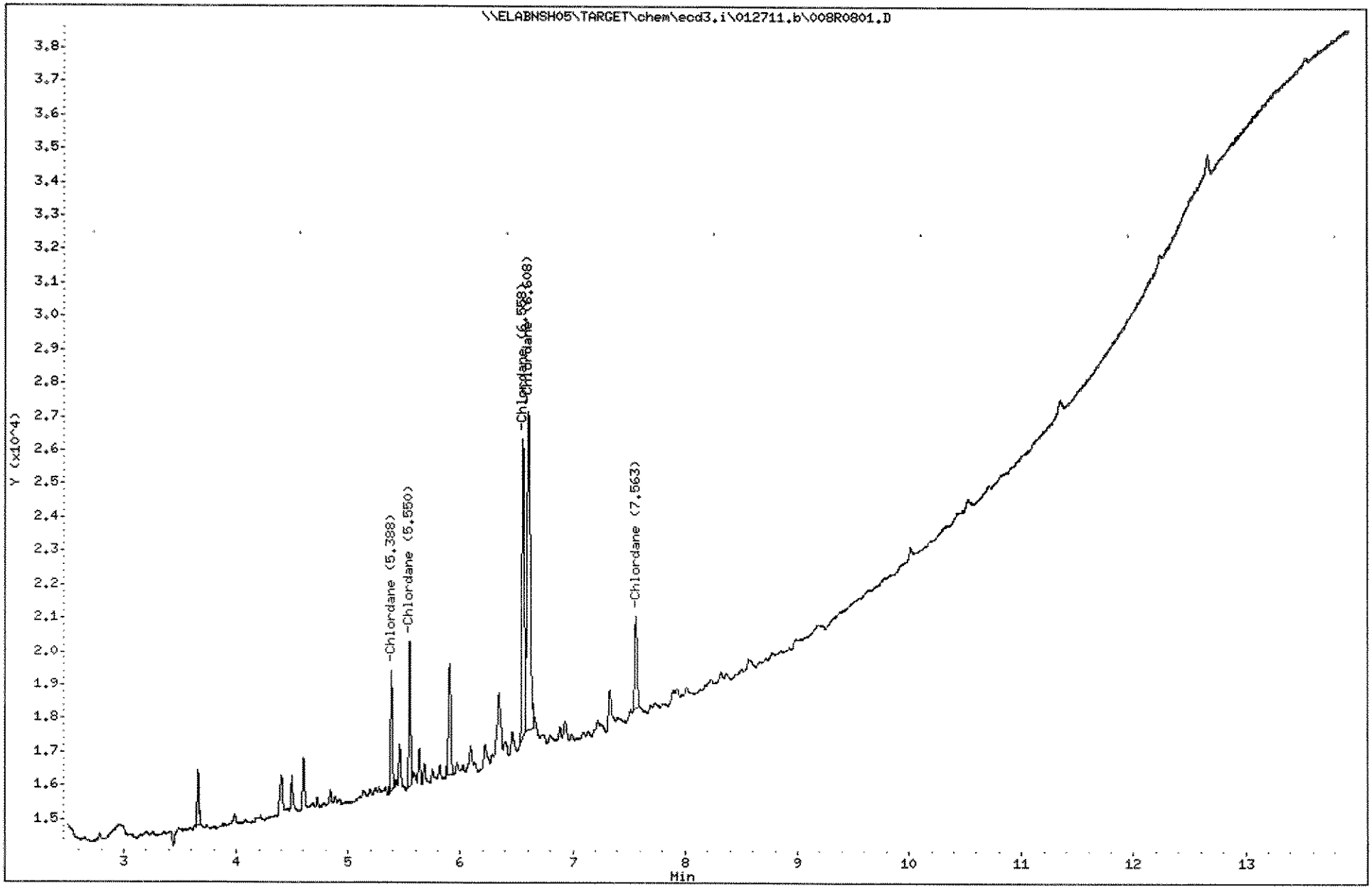
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\008R0801.D
Date : 27-JAN-2011 14:12
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\009R0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 27-JAN-2011 14:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 09:16 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 05:37 Cal File: 011R1101.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane [2C]					CAS #: 57-74-9			
6.607	6.607	(0.000)	408375	100.000	106.2	80.00-	120.00	100.00
5.389	5.389	(0.000)	73012	100.000	95.81	14.30-	21.45	17.88
5.551	5.552	(-0.001)	89755	100.000	99.05	17.58-	26.37	21.98
6.557	6.557	(0.000)	262115	100.000	113.0	51.35-	77.02	64.18
7.562	7.562	(0.000)	82281	100.000	107.7	16.12-	24.18	20.15
		Average of Peak Amounts =			104.3			

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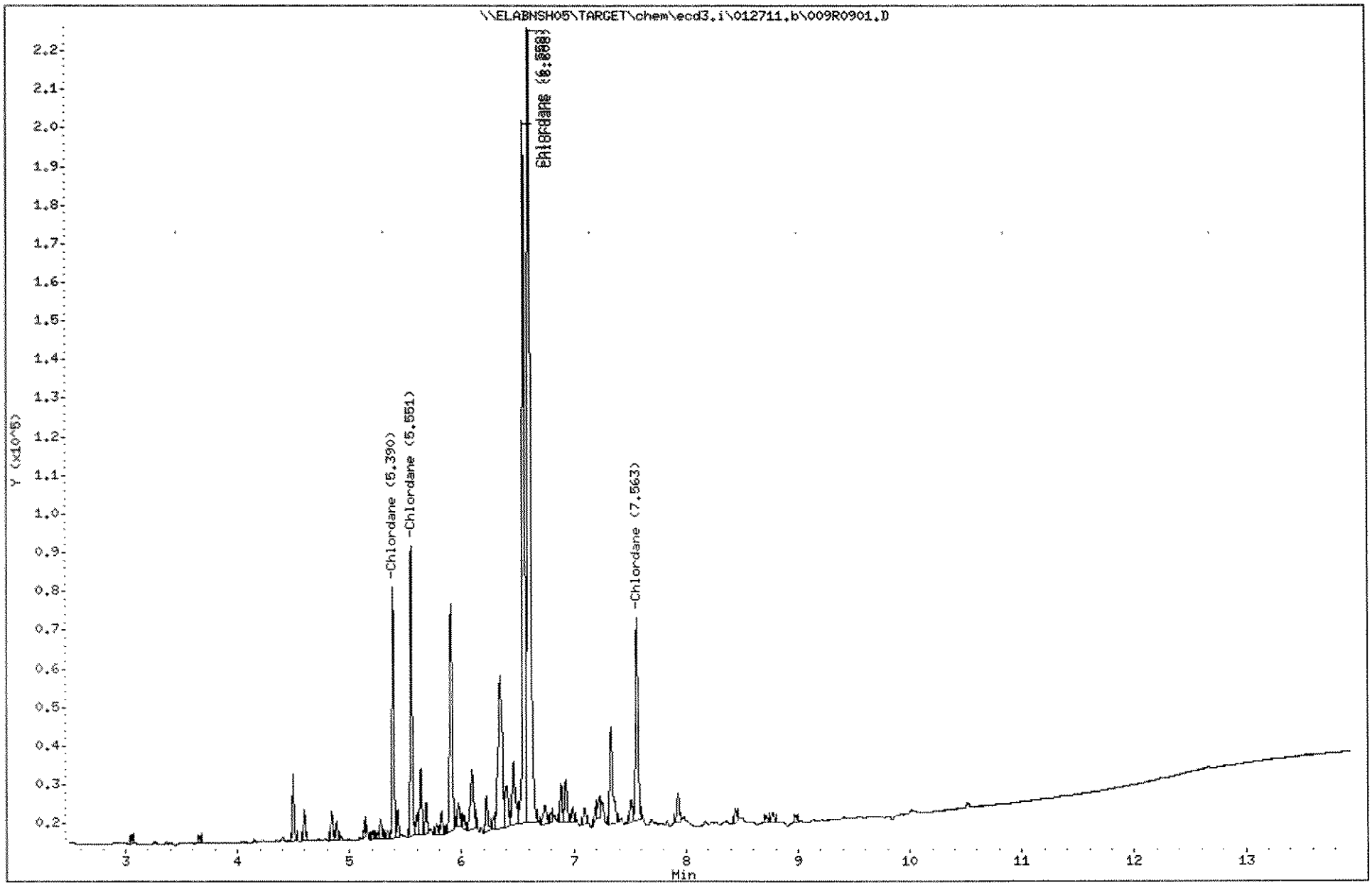
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\009R0901.D
Date : 27-JAN-2011 14:31
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\011F1101.D
Lab Smp Id: SEQ-CAL7
Inj Date : 27-JAN-2011 15:08
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene						CAS #: 8001-35-2		
10.021	10.023	(-0.002)	2699912	2000.00	2308	80.00-	120.00	100.00(A)
8.711	8.713	(-0.002)	1083276	2000.00	2352	32.10-	48.15	40.12
9.380	9.381	(-0.001)	2589873	2000.00	2496	76.74-	115.11	95.92
9.491	9.493	(-0.002)	2556785	2000.00	2295	75.76-	113.64	94.70
10.476	10.478	(-0.002)	1326436	2000.00	2413	39.30-	58.95	49.13
Average of Peak Amounts =					2373			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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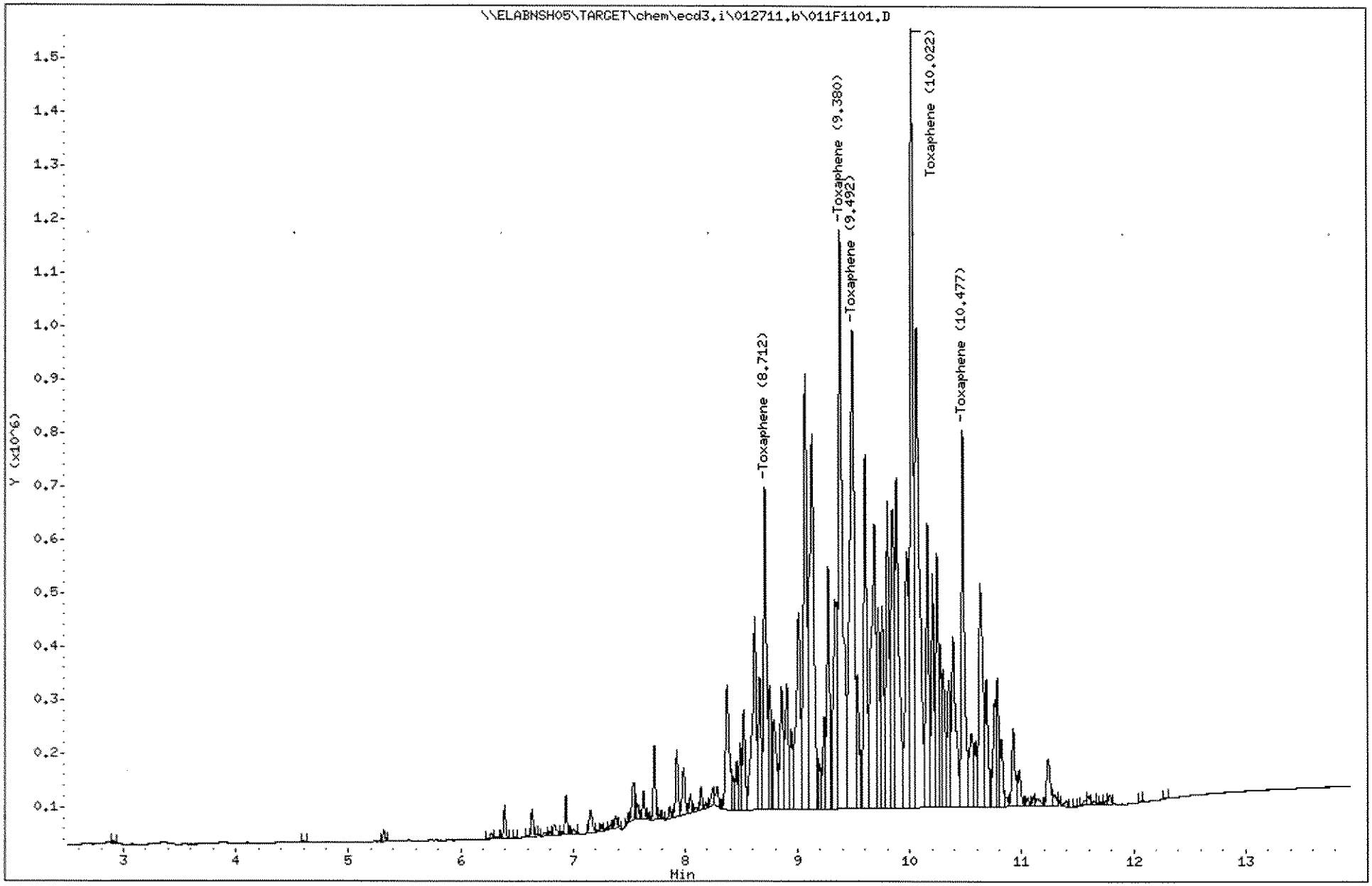
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\011F1101.D
Date : 27-JAN-2011 15:08
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd3.i
Operator: WAL
Column phase: ZB MR-1
Column diameter: 0.32



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Laboratory Name.

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\012F1201.D
Lab Smp Id: SEQ-CAL8
Inj Date : 27-JAN-2011 15:26
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
28 Toxaphene					CAS #: 8001-35-2		
10.023	10.023	(0.000)	1134097	1000.00	969.4	80.00- 120.00	100.00
8.713	8.713	(0.000)	471312	1000.00	1023	33.25- 49.87	41.56
9.381	9.381	(0.000)	1110459	1000.00	1070	78.33- 117.50	97.92
9.493	9.493	(0.000)	1288061	1000.00	1156	90.86- 136.29	113.58
10.478	10.478	(0.000)	551682	1000.00	1004	38.92- 58.37	48.65
		Average of Peak Amounts =			1045		

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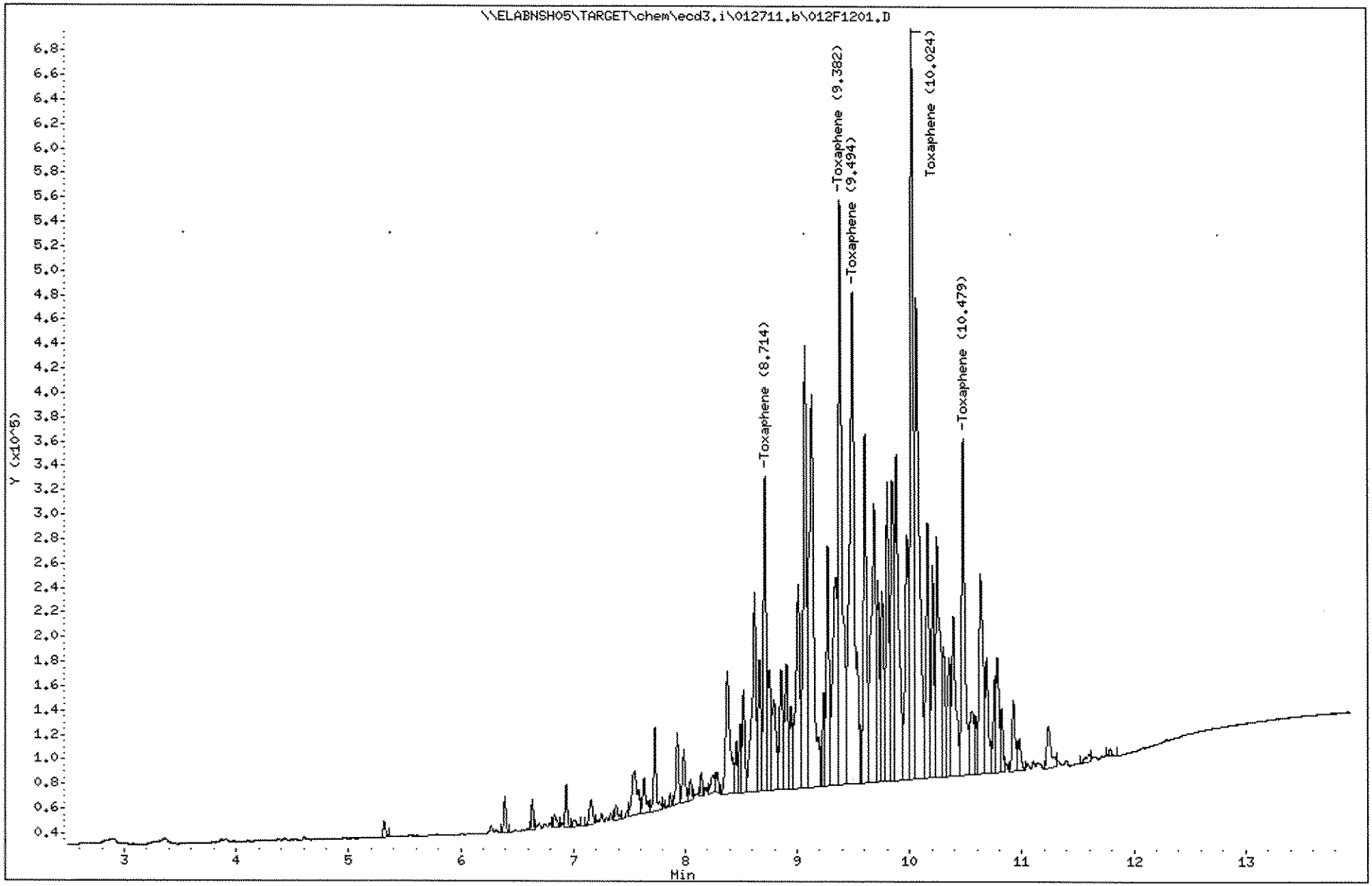
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\012F1201.D
Date : 27-JAN-2011 15:26
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3.i
Operator: WAL
Column phase: ZB MR-1
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\013F1301.D
Lab Smp Id: SEQ-CAL9
Inj Date : 27-JAN-2011 15:45
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
28 Toxaphene					CAS #: 8001-35-2		
10.024	10.023	(0.001)	977741	750.000	835.8	80.00- 120.00	100.00
8.713	8.713	(0.000)	398364	750.000	864.9	32.59- 48.89	40.74
9.384	9.381	(0.003)	949124	750.000	914.6	77.66- 116.49	97.07
9.493	9.493	(0.000)	938338	750.000	842.4	76.78- 115.16	95.97
10.478	10.478	(0.000)	471199	750.000	857.2	38.55- 57.83	48.19
Average of Peak Amounts =					863		

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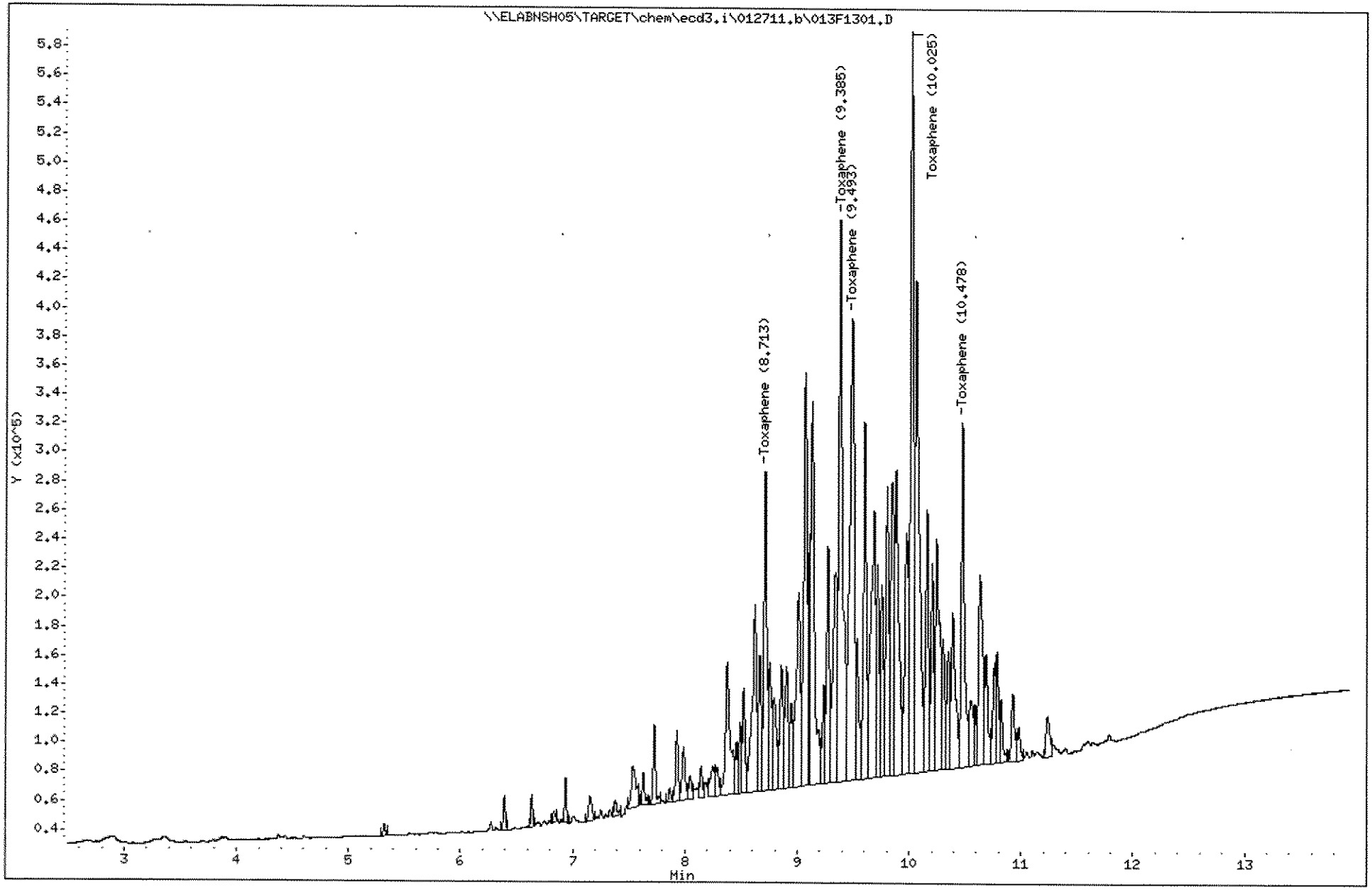
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\013F1301.D
Date : 27-JAN-2011 15:45
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\014F1401.D
Lab Smp Id: SEQ-CALA
Inj Date : 27-JAN-2011 16:04
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
28 Toxaphene					CAS #: 8001-35-2		
10.023	10.023	(0.000)	644078	500.000	550.6	80.00- 120.00	100.00
8.711	8.713	(-0.002)	240680	500.000	522.6	29.89- 44.84	37.37
9.381	9.381	(0.000)	475984	500.000	458.7	59.12- 88.68	73.90
9.493	9.493	(0.000)	560833	500.000	503.5	69.66- 104.49	87.08
10.476	10.478	(-0.002)	293702	500.000	534.3	36.48- 54.72	45.60
		Average of Peak Amounts =			513.9		

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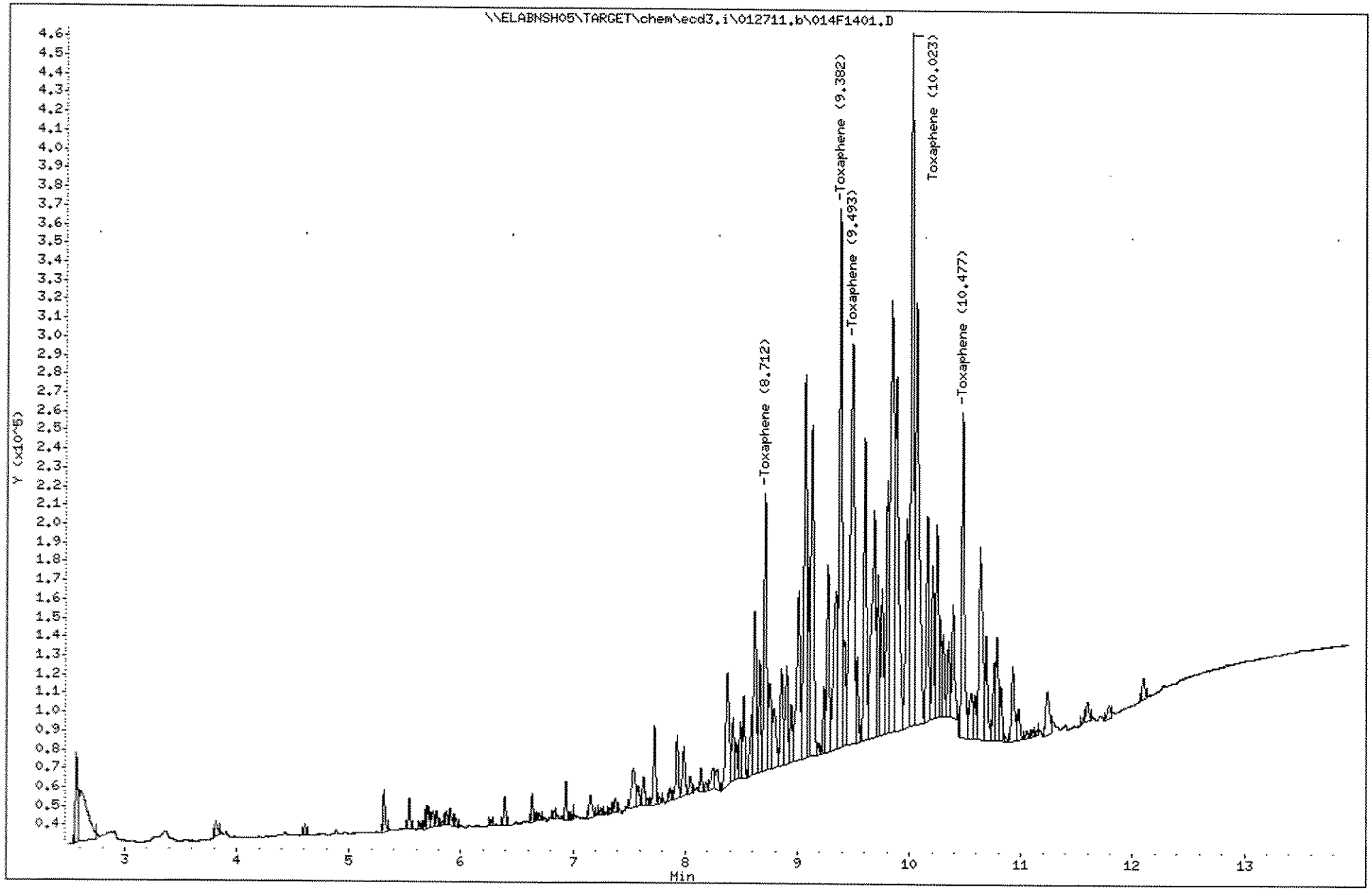
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\014F1401.D
Date : 27-JAN-2011 16:04
Client ID:
Sample Info: SEQ-CALA

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\015F1501.D
Lab Smp Id: SEQ-CALB
Inj Date : 27-JAN-2011 16:22
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
28 Toxaphene					CAS #: 8001-35-2		
10.024	10.023	(0.001)	224461	250.000	191.9	80.00- 120.00	100.00
8.712	8.713	(-0.001)	79465	250.000	172.5	28.32- 42.48	35.40
9.382	9.381	(0.001)	197587	250.000	190.4	70.42- 105.63	88.03
9.496	9.493	(0.003)	207241	250.000	186.0	73.86- 110.79	92.33
10.477	10.478	(-0.001)	103788	250.000	188.8	36.99- 55.49	46.24
		Average of Peak Amounts =			185.9		

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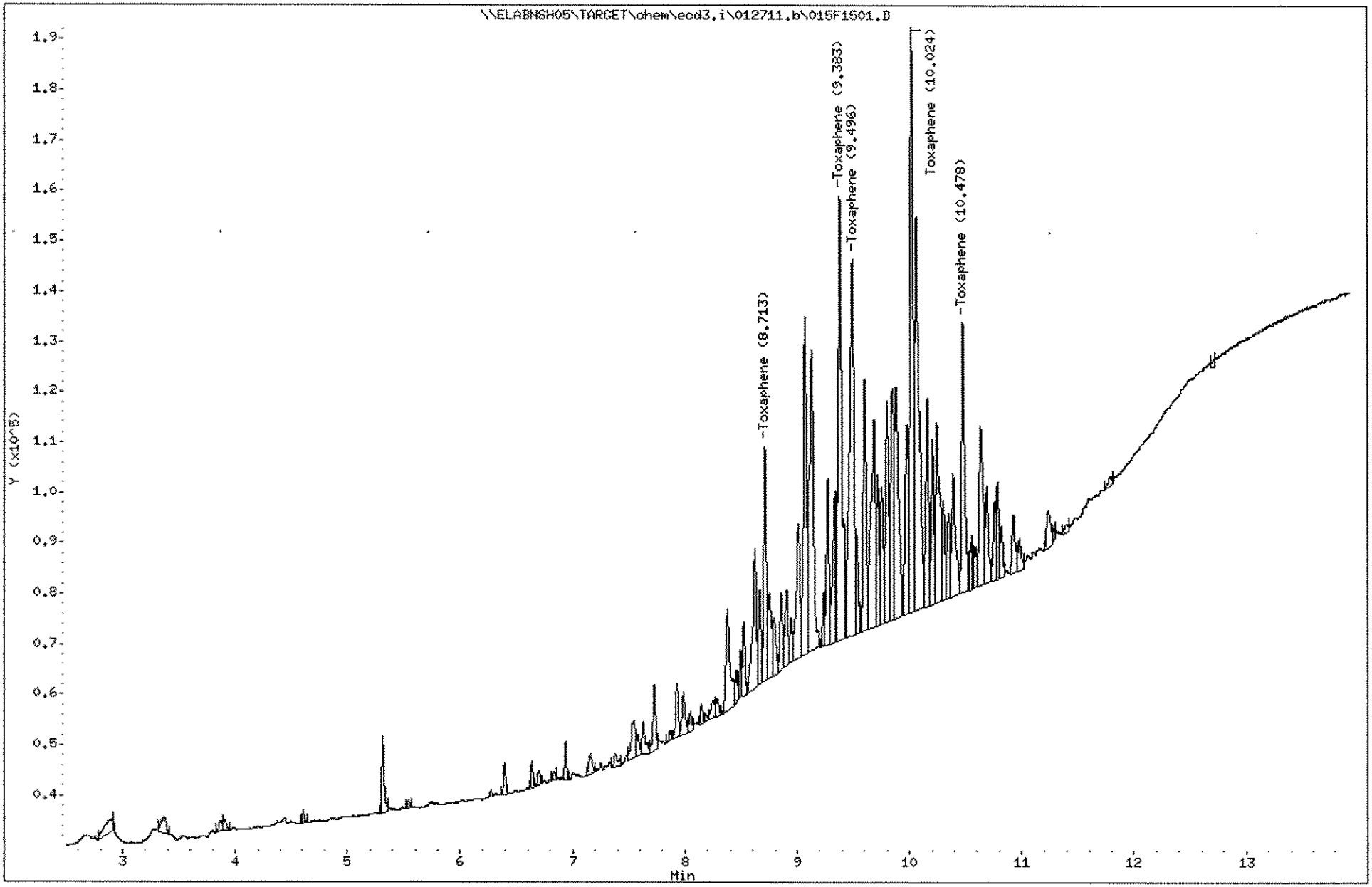
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\015F1501.D
Date : 27-JAN-2011 16:22
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\016F1601.D
Lab Smp Id: SEQ-CALC
Inj Date : 27-JAN-2011 16:41
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
28 Toxaphene					CAS #: 8001-35-2		
10.022	10.023	(-0.001)	1045370	100.000	89.36	80.00- 120.00	100.00
8.711	8.713	(-0.002)	42009	100.000	91.21	32.15- 48.22	40.19
9.382	9.381	(0.001)	81315	100.000	78.36	62.23- 93.34	77.79
9.492	9.493	(-0.001)	91547	100.000	82.18	70.06- 105.09	87.57
10.476	10.478	(-0.002)	45240	100.000	82.30	34.62- 51.93	43.28
		Average of Peak Amounts =			84.68		

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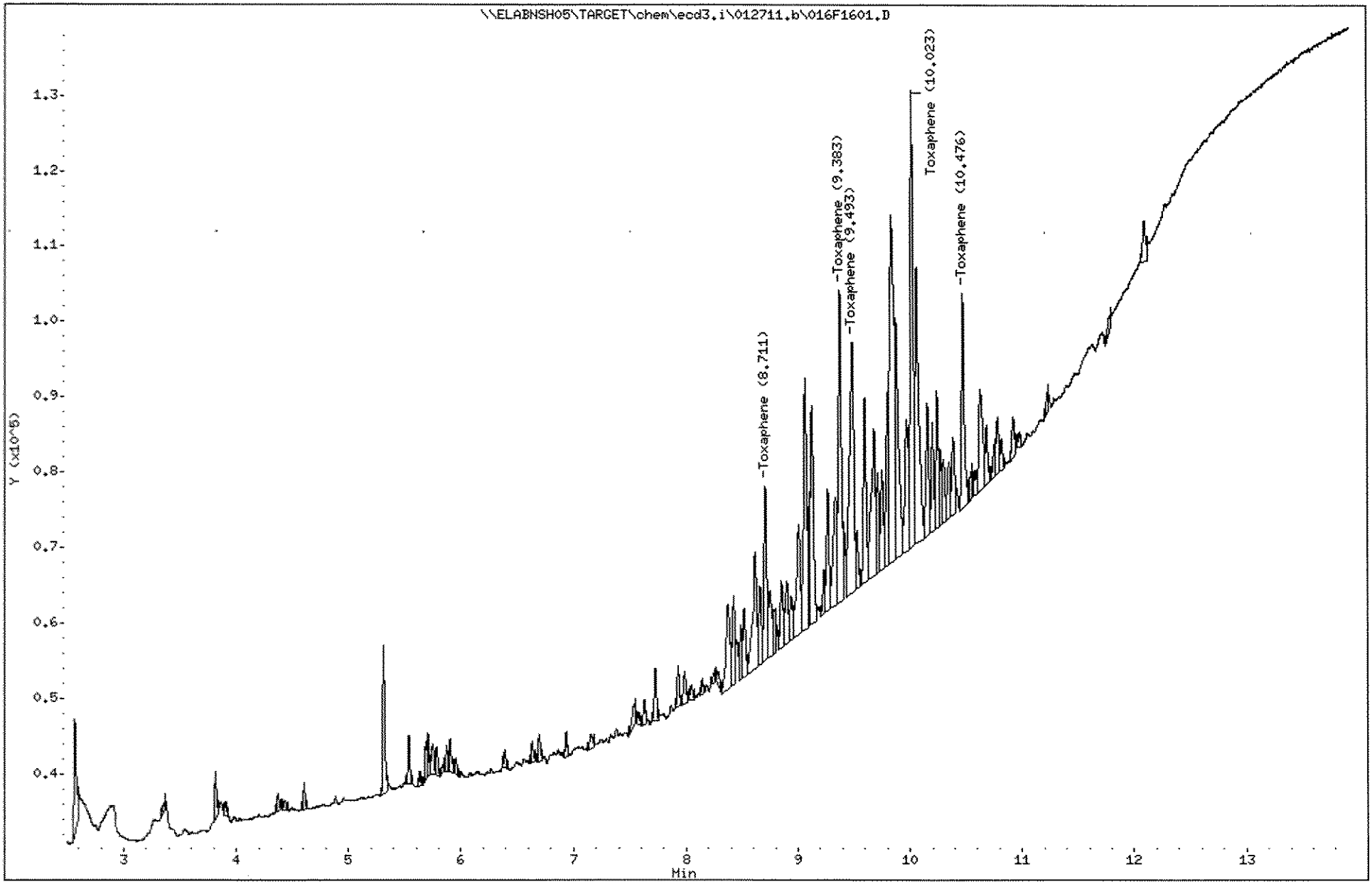
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\016F1601.D
Date : 27-JAN-2011 16:41
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\017F1701.D
Lab Smp Id: SEQ-ICV2
Inj Date : 27-JAN-2011 16:59
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV2
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82F.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
28 Toxaphene					CAS #: 8001-35-2		
10.024	10.023	(0.001)	1365317	1000.00	1167	80.00- 120.00	100.00
8.712	8.713	(-0.001)	552569	1000.00	1200	32.38- 48.57	40.47
9.382	9.381	(0.001)	1168423	1000.00	1126	68.46- 102.69	85.58
9.490	9.493	(-0.003)	1325080	1000.00	1190	77.64- 116.46	97.05
10.479	10.478	(0.001)	670421	1000.00	1220	39.28- 58.92	49.10
		Average of Peak Amounts =			1180		

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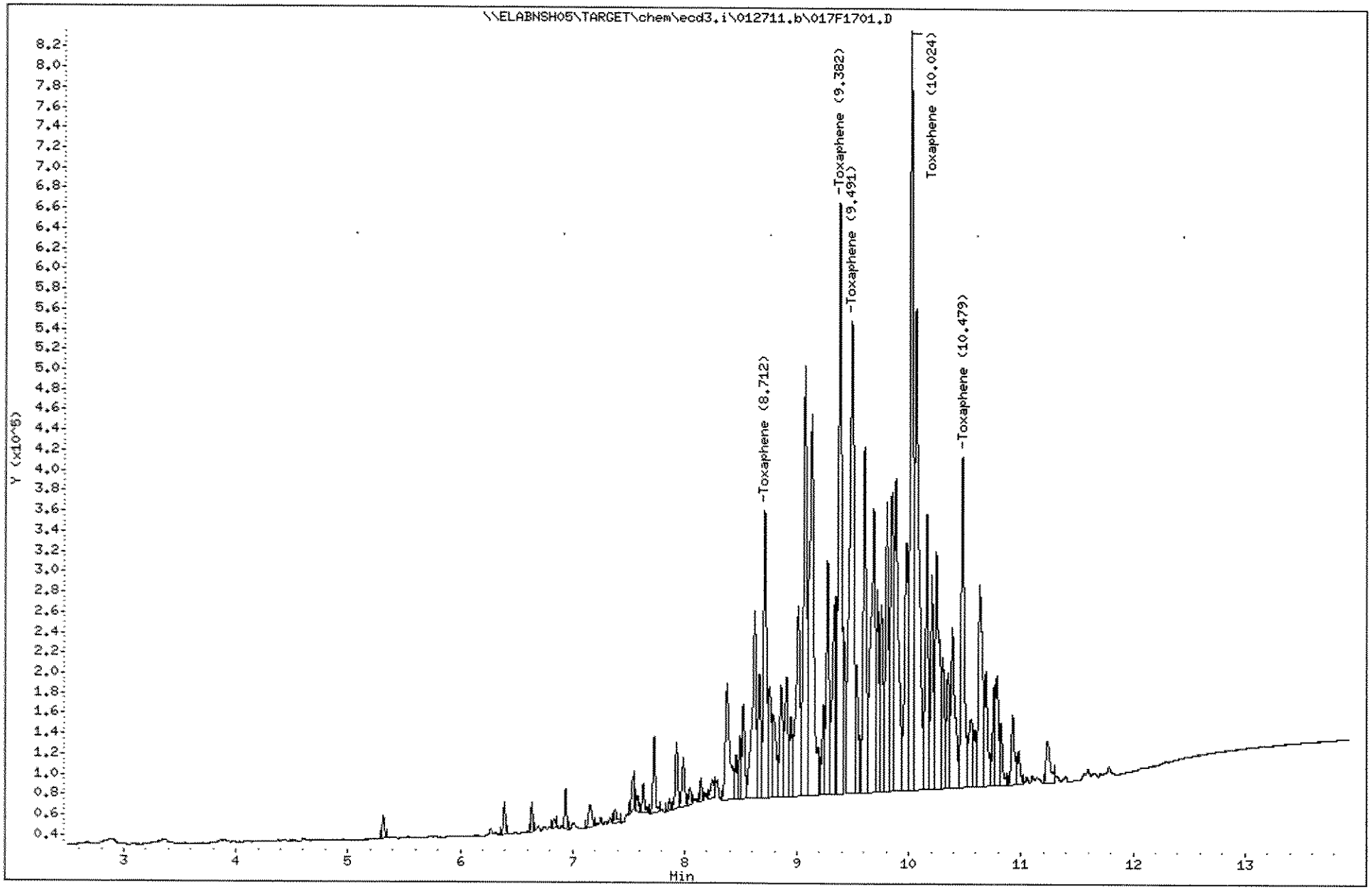
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\017F1701.D
Date : 27-JAN-2011 16:59
Client ID:
Sample Info: SEQ-ICV2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\011R1101.D
Lab Smp Id: SEQ-CAL7
Inj Date : 27-JAN-2011 15:08
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
==	=======	========	========	=======	=======	============		=====
28 Toxaphene [2C]					CAS #: 8001-35-2			
8.508	8.508	(0.000)	1754920	2000.00	1756	80.00-	120.00	100.00(A)
7.558	7.558	(0.000)	1043020	2000.00	2254	47.55-	71.32	59.43
7.893	7.893	(0.000)	2043172	2000.00	2072	93.14-	139.71	116.43
8.863	8.863	(0.000)	1040108	2000.00	2233	47.41-	71.12	59.27
9.023	9.022	(0.001)	804718	2000.00	2232	36.68-	55.03	45.85
Average of Peak Amounts =					2109			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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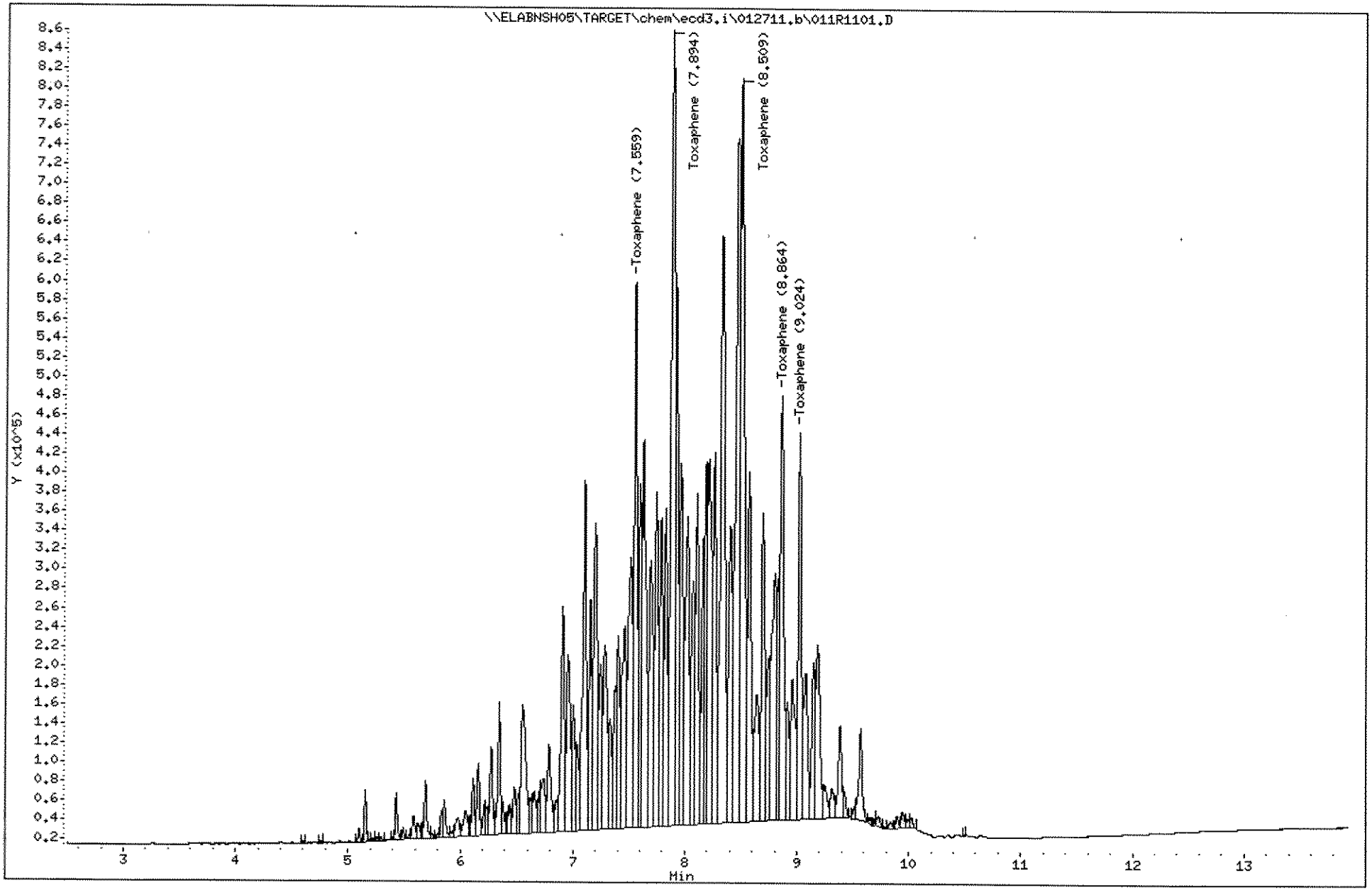
1/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\011R1101.D
Date : 27-JAN-2011 15:08
Client ID:
Sample Info: SEQ-CAL7

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\012R1201.D
Lab Smp Id: SEQ-CAL8
Inj Date : 27-JAN-2011 15:26
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene [2C]					CAS #: 8001-35-2			
8.508	8.508	(0.000)	839724	1000.00	840.3	80.00-	120.00	100.00
7.558	7.558	(0.000)	463726	1000.00	1002	44.18-	66.27	55.22
7.893	7.893	(0.000)	919775	1000.00	932.6	87.63-	131.44	109.53
8.863	8.863	(0.000)	439665	1000.00	943.8	41.89-	62.83	52.36
9.022	9.022	(0.000)	341003	1000.00	946.1	32.49-	48.73	40.61
		Average of Peak Amounts =			933			

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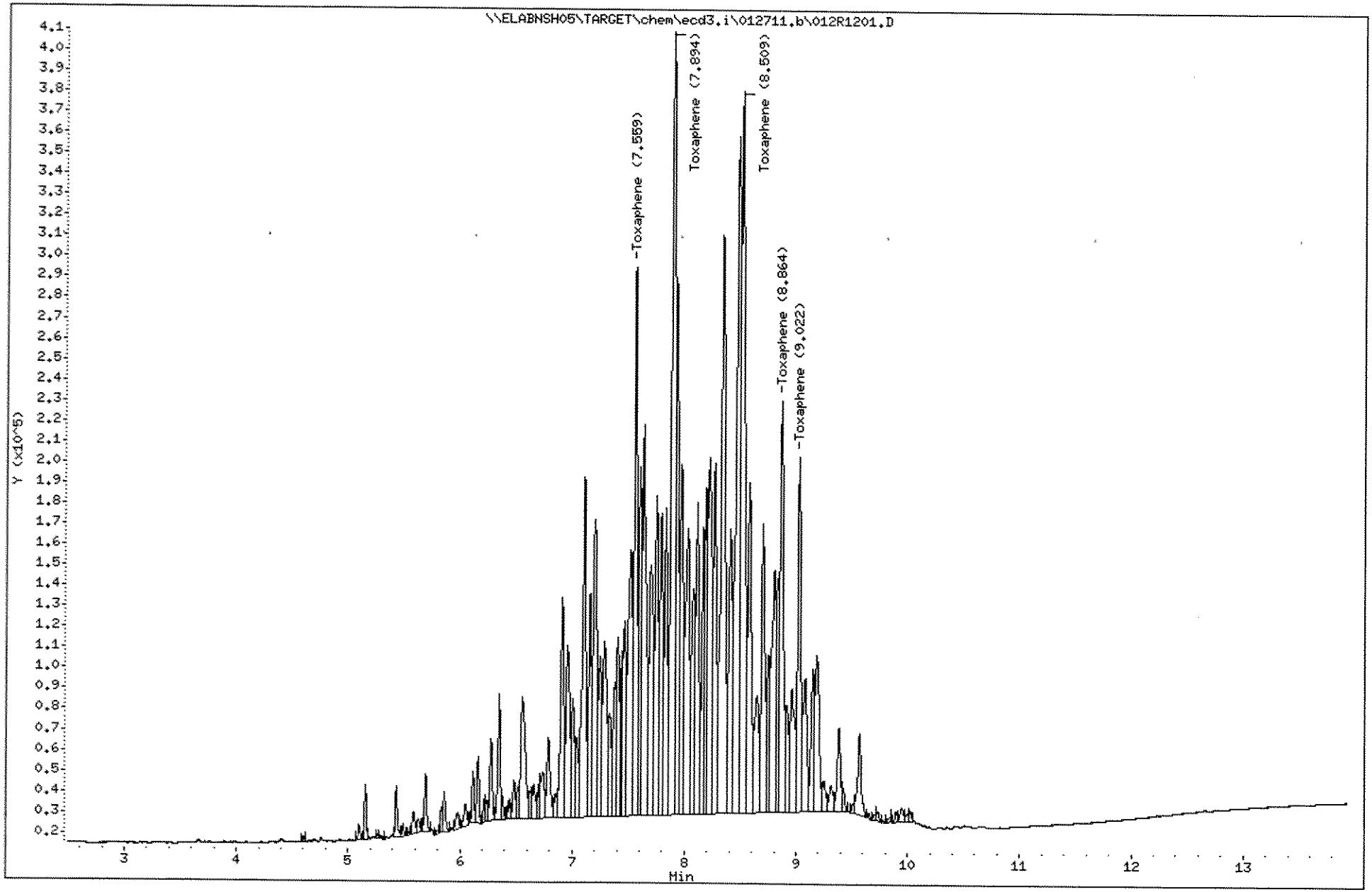
1/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\012R1201.D
Date : 27-JAN-2011 15:26
Client ID:
Sample Info: SEQ-CAL8

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\013R1301.D
Lab Smp Id: SEQ-CAL9
Inj Date : 27-JAN-2011 15:45
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene [2C]					CAS #: 8001-35-2			
8.510	8.508	(0.002)	700706	750.000	701.2	80.00-	120.00	100.00
7.558	7.558	(0.000)	388754	750.000	840.1	44.38-	66.58	55.48
7.891	7.893	(-0.002)	770425	750.000	781.2	87.96-	131.94	109.95
8.865	8.863	(0.002)	376179	750.000	807.5	42.95-	64.42	53.69
9.023	9.022	(0.001)	302717	750.000	839.8	34.56-	51.84	43.20
Average of Peak Amounts =					794			

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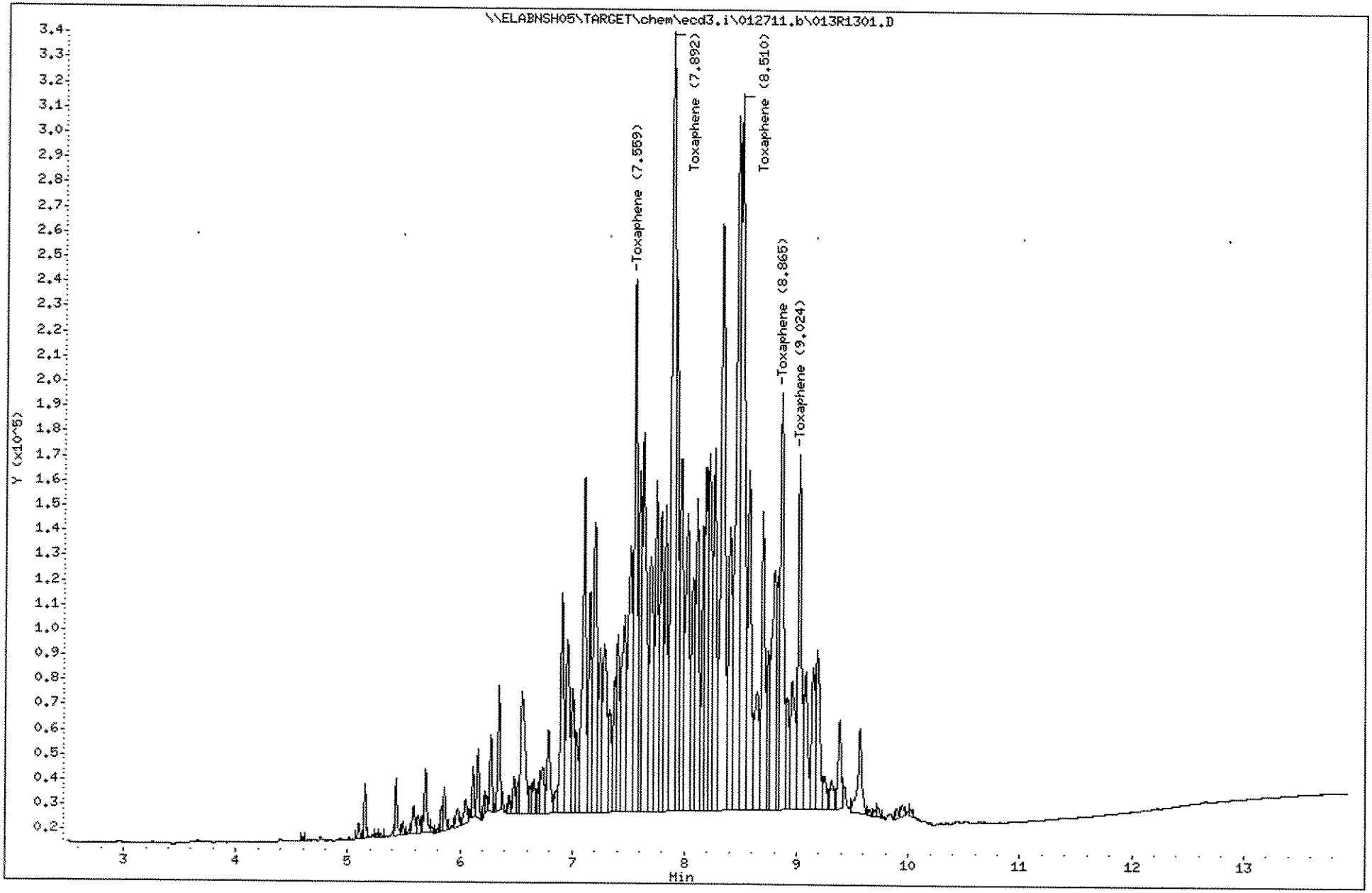
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\013R1301.D
Date : 27-JAN-2011 15:45
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB HR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\014R1401.D
Lab Smp Id: SEQ-CALA
Inj Date : 27-JAN-2011 16:04
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene [2C]					CAS #: 8001-35-2			
8.510	8.508	(0.002)	617270	500.000	617.7	80.00-	120.00	100.00
7.560	7.558	(0.002)	230076	500.000	497.2	29.82-	44.73	37.27
7.895	7.893	(0.002)	499439	500.000	506.4	64.73-	97.09	80.91
8.865	8.863	(0.002)	220016	500.000	472.3	28.51-	42.77	35.64
9.023	9.022	(0.001)	179608	500.000	498.3	23.28-	34.92	29.10
Average of Peak Amounts =					518.4			

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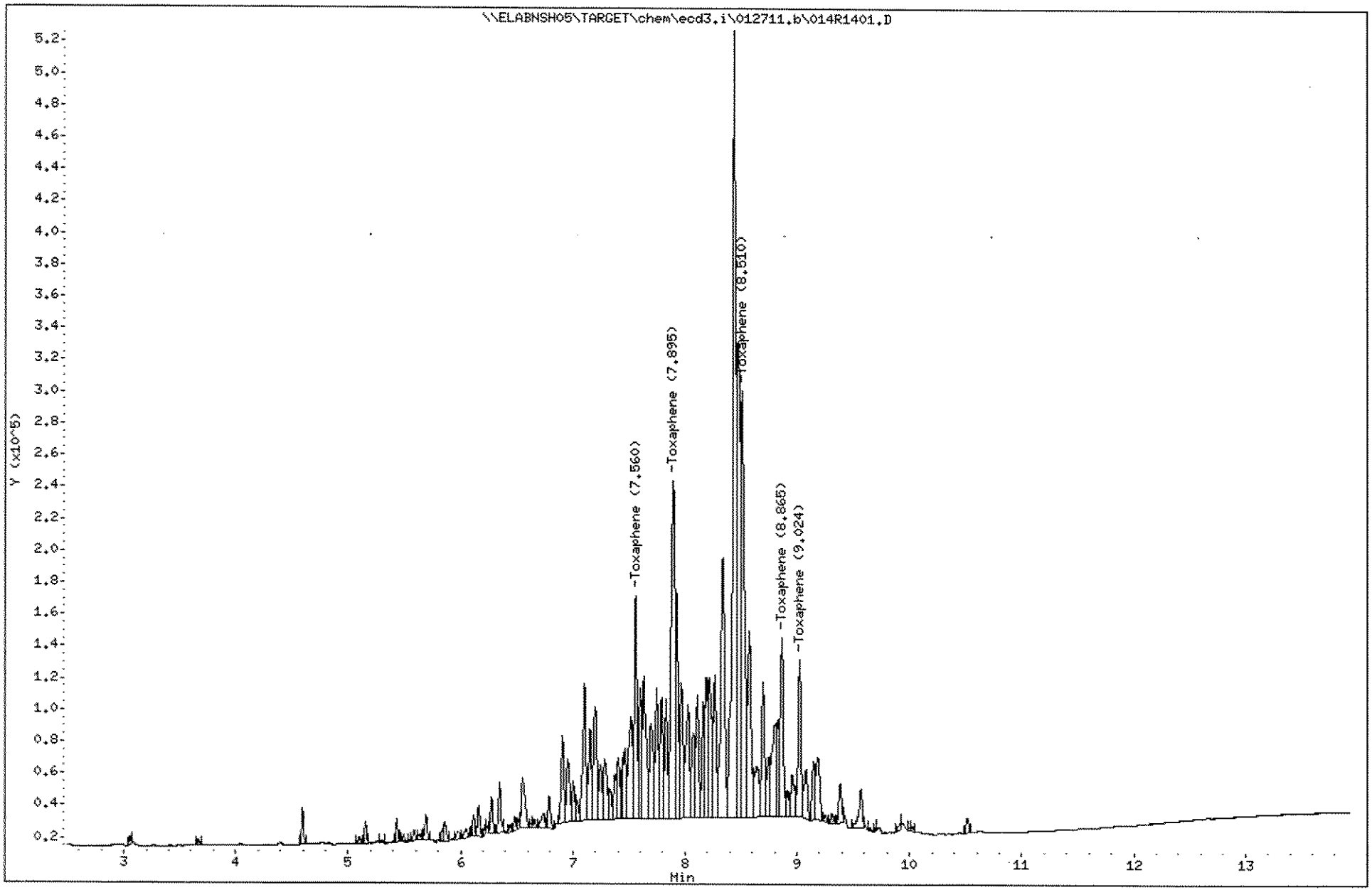
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\014R1401.D
Date : 27-JAN-2011 16:04
Client ID:
Sample Info: SEQ-CALA

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\015R1501.D
Lab Smp Id: SEQ-CALB
Inj Date : 27-JAN-2011 16:22
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
**	======	========	========	=======	=======	============		=====
28 Toxaphene [2C]					CAS #: 8001-35-2			
8.509	8.508	(0.001)	195859	250.000	196.0	80.00-	120.00	100.00
7.559	7.558	(0.001)	102647	250.000	221.8	41.93-	62.89	52.41
7.893	7.893	(0.000)	206257	250.000	209.1	84.25-	126.37	105.31
8.863	8.863	(0.000)	122524	250.000	263.0	50.05-	75.07	62.56
9.024	9.022	(0.002)	79475	250.000	220.5	32.46-	48.69	40.58
Average of Peak Amounts =					222.1			

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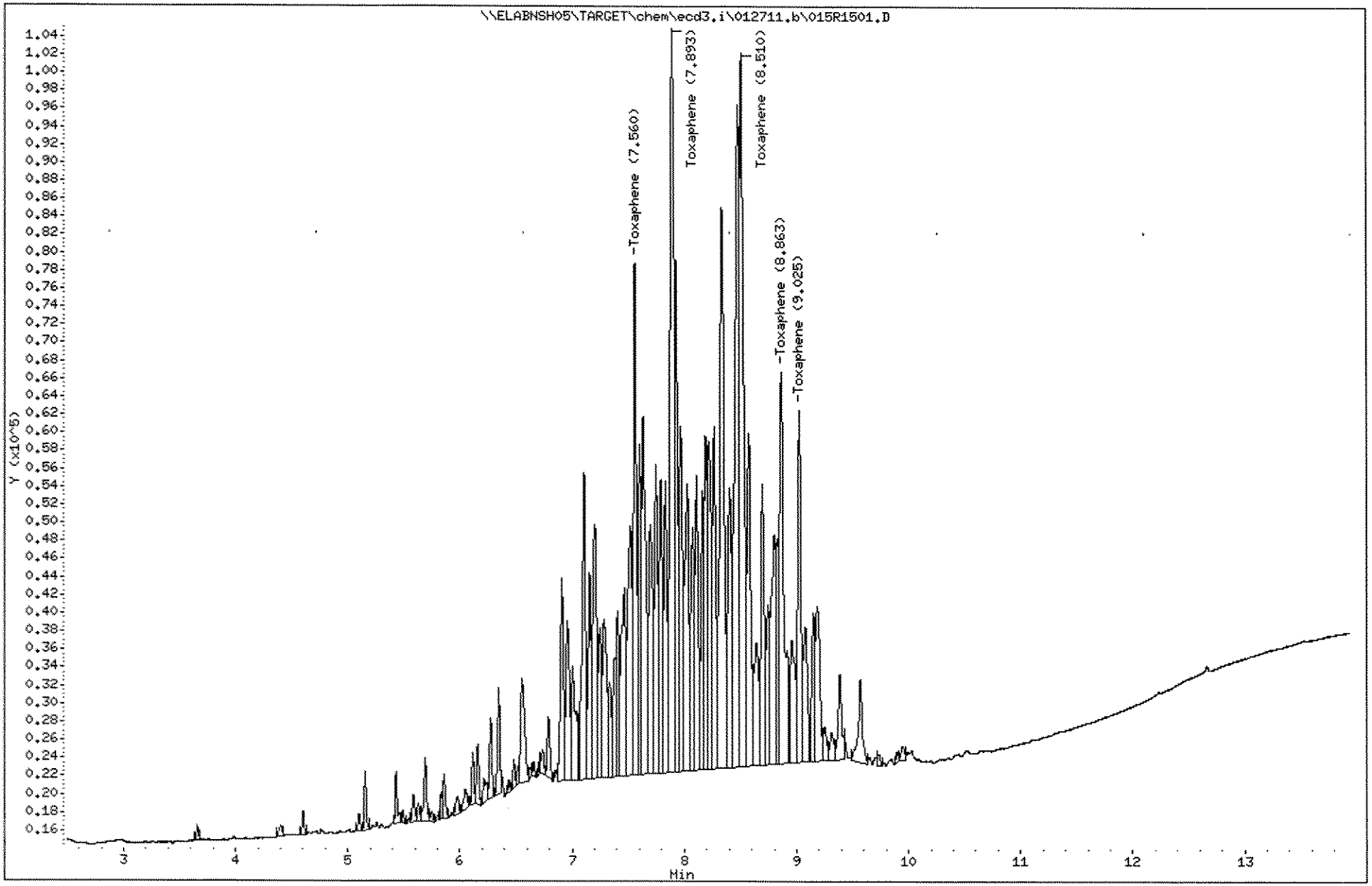
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\015R1501.D
Date : 27-JAN-2011 16:22
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\016R1601.D
Lab Smp Id: SEQ-CALC
Inj Date : 27-JAN-2011 16:41
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene [2C]					CAS #: 8001-35-2			
8.509	8.508	(0.001)	132654	100.000	132.7	80.00-	120.00	100.00
7.559	7.558	(0.001)	40214	100.000	86.90	24.25-	36.38	30.31
7.894	7.893	(0.001)	112492	100.000	114.1	67.84-	101.76	84.80
8.864	8.863	(0.001)	40358	100.000	86.64	24.34-	36.51	30.42
9.023	9.022	(0.001)	33854	100.000	93.92	20.42-	30.62	25.52
Average of Peak Amounts =					102.9			

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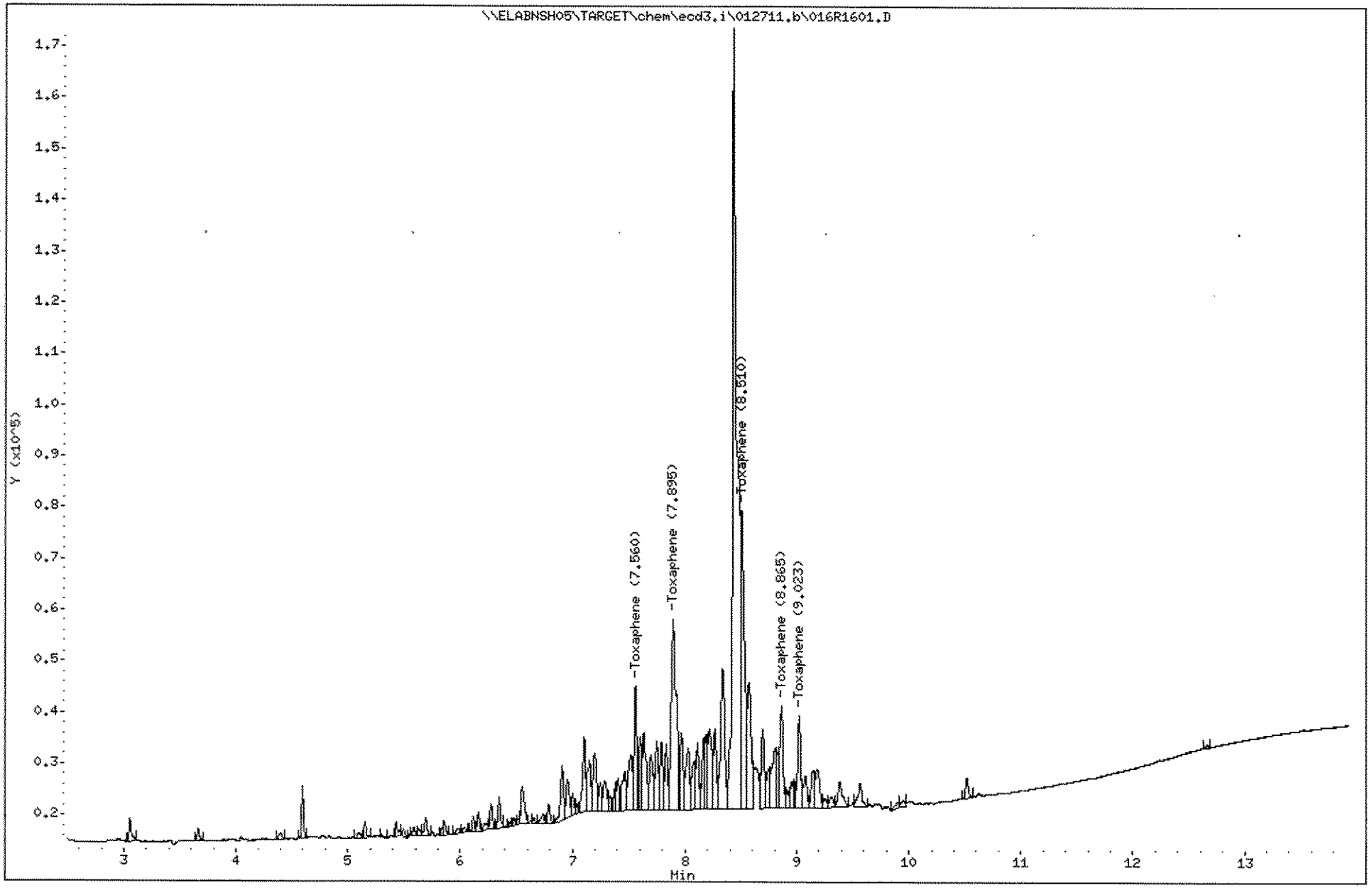
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\016R1601.D
Date : 27-JAN-2011 16:41
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\017R1701.D
Lab Smp Id: SEQ-ICV2
Inj Date : 27-JAN-2011 16:59
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV2
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\8081_82R.m
Meth Date : 28-Jan-2011 10:06 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
**	======	========	========	=======	=======	============	=====
28 Toxaphene [2C]					CAS #: 8001-35-2		
8.509	8.508	(0.001)	971470	1000.00	972.1	80.00- 120.00	100.00
7.559	7.558	(0.001)	529300	1000.00	1144	43.59- 65.38	54.48
7.894	7.893	(0.001)	1079302	1000.00	1094	88.88- 133.32	111.10
8.864	8.863	(0.001)	510136	1000.00	1095	42.01- 63.01	52.51
9.024	9.022	(0.002)	400633	1000.00	1112	32.99- 49.49	41.24
Average of Peak Amounts =					1083		

PW 1/29/11

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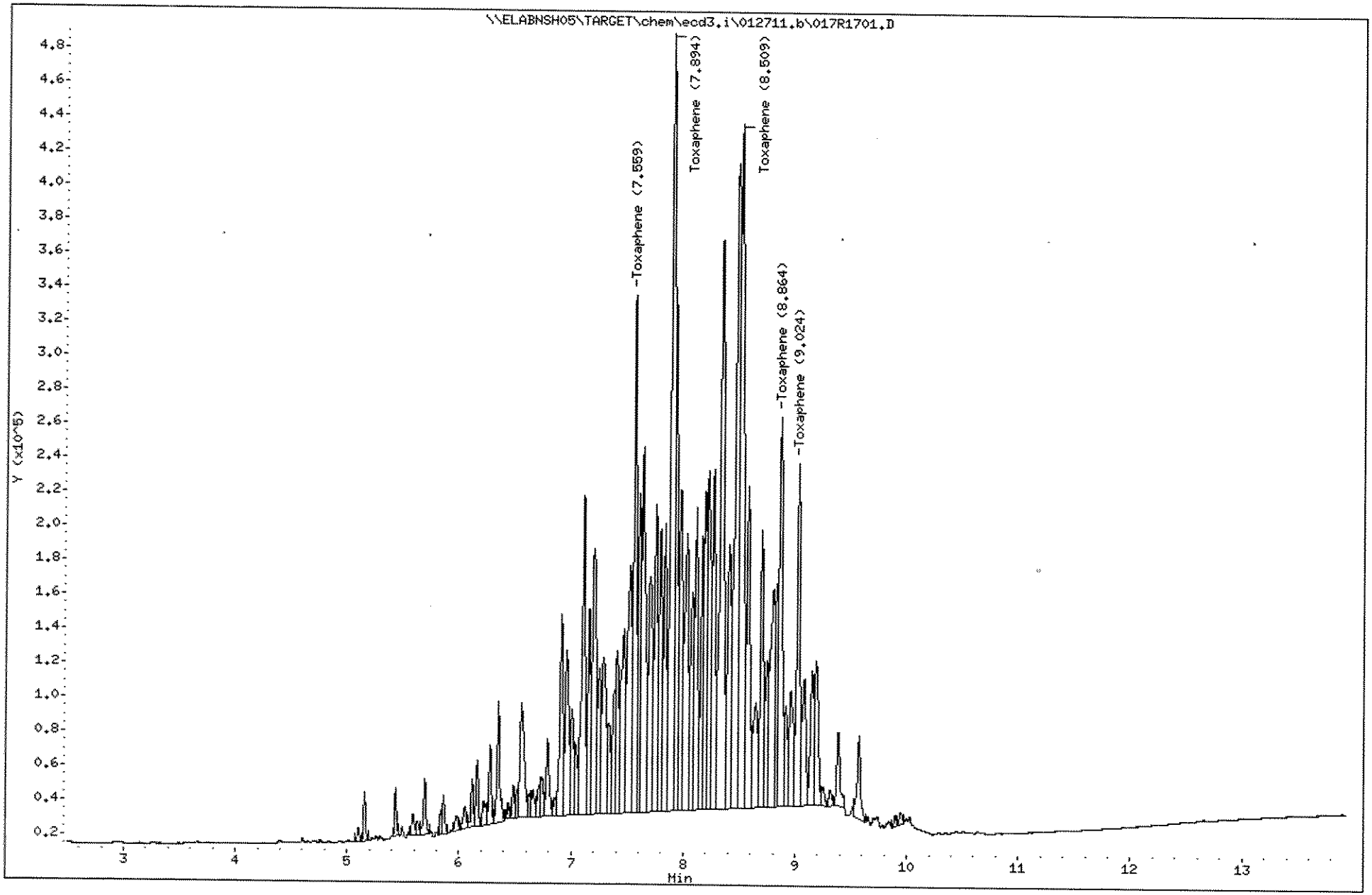
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\012711.b\017R1701.D
Date : 27-JAN-2011 16:59
Client ID:
Sample Info: SEQ-ICV2

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Sequence: C:\HPCHEM\ECD3\SEQUENCE\020811.S | 8081_82 (pest_PCB)

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Sequence Table (Front/Back Injector):

CAL seq 1B04026
CAL ID 104001

~~Data seq~~

Method and Injection Info Part:

2/9/11

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile	
1	Vial 1	PRIMER	8081_82	1	Sample			
2	Vial 2	SEQ-PEM1 1B0224	8081_82	1	Sample			
3	Vial 3	SEQ-CAL1 10)0780	8081_82	1	Sample			
4	Vial 4	SEQ-CAL2 10)0781	8081_82	1	Sample			
5	Vial 5	SEQ-CAL3 10)0782	8081_82	1	Sample			
6	Vial 6	SEQ-CAL4 10)0783	8081_82	1	Sample			mixes
7	Vial 7	SEQ-CAL5 10)0784	8081_82	1	Sample			
8	Vial 8	SEQ-CAL6 10)0785	8081_82	1	Sample			
9	Vial 9	SEQ-ICV1 10)0786	8081_82	1	Sample			
10	Vial 10	SEQ-PEM2 1B0224	8081_82	1	Sample			
11	Vial 11	SEQ-CAL7 10I0162	8081_82	1	Sample			
12	Vial 12	SEQ-CAL8 10I0161	8081_82	1	Sample			
13	Vial 13	SEQ-CAL9 10I0160	8081_82	1	Sample			
14	Vial 14	SEQ-CALA 10I0159	8081_82	1	Sample			
15	Vial 15	SEQ-CALB 10I0156	8081_82	1	Sample			pest AB
16	Vial 16	SEQ-CALC 10I0157	8081_82	1	Sample			
17	Vial 17	SEQ-CALD 10I0155	8081_82	1	Sample			
18	Vial 18	SEQ-ICV2 10I0163	8081_82	1	Sample			
19	Vial 19	SEQ-CCV1 10I0157 AB	8081_82	1	Sample			
20	Vial 20	SEQ-CCV2 10L0071 Chlor	8081_82	1	Sample			
21	Vial 21	SEQ-CCV3 10L0467 Tox	8081_82	1	Sample			
22	Vial 22	SEQ-CCV4 10)0781 Mirex	8081_82	1	Sample			
23	Vial 23	SEQ-CCV5 11A0053 1660	8081_82	1	Sample			
24	Vial 24	1B01015-BLK1	8081_82	1	Sample			
25	Vial 25	1B01015-BS1	8081_82	1	Sample			
26	Vial 26	1B01015-BSD1	8081_82	1	Sample			
27	Vial 27	1B01015-BS2	8081_82	1	Sample			
28	Vial 28	1B01015-BSD2	8081_82	1	Sample			
29	Vial 29	1102005-01	8081_82	1	Sample			
30	Vial 30	1102005-02	8081_82	1	Sample			
31	Vial 31	1102005-03	8081_82	1	Sample			- 1B01015, 1X
32	Vial 32	1102005-04	8081_82	1	Sample			
33	Vial 33	1102005-05	8081_82	1	Sample			
34	Vial 34	1102005-06	8081_82	1	Sample			
35	Vial 35	1102005-07	8081_82	1	Sample			
36	Vial 36	1101219-02	8081_82	1	Sample			
37	Vial 37	1101219-04	8081_82	1	Sample			
38	Vial 38	1101219-06	8081_82	1	Sample			
39	Vial 39	SEQ-CCV6 10I0157 AB	8081_82	1	Sample			
40	Vial 40	SEQ-CCV7 10L0071 Chlor	8081_82	1	Sample			
41	Vial 41	SEQ-CCV8 10L0467 Tox	8081_82	1	Sample			
42	Vial 42	SEQ-CCV9 10)0781 Mirex	8081_82	1	Sample			
43	Vial 43	SEQ-CCVA 11A0053 1660	8081_82	1	Sample			
44	Vial 44	1101219-08	8081_82	1	Sample			- 1B01015, 1X
45	Vial 45	1101167-24;20X	8081_82	1	Sample			
46	Vial 46	1101167-19;10X	8081_82	1	Sample			
~~47~~	~~Vial 47~~	~~1101167-24~~	~~8081_82~~	~~1~~	~~Sample~~			not used (not needed)
~~48~~	~~Vial 48~~	~~1101167-19~~	~~8081_82~~	~~1~~	~~Sample~~			
49	Vial 49	SEQ-CCVB 10I0157 AB	8081_82	1	Sample			
50	Vial 50	SEQ-CCVC 10L0071 Chlor	8081_82	1	Sample			
51	Vial 51	SEQ-CCVD 10L0467 Tox	8081_82	1	Sample			
52	Vial 52	SEQ-CCVE 10)0781 Mirex	8081_82	1	Sample			
53	Vial 53	SEQ-CCVF 11A0053 1660	8081_82	1	Sample			
54	Vial 54	AR-1221	8081_82	1	Sample			
55	Vial 55	AR-1232	8081_82	1	Sample			
56	Vial 56	AR-1242	8081_82	1	Sample			Quantitative Only
57	Vial 57	AR-1248	8081_82	1	Sample			
58	Vial 58	AR-1254	8081_82	1	Sample			
59	Vial 59	AR-1262	8081_82	1	Sample			

Sequence: C:\HPCHEM\ECD3\SEQUENCE\020811.S 8081_82(PEST_PCB)

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
60	Vial 60	AR-1268 Quantitate only	8081_82	1	Sample		
61	Vial 61	HEX BLANK	8081_82	5	Sample		
62	Vial 61	HEX BLANK	BAKE_OUT	5	Sample		

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~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

2.4 - 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\002F0201.D
Lab Smp Id: SEQ-PEM1
Inj Date : 08-FEB-2011 16:47
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-PEM1
Misc Info : ;;;;;;PEM.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:25 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
3 Alpha-BHC	5.652	5.652	0.000	60769	1.48458	1.484
23 Gamma-BHC	5.974	5.974	0.000	56218	1.55065	1.551
5 Beta-BHC	6.187	6.186	0.001	24077	1.65322	1.653
20 Endrin	8.407	8.409	-0.002	227553	8.26998	8.270
14 4,4'-DDT	8.957	8.959	-0.002	355496	15.0138	15.01
12 4,4'-DDD	8.586	8.584	0.002	14341	0.61877	0.6188
27 Methoxychlor	9.564	9.566	-0.002	468585	41.4073	41.41

Endrin = 0% X

DDT = $\frac{14341}{14341 + 355496}$ = 3.88% X

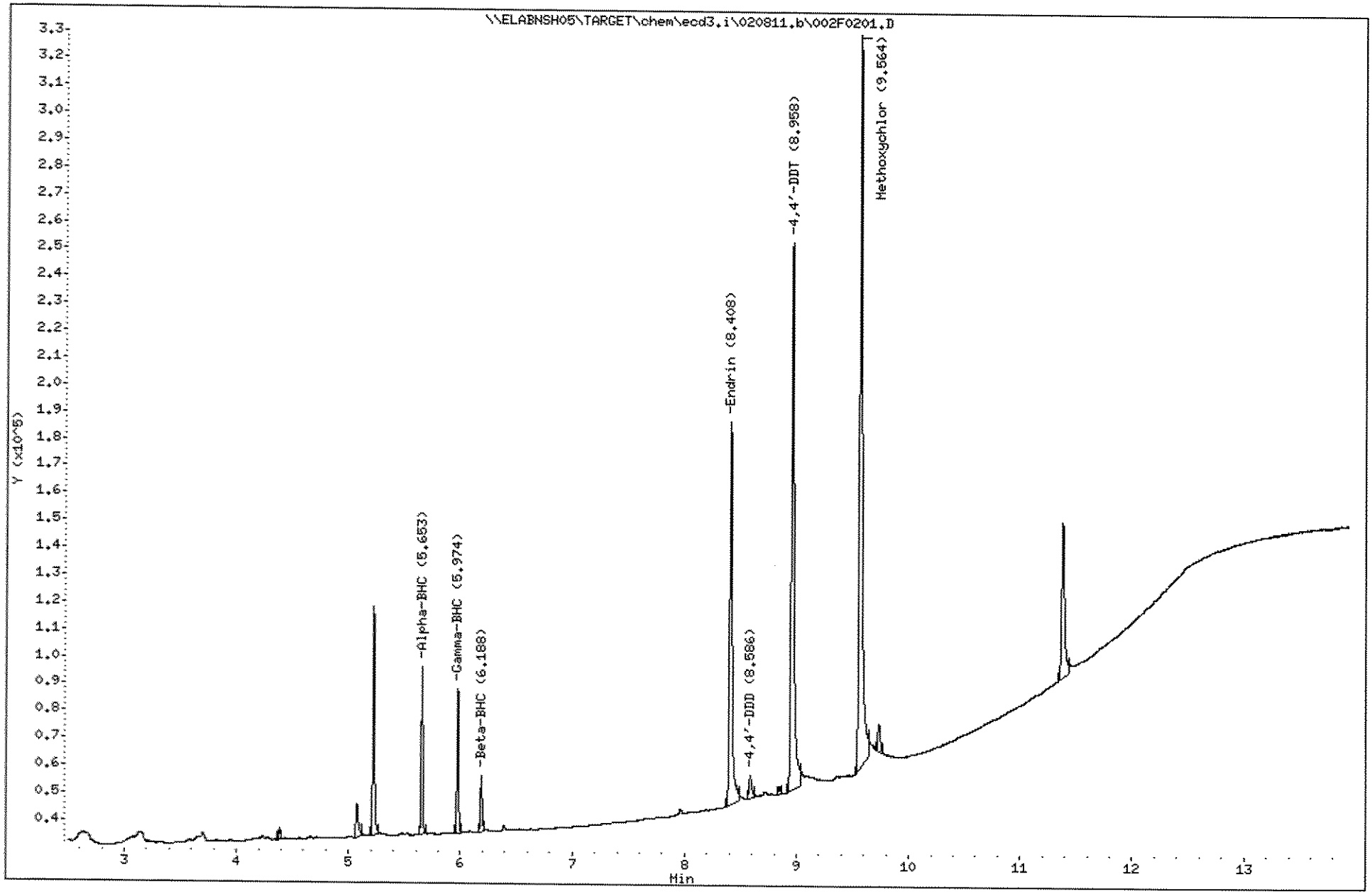
2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\002F0201.D
Date : 08-FEB-2011 16:47
Client ID:
Sample Info: SEQ-PEM1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



542

1102180

J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\002R0201.D
Lab Smp Id: SEQ-PEM1
Inj Date : 08-FEB-2011 16:47
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-PEM1
Misc Info : ;;;;;;PEM.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:26 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
3 Alpha-BHC [2C]	4.704	4.704	0.000	61437	1.75077	1.751
23 Gamma-BHC [2C]	4.971	4.971	0.000	56674	1.82357	1.824
5 Beta-BHC [2C]	5.238	5.236	0.002	27264	1.89096	1.891
20 Endrin [2C]	6.904	6.904	0.000	206267	8.99350	8.994
22 Endrin Ketone [2C]	8.219	8.219	0.000	16705	0.56693	0.5669
14 4,4'-DDT [2C]	7.379	7.379	0.000	336097	20.8377	20.84
12 4,4'-DDD [2C]	7.099	7.096	0.003	10704	0.54642	0.5464
27 Methoxychlor [2C]	8.004	8.003	0.001	437925	41.9419	41.94

Endrin = $\frac{16705}{16705+206267} = 7.5\%$ X

DDT = $\frac{10704}{10704+336097} = 3.1\%$ X

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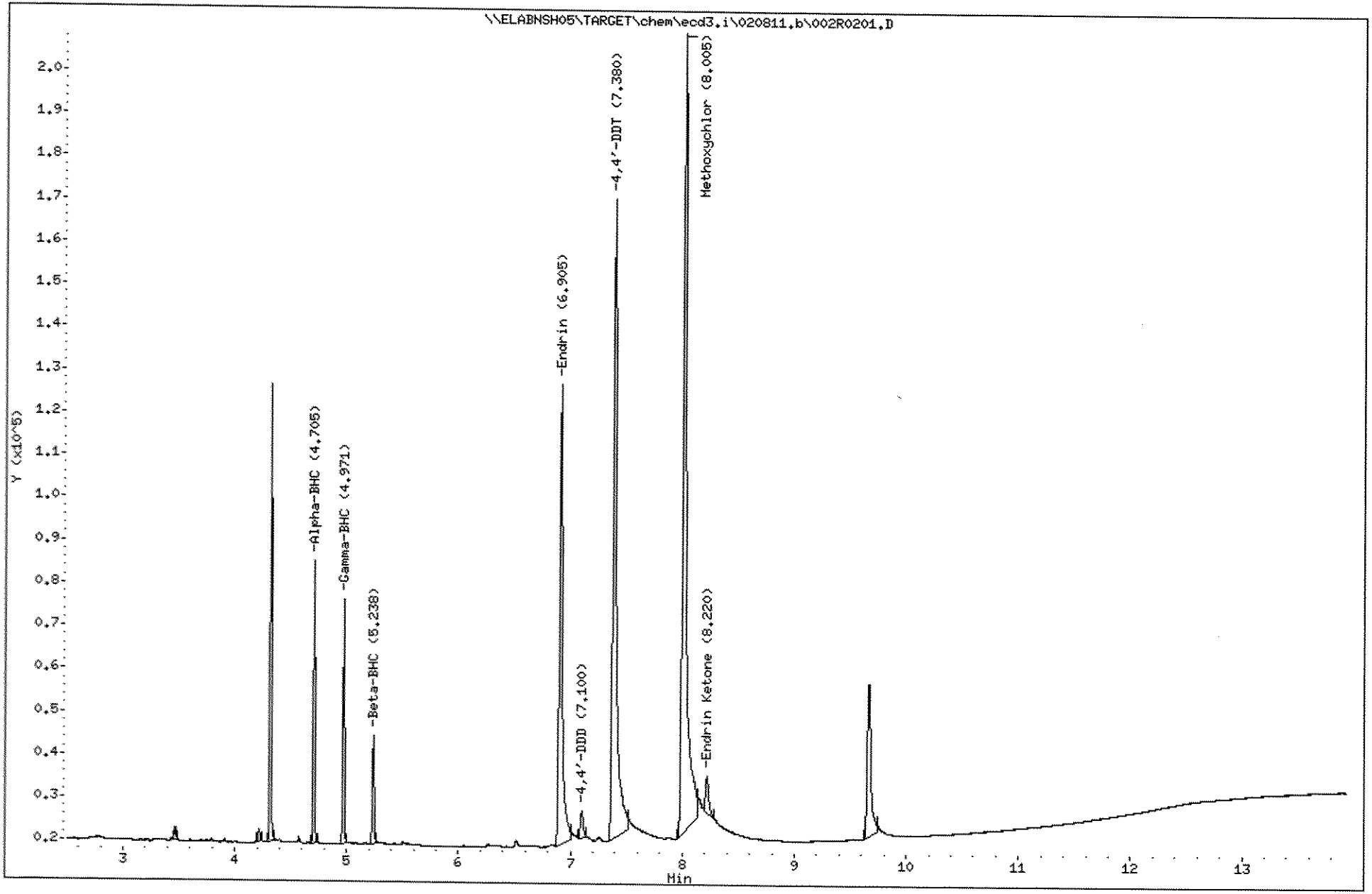
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\002R0201.D
Date : 08-FEB-2011 16:47
Client ID:
Sample Info: SEQ-PEM1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011F1101.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-FEB-2011 19:37
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 14:15 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.220	5.219	0.001	25310	1.00000	0.9311
3	Alpha-BHC	5.651	5.652	-0.001	32477	1.00000	0.7934
23	Gamma-BHC	5.973	5.974	-0.001	30450	1.00000	0.8399
5	Beta-BHC	6.186	6.186	0.000	13986	1.00000	0.9603
15	Delta-BHC	6.435	6.436	-0.001	23776	1.00000	0.7510
25	Heptachlor	6.548	6.551	-0.003	24249	1.00000	0.7732
2	Aldrin	6.906	6.909	-0.003	31707	1.00000	0.8412
26	Heptachlor Epoxide	7.380	7.379	0.001	30465	1.00000	0.8754
24	Gamma-Chlordane	7.668	7.669	-0.001	28280	1.00000	0.8184
4	Alpha-Chlordane	7.755	7.756	-0.001	29824	1.00000	0.8762
17	Endosulfan I	7.816	7.816	0.000	28106	1.00000	0.8360
13	4,4'-DDE	7.961	7.962	-0.001	24055	1.00000	0.8367
16	Dieldrin	8.136	8.137	-0.001	29677	1.00000	0.8307
20	Endrin	8.410	8.409	0.001	23346	1.00000	0.8485
12	4,4'-DDD	8.586	8.584	0.002	18353	1.00000	0.7919
18	Endosulfan II	8.686	8.687	-0.001	25687	1.00000	0.8278
21	Endrin Aldehyde	8.848	8.847	0.001	20606	1.00000	0.8522
14	4,4'-DDT	8.960	8.959	0.001	18411	1.00000	0.7776
19	Endosulfan Sulfate	9.136	9.136	0.000	22065	1.00000	0.8501
27	Methoxychlor	9.568	9.566	0.002	9224	1.00000	0.8151
22	Endrin Ketone	9.736	9.734	0.002	29644	1.00000	0.8480
$ 39	DCB	11.380	11.379	0.001	31730	1.00000	1.021

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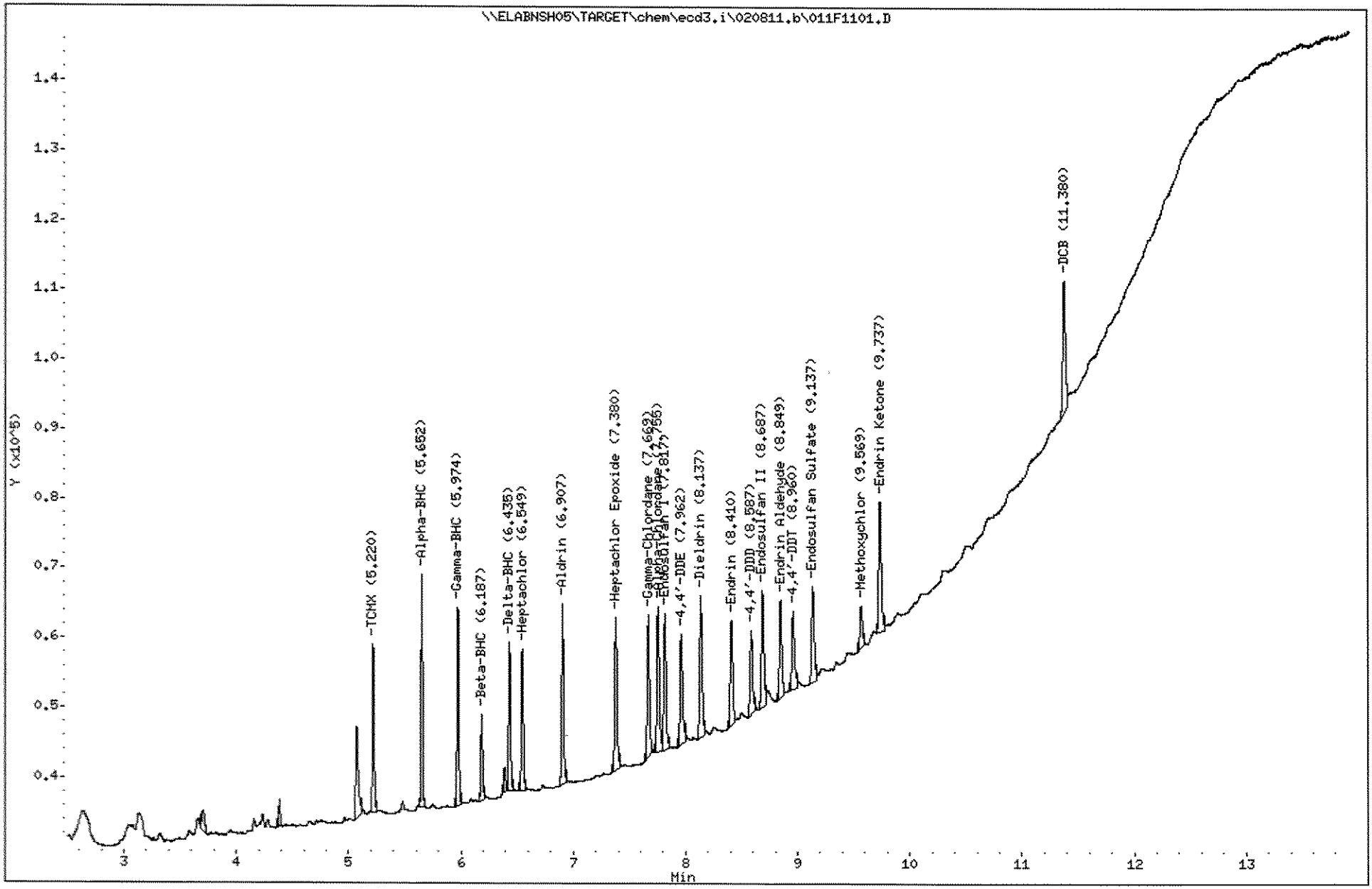
2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011F1101.D
Date : 08-FEB-2011 19:37
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012F1201.D
Lab Smp Id: SEQ-CAL8
Inj Date : 08-FEB-2011 19:56
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.220	5.219	0.001	130487	5.00000	4.800
3	Alpha-BHC	5.651	5.652	-0.001	183634	5.00000	4.486
23	Gamma-BHC	5.975	5.974	0.001	164988	5.00000	4.551
5	Beta-BHC	6.188	6.186	0.002	70300	5.00000	4.827
15	Delta-BHC	6.436	6.436	0.000	139609	5.00000	4.410
25	Heptachlor	6.550	6.551	-0.001	138610	5.00000	4.419
2	Aldrin	6.908	6.909	-0.001	173858	5.00000	4.613
26	Heptachlor Epoxide	7.380	7.379	0.001	163608	5.00000	4.701
24	Gamma-Chlordane	7.670	7.669	0.001	162781	5.00000	4.710
4	Alpha-Chlordane	7.756	7.756	0.000	161762	5.00000	4.752
17	Endosulfan I	7.816	7.816	0.000	158205	5.00000	4.706
13	4,4'-DDE	7.961	7.962	-0.001	130747	5.00000	4.548
16	Dieldrin	8.138	8.137	0.001	162935	5.00000	4.561
20	Endrin	8.410	8.409	0.001	123707	5.00000	4.496
12	4,4'-DDD	8.585	8.584	0.001	109008	5.00000	4.703
18	Endosulfan II	8.688	8.687	0.001	144312	5.00000	4.650
21	Endrin Aldehyde	8.848	8.847	0.001	114165	5.00000	4.722
14	4,4'-DDT	8.960	8.959	0.001	100154	5.00000	4.230
19	Endosulfan Sulfate	9.136	9.136	0.000	122810	5.00000	4.732
27	Methoxychlor	9.566	9.566	0.000	54617	5.00000	4.826
22	Endrin Ketone	9.735	9.734	0.001	172049	5.00000	4.921
$ 39	DCB	11.380	11.379	0.001	168275	5.00000	5.417

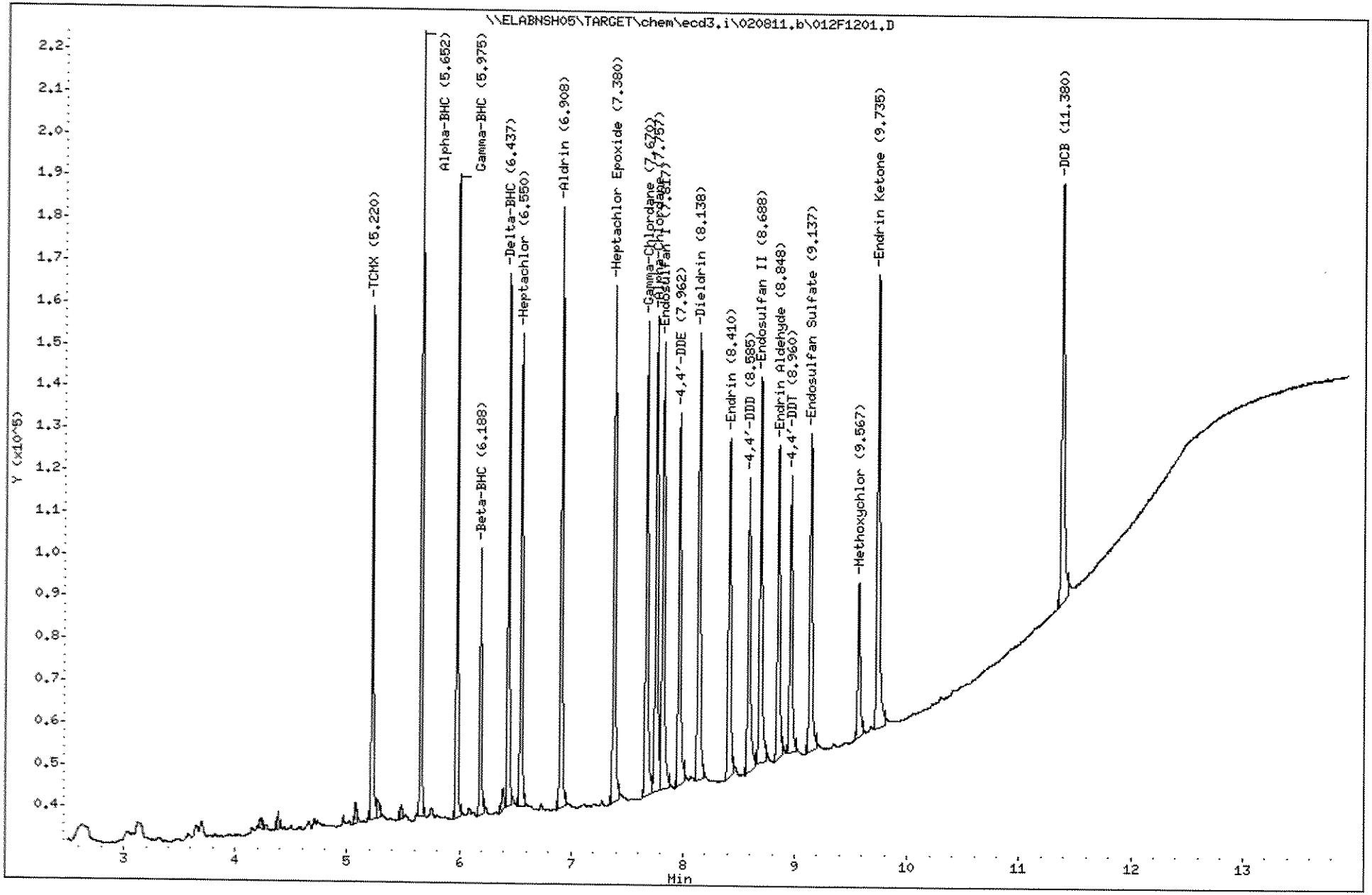
WL 2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012F1201.D
Date : 08-FEB-2011 19:56
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013F1301.D
Lab Smp Id: SEQ-CAL9
Inj Date : 08-FEB-2011 20:15
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.220	5.219	0.001	268567	10.0000	9.880
3	Alpha-BHC	5.651	5.652	-0.001	397208 X	10.0000	9.704
23	Gamma-BHC	5.975	5.974	0.001	349072	10.0000	9.628
5	Beta-BHC	6.186	6.186	0.000	142233	10.0000	9.766
15	Delta-BHC	6.435	6.436	-0.001	299520	10.0000	9.460
25	Heptachlor	6.550	6.551	-0.001	292848	10.0000	9.337
2	Aldrin	6.908	6.909	-0.001	368155	10.0000	9.768
26	Heptachlor Epoxide	7.380	7.379	0.001	348092	10.0000	10.00
24	Gamma-Chlordane	7.670	7.669	0.001	337625	10.0000	9.770
4	Alpha-Chlordane	7.755	7.756	-0.001	334127 ø	10.0000	9.816
17	Endosulfan I	7.816	7.816	0.000	333477	10.0000	9.920
13	4,4'-DDE	7.961	7.962	-0.001	278537	10.0000	9.688
16	Dieldrin	8.138	8.137	0.001	341785	10.0000	9.568
20	Endrin	8.410	8.409	0.001	257926	10.0000	9.374
12	4,4'-DDD	8.585	8.584	0.001	221241	10.0000	9.546
18	Endosulfan II	8.686	8.687	-0.001	295665	10.0000	9.528
21	Endrin Aldehyde	8.848	8.847	0.001	232318	10.0000	9.608
14	4,4'-DDT	8.960	8.959	0.001	209341	10.0000	8.841
19	Endosulfan Sulfate	9.136	9.136	0.000	248103	10.0000	9.559
27	Methoxychlor	9.566	9.566	0.000	106469	10.0000	9.408
22	Endrin Ketone	9.735	9.734	0.001	340843	10.0000	9.750
$ 39	DCB	11.378	11.379	-0.001	319097	10.0000	10.27

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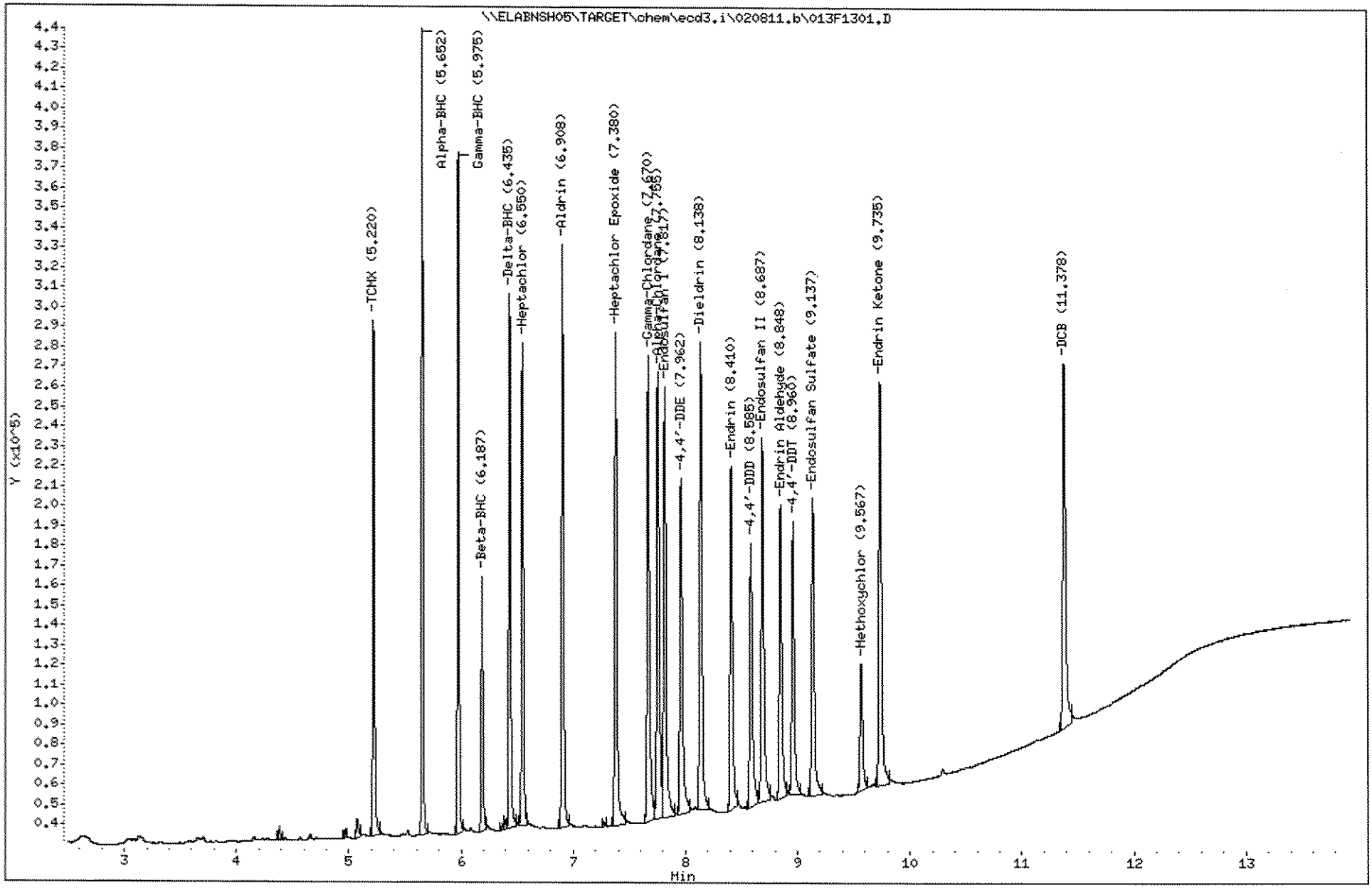
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013F1301.D
Date : 08-FEB-2011 20:15
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014F1401.D
Lab Smp Id: SEQ-CALA
Inj Date : 08-FEB-2011 20:34
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.219	5.219	0.000	670459	25.0000	24.66
3	Alpha-BHC	5.653	5.652	0.001	1023890	25.0000	25.01
23	Gamma-BHC	5.976	5.974	0.002	895295	25.0000	24.69
5	Beta-BHC	6.188	6.186	0.002	353610	25.0000	24.28
15	Delta-BHC	6.436	6.436	0.000	781778	25.0000	24.69
25	Heptachlor	6.549	6.551	-0.002	767874	25.0000	24.48
2	Aldrin	6.908	6.909	-0.001	941527	25.0000	24.98
26	Heptachlor Epoxide	7.379	7.379	0.000	854473	25.0000	24.55
24	Gamma-Chlordane	7.669	7.669	0.000	850867	25.0000	24.62
4	Alpha-Chlordane	7.754	7.756	-0.002	831381	25.0000	24.42
17	Endosulfan I	7.814	7.816	-0.002	839988	25.0000	24.99
13	4,4'-DDE	7.961	7.962	-0.001	677173	25.0000	23.55
16	Dieldrin	8.136	8.137	-0.001	872819	25.0000	24.43
20	Endrin	8.409	8.409	0.000	691216	25.0000	25.12
12	4,4'-DDD	8.584	8.584	0.000	555503	25.0000	23.97
18	Endosulfan II	8.686	8.687	-0.001	762834	25.0000	24.58
21	Endrin Aldehyde	8.846	8.847	-0.001	569057	25.0000	23.54
14	4,4'-DDT	8.959	8.959	0.000	563538	25.0000	23.80
19	Endosulfan Sulfate	9.134	9.136	-0.002	617625	25.0000	23.80
27	Methoxychlor	9.564	9.566	-0.002	264377	25.0000	23.36
22	Endrin Ketone	9.734	9.734	0.000	844863	25.0000	24.17
$ 39	DCB	11.378	11.379	-0.001	742966	25.0000	23.92

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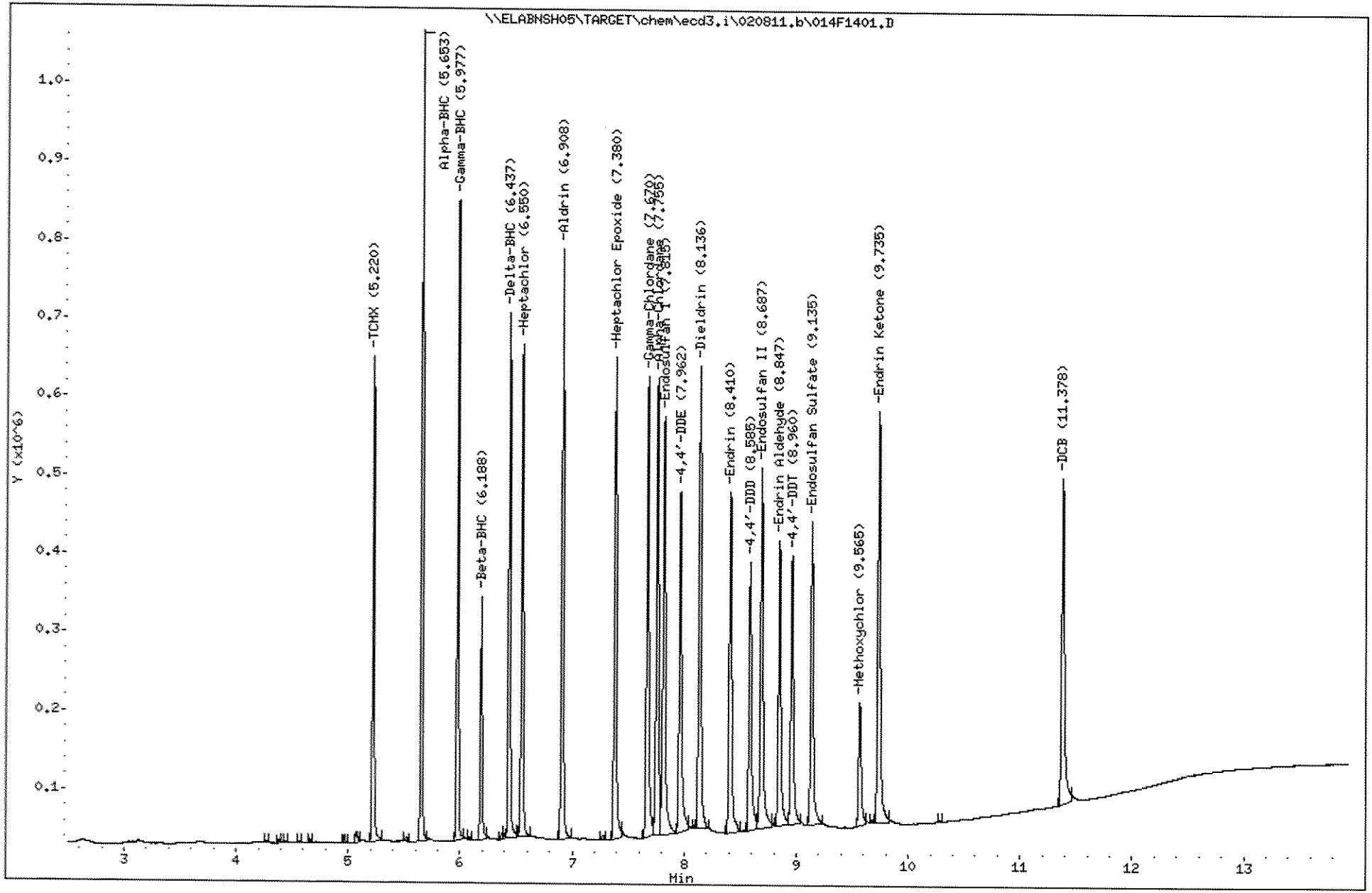
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014F1401.D
Date : 08-FEB-2011 20:34
Client ID:
Sample Info: SEQ-CALA

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015F1501.D
Lab Smp Id: SEQ-CALB
Inj Date : 08-FEB-2011 20:53
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
$ 38 TCMX	5.219	5.219	0.000	1413828	50.0000	52.01
3 Alpha-BHC	5.652	5.652	0.000	2212359	50.0000	54.05
23 Gamma-BHC	5.974	5.974	0.000	1936289	50.0000	53.41
5 Beta-BHC	6.186	6.186	0.000	751826	50.0000	51.62
15 Delta-BHC	6.436	6.436	0.000	1737215	50.0000	54.87
25 Heptachlor	6.551	6.551	0.000	1717344	50.0000	54.76
2 Aldrin	6.907	6.909	-0.002	2017309	50.0000	53.52
26 Heptachlor Epoxide	7.381	7.379	0.002	1859742	50.0000	53.44
24 Gamma-Chlordane	7.669	7.669	0.000	1843378	50.0000	53.34
4 Alpha-Chlordane	7.754	7.756	-0.002	1790919	50.0000	52.61
17 Endosulfan I	7.816	7.816	0.000	1788273	50.0000	53.19
13 4,4'-DDE	7.961	7.962	-0.001	1518963	50.0000	52.83
16 Dieldrin	8.136	8.137	-0.001	1893003	50.0000	52.99
20 Endrin	8.409	8.409	0.000	1500266	50.0000	54.52
12 4,4'-DDD	8.586	8.584	0.002	1250654	50.0000	53.96
18 Endosulfan II	8.687	8.687	0.000	1698834	50.0000	54.74
21 Endrin Aldehyde	8.849	8.847	0.002	1283496	50.0000	53.08
14 4,4'-DDT	8.959	8.959	0.000	1335466	50.0000	56.40
19 Endosulfan Sulfate	9.136	9.136	0.000	1353258	50.0000	52.14
27 Methoxychlor	9.566	9.566	0.000	626531	50.0000	55.36
22 Endrin Ketone	9.734	9.734	0.000	1851371	50.0000	52.96
$ 39 DCB	11.379	11.379	0.000	1523004	50.0000	49.03

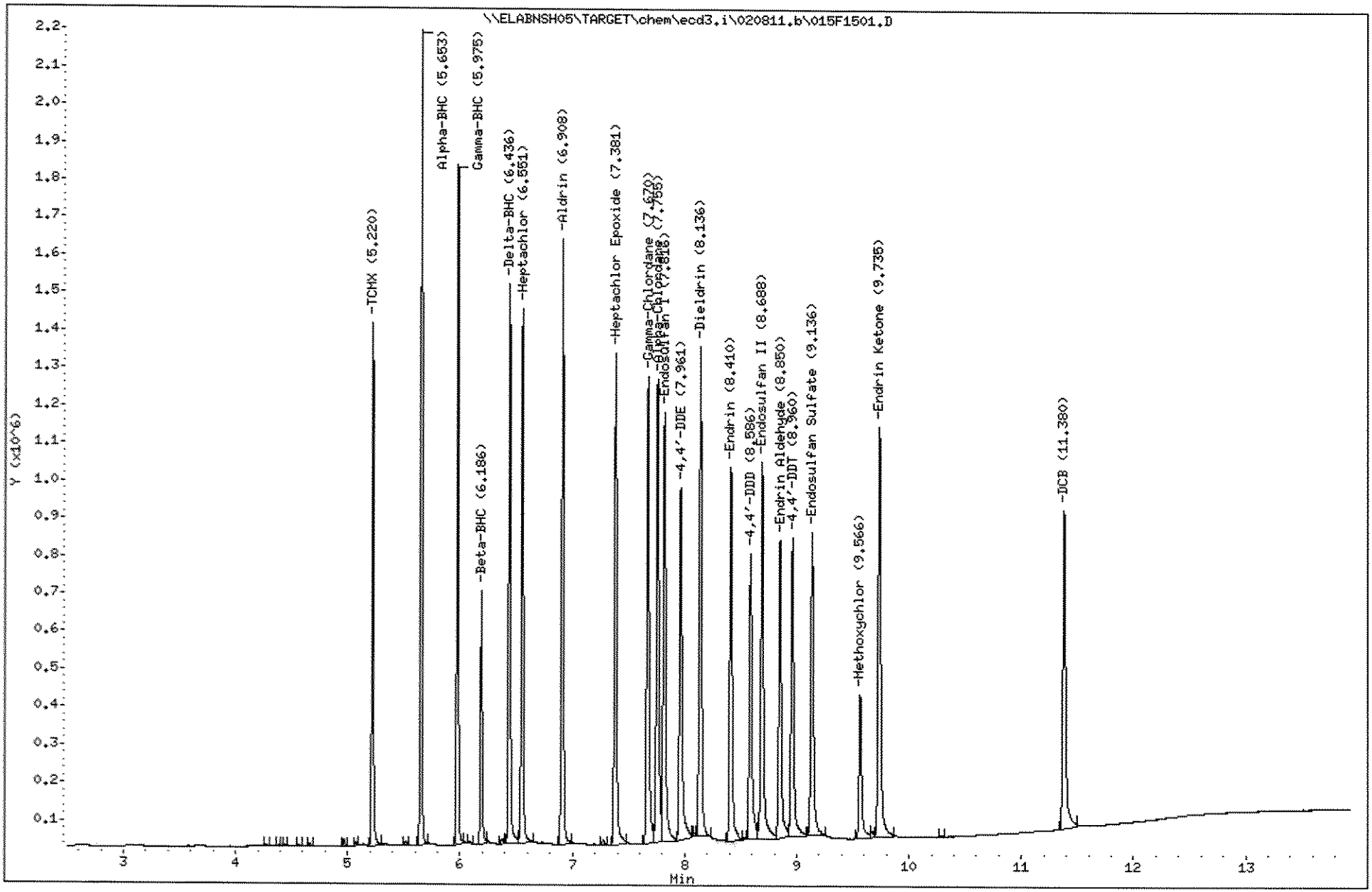
2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015F1501.D
Date : 08-FEB-2011 20:53
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1102180

J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016F1601.D
Lab Smp Id: SEQ-CALC
Inj Date : 08-FEB-2011 21:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.219	5.219	0.000	2848565	100.000	104.8
3 Alpha-BHC	5.652	5.652	0.000	4556079	100.000	111.3
23 Gamma-BHC	5.974	5.974	0.000	4010130	100.000	110.6
5 Beta-BHC	6.186	6.186	0.000	1523380	100.000	104.6
15 Delta-BHC	6.436	6.436	0.000	3646023	100.000	115.2
25 Heptachlor	6.551	6.551	0.000	3586863	100.000	114.4
2 Aldrin	6.909	6.909	0.000	4112614	100.000	109.1
26 Heptachlor Epoxide	7.379	7.379	0.000	3709827	100.000	106.6
24 Gamma-Chlordane	7.669	7.669	0.000	3818490	100.000	110.5
4 Alpha-Chlordane	7.756	7.756	0.000	3693871	100.000	108.5
17 Endosulfan I	7.816	7.816	0.000	3690766	100.000	109.8
13 4,4'-DDE	7.962	7.962	0.000	3288302	100.000	114.4
16 Dieldrin	8.137	8.137	0.000	4108935	100.000	115.0
20 Endrin	8.409	8.409	0.000	3076162	100.000	111.8
12 4,4'-DDD	8.584	8.584	0.000	2635355	100.000	113.7
18 Endosulfan II	8.687	8.687	0.000	3503618	100.000	112.9
21 Endrin Aldehyde	8.847	8.847	0.000	2774665	100.000	114.8
14 4,4'-DDT	8.959	8.959	0.000	2909906	100.000	122.9
19 Endosulfan Sulfate	9.136	9.136	0.000	2982488	100.000	114.9
27 Methoxychlor	9.566	9.566	0.000	1252037	100.000	110.6
22 Endrin Ketone	9.734	9.734	0.000	3801784	100.000	108.8
$ 39 DCB	11.379	11.379	0.000	3145651	100.000	101.3

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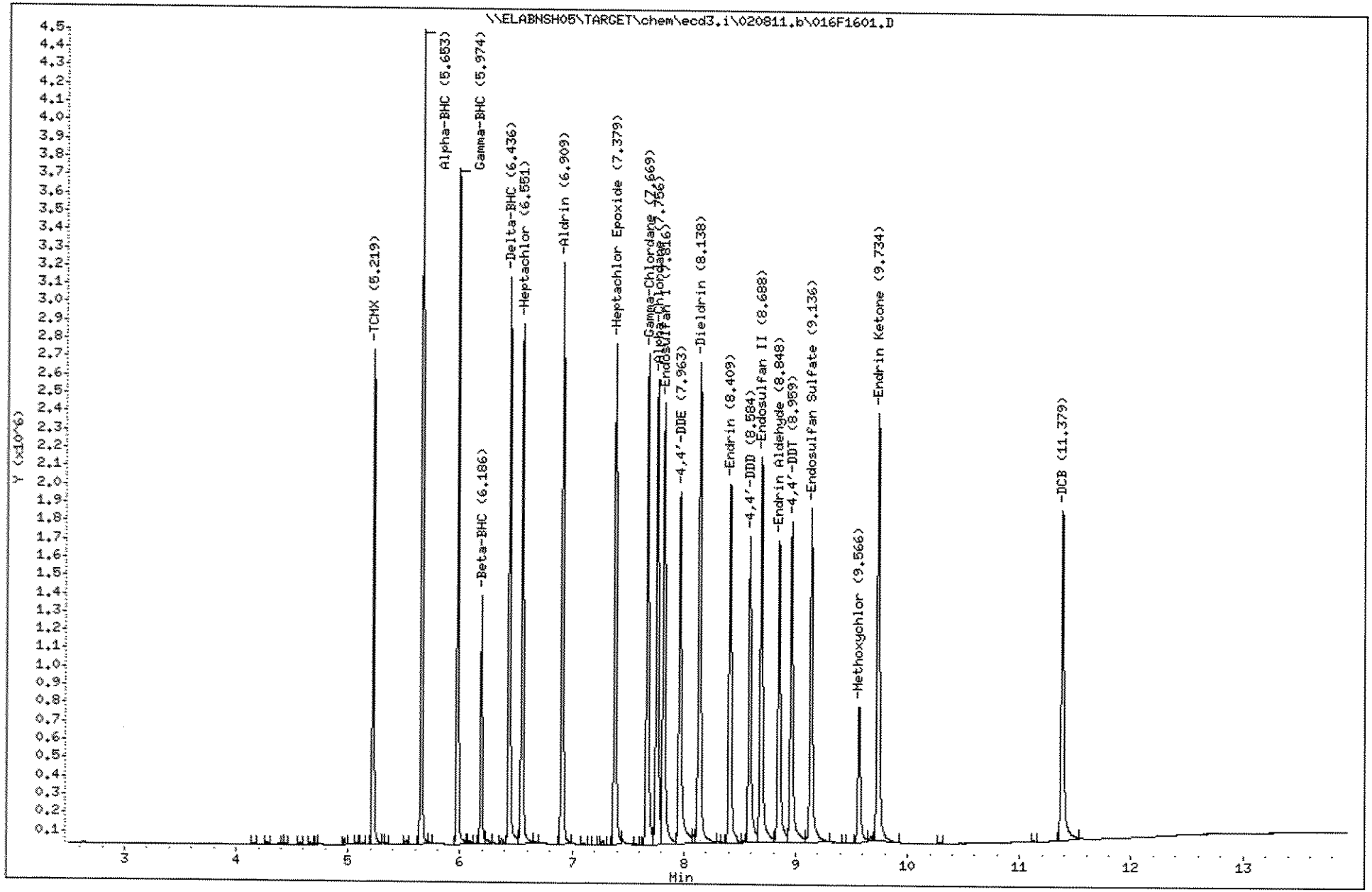
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016F1601.D
Date : 08-FEB-2011 21:12
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\017F1701.D
Lab Smp Id: SEQ-CALD
Inj Date : 08-FEB-2011 21:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALD
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.220	5.219	0.001	5685838	200.000	209.2(A)
3	Alpha-BHC	5.653	5.652	0.001	9369403 X	200.000	228.9(A)
23	Gamma-BHC	5.975	5.974	0.001	8157391	200.000	225.0(A)
5	Beta-BHC	6.187	6.186	0.001	3052331	200.000	209.6(A)
15	Delta-BHC	6.435	6.436	-0.001	7499429	200.000	236.9(A)
25	Heptachlor	6.552	6.551	0.001	7471683	200.000	238.2(A)
2	Aldrin	6.908	6.909	-0.001	8280365	200.000	219.7(A)
26	Heptachlor Epoxide	7.380	7.379	0.001	7430504	200.000	213.5(A)
24	Gamma-Chlordane	7.670	7.669	0.001	7641901	200.000	221.1(A)
4	Alpha-Chlordane	7.757	7.756	0.001	7334394	200.000	215.5(A)
17	Endosulfan I	7.817	7.816	0.001	7191903	200.000	213.9(A)
13	4,4'-DDE	7.962	7.962	0.000	6567396	200.000	228.4(A)
16	Dieldrin	8.137	8.137	0.000	7951624	200.000	222.6(A)
20	Endrin	8.410	8.409	0.001	6062630	200.000	220.3(A)
12	4,4'-DDD	8.583	8.584	-0.001	5274363	200.000	227.6(A)
18	Endosulfan II	8.687	8.687	0.000	6715943	200.000	216.4(A)
21	Endrin Aldehyde	8.848	8.847	0.001	5280368	200.000	218.4(A)
14	4,4'-DDT	8.960	8.959	0.001	5603901 O	200.000	236.7(A)
19	Endosulfan Sulfate	9.135	9.136	-0.001	5730297	200.000	220.8(A)
27	Methoxychlor	9.565	9.566	-0.001	2559005	200.000	226.1(A)
22	Endrin Ketone	9.735	9.734	0.001	7546825	200.000	215.9(A)
$ 39	DCB	11.380	11.379	0.001	5703324	200.000	183.6

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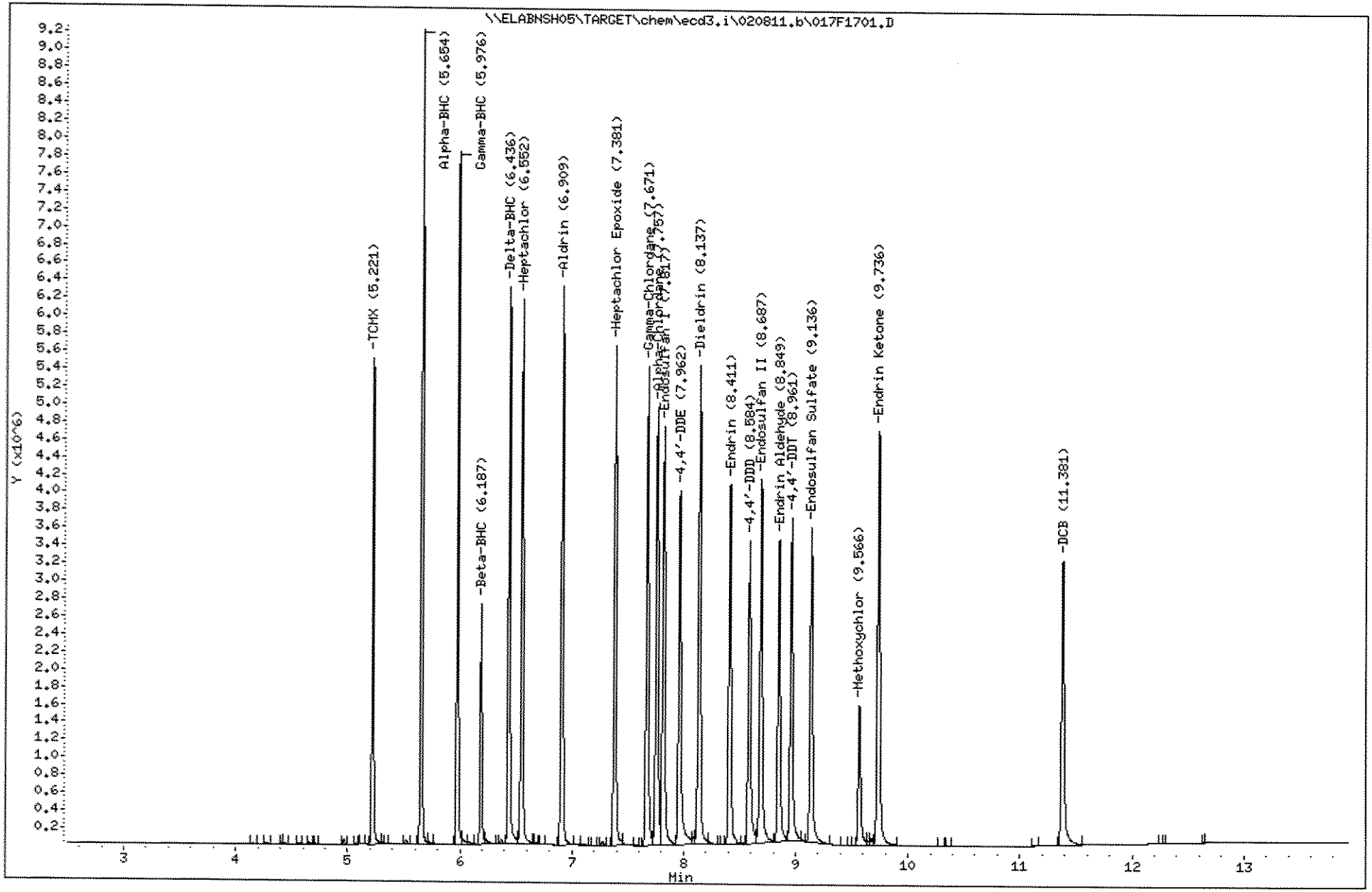
Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\020811.b\017F1701.D
Date : 08-FEB-2011 21:31
Client ID:
Sample Info: SEQ-CALD

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\018F1801.D
Lab Smp Id: SEQ-ICV2
Inj Date : 08-FEB-2011 21:50
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV2
Misc Info : ;;;;;;INDAB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDAB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
3	Alpha-BHC	5.652	5.652	0.000	4689967	100.000	114.6
23	Gamma-BHC	5.975	5.974	0.001	4109323	100.000	113.3
5	Beta-BHC	6.185	6.186	-0.001	1605681	100.000	110.2
15	Delta-BHC	6.435	6.436	-0.001	3706819	100.000	117.1
25	Heptachlor	6.550	6.551	-0.001	3587374	100.000	114.4
2	Aldrin	6.908	6.909	-0.001	4139413	100.000	109.8
26	Heptachlor Epoxide	7.380	7.379	0.001	3802376	100.000	109.2
24	Gamma-Chlordane	7.670	7.669	0.001	3893935	100.000	112.7
4	Alpha-Chlordane	7.757	7.756	0.001	3732271	100.000	109.6
17	Endosulfan I	7.817	7.816	0.001	3626096	100.000	107.9
13	4,4'-DDE	7.962	7.962	0.000	3201364	100.000	111.4
16	Dieldrin	8.137	8.137	0.000	3885600	100.000	108.8
20	Endrin	8.412	8.409	0.003	3102271	100.000	112.7
12	4,4'-DDD	8.585	8.584	0.001	2639649	100.000	113.9
18	Endosulfan II	8.688	8.687	0.001	3202339	100.000	103.2
21	Endrin Aldehyde	8.848	8.847	0.001	2478182	100.000	102.5
14	4,4'-DDT	8.958	8.959	-0.001	2656474	100.000	112.2
19	Endosulfan Sulfate	9.137	9.136	0.001	2829324	100.000	109.0
27	Methoxychlor	9.567	9.566	0.001	1271696	100.000	112.4
22	Endrin Ketone	9.735	9.734	0.001	3698654	100.000	105.8

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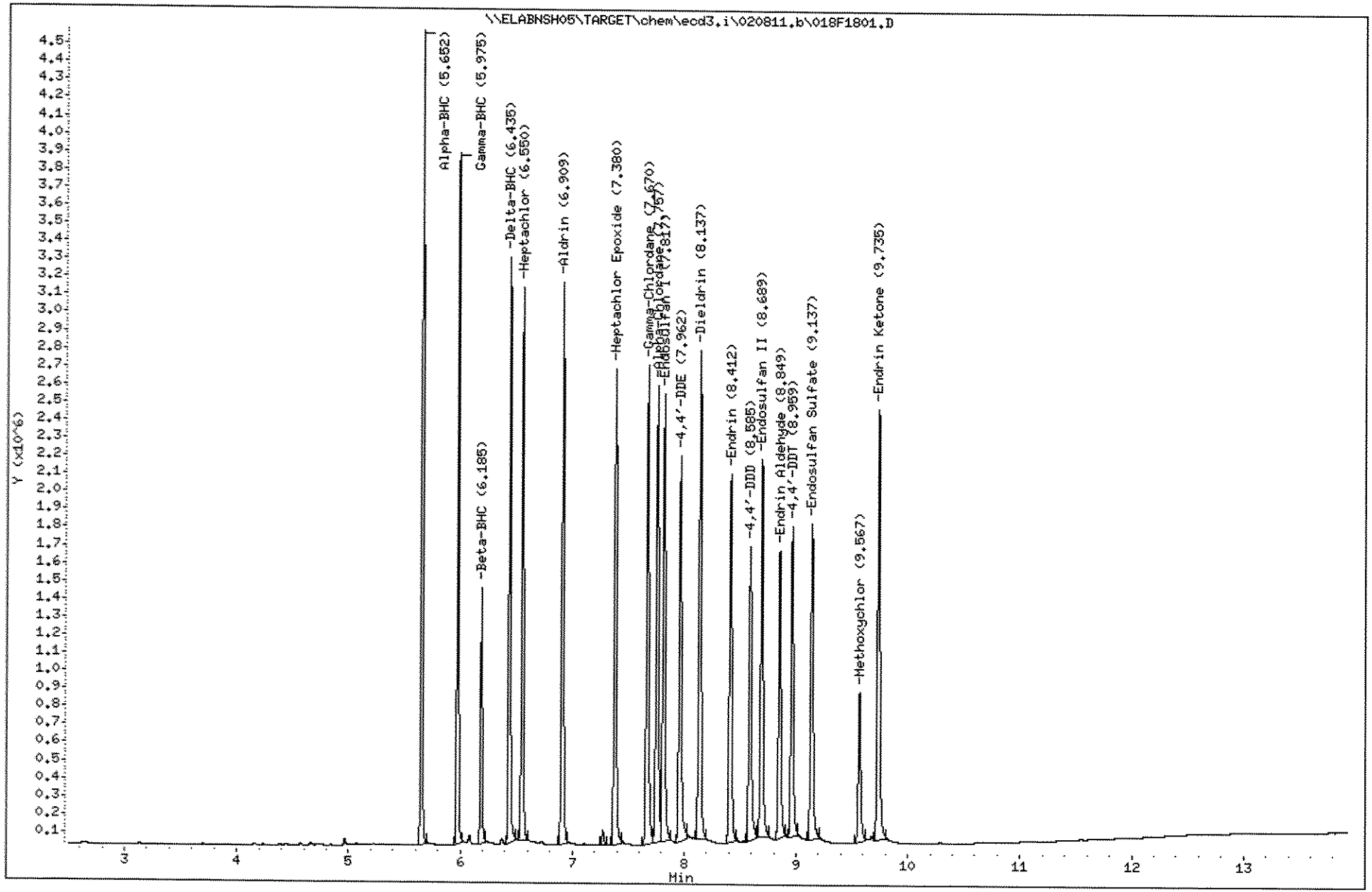
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\018F1801.D
Date : 08-FEB-2011 21:50
Client ID:
Sample Info: SEQ-ICV2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011R1101.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-FEB-2011 19:37
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:35 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.315	4.316	-0.001	27921	1.00000	1.077
3 Alpha-BHC [2C]	4.705	4.704	0.001	33779 X	1.00000	0.9626
23 Gamma-BHC [2C]	4.970	4.971	-0.001	30771	1.00000	0.9901
5 Beta-BHC [2C]	5.237	5.236	0.001	18322	1.00000	1.271
25 Heptachlor [2C]	5.302	5.303	-0.001	27177	1.00000	0.9507
15 Delta-BHC [2C]	5.428	5.429	-0.001	25170	1.00000	0.9113
2 Aldrin [2C]	5.553	5.554	-0.001	29354	1.00000	0.9521
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	28611	1.00000	0.9873
24 Gamma-Chlordane [2C]	6.268	6.269	-0.001	27332	1.00000	1.007
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	29130	1.00000	1.032
17 Endosulfan I [2C]	6.368	6.368	0.000	29089	1.00000	0.9531
13 4,4'-DDE [2C]	6.515	6.516	-0.001	19414	1.00000	0.8486
16 Dieldrin [2C]	6.635	6.634	0.001	26743 O	1.00000	0.8836
20 Endrin [2C]	6.905	6.904	0.001	20633	1.00000	0.8996
12 4,4'-DDD [2C]	7.097	7.096	0.001	16188	1.00000	0.8264
18 Endosulfan II [2C]	7.233	7.233	0.000	23327	1.00000	0.9475
14 4,4'-DDT [2C]	7.380	7.379	0.001	14192	1.00000	0.8799
21 Endrin Aldehyde [2C]	7.410	7.409	0.001	24700	1.00000	0.9878
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	20693	1.00000	0.9753
27 Methoxychlor [2C]	8.005	8.003	0.002	9090	1.00000	0.8706
22 Endrin Ketone [2C]	8.220	8.219	0.001	29441	1.00000	0.9992
$ 39 DCB [2C]	9.665	9.664	0.001	27023	1.00000	1.156

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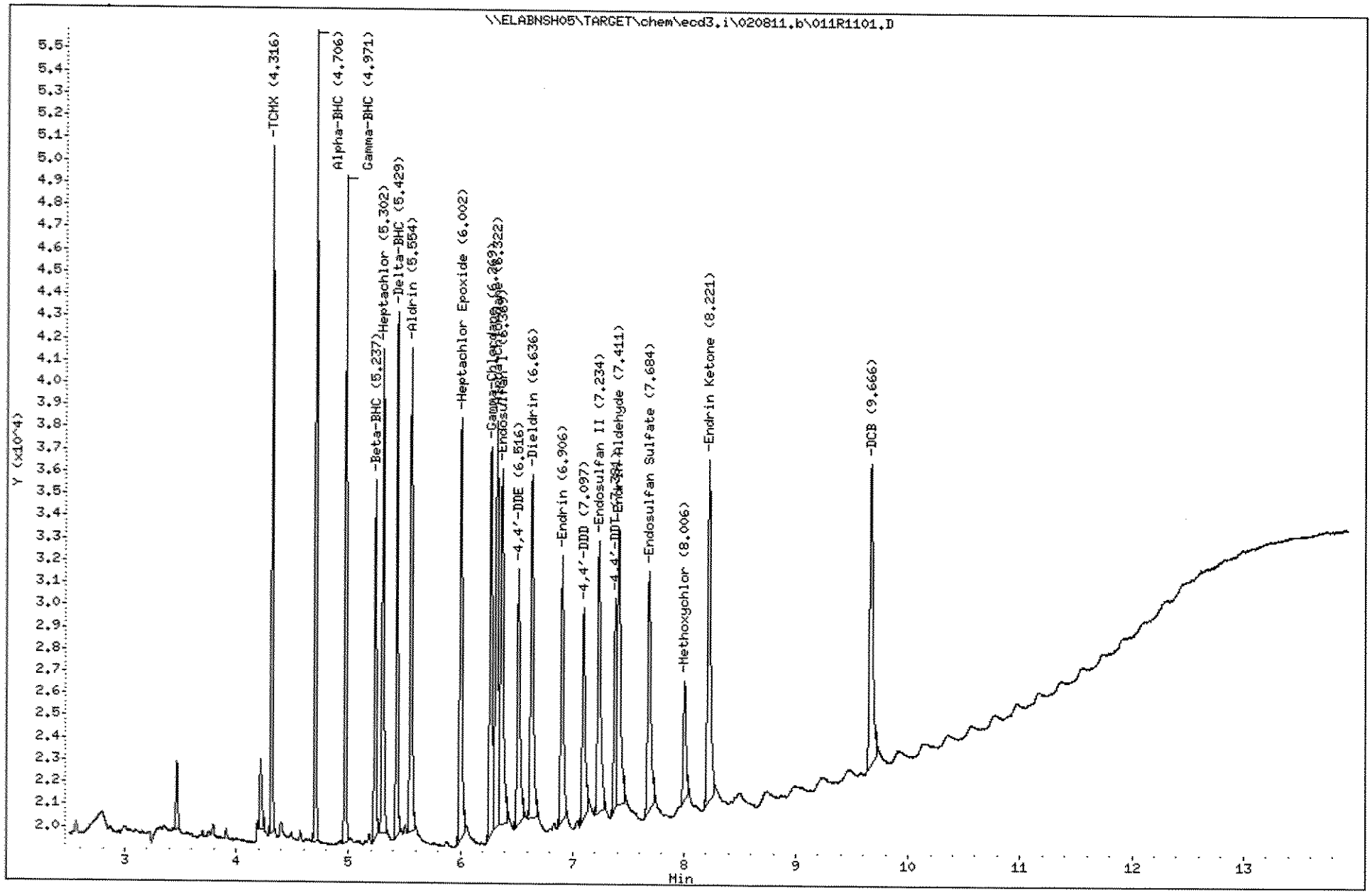
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011R1101.D
Date : 08-FEB-2011 19:37
Client ID:
Sample Info: SEQ-CAL7

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012R1201.D
Lab Smp Id: SEQ-CAL8
Inj Date : 08-FEB-2011 19:56
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.317	4.316	0.001	134156	5.00000	5.173
3 Alpha-BHC [2C]	4.705	4.704	0.001	173144	5.00000	4.934
23 Gamma-BHC [2C]	4.970	4.971	-0.001	150101	5.00000	4.830
5 Beta-BHC [2C]	5.237	5.236	0.001	74640	5.00000	5.177
25 Heptachlor [2C]	5.303	5.303	0.000	141055	5.00000	4.934
15 Delta-BHC [2C]	5.428	5.429	-0.001	134056	5.00000	4.854
2 Aldrin [2C]	5.553	5.554	-0.001	152057	5.00000	4.932
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	144273	5.00000	4.978
24 Gamma-Chlordane [2C]	6.270	6.269	0.001	136690	5.00000	5.036
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	143801	5.00000	5.092
17 Endosulfan I [2C]	6.368	6.368	0.000	156786	5.00000	5.137
13 4,4'-DDE [2C]	6.517	6.516	0.001	110619	5.00000	4.835
16 Dieldrin [2C]	6.635	6.634	0.001	142725	5.00000	4.716
20 Endrin [2C]	6.905	6.904	0.001	115627	5.00000	5.041
12 4,4'-DDD [2C]	7.097	7.096	0.001	97898	5.00000	4.998
18 Endosulfan II [2C]	7.233	7.233	0.000	122275	5.00000	4.966
14 4,4'-DDT [2C]	7.382	7.379	0.003	77563	5.00000	4.809
21 Endrin Aldehyde [2C]	7.412	7.409	0.003	126845	5.00000	5.073
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	109047	5.00000	5.140
27 Methoxychlor [2C]	8.005	8.003	0.002	56976	5.00000	5.457
22 Endrin Ketone [2C]	8.220	8.219	0.001	152870	5.00000	5.188
$ 39 DCB [2C]	9.665	9.664	0.001	132990	5.00000	5.689

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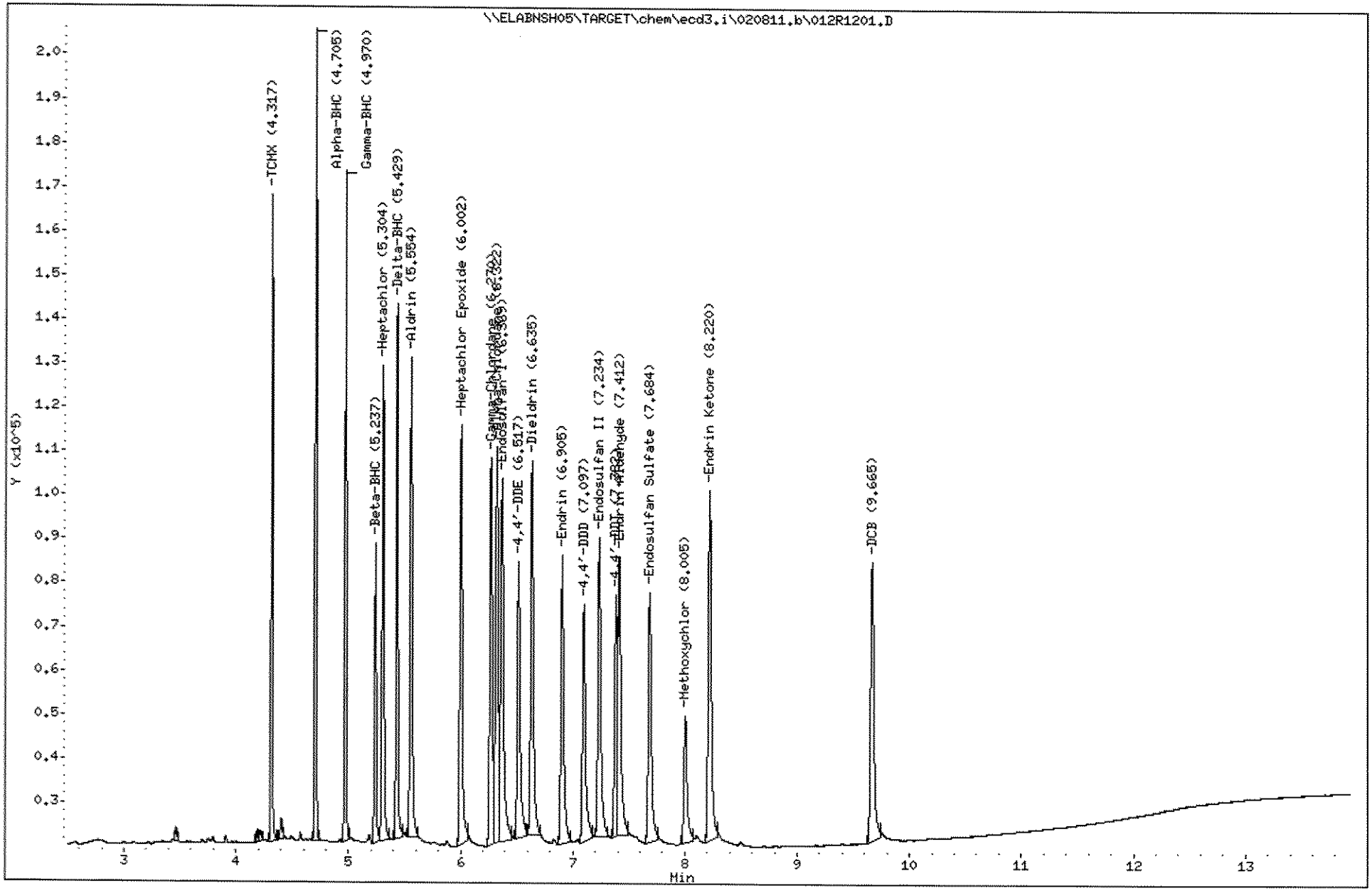
Data File: \\ELABNSH05\TARGET\chem\ecd3,i\020811,b\012R1201,D
Date : 08-FEB-2011 19:56
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3,i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013R1301.D
Lab Smp Id: SEQ-CAL9
Inj Date : 08-FEB-2011 20:15
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.315	4.316	-0.001	273079	10.0000	10.53
3 Alpha-BHC [2C]	4.705	4.704	0.001	364305	10.0000	10.38
23 Gamma-BHC [2C]	4.970	4.971	-0.001	320910	10.0000	10.32
5 Beta-BHC [2C]	5.237	5.236	0.001	144245	10.0000	10.00
25 Heptachlor [2C]	5.303	5.303	0.000	293668	10.0000	10.27
15 Delta-BHC [2C]	5.428	5.429	-0.001	278536	10.0000	10.08
2 Aldrin [2C]	5.553	5.554	-0.001	313607	10.0000	10.17
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	303399	10.0000	10.47
24 Gamma-Chlordane [2C]	6.270	6.269	0.001	272790	10.0000	10.05
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	291659	10.0000	10.33
17 Endosulfan I [2C]	6.368	6.368	0.000	319885	10.0000	10.48
13 4,4'-DDE [2C]	6.517	6.516	0.001	228937	10.0000	10.01
16 Dieldrin [2C]	6.635	6.634	0.001	305436	10.0000	10.09
20 Endrin [2C]	6.905	6.904	0.001	233644	10.0000	10.19
12 4,4'-DDD [2C]	7.097	7.096	0.001	199518	10.0000	10.18
18 Endosulfan II [2C]	7.232	7.233	-0.001	245905	10.0000	9.988
14 4,4'-DDT [2C]	7.380	7.379	0.001	153664	10.0000	9.527
21 Endrin Aldehyde [2C]	7.410	7.409	0.001	260133	10.0000	10.40
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	210855	10.0000	9.938
27 Methoxychlor [2C]	8.003	8.003	0.000	102243	10.0000	9.792
22 Endrin Ketone [2C]	8.222	8.219	0.003	298554	10.0000	10.13
$ 39 DCB [2C]	9.663	9.664	-0.001	246242	10.0000	10.53

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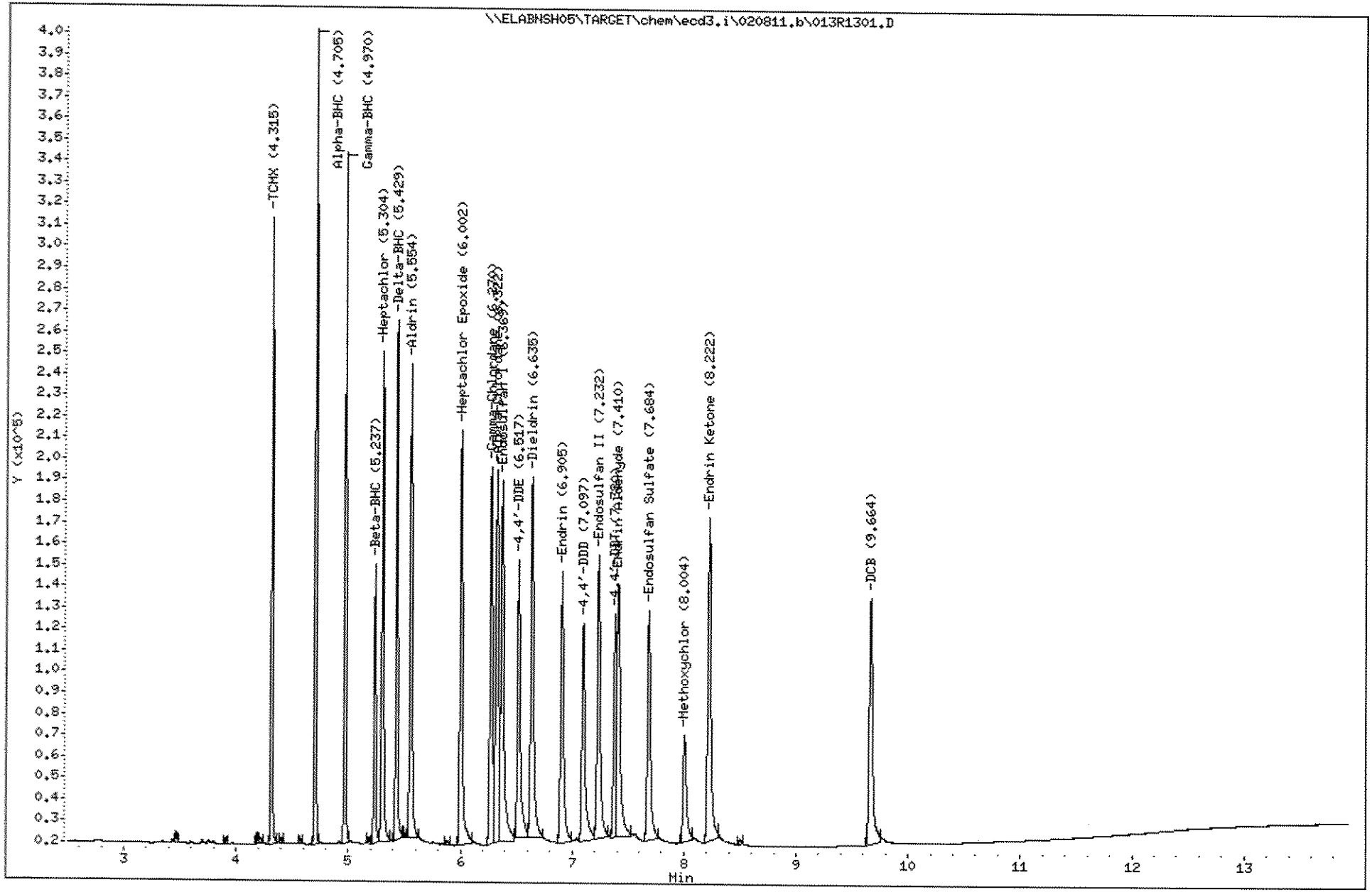
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013R1301.D
Date : 08-FEB-2011 20:15
Client ID:
Sample Info: SEQ-CAL9

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014R1401.D
Lab Smp Id: SEQ-CALA
Inj Date : 08-FEB-2011 20:34
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.316	4.316	0.000	643793	25.0000	24.82
3 Alpha-BHC [2C]	4.705	4.704	0.001	884776	25.0000	25.21
23 Gamma-BHC [2C]	4.971	4.971	0.000	777883	25.0000	25.03
5 Beta-BHC [2C]	5.236	5.236	0.000	335911	25.0000	23.30
25 Heptachlor [2C]	5.303	5.303	0.000	723679	25.0000	25.32
15 Delta-BHC [2C]	5.430	5.429	0.001	693686	25.0000	25.12
2 Aldrin [2C]	5.555	5.554	0.001	785923	25.0000	25.49
26 Heptachlor Epoxide [2C]	6.001	6.001	0.000	729125	25.0000	25.16
24 Gamma-Chlordane [2C]	6.270	6.269	0.001	670369	25.0000	24.70
4 Alpha-Chlordane [2C]	6.321	6.321	0.000	698274	25.0000	24.73
17 Endosulfan I [2C]	6.368	6.368	0.000	785886	25.0000	25.75
13 4,4'-DDE [2C]	6.516	6.516	0.000	576493	25.0000	25.20
16 Dieldrin [2C]	6.636	6.634	0.002	782684	25.0000	25.86
20 Endrin [2C]	6.905	6.904	0.001	579276	25.0000	25.26
12 4,4'-DDD [2C]	7.096	7.096	0.000	478658	25.0000	24.43
18 Endosulfan II [2C]	7.233	7.233	0.000	611707	25.0000	24.85
14 4,4'-DDT [2C]	7.381	7.379	0.002	373703	25.0000	23.17
21 Endrin Aldehyde [2C]	7.408	7.409	-0.001	605930	25.0000	24.23
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	514226	25.0000	24.24
27 Methoxychlor [2C]	8.003	8.003	0.000	248712	25.0000	23.82
22 Endrin Ketone [2C]	8.220	8.219	0.001	729475	25.0000	24.76
$ 39 DCB [2C]	9.665	9.664	0.001	565263	25.0000	24.18

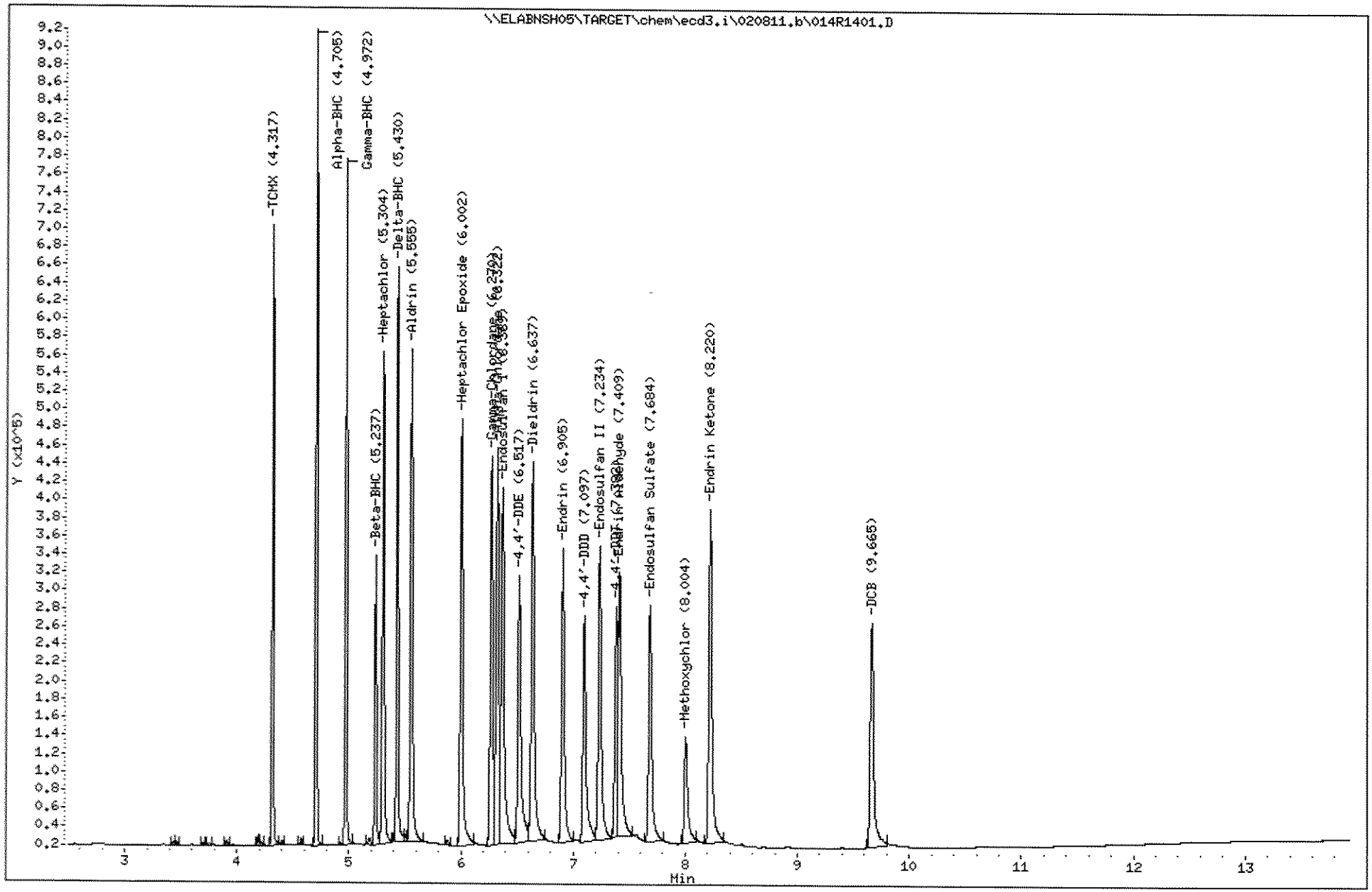
2/9/12

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014R1401.D
Date : 08-FEB-2011 20:34
Client ID:
Sample Info: SEQ-CALA

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 2.10-11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015R1501.D
Lab Smp Id: SEQ-CALB
Inj Date : 08-FEB-2011 20:53
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.316	4.316	0.000	1295349	50.0000	49.95
3 Alpha-BHC [2C]	4.704	4.704	0.000	1815775	50.0000	51.74
23 Gamma-BHC [2C]	4.971	4.971	0.000	1609110	50.0000	51.78
5 Beta-BHC [2C]	5.236	5.236	0.000	686394	50.0000	47.61
25 Heptachlor [2C]	5.303	5.303	0.000	1496712	50.0000	52.36
15 Delta-BHC [2C]	5.429	5.429	0.000	1462500	50.0000	52.95
2 Aldrin [2C]	5.554	5.554	0.000	1613856	50.0000	52.35
26 Heptachlor Epoxide [2C]	6.001	6.001	0.000	1490787	50.0000	51.44
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	1399281	50.0000	51.56
4 Alpha-Chlordane [2C]	6.321	6.321	0.000	1432486	50.0000	50.72
17 Endosulfan I [2C]	6.368	6.368	0.000	1591107	50.0000	52.13
13 4,4'-DDE [2C]	6.516	6.516	0.000	1246405	50.0000	54.48
16 Dieldrin [2C]	6.636	6.634	0.002	1649354	50.0000	54.50
20 Endrin [2C]	6.904	6.904	0.000	1209755	50.0000	52.75
12 4,4'-DDD [2C]	7.096	7.096	0.000	1043534	50.0000	53.27
18 Endosulfan II [2C]	7.233	7.233	0.000	1272081	50.0000	51.67
14 4,4'-DDT [2C]	7.381	7.379	0.002	864593	50.0000	53.60
21 Endrin Aldehyde [2C]	7.409	7.409	0.000	1223284	50.0000	48.92
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	1078634	50.0000	50.84
27 Methoxychlor [2C]	8.003	8.003	0.000	550897	50.0000	52.76
22 Endrin Ketone [2C]	8.221	8.219	0.002	1503965	50.0000	51.04
$ 39 DCB [2C]	9.663	9.664	-0.001	1095772	50.0000	46.87

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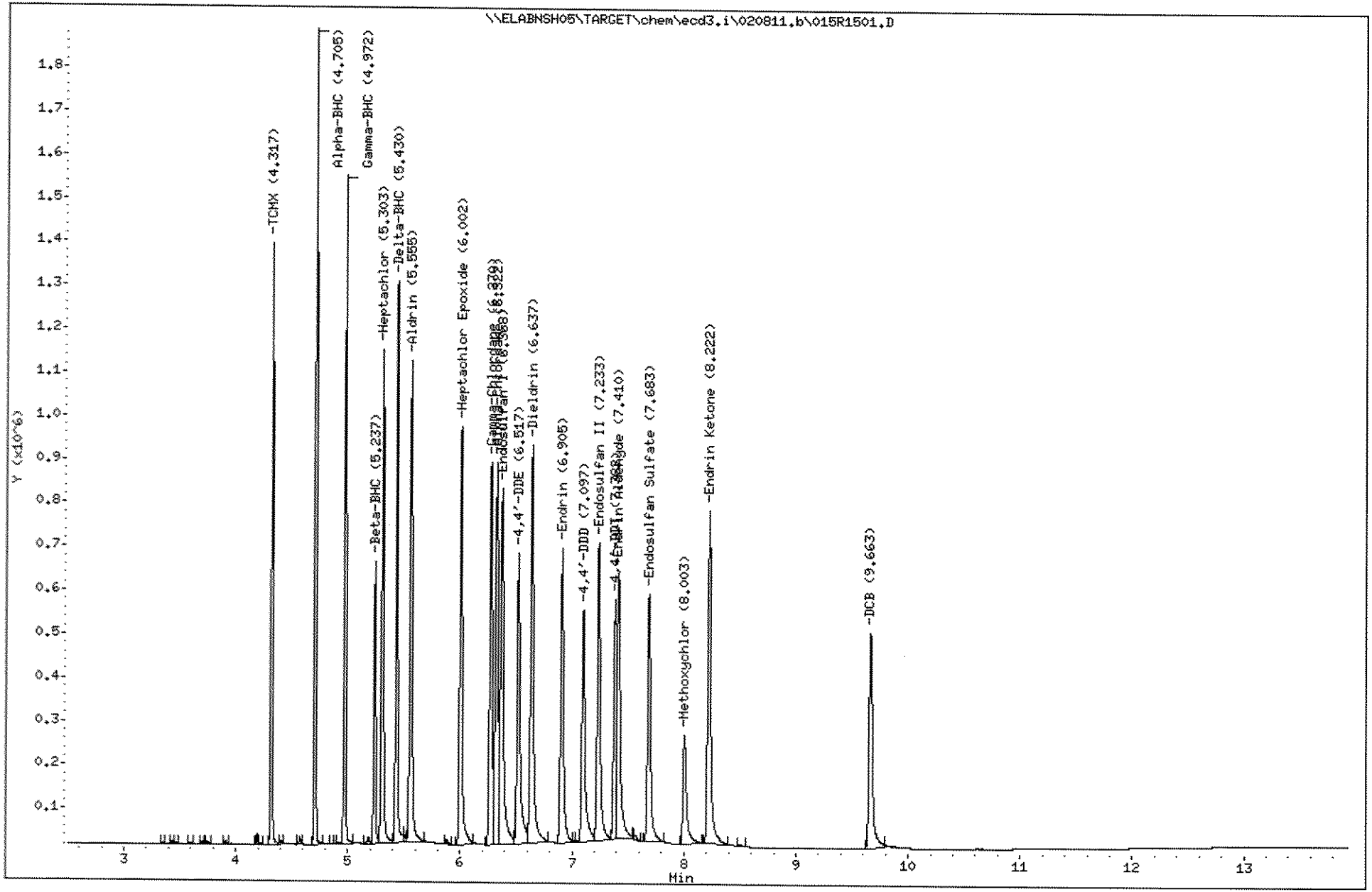
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015R1501.D
Date : 08-FEB-2011 20:53
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016R1601.D
Lab Smp Id: SEQ-CALC
Inj Date : 08-FEB-2011 21:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.316	4.316	0.000	2463804	100.000	95.01
3 Alpha-BHC [2C]	4.704	4.704	0.000	3530291	100.000	100.6
23 Gamma-BHC [2C]	4.971	4.971	0.000	3127473	100.000	100.6
5 Beta-BHC [2C]	5.236	5.236	0.000	1337658	100.000	92.78
25 Heptachlor [2C]	5.303	5.303	0.000	2886297	100.000	101.0
15 Delta-BHC [2C]	5.429	5.429	0.000	2877087	100.000	104.2
2 Aldrin [2C]	5.554	5.554	0.000	3149651	100.000	102.2
26 Heptachlor Epoxide [2C]	6.001	6.001	0.000	2900858	100.000	100.1
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	2744158	100.000	101.1
4 Alpha-Chlordane [2C]	6.321	6.321	0.000	2780764	100.000	98.47
17 Endosulfan I [2C]	6.368	6.368	0.000	3034081	100.000	99.42
13 4,4'-DDE [2C]	6.516	6.516	0.000	2443417	100.000	106.8
16 Dieldrin [2C]	6.634	6.634	0.000	3199406	100.000	105.7
20 Endrin [2C]	6.904	6.904	0.000	2381118	100.000	103.8
12 4,4'-DDD [2C]	7.096	7.096	0.000	2127719	100.000	108.6
18 Endosulfan II [2C]	7.233	7.233	0.000	2608871	100.000	106.0
14 4,4'-DDT [2C]	7.379	7.379	0.000	1734990	100.000	107.6
21 Endrin Aldehyde [2C]	7.409	7.409	0.000	2681932	100.000	107.2
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	2221275	100.000	104.7
27 Methoxychlor [2C]	8.003	8.003	0.000	1087671	100.000	104.2
22 Endrin Ketone [2C]	8.219	8.219	0.000	2981364	100.000	101.2
$ 39 DCB [2C]	9.664	9.664	0.000	2181362	100.000	93.31

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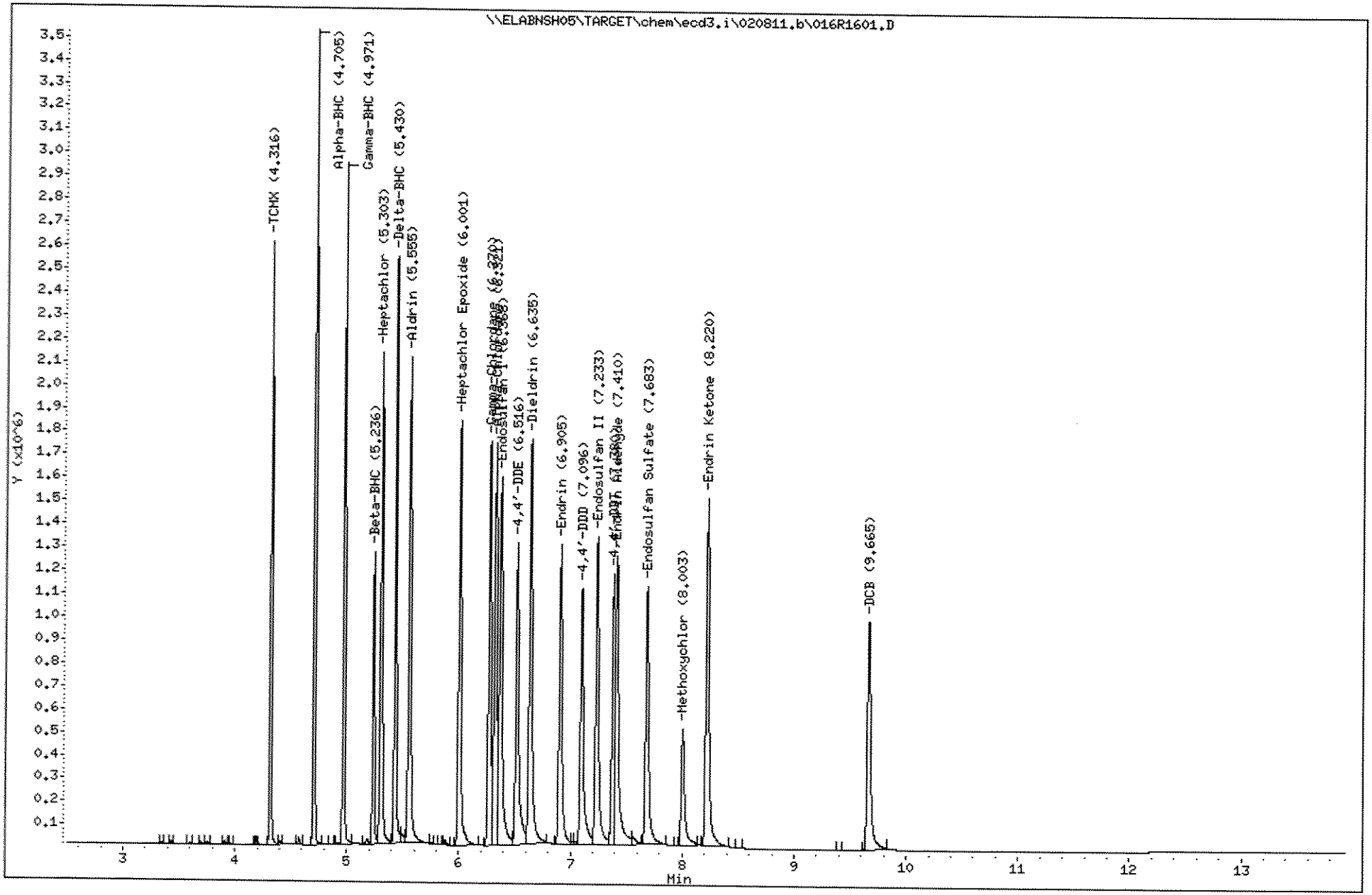
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016R1601.D
Date : 08-FEB-2011 21:12
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\017R1701.D
Lab Smp Id: SEQ-CALD
Inj Date : 08-FEB-2011 21:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALD
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.317	4.316	0.001	4634762	200.000	178.7
3 Alpha-BHC [2C]	4.705	4.704	0.001	6758301	200.000	192.6
23 Gamma-BHC [2C]	4.970	4.971	-0.001	6019116	200.000	193.7
5 Beta-BHC [2C]	5.237	5.236	0.001	2542239	200.000	176.3
25 Heptachlor [2C]	5.304	5.303	0.001	5521797	200.000	193.2
15 Delta-BHC [2C]	5.429	5.429	0.000	5546507	200.000	200.8(A)
2 Aldrin [2C]	5.554	5.554	0.000	5895014	200.000	191.2
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	5413045	200.000	186.8
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	5158316	200.000	190.1
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	5246809	200.000	185.8
17 Endosulfan I [2C]	6.369	6.368	0.001	5520330	200.000	180.9
13 4,4'-DDE [2C]	6.515	6.516	-0.001	4657746	200.000	203.6(A)
16 Dieldrin [2C]	6.635	6.634	0.001	5945454	200.000	196.4
20 Endrin [2C]	6.904	6.904	0.000	4449138	200.000	194.0
12 4,4'-DDD [2C]	7.095	7.096	-0.001	4022266	200.000	205.3(A)
18 Endosulfan II [2C]	7.232	7.233	-0.001	4793583	200.000	194.7
14 4,4'-DDT [2C]	7.380	7.379	0.001	3648821	200.000	226.2(A)
21 Endrin Aldehyde [2C]	7.409	7.409	0.000	4687054	200.000	187.4
19 Endosulfan Sulfate [2C]	7.682	7.683	-0.001	4114633	200.000	193.9
27 Methoxychlor [2C]	8.004	8.003	0.001	2107205	200.000	201.8(A)
22 Endrin Ketone [2C]	8.219	8.219	0.000	5463193	200.000	185.4
$ 39 DCB [2C]	9.664	9.664	0.000	3811770	200.000	163.0

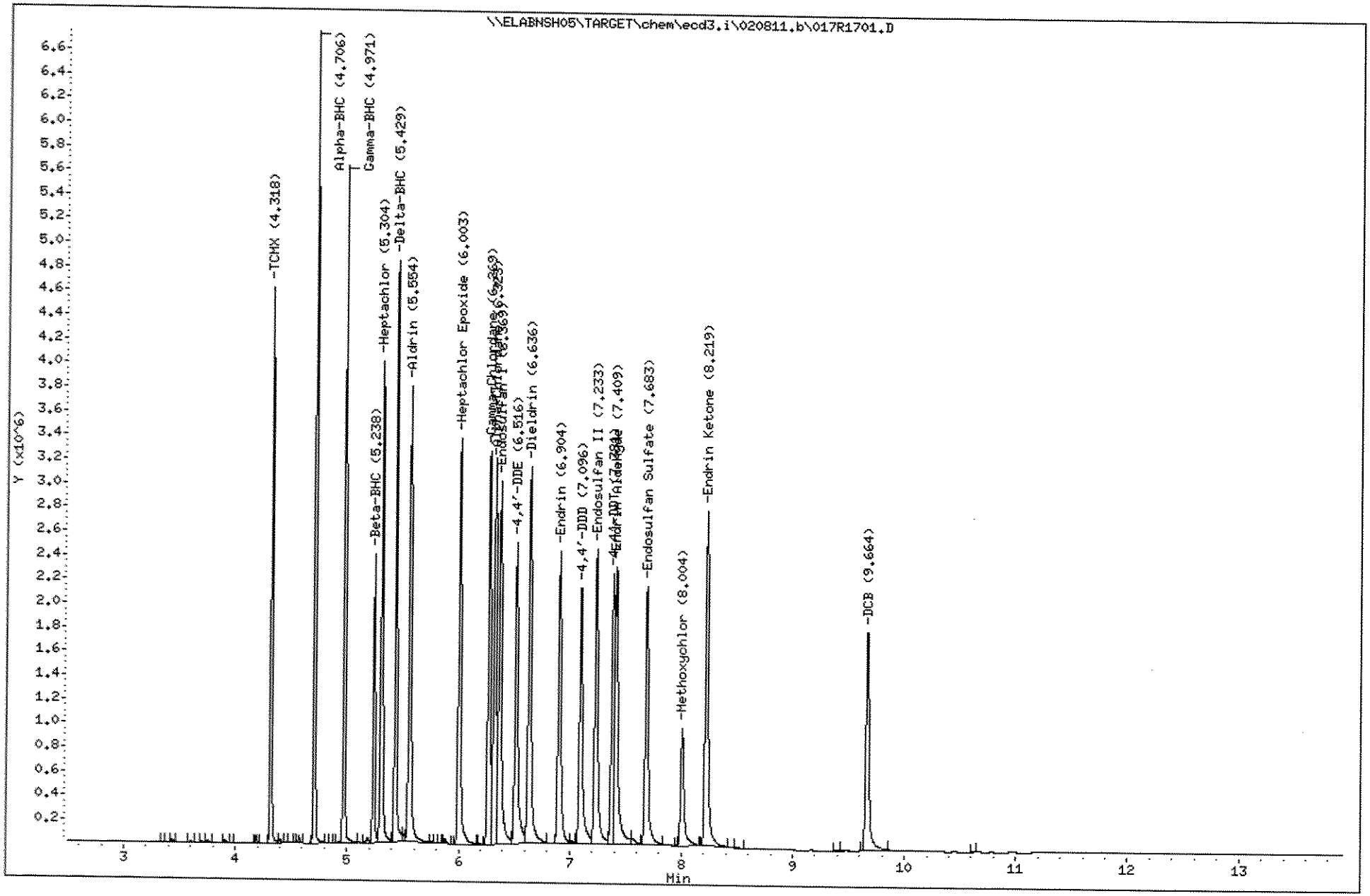
WL 2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\017R1701.D
Date : 08-FEB-2011 21:31
Client ID:
Sample Info: SEQ-CALD

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\018R1801.D
Lab Smp Id: SEQ-ICV2
Inj Date : 08-FEB-2011 21:50
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV2
Misc Info : ;;;;;;INDAB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDAB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
3 Alpha-BHC [2C]	4.705	4.704	0.001	3624197	X	100.000	103.3
23 Gamma-BHC [2C]	4.970	4.971	-0.001	3224510	D	100.000	103.8
5 Beta-BHC [2C]	5.237	5.236	0.001	1411808		100.000	97.92
25 Heptachlor [2C]	5.304	5.303	0.001	3005467		100.000	105.1
15 Delta-BHC [2C]	5.429	5.429	0.000	2982706		100.000	108.0
2 Aldrin [2C]	5.554	5.554	0.000	3188583		100.000	103.4
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	2956246		100.000	102.0
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	2812168		100.000	103.6
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	2826802		100.000	100.1
17 Endosulfan I [2C]	6.369	6.368	0.001	3065688		100.000	100.4
13 4,4'-DDE [2C]	6.515	6.516	-0.001	2522356		100.000	110.2
16 Dieldrin [2C]	6.634	6.634	0.000	3132280		100.000	103.5
20 Endrin [2C]	6.905	6.904	0.001	2460675		100.000	107.3
12 4,4'-DDD [2C]	7.095	7.096	-0.001	2183178		100.000	111.4
18 Endosulfan II [2C]	7.232	7.233	-0.001	2605166		100.000	105.8
14 4,4'-DDT [2C]	7.380	7.379	0.001	1822265		100.000	113.0
21 Endrin Aldehyde [2C]	7.410	7.409	0.001	2497457		100.000	99.88
19 Endosulfan Sulfate [2C]	7.682	7.683	-0.001	2262729		100.000	106.6
27 Methoxychlor [2C]	8.002	8.003	-0.001	1120993		100.000	107.4
22 Endrin Ketone [2C]	8.220	8.219	0.001	2985709		100.000	101.3

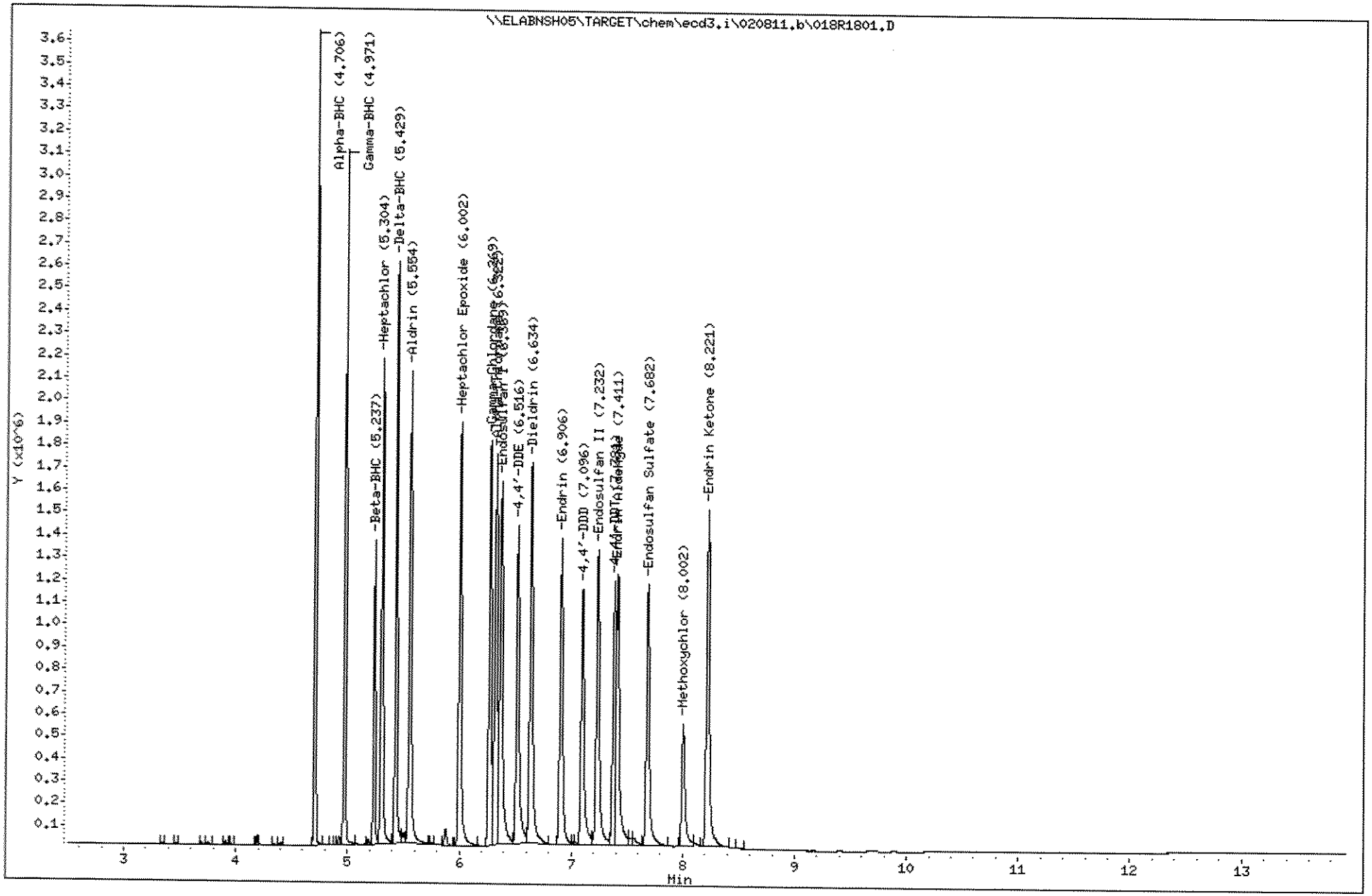
2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\018R1801.D
Date : 08-FEB-2011 21:50
Client ID:
Sample Info: SEQ-ICV2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Sequence: C:\HPCHEM\ECD3\SEQUENCE\022811.S (8081_82 (pest_PCB)

Sequence Table (Front/Back Injector):

Seq used: 1C06009 P: 331

Method and Injection Info Part:

Line

2/28/11

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	PRIMER	8081_82	1	Sample		
2	Vial 2	SEQ-PEM1 BB224	8081_82	1	Sample		
3	Vial 3	SEQ-CCV1 10I0157 AB	8081_82	1	Sample		
4	Vial 4	SEQ-CCV2 1OL0071 CHLOR	8081_82	1	Sample		
5	Vial 5	SEQ-CCV3 10L0487 TOX	8081_82	1	Sample		
6	Vial 6	SEQ-CCV4 11A0053	8081_82	1	Sample		
7	Vial 7	1B21019-BLK1	8081_82	1	Sample		
8	Vial 8	1B21019-BS1	8081_82	1	Sample		
9	Vial 9	1B21019-~~BSD1~~ BS2	8081_82	1	Sample		
10	Vial 10	1B21019-~~BS2~~ BSD1	8081_82	1	Sample		
11	Vial 11	1B21019-BSD2	8081_82	1	Sample		
12	Vial 12	1102180-01	8081_82	1	Sample		
13	Vial 13	1B25012-BLK1	8081_82	1	Sample		
14	Vial 14	1B25012-BS1	8081_82	1	Sample		
15	Vial 15	1102207-01	8081_82	1	Sample		
16	Vial 16	1B25012-MS1	8081_82	1	Sample		
17	Vial 17	1B25012-MSD1	8081_82	1	Sample		
18	Vial 18	1B25012-MS2	8081_82	1	Sample		
19	Vial 19	1102215-01	8081_82	1	Sample		
20	Vial 20	1102215-02	8081_82	1	Sample		
21	Vial 21	SEQ-CCV5 10I0157 AB	8081_82	1	Sample		
22	Vial 22	SEQ-CCV6 1OL0071 CHLOR	8081_82	1	Sample		
23	Vial 23	SEQ-CCV7 1OL0487	8081_82	1	Sample		
24	Vial 24	SEQ-CCV8 11A0053	8081_82	1	Sample		

1B21019, 1X, P/P

1B25012, 1X, TCLP pest only

Sequence Table (~~Back Injector~~):

~~No entries — empty table~~!

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\002F0201.D
Lab Smp Id: SEQ-PEM1
Inj Date : 28-FEB-2011 13:48
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-PEM1
Misc Info : ;;;;;;PEM.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:48 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
3 Alpha-BHC	5.436	5.438	-0.002	62592	1.52911	1.529
23 Gamma-BHC	5.748	5.750	-0.002	58232	1.60621	1.606
5 Beta-BHC	5.960	5.960	0.000	25967	1.78300	1.783
20 Endrin	8.120	8.121	-0.001	228278	8.29633	8.296
14 4,4'-DDT	8.675	8.675	0.000	369112	15.5889	15.59
27 Methoxychlor	9.283	9.281	0.002	497605	43.9717	43.97

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Endrin = 0%

DDT = 0%

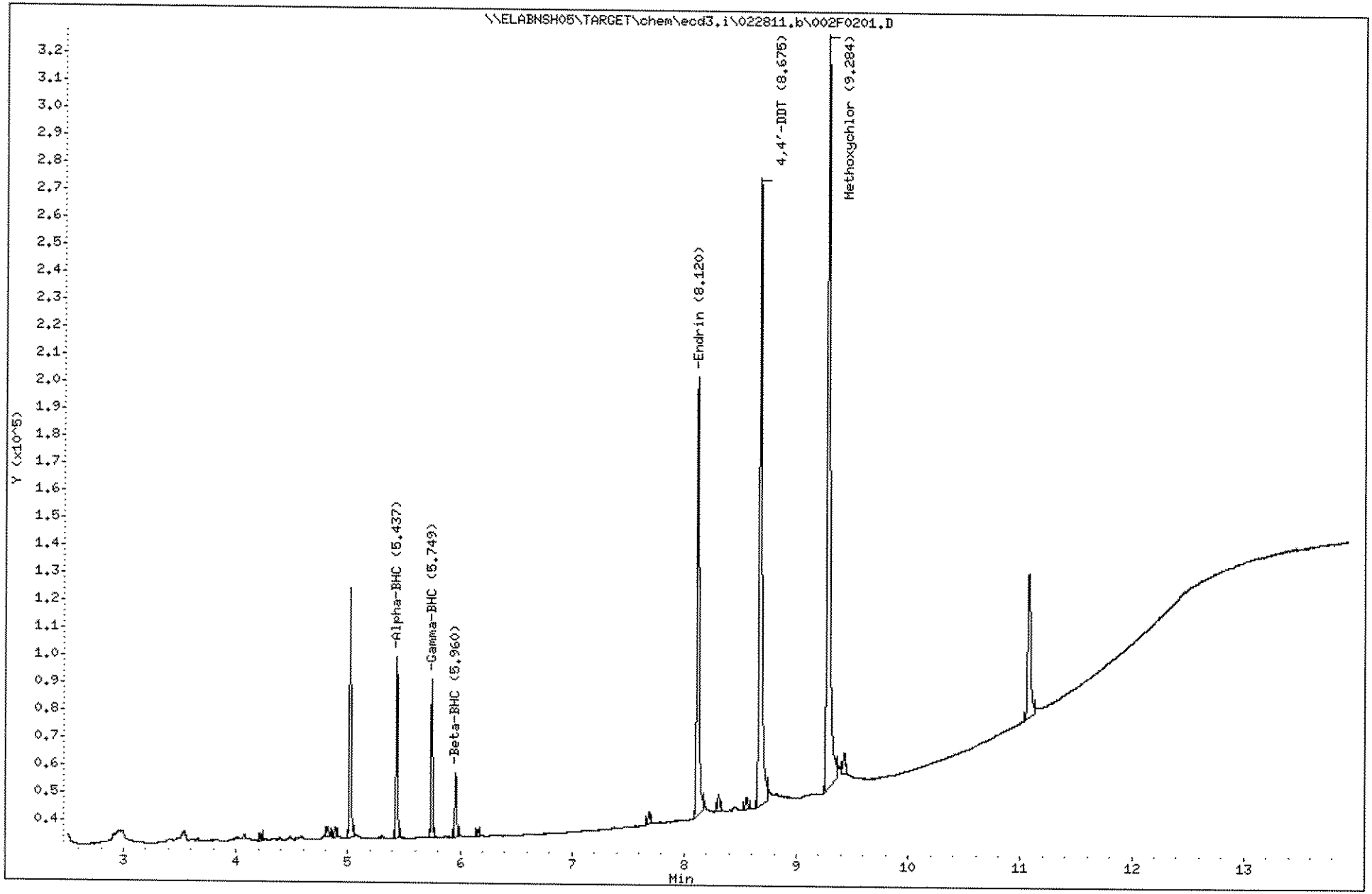
WL
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\002F0201.D
Date : 28-FEB-2011 13:48
Client ID:
Sample Info: SEQ-PEM1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\002R0201.D
Lab Smp Id: SEQ-PEM1
Inj Date : 28-FEB-2011 13:48
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-PEM1
Misc Info : ;;;;;;PEM.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 17:48 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEM.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
3 Alpha-BHC [2C]	4.547	4.548	-0.001	69904	1.99206	1.992
23 Gamma-BHC [2C]	4.803	4.803	0.000	64681	2.08121	2.081
5 Beta-BHC [2C]	5.063	5.063	0.000	33726	2.33915	2.339
20 Endrin [2C]	6.668	6.668	0.000	252447	11.0070	11.01
22 Endrin Ketone [2C]	7.960	7.962	-0.002	26716	0.90669	0.9067
14 4,4'-DDT [2C]	7.143	7.153	-0.010	422035	26.1658	26.16
12 4,4'-DDD [2C]	6.867	6.865	0.002	10082	0.51467	0.5147
27 Methoxychlor [2C]	7.763	7.763	0.000	558379	53.4782	53.48

3/2/11

$\text{Endrin} = \frac{26716}{26716 + 252447} = 9.6\%$

$\text{DDT} = \frac{10,082}{10,082 + 422035} = 2.3\%$

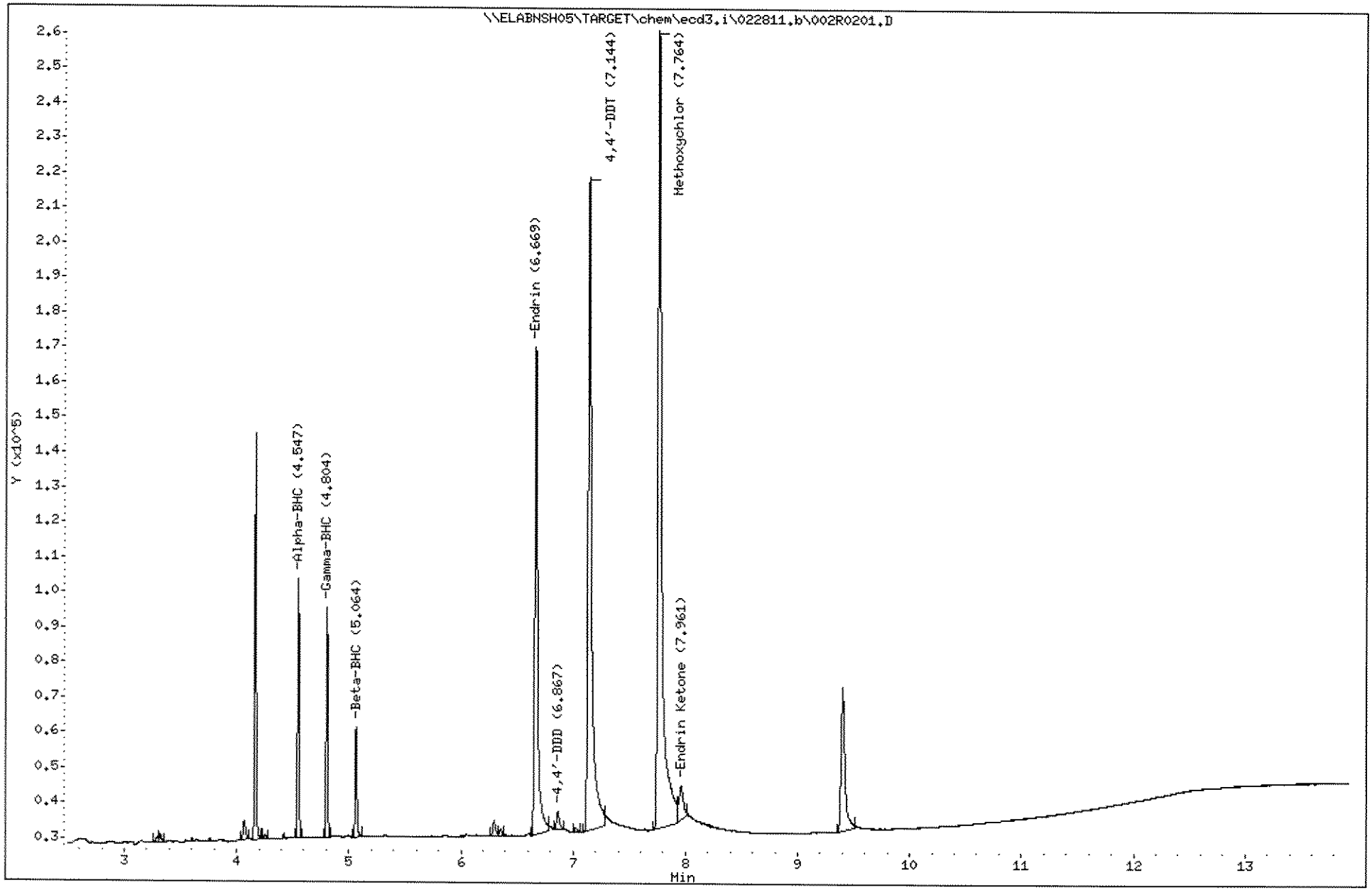
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\002R0201.D
Date : 28-FEB-2011 13:48
Client ID:
Sample Info: SEQ-PEM1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003F0301.D
Lab Smp Id: SEQ-CCV1
Inj Date : 28-FEB-2011 14:10
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.023	5.023	0.000	2785382		100.000	102.5
3 Alpha-BHC	5.442	5.442	0.000	4374916		100.000	106.9
23 Gamma-BHC	5.752	5.752	0.000	3829296		100.000	105.6
5 Beta-BHC	5.963	5.963	0.000	1511156		100.000	103.8
15 Delta-BHC	6.202	6.202	0.000	3501825		100.000	110.6
25 Heptachlor	6.308	6.308	0.000	3619428		100.000	115.4
2 Aldrin	6.657	6.657	0.000	3926503		100.000	104.2
26 Heptachlor Epoxide	7.120	7.120	0.000	3545381		100.000	101.9
24 Gamma-Chlordane	7.402	7.402	0.000	3596427		100.000	104.1
4 Alpha-Chlordane	7.485	7.485	0.000	3448276		100.000	101.3
17 Endosulfan I	7.543	7.543	0.000	3448415		100.000	102.6
13 4,4'-DDE	7.697	7.697	0.000	3096578		100.000	107.7
16 Dieldrin	7.860	7.860	0.000	3754549		100.000	105.1
20 Endrin	8.127	8.127	0.000	3069939		100.000	111.6
12 4,4'-DDD	8.310	8.310	0.000	2321903		100.000	100.2
18 Endosulfan II	8.403	8.403	0.000	3014997		100.000	97.16
21 Endrin Aldehyde	8.562	8.562	0.000	2386358		100.000	98.70
14 4,4'-DDT	8.680	8.680	0.000	2628962		100.000	111.0
19 Endosulfan Sulfate	8.847	8.847	0.000	2429470		100.000	93.60
27 Methoxychlor	9.288	9.288	0.000	1236142		100.000	109.2
22 Endrin Ketone	9.437	9.437	0.000	3316062		100.000	94.86
$ 39 DCB	11.082	11.082	0.000	2646954	*	100.000	85.21

3/2/11

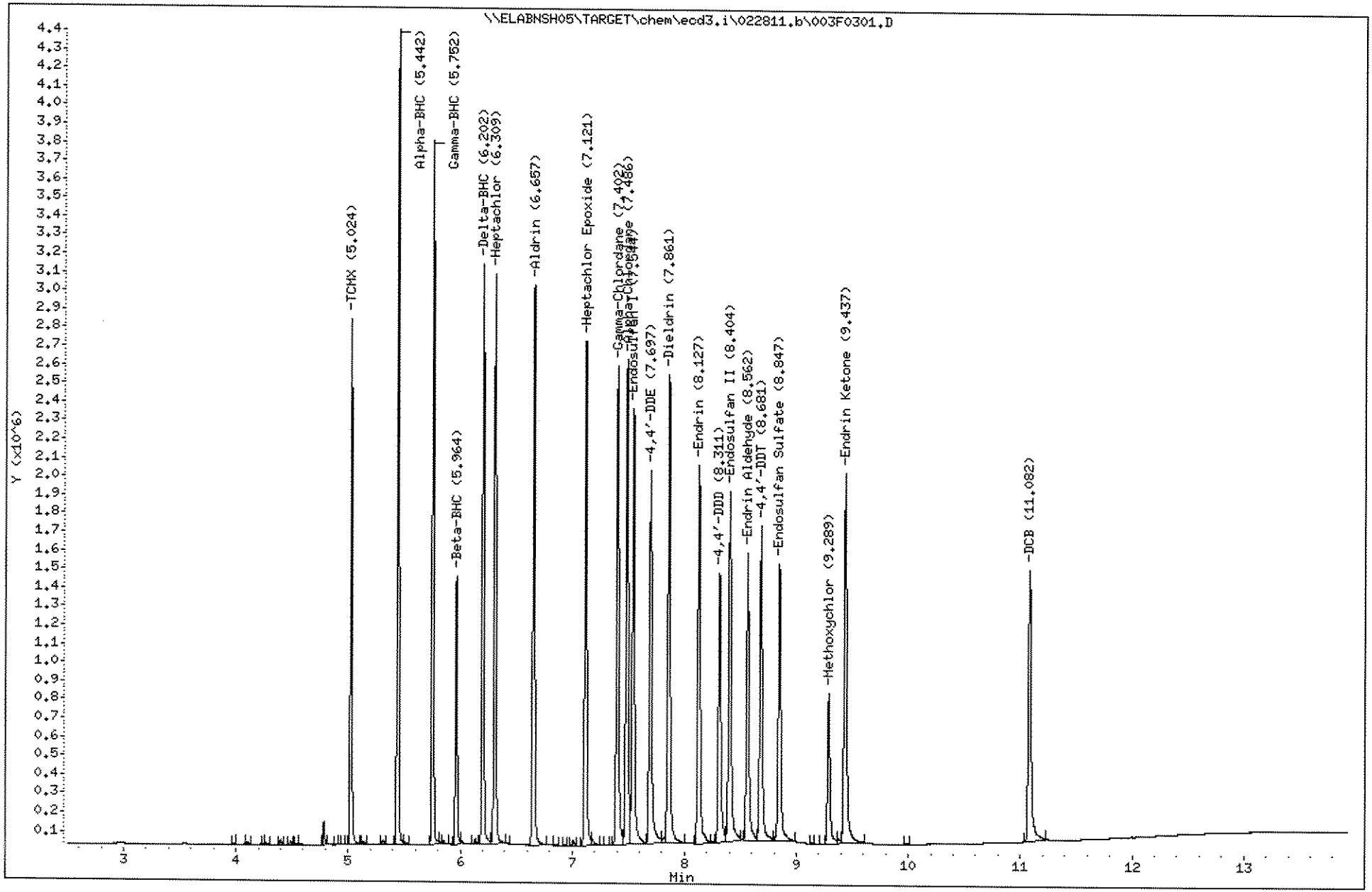
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003F0301.D
Date : 28-FEB-2011 14:10
Client ID:
Sample Info: SEQ-CCV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

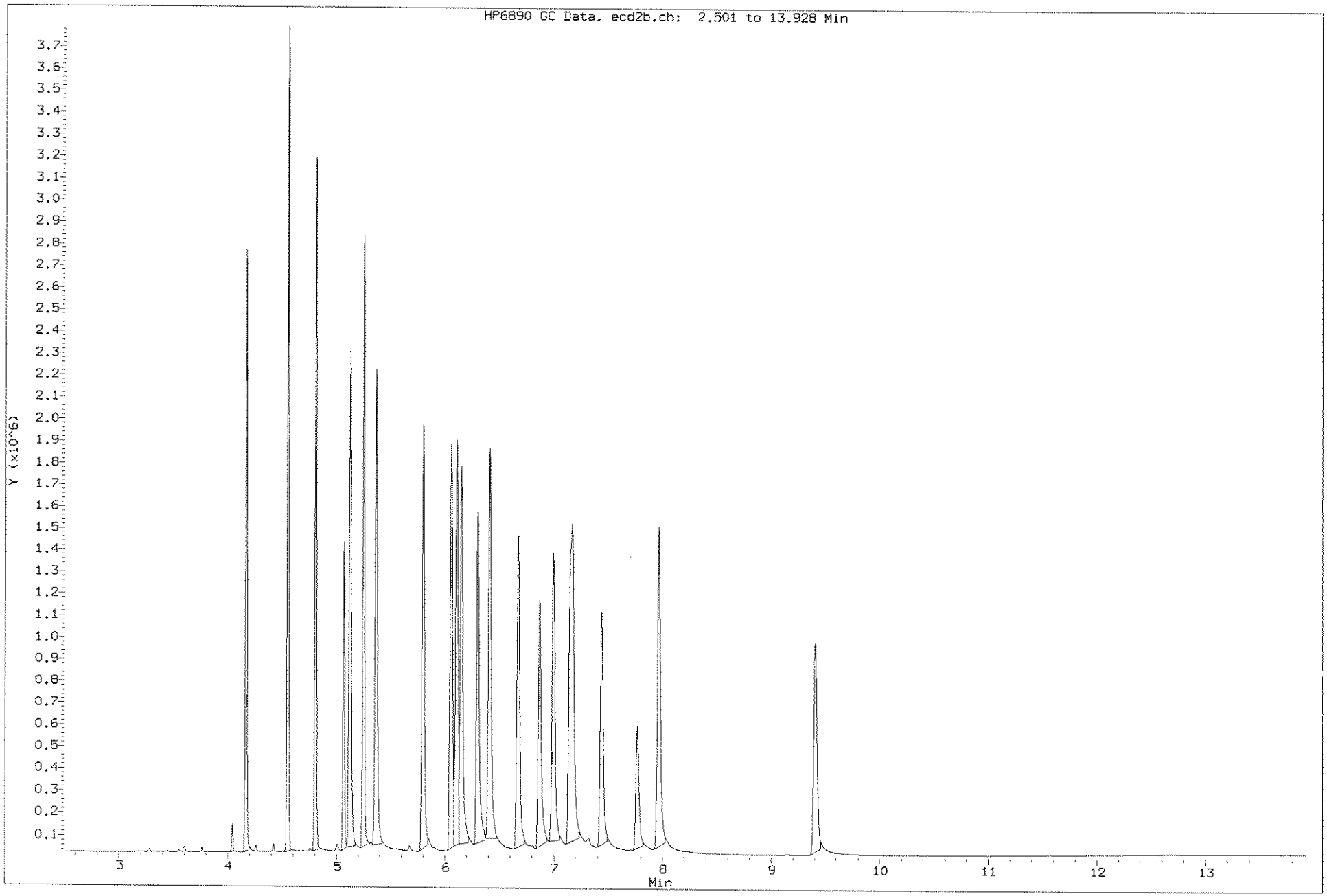
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003R0301.D
Lab Smp Id: SEQ-CCV1
Inj Date : 28-FEB-2011 14:10
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX [2C]	4.165	4.165	0.000	2572634		100.000	99.20
3	Alpha-BHC [2C]	4.549	4.549	0.000	3614206		100.000	103.0
23	Gamma-BHC [2C]	4.804	4.804	0.000	3236733		100.000	104.1
5	Beta-BHC [2C]	5.064	5.064	0.000	1426204		100.000	98.92
25	Heptachlor [2C]	5.122	5.122	0.000	3041991		100.000	106.4
15	Delta-BHC [2C]	5.247	5.247	0.000	2964997	D	100.000	107.4
2	Aldrin [2C]	5.362	5.362	0.000	3184900		100.000	103.3
26	Heptachlor Epoxide [2C]	5.795	5.795	0.000	2923357		100.000	100.9
24	Gamma-Chlordane [2C]	6.055	6.055	0.000	2873484		100.000	105.9
4	Alpha-Chlordane [2C]	6.107	6.107	0.000	2910686		100.000	103.1
17	Endosulfan I [2C]	6.149	6.149	0.000	3036693		100.000	99.50
13	4,4'-DDE [2C]	6.299	6.299	0.000	2540857		100.000	111.1
16	Dieldrin [2C]	6.409	6.409	0.000	3072254		100.000	101.5
20	Endrin [2C]	6.669	6.669	0.000	2551004		100.000	111.2
12	4,4'-DDD [2C]	6.867	6.867	0.000	2085787		100.000	106.5
18	Endosulfan II [2C]	6.992	6.992	0.000	2439430		100.000	99.08
14	4,4'-DDT [2C]	7.155	7.155	0.000	1853024		100.000	114.9(M)
21	Endrin Aldehyde [2C]	7.164	7.164	0.000	2636829		100.000	105.4(M)
19	Endosulfan Sulfate [2C]	7.435	7.435	0.000	1976180		100.000	93.14
27	Methoxychlor [2C]	7.765	7.765	0.000	1060288		100.000	101.5
22	Endrin Ketone [2C]	7.964	7.964	0.000	2751046		100.000	93.36
$ 39	DCB [2C]	9.404	9.404	0.000	2038298	*	100.000	87.19

3/2/11

2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003R0301.D
Injection Date: 28-FEB-2011 14:10
Instrument: ecd3.i
Client Sample ID:



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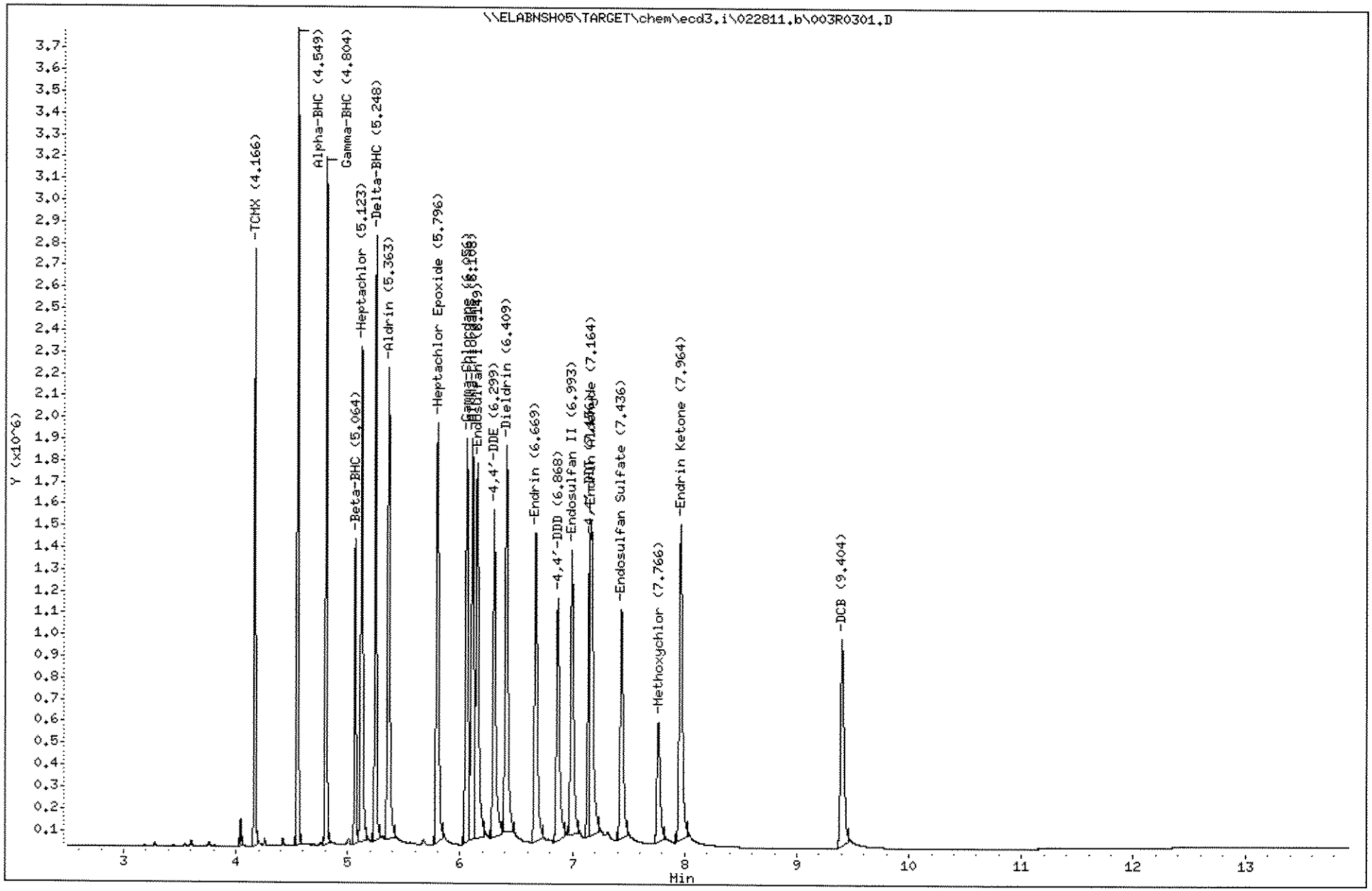
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003R0301.D
Date : 28-FEB-2011 14:10
Client ID:
Sample Info: SEQ-CCV1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B
WL
2/28/11



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\004F0401.D
Lab Smp Id: SEQ-CCV2
Inj Date : 28-FEB-2011 14:28
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
6 Chlordane					CAS #: 57-74-9			
7.483	7.483	(0.000)	466655	100.000	111.7	80.00-	120.00	100.00
6.091	6.091	(0.000)	106725	100.000	119.5	18.30-	27.44	22.87
6.305	6.305	(0.000)	119090	100.000	128.5	20.42-	30.62	25.52
7.396	7.396	(0.000)	394817	100.000	118.4	67.68-	101.53	84.61
8.468	8.468	(0.000)	*97018	100.000	125.0	16.63-	24.95	20.79
		Average of Peak Amounts =			120.6			

3/2/11

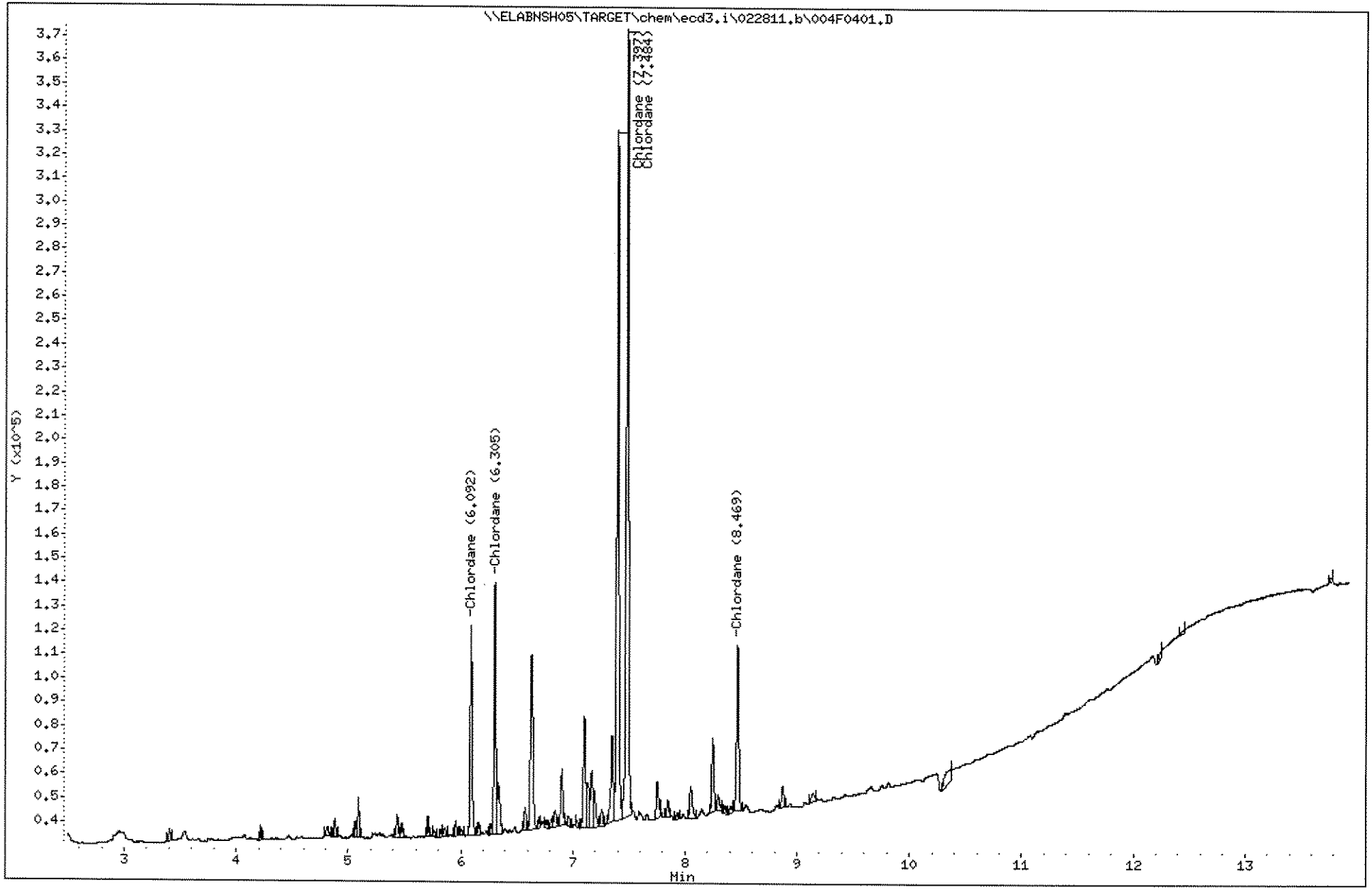
WL
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\004F0401.D
Date : 28-FEB-2011 14:28
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\004R0401.D
Lab Smp Id: SEQ-CCV2
Inj Date : 28-FEB-2011 14:28
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 18:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
6 Chlordane [2C]					CAS #: 57-74-9		
6.100	6.100	(0.000)	475539	100.000	123.6	80.00- 120.00	100.00
4.972	4.972	(0.000)	90399	100.000	118.6	15.21- 22.81	19.01
5.122	5.122	(0.000)	105462	100.000	116.4	17.74- 26.61	22.18
6.053	6.053	(0.000)	289305	100.000	124.8	48.67- 73.00	60.84
6.995	6.995	(0.000)	* 92628	100.000	121.2	15.58- 23.37	19.48
		Average of Peak Amounts =			120.9		

3/2/11

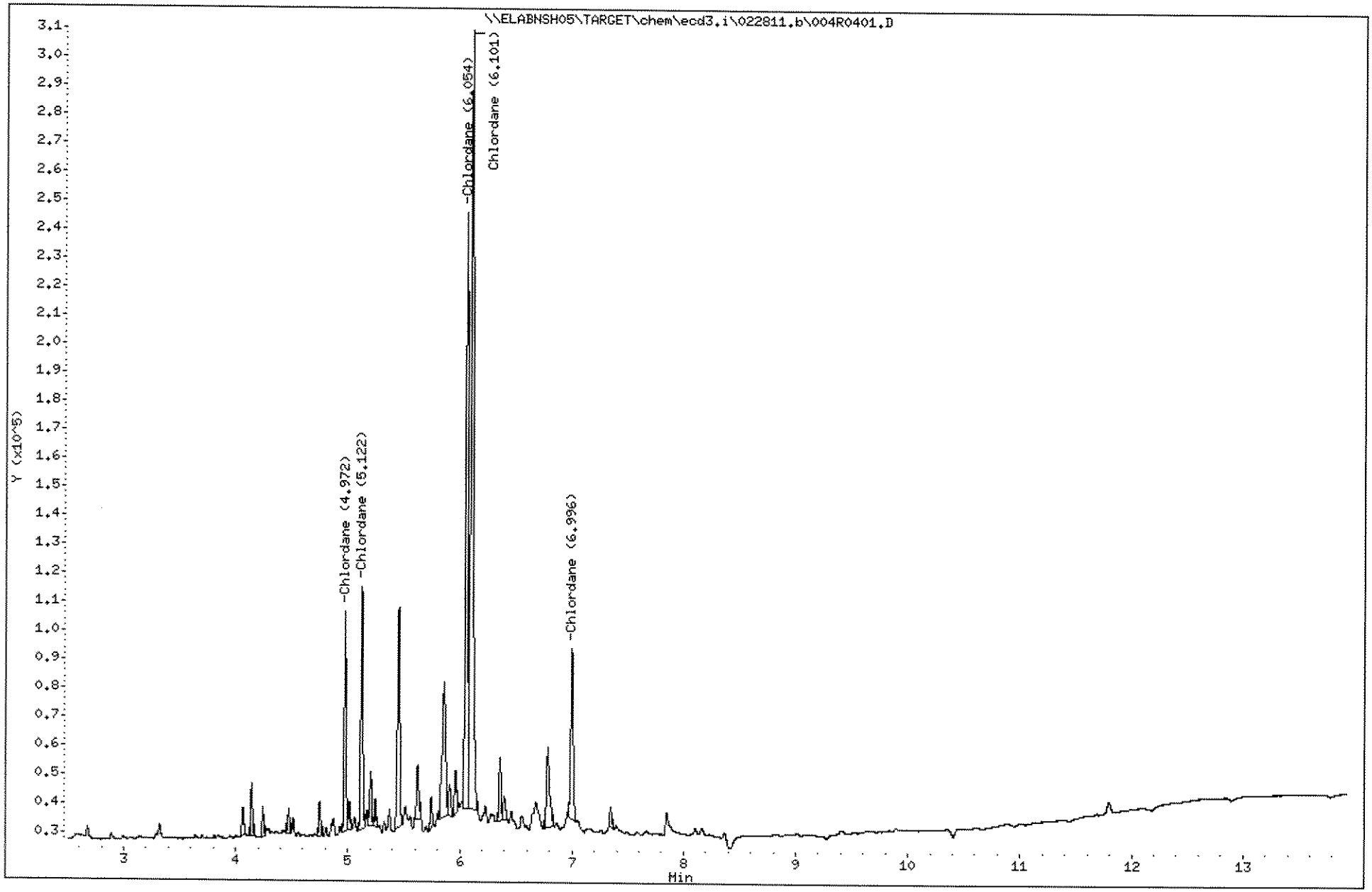
wl 2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\004R0401.D
Date : 28-FEB-2011 14:28
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



590

1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\005F0501.D
Lab Smp Id: SEQ-CCV3
Inj Date : 28-FEB-2011 14:47
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene						CAS #: 8001-35-2		
9.329	9.329	(0.000)	1199811	1000.00	1026	80.00-	120.00	100.00
8.053	8.053	(0.000)	490654	1000.00	1065	32.72-	49.07	40.89
8.706	8.706	(0.000)	1063453	1000.00	1025	70.91-	106.36	88.64
8.811	8.811	(0.000)	1259502	1000.00	1131	83.98-	125.97	104.98
9.769	9.769	(0.000)	*568301	1000.00	1034	37.89-	56.84	47.37
		Average of Peak Amounts =			1056			

3/2/11

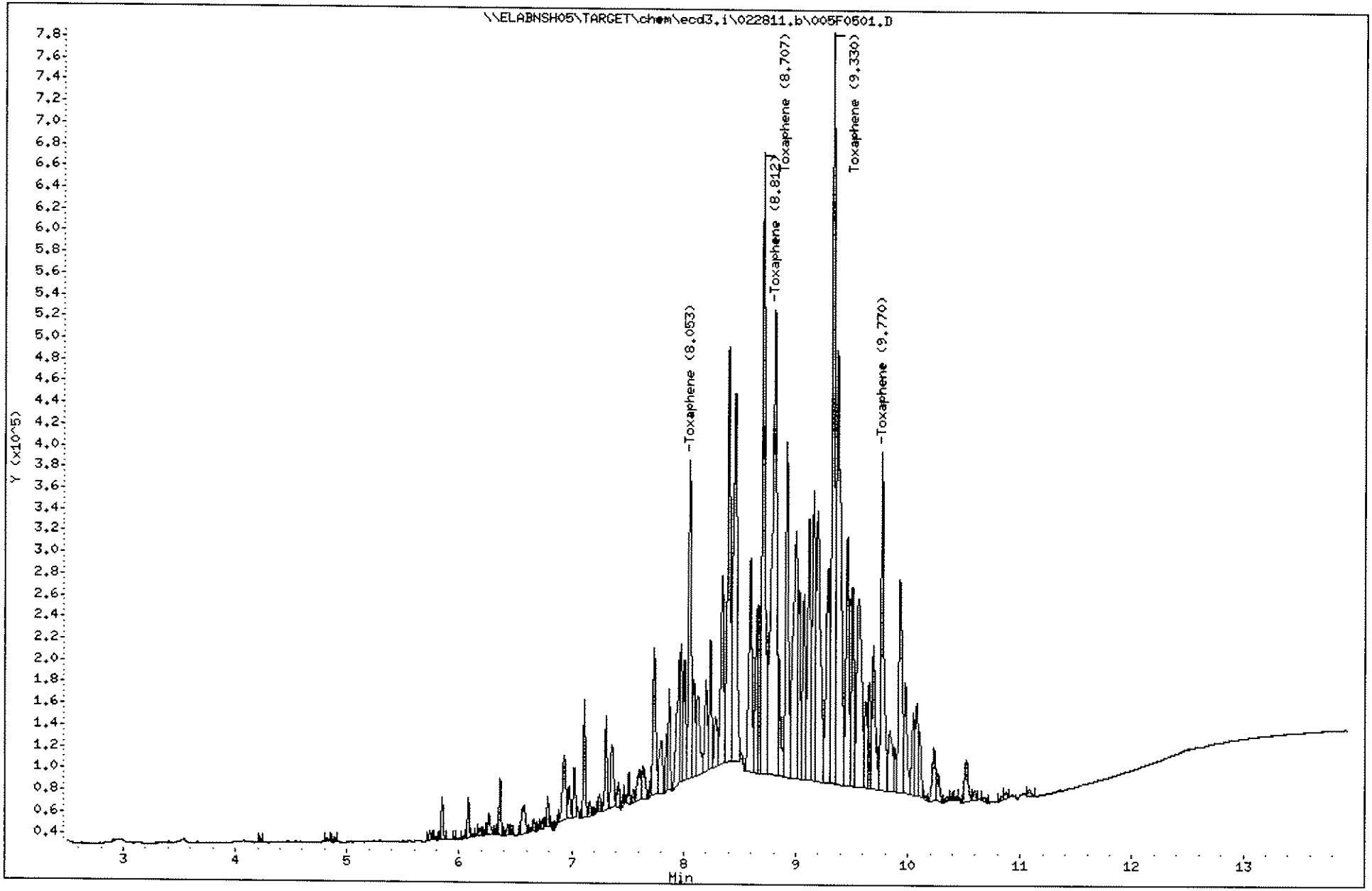
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\005F0501.D
Date : 28-FEB-2011 14:47
Client ID:
Sample Info: SEQ-CCV3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\005R0501.D
Lab Smp Id: SEQ-CCV3
Inj Date : 28-FEB-2011 14:47
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene [2C]						CAS #: 8001-35-2		
7.881	7.881	(0.000)	1241386	1000.00	1242	80.00-	120.00	100.00(M)
6.996	6.996	(0.000)	626899	1000.00	1355	40.40-	60.60	50.50
7.321	7.321	(0.000)	1228724	1000.00	1246	79.18-	118.78	98.98
8.250	8.250	(0.000)	871295	1000.00	1870	56.15-	84.22	70.19
8.411	8.411	(0.000)	* 506199	1000.00	1404	32.62-	48.93	40.78
		Average of Peak Amounts =			1424			

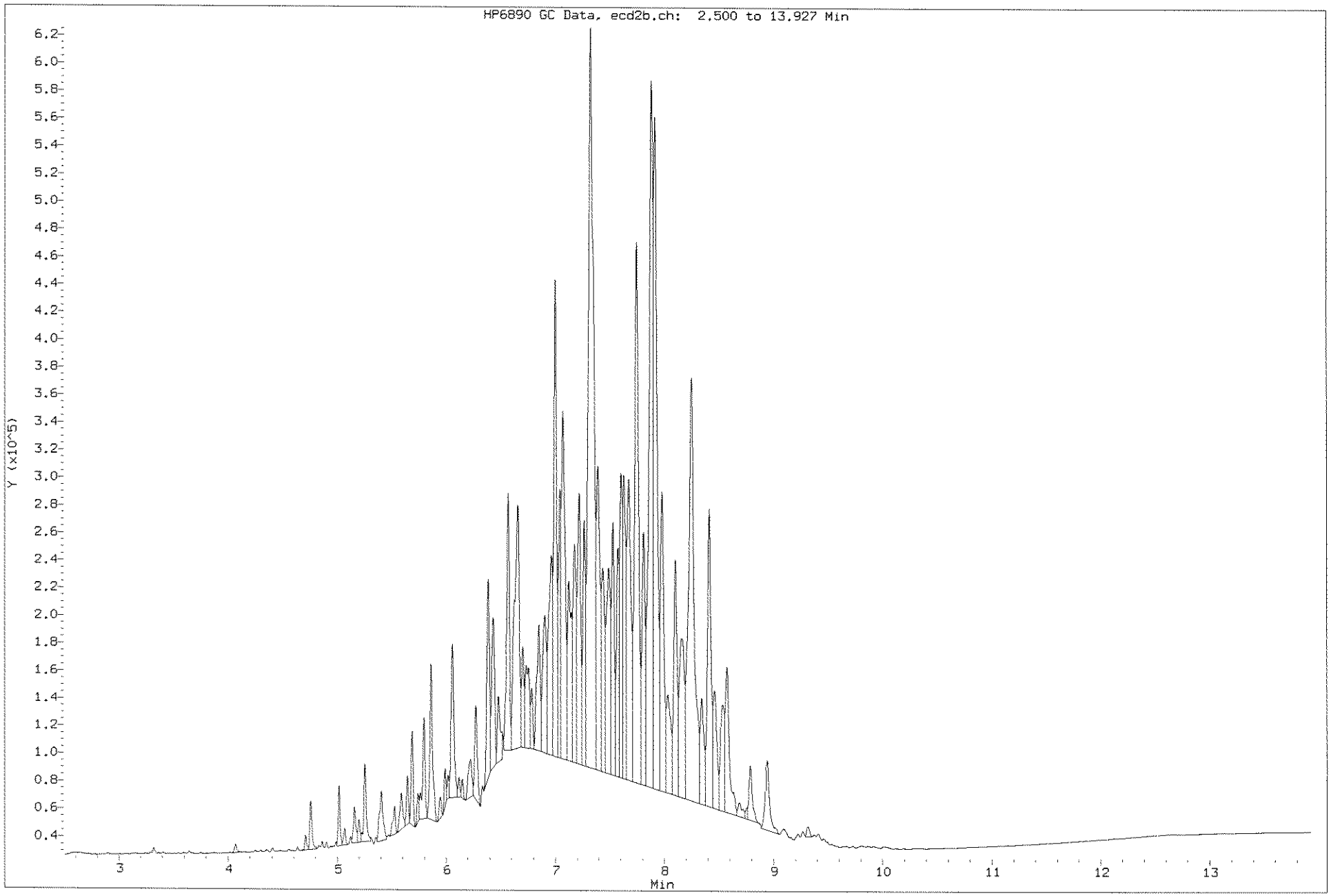
QC Flag Legend

M - Compound response manually integrated.

3/2/11

2/28/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\005R0501.D
Injection Date: 28-FEB-2011 14:47
Instrument: ecd3.i
Client Sample ID:



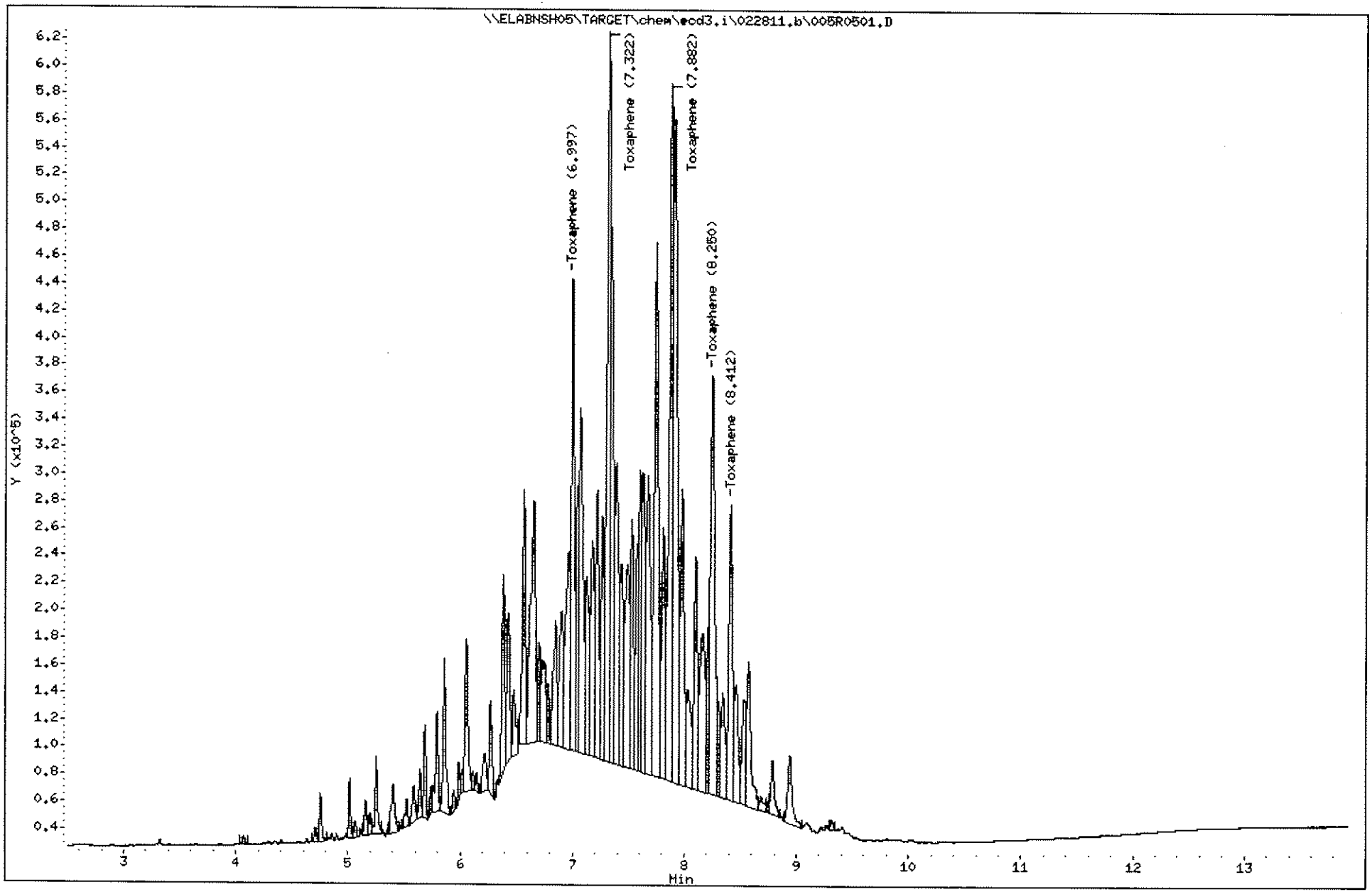
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\005R0501.D
Date : 28-FEB-2011 14:47
Client ID:
Sample Info: SEQ-CCV3

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B WL 2/28/11



595

1102180

D.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007F0701.D
Lab Smp Id: 1B21019-BLK1
Inj Date : 28-FEB-2011 15:24
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BLK1
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
17 Endosulfan I	7.547	7.543	0.004	25714	0.76489	0.7649 NC — Blank hit
24 Gamma-Chlordane	7.429	7.402	0.027	1074712	31.1002	31.10
$ 38 TCMX	5.019	5.023	-0.004	565631	20.8090	20.81(R)
$ 39 DCB	11.076	11.082	-0.006	594024	19.1227	19.12(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

NOTE: γ. CHLOR HIT IS A FALSE POSITIVE; DL RAISED ACCORDINGLY

D.H. 3.3.11

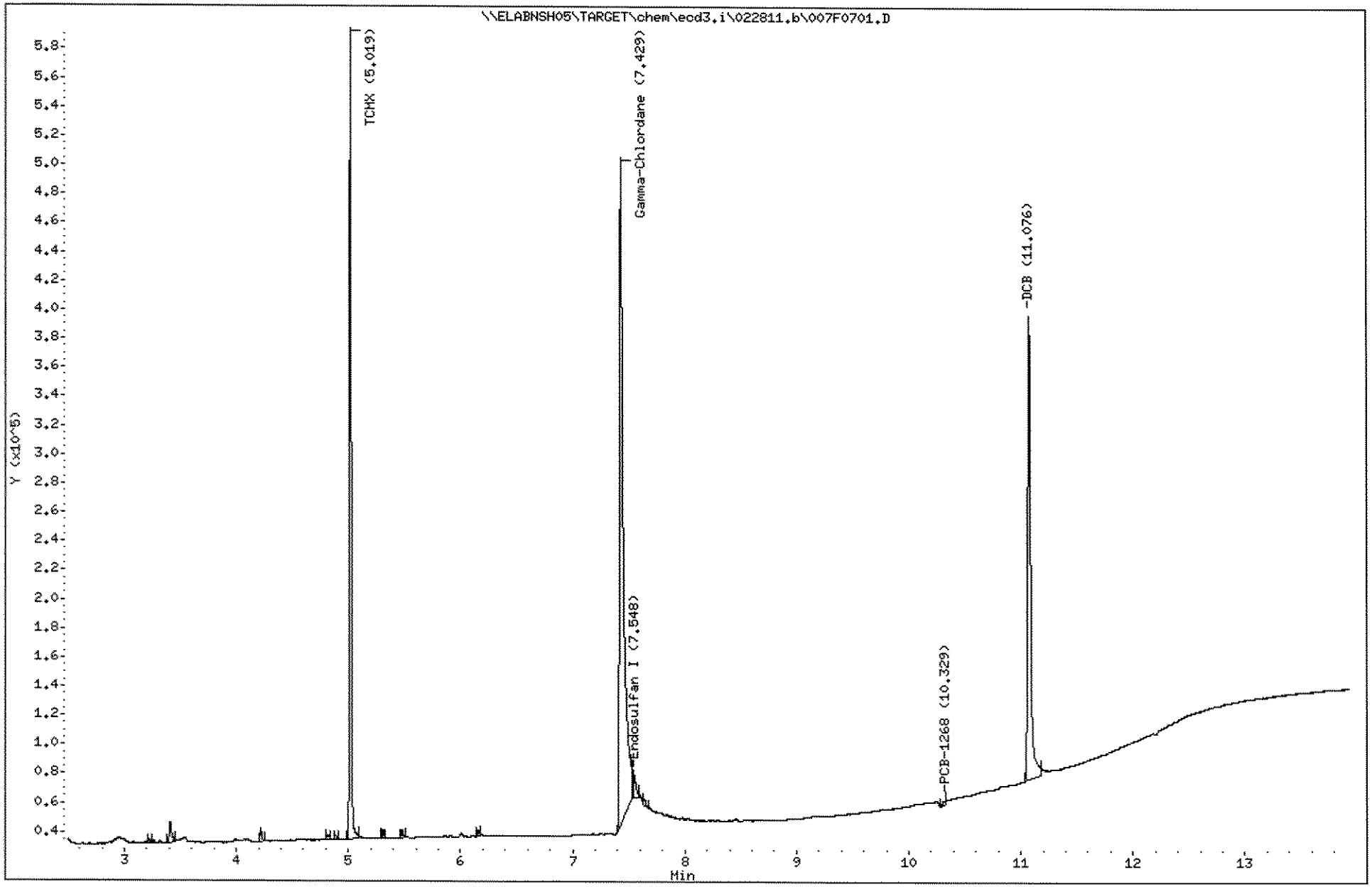
WL
3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007F0701.D
Date : 28-FEB-2011 15:24
Client ID:
Sample Info: 1B21019-BLK1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



597
1102180

J.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007R0701.D
Lab Smp Id: 1B21019-BLK1
Inj Date : 28-FEB-2011 15:24
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BLK1
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
24 Gamma-Chlordane [2C]	6.061	6.055	0.006	1137433	41.9093	41.91
$ 38 TCMX [2C]	4.164	4.165	-0.001	586911	22.6319	22.63(R)
$ 39 DCB [2C]	9.403	9.404	-0.001	458235	19.6014	19.60(R)

0.1 mL 2.b

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

* NOTE: γ. CHLOR. IS A FALSE POSITIVE; DL RAISED ACCORDINGLY

J.H. 3.3.11

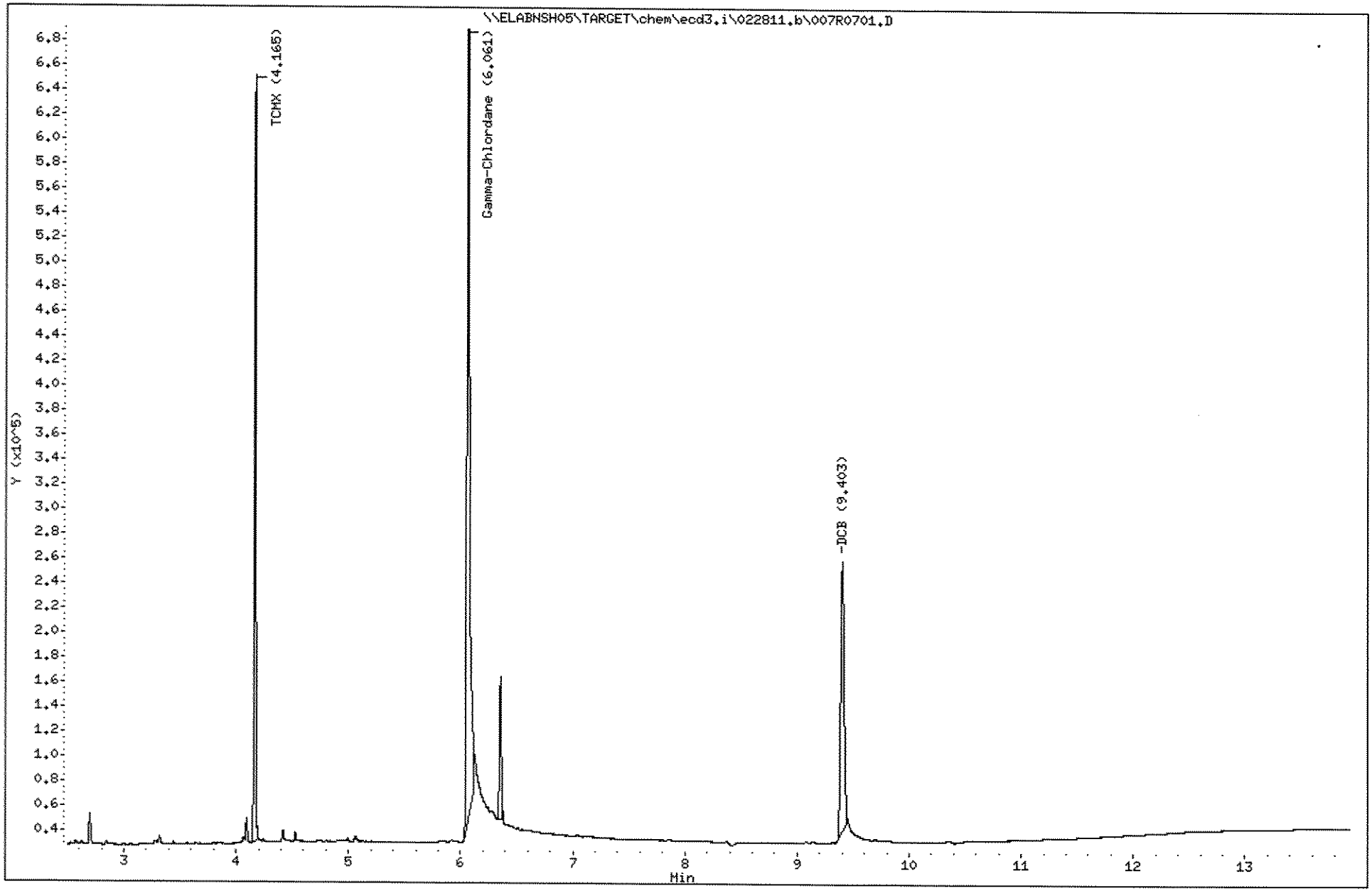
3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007R0701.D
Date : 28-FEB-2011 15:24
Client ID:
Sample Info: 1B21019-BLK1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\008F0801.D
Lab Smp Id: 1B21019-BS1
Inj Date : 28-FEB-2011 15:43
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BS1
Misc Info : ;;;;;;PEST.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:51 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
2	Aldrin	6.652	6.657	-0.005	1717672	45.5738	45.57
3	Alpha-BHC	5.437	5.442	-0.005	1909516	46.6491	46.65
4	Alpha-Chlordane	7.482	7.485	-0.003	1846951	54.2598	54.26
5	Beta-BHC	5.958	5.963	-0.005	696293	47.8103	47.81
12	4,4'-DDD	8.303	8.310	-0.007	1037883	44.7812	44.78
13	4,4'-DDE	7.688	7.697	-0.009	1361344	47.3524	47.35
14	4,4'-DDT	8.673	8.680	-0.007	1161566	49.0570	49.06
15	Delta-BHC	6.197	6.202	-0.005	1481187	46.7836	46.78
16	Dieldrin	7.853	7.860	-0.007	1587378	44.4354	44.44
17	Endosulfan I	7.538	7.543	-0.005	1737571	51.6855	51.68
18	Endosulfan II	8.395	8.403	-0.008	1363361	43.9345	43.93
19	Endosulfan Sulfate	8.840	8.847	-0.007	1041246	40.1176	40.12
20	Endrin	8.120	8.127	-0.007	1379458	50.1338	50.13
21	Endrin Aldehyde	8.555	8.562	-0.007	907558	37.5353	37.54
22	Endrin Ketone	9.430	9.437	-0.007	1435071	41.0503	41.05
23	Gamma-BHC	5.748	5.752	-0.004	1706930	47.0820	47.08
24	Gamma-Chlordane	7.397	7.402	-0.005	1556595	45.0450	45.04
25	Heptachlor	6.303	6.308	-0.005	1705976	54.3936	54.39
26	Heptachlor Epoxide	7.113	7.120	-0.007	1600386	45.9843	45.98
27	Methoxychlor	9.282	9.288	-0.006	581183	51.3572	51.36
$ 38	TCMX	5.018	5.023	-0.005	561634	20.6620	20.66(R)
$ 39	DCB	11.077	11.082	-0.005	563244	18.1318	18.13(R)

Aldrin: $\frac{1717672}{33689.9036} = 45.5738$

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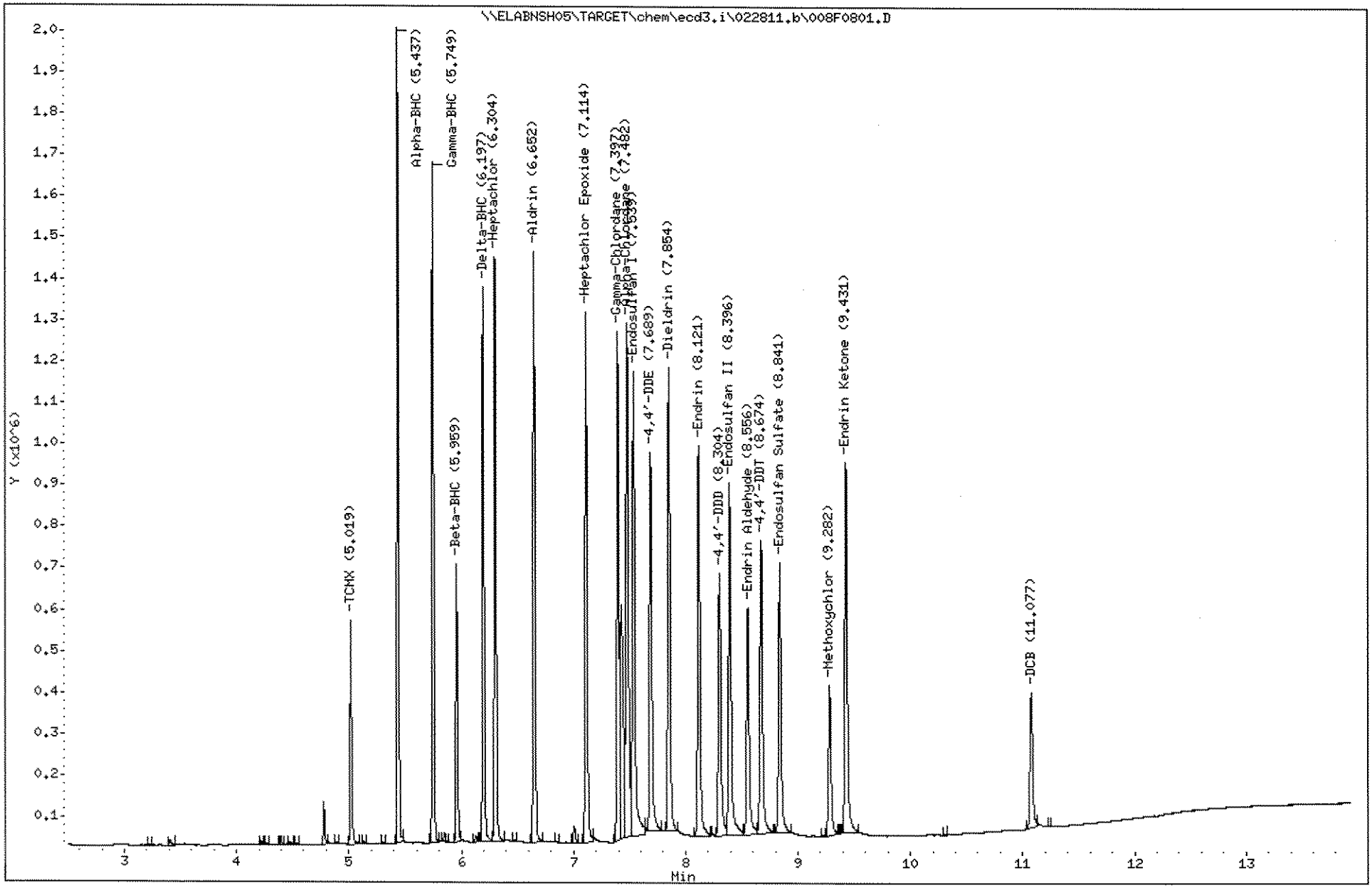
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\008F0801.D
Date : 28-FEB-2011 15:43
Client ID:
Sample Info: 1B21019-BS1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\008R0801.D
Lab Smp Id: 1B21019-BS1
Inj Date : 28-FEB-2011 15:43
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BS1
Misc Info : ;;;;;;PEST.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 18:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
2	Aldrin [2C]	5.360	5.362	-0.002	1500108	48.6570	48.66
3	Alpha-BHC [2C]	4.547	4.549	-0.002	1696383	48.3420	48.34
4	Alpha-Chlordane [2C]	6.104	6.107	-0.003	1626552	57.5979	57.60
5	Beta-BHC [2C]	5.064	5.064	0.000	695126	48.2121	48.21
12	4,4'-DDD [2C]	6.864	6.867	-0.003	921377	47.0348	47.03
13	4,4'-DDE [2C]	6.297	6.299	-0.002	1176077	51.4077	51.41
14	4,4'-DDT [2C]	7.147	7.155	-0.008	866511	53.7228	53.72
15	Delta-BHC [2C]	5.245	5.247	-0.002	1372967	49.7103	49.71
16	Dieldrin [2C]	6.407	6.409	-0.002	1402349	46.3373	46.34
17	Endosulfan I [2C]	6.147	6.149	-0.002	1556246	50.9923	50.99
18	Endosulfan II [2C]	6.990	6.992	-0.002	1129609	45.8820	45.88
19	Endosulfan Sulfate [2C]	7.434	7.435	-0.001	899709	42.4061	42.41
20	Endrin [2C]	6.667	6.669	-0.002	1239450	54.0416	54.04
21	Endrin Aldehyde [2C]	7.162	7.164	-0.002	977367	39.0858	39.08
22	Endrin Ketone [2C]	7.960	7.964	-0.004	1283740	43.5676	43.57
23	Gamma-BHC [2C]	4.804	4.804	0.000	1542683	49.6381	49.64
24	Gamma-Chlordane [2C]	6.057	6.055	0.002	2473423	91.1345	91.13
25	Heptachlor [2C]	5.120	5.122	-0.002	1464143	51.2173	51.22
26	Heptachlor Epoxide [2C]	5.795	5.795	0.000	1426401	49.2202	49.22
27	Methoxychlor [2C]	7.762	7.765	-0.003	501948	48.0736	48.07
$ 38	TCMX [2C]	4.165	4.165	0.000	560548	21.6153	21.62(R)
$ 39	DCB [2C]	9.402	9.404	-0.002	459666	19.6626	19.66(R)

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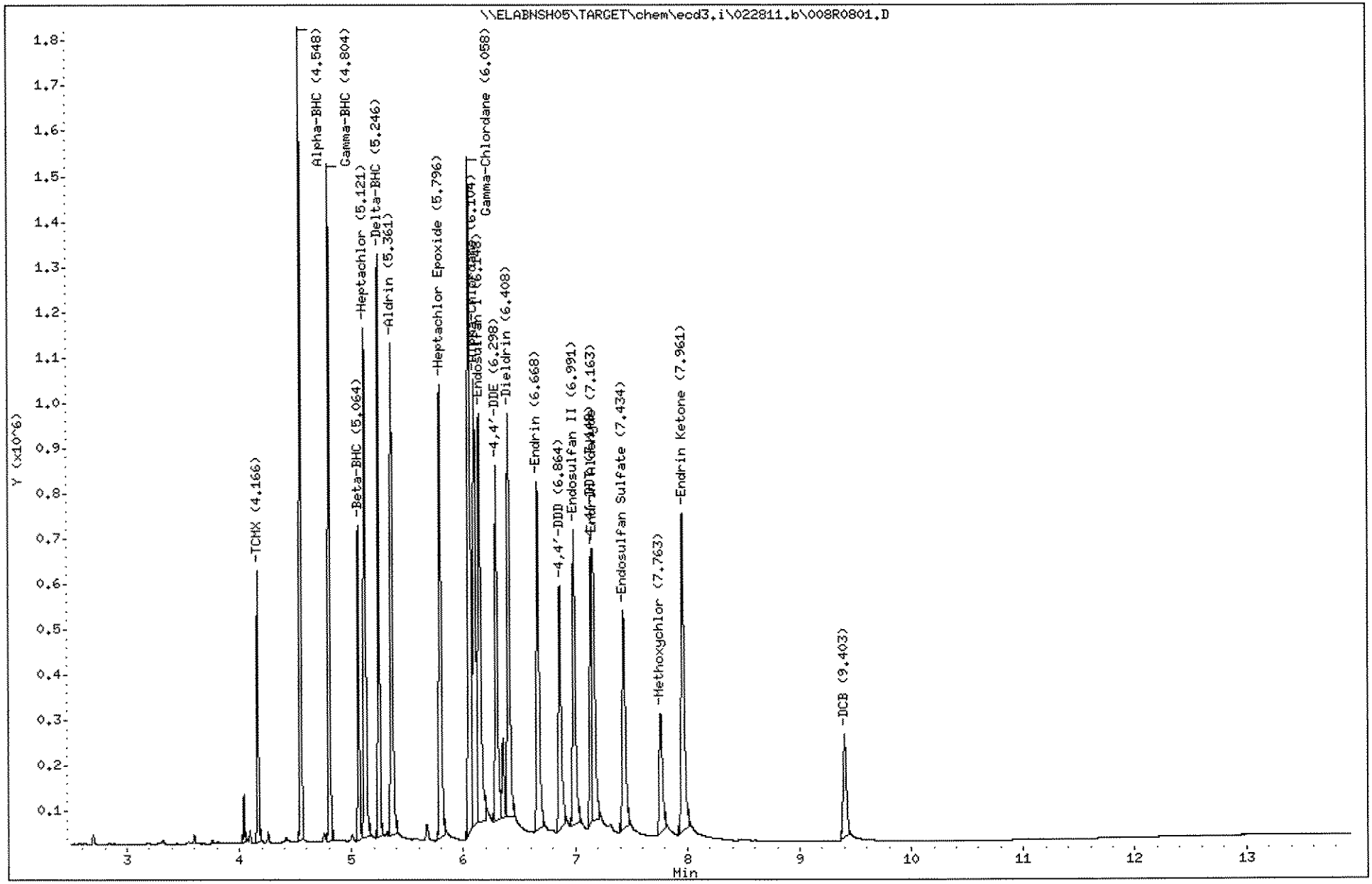
WL
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\008R0801.D
Date : 28-FEB-2011 15:43
Client ID:
Sample Info: 1B21019-BS1

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\010F1001.D
Lab Smp Id: 1B21019-BSD1
Inj Date : 28-FEB-2011 16:20
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BSD1
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:51 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pest.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
2	Aldrin	6.650	6.657	-0.007	1734690	46.0253	46.02
3	Alpha-BHC	5.437	5.442	-0.005	1934286	47.2542	47.25
4	Alpha-Chlordane	7.480	7.485	-0.005	1718317	50.4807	50.48
5	Beta-BHC	5.958	5.963	-0.005	712579	48.9285	48.93
12	4,4'-DDD	8.302	8.310	-0.008	1048932	45.2579	45.26
13	4,4'-DDE	7.687	7.697	-0.010	1381929	48.0685	48.07
14	4,4'-DDT	8.670	8.680	-0.010	1175842	49.6599	49.66
15	Delta-BHC	6.195	6.202	-0.007	1496244	47.2592	47.26
16	Dieldrin	7.852	7.860	-0.008	1623590	45.4491	45.45
17	Endosulfan I	7.537	7.543	-0.006	1672755	49.7575	49.76
18	Endosulfan II	8.393	8.403	-0.010	1369860	44.1439	44.14
19	Endosulfan Sulfate	8.838	8.847	-0.009	1101089	42.4233	42.42
20	Endrin	8.117	8.127	-0.010	1421196	51.6507	51.65
21	Endrin Aldehyde	8.553	8.562	-0.009	906094	37.4748	37.47
22	Endrin Ketone	9.428	9.437	-0.009	1512670	43.2700	43.27
23	Gamma-BHC	5.747	5.752	-0.005	1728951	47.6894	47.69
24	Gamma-Chlordane	7.395	7.402	-0.007	1615055	46.7367	46.74
25	Heptachlor	6.303	6.308	-0.005	1745718	55.6608	55.66
26	Heptachlor Epoxide	7.112	7.120	-0.008	1626321	46.7295	46.73
27	Methoxychlor	9.280	9.288	-0.008	612161	54.0946	54.09
$ 38	TCMX	5.018	5.023	-0.005	587300	21.6062	21.61(R)
$ 39	DCB	11.077	11.082	-0.005	612652	19.7224	19.72(R)

3/2/11

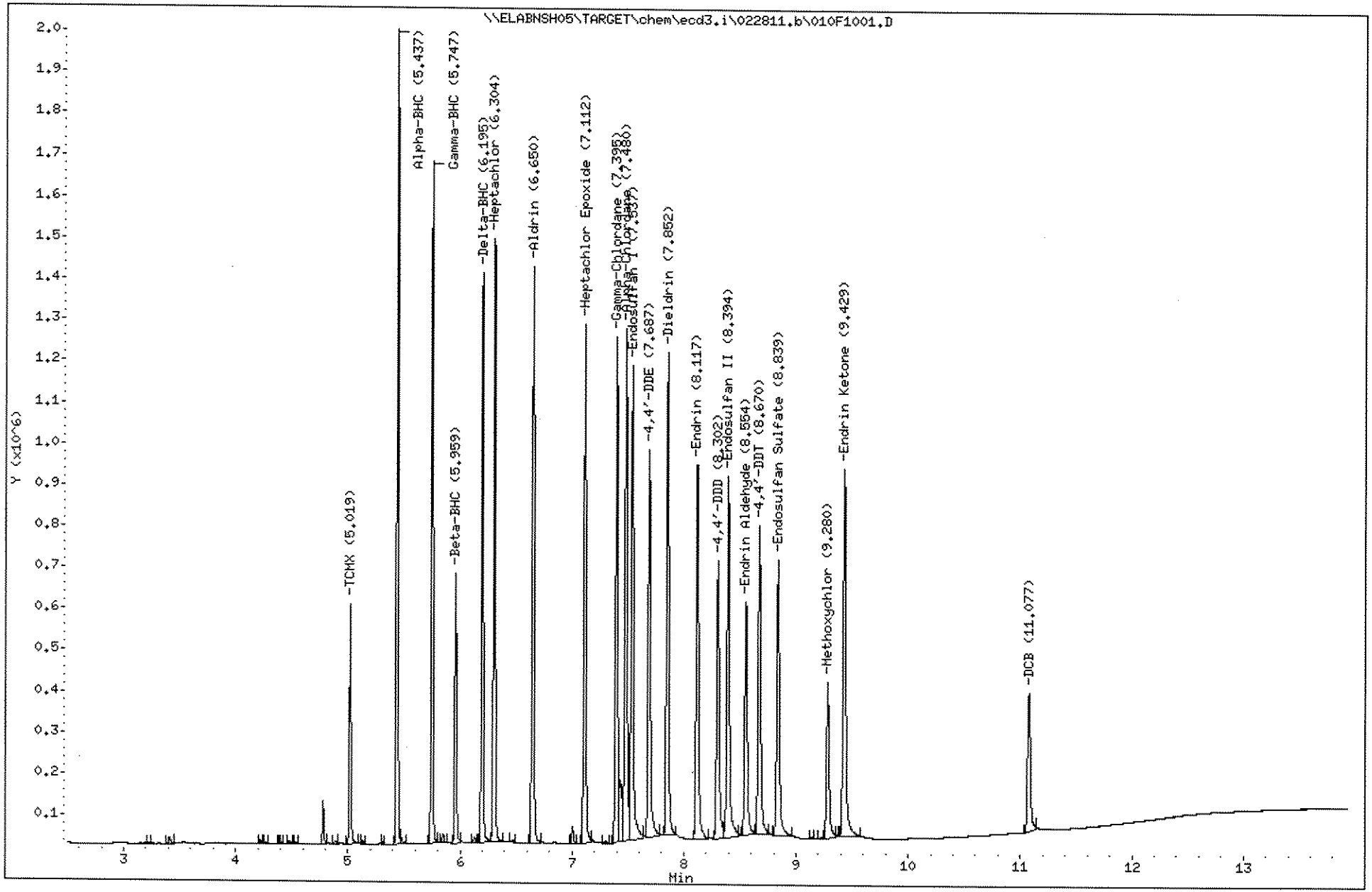
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\010F1001.D
Date : 28-FEB-2011 16:20
Client ID:
Sample Info: 1B21019-BSD1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\010R1001.D
Lab Smp Id: 1B21019-BSD1
Inj Date : 28-FEB-2011 16:20
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BSD1
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 18:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pest.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	2 Aldrin [2C]	5.359	5.362	-0.003	1515110	49.1436	49.14
	3 Alpha-BHC [2C]	4.547	4.549	-0.002	1720193	49.0205	49.02
	4 Alpha-Chlordane [2C]	6.105	6.107	-0.002	1523808	53.9596	53.96
	5 Beta-BHC [2C]	5.064	5.064	0.000	709538	49.2117	49.21
	12 4,4'-DDD [2C]	6.862	6.867	-0.005	940263	47.9989	48.00
	13 4,4'-DDE [2C]	6.295	6.299	-0.004	1190180	52.0241	52.02
	14 4,4'-DDT [2C]	7.152	7.155	-0.003	884802	54.8569	54.86(M)
	15 Delta-BHC [2C]	5.245	5.247	-0.002	1392472	50.4165	50.42
	16 Dieldrin [2C]	6.407	6.409	-0.002	1476246	48.7791	48.78
	17 Endosulfan I [2C]	6.147	6.149	-0.002	1491964	48.8860	48.89
	18 Endosulfan II [2C]	6.990	6.992	-0.002	1159778	47.1074	47.11
	19 Endosulfan Sulfate [2C]	7.434	7.435	-0.001	968714	45.6585	45.66
	20 Endrin [2C]	6.667	6.669	-0.002	1280425	55.8281	55.83
	21 Endrin Aldehyde [2C]	7.159	7.164	-0.005	1151033	46.0309	46.03(M)
	22 Endrin Ketone [2C]	7.960	7.964	-0.004	1360836	46.1841	46.18
	23 Gamma-BHC [2C]	4.802	4.804	-0.002	1557255	50.1070	50.11
	24 Gamma-Chlordane [2C]	6.055	6.055	0.000	1747762	64.3971	64.40
	25 Heptachlor [2C]	5.120	5.122	-0.002	1508057	52.7535	52.75
	26 Heptachlor Epoxide [2C]	5.794	5.795	-0.001	1444710	49.8520	49.85
	27 Methoxychlor [2C]	7.762	7.765	-0.003	557381	53.3827	53.38
$	38 TCMX [2C]	4.165	4.165	0.000	585088	22.5616	22.56(R)
$	39 DCB [2C]	9.402	9.404	-0.002	513453	21.9634	21.96(R)

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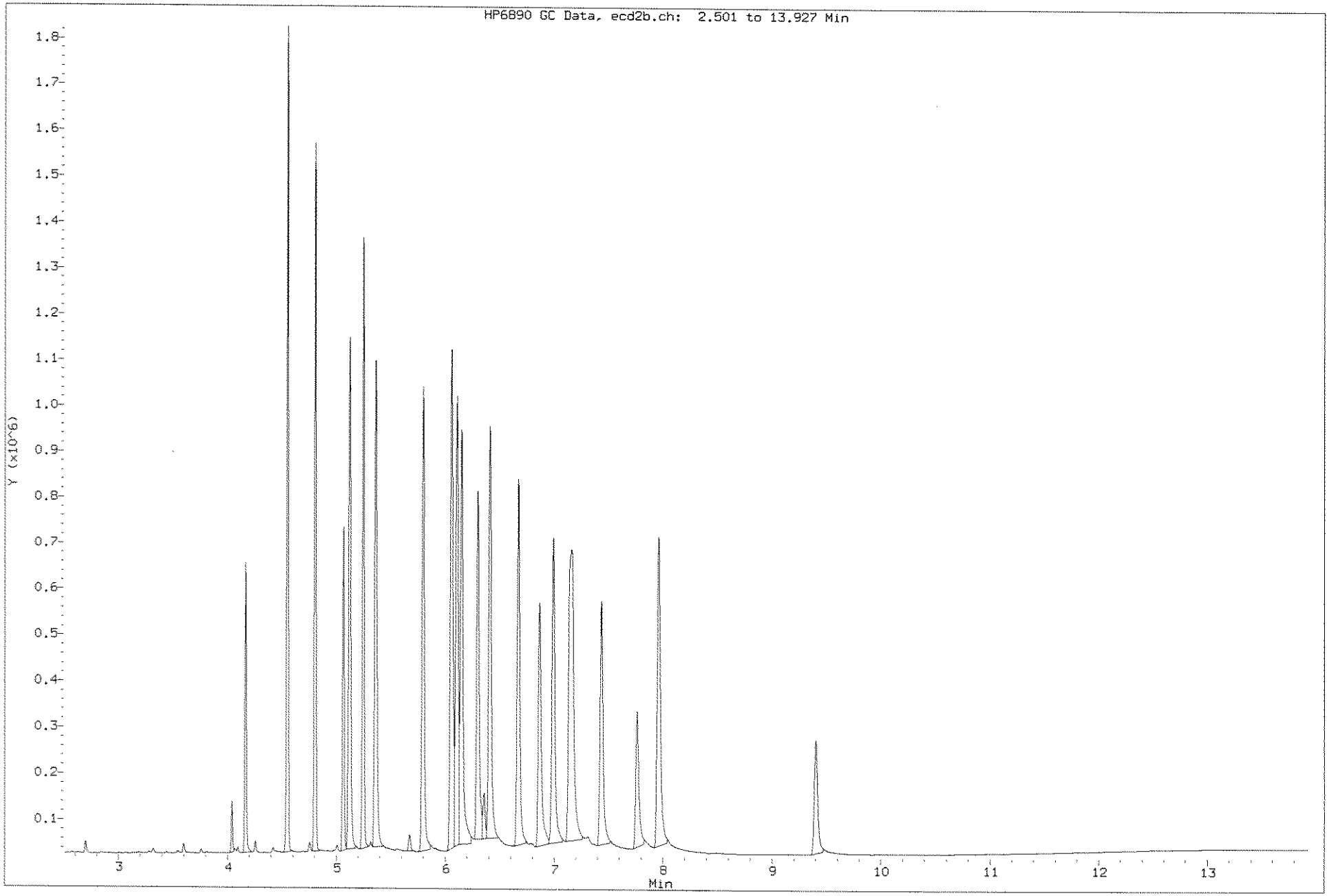
2/28/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\010R1001.D
Injection Date: 28-FEB-2011 16:20
Instrument: ecd3.i
Client Sample ID:



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1102180

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\010R1001.D
Date : 28-FEB-2011 16:20
Client ID:
Sample Info: 1B21019-BSD1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B
mr
2/28/11

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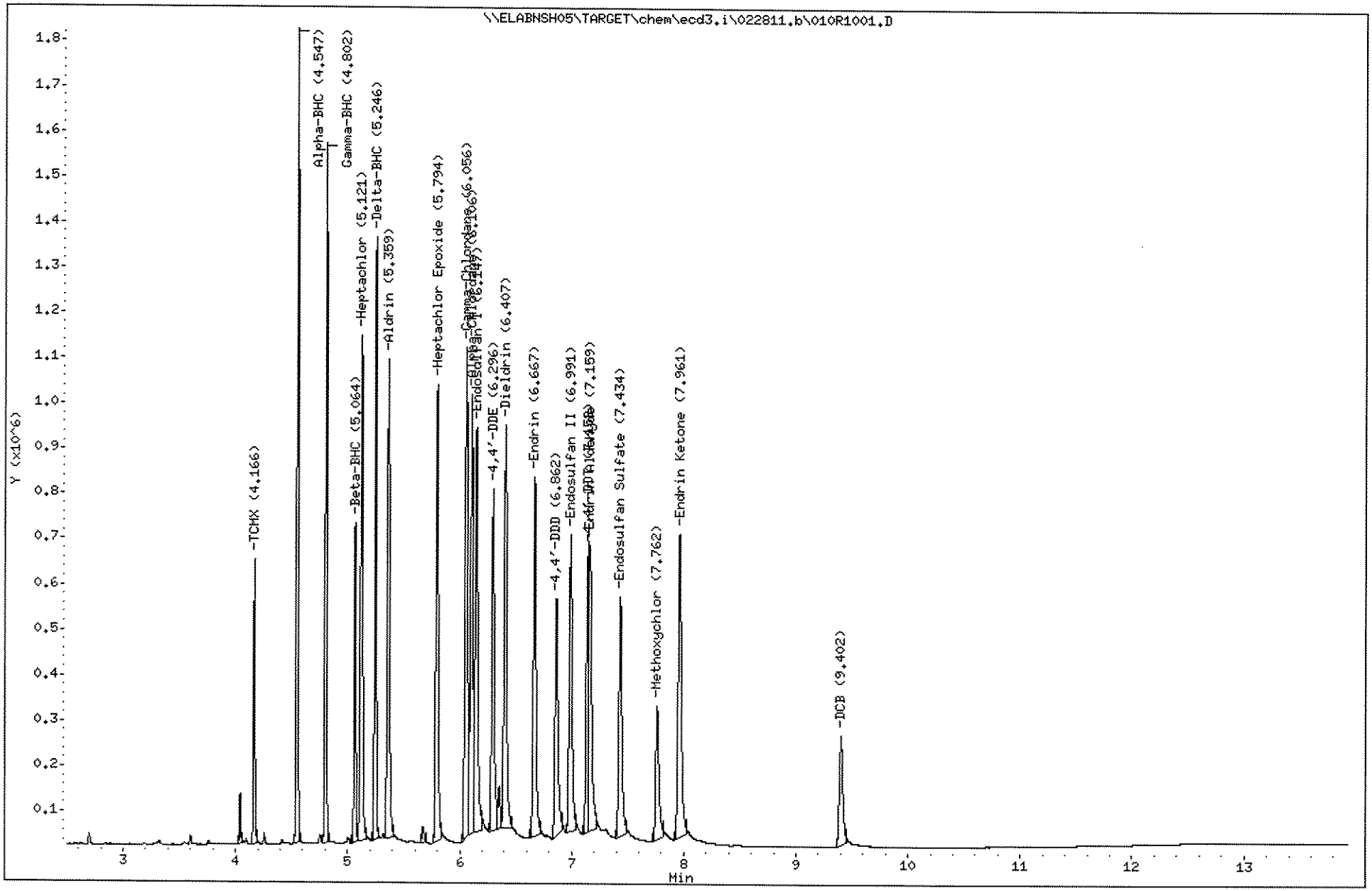


1102180

3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012F1201.D
Lab Smp Id: 1102180-01
Inj Date : 28-FEB-2011 16:57
Operator : WAL Inst ID: ecd3.i
Smp Info : 1102180-01
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
19 Endosulfan Sulfate	8.869	8.847	0.022	21402	0.82459	0.8246 NC
24 Gamma-Chlordane	7.421	7.402	0.019	2443460	70.7092	70.71 per
$ 38 TCMX	5.018	5.023	-0.005	562806	20.7051	20.70(R)
$ 39 DCB	11.074	11.082	-0.008	677302	21.8036	21.80(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

* NOTE : Y. CHLOR IS A FALSE POSITIVE

3.3.11

see NCR # 110175

The MDL, LOD, & MRL were raised to 24 (72 ng/mL on col) for gamma-chlordane

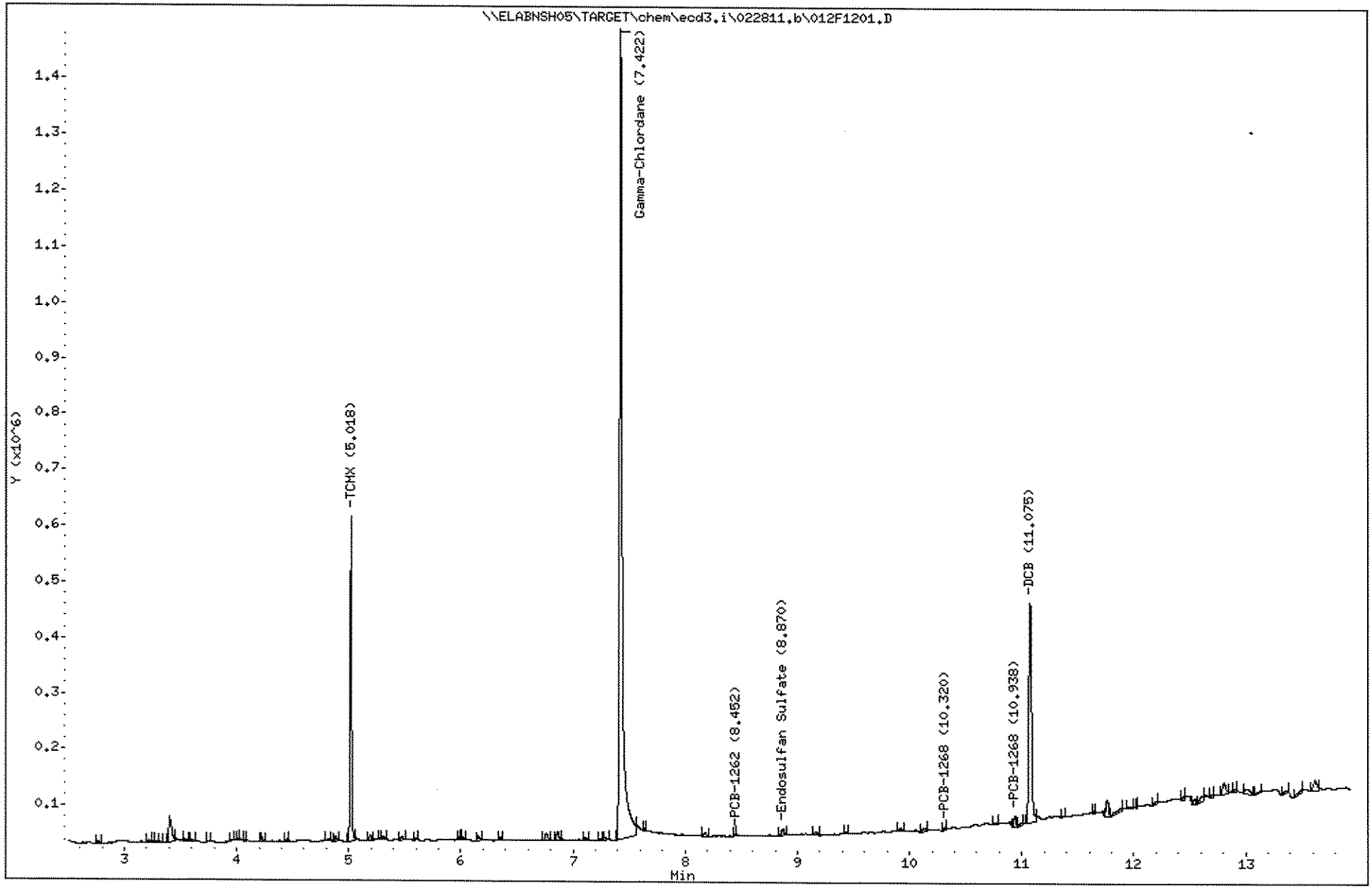
3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012F1201.D
Date : 28-FEB-2011 16:57
Client ID:
Sample Info: 1102180-01

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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1102180

D.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012R1201.D
Lab Smp Id: 1102180-01
Inj Date : 28-FEB-2011 16:57
Operator : WAL Inst ID: ecd3.i
Smp Info : 1102180-01
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
24 Gamma-Chlordane [2C]	6.058	6.055	0.003	2143721	78.9865	78.99
$ 38 TCMX [2C]	4.165	4.165	0.000	571287	22.0294	22.03(R)
$ 39 DCB [2C]	9.400	9.404	-0.004	535099	22.8893	22.89(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

* NOTE: G. CHLOR. IS A FALSE POSITIVE

D.H. 3.3.11

See NCR # 110175
The MDL, LOD, & MAL were raised to 24 (72 ng/mL on col) for gamma-chlordane

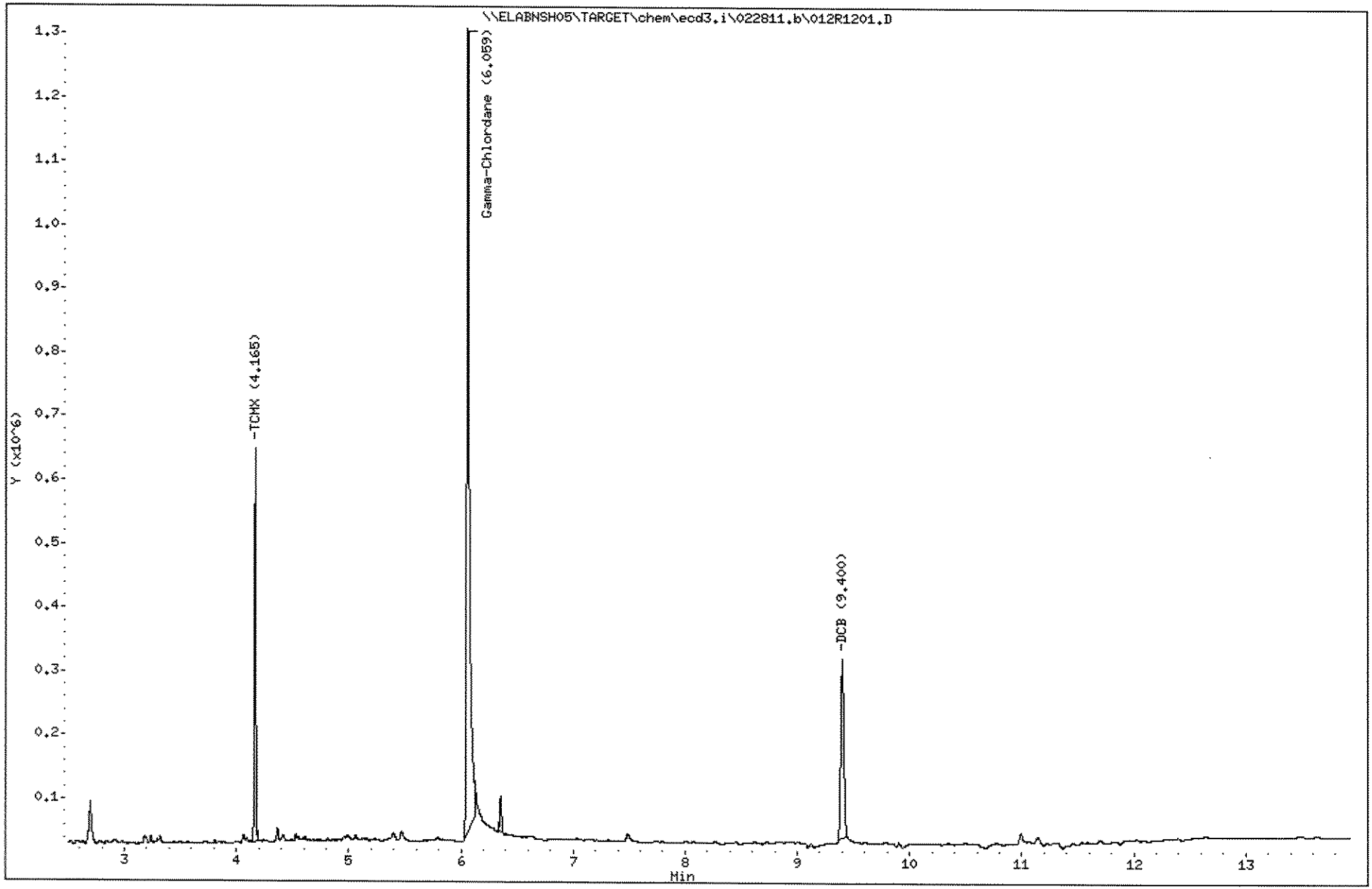
WL 3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012R1201.D
Date : 28-FEB-2011 16:57
Client ID:
Sample Info: 1102180-01

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



612

1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021F2101.D
Lab Smp Id: SEQ-CCV5
Inj Date : 28-FEB-2011 19:44
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.017	5.023	-0.006	2827410		100.000	104.0
3	Alpha-BHC	5.436	5.442	-0.006	4575293	0	100.000	111.8
23	Gamma-BHC	5.747	5.752	-0.005	4021432		100.000	110.9
5	Beta-BHC	5.957	5.963	-0.006	1554179		100.000	106.7
15	Delta-BHC	6.196	6.202	-0.006	3660728		100.000	115.6
25	Heptachlor	6.302	6.308	-0.006	3799335		100.000	121.1 ↑
2	Aldrin	6.649	6.657	-0.008	4053741		100.000	107.6
26	Heptachlor Epoxide	7.112	7.120	-0.008	3659203		100.000	105.1
24	Gamma-Chlordane	7.394	7.402	-0.008	3704756		100.000	107.2
4	Alpha-Chlordane	7.479	7.485	-0.006	3536935		100.000	103.9
17	Endosulfan I	7.536	7.543	-0.007	3394414		100.000	101.0
13	4,4'-DDE	7.687	7.697	-0.010	3096916		100.000	107.7
16	Dieldrin	7.852	7.860	-0.008	3750803		100.000	105.0
20	Endrin	8.119	8.127	-0.008	3091898		100.000	112.4
12	4,4'-DDD	8.301	8.310	-0.009	2477191		100.000	106.9
18	Endosulfan II	8.392	8.403	-0.011	3052769		100.000	98.38
21	Endrin Aldehyde	8.552	8.562	-0.010	2506300		100.000	103.6
14	4,4'-DDT	8.671	8.680	-0.009	2669470		100.000	112.7
19	Endosulfan Sulfate	8.837	8.847	-0.010	2522320		100.000	97.18
27	Methoxychlor	9.279	9.288	-0.009	1254531		100.000	110.8
22	Endrin Ketone	9.426	9.437	-0.011	3479065	*	100.000	99.52
$ 39	DCB	11.072	11.082	-0.010	2768321		100.000	89.12

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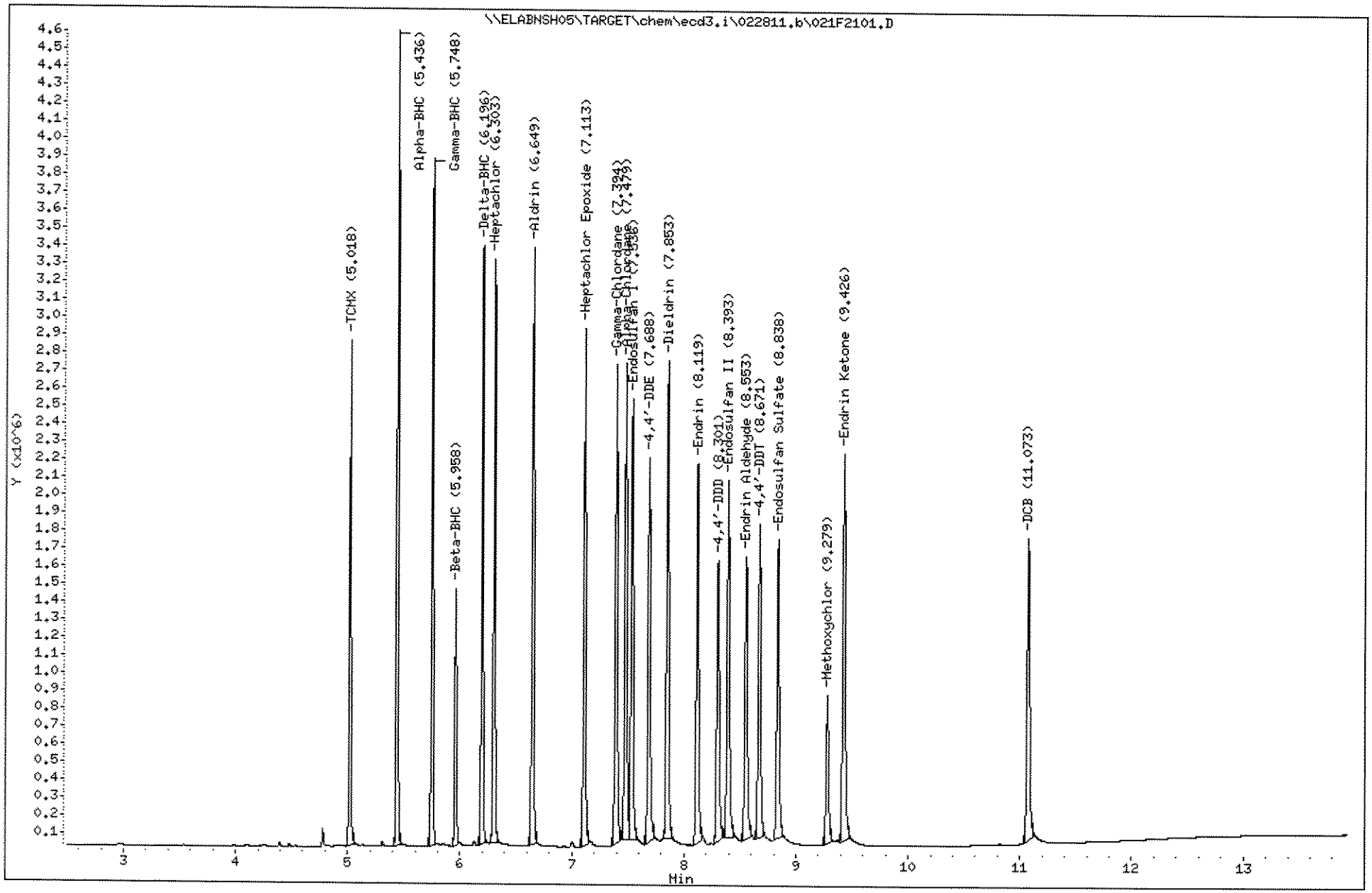
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021F2101.D
Date : 28-FEB-2011 19:44
Client ID:
Sample Info: SEQ-CCV5

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021R2101.D
Lab Smp Id: SEQ-CCV5
Inj Date : 28-FEB-2011 19:44
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX [2C]	4.164	4.165	-0.001	2648599		100.000	102.1
3	Alpha-BHC [2C]	4.548	4.549	-0.001	3759905		100.000	107.1
23	Gamma-BHC [2C]	4.803	4.804	-0.001	3388393		100.000	109.0
5	Beta-BHC [2C]	5.063	5.064	-0.001	1486717		100.000	103.1
25	Heptachlor [2C]	5.119	5.122	-0.003	3155582		100.000	110.4
15	Delta-BHC [2C]	5.244	5.247	-0.003	3142691		100.000	113.8
2	Aldrin [2C]	5.359	5.362	-0.003	3257448		100.000	105.6
26	Heptachlor Epoxide [2C]	5.793	5.795	-0.002	3001413		100.000	103.6
24	Gamma-Chlordane [2C]	6.053	6.055	-0.002	3034760		100.000	111.8
4	Alpha-Chlordane [2C]	6.103	6.107	-0.004	2971684		100.000	105.2
17	Endosulfan I [2C]	6.146	6.149	-0.003	3073506		100.000	100.7
13	4,4'-DDE [2C]	6.294	6.299	-0.005	2675324		100.000	116.9
16	Dieldrin [2C]	6.406	6.409	-0.003	3199367		100.000	105.7
20	Endrin [2C]	6.666	6.669	-0.003	2580493		100.000	112.5
12	4,4'-DDD [2C]	6.861	6.867	-0.006	2258181		100.000	115.3
18	Endosulfan II [2C]	6.988	6.992	-0.004	2597836		100.000	105.5
14	4,4'-DDT [2C]	7.149	7.155	-0.006	1874241		100.000	116.2(M)
21	Endrin Aldehyde [2C]	7.161	7.164	-0.003	2900444		100.000	116.0(M)
19	Endosulfan Sulfate [2C]	7.433	7.435	-0.002	2179961		100.000	102.7
27	Methoxychlor [2C]	7.763	7.765	-0.002	1151011		100.000	110.2
22	Endrin Ketone [2C]	7.958	7.964	-0.006	3067238	*	100.000	104.1
$ 39	DCB [2C]	9.401	9.404	-0.003	2230121	D	100.000	95.40

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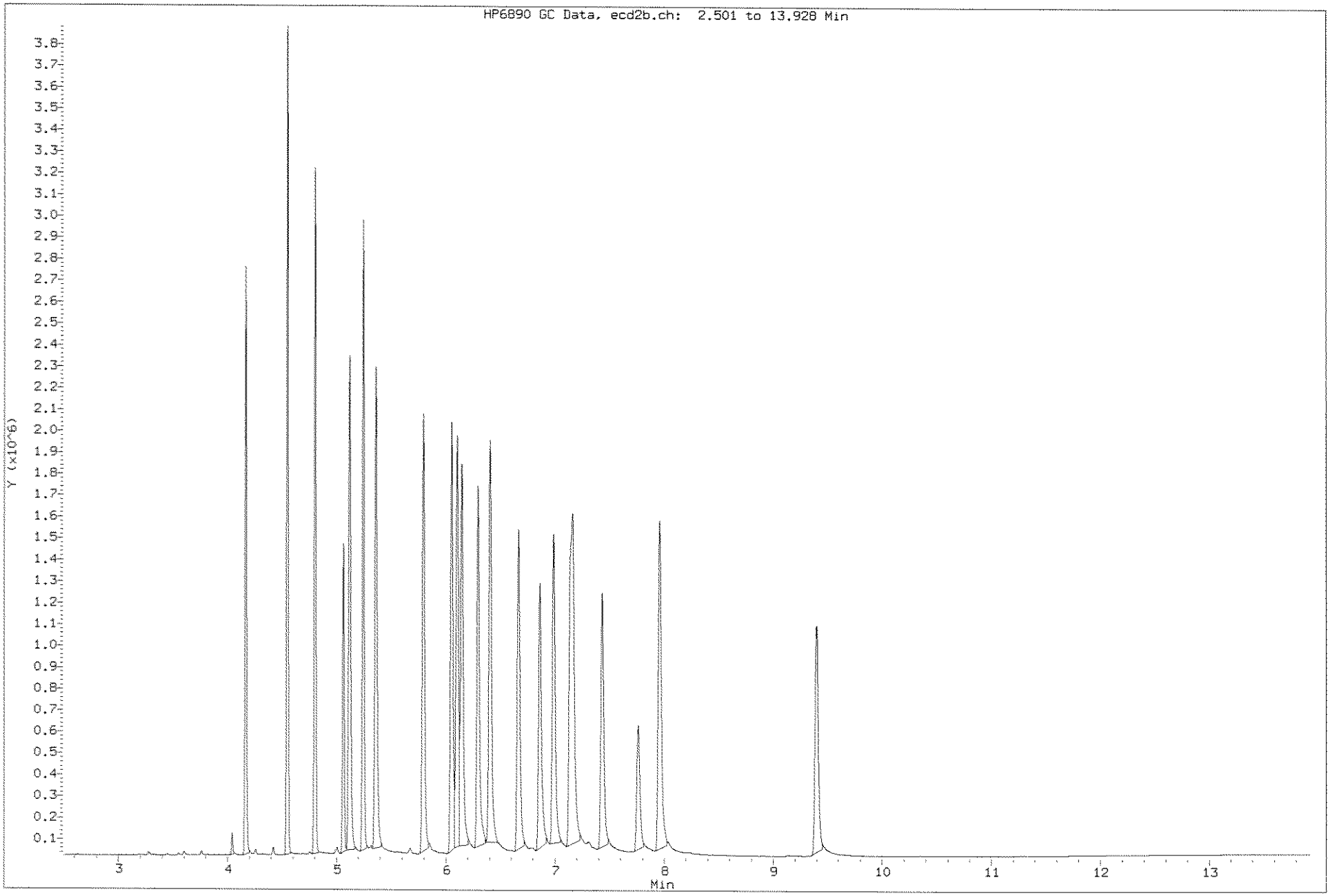
3/1/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\021R2101.D
Injection Date: 28-FEB-2011 19:44
Instrument: ecd3.i
Client Sample ID:



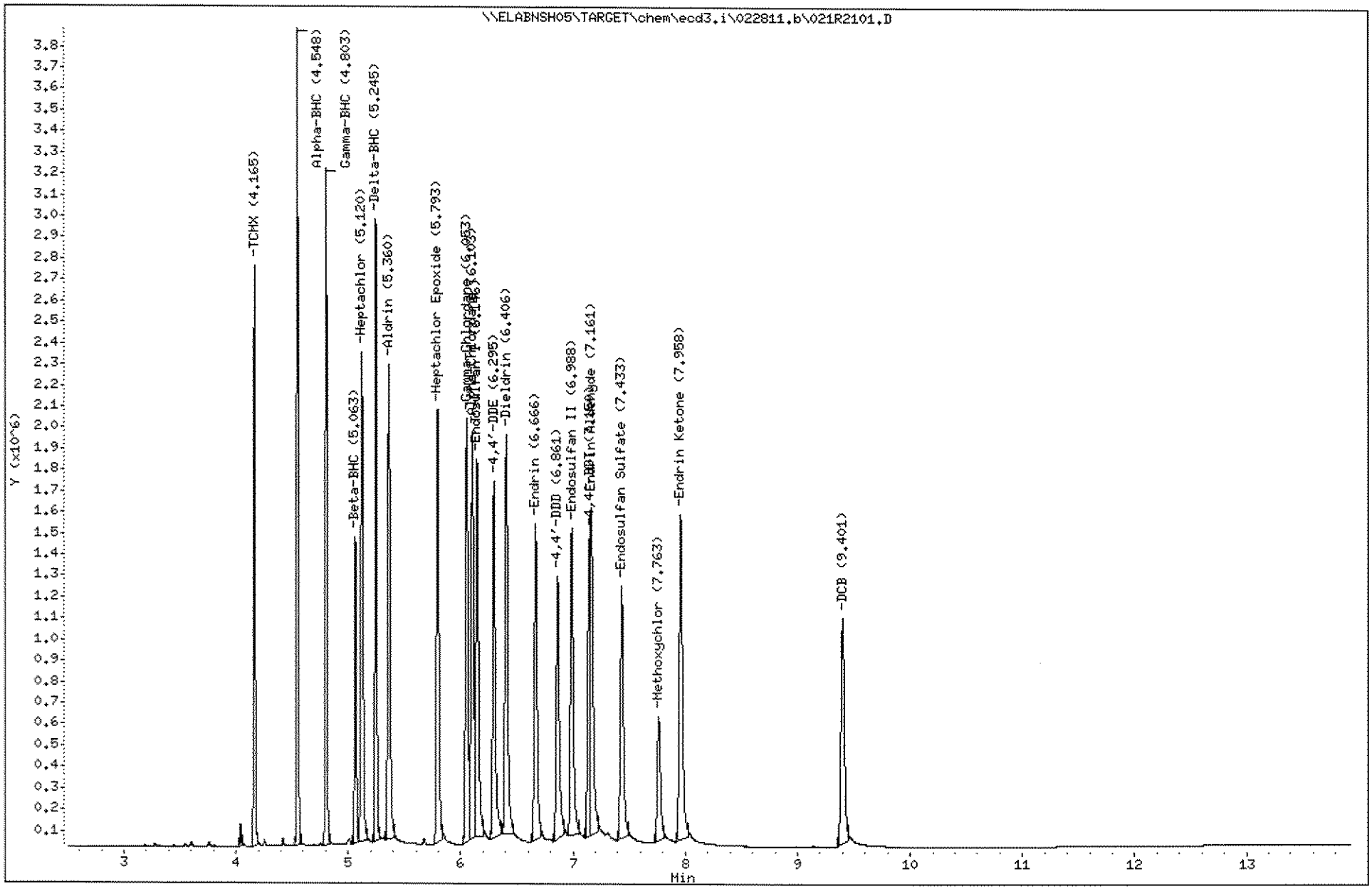
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021R2101.D
Date : 28-FEB-2011 19:44
Client ID:
Sample Info: SEQ-CCV5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B
WL
3/1/11



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\022F2201.D
Lab Smp Id: SEQ-CCV6
Inj Date : 28-FEB-2011 20:03
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV6
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
6 Chlordane					CAS #: 57-74-9		
7.480	7.483	(-0.003)	502156	100.000	120.2	80.00- 120.00	100.00
6.090	6.091	(-0.001)	111698	100.000	125.1	17.79- 26.69	22.24
6.304	6.305	(-0.001)	127251	100.000	137.3	20.27- 30.41	25.34
7.395	7.396	(-0.001)	*417630	100.000	125.3	66.53- 99.80	83.17
8.469	8.468	(0.001)	107395	100.000	138.4	17.11- 25.66	21.39
		Average of Peak Amounts =			129.2		

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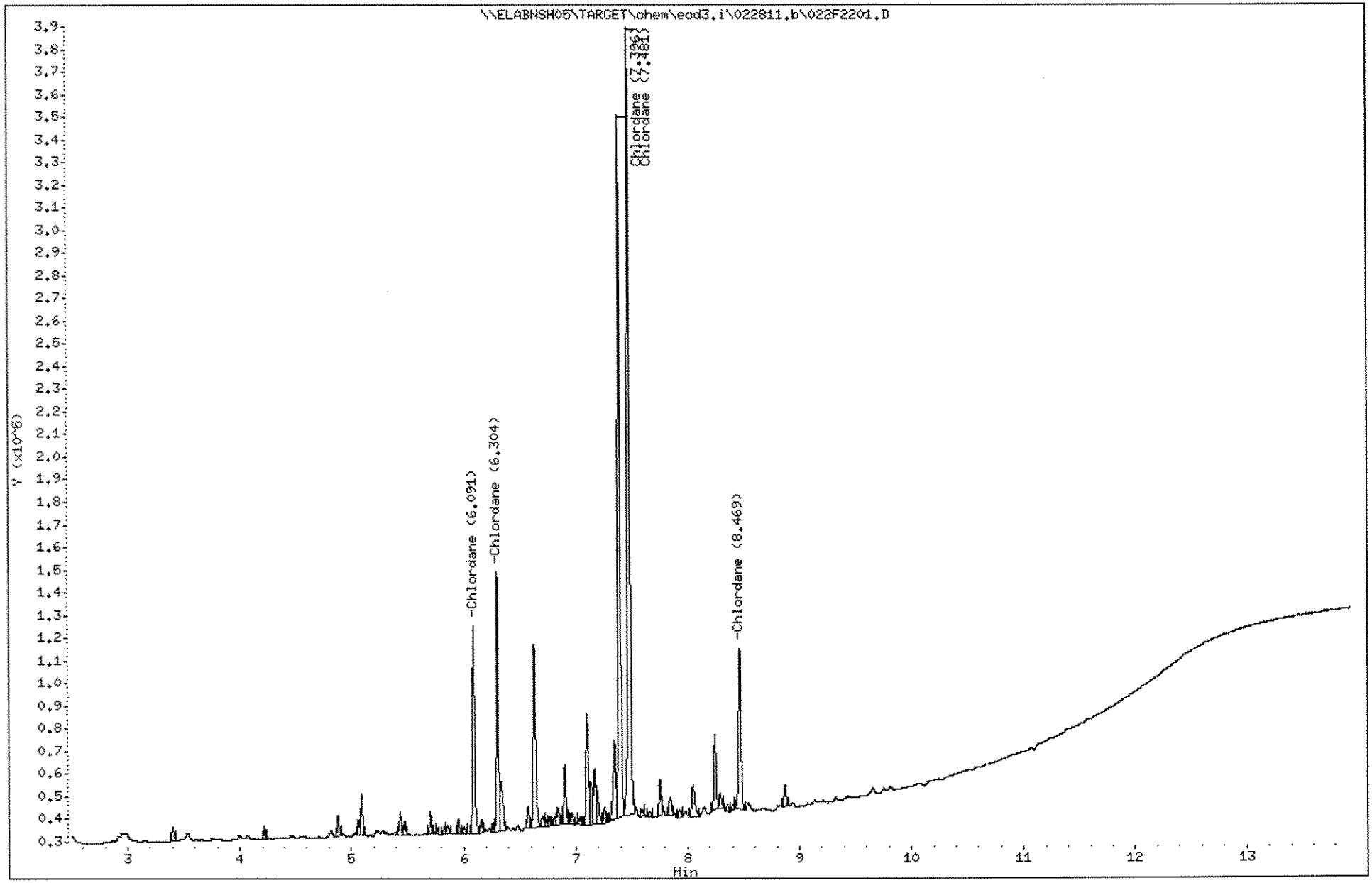
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\022F2201.D
Date : 28-FEB-2011 20:03
Client ID:
Sample Info: SEQ-CCV6

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\022R2201.D
Lab Smp Id: SEQ-CCV6
Inj Date : 28-FEB-2011 20:03
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV6
Misc Info : ;;;;;;CHLORDANE.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: CHLORDANE.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
6 Chlordane [2C]					CAS #: 57-74-9		
6.097	6.100	(-0.003)	519940	100.000	135.2	80.00- 120.00	100.00
4.971	4.972	(-0.001)	93532	100.000	122.7	14.39- 21.59	17.99
5.119	5.122	(-0.003)	113353	100.000	125.1	17.44- 26.16	21.80
6.052	6.053	(-0.001)	*311885	100.000	134.5	47.99- 71.98	59.98
6.994	6.995	(-0.001)	111693	100.000	146.2	17.19- 25.78	21.48
		Average of Peak Amounts =			132.7		

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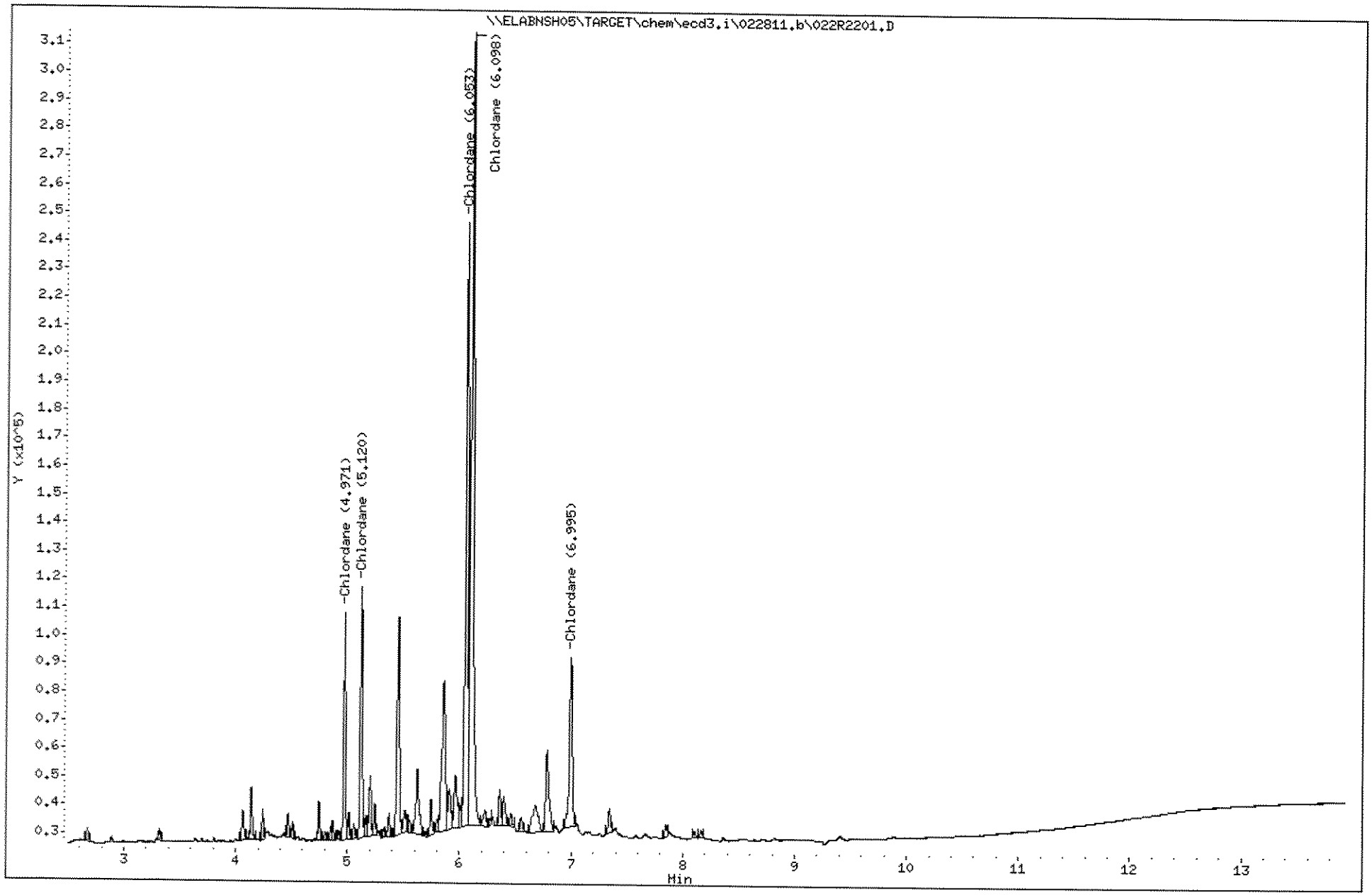
WL 3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\022R2201.D
Date : 28-FEB-2011 20:03
Client ID:
Sample Info: SEQ-CCV6

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\023F2301.D
Lab Smp Id: SEQ-CCV7
Inj Date : 28-FEB-2011 20:22
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV7
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
28 Toxaphene						CAS #: 8001-35-2		
9.327	9.329	(-0.002)	*1431908	1000.00	1224	80.00-	120.00	100.00
8.048	8.053	(-0.005)	598898	1000.00	1300	33.46-	50.19	41.83
8.703	8.706	(-0.003)	1340951	1000.00	1292	74.92-	112.38	93.65
8.808	8.811	(-0.003)	1682583	1000.00	1510	94.01-	141.01	117.51
9.767	9.769	(-0.002)	710954	1000.00	1293	39.72-	59.58	49.65
Average of Peak Amounts =					1324			

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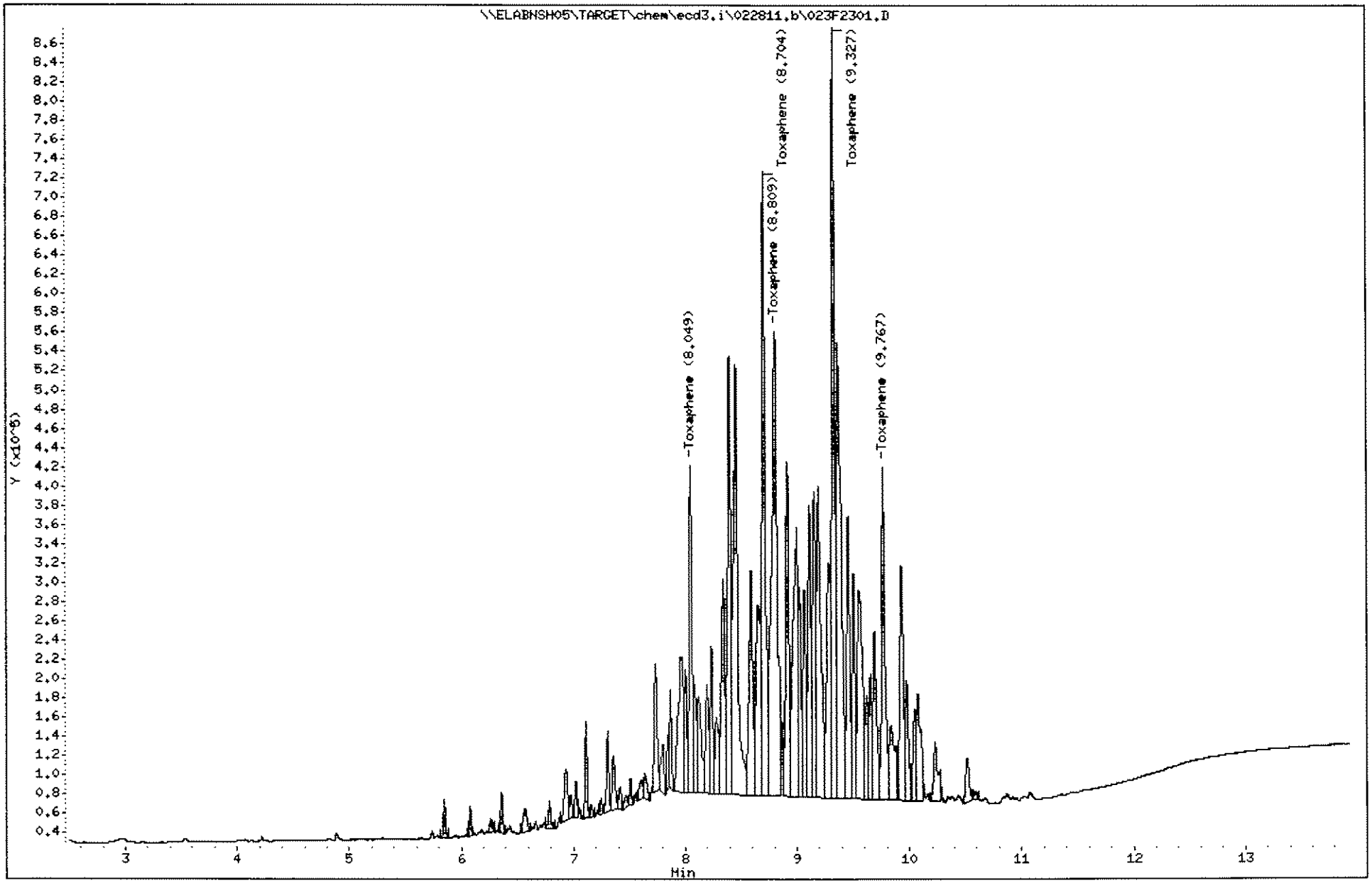
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\023F2301.D
Date : 28-FEB-2011 20:22
Client ID:
Sample Info: SEQ-CCV7

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\023R2301.D
Lab Smp Id: SEQ-CCV7
Inj Date : 28-FEB-2011 20:21
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV7
Misc Info : ;;;;;;TOXAPH.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TOXAPH.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
28 Toxaphene [2C]					CAS #: 8001-35-2		
7.877	7.881	(-0.004)	*1490651	1000.00	1492	80.00- 120.00	100.00(M)
6.997	6.996	(0.001)	820605	1000.00	1773	44.04- 66.06	55.05
7.320	7.321	(-0.001)	1520365	1000.00	1542	81.59- 122.39	101.99
8.247	8.250	(-0.003)	1021422	1000.00	2193	54.82- 82.23	68.52
8.410	8.411	(-0.001)	540238	1000.00	1499	28.99- 43.49	36.24
		Average of Peak Amounts =			1700		

QC Flag Legend

M - Compound response manually integrated.

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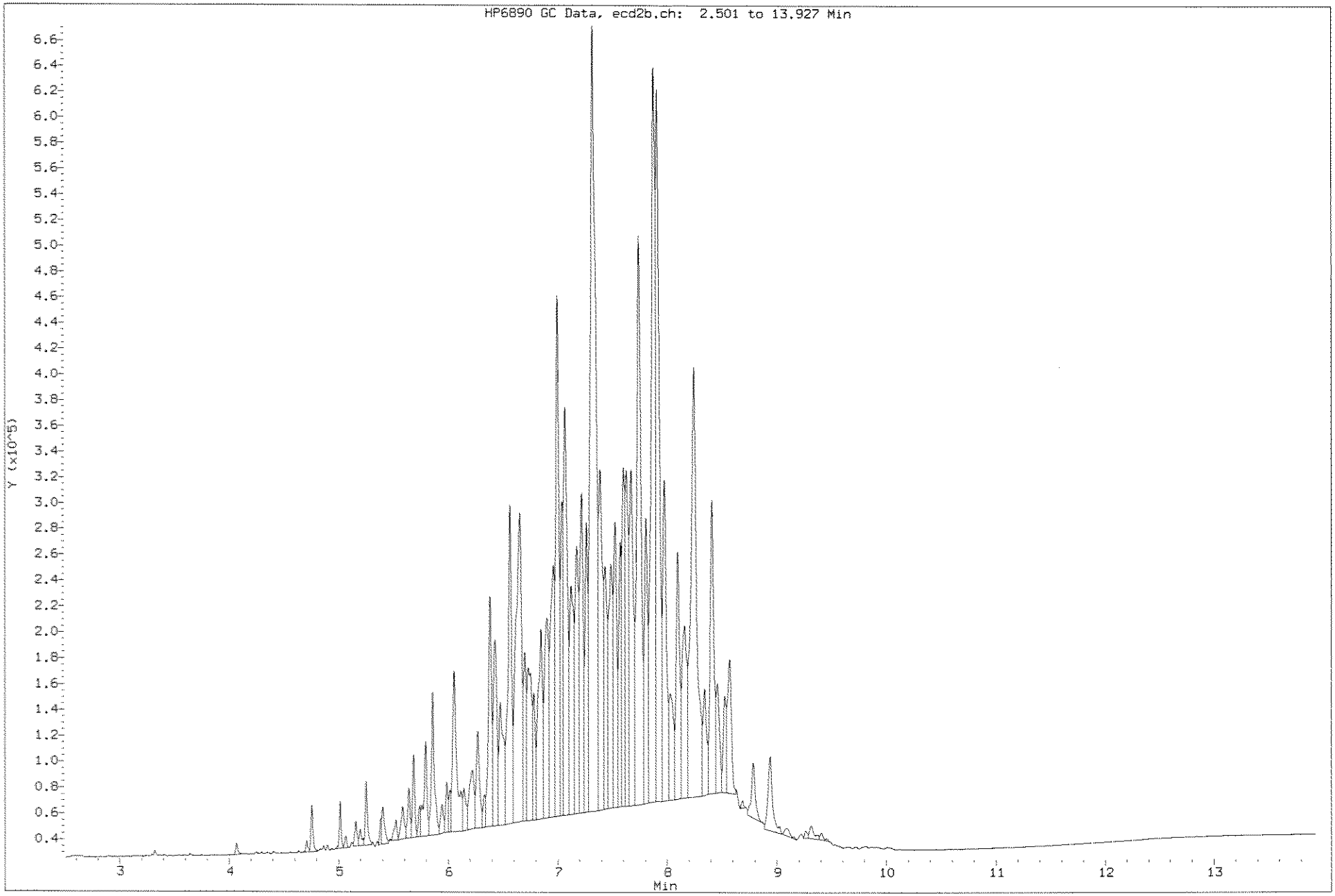
3/1/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\023R2301.D
Injection Date: 28-FEB-2011 20:21
Instrument: ecd3.i
Client Sample ID:



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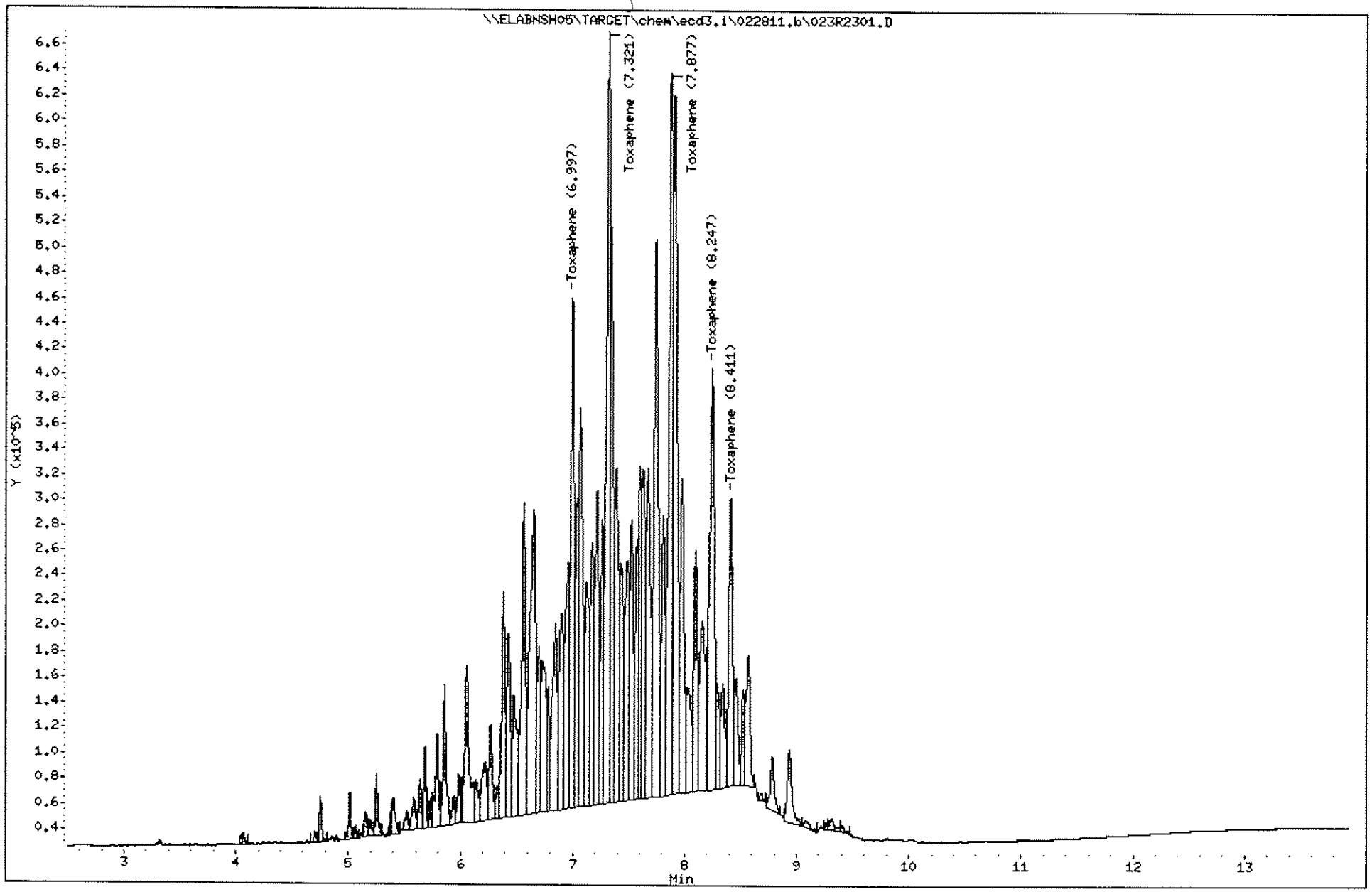
1102180

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\023R2301.D
Date : 28-FEB-2011 20:21
Client ID:
Sample Info: SEQ-CCV7

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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1102180

PREPARATION BENCH SHEET

1B21019

Empirical Laboratories, LLC

Printed: 3/4/2011 11:14:57AM

627

Matrix: Solid **Prepared using: EXT - EXT_3546** **Surrogate used: 11B0080**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102180-01	SGC_PCB8082A_3546	02/25/2011 11:49	15.3	10				500	
1102180-01	SGC_PEST8081A_3546	02/25/2011 11:49	15.3	10				500	
1B21019-BLK1	QC	02/25/2011 11:49	15	10				500	
1B21019-BS1	QC	02/25/2011 11:49	15	10	11B0604		500	500	Pest AB LCS
1B21019-BS2	QC	02/25/2011 11:49	15	10	11A0653		500	500	PCB 1660 LCS
1B21019-BSD1	QC	02/25/2011 11:49	15	10	11B0604		500	500	Pest AB LCS
1B21019-BSD2	QC	02/25/2011 11:49	15	10	11A0653		500	500	PCB 1660 LCS

1102180

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Data for SW8082A Forms

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1B03803	Instrument:	GL-ECD3
Calibration:	1040001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1B03803-CAL1	002R0201.D	02/06/11 12:20
Cal Standard	1B03803-CAL1	002F0201.D	02/06/11 12:20
Cal Standard	1B03803-CAL2	003R0301.D	02/06/11 12:38
Cal Standard	1B03803-CAL2	003F0301.D	02/06/11 12:38
Cal Standard	1B03803-CAL3	004R0401.D	02/06/11 12:57
Cal Standard	1B03803-CAL3	004F0401.D	02/06/11 12:57
Cal Standard	1B03803-CAL4	005R0501.D	02/06/11 13:15
Cal Standard	1B03803-CAL4	005F0501.D	02/06/11 13:15
Cal Standard	1B03803-CAL5	006R0601.D	02/06/11 13:34
Cal Standard	1B03803-CAL5	006F0601.D	02/06/11 13:34
Cal Standard	1B03803-CAL6	007R0701.D	02/06/11 13:52
Cal Standard	1B03803-CAL6	007F0701.D	02/06/11 13:52
Initial Cal Check	1B03803-ICV1	008R0801.D	02/06/11 14:11
Initial Cal Check	1B03803-ICV1	008F0801.D	02/06/11 14:11

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1B04026	Instrument:	GL-ECD3
Calibration:	1040001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1B04026-CAL7	011R1101.D	02/08/11 19:37
Cal Standard	1B04026-CAL7	011F1101.D	02/08/11 19:37
Cal Standard	1B04026-CAL8	012R1201.D	02/08/11 19:56
Cal Standard	1B04026-CAL8	012F1201.D	02/08/11 19:56
Cal Standard	1B04026-CAL9	013R1301.D	02/08/11 20:15
Cal Standard	1B04026-CAL9	013F1301.D	02/08/11 20:15
Cal Standard	1B04026-CALA	014R1401.D	02/08/11 20:34
Cal Standard	1B04026-CALA	014F1401.D	02/08/11 20:34
Cal Standard	1B04026-CALB	015R1501.D	02/08/11 20:53
Cal Standard	1B04026-CALB	015F1501.D	02/08/11 20:53
Cal Standard	1B04026-CALC	016R1601.D	02/08/11 21:12
Cal Standard	1B04026-CALC	016F1601.D	02/08/11 21:12
Cal Standard	1B04026-CALD	017R1701.D	02/08/11 21:31
Cal Standard	1B04026-CALD	017F1701.D	02/08/11 21:31

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C06009	Instrument:	GL-ECD3
Calibration:	1040001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1C06009-CCV1	003F0301.D	02/28/11 14:10
Calibration Check	1C06009-CCV1	003R0301.D	02/28/11 14:10
Calibration Check	1C06009-CCV4	006R0601.D	02/28/11 15:05
Calibration Check	1C06009-CCV4	006F0601.D	02/28/11 15:05
Blank	1B21019-BLK1	007F0701.D	02/28/11 15:24
Blank	1B21019-BLK1	007R0701.D	02/28/11 15:24
LCS	1B21019-BS2	009F0901.D	02/28/11 16:01
LCS	1B21019-BS2	009R0901.D	02/28/11 16:01
LCS Dup	1B21019-BSD2	011R1101.D	02/28/11 16:38
LCS Dup	1B21019-BSD2	011F1101.D	02/28/11 16:38
Backfilll (20110218)	1102180-01	012F1201.D	02/28/11 16:57
Backfilll (20110218)	1102180-01	012R1201.D	02/28/11 16:57
Calibration Check	1C06009-CCV5	021F2101.D	02/28/11 19:44
Calibration Check	1C06009-CCV5	021R2101.D	02/28/11 19:44
Calibration Check	1C06009-CCV8	024R2401.D	02/28/11 20:40
Calibration Check	1C06009-CCV8	024F2401.D	02/28/11 20:40

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 012F1201.D

Sampled: 02/18/11 16:15 Prepared: 02/25/11 11:49 Analyzed: 02/28/11 16:57

Solids: 80.80 Preparation: EXT_3546 Dilution: 1

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
12674-11-2	Aroclor-1016		10.2	41.3	UX
11104-28-2	Aroclor-1221		10.2	41.3	U
11141-16-5	Aroclor-1232		10.2	41.3	U
53469-21-9	Aroclor-1242		10.2	41.3	U
12672-29-6	Aroclor-1248		10.2	41.3	U
11097-69-1	Aroclor-1254		10.2	41.3	U
11096-82-5	Aroclor-1260		10.2	41.3	U
37324-23-5	Aroclor-1262		10.2	41.3	U
11100-14-4	Aroclor-1268		10.2	41.3	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	20.22	16.75	82.8	70 - 125	
Tetrachloro-m-xylene [2C]	20.22	17.82	88.1	70 - 125	
Decachlorobiphenyl	20.22	17.64	87.2	60 - 125	
Decachlorobiphenyl [2C]	20.22	18.52	91.6	60 - 125	

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B21019	Laboratory ID:	1B21019-BS2
Preparation:	EXT_3546	Initial/Final:	15 g / 10 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
Aroclor-1016	166.7	186.7	112	40 - 140
Aroclor-1016 [2C]	166.7	219.0	131	40 - 140
Aroclor-1260	166.7	150.1	90.1	60 - 130
Aroclor-1260 [2C]	166.7	193.5	116	60 - 130

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	166.7	188.1	113	0.742	30	40 - 140
Aroclor-1016 [2C]	166.7	215.3	129	1.69	30	40 - 140
Aroclor-1260	166.7	151.8	91.1	1.13	30	60 - 130
Aroclor-1260 [2C]	166.7	196.7	118	1.65	30	60 - 130

PREPARATION BATCH SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1B21019 Batch Matrix: Solid Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	02/25/11 11:49	15.30	10.00
Blank	1B21019-BLK1	02/25/11 11:49	15.00	10.00
LCS	1B21019-BS2	02/25/11 11:49	15.00	10.00
LCS Dup	1B21019-BSD2	02/25/11 11:49	15.00	10.00

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BLK1 File ID: 007F0701.D

Sampled: Prepared: 02/25/11 11:49 Analyzed: 02/28/11 15:24

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016		8.40	34.0	UX
11104-28-2	Aroclor-1221		8.40	34.0	U
11141-16-5	Aroclor-1232		8.40	34.0	U
53469-21-9	Aroclor-1242		8.40	34.0	U
12672-29-6	Aroclor-1248		8.40	34.0	U
11097-69-1	Aroclor-1254		8.40	34.0	U
11096-82-5	Aroclor-1260		8.40	34.0	U
37324-23-5	Aroclor-1262		8.40	34.0	U
11100-14-4	Aroclor-1268		8.40	34.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	13.87	83.2	70 - 125	
Tetrachloro-m-xylene [2C]	16.67	15.09	90.5	70 - 125	
Decachlorobiphenyl	16.67	12.75	76.5	60 - 125	
Decachlorobiphenyl [2C]	16.67	13.07	78.4	60 - 125	

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1B03803	Instrument:	GL-ECD3
Calibration:	1040001		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
11A0224	Aro-1660 Cal6@50/2.5	1B03803-CAL1	002R0201.D	02/06/11 12:20
11A0224	Aro-1660 Cal6@50/2.5	1B03803-CAL1	002F0201.D	02/06/11 12:20
11A0223	Aro-1660 Cal5@100/5	1B03803-CAL2	003F0301.D	02/06/11 12:38
11A0223	Aro-1660 Cal5@100/5	1B03803-CAL2	003R0301.D	02/06/11 12:38
11A0222	Aro-1660 Cal4@500/25	1B03803-CAL3	004F0401.D	02/06/11 12:57
11A0222	Aro-1660 Cal4@500/25	1B03803-CAL3	004R0401.D	02/06/11 12:57
11A0221	Aro-1660 Cal3@750/37.5	1B03803-CAL4	005F0501.D	02/06/11 13:15
11A0221	Aro-1660 Cal3@750/37.5	1B03803-CAL4	005R0501.D	02/06/11 13:15
11A0053	Aro-1660 Cal2@1000/50 (CCV)	1B03803-CAL5	006F0601.D	02/06/11 13:34
11A0053	Aro-1660 Cal2@1000/50 (CCV)	1B03803-CAL5	006R0601.D	02/06/11 13:34
11A0220	Aro-1660 Cal1@2500/125	1B03803-CAL6	007R0701.D	02/06/11 13:52
11A0220	Aro-1660 Cal1@2500/125	1B03803-CAL6	007F0701.D	02/06/11 13:52

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1B04026	Instrument:	GL-ECD3
Calibration:	1040001		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10I0162	Pest_ICAL7@1ppb	1B04026-CAL7	011R1101.D	02/08/11 19:37
10I0162	Pest_ICAL7@1ppb	1B04026-CAL7	011F1101.D	02/08/11 19:37
10I0161	Pest_ICAL6@5ppb	1B04026-CAL8	012F1201.D	02/08/11 19:56
10I0161	Pest_ICAL6@5ppb	1B04026-CAL8	012R1201.D	02/08/11 19:56
10I0160	Pest_ICAL5@10ppb	1B04026-CAL9	013F1301.D	02/08/11 20:15
10I0160	Pest_ICAL5@10ppb	1B04026-CAL9	013R1301.D	02/08/11 20:15
10I0159	Pest_ICAL4@25ppb	1B04026-CALA	014F1401.D	02/08/11 20:34
10I0159	Pest_ICAL4@25ppb	1B04026-CALA	014R1401.D	02/08/11 20:34
10I0158	Pest_ICAL3@50ppb	1B04026-CALB	015F1501.D	02/08/11 20:53
10I0158	Pest_ICAL3@50ppb	1B04026-CALB	015R1501.D	02/08/11 20:53
10I0157	Pest. AB/Sur CCV @ 100ppb	1B04026-CALC	016F1601.D	02/08/11 21:12
10I0157	Pest. AB/Sur CCV @ 100ppb	1B04026-CALC	016R1601.D	02/08/11 21:12
10I0155	Pest_ICAL1@200ppb	1B04026-CALD	017R1701.D	02/08/11 21:31
10I0155	Pest_ICAL1@200ppb	1B04026-CALD	017F1701.D	02/08/11 21:31

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)	0		0		0		0		0		0	
Aroclor-1016 (2)	0		0		0		0		0		0	
Aroclor-1016 (3)	0		0		0		0		0		0	
Aroclor-1016 (4)	0		0		0		0		0		0	
Aroclor-1016 (5)	0		0		0		0		0		0	
Aroclor-1016 (1) [2C]	0		0		0		0		0		0	
Aroclor-1016 (2) [2C]	0		0		0		0		0		0	
Aroclor-1016 (3) [2C]	0		0		0		0		0		0	
Aroclor-1016 (4) [2C]	0		0		0		0		0		0	
Aroclor-1016 (5) [2C]	0		0		0		0		0		0	
Aroclor-1260 (1)	0		0		0		0		0		0	
Aroclor-1260 (2)	0		0		0		0		0		0	
Aroclor-1260 (3)	0		0		0		0		0		0	
Aroclor-1260 (4)	0		0		0		0		0		0	
Aroclor-1260 (5)	0		0		0		0		0		0	
Aroclor-1260 (1) [2C]	0		0		0		0		0		0	
Aroclor-1260 (2) [2C]	0		0		0		0		0		0	
Aroclor-1260 (3) [2C]	0		0		0		0		0		0	
Aroclor-1260 (4) [2C]	0		0		0		0		0		0	
Aroclor-1260 (5) [2C]	0		0		0		0		0		0	
Tetrachloro-m-xylene	0		0		0		0		0		0	
Tetrachloro-m-xylene [2C]	0		0		0		0		0		0	
Decachlorobiphenyl	0		0		0		0		0		0	
Decachlorobiphenyl [2C]	0		0		0		0		0		0	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene	1	25310	5	26097.4	10	26856.7	25	26818.36	50	28276.56	100	28485.65
Tetrachloro-m-xylene [2C]	1	27921	5	26831.2	10	27307.9	25	25751.72	50	25906.98	100	24638.04
Decachlorobiphenyl	1	31730	5	33655	10	31909.7	25	29718.64	50	30460.08	100	31456.51
Decachlorobiphenyl [2C]	1	27023	5	26598	10	24624.2	25	22610.52	50	21915.44	100	21813.62

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene	200	28429.19										
Tetrachloro-m-xylene [2C]	200	23173.81										
Decachlorobiphenyl	200	28516.62										
Decachlorobiphenyl [2C]	200	19058.85										

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1040001
Instrument: GL-ECD3
Matrix: Water
Calibration Date: 2/8/2011 12:00:12AM

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1040001	Instrument:	GL-ECD3
Matrix:	Water	Calibration Date:	2/8/2011 12:00:12AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor-1016 (1)	1008.644	10.99936	6.588	0.0256639			20	
Aroclor-1016 (2)	361.3794	6.399174	5.726833	2.764416E-02			20	
Aroclor-1016 (3)	542.2383	6.239707	6.073	6.719313E-03			20	
Aroclor-1016 (4)	540.108	6.344985	6.273	8.192747E-03			20	
Aroclor-1016 (5)	402.1169	17.58862	6.871167	2.014442E-02			20	
Aroclor-1016 (1) [2C]	828.8593	19.11694	5.414167	2.496264E-03			20	
Aroclor-1016 (2) [2C]	618.0053	7.598081	4.998167	3.306757E-03			20	
Aroclor-1016 (3) [2C]	584.9937	7.115127	5.162	2.236406E-02			20	
Aroclor-1016 (4) [2C]	759.5525	9.026065	5.4515	1.705258E-02			20	
Aroclor-1016 (5) [2C]	452.7501	24.12008	5.817833	1.159191E-02			20	*
Aroclor-1260 (1)	3343.721	9.907421	9.861167	3.005548E-02			20	
Aroclor-1260 (2)	1650.482	10.92166	8.748667	4.317902E-02			20	
Aroclor-1260 (3)	1821.056	5.587022	9.090667	4.694789E-02			20	
Aroclor-1260 (4)	1505.371	6.819743	9.189833	3.178985E-02			20	
Aroclor-1260 (5)	737.4938	8.571362	10.95483	2.500943E-02			20	
Aroclor-1260 (1) [2C]	2124.194	9.216288	8.192167	0.0650715			20	
Aroclor-1260 (2) [2C]	1193.24	8.076856	6.938	7.752476E-02			20	
Aroclor-1260 (3) [2C]	1354.416	7.43882	7.180333	7.809939E-02			20	
Aroclor-1260 (4) [2C]	1081.934	12.80967	7.328667	5.787674E-02			20	
Aroclor-1260 (5) [2C]	1149.767	7.653321	7.872833	6.142026E-02			20	
Tetrachloro-m-xylene	27181.98	4.59786	5.219571	3.420111E-03			20	
Tetrachloro-m-xylene [2C]	25932.95	6.291637	4.316	3.747731E-03			20	
Decachlorobiphenyl	31063.79	5.369053	11.37914	1.615789E-02			20	
Decachlorobiphenyl [2C]	23377.66	12.22895	9.664143	1.633927E-02			20	

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	008F0801.D	Calibration Date:	02/08/11 00:00
Sequence:	1B03803	Injection Date:	02/06/11
Lab Sample ID:	1B03803-ICV1	Injection Time:	14:11

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1016 (1)	A	1000	1109	1008.644	1118.24		10.9	20
Aroclor-1016 (2)	A	1000	1063	361.3794	384.312		6.3	20
Aroclor-1016 (3)	A	1000	1031	542.2383	559.079		3.1	20
Aroclor-1016 (4)	A	1000	1077	540.108	581.763		7.7	20
Aroclor-1016 (5)	A	1000	1075	402.1169	432.144		7.5	20
Aroclor-1016 (1) [2C]	A	1000	1127	828.8593	933.947		12.7	20
Aroclor-1016 (2) [2C]	A	1000	956.9	618.0053	591.391		-4.3	20
Aroclor-1016 (3) [2C]	A	1000	1040	584.9937	608.121		4.0	20
Aroclor-1016 (4) [2C]	A	1000	1072	759.5525	814.13		7.2	20
Aroclor-1016 (5) [2C]	A	1000	1116	452.7501	505.283		11.6	20
Aroclor-1260 (1)	A	1000	1100	3343.721	3677.52		10.0	20
Aroclor-1260 (2)	A	1000	958.4	1650.482	1581.781		-4.2	20
Aroclor-1260 (3)	A	1000	955.6	1821.056	1740.175		-4.4	20
Aroclor-1260 (4)	A	1000	931.7	1505.371	1402.536		-6.8	20
Aroclor-1260 (5)	A	1000	1121	737.4938	826.587		12.1	20
Aroclor-1260 (1) [2C]	A	1000	1114	2124.194	2366.506		11.4	20
Aroclor-1260 (2) [2C]	A	1000	1074	1193.24	1281.105		7.4	20
Aroclor-1260 (3) [2C]	A	1000	1063	1354.416	1439.691		6.3	20
Aroclor-1260 (4) [2C]	A	1000	981.4	1081.934	1061.806		-1.9	20
Aroclor-1260 (5) [2C]	A	1000	1075	1149.767	1236.053		7.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	003F0301.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV1	Injection Time:	14:10

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloro-m-xylene	A	100.0	102.5	27181.98	27853.82		2.5	20
Tetrachloro-m-xylene [2C]	A	100.0	99.20	25932.95	25726.34		-0.8	20
Decachlorobiphenyl	A	100.0	85.21	31063.79	26469.54		-14.8	20
Decachlorobiphenyl [2C]	A	100.0	87.19	23377.66	20382.98		-12.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	006F0601.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV4	Injection Time:	15:05

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016 (1)	A	1000	1280	1008.644	1290.567		28.0	20 *
Aroclor-1016 (2)	A	1000	1228	361.3794	443.851		22.8	20 *
Aroclor-1016 (3)	A	1000	1191	542.2383	645.918		19.1	20
Aroclor-1016 (4)	A	1000	1182	540.108	638.677		18.2	20
Aroclor-1016 (5)	A	1000	1249	402.1169	502.186		24.9	20 *
Aroclor-1016 (1) [2C]	A	1000	1552	828.8593	1286.855		55.3	20 *
Aroclor-1016 (2) [2C]	A	1000	1121	618.0053	692.86		12.1	20
Aroclor-1016 (3) [2C]	A	1000	1243	584.9937	727.208		24.3	20 *
Aroclor-1016 (4) [2C]	A	1000	1067	759.5525	810.566		6.7	20
Aroclor-1016 (5) [2C]	A	1000	1555	452.7501	703.952		55.5	20 *
Aroclor-1260 (1)	A	1000	1133	3343.721	3789.088		13.3	20
Aroclor-1260 (2)	A	1000	1079	1650.482	1780.316		7.9	20
Aroclor-1260 (3)	A	1000	1084	1821.056	1974.799		8.4	20
Aroclor-1260 (4)	A	1000	1065	1505.371	1603.045		6.5	20
Aroclor-1260 (5)	A	1000	1169	737.4938	862.471		16.9	20
Aroclor-1260 (1) [2C]	A	1000	1327	2124.194	2818.619		32.7	20 *
Aroclor-1260 (2) [2C]	A	1000	1162	1193.24	1387.037		16.2	20
Aroclor-1260 (3) [2C]	A	1000	1277	1354.416	1729.712		27.7	20 *
Aroclor-1260 (4) [2C]	A	1000	1074	1081.934	1161.624		7.4	20
Aroclor-1260 (5) [2C]	A	1000	1262	1149.767	1451.329		26.2	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	021F2101.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV5	Injection Time:	19:44

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloro-m-xylene	A	100.0	104.0	27181.98	28274.1		4.0	20
Tetrachloro-m-xylene [2C]	A	100.0	102.1	25932.95	26485.99		2.1	20
Decachlorobiphenyl	A	100.0	89.12	31063.79	27683.21		-10.9	20
Decachlorobiphenyl [2C]	A	100.0	95.40	23377.66	22301.21		-4.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1040001
Lab File ID:	024F2401.D	Calibration Date:	02/08/11 00:00
Sequence:	1C06009	Injection Date:	02/28/11
Lab Sample ID:	1C06009-CCV8	Injection Time:	20:40

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016 (1)	A	1000	1334	1008.644	1345.036		33.4	20 *
Aroclor-1016 (2)	A	1000	1244	361.3794	449.509		24.4	20 *
Aroclor-1016 (3)	A	1000	1203	542.2383	652.44		20.3	20 *
Aroclor-1016 (4)	A	1000	1226	540.108	661.992		22.6	20 *
Aroclor-1016 (5)	A	1000	1289	402.1169	518.17		28.9	20 *
Aroclor-1016 (1) [2C]	A	1000	1503	828.8593	1246.095		50.3	20 *
Aroclor-1016 (2) [2C]	A	1000	1235	618.0053	763.175		23.5	20 *
Aroclor-1016 (3) [2C]	A	1000	1265	584.9937	739.859		26.5	20 *
Aroclor-1016 (4) [2C]	A	1000	1109	759.5525	842.228		10.9	20
Aroclor-1016 (5) [2C]	A	1000	1549	452.7501	701.232		54.9	20 *
Aroclor-1260 (1)	A	1000	1226	3343.721	4099.756		22.6	20 *
Aroclor-1260 (2)	A	1000	1159	1650.482	1912.789		15.9	20
Aroclor-1260 (3)	A	1000	1150	1821.056	2093.823		15.0	20
Aroclor-1260 (4)	A	1000	1119	1505.371	1685.046		11.9	20
Aroclor-1260 (5)	A	1000	1272	737.4938	937.938		27.2	20 *
Aroclor-1260 (1) [2C]	A	1000	1463	2124.194	3107.93		46.3	20 *
Aroclor-1260 (2) [2C]	A	1000	1267	1193.24	1512.429		26.7	20 *
Aroclor-1260 (3) [2C]	A	1000	1341	1354.416	1815.85		34.1	20 *
Aroclor-1260 (4) [2C]	A	1000	1152	1081.934	1246.848		15.2	20
Aroclor-1260 (5) [2C]	A	1000	1352	1149.767	1553.929		35.2	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C06009
Instrument: GL-ECD3
Calibration: 1040001

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1C06009-CCV1) ug/L				Lab File ID: 003F0301.D		Analyzed: 02/28/11 14:10		
Tetrachloro-m-xylene	100.0	102	80 - 120	5.023	5.023	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	99.2	80 - 120	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	85.2	80 - 120	11.082	11.082	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	87.2	80 - 120	9.404	9.404	0.0000	+/-0.030	
Blank (1B21019-BLK1) ug/Kg wet				Lab File ID: 007F0701.D		Analyzed: 02/28/11 15:24		
Tetrachloro-m-xylene	16.67	83.2	70 - 125	5.019	5.023	-0.0040	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	90.5	70 - 125	4.164	4.165	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	76.5	60 - 125	11.076	11.082	-0.0060	+/-0.030	
Decachlorobiphenyl [2C]	16.67	78.4	60 - 125	9.403	9.404	-0.0010	+/-0.030	
LCS (1B21019-BS2) ug/Kg wet				Lab File ID: 009F0901.D		Analyzed: 02/28/11 16:01		
Tetrachloro-m-xylene	16.67	82.1	70 - 125	5.017	5.023	-0.0060	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	92.5	70 - 125	4.164	4.165	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	76.0	60 - 125	11.072	11.082	-0.0100	+/-0.030	
Decachlorobiphenyl [2C]	16.67	90.1	60 - 125	9.402	9.404	-0.0020	+/-0.030	
LCS Dup (1B21019-BSD2) ug/Kg wet				Lab File ID: 011F1101.D		Analyzed: 02/28/11 16:38		
Tetrachloro-m-xylene	16.67	82.8	70 - 125	5.018	5.023	-0.0050	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	92.3	70 - 125	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	16.67	82.5	60 - 125	11.075	11.082	-0.0070	+/-0.030	
Decachlorobiphenyl [2C]	16.67	93.1	60 - 125	9.4	9.404	-0.0040	+/-0.030	
Backfilll (20110218) (1102180-01) ug/Kg dry				Lab File ID: 012F1201.D		Analyzed: 02/28/11 16:57		
Tetrachloro-m-xylene	20.22	82.8	70 - 125	5.018	5.023	-0.0050	+/-0.030	
Tetrachloro-m-xylene [2C]	20.22	88.1	70 - 125	4.165	4.165	0.0000	+/-0.030	
Decachlorobiphenyl	20.22	87.2	60 - 125	11.074	11.082	-0.0080	+/-0.030	
Decachlorobiphenyl [2C]	20.22	91.6	60 - 125	9.4	9.404	-0.0040	+/-0.030	
Calibration Check (1C06009-CCV5) ug/L				Lab File ID: 021F2101.D		Analyzed: 02/28/11 19:44		
Tetrachloro-m-xylene	100.0	104	80 - 120	5.017	5.023	-0.0060	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	102	80 - 120	4.164	4.165	-0.0010	+/-0.030	
Decachlorobiphenyl	100.0	89.1	80 - 120	11.072	11.082	-0.0100	+/-0.030	
Decachlorobiphenyl [2C]	100.0	95.4	80 - 120	9.401	9.404	-0.0030	+/-0.030	

HOLDING TIME SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
Backfilll (20110218)	02/18/11 16:15	02/19/11 09:30	02/25/11 11:49	6.82	14.00	02/28/11 16:57	3.21	40.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BS2 File ID: 009F0901.D

Sampled: Prepared: Analyzed: 02/28/11 16:01

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016	186.7	8.40	34.0	X
11096-82-5	Aroclor-1260	150.1	8.40	34.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	13.68	82.1	70 - 125	
Decachlorobiphenyl	16.67	12.66	76.0	60 - 125	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BS2 File ID: 009R0901.D

Sampled: Prepared: Analyzed: 02/28/11 16:01

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016 [2C]	219.0	8.40	34.0	X
11096-82-5	Aroclor-1260 [2C]	193.5	8.40	34.0	X

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	15.42	92.5	70 - 125	
Decachlorobiphenyl [2C]	16.67	15.02	90.1	60 - 125	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B21019-BSD2 File ID: 011F1101.D

Sampled: Prepared: Analyzed: 02/28/11 16:38

Solids: Preparation: EXT_3546 Dilution:

Batch: 1B21019 Sequence: 1C06009 Calibration: 1040001 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016	188.1	8.40	34.0	X
11096-82-5	Aroclor-1260	151.8	8.40	34.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	13.80	82.8	70 - 125	
Decachlorobiphenyl	16.67	13.76	82.5	60 - 125	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant201(
Matrix:
Laboratory ID: 1B21019-BSD2
File ID: 011R1101.D
Sampled:
Prepared:
Analyzed: 02/28/11 16:38
Solids:
Preparation: EXT_3546
Dilution:
Batch: 1B21019
Sequence: 1C06009
Calibration: 1040001
Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016 [2C]	215.3	8.40	34.0	X
11096-82-5	Aroclor-1260 [2C]	196.7	8.40	34.0	X

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	15.38	92.3	70 - 125	
Decachlorobiphenyl [2C]	16.67	15.52	93.1	60 - 125	

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1B21019-BS2 Date(s) Analyzed: 02/28/2011 02/28/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	6.48	-0.03	0.03	186.7	
	2	5.51	-0.03	0.03	219.0	16
Aroclor-1260	1	10.48	-0.03	0.03	150.1	
	2	7.80	-0.03	0.03	193.5	25

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS Dup

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1B21019-BSD2 Date(s) Analyzed: 02/28/2011 02/28/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	6.48	-0.03	0.03	188.1	
	2	5.51	-0.03	0.03	215.3	14
Aroclor-1260	1	10.48	-0.03	0.03	151.8	
	2	7.80	-0.03	0.03	196.7	26

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1102180

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** GL-ECD3

Analyte	MDL	MRL	Units	Method
Aroclor-1016	4.20	17.0	ug/Kg	SW8082A
Aroclor-1221	4.20	17.0	ug/Kg	SW8082A
Aroclor-1232	4.20	17.0	ug/Kg	SW8082A
Aroclor-1242	4.20	17.0	ug/Kg	SW8082A
Aroclor-1248	4.20	17.0	ug/Kg	SW8082A
Aroclor-1254	4.20	17.0	ug/Kg	SW8082A
Aroclor-1260	4.20	17.0	ug/Kg	SW8082A
Aroclor-1262	4.20	17.0	ug/Kg	SW8082A
Aroclor-1268	4.20	17.0	ug/Kg	SW8082A

Data for SW8082A
Supporting Raw Data / Logs

Back

Sequence Table (Front Injector):

CAL seq 1B07803
CAL used: 1038001 P: 32C

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	PRIMER	8081_82	2	Sample		
2	Vial 2	SEQ-CAL1 1A0224	8081_82	1	Sample		
3	Vial 3	SEQ-CAL2 1A0223	8081_82	1	Sample		
4	Vial 4	SEQ-CAL3 1A0222	8081_82	1	Sample		
5	Vial 5	SEQ-CAL4 1A0221	8081_82	1	Sample		
6	Vial 6	SEQ-CAL5 1A0053	8081_82	1	Sample		
7	Vial 7	SEQ-CAL6 1A0220	8081_82	1	Sample		
8	Vial 8	SEQ-ICV1 1A0060	8081_82	1	Sample		
9	Vial 9	SEQ-CCV1 1A0053 1660	8081_82	1	Sample		
10	Vial 10	SEQ-CCV2 10I0241 1254	8081_82	1	Sample		
11	Vial 11	AR-1221	8081_82	1	Sample		
12	Vial 12	AR-1232	8081_82	1	Sample		
13	Vial 13	AR-1242	8081_82	1	Sample		
14	Vial 14	AR-1248	8081_82	1	Sample		
15	Vial 15	AR-1262	8081_82	1	Sample		
16	Vial 16	AR-1268	8081_82	1	Sample		
17	Vial 17	1A23009-MS1	8081_82	1	Sample		
18	Vial 18	1A23009-MSD1	8081_82	1	Sample		
19	Vial 19	1101161-14	8081_82	1	Sample		
20	Vial 20	1101161-15	8081_82	1	Sample		
21	Vial 21	1101161-16	8081_82	1	Sample		
22	Vial 22	1101161-21	8081_82	1	Sample		
23	Vial 23	1101161-22	8081_82	1	Sample		
24	Vial 24	1101161-23	8081_82	1	Sample		
25	Vial 25	1101167-24;20X	8081_82	1	Sample		
26	Vial 26	1101167-25	8081_82	1	Sample		
27	Vial 27	1101167-26	8081_82	1	Sample		
28	Vial 28	SEQ-CCV3 1A0053, 1660	8081_82	1	Sample		
29	Vial 29	SEQ-CCV4 10I0241 1254	8081_82	1	Sample		
30	Vial 30	1101161-24	8081_82	1	Sample		
31	Vial 31	1101161-25;10X	8081_82	1	Sample		
32	Vial 32	1101161-26;10X	8081_82	1	Sample		
33	Vial 33	1101163-01;10X	8081_82	1	Sample		
34	Vial 34	1101163-02;100X	8081_82	1	Sample		
35	Vial 35	1101163-03;50X	8081_82	1	Sample		
36	Vial 36	1101163-04;10X	8081_82	1	Sample		
37	Vial 37	1101163-05;10X	8081_82	1	Sample		
38	Vial 38	1101163-06;10X	8081_82	1	Sample		
39	Vial 39	1101163-07;10X	8081_82	1	Sample		
40	Vial 40	SEQ-CCV5 1A0053 1660	8081_82	1	Sample		
41	Vial 41	SEQ-CCV6 10I0241 1254	8081_82	1	Sample		
42	Vial 42	1A29002-BLK1	8081_82	1	Sample		
43	Vial 43	1A29002-BS1	8081_82	1	Sample		
44	Vial 44	1101163-08;10X	8081_82	1	Sample		
45	Vial 45	1A29002-MS1	8081_82	1	Sample		
46	Vial 46	1A29002-MSD1	8081_82	1	Sample		
47	Vial 47	1101163-09;10X	8081_82	1	Sample		
48	Vial 48	1101163-10	8081_82	1	Sample		
49	Vial 49	1101163-12	8081_82	1	Sample		
50	Vial 50	1101163-13	8081_82	1	Sample		
51	Vial 51	1101163-14;20X	8081_82	1	Sample		
52	Vial 52	1101163-15;10X	8081_82	1	Sample		
53	Vial 53	1101167-01	8081_82	1	Sample		
54	Vial 54	1101167-02	8081_82	1	Sample		
55	Vial 55	1101167-03	8081_82	1	Sample		
56	Vial 56	SEQ-CCV7 1A0053 1660	8081_82	1	Sample		
57	Vial 57	SEQ-CCV8 10I0241 1254	8081_82	1	Sample		
58	Vial 58	1101167-04	8081_82	1	Sample		
59	Vial 59	1101167-05	8081_82	1	Sample		

1660

qualitative only

1A23009, 1X

1X

1A29001

20X

1X

1A29001, 1X

1A29001, 10X

1A29001, 100X

1A29001, 50X

1A29001, 10X

1A29002, 10X

1A29002, 1X

1A29002, 20X

1A29002, 10X

1A29002, 1X

1A29002, 1X

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
60	Vial 60 H	1101167-06	8081_82	1	Sample		
61	Vial 61	1101167-07	8081_82	1	Sample		
62	Vial 62 H	1101167-08	8081_82	1	Sample		
63	Vial 63	1101167-09;10X	8081_82	1	Sample		
64	Vial 64 H	1101167-10;10X	8081_82	1	Sample		
65	Vial 65	1101167-11;10X	8081_82	1	Sample		
66	Vial 66 H	1101167-12;10X	8081_82	1	Sample		
67	Vial 67	1101167-13;10X	8081_82	1	Sample		
68	Vial 68	SEQ-CCV9 1/160	8081_82	1	Sample		
69	Vial 69	SEQ-CCVA 1/160	8081_82	1	Sample		
70	Vial 70	1A29003-BLK1	8081_82	1	Sample		
71	Vial 71	1A29003-BS1	8081_82	1	Sample		
72	Vial 72 H	1101167-14;10X	8081_82	1	Sample		
73	Vial 73	1101167-15;10X	8081_82	1	Sample		
74	Vial 74 H	1101167-16;10X	8081_82	1	Sample		
75	Vial 75	1101167-17;10X	8081_82	1	Sample		
76	Vial 76	1A29003-MS1	8081_82	1	Sample		
77	Vial 77	1A29003-MSD1	8081_82	1	Sample		
78	Vial 78 H	1101167-18;10X	8081_82	1	Sample		
79	Vial 79	1101167-19;10X	8081_82	1	Sample		
80	Vial 80 H	1101167-20;10X	8081_82	1	Sample		
81	Vial 81	1101167-21	8081_82	1	Sample		
82	Vial 82 H	1101167-22	8081_82	1	Sample		
83	Vial 83	1101167-23;10X	8081_82	1	Sample		
84	Vial 84	SEQ-CCVB 1/160	8081_82	1	Sample		
85	Vial 85	SEQ-CCVC 1/160	8081_82	1	Sample		
86	Vial 86	1B01015-BLK2	8081_82	1	Sample		
87	Vial 87	1B01015-BS2	8081_82	1	Sample		
88	Vial 88	1B01015-BSD2	8081_82	1	Sample		
89	Vial 89	1102005-01	8081_82	1	Sample		
90	Vial 90	1102005-02	8081_82	1	Sample		
91	Vial 91	1102005-03	8081_82	1	Sample		
92	Vial 92	1102005-04	8081_82	1	Sample		
93	Vial 93	1102005-05	8081_82	1	Sample		
94	Vial 94	1102005-06	8081_82	1	Sample		
95	Vial 95	1102005-07	8081_82	1	Sample		
96	Vial 96	SEQ-CCVD 1/160	8081_82	1	Sample		
97	Vial 97	SEQ-CCVE 1/160	8081_82	1	Sample		
98	Vial 98	HEX BLANK	8081_82	5	Sample		
99	Vial 99	HEX BLANK	BAKE_OUT	5	Sample		

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Sequence Table (Back Injector):

No entries - empty table!

JLG 2-8-11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\002F0201.D
Lab Smp Id: SEQ-CAL1
Inj Date : 06-FEB-2011 12:20
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 2 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.590	6.588	(0.002)	43831	50.0000	43.46	80.00-	120.00	100.00
5.728	5.726	(0.002)	16857	50.0000	46.65	30.77-	46.15	38.46
6.073	6.073	(0.000)	25524	50.0000	47.07	46.59-	69.88	58.23
6.273	6.273	(0.000)	25320	50.0000	46.88	46.21-	69.32	57.77
6.761	6.761	(0.000)	32058			58.51-	87.77	73.14
6.871	6.871	(0.000)	19942	50.0000	49.59	36.40-	54.60	45.50
		Average of Peak Amounts =			46.73			
35 PCB-1260					CAS #: 11096-82-5			
9.865	9.859	(0.006)	148427	50.0000	44.39	80.00-	120.00	100.00
8.430	8.424	(0.006)	63050			33.98-	50.97	42.48
8.753	8.746	(0.007)	92713	50.0000	56.17	49.97-	74.96	62.46
9.096	9.089	(0.007)	87014	50.0000	47.78	46.90-	70.35	58.62
9.193	9.188	(0.005)	71621	50.0000	47.58	38.60-	57.90	48.25
9.468	9.466	(0.002)	63601			34.28-	51.42	42.85
10.220	10.214	(0.006)	67796			36.54-	54.81	45.68
10.958	10.953	(0.005)	33350	50.0000	45.22	17.98-	26.96	22.47
		Average of Peak Amounts =			48.23			

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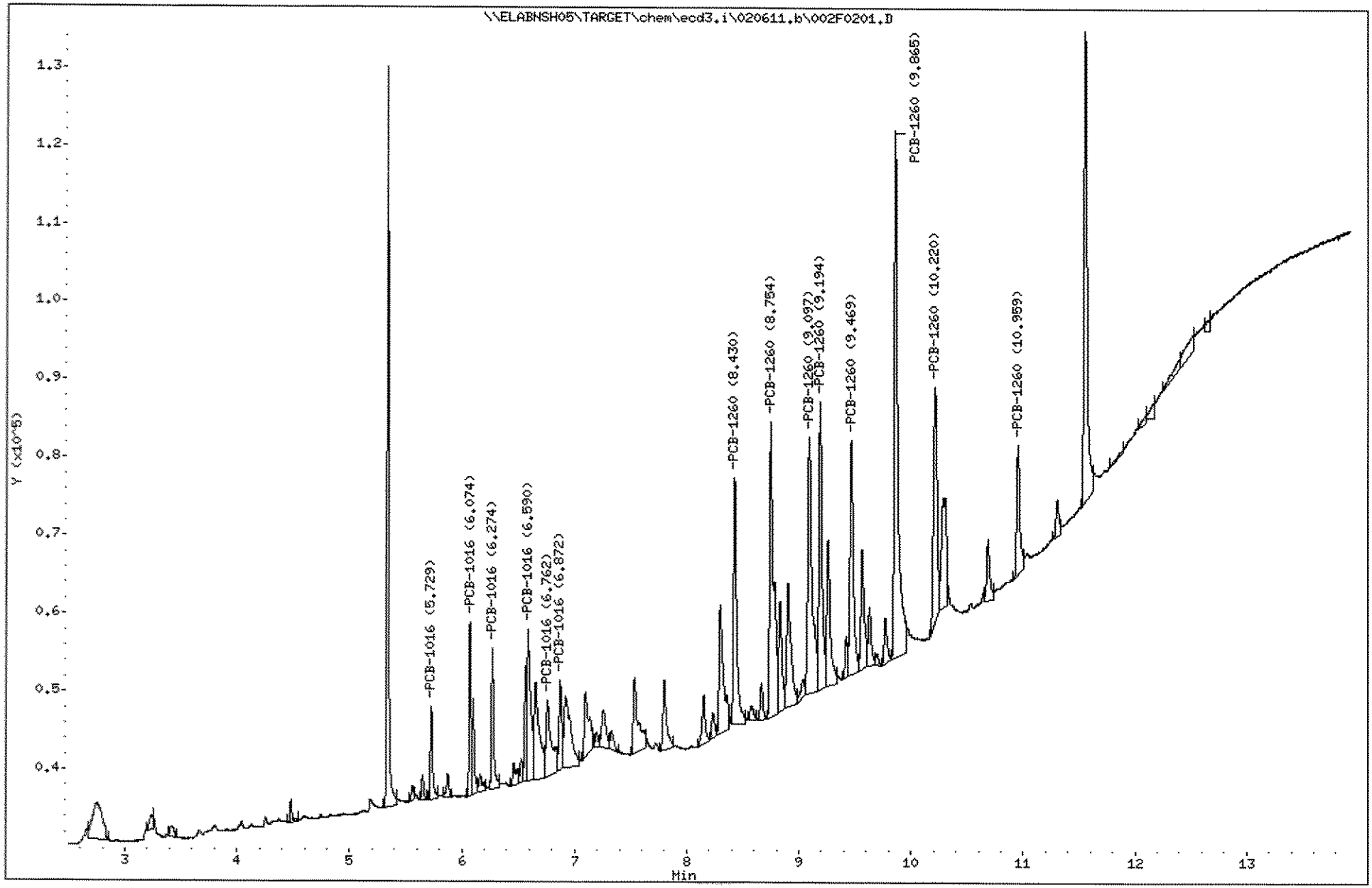
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\002F0201.D
Date : 06-FEB-2011 12:20
Client ID:
Sample Info: SEQ-CAL1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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Laboratory Name

SW-846 METHODS 8081A/8082

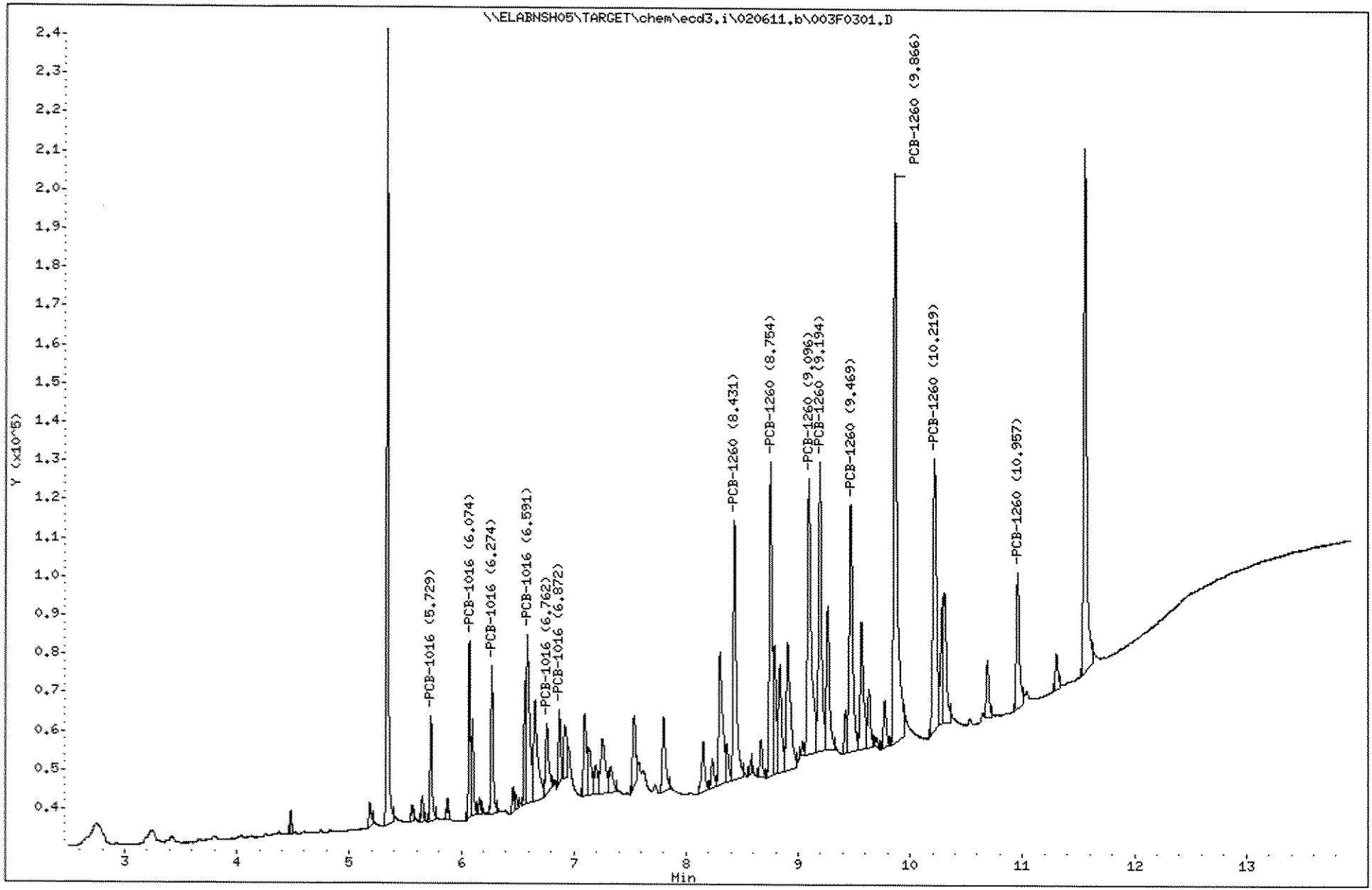
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\003F0301.D
Lab Smp Id: SEQ-CAL2
Inj Date : 06-FEB-2011 12:38
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 3 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.590	6.588	(0.002)	87780	100.000	87.03	80.00- 120.00	100.00
5.729	5.726	(0.003)	34462	100.000	95.36	31.41- 47.11	39.26
6.074	6.073	(0.001)	52765	100.000	97.31	48.09- 72.13	60.11
6.274	6.273	(0.001)	50631	100.000	93.74	46.14- 69.22	57.68
6.762	6.761	(0.001)	35733			32.57- 48.85	40.71
6.872	6.871	(0.001)	26930	100.000	66.97	24.54- 36.81	30.68
		Average of Peak Amounts =			88.08		
35 PCB-1260					CAS #: 11096-82-5		
9.865	9.859	(0.006)	299407	100.000	89.54	80.00- 120.00	100.00
8.430	8.424	(0.006)	129758			34.67- 52.01	43.34
8.754	8.746	(0.008)	139679	100.000	84.63	37.32- 55.98	46.65
9.095	9.089	(0.006)	170916	100.000	93.86	45.67- 68.50	57.08
9.194	9.188	(0.006)	139902	100.000	92.94	37.38- 56.07	46.73
9.469	9.466	(0.003)	134972			36.06- 54.10	45.08
10.219	10.214	(0.005)	155691			41.60- 62.40	52.00
10.957	10.953	(0.004)	67339	100.000	91.31	17.99- 26.99	22.49
		Average of Peak Amounts =			90.45		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\003F0301.D
Date : 06-FEB-2011 12:38
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\004F0401.D
Lab Smp Id: SEQ-CAL3
Inj Date : 06-FEB-2011 12:57
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.586	6.588	(-0.002)	527994	500.000	523.5	80.00-	120.00	100.00
5.726	5.726	(0.000)	185849	500.000	514.3	28.16-	42.24	35.20
6.073	6.073	(0.000)	279350	500.000	515.2	42.33-	63.49	52.91
6.273	6.273	(0.000)	272987	500.000	505.4	41.36-	62.04	51.70
6.761	6.761	(0.000)	271243			41.10-	61.65	51.37
6.871	6.871	(0.000)	222645	500.000	553.7	33.73-	50.60	42.17
		Average of Peak Amounts =			522.4			
35 PCB-1260					CAS #: 11096-82-5			
9.858	9.859	(-0.001)	1810122	500.000	541.3	80.00-	120.00	100.00
8.423	8.424	(-0.001)	702128			31.03-	46.55	38.79
8.745	8.746	(-0.001)	887602	500.000	537.8	39.23-	58.84	49.04
9.086	9.089	(-0.003)	956126	500.000	525.0	42.26-	63.39	52.82
9.186	9.188	(-0.002)	780961	500.000	518.8	34.52-	51.77	43.14
9.465	9.466	(-0.001)	745415			32.94-	49.42	41.18
10.213	10.214	(-0.001)	967366			42.75-	64.13	53.44
10.951	10.953	(-0.002)	402109	500.000	545.2	17.77-	26.66	22.21
		Average of Peak Amounts =			533.6			

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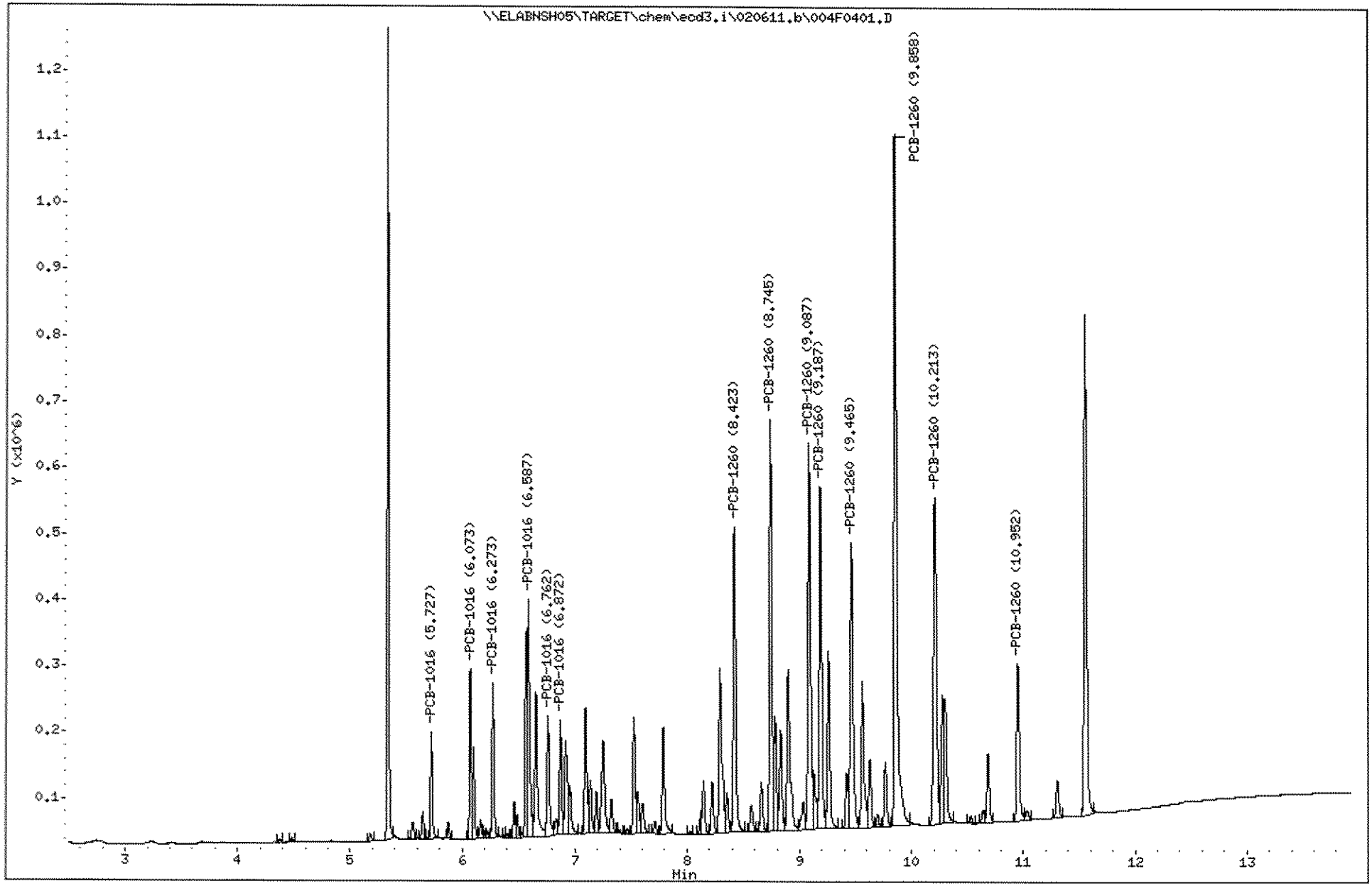
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\004F0401.D
Date : 06-FEB-2011 12:57
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\005F0501.D
Lab Smp Id: SEQ-CAL4
Inj Date : 06-FEB-2011 13:15
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.588	6.588	(0.000)	763593	750.000	757.0	80.00-	120.00	100.00
5.726	5.726	(0.000)	263435	750.000	729.0	27.60-	41.40	34.50
6.073	6.073	(0.000)	391037	750.000	721.2	40.97-	61.45	51.21
6.273	6.273	(0.000)	404772	750.000	749.4	42.41-	63.61	53.01
6.761	6.761	(0.000)	373842			39.17-	58.75	48.96
6.871	6.871	(0.000)	295434	750.000	734.7	30.95-	46.43	38.69
		Average of Peak Amounts =			738.3			
35 PCB-1260					CAS #: 11096-82-5			
9.861	9.859	(0.002)	2442435	750.000	730.4	80.00-	120.00	100.00
8.426	8.424	(0.002)	1009569			33.07-	49.60	41.33
8.748	8.746	(0.002)	1118869	750.000	677.9	36.65-	54.97	45.81
9.091	9.089	(0.002)	1428722	750.000	784.6	46.80-	70.19	58.50
9.189	9.188	(0.001)	1100055	750.000	730.8	36.03-	54.05	45.04
9.464	9.466	(-0.002)	979052			32.07-	48.10	40.09
10.216	10.214	(0.002)	1286353			42.13-	63.20	52.67
10.956	10.953	(0.003)	538578	750.000	730.3	17.64-	26.46	22.05
		Average of Peak Amounts =			730.8			

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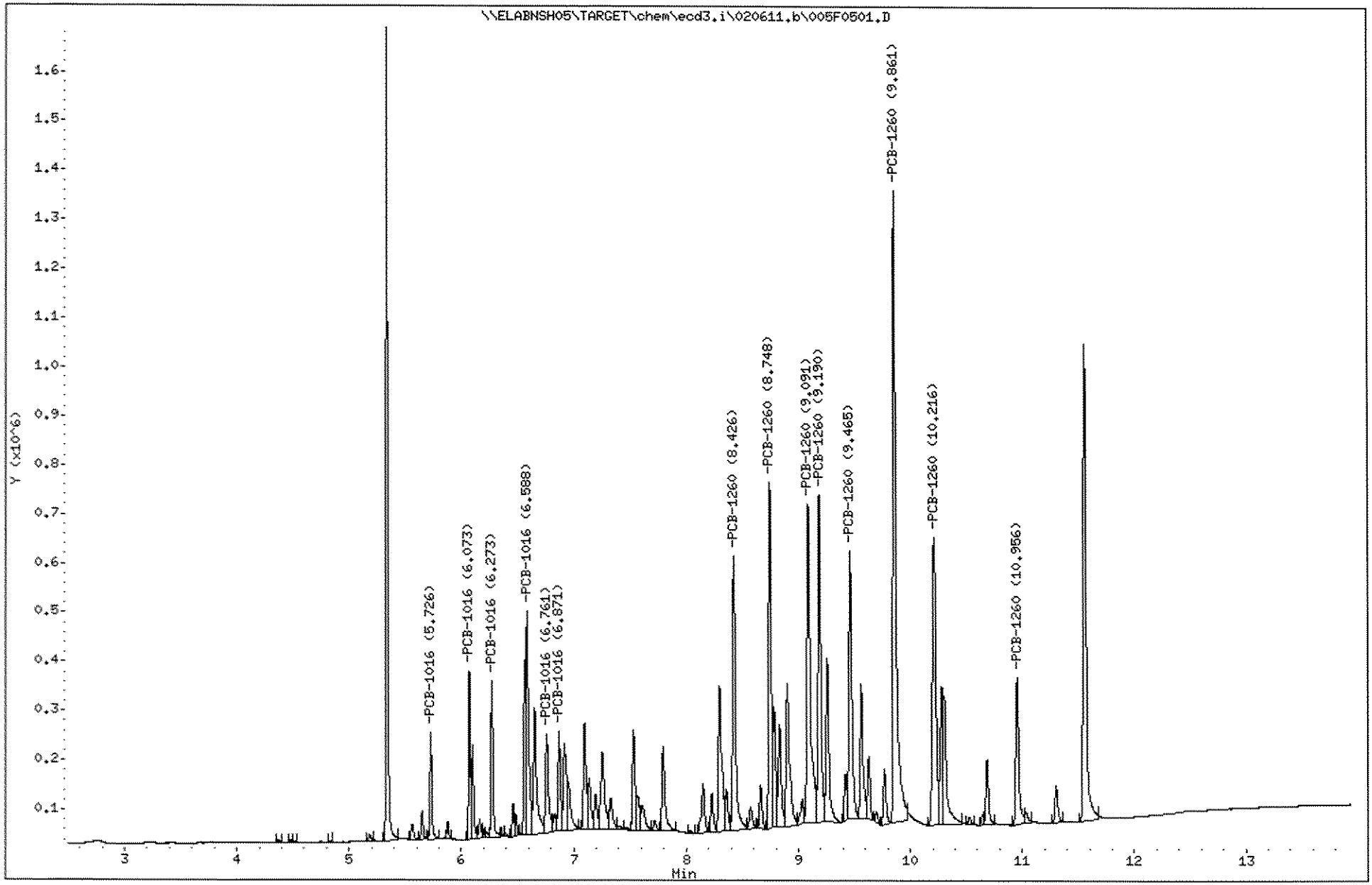
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\005F0501.D
Date : 06-FEB-2011 13:15
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\006F0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 06-FEB-2011 13:34
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:34 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.588	6.588	(0.000)	1153106	1000.00	1143	80.00-	120.00	100.00
5.726	5.726	(0.000)	401324	1000.00	1110	27.84-	41.76	34.80
6.073	6.073	(0.000)	603028	1000.00	1112	41.84-	62.76	52.30
6.273	6.273	(0.000)	599715	1000.00	1110	41.61-	62.41	52.01
6.761	6.761	(0.000)	585300			40.61-	60.91	50.76
6.871	6.871	(0.000)	465248	1000.00	1157	32.28-	48.42	40.35
		Average of Peak Amounts =			1127			
35 PCB-1260					CAS #: 11096-82-5			
9.859	9.859	(0.000)	3782169	1000.00	1131	80.00-	120.00	100.00
8.424	8.424	(0.000)	1544523			32.67-	49.00	40.84
8.746	8.746	(0.000)	1770957	1000.00	1073	37.46-	56.19	46.82
9.089	9.089	(0.000)	1922580	1000.00	1056	40.67-	61.00	50.83
9.188	9.188	(0.000)	1681856	1000.00	1117	35.57-	53.36	44.47
9.466	9.466	(0.000)	1536419			32.50-	48.75	40.62
10.214	10.214	(0.000)	1971797			41.71-	62.56	52.13
10.953	10.953	(0.000)	814781	1000.00	1105	17.23-	25.85	21.54
		Average of Peak Amounts =			1096			

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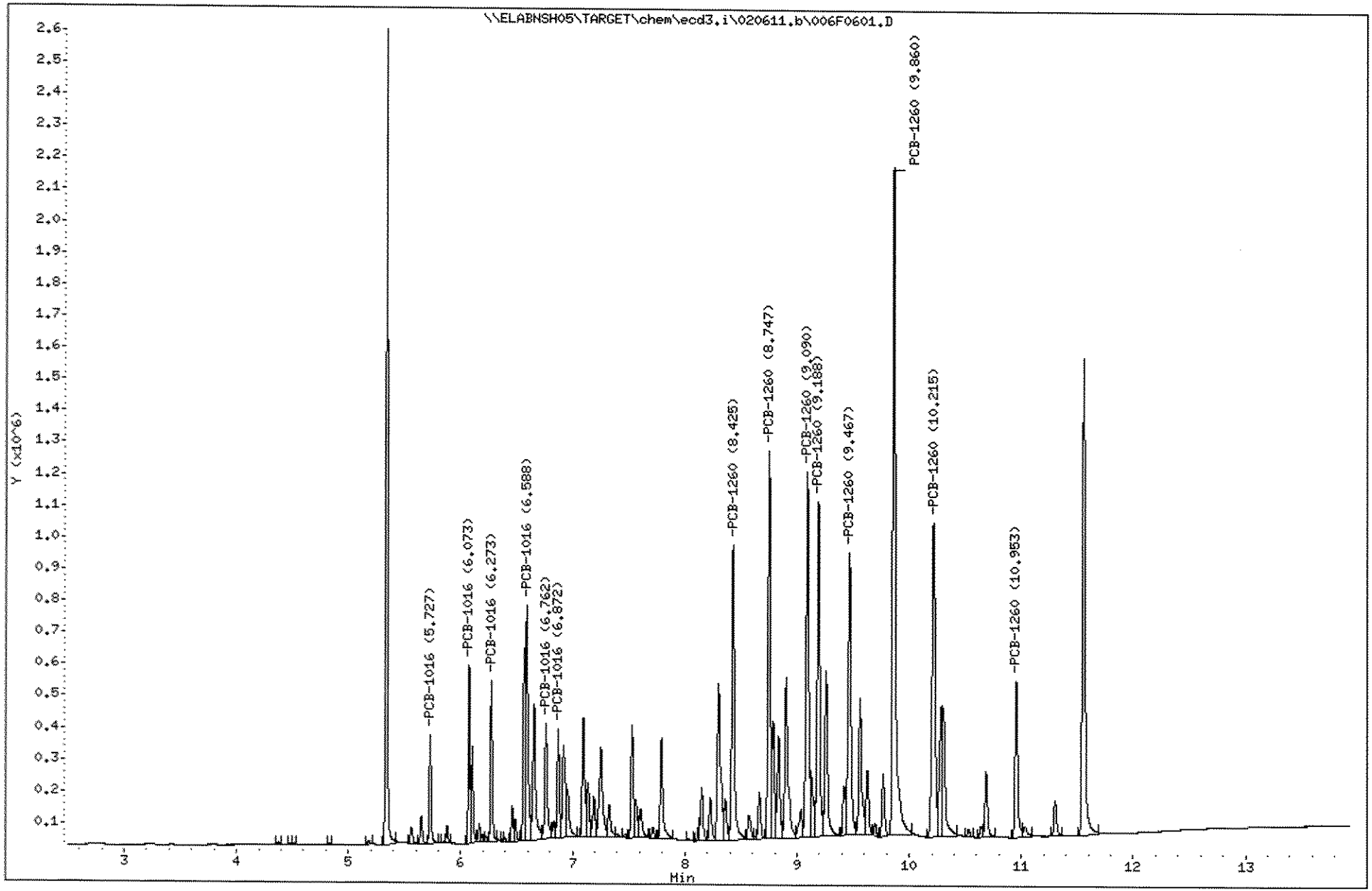
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\006F0601.D
Date : 06-FEB-2011 13:34
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\007F0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 06-FEB-2011 13:52
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:34 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.586	6.588	(-0.002)	2675561	2500.00	2653	80.00- 120.00	100.00(A)
5.726	5.726	(0.000)	905619	2500.00	2506	27.08- 40.62	33.85
6.072	6.073	(-0.001)	1330473	2500.00	2454	39.78- 59.67	49.73
6.272	6.273	(-0.001)	1356382	2500.00	2511	40.56- 60.83	50.70
6.761	6.761	(0.000)	1383502			41.37- 62.05	51.71
6.871	6.871	(0.000)	1100278	2500.00	2736	32.90- 49.35	41.12
		Average of Peak Amounts =			2572		
35 PCB-1260					CAS #: 11096-82-5		
9.859	9.859	(0.000)	8601800	2500.00	2572	80.00- 120.00	100.00
8.424	8.424	(0.000)	3360998			31.26- 46.89	39.07
8.746	8.746	(0.000)	4034640	2500.00	2444	37.52- 56.29	46.90
9.087	9.089	(-0.002)	4342754	2500.00	2385	40.39- 60.58	50.49
9.189	9.188	(0.001)	3725665	2500.00	2475	34.65- 51.98	43.31
9.464	9.466	(-0.002)	3393307			31.56- 47.34	39.45
10.214	10.214	(0.000)	4513691			41.98- 62.97	52.47
10.954	10.953	(0.001)	1868674	2500.00	2534	17.38- 26.07	21.72
		Average of Peak Amounts =			2482		

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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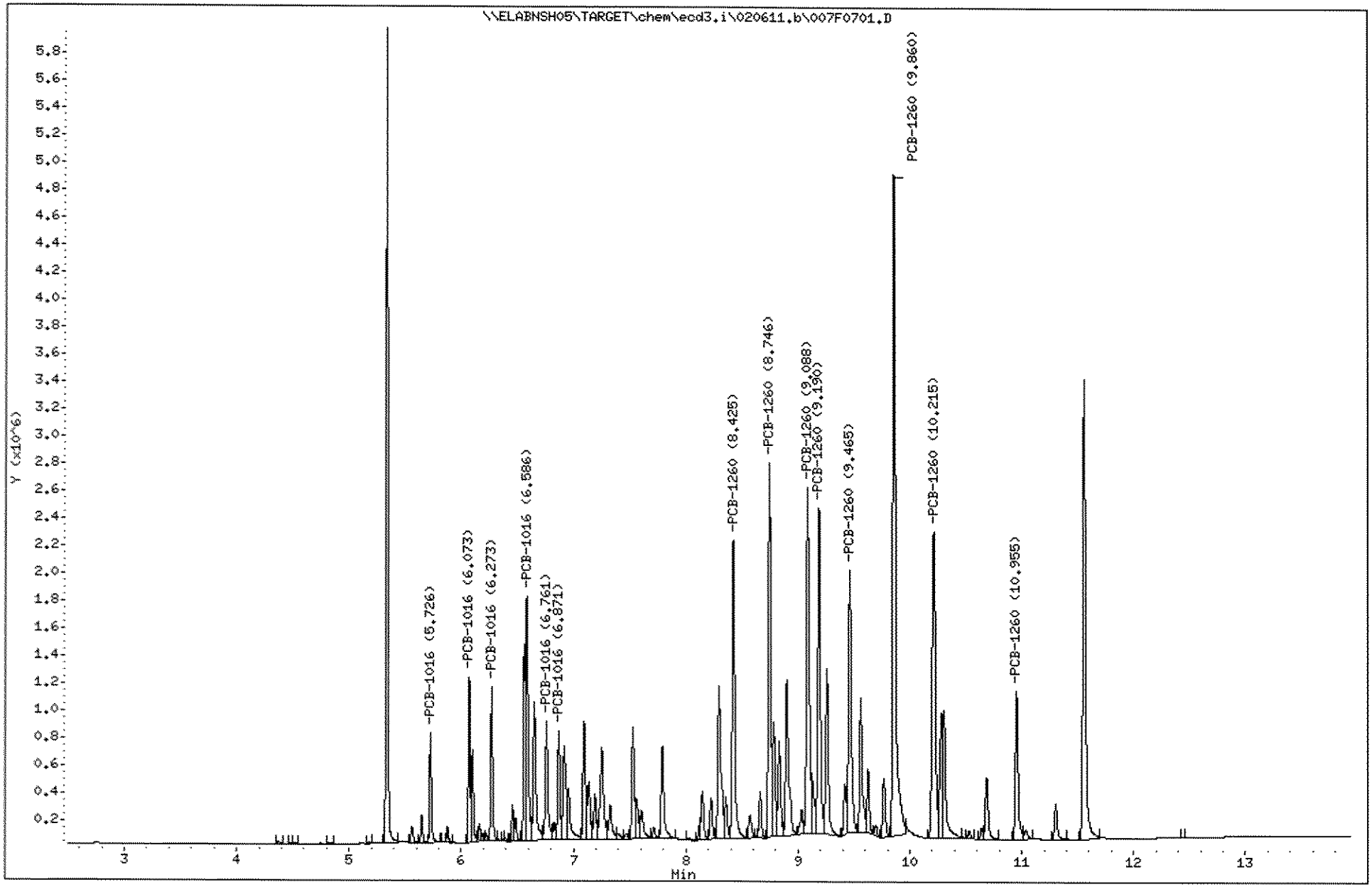
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\007F0701.D
Date : 06-FEB-2011 13:52
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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JLG 2.8.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\008F0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 06-FEB-2011 14:11
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82F.m
Meth Date : 07-Feb-2011 09:34 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

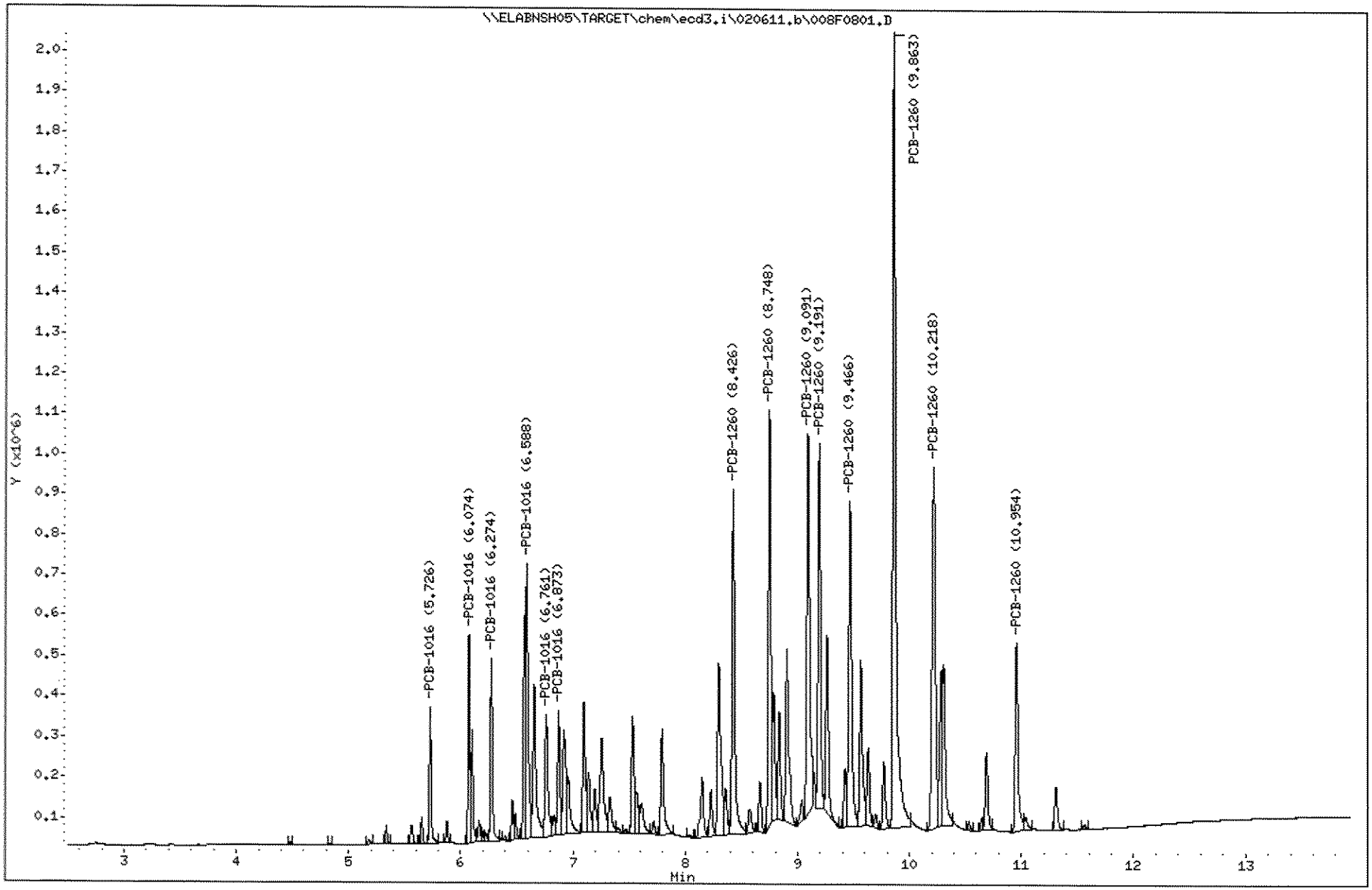
			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.587	6.588	(-0.001)	1118240	1000.00	1109	80.00-	120.00	100.00
5.726	5.726	(0.000)	384312	1000.00	1063	27.49-	41.24	34.37
6.074	6.073	(0.001)	559079	1000.00	1031	40.00-	60.00	50.00
6.274	6.273	(0.001)	581763	1000.00	1077	41.62-	62.43	52.02
6.761	6.761	(0.000)	550059			39.35-	59.03	49.19
6.872	6.871	(0.001)	432144	1000.00	1075	30.92-	46.37	38.65
		Average of Peak Amounts =			1071			
35 PCB-1260					CAS #: 11096-82-5			
9.862	9.859	(0.003)	3677520	1000.00	1100	80.00-	120.00	100.00
8.426	8.424	(0.002)	1433868			31.19-	46.79	38.99
8.747	8.746	(0.001)	1581781	1000.00	958.4	34.41-	51.61	43.01
9.091	9.089	(0.002)	1740175	1000.00	955.6	37.86-	56.78	47.32
9.191	9.188	(0.003)	1402536	1000.00	931.7	30.51-	45.77	38.14
9.466	9.466	(0.000)	1477883			32.15-	48.22	40.19
10.217	10.214	(0.003)	1888446			41.08-	61.62	51.35
10.954	10.953	(0.001)	826587	1000.00	1121	17.98-	26.97	22.48
		Average of Peak Amounts =			1013			

WL 2/7/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\008F0801.D
Date : 06-FEB-2011 14:11
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\002R0201.D
Lab Smp Id: SEQ-CAL1
Inj Date : 06-FEB-2011 12:20
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 2 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.415	5.413	(0.002)	30788	50.0000	37.14	80.00- 120.00	100.00
4.727	4.726	(0.001)	19903			51.72- 77.57	64.65
4.998	4.998	(0.000)	31438	50.0000	50.87	81.69- 122.53	102.11
5.162	5.163	(-0.001)	26750	50.0000	45.73	69.51- 104.26	86.88
5.452	5.451	(0.001)	35119	50.0000	46.24	91.25- 136.88	114.07
5.817	5.818	(-0.001)	15039	50.0000	33.22	39.08- 58.62	48.85
		Average of Peak Amounts =			42.64		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.198	8.190	(0.008)	92663	50.0000	43.62	80.00- 120.00	100.00
6.945	6.935	(0.010)	55027	50.0000	46.12	47.51- 71.26	59.38
7.188	7.176	(0.012)	63054	50.0000	46.55	54.44- 81.66	68.05
7.333	7.326	(0.007)	60869	50.0000	56.26	52.55- 78.83	65.69
7.598	7.591	(0.007)	55157			47.62- 71.43	59.52
7.880	7.870	(0.010)	53313	50.0000	46.37	46.03- 69.04	57.53
8.580	8.571	(0.009)	24365			21.04- 31.55	26.29
9.222	9.215	(0.007)	22442			19.38- 29.06	24.22
		Average of Peak Amounts =			47.78		

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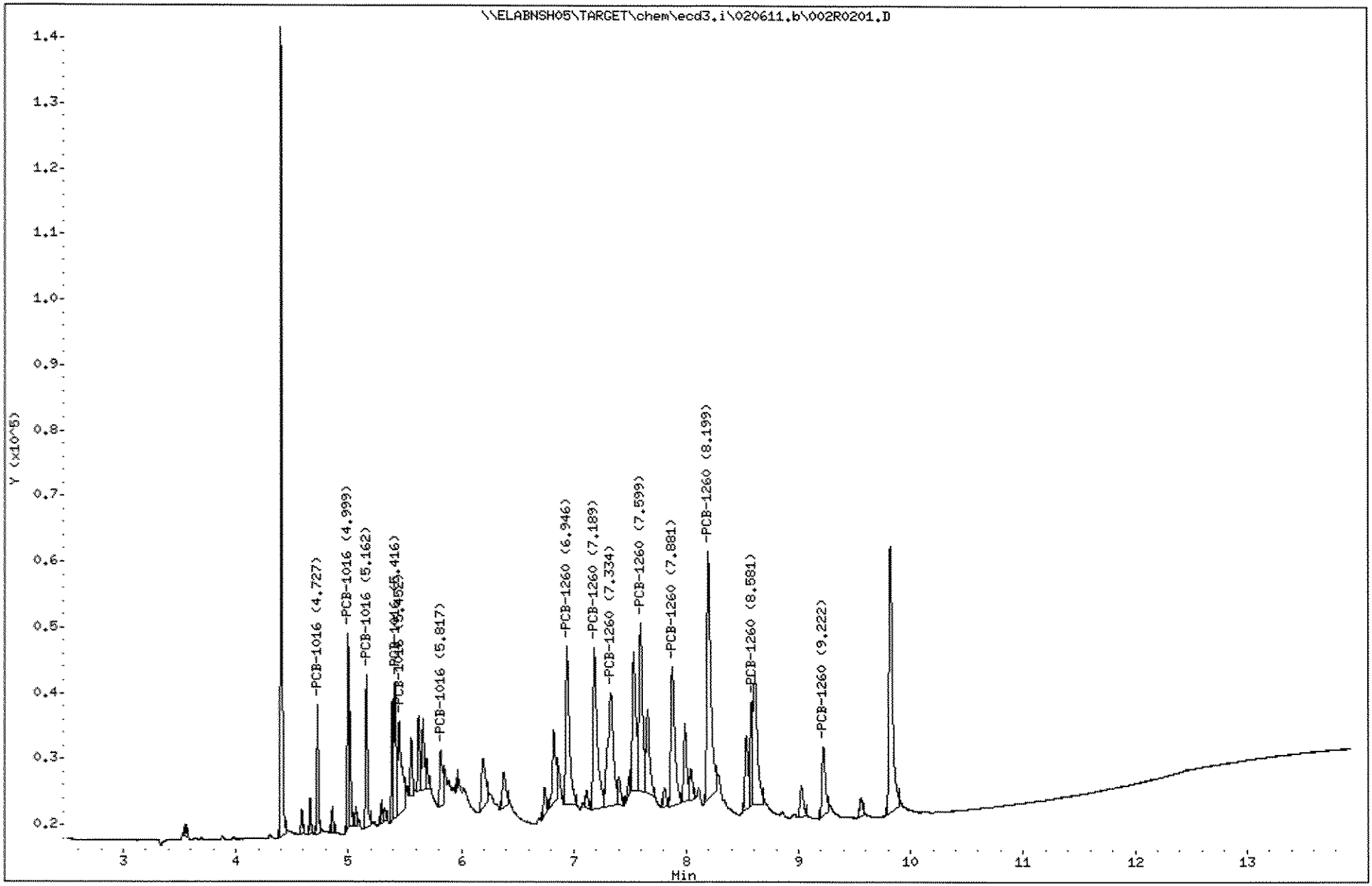
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\002R0201.D
Date : 06-FEB-2011 12:20
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: WAL
Column phase: ZB MR-2
Column diameter: 0.32



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Laboratory Name

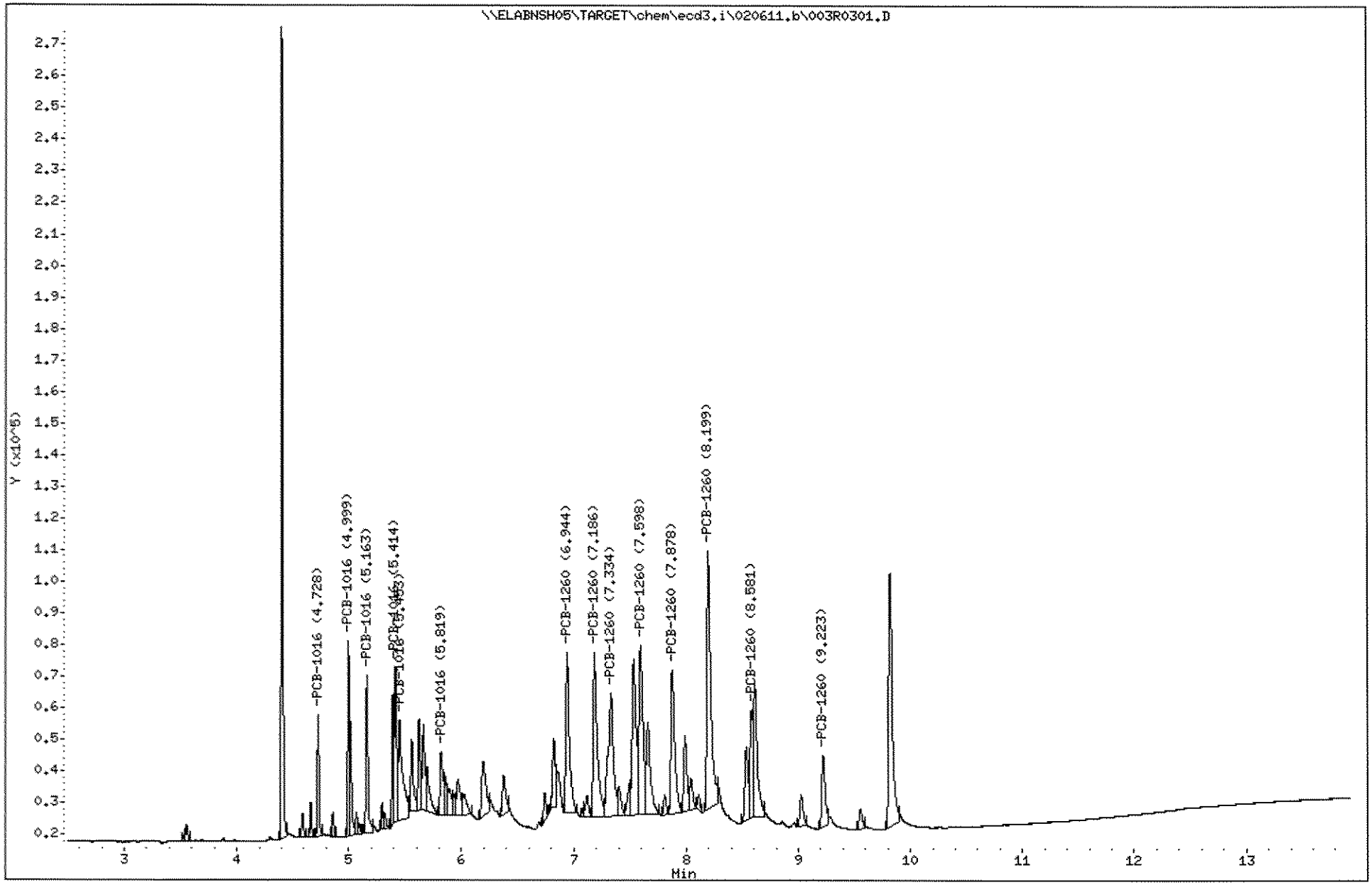
SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\003R0301.D
Lab Smp Id: SEQ-CAL2
Inj Date : 06-FEB-2011 12:38
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 3 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.414	5.413	(0.001)	66368	100.000	80.07	80.00- 120.00	100.00
4.727	4.726	(0.001)	41085			49.52- 74.29	61.90
4.999	4.998	(0.001)	65970	100.000	106.7	79.52- 119.28	99.40
5.162	5.163	(-0.001)	59764	100.000	102.2	72.04- 108.06	90.05
5.452	5.451	(0.001)	84593	100.000	111.4	101.97- 152.95	127.46
5.819	5.818	(0.001)	35281	100.000	77.92	42.53- 63.79	53.16
		Average of Peak Amounts =			95.66		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.199	8.190	(0.009)	201855	100.000	95.03	80.00- 120.00	100.00
6.944	6.935	(0.009)	112015	100.000	93.87	44.39- 66.59	55.49
7.186	7.176	(0.010)	129834	100.000	95.86	51.46- 77.18	64.32
7.334	7.326	(0.008)	127921	100.000	118.2	50.70- 76.05	63.37
7.597	7.591	(0.006)	131012			51.92- 77.88	64.90
7.877	7.870	(0.007)	108048	100.000	93.97	42.82- 64.23	53.53
8.581	8.571	(0.010)	59321			23.51- 35.27	29.39
9.222	9.215	(0.007)	48584			19.26- 28.88	24.07
		Average of Peak Amounts =			99.39		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\003R0301.D
Date : 06-FEB-2011 12:38
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: WAL
Column phase: ZB MR-2
Column diameter: 0.32



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ecd3.i

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\004R0401.D
Lab Smp Id: SEQ-CAL3
Inj Date : 06-FEB-2011 12:57
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.415	5.413	(0.002)	475432	500.000	573.6	80.00- 120.00	100.00
4.727	4.726	(0.001)	189580			31.90- 47.85	39.88
4.998	4.998	(0.000)	308862	500.000	499.8	51.97- 77.96	64.96
5.163	5.163	(0.000)	301997	500.000	516.2	50.82- 76.22	63.52
5.452	5.451	(0.001)	358944	500.000	472.6	60.40- 90.60	75.50
5.817	5.818	(-0.001)	268388	500.000	592.8	45.16- 67.74	56.45
Average of Peak Amounts =					531		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.187	8.190	(-0.003)	1164331	500.000	548.1	80.00- 120.00	100.00
6.932	6.935	(-0.003)	631390	500.000	529.1	43.38- 65.07	54.23
7.175	7.176	(-0.001)	721771	500.000	532.9	49.59- 74.39	61.99
7.323	7.326	(-0.003)	494941	500.000	457.4	34.01- 51.01	42.51
7.590	7.591	(-0.001)	578043			39.72- 59.58	49.65
7.868	7.870	(-0.002)	606773	500.000	527.7	41.69- 62.54	52.11
8.568	8.571	(-0.003)	437107			30.03- 45.05	37.54
9.213	9.215	(-0.002)	283589			19.49- 29.23	24.36
Average of Peak Amounts =					519.1		

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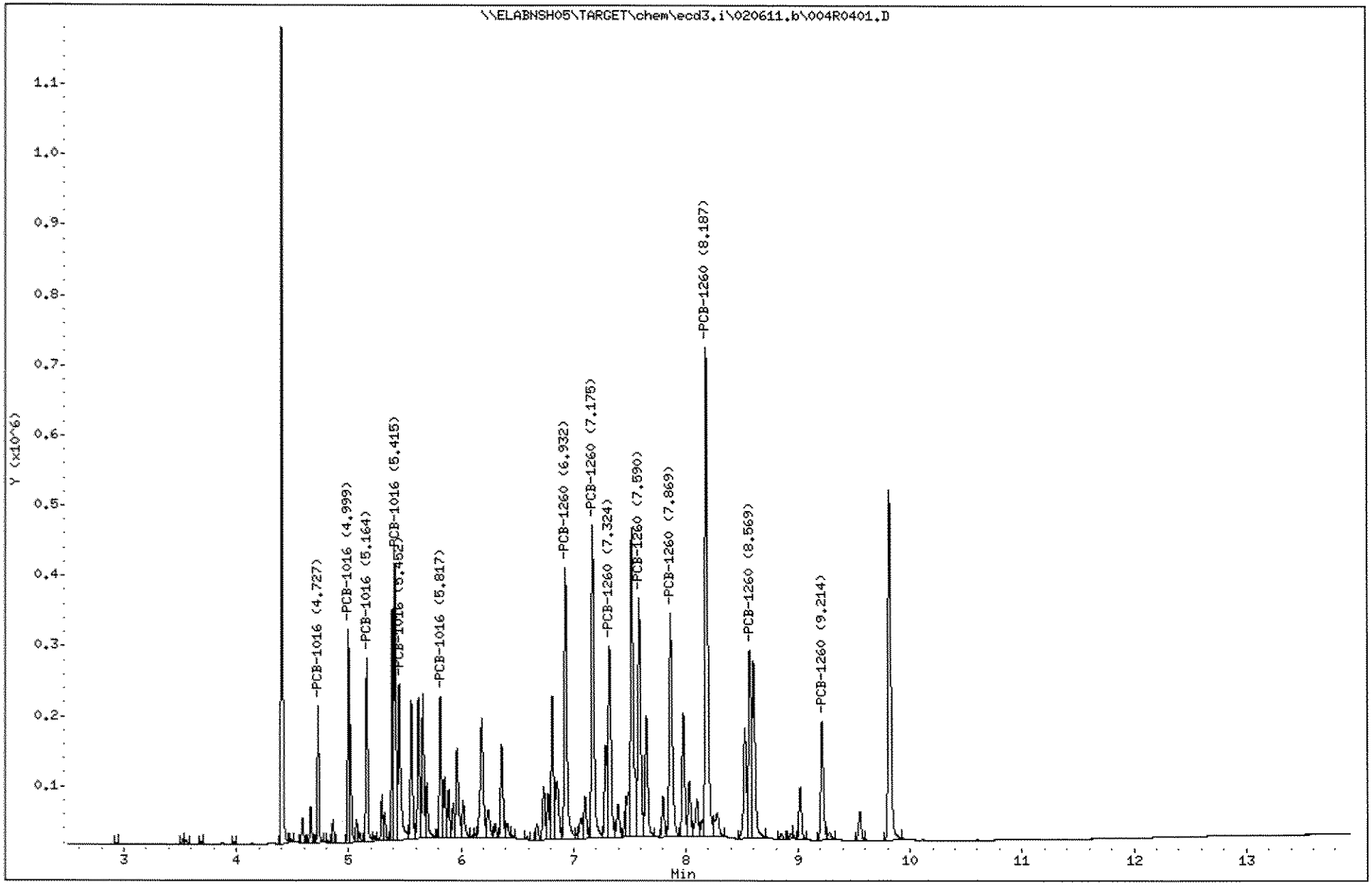
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\004R0401.D
Date : 06-FEB-2011 12:57
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: WAL
Column phase: ZB MR-2
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\005R0501.D
Lab Smp Id: SEQ-CAL4
Inj Date : 06-FEB-2011 13:15
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:33 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]						CAS #: 12674-11-2		
5.415	5.413	(0.002)	638153	750.000	769.9	80.00-	120.00	100.00
4.726	4.726	(0.000)	271980			34.10-	51.14	42.62
4.998	4.998	(0.000)	446221	750.000	722.0	55.94-	83.91	69.92
5.161	5.163	(-0.002)	426891	750.000	729.7	53.52-	80.27	66.89
5.451	5.451	(0.000)	583995	750.000	768.9	73.21-	109.82	91.51
5.818	5.818	(0.000)	329552	750.000	727.9	41.31-	61.97	51.64
		Average of Peak Amounts =			743.7			
35 PCB-1260 [2C]						CAS #: 11096-82-5		
8.191	8.190	(0.001)	1614435	750.000	760.0	80.00-	120.00	100.00
6.938	6.935	(0.003)	920444	750.000	771.4	45.61-	68.42	57.01
7.181	7.176	(0.005)	1013619	750.000	748.4	50.23-	75.34	62.78
7.328	7.326	(0.002)	749690	750.000	692.9	37.15-	55.72	46.44
7.595	7.591	(0.004)	894957			44.35-	66.52	55.43
7.873	7.870	(0.003)	854648	750.000	743.3	42.35-	63.53	52.94
8.575	8.571	(0.004)	507443			25.15-	37.72	31.43
9.216	9.215	(0.001)	376707			18.67-	28.00	23.33
		Average of Peak Amounts =			743.2			

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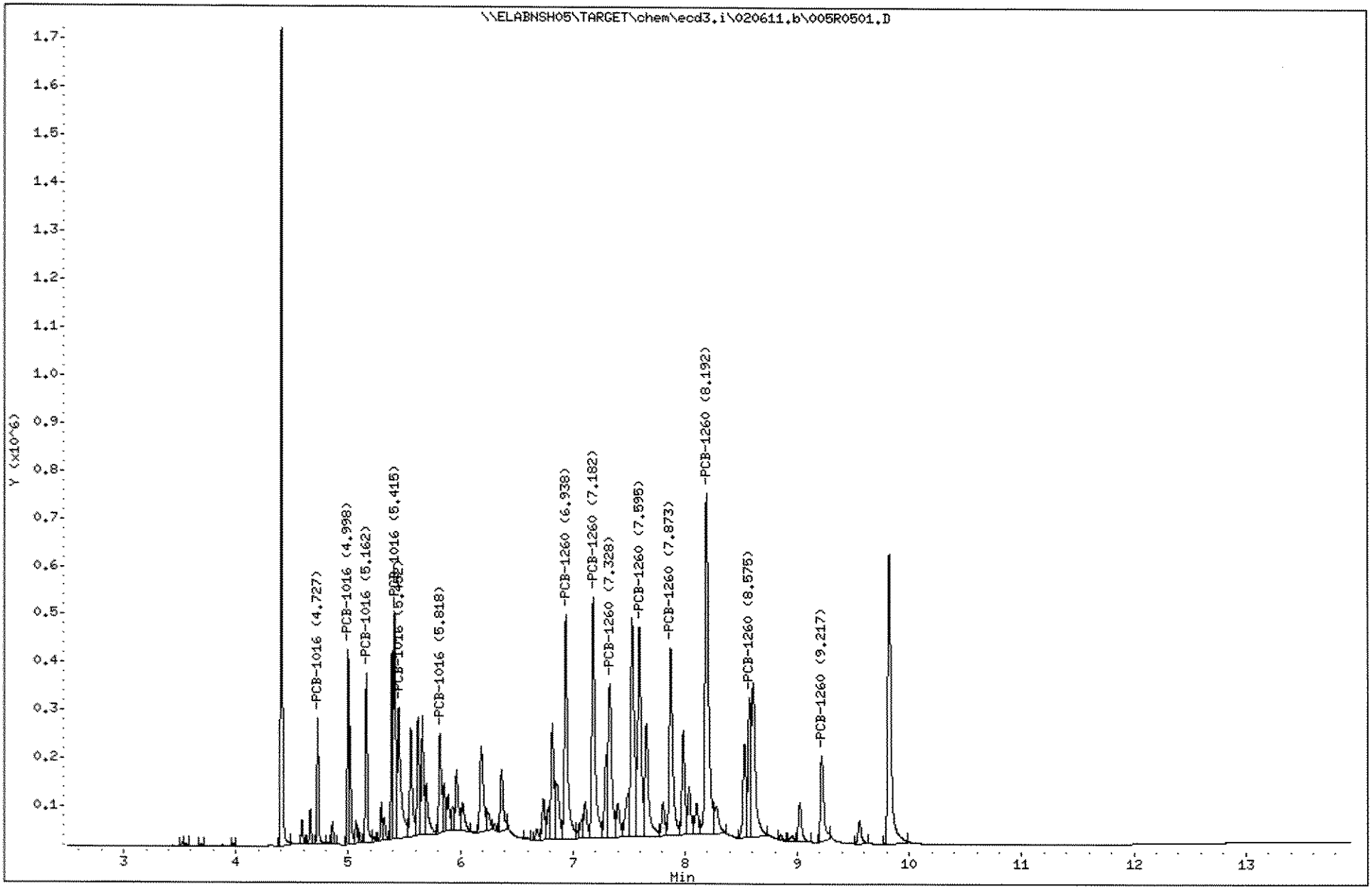
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\005R0501.D
Date : 06-FEB-2011 13:15
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\006R0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 06-FEB-2011 13:34
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:34 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.413	5.413	(0.000)	1016812	1000.00	1227	80.00- 120.00	100.00
4.726	4.726	(0.000)	399692			31.45- 47.17	39.31
4.998	4.998	(0.000)	667534	1000.00	1080	52.52- 78.78	65.65
5.163	5.163	(0.000)	651106	1000.00	1113	51.23- 76.84	64.03
5.451	5.451	(0.000)	829194	1000.00	1092	65.24- 97.86	81.55
5.818	5.818	(0.000)	581335	1000.00	1284	45.74- 68.61	57.17
	Average of Peak Amounts =				1159		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.190	8.190	(0.000)	2360564	1000.00	1111	80.00- 120.00	100.00
6.935	6.935	(0.000)	1335209	1000.00	1119	45.25- 67.88	56.56
7.176	7.176	(0.000)	1506331	1000.00	1112	51.05- 76.57	63.81
7.326	7.326	(0.000)	1076895	1000.00	995.3	36.50- 54.74	45.62
7.591	7.591	(0.000)	1269412			43.02- 64.53	53.78
7.870	7.870	(0.000)	1293849	1000.00	1125	43.85- 65.77	54.81
8.571	8.571	(0.000)	856130			29.01- 43.52	36.27
9.215	9.215	(0.000)	571998			19.39- 29.08	24.23
	Average of Peak Amounts =				1093		

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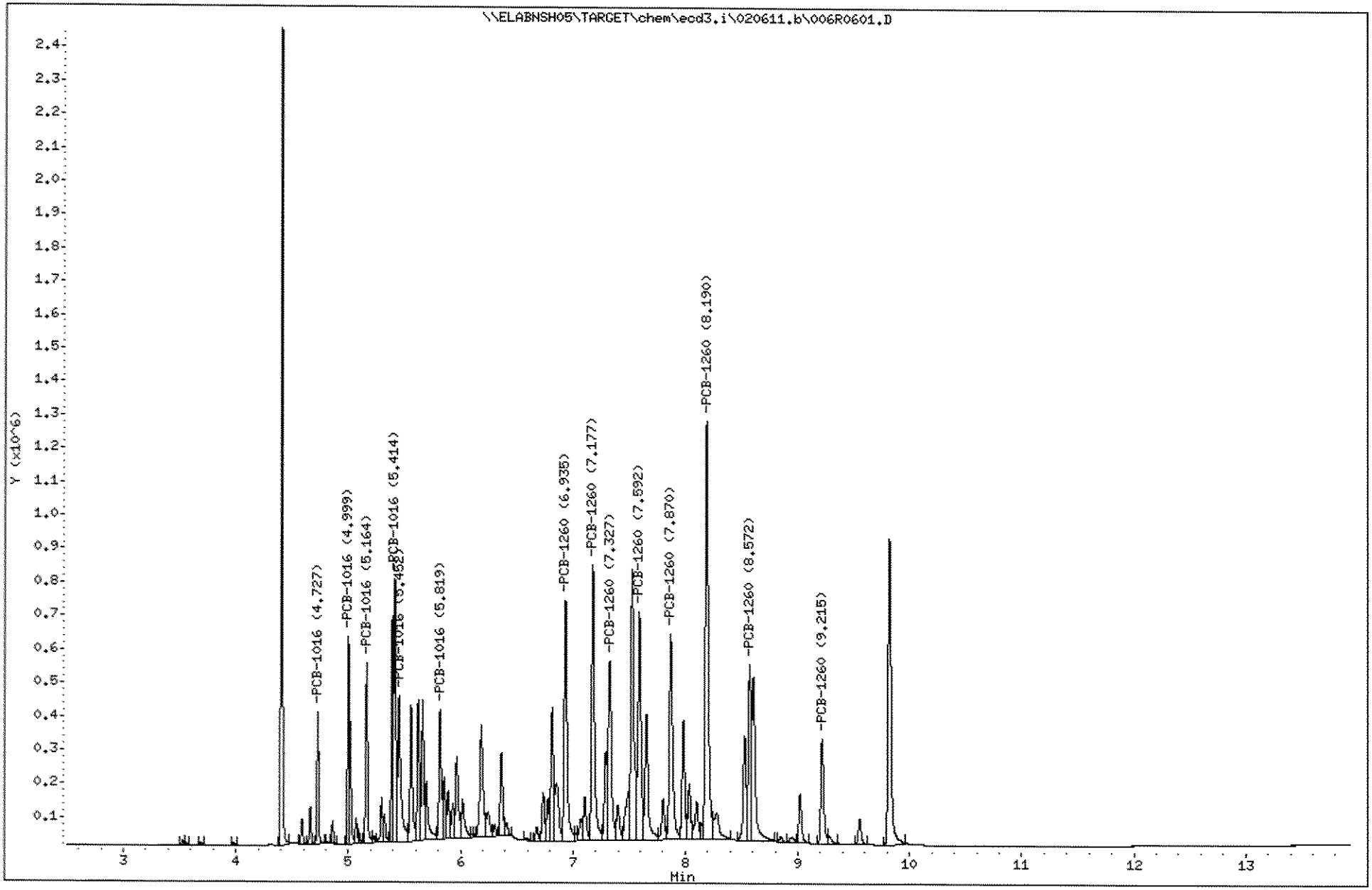
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\006R0601.D
Date : 06-FEB-2011 13:34
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\007R0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 06-FEB-2011 13:52
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:34 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.413	5.413	(0.000)	2187923	2500.00	2640	80.00- 120.00	100.00
4.726	4.726	(0.000)	845788			30.93- 46.39	38.66
4.998	4.998	(0.000)	1348381	2500.00	2182	49.30- 73.95	61.63
5.161	5.163	(-0.002)	1382585	2500.00	2363	50.55- 75.83	63.19
5.451	5.451	(0.000)	1708158	2500.00	2249	62.46- 93.69	78.07
5.818	5.818	(0.000)	1263493	2500.00	2791	46.20- 69.30	57.75
		Average of Peak Amounts =			2445		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.188	8.190	(-0.002)	5078867	2500.00	2391	80.00- 120.00	100.00
6.934	6.935	(-0.001)	2783754	2500.00	2333	43.85- 65.77	54.81
7.176	7.176	(0.000)	3164270	2500.00	2336	49.84- 74.76	62.30
7.328	7.326	(0.002)	2321629	2500.00	2146	36.57- 54.85	45.71
7.591	7.591	(0.000)	2662208			41.93- 62.90	52.42
7.869	7.870	(-0.001)	2762345	2500.00	2402	43.51- 65.27	54.39
8.571	8.571	(0.000)	1768809			27.86- 41.79	34.83
9.216	9.215	(0.001)	1254239			19.76- 29.63	24.70
		Average of Peak Amounts =			2322		

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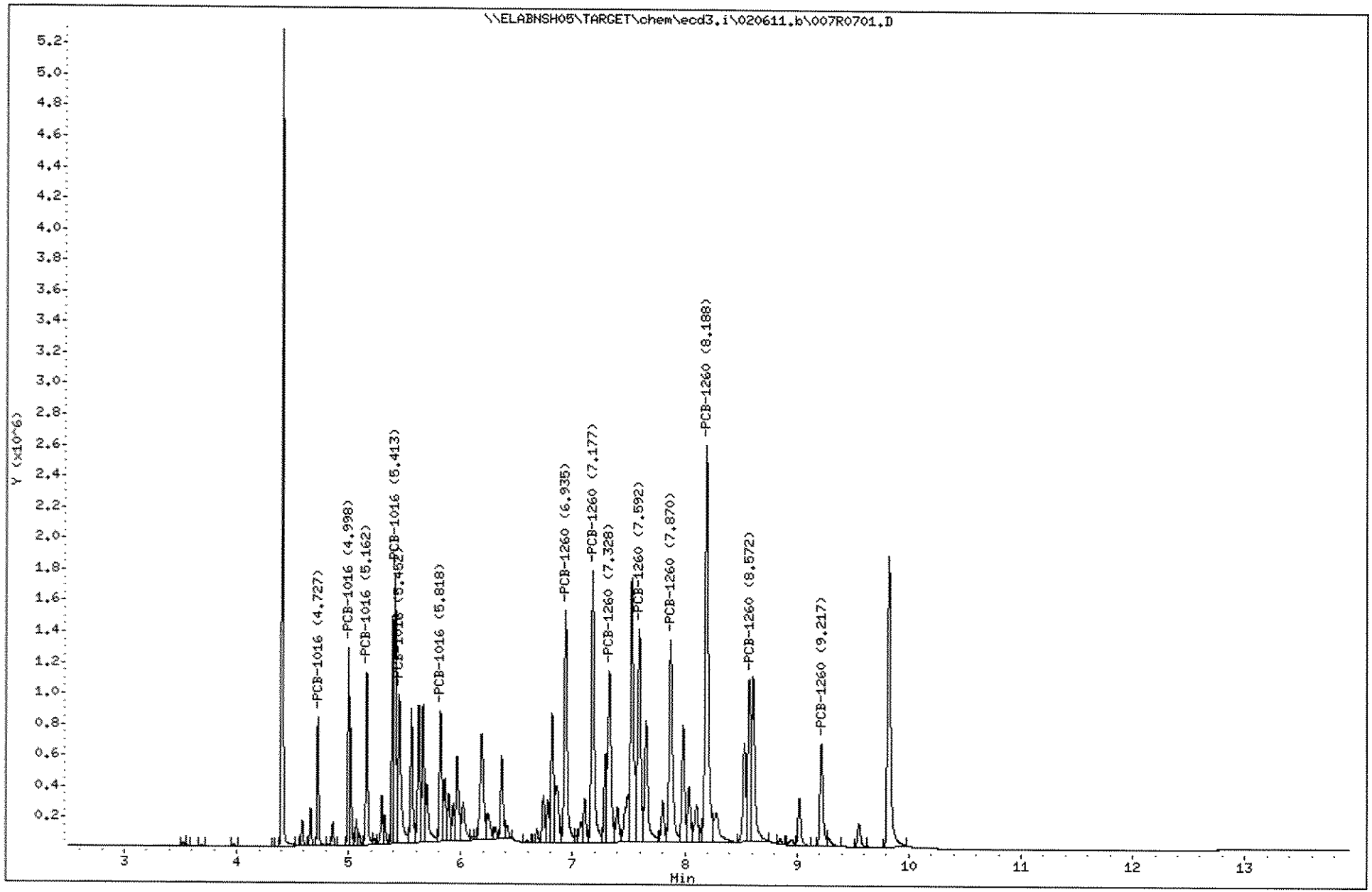
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\007R0701.D
Date : 06-FEB-2011 13:52
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB HR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\008R0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 06-FEB-2011 14:11
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020611.b\8081_82R.m
Meth Date : 07-Feb-2011 09:34 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]						CAS #: 12674-11-2		
5.414	5.413	(0.001)	933947	1000.00	1127	80.00-	120.00	100.00
4.726	4.726	(0.000)	383814			32.88-	49.32	41.10
4.998	4.998	(0.000)	591391	1000.00	956.9	50.66-	75.99	63.32
5.163	5.163	(0.000)	608121	1000.00	1040	52.09-	78.14	65.11
5.451	5.451	(0.000)	814130	1000.00	1072	69.74-	104.61	87.17
5.818	5.818	(0.000)	505283	1000.00	1116	43.28-	64.92	54.10
	Average of Peak Amounts =				1062			
35 PCB-1260 [2C]						CAS #: 11096-82-5		
8.193	8.190	(0.003)	2366506	1000.00	1114	80.00-	120.00	100.00
6.938	6.935	(0.003)	1281105	1000.00	1074	43.31-	64.96	54.13
7.181	7.176	(0.005)	1439691	1000.00	1063	48.67-	73.00	60.84
7.328	7.326	(0.002)	1061806	1000.00	981.4	35.89-	53.84	44.87
7.594	7.591	(0.003)	1260069			42.60-	63.90	53.25
7.873	7.870	(0.003)	1236053	1000.00	1075	41.78-	62.68	52.23
8.574	8.571	(0.003)	791217			26.75-	40.12	33.43
9.219	9.215	(0.004)	569933			19.27-	28.90	24.08
	Average of Peak Amounts =				1061			

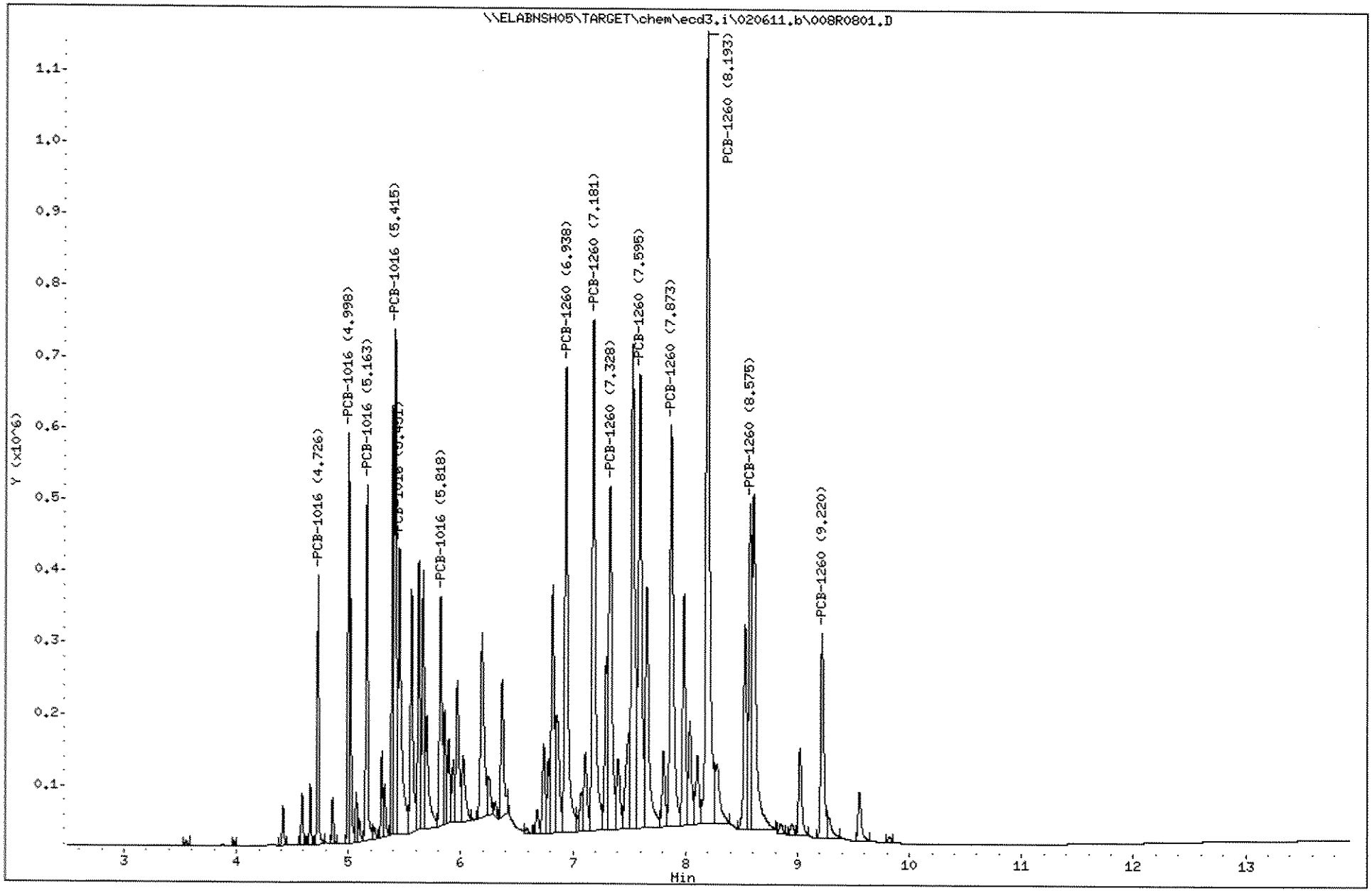
2/7/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\020611.b\008R0801.D
Date : 06-FEB-2011 14:11
Client ID:
Sample Info: SEQ-ICV1

Column phase: ZB HR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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Sequence: C:\HPCHEM\ECD3\SEQUENCE\020811.S | 8081_82 (pest_PCB)

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Sequence Table (Front/Back Injector):

CAL seq 1B04026
CAL ID 104001

~~Data seq~~

Method and Injection Info Part:

2/9/11

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile	
1	Vial 1	PRIMER	8081_82	1	Sample			
2	Vial 2	SEQ-PEM1 1B0224	8081_82	1	Sample			
3	Vial 3	SEQ-CAL1 10)0780	8081_82	1	Sample			
4	Vial 4	SEQ-CAL2 10)0781	8081_82	1	Sample			
5	Vial 5	SEQ-CAL3 10)0782	8081_82	1	Sample			
6	Vial 6	SEQ-CAL4 10)0783	8081_82	1	Sample			
7	Vial 7	SEQ-CAL5 10)0784	8081_82	1	Sample			
8	Vial 8	SEQ-CAL6 10)0785	8081_82	1	Sample			
9	Vial 9	SEQ-ICV1 10)0786	8081_82	1	Sample			
10	Vial 10	SEQ-PEM2 1B0224	8081_82	1	Sample			
11	Vial 11	SEQ-CAL7 10I0162	8081_82	1	Sample			
12	Vial 12	SEQ-CAL8 10I0161	8081_82	1	Sample			
13	Vial 13	SEQ-CAL9 10I0160	8081_82	1	Sample			
14	Vial 14	SEQ-CALA 10I0159	8081_82	1	Sample			
15	Vial 15	SEQ-CALB 10I0156	8081_82	1	Sample			
16	Vial 16	SEQ-CALC 10I0157	8081_82	1	Sample			
17	Vial 17	SEQ-CALD 10I0155	8081_82	1	Sample			
18	Vial 18	SEQ-ICV2 10I0163	8081_82	1	Sample			
19	Vial 19	SEQ-CCV1 10I0157 AB	8081_82	1	Sample			
20	Vial 20	SEQ-CCV2 10L0071 Chlor	8081_82	1	Sample			
21	Vial 21	SEQ-CCV3 10L0467 Tox	8081_82	1	Sample			
22	Vial 22	SEQ-CCV4 10)0781 Arom	8081_82	1	Sample			
23	Vial 23	SEQ-CCV5 11A0053 1660	8081_82	1	Sample			
24	Vial 24	1B01015-BLK1	8081_82	1	Sample			
25	Vial 25	1B01015-BS1	8081_82	1	Sample			
26	Vial 26	1B01015-BSD1	8081_82	1	Sample			
27	Vial 27	1B01015-BS2	8081_82	1	Sample			
28	Vial 28	1B01015-BSD2	8081_82	1	Sample			
29	Vial 29	1102005-01	8081_82	1	Sample			
30	Vial 30	1102005-02	8081_82	1	Sample			
31	Vial 31	1102005-03	8081_82	1	Sample			
32	Vial 32	1102005-04	8081_82	1	Sample			
33	Vial 33	1102005-05	8081_82	1	Sample			
34	Vial 34	1102005-06	8081_82	1	Sample			
35	Vial 35	1102005-07	8081_82	1	Sample			
36	Vial 36	1101219-02	8081_82	1	Sample			
37	Vial 37	1101219-04	8081_82	1	Sample			
38	Vial 38	1101219-06	8081_82	1	Sample			
39	Vial 39	SEQ-CCV6 10I0157 AB	8081_82	1	Sample			
40	Vial 40	SEQ-CCV7 10L0071 Chlor	8081_82	1	Sample			
41	Vial 41	SEQ-CCV8 10L0467 Tox	8081_82	1	Sample			
42	Vial 42	SEQ-CCV9 10)0781 Arom	8081_82	1	Sample			
43	Vial 43	SEQ-CCVA 11A0053 1660	8081_82	1	Sample			
44	Vial 44	1101219-08	8081_82	1	Sample			
45	Vial 45	1101167-24;20X	8081_82	1	Sample			
46	Vial 46	1101167-19;10X	8081_82	1	Sample			
~~47~~	~~Vial 47~~	~~1101167-24~~	~~8081_82~~	~~1~~	~~Sample~~			
~~48~~	~~Vial 48~~	~~1101167-19~~	~~8081_82~~	~~1~~	~~Sample~~			
49	Vial 49	SEQ-CCVB 10I0157 AB	8081_82	1	Sample			
50	Vial 50	SEQ-CCVC 10L0071 Chlor	8081_82	1	Sample			
51	Vial 51	SEQ-CCVD 10L0467 Tox	8081_82	1	Sample			
52	Vial 52	SEQ-CCVE 10)0781 Arom	8081_82	1	Sample			
53	Vial 53	SEQ-CCVF 11A0053 1660	8081_82	1	Sample			
54	Vial 54	AR-1221	8081_82	1	Sample			
55	Vial 55	AR-1232	8081_82	1	Sample			
56	Vial 56	AR-1242	8081_82	1	Sample			
57	Vial 57	AR-1248	8081_82	1	Sample			
58	Vial 58	AR-1254	8081_82	1	Sample			
59	Vial 59	AR-1262	8081_82	1	Sample			

mixed

pest AB

1B01015, 1X

1B01015, 1X

not used (not needed)

Quantitative only

Sequence: C:\HPCHEM\ECD3\SEQUENCE\020811.S 8081_82(PEST_PCB)

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
60	Vial 60	AR-1268 Quantitate only	8081_82	1	Sample		
61	Vial 61	HEX BLANK	8081_82	5	Sample		
62	Vial 61	HEX BLANK	BAKE_OUT	5	Sample		

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~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011F1101.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-FEB-2011 19:37
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 14:15 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.220	5.219	0.001	25310	1.00000	0.9311
3	Alpha-BHC	5.651	5.652	-0.001	32477	1.00000	0.7934
23	Gamma-BHC	5.973	5.974	-0.001	30450	1.00000	0.8399
5	Beta-BHC	6.186	6.186	0.000	13986	1.00000	0.9603
15	Delta-BHC	6.435	6.436	-0.001	23776	1.00000	0.7510
25	Heptachlor	6.548	6.551	-0.003	24249	1.00000	0.7732
2	Aldrin	6.906	6.909	-0.003	31707	1.00000	0.8412
26	Heptachlor Epoxide	7.380	7.379	0.001	30465	1.00000	0.8754
24	Gamma-Chlordane	7.668	7.669	-0.001	28280	1.00000	0.8184
4	Alpha-Chlordane	7.755	7.756	-0.001	29824	1.00000	0.8762
17	Endosulfan I	7.816	7.816	0.000	28106	1.00000	0.8360
13	4,4'-DDE	7.961	7.962	-0.001	24055	1.00000	0.8367
16	Dieldrin	8.136	8.137	-0.001	29677	1.00000	0.8307
20	Endrin	8.410	8.409	0.001	23346	1.00000	0.8485
12	4,4'-DDD	8.586	8.584	0.002	18353	1.00000	0.7919
18	Endosulfan II	8.686	8.687	-0.001	25687	1.00000	0.8278
21	Endrin Aldehyde	8.848	8.847	0.001	20606	1.00000	0.8522
14	4,4'-DDT	8.960	8.959	0.001	18411	1.00000	0.7776
19	Endosulfan Sulfate	9.136	9.136	0.000	22065	1.00000	0.8501
27	Methoxychlor	9.568	9.566	0.002	9224	1.00000	0.8151
22	Endrin Ketone	9.736	9.734	0.002	29644	1.00000	0.8480
$ 39	DCB	11.380	11.379	0.001	31730	1.00000	1.021

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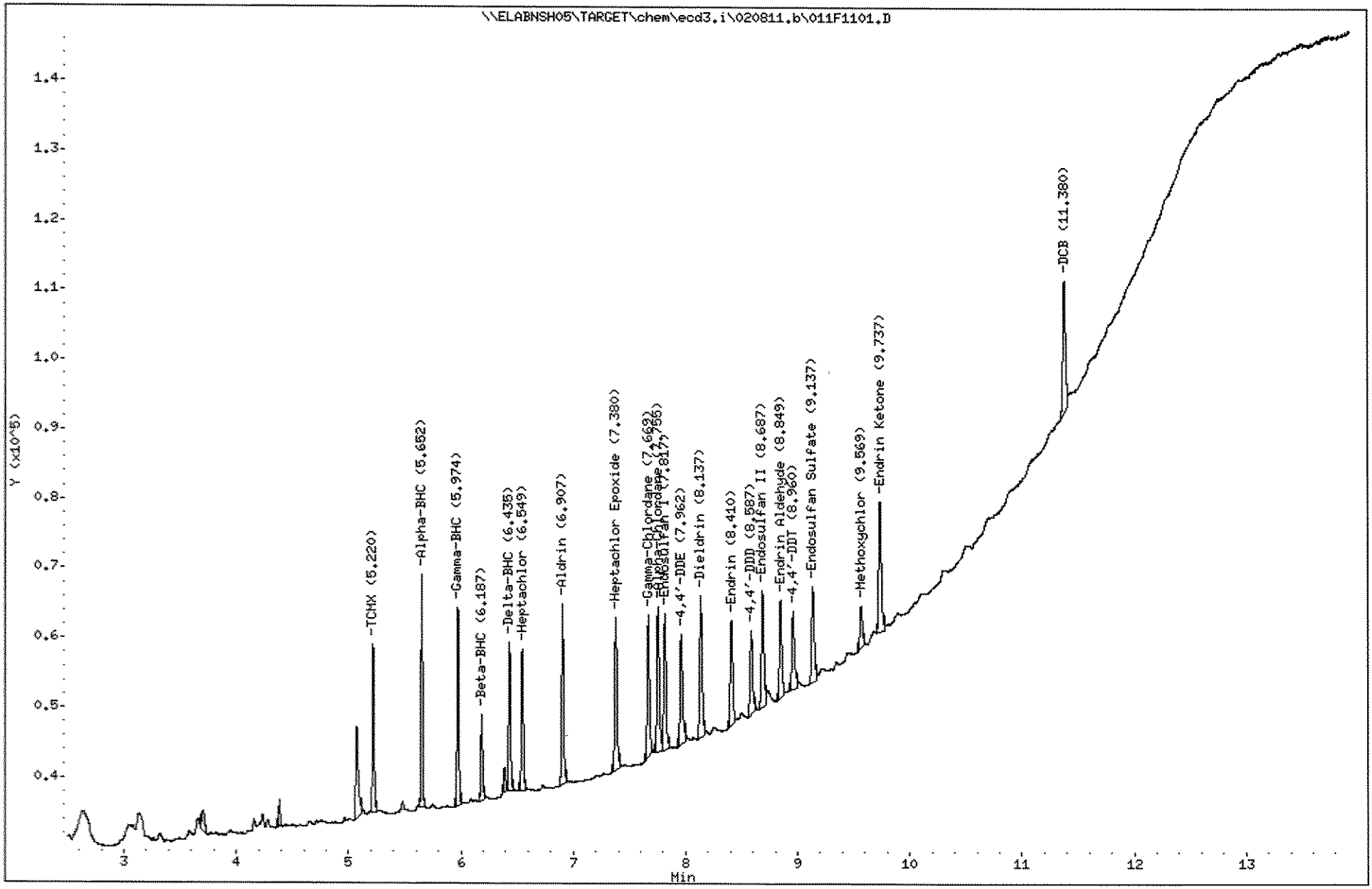
2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011F1101.D
Date : 08-FEB-2011 19:37
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012F1201.D
Lab Smp Id: SEQ-CAL8
Inj Date : 08-FEB-2011 19:56
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.220	5.219	0.001	130487	5.00000	4.800
3 Alpha-BHC	5.651	5.652	-0.001	183634	5.00000	4.486
23 Gamma-BHC	5.975	5.974	0.001	164988	5.00000	4.551
5 Beta-BHC	6.188	6.186	0.002	70300	5.00000	4.827
15 Delta-BHC	6.436	6.436	0.000	139609	5.00000	4.410
25 Heptachlor	6.550	6.551	-0.001	138610	5.00000	4.419
2 Aldrin	6.908	6.909	-0.001	173858	5.00000	4.613
26 Heptachlor Epoxide	7.380	7.379	0.001	163608	5.00000	4.701
24 Gamma-Chlordane	7.670	7.669	0.001	162781	5.00000	4.710
4 Alpha-Chlordane	7.756	7.756	0.000	161762	5.00000	4.752
17 Endosulfan I	7.816	7.816	0.000	158205	5.00000	4.706
13 4,4'-DDE	7.961	7.962	-0.001	130747	5.00000	4.548
16 Dieldrin	8.138	8.137	0.001	162935	5.00000	4.561
20 Endrin	8.410	8.409	0.001	123707	5.00000	4.496
12 4,4'-DDD	8.585	8.584	0.001	109008	5.00000	4.703
18 Endosulfan II	8.688	8.687	0.001	144312	5.00000	4.650
21 Endrin Aldehyde	8.848	8.847	0.001	114165	5.00000	4.722
14 4,4'-DDT	8.960	8.959	0.001	100154	5.00000	4.230
19 Endosulfan Sulfate	9.136	9.136	0.000	122810	5.00000	4.732
27 Methoxychlor	9.566	9.566	0.000	54617	5.00000	4.826
22 Endrin Ketone	9.735	9.734	0.001	172049	5.00000	4.921
$ 39 DCB	11.380	11.379	0.001	168275	5.00000	5.417

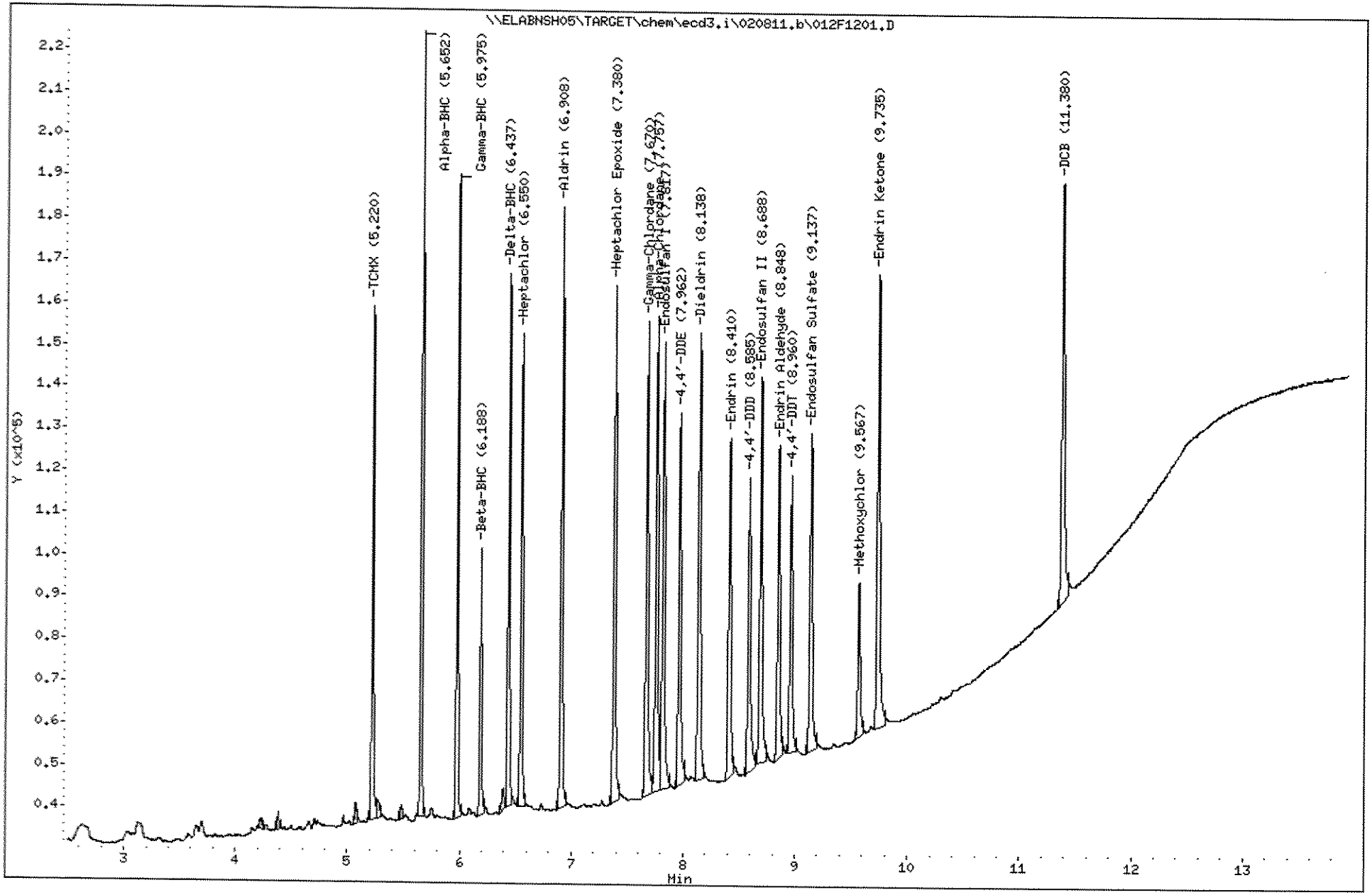
WL 2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012F1201.D
Date : 08-FEB-2011 19:56
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013F1301.D
Lab Smp Id: SEQ-CAL9
Inj Date : 08-FEB-2011 20:15
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.220	5.219	0.001	268567	10.0000	9.880
3	Alpha-BHC	5.651	5.652	-0.001	397208 X	10.0000	9.704
23	Gamma-BHC	5.975	5.974	0.001	349072	10.0000	9.628
5	Beta-BHC	6.186	6.186	0.000	142233	10.0000	9.766
15	Delta-BHC	6.435	6.436	-0.001	299520	10.0000	9.460
25	Heptachlor	6.550	6.551	-0.001	292848	10.0000	9.337
2	Aldrin	6.908	6.909	-0.001	368155	10.0000	9.768
26	Heptachlor Epoxide	7.380	7.379	0.001	348092	10.0000	10.00
24	Gamma-Chlordane	7.670	7.669	0.001	337625	10.0000	9.770
4	Alpha-Chlordane	7.755	7.756	-0.001	334127 ø	10.0000	9.816
17	Endosulfan I	7.816	7.816	0.000	333477	10.0000	9.920
13	4,4'-DDE	7.961	7.962	-0.001	278537	10.0000	9.688
16	Dieldrin	8.138	8.137	0.001	341785	10.0000	9.568
20	Endrin	8.410	8.409	0.001	257926	10.0000	9.374
12	4,4'-DDD	8.585	8.584	0.001	221241	10.0000	9.546
18	Endosulfan II	8.686	8.687	-0.001	295665	10.0000	9.528
21	Endrin Aldehyde	8.848	8.847	0.001	232318	10.0000	9.608
14	4,4'-DDT	8.960	8.959	0.001	209341	10.0000	8.841
19	Endosulfan Sulfate	9.136	9.136	0.000	248103	10.0000	9.559
27	Methoxychlor	9.566	9.566	0.000	106469	10.0000	9.408
22	Endrin Ketone	9.735	9.734	0.001	340843	10.0000	9.750
$ 39	DCB	11.378	11.379	-0.001	319097	10.0000	10.27

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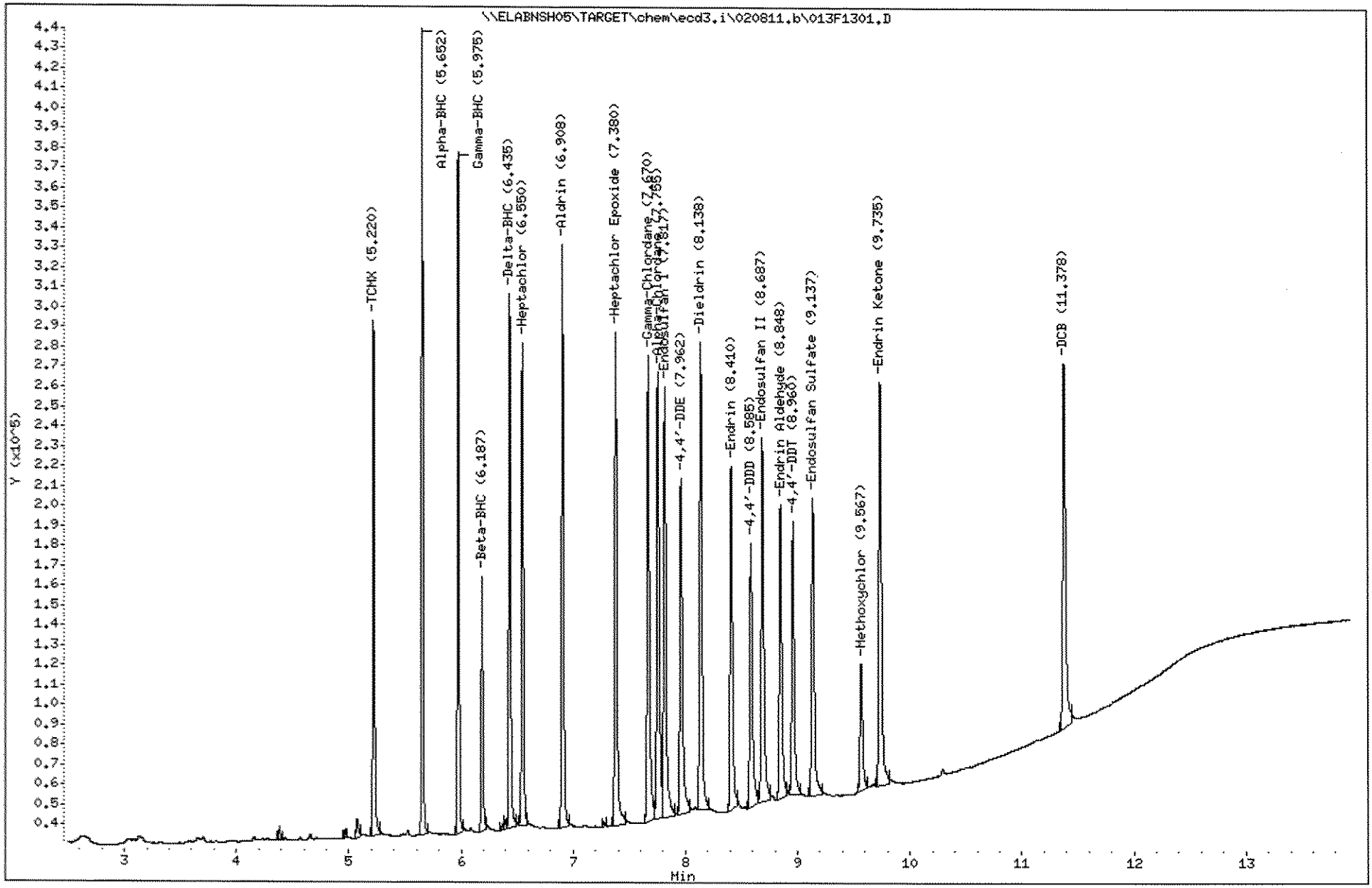
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013F1301.D
Date : 08-FEB-2011 20:15
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014F1401.D
Lab Smp Id: SEQ-CALA
Inj Date : 08-FEB-2011 20:34
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.219	5.219	0.000	670459	25.0000	24.66
3	Alpha-BHC	5.653	5.652	0.001	1023890	25.0000	25.01
23	Gamma-BHC	5.976	5.974	0.002	895295	25.0000	24.69
5	Beta-BHC	6.188	6.186	0.002	353610	25.0000	24.28
15	Delta-BHC	6.436	6.436	0.000	781778	25.0000	24.69
25	Heptachlor	6.549	6.551	-0.002	767874	25.0000	24.48
2	Aldrin	6.908	6.909	-0.001	941527	25.0000	24.98
26	Heptachlor Epoxide	7.379	7.379	0.000	854473	25.0000	24.55
24	Gamma-Chlordane	7.669	7.669	0.000	850867	25.0000	24.62
4	Alpha-Chlordane	7.754	7.756	-0.002	831381	25.0000	24.42
17	Endosulfan I	7.814	7.816	-0.002	839988	25.0000	24.99
13	4,4'-DDE	7.961	7.962	-0.001	677173	25.0000	23.55
16	Dieldrin	8.136	8.137	-0.001	872819	25.0000	24.43
20	Endrin	8.409	8.409	0.000	691216	25.0000	25.12
12	4,4'-DDD	8.584	8.584	0.000	555503	25.0000	23.97
18	Endosulfan II	8.686	8.687	-0.001	762834	25.0000	24.58
21	Endrin Aldehyde	8.846	8.847	-0.001	569057	25.0000	23.54
14	4,4'-DDT	8.959	8.959	0.000	563538	25.0000	23.80
19	Endosulfan Sulfate	9.134	9.136	-0.002	617625	25.0000	23.80
27	Methoxychlor	9.564	9.566	-0.002	264377	25.0000	23.36
22	Endrin Ketone	9.734	9.734	0.000	844863	25.0000	24.17
$ 39	DCB	11.378	11.379	-0.001	742966	25.0000	23.92

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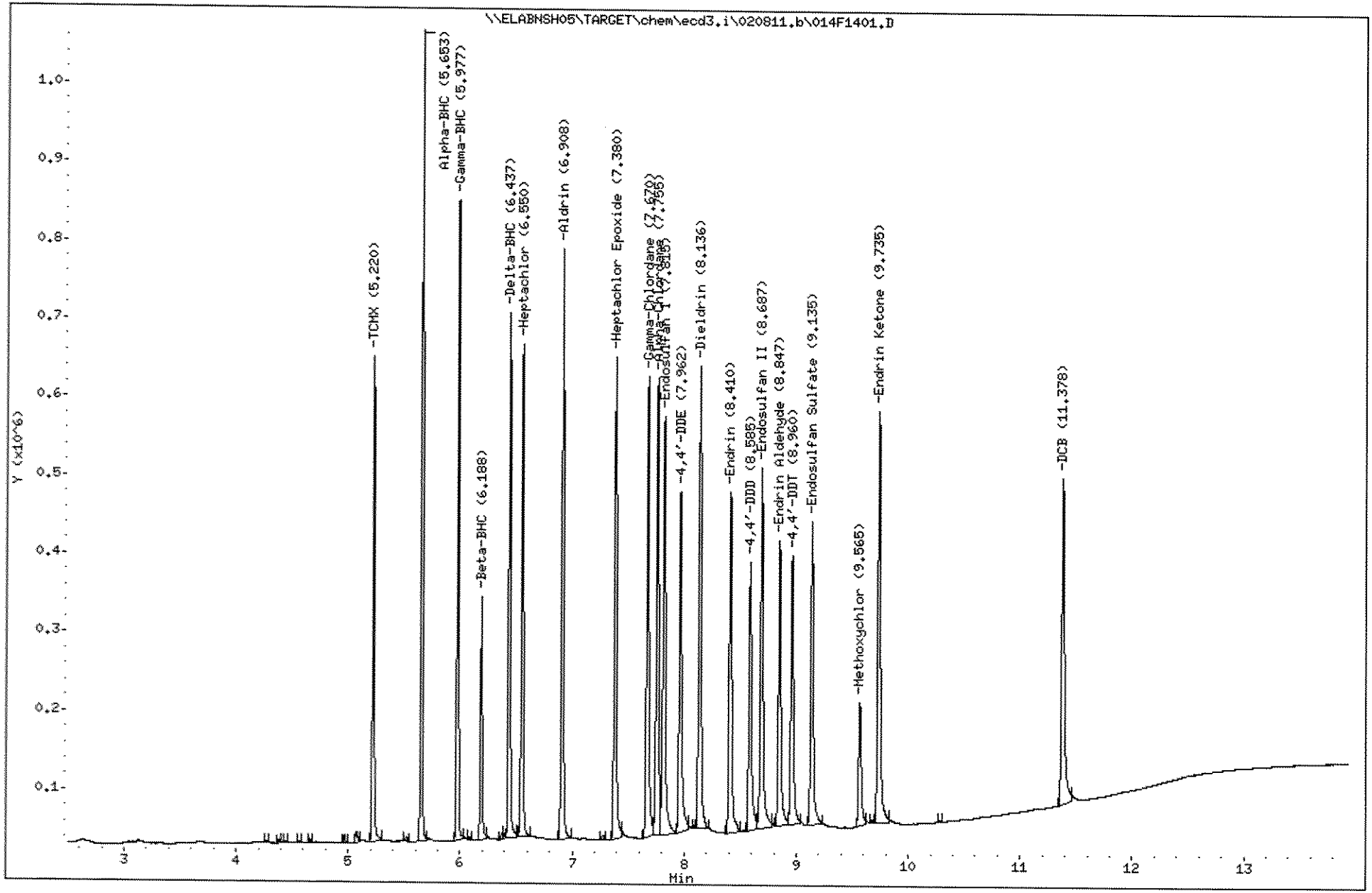
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014F1401.D
Date : 08-FEB-2011 20:34
Client ID:
Sample Info: SEQ-CALA

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015F1501.D
Lab Smp Id: SEQ-CALB
Inj Date : 08-FEB-2011 20:53
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.219	5.219	0.000	1413828	50.0000	52.01
3 Alpha-BHC	5.652	5.652	0.000	2212359	50.0000	54.05
23 Gamma-BHC	5.974	5.974	0.000	1936289	50.0000	53.41
5 Beta-BHC	6.186	6.186	0.000	751826	50.0000	51.62
15 Delta-BHC	6.436	6.436	0.000	1737215	50.0000	54.87
25 Heptachlor	6.551	6.551	0.000	1717344	50.0000	54.76
2 Aldrin	6.907	6.909	-0.002	2017309	50.0000	53.52
26 Heptachlor Epoxide	7.381	7.379	0.002	1859742	50.0000	53.44
24 Gamma-Chlordane	7.669	7.669	0.000	1843378	50.0000	53.34
4 Alpha-Chlordane	7.754	7.756	-0.002	1790919	50.0000	52.61
17 Endosulfan I	7.816	7.816	0.000	1788273	50.0000	53.19
13 4,4'-DDE	7.961	7.962	-0.001	1518963	50.0000	52.83
16 Dieldrin	8.136	8.137	-0.001	1893003	50.0000	52.99
20 Endrin	8.409	8.409	0.000	1500266	50.0000	54.52
12 4,4'-DDD	8.586	8.584	0.002	1250654	50.0000	53.96
18 Endosulfan II	8.687	8.687	0.000	1698834	50.0000	54.74
21 Endrin Aldehyde	8.849	8.847	0.002	1283496	50.0000	53.08
14 4,4'-DDT	8.959	8.959	0.000	1335466	50.0000	56.40
19 Endosulfan Sulfate	9.136	9.136	0.000	1353258	50.0000	52.14
27 Methoxychlor	9.566	9.566	0.000	626531	50.0000	55.36
22 Endrin Ketone	9.734	9.734	0.000	1851371	50.0000	52.96
$ 39 DCB	11.379	11.379	0.000	1523004	50.0000	49.03

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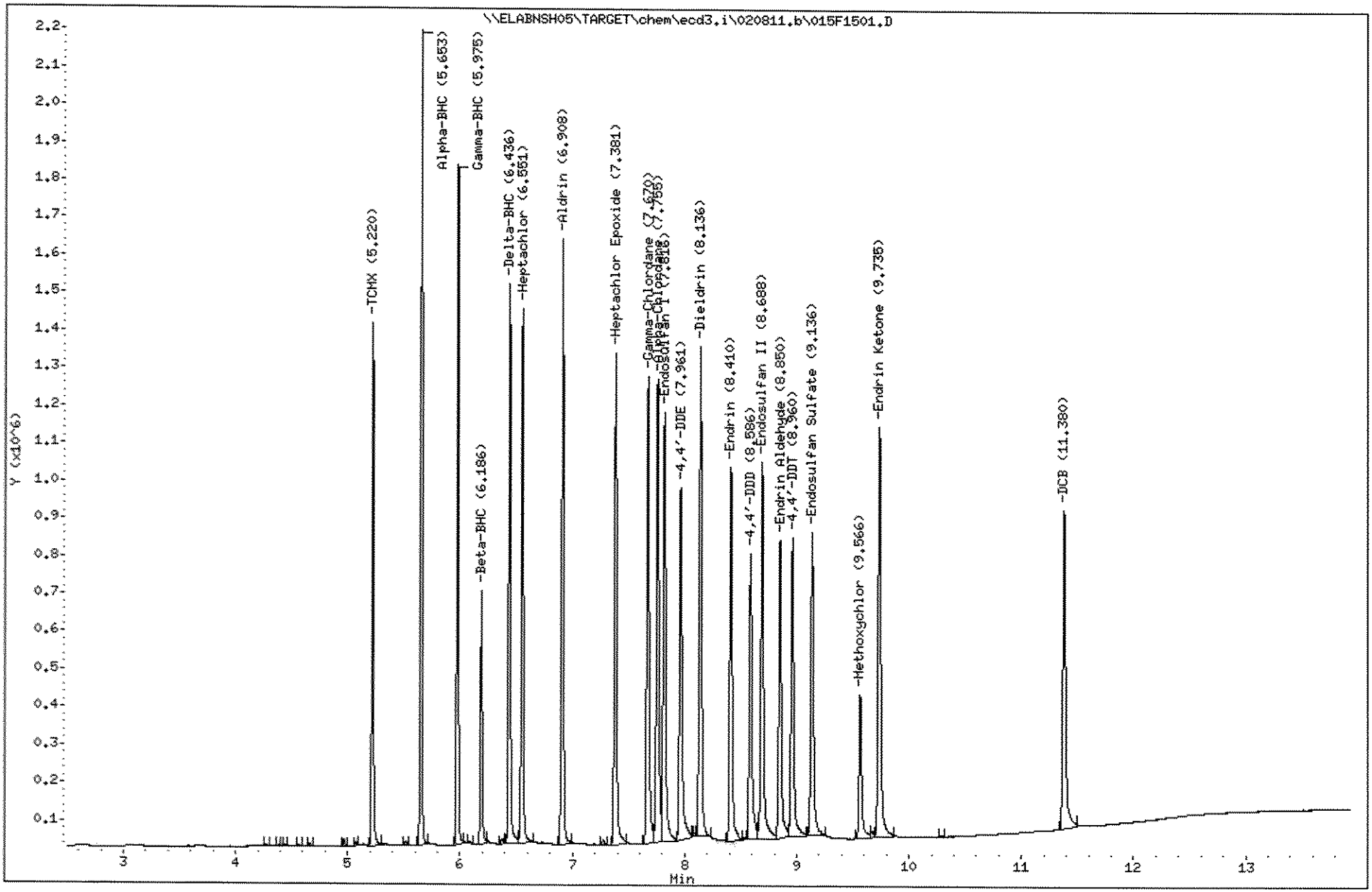
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015F1501.D
Date : 08-FEB-2011 20:53
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016F1601.D
Lab Smp Id: SEQ-CALC
Inj Date : 08-FEB-2011 21:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.219	5.219	0.000	2848565	100.000	104.8
3	Alpha-BHC	5.652	5.652	0.000	4556079	100.000	111.3
23	Gamma-BHC	5.974	5.974	0.000	4010130	100.000	110.6
5	Beta-BHC	6.186	6.186	0.000	1523380	100.000	104.6
15	Delta-BHC	6.436	6.436	0.000	3646023	100.000	115.2
25	Heptachlor	6.551	6.551	0.000	3586863	100.000	114.4
2	Aldrin	6.909	6.909	0.000	4112614	100.000	109.1
26	Heptachlor Epoxide	7.379	7.379	0.000	3709827	100.000	106.6
24	Gamma-Chlordane	7.669	7.669	0.000	3818490	100.000	110.5
4	Alpha-Chlordane	7.756	7.756	0.000	3693871	100.000	108.5
17	Endosulfan I	7.816	7.816	0.000	3690766	100.000	109.8
13	4,4'-DDE	7.962	7.962	0.000	3288302	100.000	114.4
16	Dieldrin	8.137	8.137	0.000	4108935	100.000	115.0
20	Endrin	8.409	8.409	0.000	3076162	100.000	111.8
12	4,4'-DDD	8.584	8.584	0.000	2635355	100.000	113.7
18	Endosulfan II	8.687	8.687	0.000	3503618	100.000	112.9
21	Endrin Aldehyde	8.847	8.847	0.000	2774665	100.000	114.8
14	4,4'-DDT	8.959	8.959	0.000	2909906	100.000	122.9
19	Endosulfan Sulfate	9.136	9.136	0.000	2982488	100.000	114.9
27	Methoxychlor	9.566	9.566	0.000	1252037	100.000	110.6
22	Endrin Ketone	9.734	9.734	0.000	3801784	100.000	108.8
$ 39	DCB	11.379	11.379	0.000	3145651	100.000	101.3

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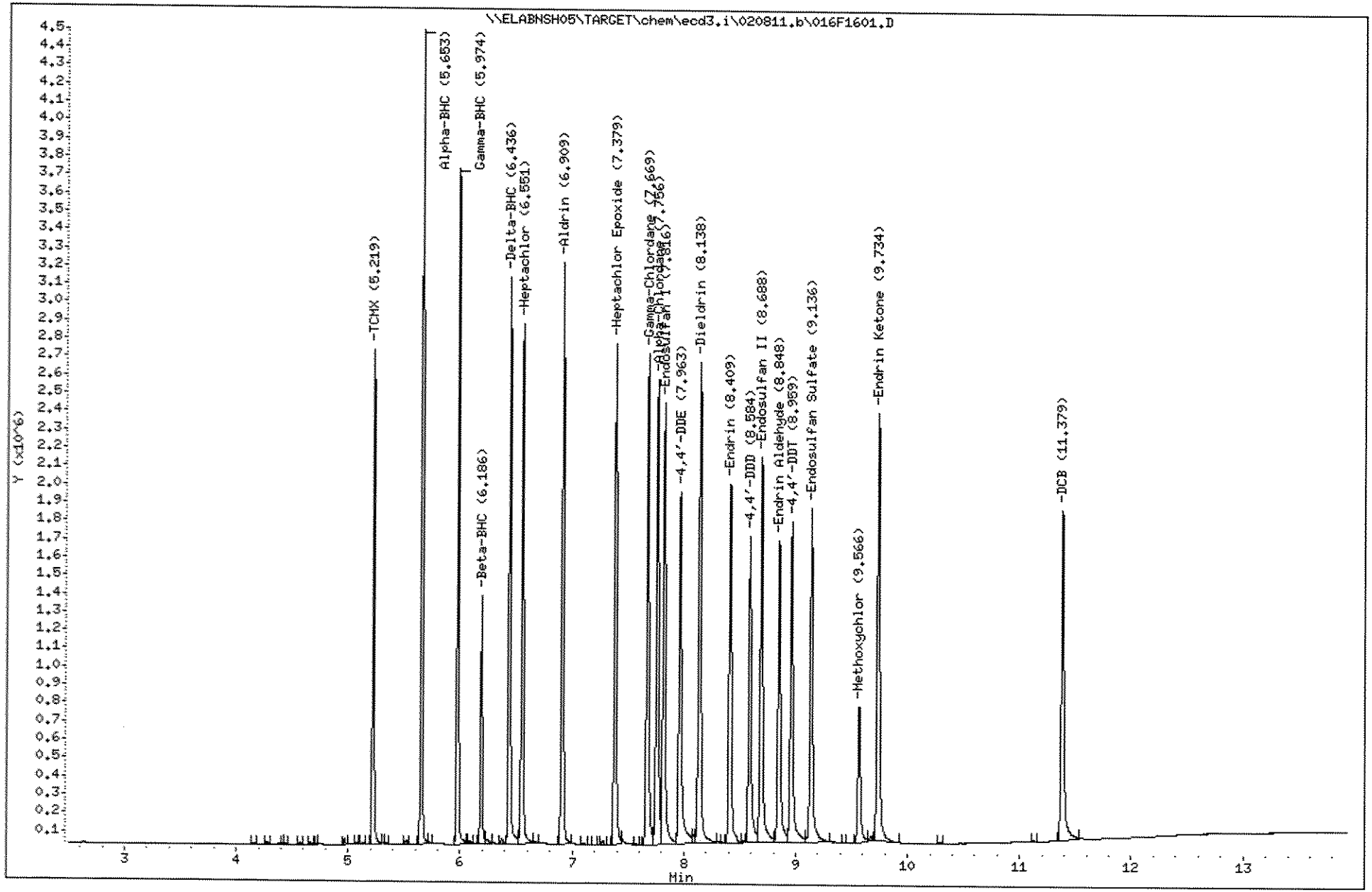
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016F1601.D
Date : 08-FEB-2011 21:12
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\017F1701.D
Lab Smp Id: SEQ-CALD
Inj Date : 08-FEB-2011 21:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALD
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82F.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.220	5.219	0.001	5685838	200.000	209.2(A)
3 Alpha-BHC	5.653	5.652	0.001	9369403 X	200.000	228.9(A)
23 Gamma-BHC	5.975	5.974	0.001	8157391	200.000	225.0(A)
5 Beta-BHC	6.187	6.186	0.001	3052331	200.000	209.6(A)
15 Delta-BHC	6.435	6.436	-0.001	7499429	200.000	236.9(A)
25 Heptachlor	6.552	6.551	0.001	7471683	200.000	238.2(A)
2 Aldrin	6.908	6.909	-0.001	8280365	200.000	219.7(A)
26 Heptachlor Epoxide	7.380	7.379	0.001	7430504	200.000	213.5(A)
24 Gamma-Chlordane	7.670	7.669	0.001	7641901	200.000	221.1(A)
4 Alpha-Chlordane	7.757	7.756	0.001	7334394	200.000	215.5(A)
17 Endosulfan I	7.817	7.816	0.001	7191903	200.000	213.9(A)
13 4,4'-DDE	7.962	7.962	0.000	6567396	200.000	228.4(A)
16 Dieldrin	8.137	8.137	0.000	7951624	200.000	222.6(A)
20 Endrin	8.410	8.409	0.001	6062630	200.000	220.3(A)
12 4,4'-DDD	8.583	8.584	-0.001	5274363	200.000	227.6(A)
18 Endosulfan II	8.687	8.687	0.000	6715943	200.000	216.4(A)
21 Endrin Aldehyde	8.848	8.847	0.001	5280368	200.000	218.4(A)
14 4,4'-DDT	8.960	8.959	0.001	5603901 O	200.000	236.7(A)
19 Endosulfan Sulfate	9.135	9.136	-0.001	5730297	200.000	220.8(A)
27 Methoxychlor	9.565	9.566	-0.001	2559005	200.000	226.1(A)
22 Endrin Ketone	9.735	9.734	0.001	7546825	200.000	215.9(A)
$ 39 DCB	11.380	11.379	0.001	5703324	200.000	183.6

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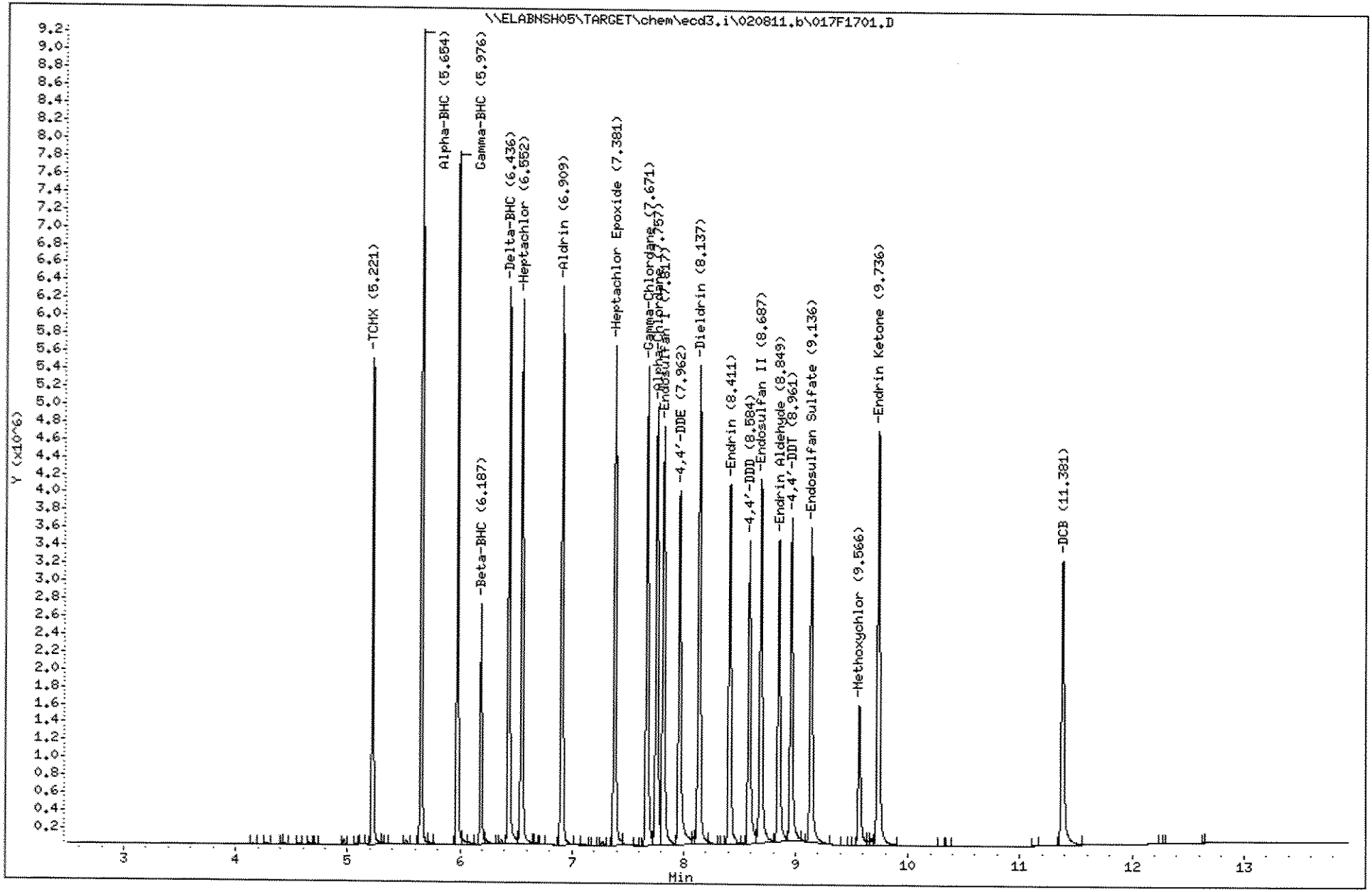
Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\020811.b\017F1701.D
Date : 08-FEB-2011 21:31
Client ID:
Sample Info: SEQ-CALD

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011R1101.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-FEB-2011 19:37
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:35 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.315	4.316	-0.001	27921	1.00000	1.077
3 Alpha-BHC [2C]	4.705	4.704	0.001	33779	1.00000	0.9626
23 Gamma-BHC [2C]	4.970	4.971	-0.001	30771	1.00000	0.9901
5 Beta-BHC [2C]	5.237	5.236	0.001	18322	1.00000	1.271
25 Heptachlor [2C]	5.302	5.303	-0.001	27177	1.00000	0.9507
15 Delta-BHC [2C]	5.428	5.429	-0.001	25170	1.00000	0.9113
2 Aldrin [2C]	5.553	5.554	-0.001	29354	1.00000	0.9521
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	28611	1.00000	0.9873
24 Gamma-Chlordane [2C]	6.268	6.269	-0.001	27332	1.00000	1.007
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	29130	1.00000	1.032
17 Endosulfan I [2C]	6.368	6.368	0.000	29089	1.00000	0.9531
13 4,4'-DDE [2C]	6.515	6.516	-0.001	19414	1.00000	0.8486
16 Dieldrin [2C]	6.635	6.634	0.001	26743	1.00000	0.8836
20 Endrin [2C]	6.905	6.904	0.001	20633	1.00000	0.8996
12 4,4'-DDD [2C]	7.097	7.096	0.001	16188	1.00000	0.8264
18 Endosulfan II [2C]	7.233	7.233	0.000	23327	1.00000	0.9475
14 4,4'-DDT [2C]	7.380	7.379	0.001	14192	1.00000	0.8799
21 Endrin Aldehyde [2C]	7.410	7.409	0.001	24700	1.00000	0.9878
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	20693	1.00000	0.9753
27 Methoxychlor [2C]	8.005	8.003	0.002	9090	1.00000	0.8706
22 Endrin Ketone [2C]	8.220	8.219	0.001	29441	1.00000	0.9992
$ 39 DCB [2C]	9.665	9.664	0.001	27023	1.00000	1.156

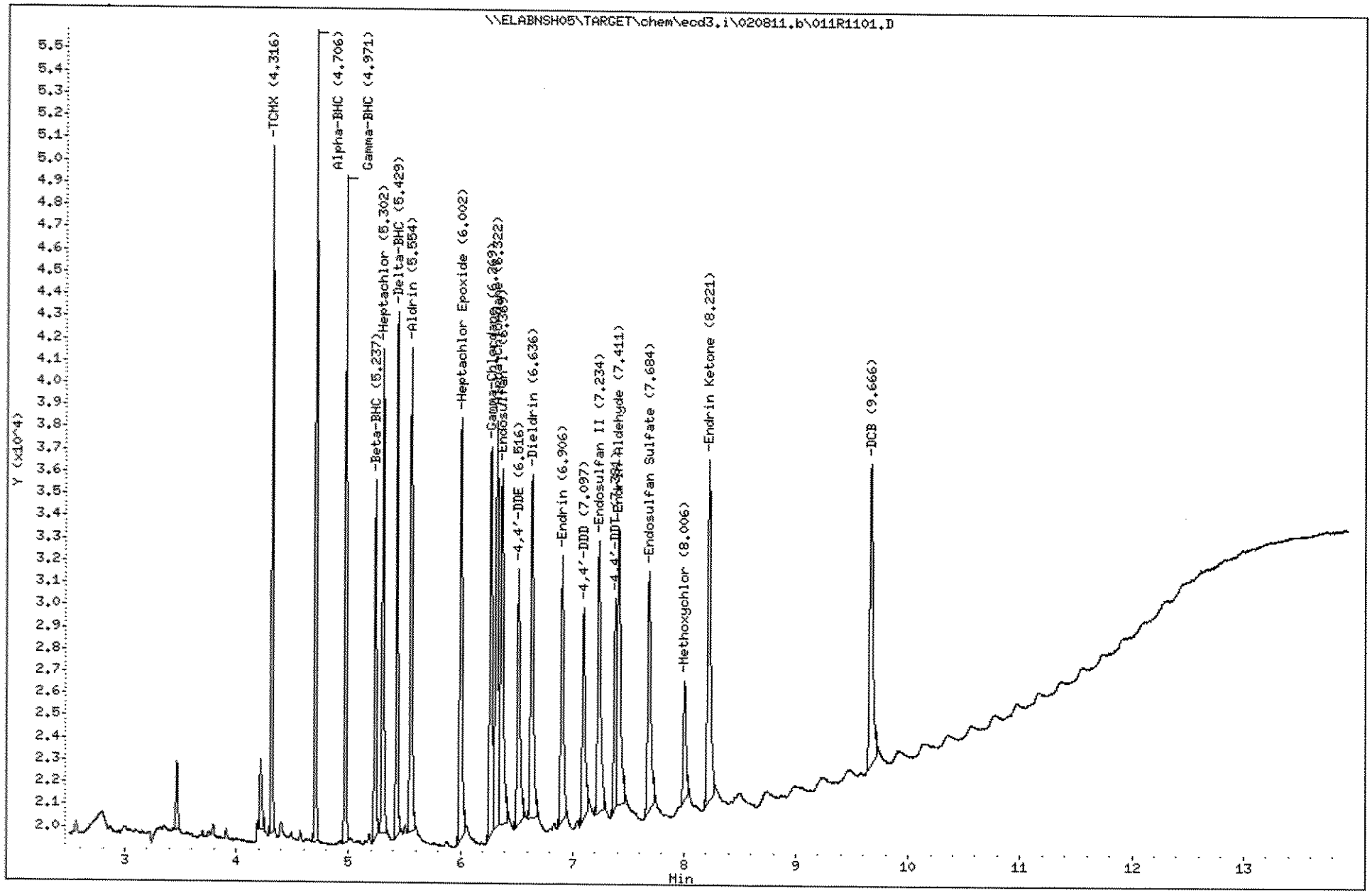
WL 2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\011R1101.D
Date : 08-FEB-2011 19:37
Client ID:
Sample Info: SEQ-CAL7

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012R1201.D
Lab Smp Id: SEQ-CAL8
Inj Date : 08-FEB-2011 19:56
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$	38 TCMX [2C]	4.317	4.316	0.001	134156	5.00000	5.173
	3 Alpha-BHC [2C]	4.705	4.704	0.001	173144 X	5.00000	4.934
	23 Gamma-BHC [2C]	4.970	4.971	-0.001	150101	5.00000	4.830
	5 Beta-BHC [2C]	5.237	5.236	0.001	74640	5.00000	5.177
	25 Heptachlor [2C]	5.303	5.303	0.000	141055	5.00000	4.934
	15 Delta-BHC [2C]	5.428	5.429	-0.001	134056	5.00000	4.854
	2 Aldrin [2C]	5.553	5.554	-0.001	152057	5.00000	4.932
	26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	144273	5.00000	4.978
	24 Gamma-Chlordane [2C]	6.270	6.269	0.001	136690	5.00000	5.036
	4 Alpha-Chlordane [2C]	6.322	6.321	0.001	143801	5.00000	5.092
	17 Endosulfan I [2C]	6.368	6.368	0.000	156786 P	5.00000	5.137
	13 4,4'-DDE [2C]	6.517	6.516	0.001	110619	5.00000	4.835
	16 Dieldrin [2C]	6.635	6.634	0.001	142725	5.00000	4.716
	20 Endrin [2C]	6.905	6.904	0.001	115627	5.00000	5.041
	12 4,4'-DDD [2C]	7.097	7.096	0.001	97898	5.00000	4.998
	18 Endosulfan II [2C]	7.233	7.233	0.000	122275	5.00000	4.966
	14 4,4'-DDT [2C]	7.382	7.379	0.003	77563	5.00000	4.809
	21 Endrin Aldehyde [2C]	7.412	7.409	0.003	126845	5.00000	5.073
	19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	109047	5.00000	5.140
	27 Methoxychlor [2C]	8.005	8.003	0.002	56976	5.00000	5.457
	22 Endrin Ketone [2C]	8.220	8.219	0.001	152870	5.00000	5.188
$	39 DCB [2C]	9.665	9.664	0.001	132990	5.00000	5.689

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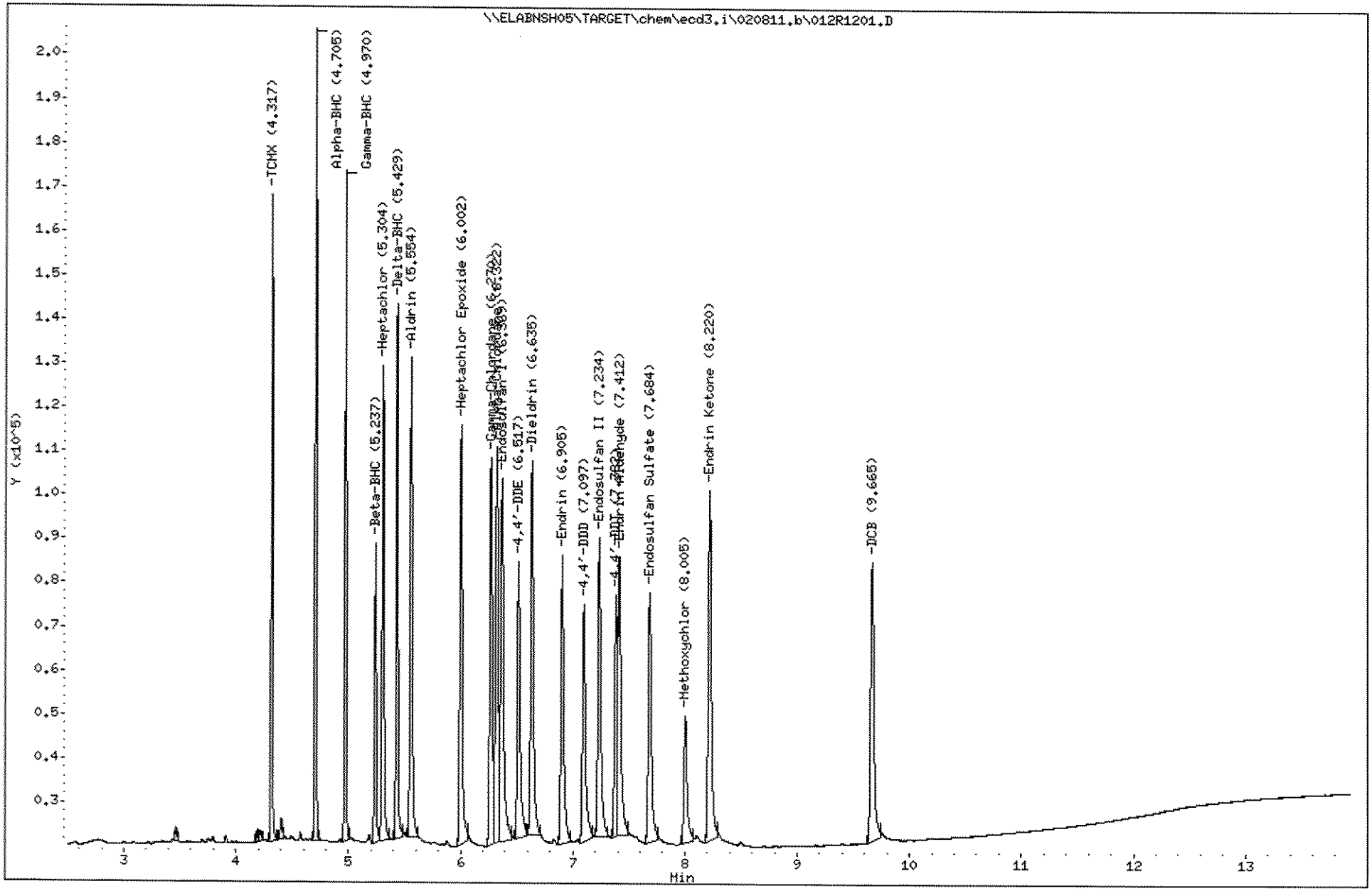
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\012R1201.D
Date : 08-FEB-2011 19:56
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013R1301.D
Lab Smp Id: SEQ-CAL9
Inj Date : 08-FEB-2011 20:15
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.315	4.316	-0.001	273079	10.0000	10.53
3 Alpha-BHC [2C]	4.705	4.704	0.001	364305	10.0000	10.38
23 Gamma-BHC [2C]	4.970	4.971	-0.001	320910	10.0000	10.32
5 Beta-BHC [2C]	5.237	5.236	0.001	144245	10.0000	10.00
25 Heptachlor [2C]	5.303	5.303	0.000	293668	10.0000	10.27
15 Delta-BHC [2C]	5.428	5.429	-0.001	278536	10.0000	10.08
2 Aldrin [2C]	5.553	5.554	-0.001	313607	10.0000	10.17
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	303399	10.0000	10.47
24 Gamma-Chlordane [2C]	6.270	6.269	0.001	272790	10.0000	10.05
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	291659	10.0000	10.33
17 Endosulfan I [2C]	6.368	6.368	0.000	319885	10.0000	10.48
13 4,4'-DDE [2C]	6.517	6.516	0.001	228937	10.0000	10.01
16 Dieldrin [2C]	6.635	6.634	0.001	305436	10.0000	10.09
20 Endrin [2C]	6.905	6.904	0.001	233644	10.0000	10.19
12 4,4'-DDD [2C]	7.097	7.096	0.001	199518	10.0000	10.18
18 Endosulfan II [2C]	7.232	7.233	-0.001	245905	10.0000	9.988
14 4,4'-DDT [2C]	7.380	7.379	0.001	153664	10.0000	9.527
21 Endrin Aldehyde [2C]	7.410	7.409	0.001	260133	10.0000	10.40
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	210855	10.0000	9.938
27 Methoxychlor [2C]	8.003	8.003	0.000	102243	10.0000	9.792
22 Endrin Ketone [2C]	8.222	8.219	0.003	298554	10.0000	10.13
$ 39 DCB [2C]	9.663	9.664	-0.001	246242	10.0000	10.53

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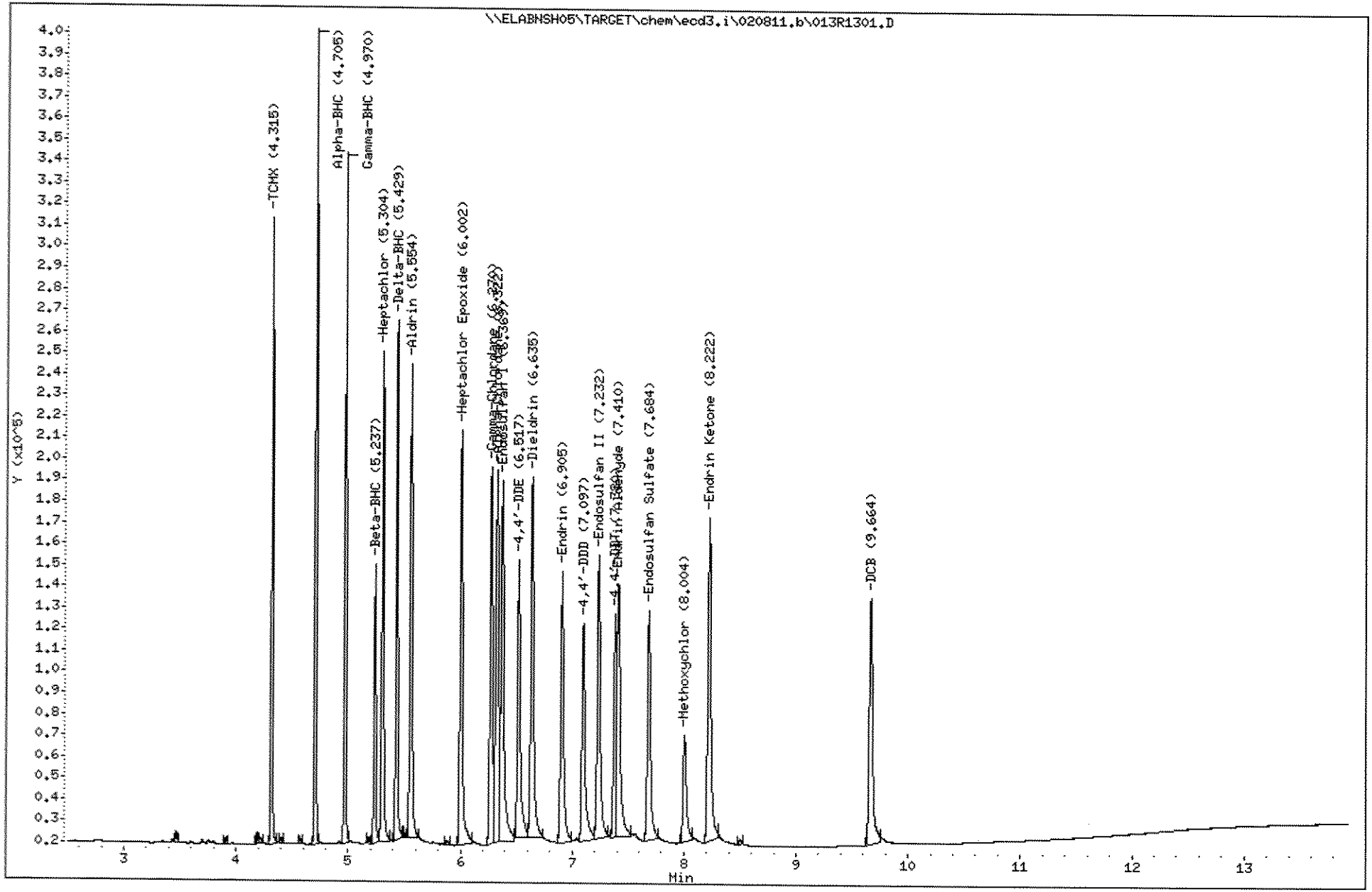
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\013R1301.D
Date : 08-FEB-2011 20:15
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014R1401.D
Lab Smp Id: SEQ-CALA
Inj Date : 08-FEB-2011 20:34
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;INDABD.sub
Comment :
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Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.316	4.316	0.000	643793	25.0000	24.82
3 Alpha-BHC [2C]	4.705	4.704	0.001	884776	25.0000	25.21
23 Gamma-BHC [2C]	4.971	4.971	0.000	777883	25.0000	25.03
5 Beta-BHC [2C]	5.236	5.236	0.000	335911	25.0000	23.30
25 Heptachlor [2C]	5.303	5.303	0.000	723679	25.0000	25.32
15 Delta-BHC [2C]	5.430	5.429	0.001	693686	25.0000	25.12
2 Aldrin [2C]	5.555	5.554	0.001	785923	25.0000	25.49
26 Heptachlor Epoxide [2C]	6.001	6.001	0.000	729125	25.0000	25.16
24 Gamma-Chlordane [2C]	6.270	6.269	0.001	670369	25.0000	24.70
4 Alpha-Chlordane [2C]	6.321	6.321	0.000	698274	25.0000	24.73
17 Endosulfan I [2C]	6.368	6.368	0.000	785886	25.0000	25.75
13 4,4'-DDE [2C]	6.516	6.516	0.000	576493	25.0000	25.20
16 Dieldrin [2C]	6.636	6.634	0.002	782684	25.0000	25.86
20 Endrin [2C]	6.905	6.904	0.001	579276	25.0000	25.26
12 4,4'-DDD [2C]	7.096	7.096	0.000	478658	25.0000	24.43
18 Endosulfan II [2C]	7.233	7.233	0.000	611707	25.0000	24.85
14 4,4'-DDT [2C]	7.381	7.379	0.002	373703	25.0000	23.17
21 Endrin Aldehyde [2C]	7.408	7.409	-0.001	605930	25.0000	24.23
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	514226	25.0000	24.24
27 Methoxychlor [2C]	8.003	8.003	0.000	248712	25.0000	23.82
22 Endrin Ketone [2C]	8.220	8.219	0.001	729475	25.0000	24.76
$ 39 DCB [2C]	9.665	9.664	0.001	565263	25.0000	24.18

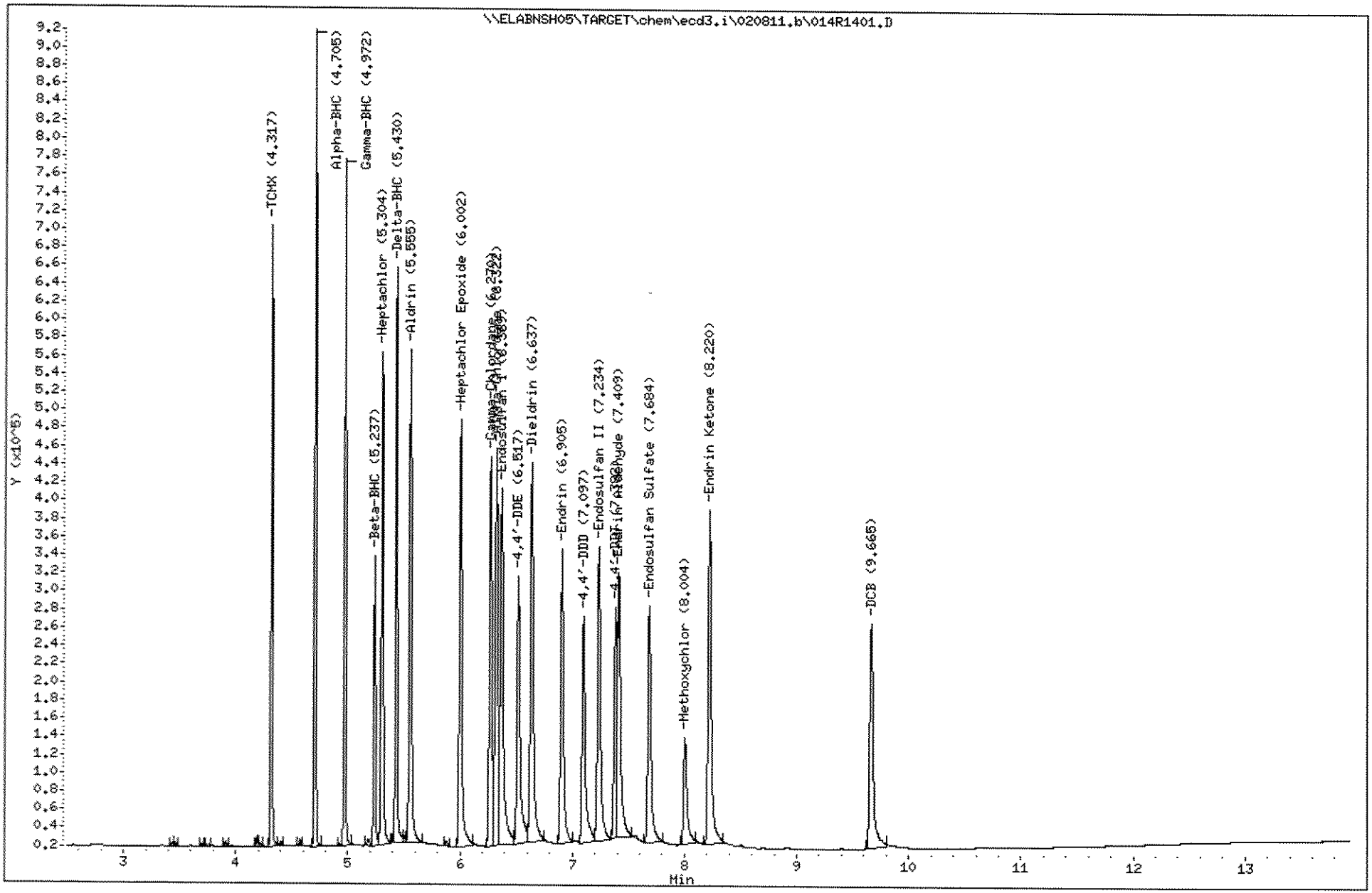
2/9/12

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\014R1401.D
Date : 08-FEB-2011 20:34
Client ID:
Sample Info: SEQ-CALA

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 2.10-11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015R1501.D
Lab Smp Id: SEQ-CALB
Inj Date : 08-FEB-2011 20:53
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:36 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.316	4.316	0.000	1295349	50.0000	49.95
3 Alpha-BHC [2C]	4.704	4.704	0.000	1815775	50.0000	51.74
23 Gamma-BHC [2C]	4.971	4.971	0.000	1609110	50.0000	51.78
5 Beta-BHC [2C]	5.236	5.236	0.000	686394	50.0000	47.61
25 Heptachlor [2C]	5.303	5.303	0.000	1496712	50.0000	52.36
15 Delta-BHC [2C]	5.429	5.429	0.000	1462500	50.0000	52.95
2 Aldrin [2C]	5.554	5.554	0.000	1613856	50.0000	52.35
26 Heptachlor Epoxide [2C]	6.001	6.001	0.000	1490787	50.0000	51.44
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	1399281	50.0000	51.56
4 Alpha-Chlordane [2C]	6.321	6.321	0.000	1432486	50.0000	50.72
17 Endosulfan I [2C]	6.368	6.368	0.000	1591107	50.0000	52.13
13 4,4'-DDE [2C]	6.516	6.516	0.000	1246405	50.0000	54.48
16 Dieldrin [2C]	6.636	6.634	0.002	1649354	50.0000	54.50
20 Endrin [2C]	6.904	6.904	0.000	1209755	50.0000	52.75
12 4,4'-DDD [2C]	7.096	7.096	0.000	1043534	50.0000	53.27
18 Endosulfan II [2C]	7.233	7.233	0.000	1272081	50.0000	51.67
14 4,4'-DDT [2C]	7.381	7.379	0.002	864593	50.0000	53.60
21 Endrin Aldehyde [2C]	7.409	7.409	0.000	1223284	50.0000	48.92
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	1078634	50.0000	50.84
27 Methoxychlor [2C]	8.003	8.003	0.000	550897	50.0000	52.76
22 Endrin Ketone [2C]	8.221	8.219	0.002	1503965	50.0000	51.04
$ 39 DCB [2C]	9.663	9.664	-0.001	1095772	50.0000	46.87

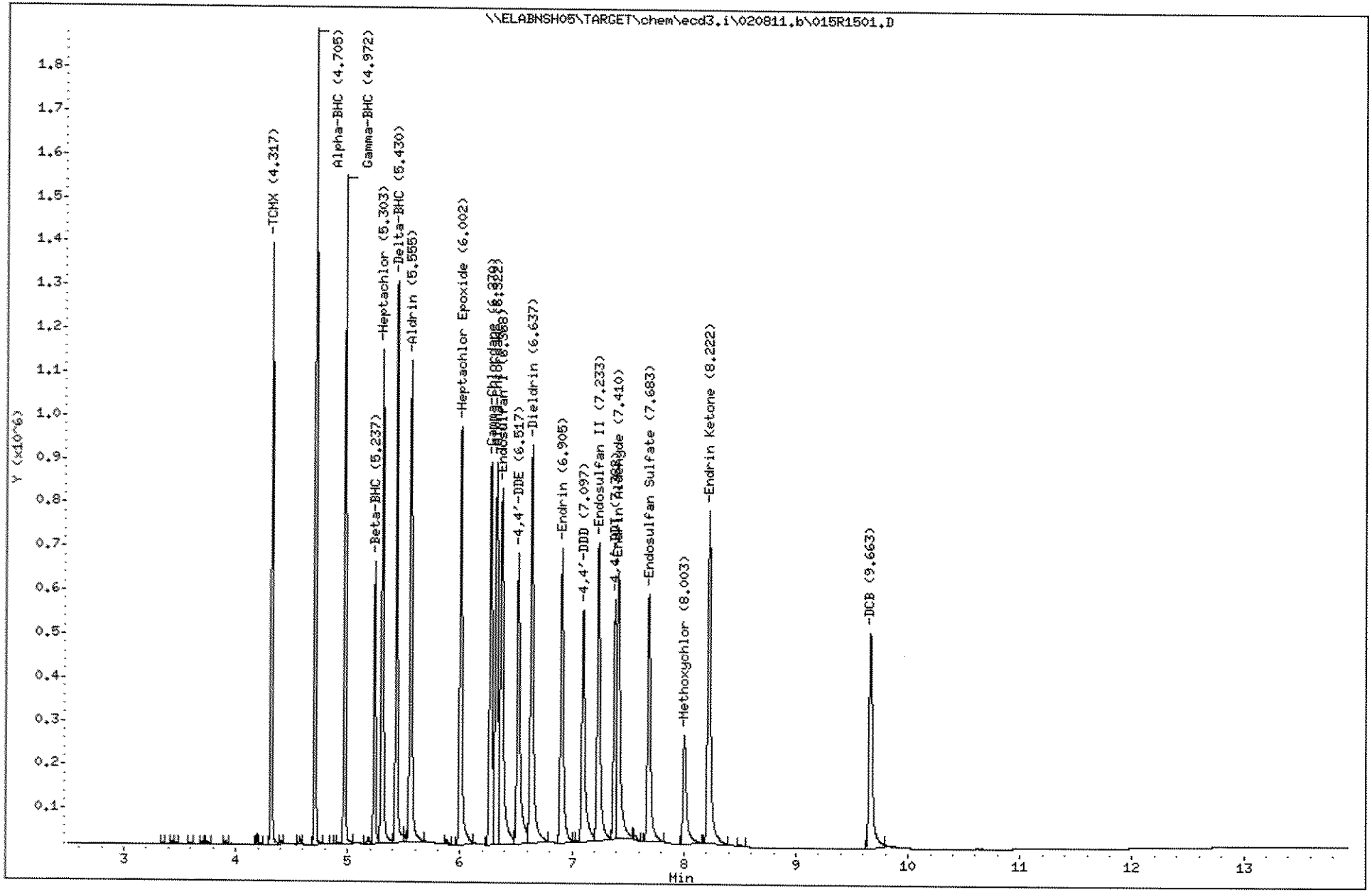
2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\015R1501.D
Date : 08-FEB-2011 20:53
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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J.H. 2.10.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016R1601.D
Lab Smp Id: SEQ-CALC
Inj Date : 08-FEB-2011 21:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.316	4.316	0.000	2463804	100.000	95.01
3 Alpha-BHC [2C]	4.704	4.704	0.000	3530291	100.000	100.6
23 Gamma-BHC [2C]	4.971	4.971	0.000	3127473	100.000	100.6
5 Beta-BHC [2C]	5.236	5.236	0.000	1337658	100.000	92.78
25 Heptachlor [2C]	5.303	5.303	0.000	2886297	100.000	101.0
15 Delta-BHC [2C]	5.429	5.429	0.000	2877087	100.000	104.2
2 Aldrin [2C]	5.554	5.554	0.000	3149651	100.000	102.2
26 Heptachlor Epoxide [2C]	6.001	6.001	0.000	2900858	100.000	100.1
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	2744158	100.000	101.1
4 Alpha-Chlordane [2C]	6.321	6.321	0.000	2780764	100.000	98.47
17 Endosulfan I [2C]	6.368	6.368	0.000	3034081	100.000	99.42
13 4,4'-DDE [2C]	6.516	6.516	0.000	2443417	100.000	106.8
16 Dieldrin [2C]	6.634	6.634	0.000	3199406	100.000	105.7
20 Endrin [2C]	6.904	6.904	0.000	2381118	100.000	103.8
12 4,4'-DDD [2C]	7.096	7.096	0.000	2127719	100.000	108.6
18 Endosulfan II [2C]	7.233	7.233	0.000	2608871	100.000	106.0
14 4,4'-DDT [2C]	7.379	7.379	0.000	1734990	100.000	107.6
21 Endrin Aldehyde [2C]	7.409	7.409	0.000	2681932	100.000	107.2
19 Endosulfan Sulfate [2C]	7.683	7.683	0.000	2221275	100.000	104.7
27 Methoxychlor [2C]	8.003	8.003	0.000	1087671	100.000	104.2
22 Endrin Ketone [2C]	8.219	8.219	0.000	2981364	100.000	101.2
$ 39 DCB [2C]	9.664	9.664	0.000	2181362	100.000	93.31

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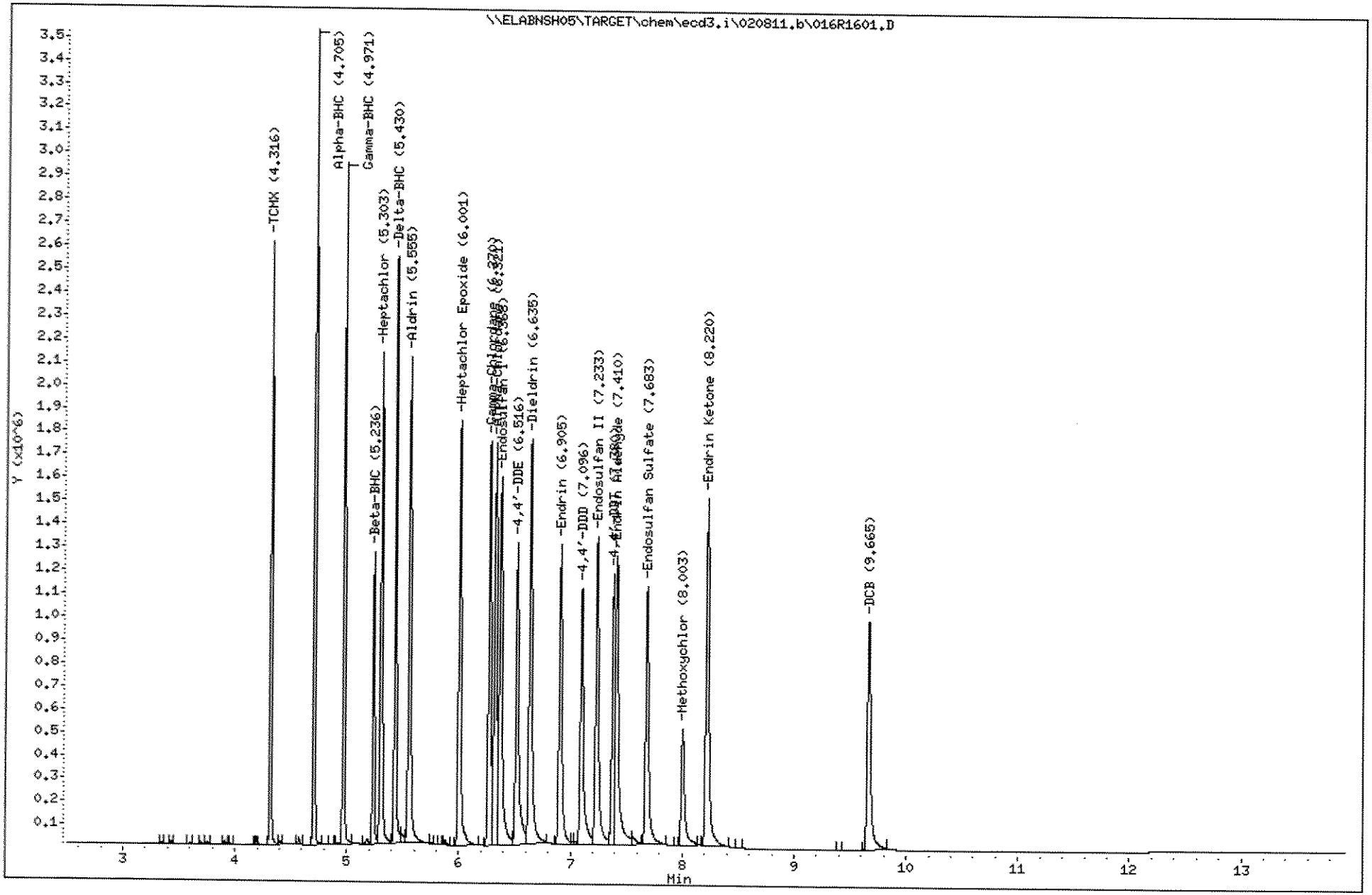
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\016R1601.D
Date : 08-FEB-2011 21:12
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\017R1701.D
Lab Smp Id: SEQ-CALD
Inj Date : 08-FEB-2011 21:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CALD
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\8081_82R.m
Meth Date : 09-Feb-2011 13:37 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.317	4.316	0.001	4634762	200.000	178.7
3 Alpha-BHC [2C]	4.705	4.704	0.001	6758301	200.000	192.6
23 Gamma-BHC [2C]	4.970	4.971	-0.001	6019116	200.000	193.7
5 Beta-BHC [2C]	5.237	5.236	0.001	2542239	200.000	176.3
25 Heptachlor [2C]	5.304	5.303	0.001	5521797	200.000	193.2
15 Delta-BHC [2C]	5.429	5.429	0.000	5546507	200.000	200.8(A)
2 Aldrin [2C]	5.554	5.554	0.000	5895014	200.000	191.2
26 Heptachlor Epoxide [2C]	6.002	6.001	0.001	5413045	200.000	186.8
24 Gamma-Chlordane [2C]	6.269	6.269	0.000	5158316	200.000	190.1
4 Alpha-Chlordane [2C]	6.322	6.321	0.001	5246809	200.000	185.8
17 Endosulfan I [2C]	6.369	6.368	0.001	5520330	200.000	180.9
13 4,4'-DDE [2C]	6.515	6.516	-0.001	4657746	200.000	203.6(A)
16 Dieldrin [2C]	6.635	6.634	0.001	5945454	200.000	196.4
20 Endrin [2C]	6.904	6.904	0.000	4449138	200.000	194.0
12 4,4'-DDD [2C]	7.095	7.096	-0.001	4022266	200.000	205.3(A)
18 Endosulfan II [2C]	7.232	7.233	-0.001	4793583	200.000	194.7
14 4,4'-DDT [2C]	7.380	7.379	0.001	3648821	200.000	226.2(A)
21 Endrin Aldehyde [2C]	7.409	7.409	0.000	4687054	200.000	187.4
19 Endosulfan Sulfate [2C]	7.682	7.683	-0.001	4114633	200.000	193.9
27 Methoxychlor [2C]	8.004	8.003	0.001	2107205	200.000	201.8(A)
22 Endrin Ketone [2C]	8.219	8.219	0.000	5463193	200.000	185.4
$ 39 DCB [2C]	9.664	9.664	0.000	3811770	200.000	163.0

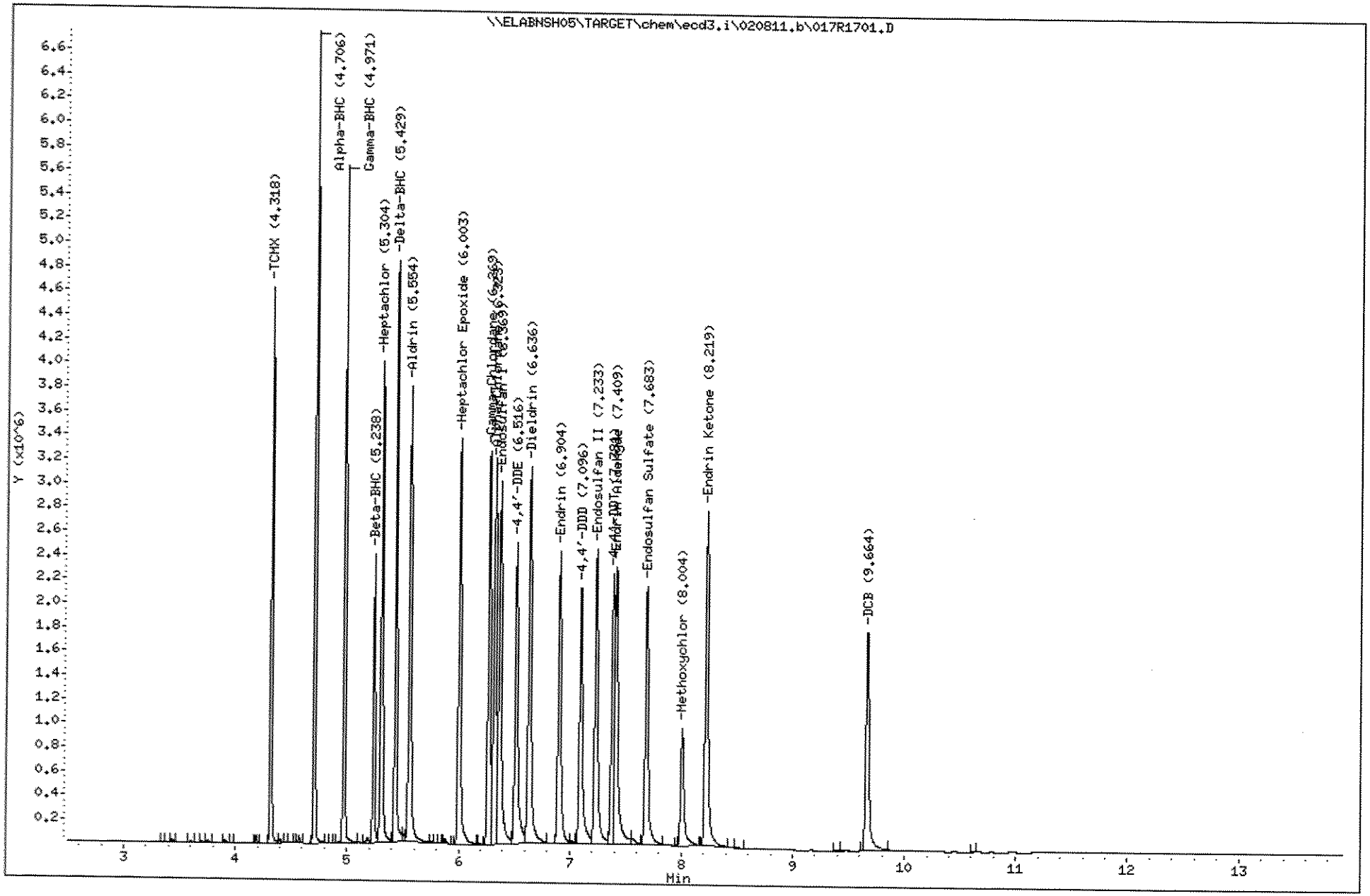
WL 2/9/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\020811.b\017R1701.D
Date : 08-FEB-2011 21:31
Client ID:
Sample Info: SEQ-CALD

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



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Sequence: C:\HPCHEM\ECD3\SEQUENCE\022811.S (8081_82 (pest_PCB)

Sequence Table (Front/Back Injector):

Seq used: 1C06009 P: 331

Method and Injection Info Part:

2/28/11

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	PRIMER	8081_82	1	Sample		
2	Vial 2	SEQ-PEM1 BB224	8081_82	1	Sample		
3	Vial 3	SEQ-CCV1 10I0157 AB	8081_82	1	Sample		
4	Vial 4	SEQ-CCV2 1OL0071 CH,OF	8081_82	1	Sample		
5	Vial 5	SEQ-CCV3 10L0487 TOX	8081_82	1	Sample		
6	Vial 6	SEQ-CCV4 11A0053	8081_82	1	Sample		
7	Vial 7	1B21019-BLK1	8081_82	1	Sample		
8	Vial 8	1B21019-BS1	8081_82	1	Sample		
9	Vial 9	1B21019-~~BSD1~~ BS2	8081_82	1	Sample		
10	Vial 10	1B21019-~~BS2~~ BSD1	8081_82	1	Sample		
11	Vial 11	1B21019-BSD2	8081_82	1	Sample		
12	Vial 12	1102180-01	8081_82	1	Sample		
13	Vial 13	1B25012-BLK1	8081_82	1	Sample		
14	Vial 14	1B25012-BS1	8081_82	1	Sample		
15	Vial 15	1102207-01	8081_82	1	Sample		
16	Vial 16	1B25012-MS1	8081_82	1	Sample		
17	Vial 17	1B25012-MSD1	8081_82	1	Sample		
18	Vial 18	1B25012-MS2	8081_82	1	Sample		
19	Vial 19	1102215-01	8081_82	1	Sample		
20	Vial 20	1102215-02	8081_82	1	Sample		
21	Vial 21	SEQ-CCV5 10I0157 AB	8081_82	1	Sample		
22	Vial 22	SEQ-CCV6 1OL0071 CH,OF	8081_82	1	Sample		
23	Vial 23	SEQ-CCV7 1OL0487	8081_82	1	Sample		
24	Vial 24	SEQ-CCV8 11A0053	8081_82	1	Sample		

1B21019, 1X, P/P

1B25012, 1X, TCLP Pest only

Sequence Table (~~Back Injector~~):

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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003F0301.D
Lab Smp Id: SEQ-CCV1
Inj Date : 28-FEB-2011 14:10
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.023	5.023	0.000	2785382		100.000	102.5
3 Alpha-BHC	5.442	5.442	0.000	4374916		100.000	106.9
23 Gamma-BHC	5.752	5.752	0.000	3829296		100.000	105.6
5 Beta-BHC	5.963	5.963	0.000	1511156		100.000	103.8
15 Delta-BHC	6.202	6.202	0.000	3501825		100.000	110.6
25 Heptachlor	6.308	6.308	0.000	3619428		100.000	115.4
2 Aldrin	6.657	6.657	0.000	3926503		100.000	104.2
26 Heptachlor Epoxide	7.120	7.120	0.000	3545381		100.000	101.9
24 Gamma-Chlordane	7.402	7.402	0.000	3596427		100.000	104.1
4 Alpha-Chlordane	7.485	7.485	0.000	3448276		100.000	101.3
17 Endosulfan I	7.543	7.543	0.000	3448415		100.000	102.6
13 4,4'-DDE	7.697	7.697	0.000	3096578		100.000	107.7
16 Dieldrin	7.860	7.860	0.000	3754549		100.000	105.1
20 Endrin	8.127	8.127	0.000	3069939		100.000	111.6
12 4,4'-DDD	8.310	8.310	0.000	2321903		100.000	100.2
18 Endosulfan II	8.403	8.403	0.000	3014997		100.000	97.16
21 Endrin Aldehyde	8.562	8.562	0.000	2386358		100.000	98.70
14 4,4'-DDT	8.680	8.680	0.000	2628962		100.000	111.0
19 Endosulfan Sulfate	8.847	8.847	0.000	2429470		100.000	93.60
27 Methoxychlor	9.288	9.288	0.000	1236142		100.000	109.2
22 Endrin Ketone	9.437	9.437	0.000	3316062		100.000	94.86
$ 39 DCB	11.082	11.082	0.000	2646954	*	100.000	85.21

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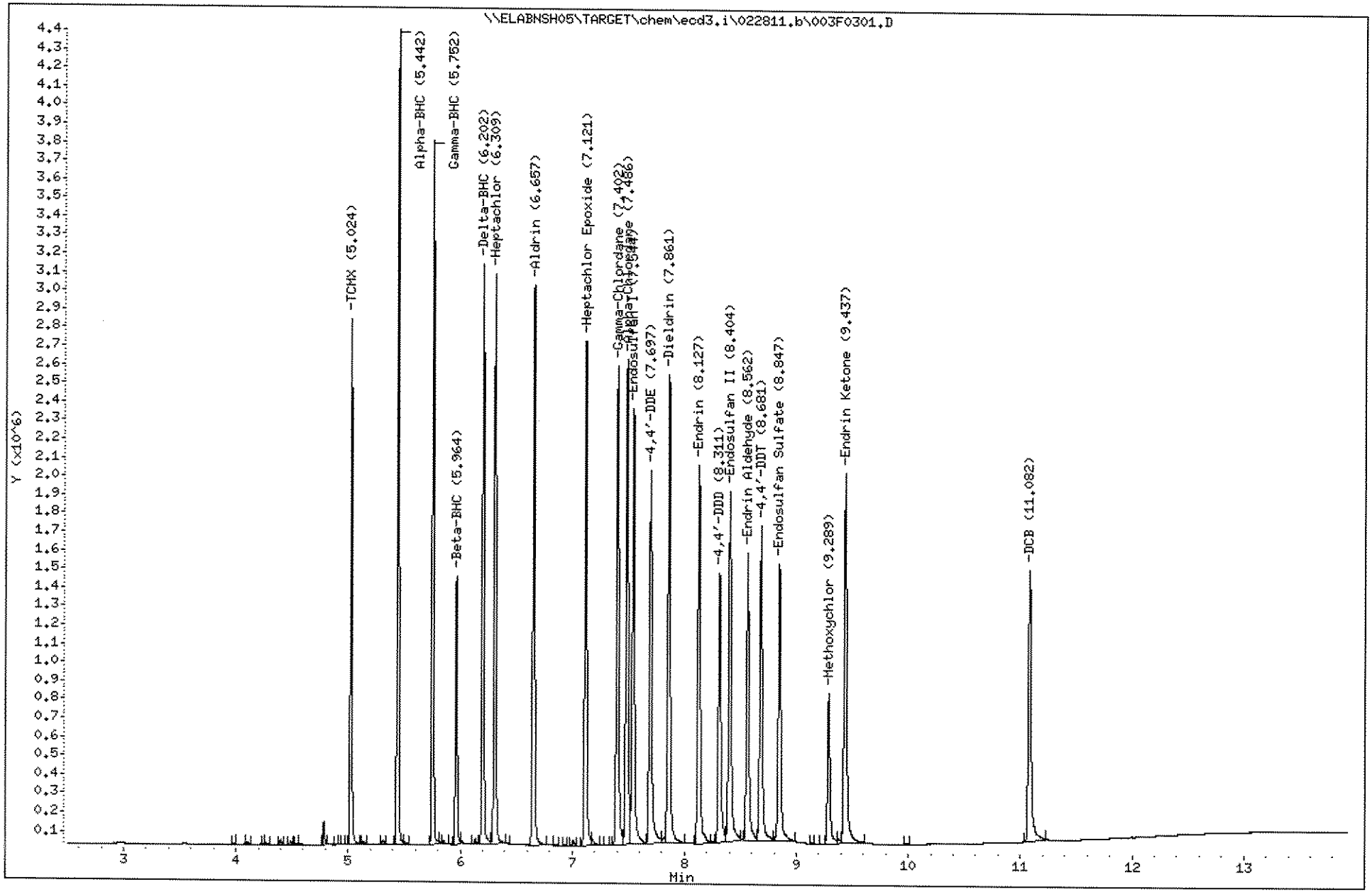
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003F0301.D
Date : 28-FEB-2011 14:10
Client ID:
Sample Info: SEQ-CCV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003R0301.D
Lab Smp Id: SEQ-CCV1
Inj Date : 28-FEB-2011 14:10
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX [2C]	4.165	4.165	0.000	2572634		100.000	99.20
3	Alpha-BHC [2C]	4.549	4.549	0.000	3614206		100.000	103.0
23	Gamma-BHC [2C]	4.804	4.804	0.000	3236733		100.000	104.1
5	Beta-BHC [2C]	5.064	5.064	0.000	1426204		100.000	98.92
25	Heptachlor [2C]	5.122	5.122	0.000	3041991		100.000	106.4
15	Delta-BHC [2C]	5.247	5.247	0.000	2964997	D	100.000	107.4
2	Aldrin [2C]	5.362	5.362	0.000	3184900		100.000	103.3
26	Heptachlor Epoxide [2C]	5.795	5.795	0.000	2923357		100.000	100.9
24	Gamma-Chlordane [2C]	6.055	6.055	0.000	2873484		100.000	105.9
4	Alpha-Chlordane [2C]	6.107	6.107	0.000	2910686		100.000	103.1
17	Endosulfan I [2C]	6.149	6.149	0.000	3036693		100.000	99.50
13	4,4'-DDE [2C]	6.299	6.299	0.000	2540857		100.000	111.1
16	Dieldrin [2C]	6.409	6.409	0.000	3072254		100.000	101.5
20	Endrin [2C]	6.669	6.669	0.000	2551004		100.000	111.2
12	4,4'-DDD [2C]	6.867	6.867	0.000	2085787		100.000	106.5
18	Endosulfan II [2C]	6.992	6.992	0.000	2439430		100.000	99.08
14	4,4'-DDT [2C]	7.155	7.155	0.000	1853024		100.000	114.9(M)
21	Endrin Aldehyde [2C]	7.164	7.164	0.000	2636829		100.000	105.4(M)
19	Endosulfan Sulfate [2C]	7.435	7.435	0.000	1976180		100.000	93.14
27	Methoxychlor [2C]	7.765	7.765	0.000	1060288		100.000	101.5
22	Endrin Ketone [2C]	7.964	7.964	0.000	2751046		100.000	93.36
$ 39	DCB [2C]	9.404	9.404	0.000	2038298	*	100.000	87.19

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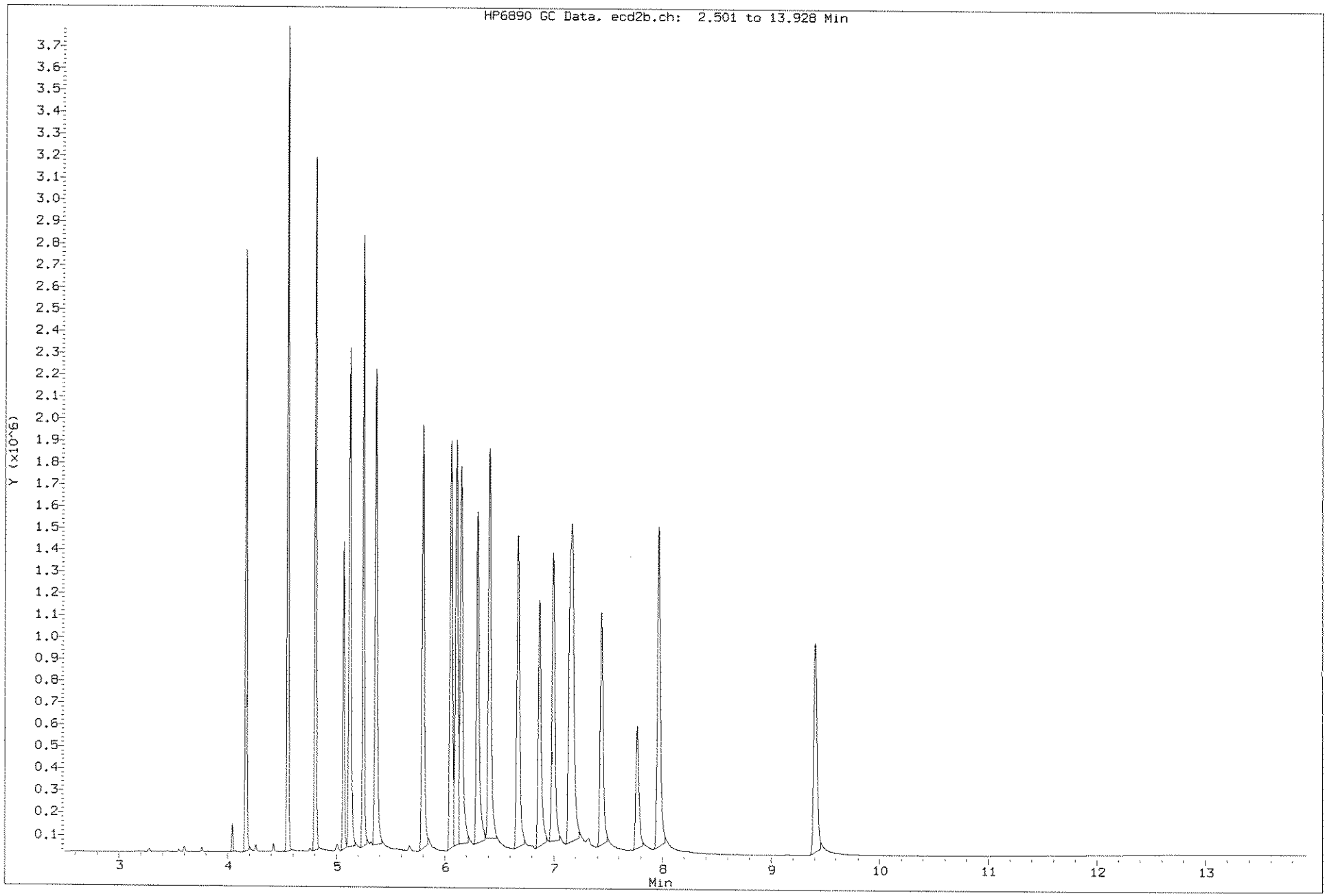
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003R0301.D
Injection Date: 28-FEB-2011 14:10
Instrument: ecd3.i
Client Sample ID:



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Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\003R0301.D
Date : 28-FEB-2011 14:10
Client ID:
Sample Info: SEQ-CCV1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

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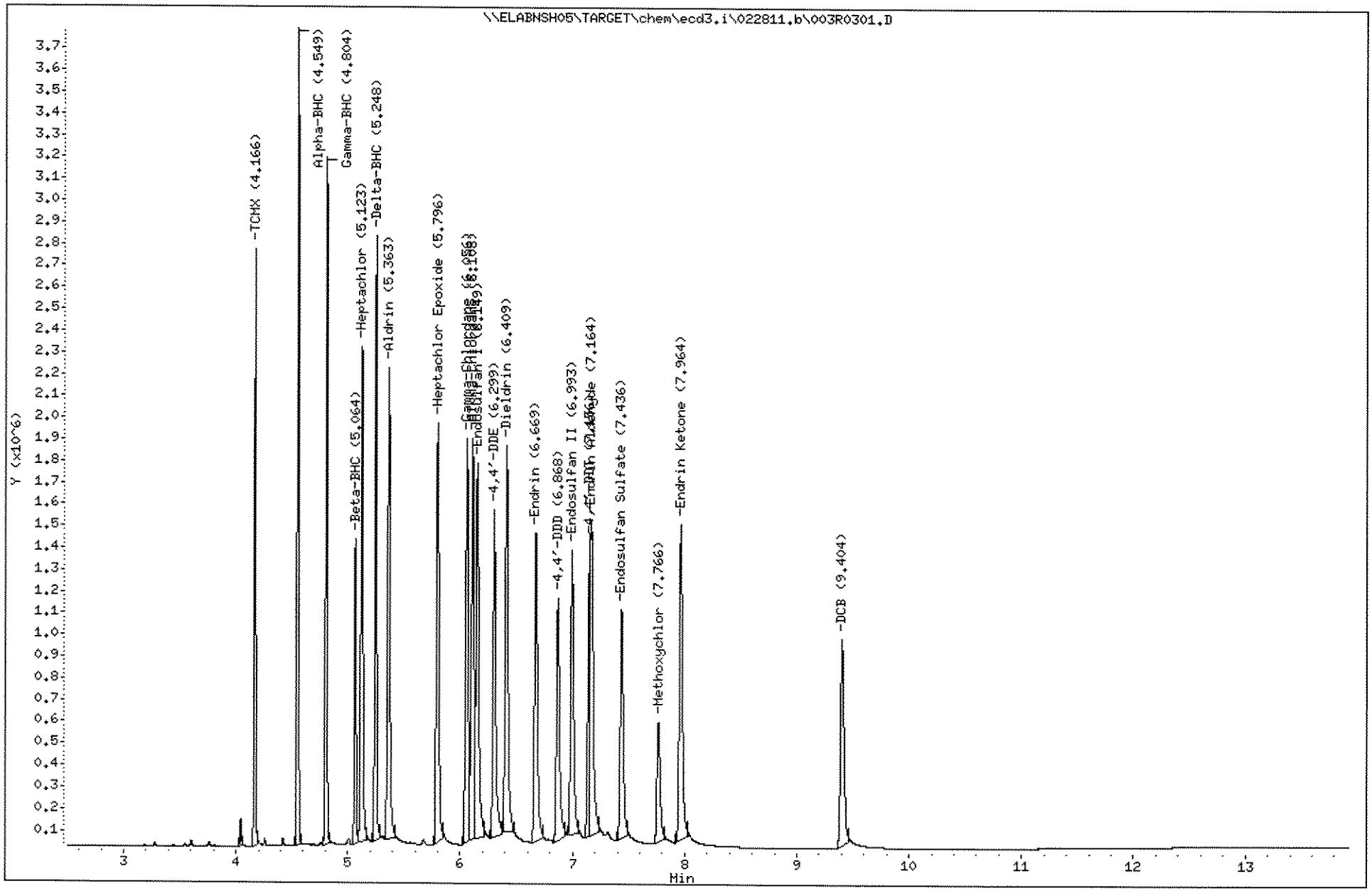

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\006F0601.D
Lab Smp Id: SEQ-CCV4
Inj Date : 28-FEB-2011 15:05
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.207	6.207	(0.000)	1290567	1000.00	1280	80.00- 120.00	100.00
5.391	5.391	(0.000)	443851	1000.00	1228	27.51- 41.27	34.39
5.719	5.719	(0.000)	645918	1000.00	1191	40.04- 60.06	50.05
5.907	5.907	(0.000)	638677	1000.00	1182	39.59- 59.39	49.49
6.374	6.374	(0.000)	642626			39.84- 59.75	49.79
6.482	6.482	(0.000)	502186	1000.00	1249	31.13- 46.69	38.91
		Average of Peak Amounts =			1226		
35 PCB-1260					CAS #: 11096-82-5		
9.399	9.399	(0.000)	*3789088	1000.00	1133	80.00- 120.00	100.00
7.984	7.984	(0.000)	1512065			31.92- 47.89	39.91
8.301	8.301	(0.000)	1780316	1000.00	1079	37.59- 56.38	46.99
8.634	8.634	(0.000)	1974799	1000.00	1084	41.69- 62.54	52.12
8.736	8.736	(0.000)	1603045	1000.00	1065	33.85- 50.77	42.31
9.007	9.007	(0.000)	1518817			32.07- 48.10	40.08
9.747	9.747	(0.000)	2048951			43.26- 64.89	54.08
10.479	10.479	(0.000)	862471	1000.00	1169	18.21- 27.31	22.76
		Average of Peak Amounts =			1106		

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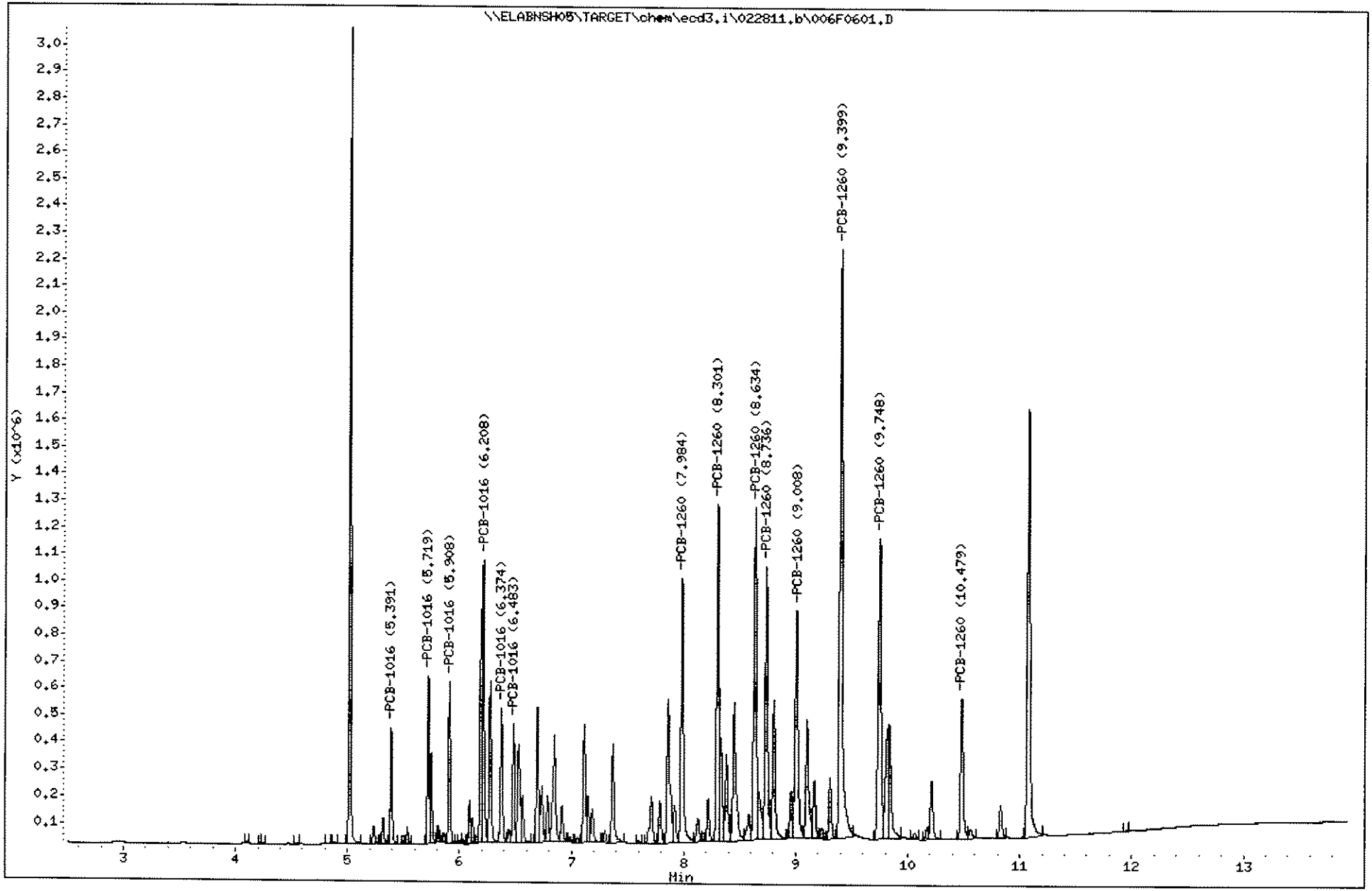
2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\006F0601.D
Date : 28-FEB-2011 15:05
Client ID:
Sample Info: SEQ-CCV4

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\006R0601.D
Lab Smp Id: SEQ-CCV4
Inj Date : 28-FEB-2011 15:05
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 17:50 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.128	5.128	(0.000)	1286855	1000.00	1552	80.00- 120.00	100.00
4.481	4.481	(0.000)	452922			28.16- 42.24	35.20
4.738	4.738	(0.000)	692860	1000.00	1121	43.07- 64.61	53.84
4.891	4.891	(0.000)	727208	1000.00	1243	45.21- 67.81	56.51
5.163	5.163	(0.000)	810566	1000.00	1067	50.39- 75.59	62.99
5.508	5.508	(0.000)	703952	1000.00	1555	43.76- 65.64	54.70
	Average of Peak Amounts =				1308		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
7.796	7.796	(0.000)	*2818619	1000.00	1327	80.00- 120.00	100.00
6.573	6.573	(0.000)	1387037	1000.00	1162	39.37- 59.05	49.21
6.806	6.806	(0.000)	1729712	1000.00	1277	49.09- 73.64	61.37
6.951	6.951	(0.000)	1161624	1000.00	1074	32.97- 49.46	41.21
7.211	7.211	(0.000)	1493655			42.39- 63.59	52.99
7.481	7.481	(0.000)	1451329	1000.00	1262	41.19- 61.79	51.49
8.168	8.168	(0.000)	1058594			30.05- 45.07	37.56
8.806	8.806	(0.000)	716678			20.34- 30.51	25.43
	Average of Peak Amounts =				1220		

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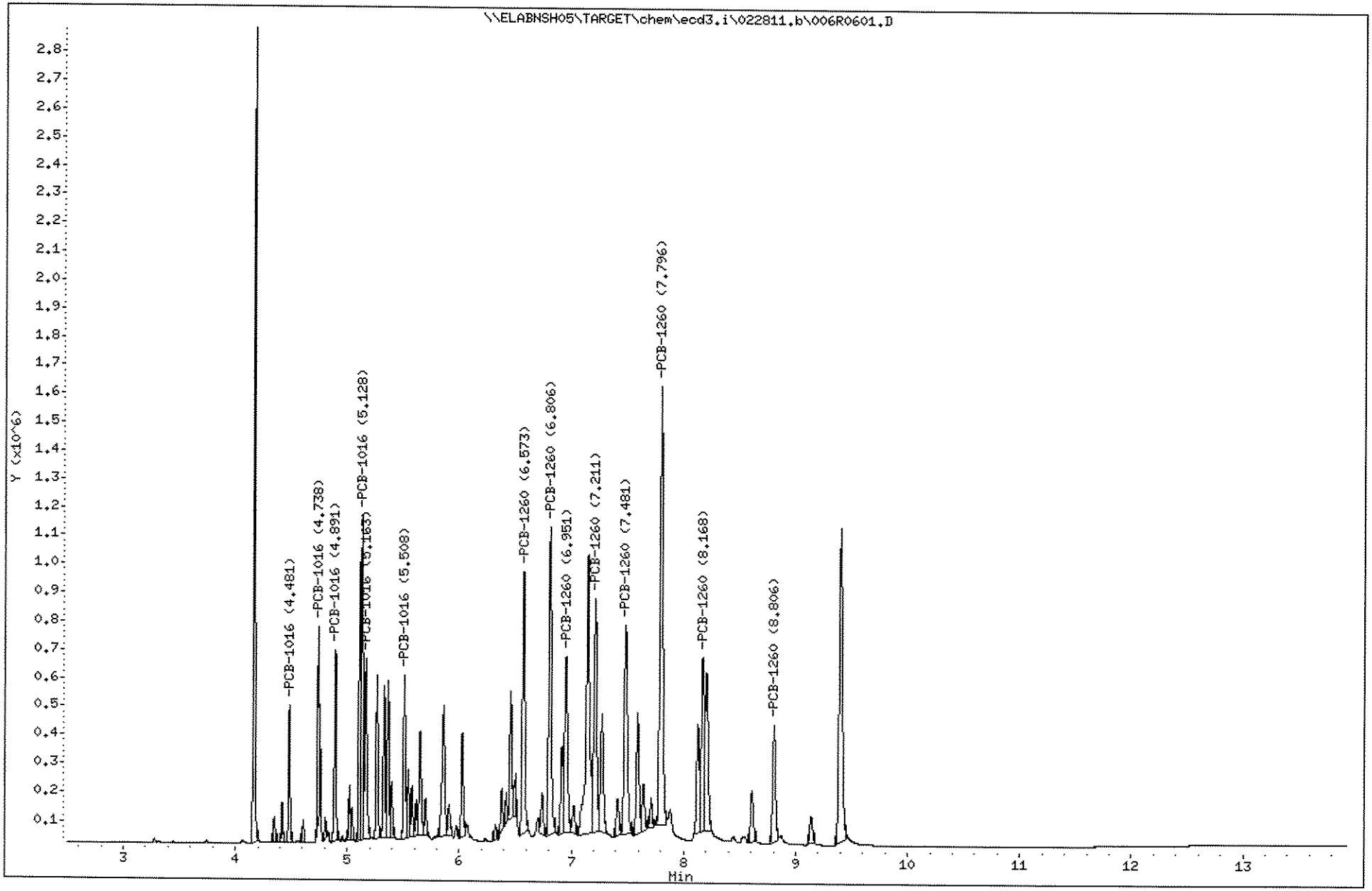
WL 2/28/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\006R0601.D
Date : 28-FEB-2011 15:05
Client ID:
Sample Info: SEQ-CCV4

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



D.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007F0701.D
Lab Smp Id: 1B21019-BLK1
Inj Date : 28-FEB-2011 15:24
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BLK1
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
17 Endosulfan I	7.547	7.543	0.004	25714	0.76489	0.7649 NC — Blank hit
24 Gamma-Chlordane	7.429	7.402	0.027	1074712	31.1002	31.10
$ 38 TCMX	5.019	5.023	-0.004	565631	20.8090	20.81(R)
$ 39 DCB	11.076	11.082	-0.006	594024	19.1227	19.12(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

NOTE: γ. CHLOR HIT IS A FALSE POSITIVE; DL RAISED ACCORDINGLY

D.H. 3.3.11

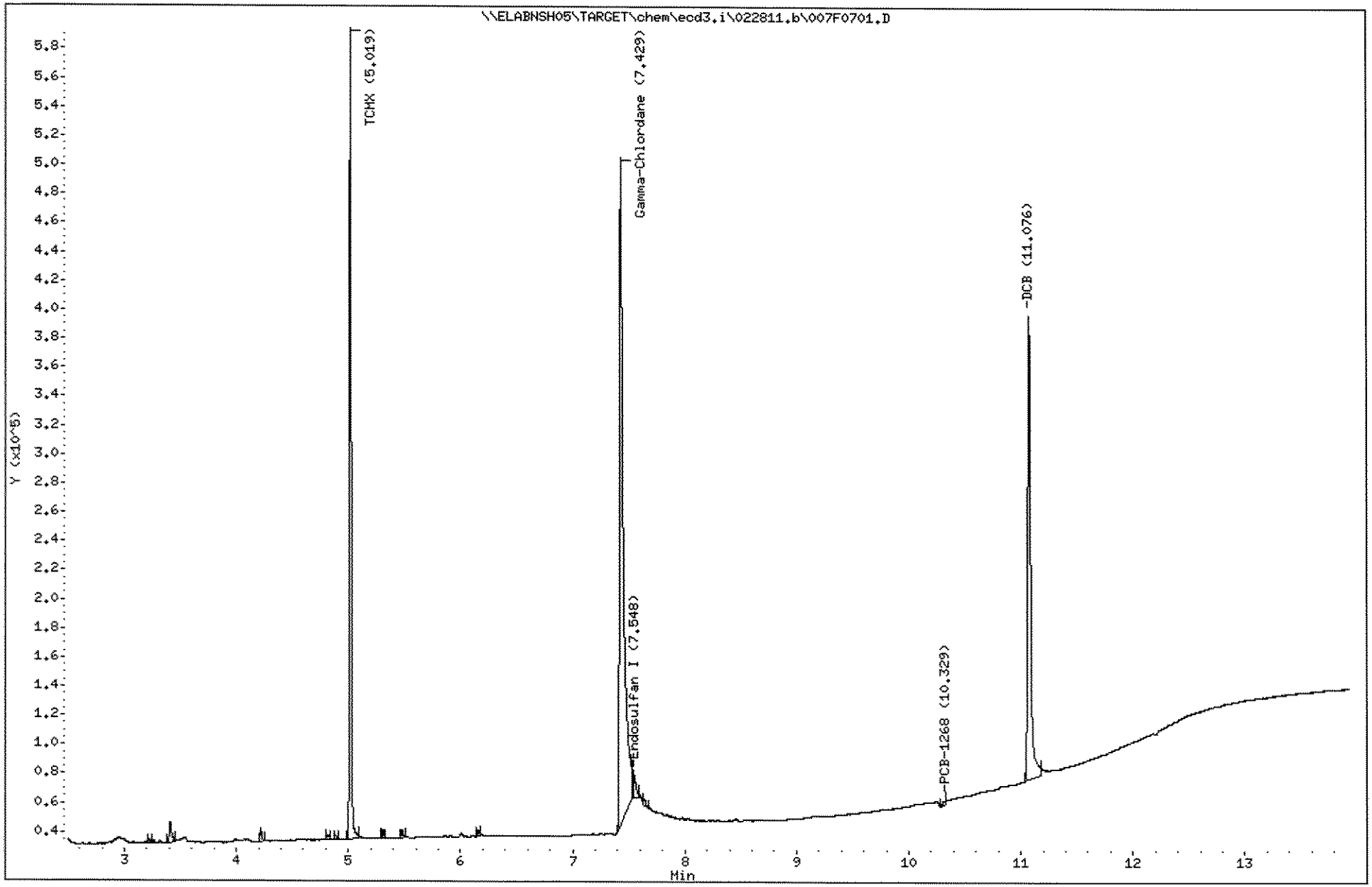
WL
3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007F0701.D
Date : 28-FEB-2011 15:24
Client ID:
Sample Info: 1B21019-BLK1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007R0701.D
Lab Smp Id: 1B21019-BLK1
Inj Date : 28-FEB-2011 15:24
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BLK1
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
24 Gamma-Chlordane [2C]	6.061	6.055	0.006	1137433	41.9093	41.91
$ 38 TCMX [2C]	4.164	4.165	-0.001	586911	22.6319	22.63(R)
$ 39 DCB [2C]	9.403	9.404	-0.001	458235	19.6014	19.60(R)

0 lmd 2.b

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

* NOTE: γ. CHLOR. IS A FALSE POSITIVE; DL RAISED ACCORDINGLY

J.H. 3.3.11

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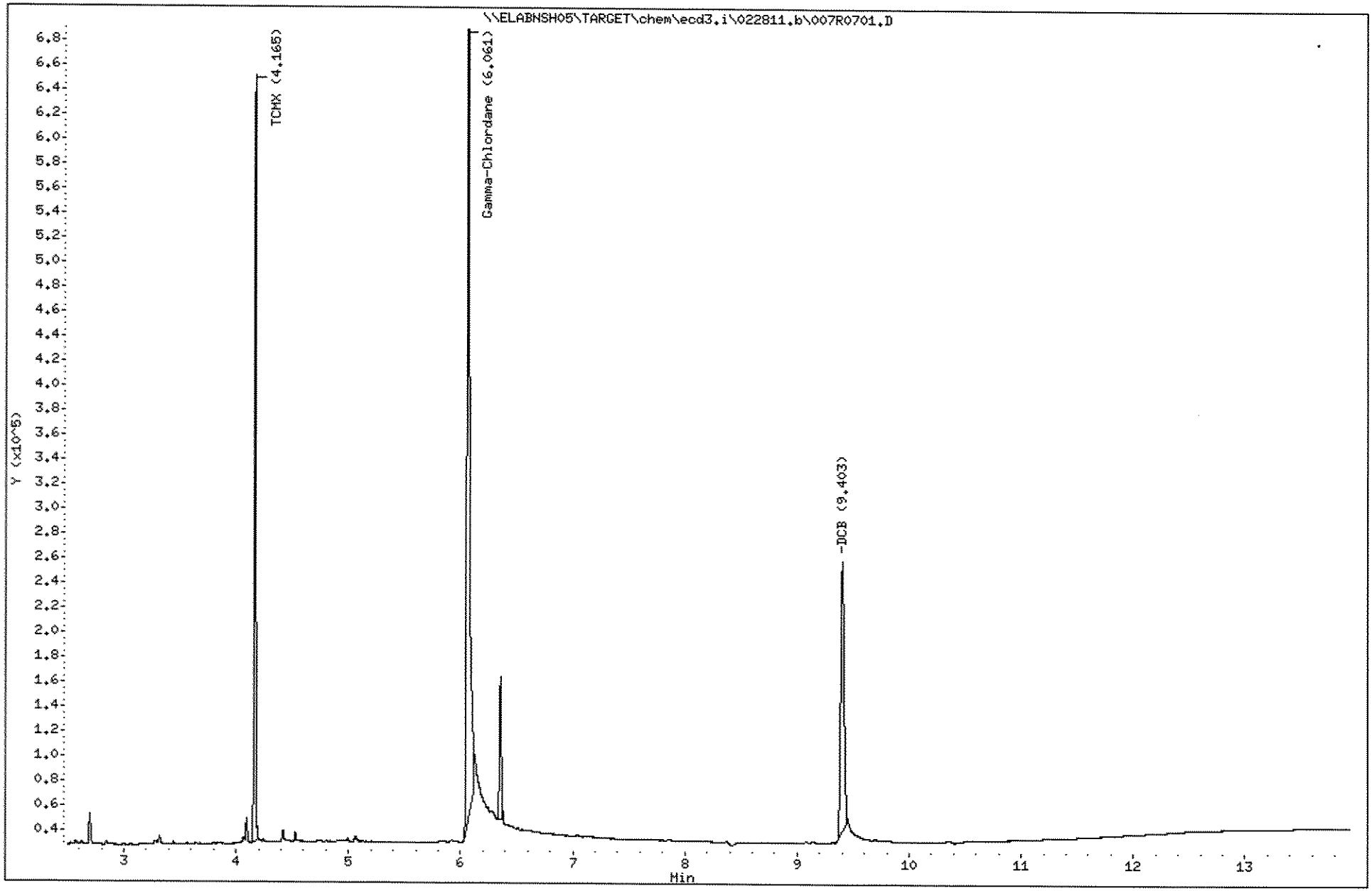
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\007R0701.D
Date : 28-FEB-2011 15:24
Client ID:
Sample Info: 1B21019-BLK1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\009F0901.D
Lab Smp Id: 1B21019-BS2
Inj Date : 28-FEB-2011 16:01
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BS2
Misc Info : ;;;;;;PEST.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:51 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng/mL)	FINAL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.209	6.207	(0.002)	304612 302.002		302.0	80.00- 120.00	100.00
5.390	5.391	(-0.001)	96180 266.147		266.1	27.51- 41.27	31.57
5.719	5.719	(0.000)	148609 274.066		274.1	40.04- 60.06	48.79
5.909	5.907	(0.002)	146100 270.501		270.5	39.59- 59.39	47.96
6.374	6.374	(0.000)	140092			39.84- 59.75	45.99
6.482	6.482	(0.000)	115764 287.886		287.9	31.13- 46.69	38.00
		Average of Peak Concentrations =			280.1		
35 PCB-1260					CAS #: 11096-82-5		
9.397	9.399	(-0.002)	781030 233.581		233.6	80.00- 120.00	100.00
7.984	7.984	(0.000)	338125			31.92- 47.89	43.29
8.300	8.301	(-0.001)	394300 238.900		238.9	37.59- 56.38	50.48
8.635	8.634	(0.001)	467025 256.458		256.4	41.69- 62.54	59.80
8.735	8.736	(-0.001)	275191 182.806		182.8	33.85- 50.77	35.23
9.005	9.007	(-0.002)	333514			32.07- 48.10	42.70
9.745	9.747	(-0.002)	418034			43.26- 64.89	53.52
10.480	10.479	(0.001)	157923 214.135		214.1	18.21- 27.31	20.22
		Average of Peak Concentrations =			225.2		
$ 38 TCMX					CAS #: 877-09-8		
5.017	5.023	(-0.006)	557879 20.5239		20.52		(R)
$ 39 DCB					CAS #: 2051-24-3		
11.072	11.082	(-0.010)	590055 18.9949		18.99		(R)

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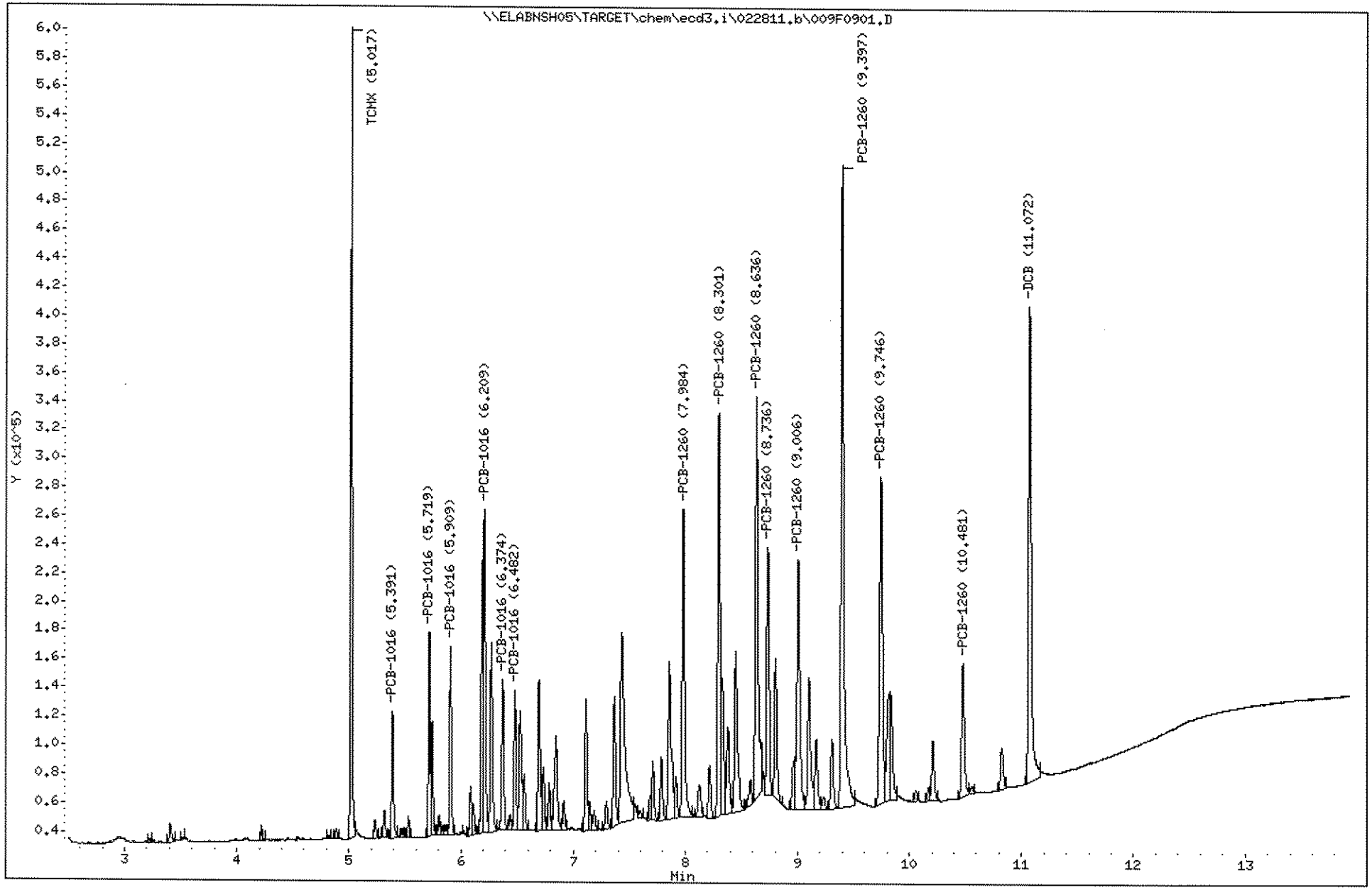
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\009F0901.D
Date : 28-FEB-2011 16:01
Client ID:
Sample Info: 1B21019-BS2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\009R0901.D
Lab Smp Id: 1B21019-BS2
Inj Date : 28-FEB-2011 16:01
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BS2
Misc Info : ;;;;;;PEST.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 18:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng/mL)	FINAL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.127	5.128	(-0.001)	310605	374.738	374.7	80.00- 120.00	100.00(M)
4.481	4.481	(0.000)	108427			28.16- 42.24	34.91
4.737	4.738	(-0.001)	200358	324.201	324.2	43.07- 64.61	64.51
4.889	4.891	(-0.002)	181314	309.942	309.9	45.21- 67.81	58.37
5.162	5.163	(-0.001)	204833	269.676	269.7	50.39- 75.59	65.95
5.507	5.508	(-0.001)	164721	363.823	363.8	43.76- 65.64	53.03
		Average of Peak Concentrations =			328.5		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
7.797	7.796	(0.001)	606764	285.644	285.6	80.00- 120.00	100.00
6.571	6.573	(-0.002)	357812	299.866	299.9	39.37- 59.05	58.97
6.807	6.806	(0.001)	434639	320.905	320.9	49.09- 73.64	71.63
6.952	6.951	(0.001)	283509	262.039	262.0	32.97- 49.46	46.72
7.212	7.211	(0.001)	345056			42.39- 63.59	56.87
7.484	7.481	(0.003)	325263	282.895	282.9	41.19- 61.79	53.61
8.169	8.168	(0.001)	253717			30.05- 45.07	41.81
8.806	8.806	(0.000)	138971			20.34- 30.51	22.90
		Average of Peak Concentrations =			290.3		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.164	4.165	(-0.001)	599665	23.1237	23.12		(R)
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.402	9.404	(-0.002)	526533	22.5229	22.52		(R)

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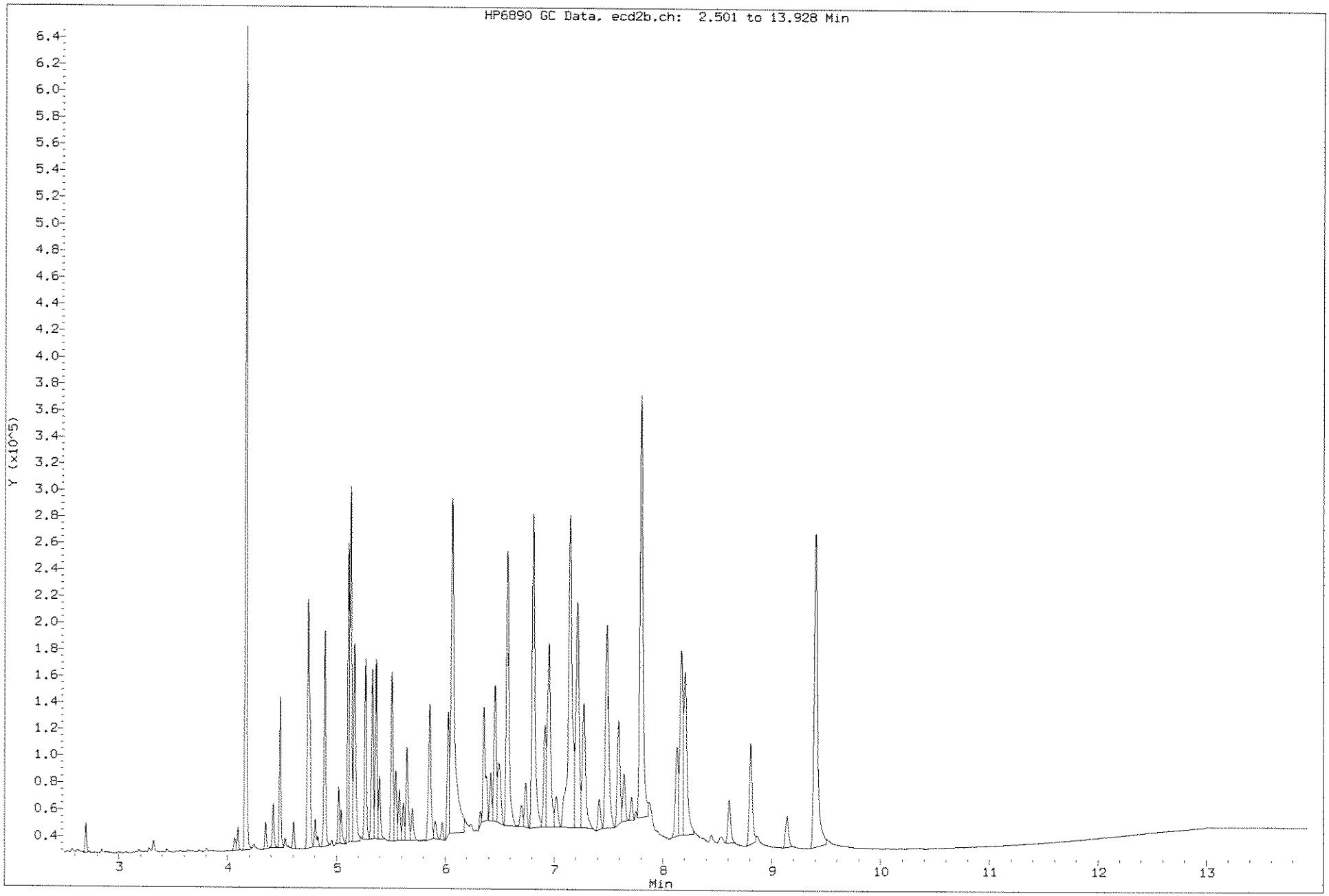
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\009R0901.D
Injection Date: 28-FEB-2011 16:01
Instrument: ecd3.i
Client Sample ID:



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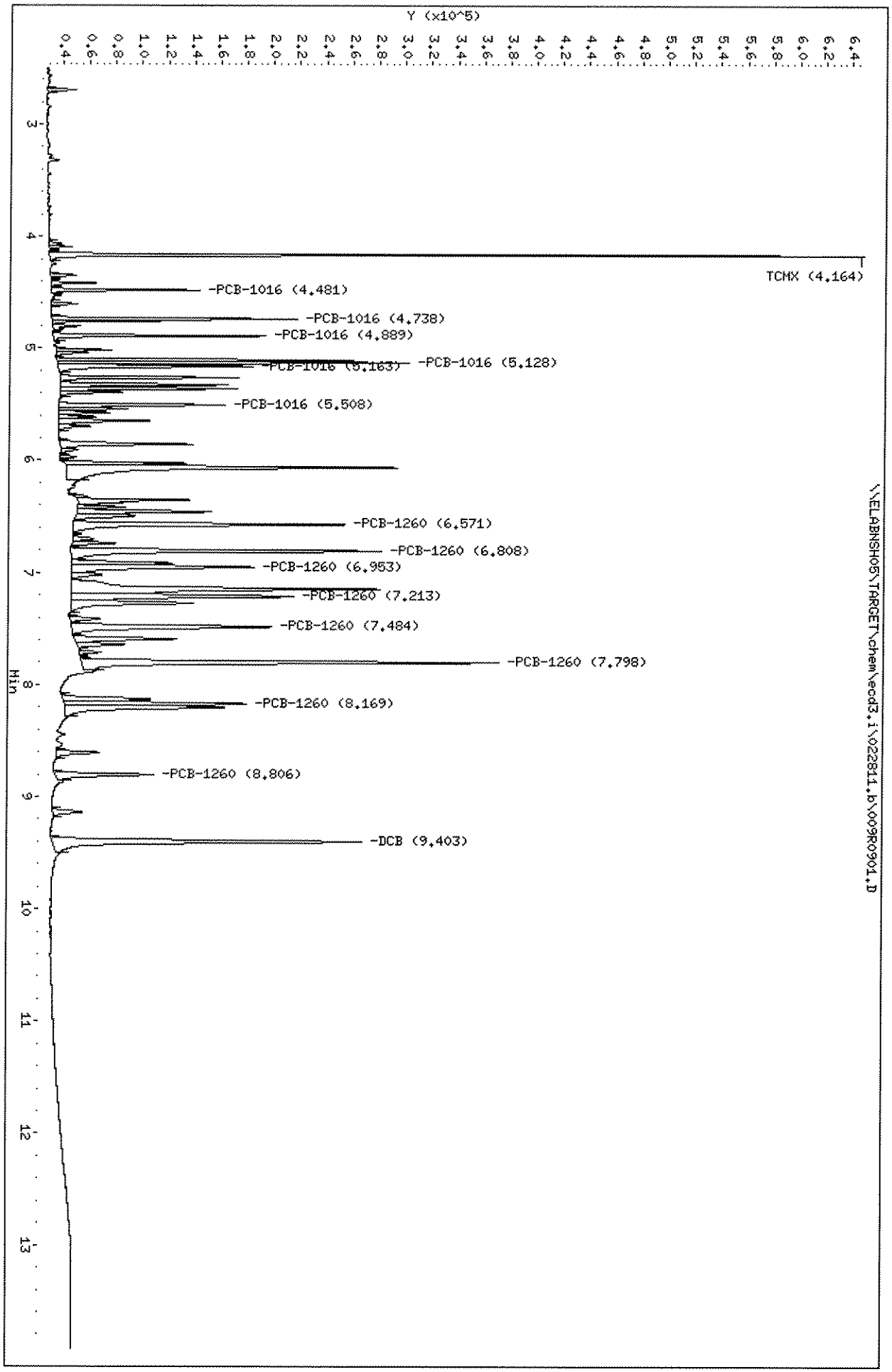

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\009R0901.D
Date : 28-FEB-2011 16:01
Client ID:
Sample Info: 1B21019-BS2
Column phase: ZB MR-2

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

B
WL
2/26/11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\011F1101.D
Lab Smp Id: 1B21019-BSD2
Inj Date : 28-FEB-2011 16:38
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BSD2
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 28-Feb-2011 17:51 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng/mL)	FINAL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.208	6.207	(0.001)	306865 304.235	304.2	80.00- 120.00		100.00
5.390	5.391	(-0.001)	97985 271.142	271.1	27.51- 41.27		31.93
5.720	5.719	(0.001)	148487 273.841	273.8	40.04- 60.06		48.39
5.908	5.907	(0.001)	147672 273.412	273.4	39.59- 59.39		48.12
6.373	6.374	(-0.001)	140872		39.84- 59.75		45.91
6.481	6.482	(-0.001)	115972 288.404	288.4	31.13- 46.69		37.79
		Average of Peak Concentrations =		282.2			
35 PCB-1260					CAS #: 11096-82-5		
9.398	9.399	(-0.001)	763513 228.342	228.3	80.00- 120.00		100.00
7.983	7.984	(-0.001)	344555		31.92- 47.89		45.13
8.300	8.301	(-0.001)	397188 240.650	240.6	37.59- 56.38		52.02
8.635	8.634	(0.001)	472709 259.580	259.6	41.69- 62.54		61.91
8.736	8.736	(0.000)	285297 189.519	189.5	33.85- 50.77		37.37
9.006	9.007	(-0.001)	338574		32.07- 48.10		44.34
9.746	9.747	(-0.001)	393695		43.26- 64.89		51.56
10.480	10.479	(0.001)	162650 220.544	220.5	18.21- 27.31		21.30
		Average of Peak Concentrations =		227.7			
$ 38 TCMX					CAS #: 877-09-8		
5.018	5.023	(-0.005)	562622 20.6983	20.70			(R)
$ 39 DCB					CAS #: 2051-24-3		
11.075	11.082	(-0.007)	640923 20.6325	20.63			(R)

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WL
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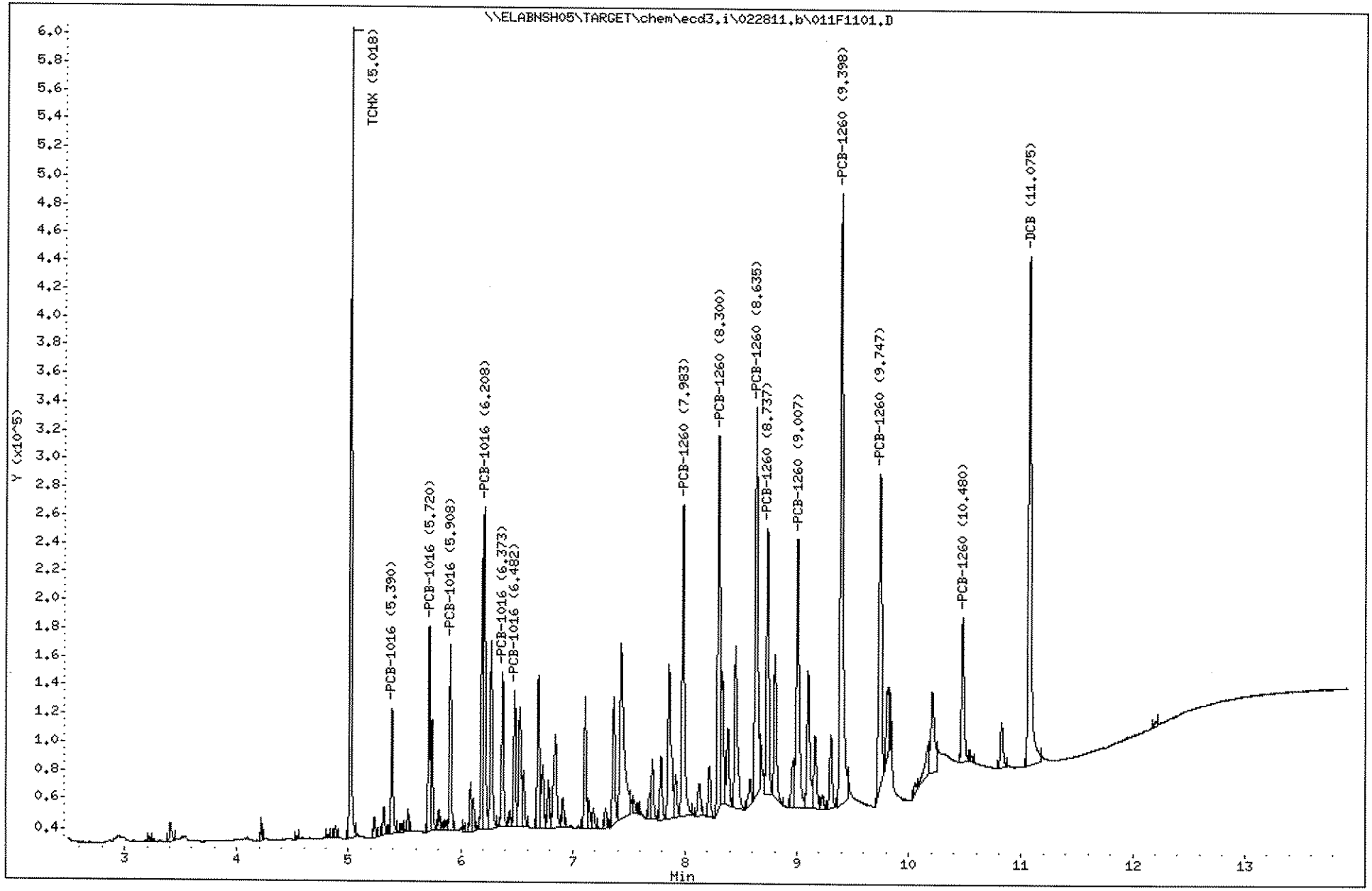
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\011F1101.D
Date : 28-FEB-2011 16:38
Client ID:
Sample Info: 1B21019-BSD2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1102180

Laboratory Name

SW-846 METHODS 8081A/8082

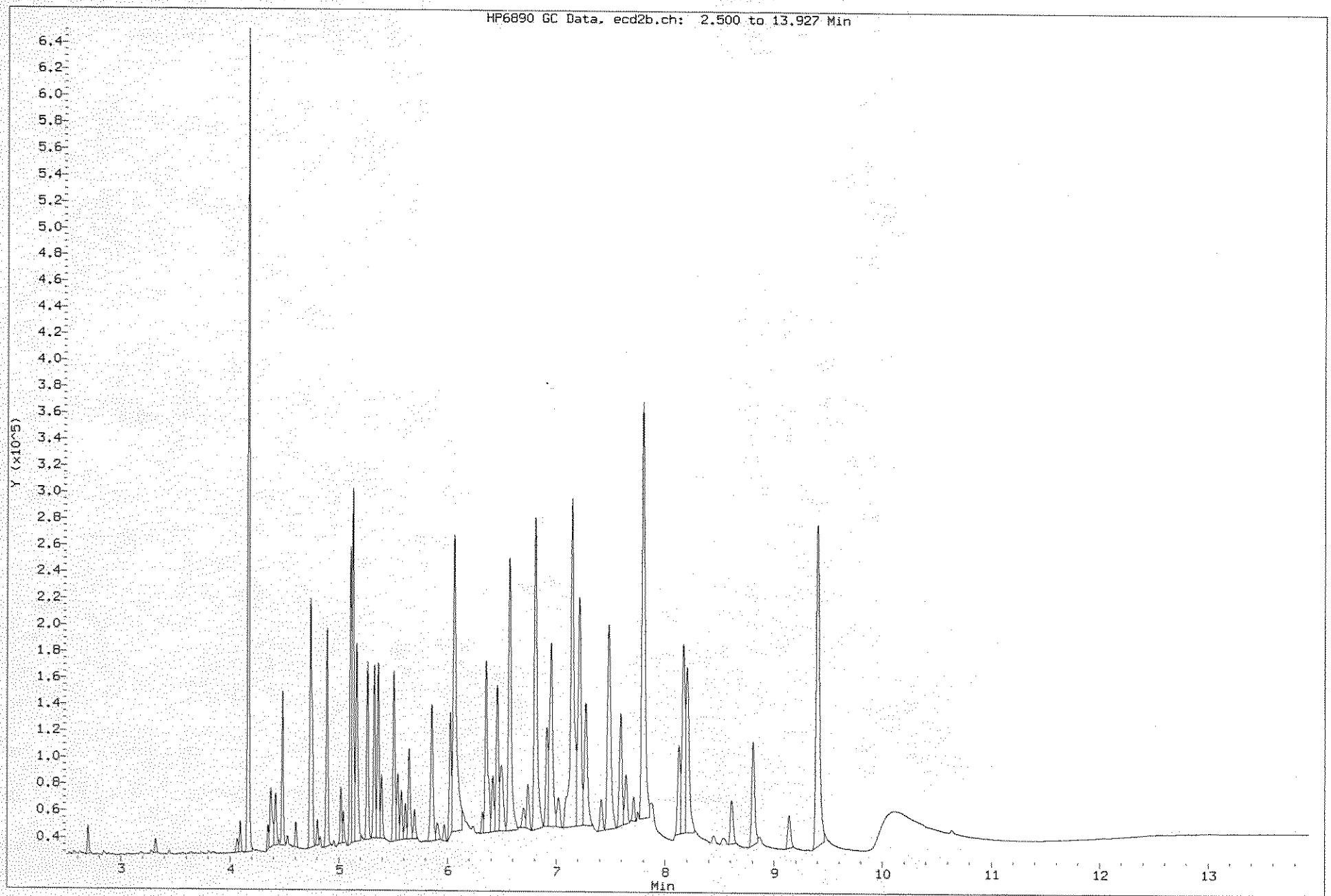
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\011R1101.D
Lab Smp Id: 1B21019-BSD2
Inj Date : 28-FEB-2011 16:38
Operator : WAL Inst ID: ecd3.i
Smp Info : 1B21019-BSD2
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 28-Feb-2011 18:05 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng/mL)	FINAL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.127	5.128	(-0.001)	298094 359.644		359.6	80.00- 120.00	100.00(M)
4.480	4.481	(-0.001)	109644			28.16- 42.24	36.78
4.737	4.738	(-0.001)	199288 322.470		322.5	43.07- 64.61	66.85
4.890	4.891	(-0.001)	179997 307.691		307.7	45.21- 67.81	60.38
5.162	5.163	(-0.001)	201177 264.863		264.9	50.39- 75.59	67.49
5.505	5.508	(-0.003)	163060 360.154		360.2	43.76- 65.64	54.70
		Average of Peak Concentrations =			323.0		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
7.797	7.796	(0.001)	625259 294.351		294.4	80.00- 120.00	100.00
6.570	6.573	(-0.003)	372023 311.776		311.8	39.37- 59.05	59.50
6.807	6.806	(0.001)	432767 319.523		319.5	49.09- 73.64	69.21
6.952	6.951	(0.001)	280190 258.971		259.0	32.97- 49.46	44.81
7.213	7.211	(0.002)	342208			42.39- 63.59	54.73
7.482	7.481	(0.001)	334434 290.871		290.9	41.19- 61.79	53.49
8.168	8.168	(0.000)	267096			30.05- 45.07	42.72
8.807	8.806	(0.001)	145902			20.34- 30.51	23.33
		Average of Peak Concentrations =			295.1		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.165	4.165	(0.000)	598202 23.0673		23.07		(R)
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.400	9.404	(-0.004)	544395 23.2870		23.29		(R)

3/2/11

2/28/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\011R1101.D
Injection Date: 28-FEB-2011 16:38
Instrument: ecd3.i
Client Sample ID:



740

1102180

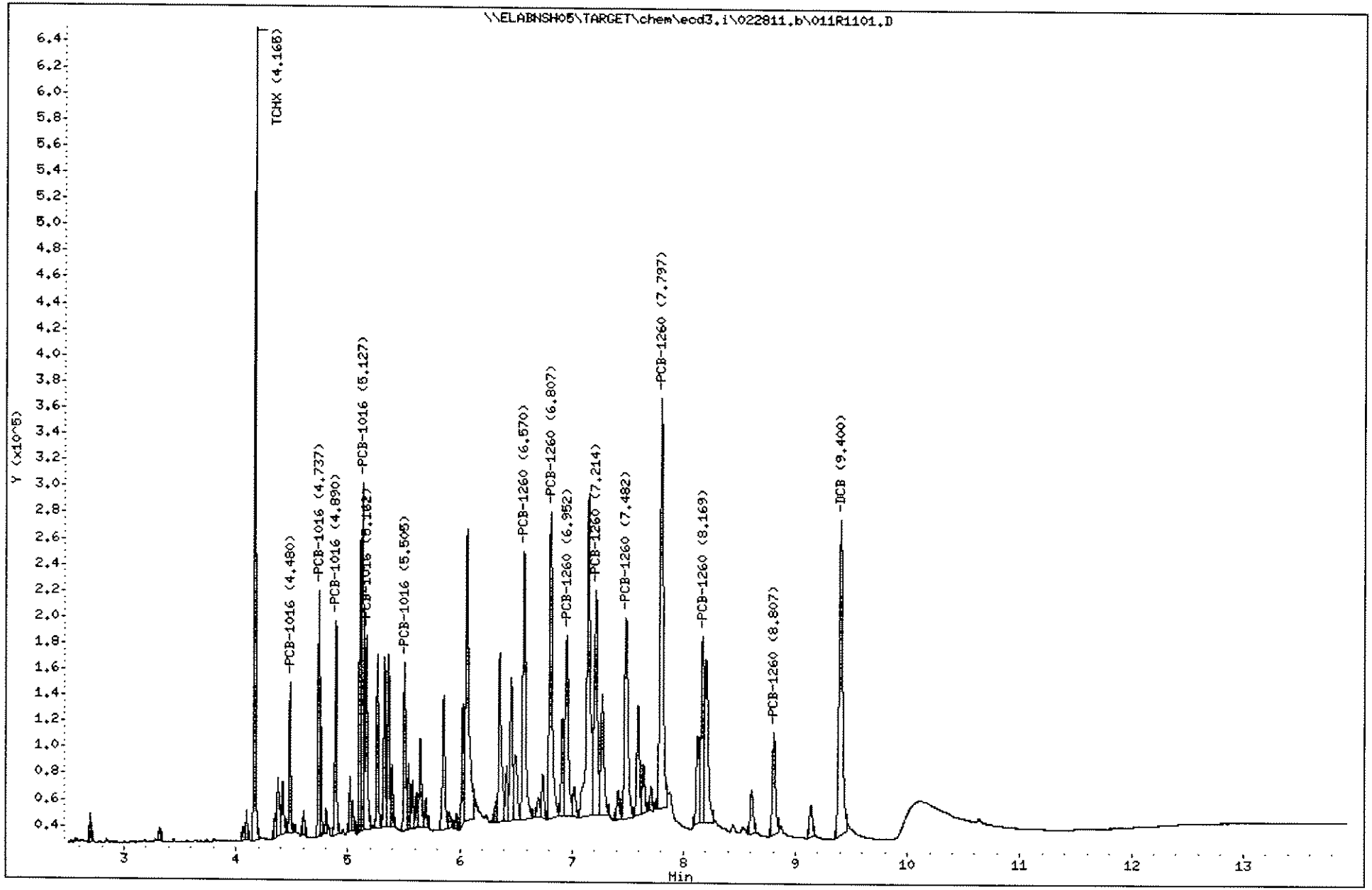
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\011R1101.D
Date : 28-FEB-2011 16:38
Client ID:
Sample Info: 1B21019-BSD2

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B
WL
2/24/11



J.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012F1201.D
Lab Smp Id: 1102180-01
Inj Date : 28-FEB-2011 16:57
Operator : WAL Inst ID: ecd3.i
Smp Info : 1102180-01
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
19 Endosulfan Sulfate	8.869	8.847	0.022	21402	0.82459	0.8246 NC per
24 Gamma-Chlordane	7.421	7.402	0.019	2443460	70.7092	70.71
$ 38 TCMX	5.018	5.023	-0.005	562806	20.7051	20.70(R)
$ 39 DCB	11.074	11.082	-0.008	677302	21.8036	21.80(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

← NOTE : Y. CHLOR IS A FALSE POSITIVE

3.3.11

see NCR # 110175

The MDL, LOD, & MRL were raised to 24 (72 ng/mL on col) for gamma-chlordane

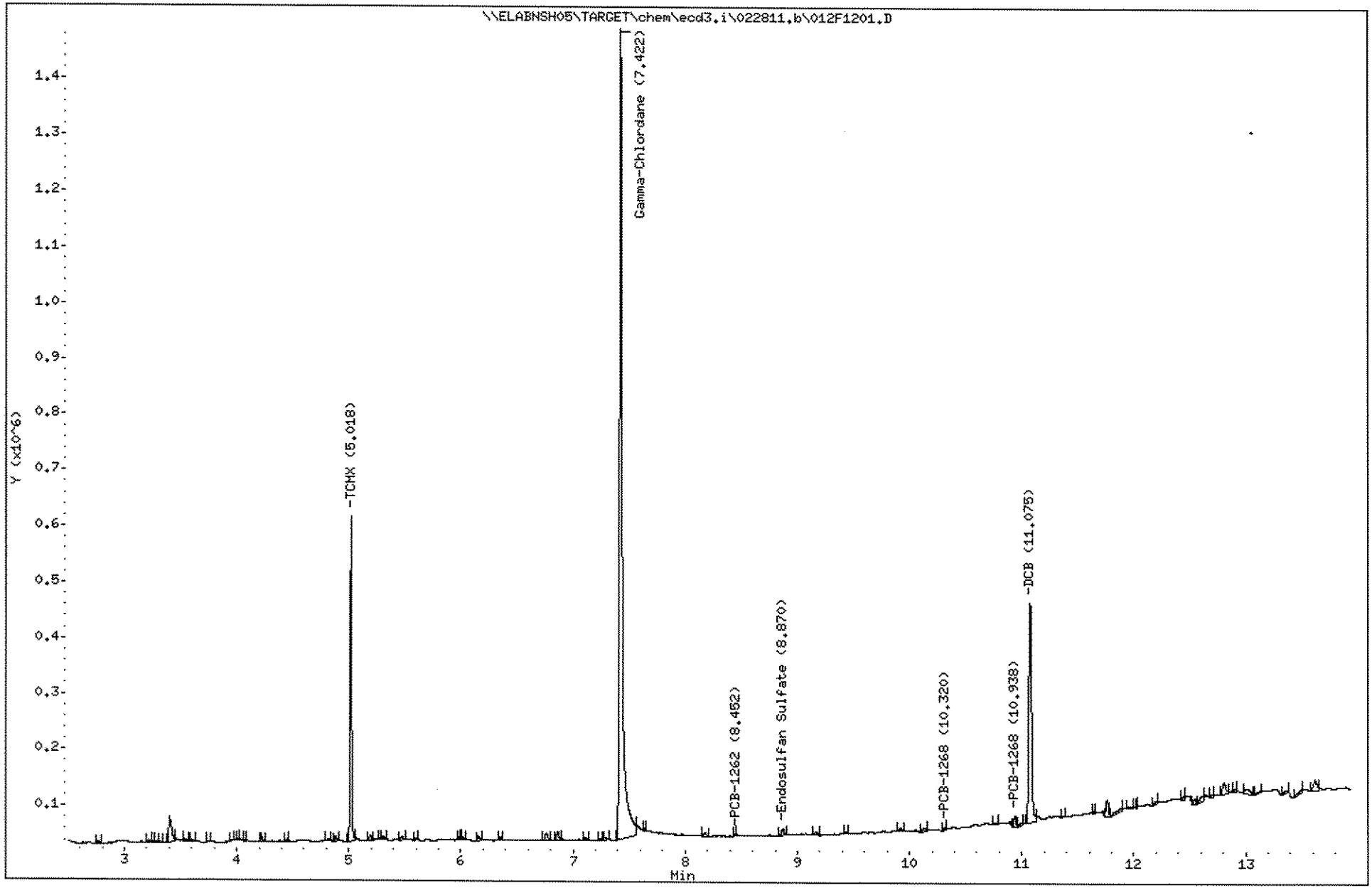
3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012F1201.D
Date : 28-FEB-2011 16:57
Client ID:
Sample Info: 1102180-01

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



743

1102180

D.H. 3.3.11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012R1201.D
Lab Smp Id: 1102180-01
Inj Date : 28-FEB-2011 16:57
Operator : WAL Inst ID: ecd3.i
Smp Info : 1102180-01
Misc Info : ;;;;;;PESTPCB.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PESTPCB.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
24 Gamma-Chlordane [2C]	6.058	6.055	0.003	2143721	78.9865	78.99
$ 38 TCMX [2C]	4.165	4.165	0.000	571287	22.0294	22.03(R)
$ 39 DCB [2C]	9.400	9.404	-0.004	535099	22.8893	22.89(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

* NOTE: G. CHLOR. IS A FALSE POSITIVE

D.H. 3.3.11

See NCR # 110175
The MDL, LOD, & MAL were raised to 24 (72 ng/mL on col) for gamma-chlordane

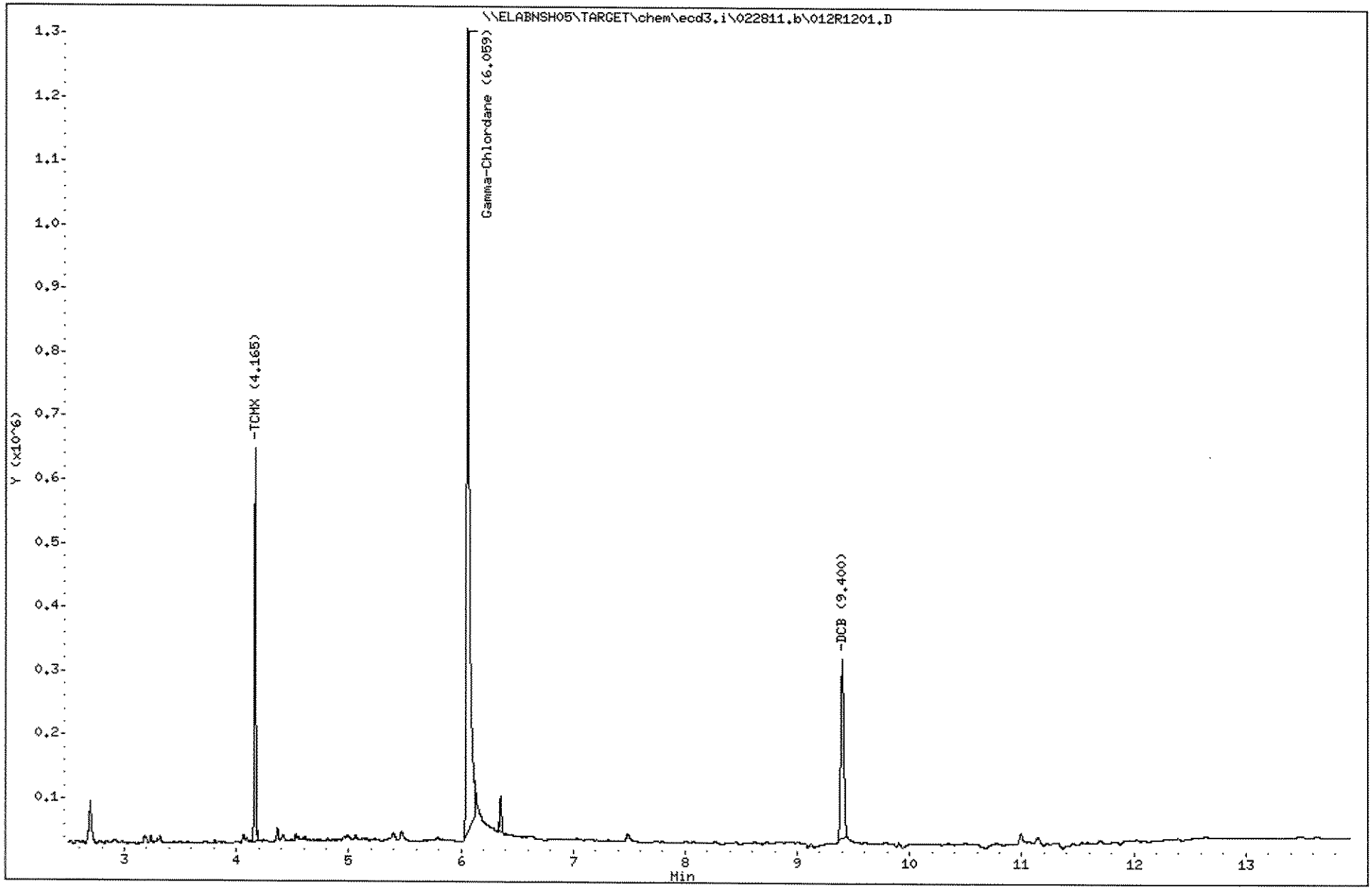
WL 3/3/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\012R1201.D
Date : 28-FEB-2011 16:57
Client ID:
Sample Info: 1102180-01

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



745

1102180

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021F2101.D
Lab Smp Id: SEQ-CCV5
Inj Date : 28-FEB-2011 19:44
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.017	5.023	-0.006	2827410		100.000	104.0
3	Alpha-BHC	5.436	5.442	-0.006	4575293		100.000	111.8
23	Gamma-BHC	5.747	5.752	-0.005	4021432		100.000	110.9
5	Beta-BHC	5.957	5.963	-0.006	1554179		100.000	106.7
15	Delta-BHC	6.196	6.202	-0.006	3660728		100.000	115.6
25	Heptachlor	6.302	6.308	-0.006	3799335		100.000	121.1
2	Aldrin	6.649	6.657	-0.008	4053741		100.000	107.6
26	Heptachlor Epoxide	7.112	7.120	-0.008	3659203		100.000	105.1
24	Gamma-Chlordane	7.394	7.402	-0.008	3704756		100.000	107.2
4	Alpha-Chlordane	7.479	7.485	-0.006	3536935		100.000	103.9
17	Endosulfan I	7.536	7.543	-0.007	3394414		100.000	101.0
13	4,4'-DDE	7.687	7.697	-0.010	3096916		100.000	107.7
16	Dieldrin	7.852	7.860	-0.008	3750803		100.000	105.0
20	Endrin	8.119	8.127	-0.008	3091898		100.000	112.4
12	4,4'-DDD	8.301	8.310	-0.009	2477191		100.000	106.9
18	Endosulfan II	8.392	8.403	-0.011	3052769		100.000	98.38
21	Endrin Aldehyde	8.552	8.562	-0.010	2506300		100.000	103.6
14	4,4'-DDT	8.671	8.680	-0.009	2669470		100.000	112.7
19	Endosulfan Sulfate	8.837	8.847	-0.010	2522320		100.000	97.18
27	Methoxychlor	9.279	9.288	-0.009	1254531		100.000	110.8
22	Endrin Ketone	9.426	9.437	-0.011	3479065	*	100.000	99.52
$ 39	DCB	11.072	11.082	-0.010	2768321		100.000	89.12

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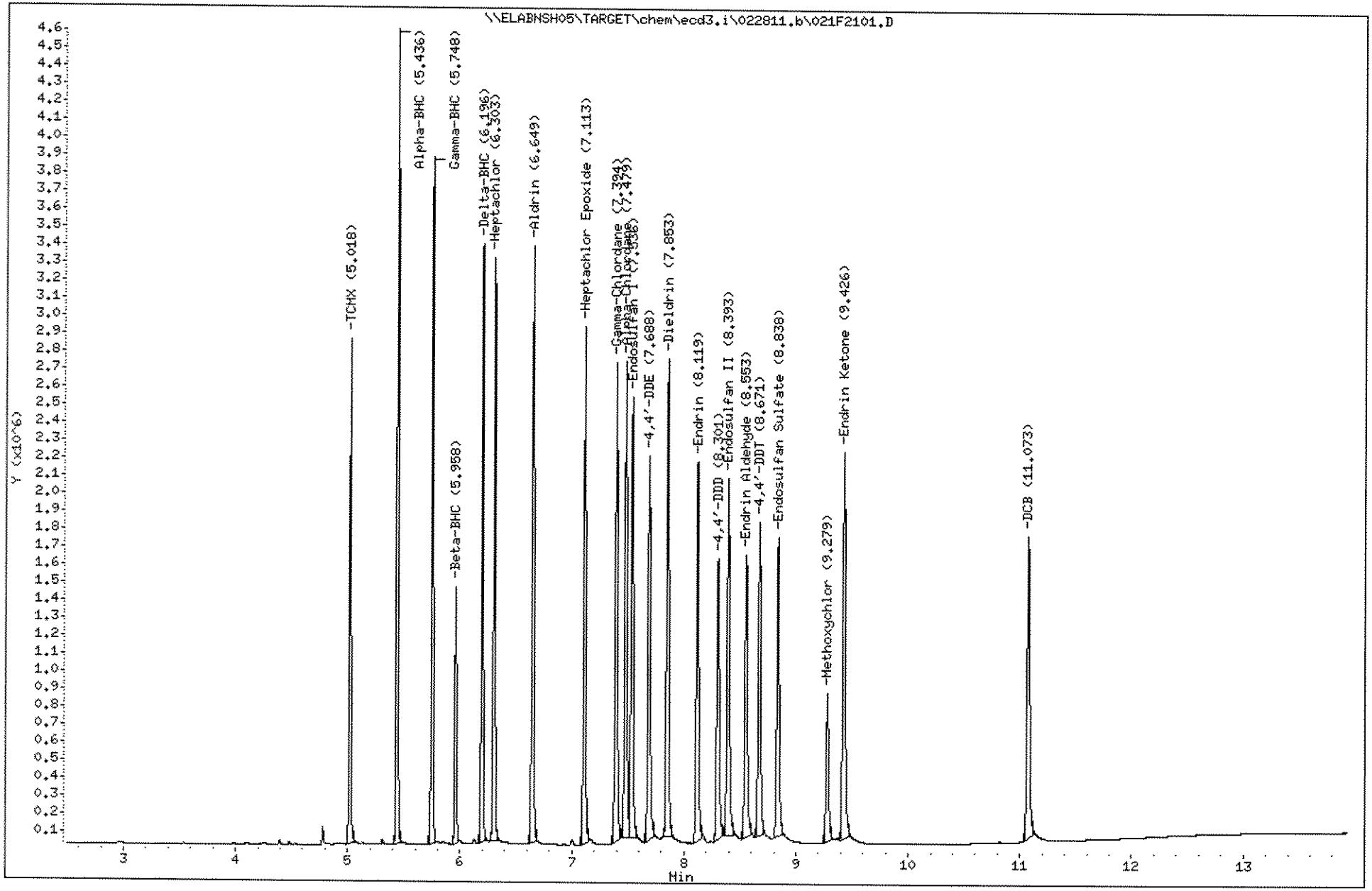
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021F2101.D
Date : 28-FEB-2011 19:44
Client ID:
Sample Info: SEQ-CCV5

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021R2101.D
Lab Smp Id: SEQ-CCV5
Inj Date : 28-FEB-2011 19:44
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX [2C]	4.164	4.165	-0.001	2648599		100.000	102.1
3	Alpha-BHC [2C]	4.548	4.549	-0.001	3759905		100.000	107.1
23	Gamma-BHC [2C]	4.803	4.804	-0.001	3388393		100.000	109.0
5	Beta-BHC [2C]	5.063	5.064	-0.001	1486717		100.000	103.1
25	Heptachlor [2C]	5.119	5.122	-0.003	3155582		100.000	110.4
15	Delta-BHC [2C]	5.244	5.247	-0.003	3142691		100.000	113.8
2	Aldrin [2C]	5.359	5.362	-0.003	3257448		100.000	105.6
26	Heptachlor Epoxide [2C]	5.793	5.795	-0.002	3001413		100.000	103.6
24	Gamma-Chlordane [2C]	6.053	6.055	-0.002	3034760		100.000	111.8
4	Alpha-Chlordane [2C]	6.103	6.107	-0.004	2971684		100.000	105.2
17	Endosulfan I [2C]	6.146	6.149	-0.003	3073506		100.000	100.7
13	4,4'-DDE [2C]	6.294	6.299	-0.005	2675324		100.000	116.9
16	Dieldrin [2C]	6.406	6.409	-0.003	3199367		100.000	105.7
20	Endrin [2C]	6.666	6.669	-0.003	2580493		100.000	112.5
12	4,4'-DDD [2C]	6.861	6.867	-0.006	2258181		100.000	115.3
18	Endosulfan II [2C]	6.988	6.992	-0.004	2597836		100.000	105.5
14	4,4'-DDT [2C]	7.149	7.155	-0.006	1874241		100.000	116.2(M)
21	Endrin Aldehyde [2C]	7.161	7.164	-0.003	2900444		100.000	116.0(M)
19	Endosulfan Sulfate [2C]	7.433	7.435	-0.002	2179961		100.000	102.7
27	Methoxychlor [2C]	7.763	7.765	-0.002	1151011		100.000	110.2
22	Endrin Ketone [2C]	7.958	7.964	-0.006	3067238	*	100.000	104.1
$ 39	DCB [2C]	9.401	9.404	-0.003	2230121	b	100.000	95.40

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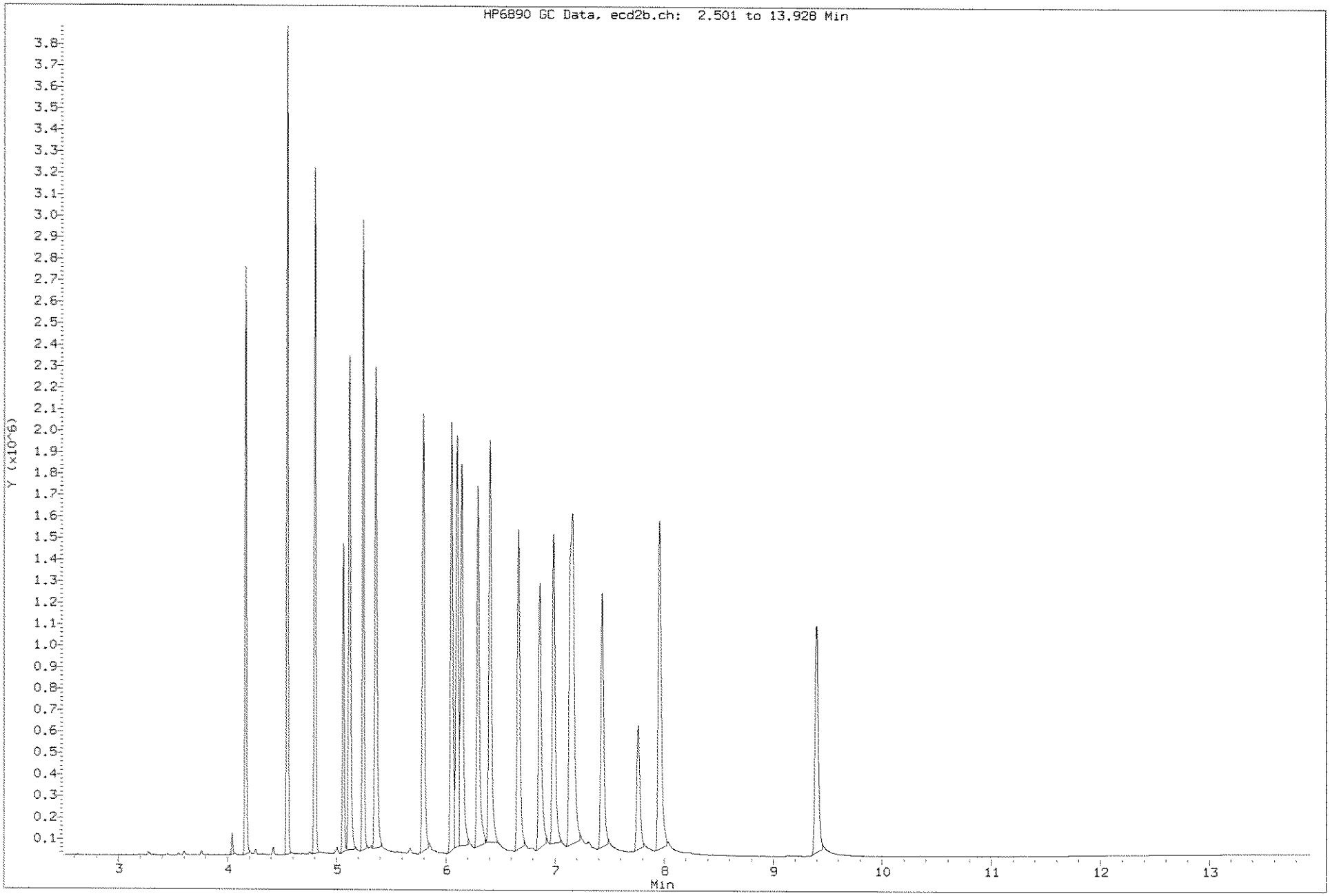
3/1/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\021R2101.D
Injection Date: 28-FEB-2011 19:44
Instrument: ecd3.i
Client Sample ID:



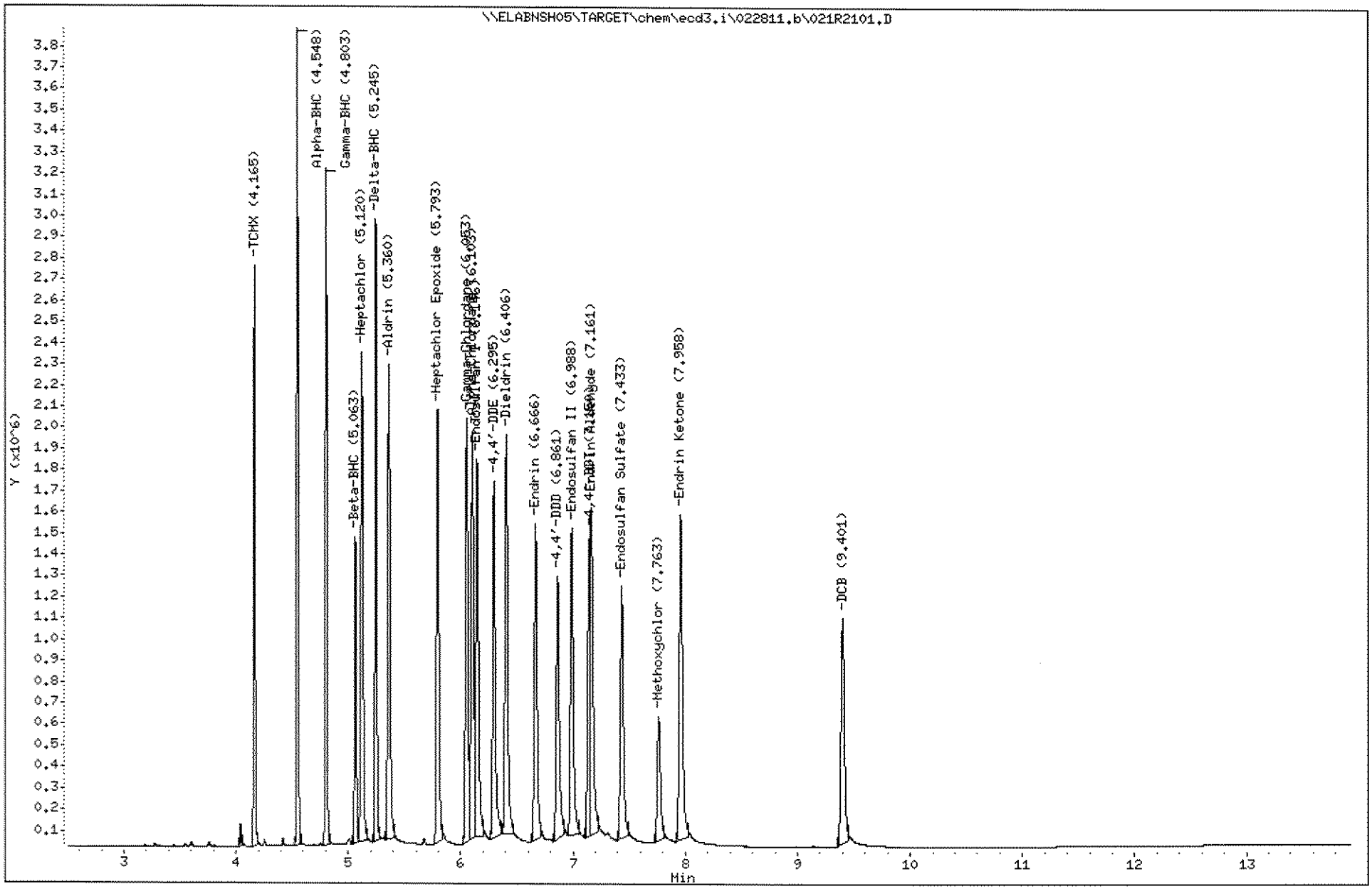
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\021R2101.D
Date : 28-FEB-2011 19:44
Client ID:
Sample Info: SEQ-CCV5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B
WL
3/1/11



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\024F2401.D
Lab Smp Id: SEQ-CCV8
Inj Date : 28-FEB-2011 20:40
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV8
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82F.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030F3001.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.207	6.207	(0.000)	1345036	1000.00	1334	80.00-	120.00	100.00
5.388	5.391	(-0.003)	449509	1000.00	1244	26.74-	40.10	33.42
5.718	5.719	(-0.001)	652440	1000.00	1203	38.81-	58.21	48.51
5.907	5.907	(0.000)	661992	1000.00	1226	39.37-	59.06	49.22
6.372	6.374	(-0.002)	665089			39.56-	59.34	49.45
6.478	6.482	(-0.004)	518170	1000.00	1289	30.82-	46.23	38.52
		Average of Peak Amounts =			1259			
35 PCB-1260					CAS #: 11096-82-5			
9.397	9.399	(-0.002)	4099756	1000.00	1226	80.00-	120.00	100.00
7.980	7.984	(-0.004)	1584524			30.92-	46.38	38.65
8.300	8.301	(-0.001)	*1912789	1000.00	1159	37.32-	55.99	46.66
8.632	8.634	(-0.002)	2093823	1000.00	1150	40.86-	61.29	51.07
8.735	8.736	(-0.001)	1685046	1000.00	1119	32.88-	49.32	41.10
9.005	9.007	(-0.002)	1624947			31.71-	47.56	39.64
9.743	9.747	(-0.004)	2210796			43.14-	64.71	53.93
10.477	10.479	(-0.002)	937938	1000.00	1272	18.30-	27.45	22.88
		Average of Peak Amounts =			1185			

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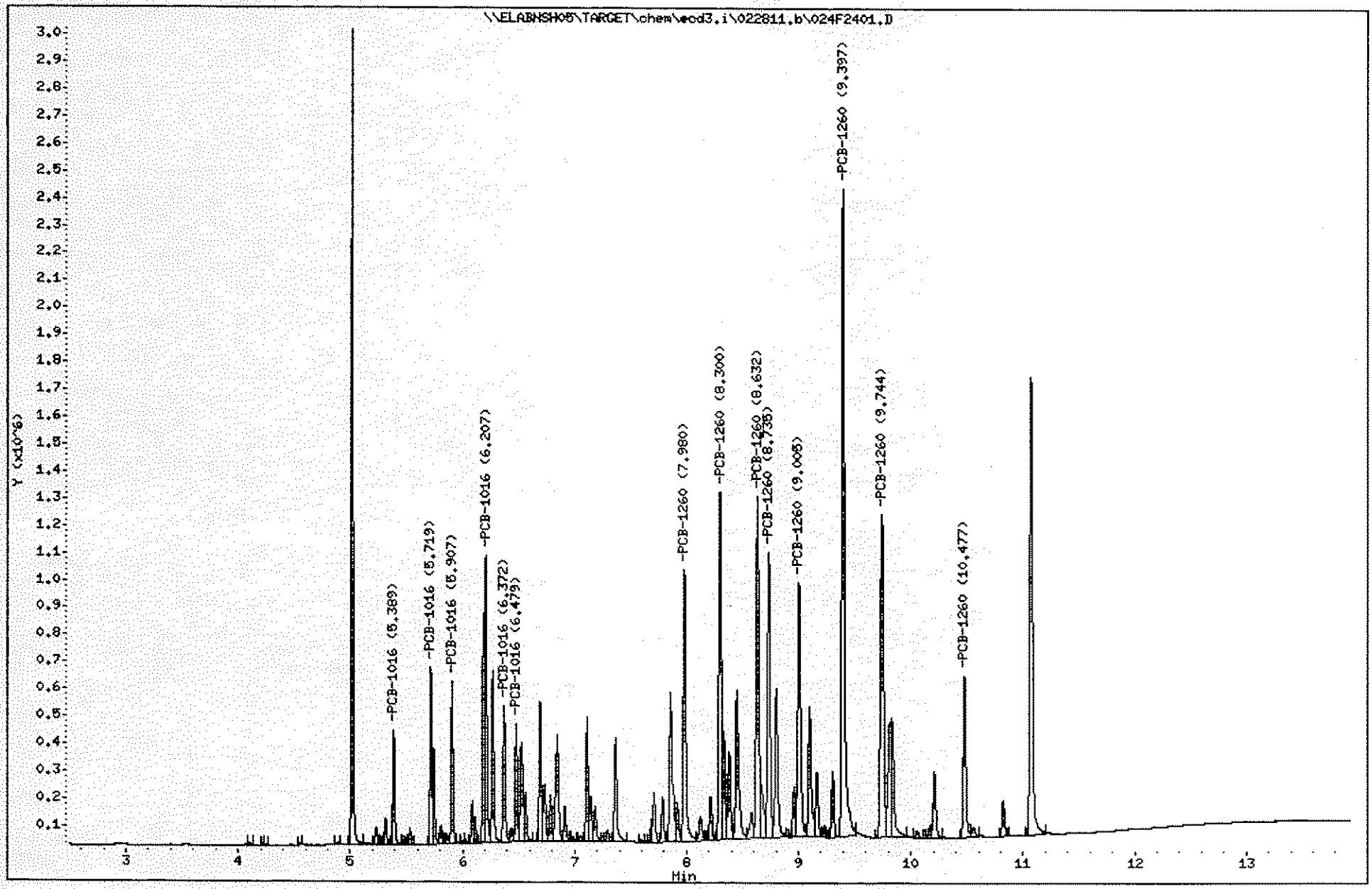
3/1/11

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\022811.b\024F2401.D
Date : 28-FEB-2011 20:40
Client ID:
Sample Info: SEQ-CCV8

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\024R2401.D
Lab Smp Id: SEQ-CCV8
Inj Date : 28-FEB-2011 20:40
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CCV8
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\8081_82R.m
Meth Date : 01-Mar-2011 12:43 wlancaster Quant Type: ESTD
Cal Date : 02-DEC-2010 15:37 Cal File: 030R3001.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]						CAS #: 12674-11-2		
5.125	5.128	(-0.003)	1246095	1000.00	1503	80.00-	120.00	100.00(M)
4.480	4.481	(-0.001)	456661			29.32-	43.98	36.65
4.737	4.738	(-0.001)	763175	1000.00	1235	49.00-	73.49	61.25
4.890	4.891	(-0.001)	739859	1000.00	1265	47.50-	71.25	59.37
5.162	5.163	(-0.001)	842228	1000.00	1109	54.07-	81.11	67.59
5.507	5.508	(-0.001)	701232	1000.00	1549	45.02-	67.53	56.27
		Average of Peak Amounts =			1332			
35 PCB-1260 [2C]						CAS #: 11096-82-5		
7.795	7.796	(-0.001)	3107930	1000.00	1463	80.00-	120.00	100.00
6.570	6.573	(-0.003)	*1512429	1000.00	1267	38.93-	58.40	48.66
6.805	6.806	(-0.001)	1815850	1000.00	1341	46.74-	70.11	58.43
6.950	6.951	(-0.001)	1246848	1000.00	1152	32.09-	48.14	40.12
7.210	7.211	(-0.001)	1562204			40.21-	60.32	50.27
7.482	7.481	(0.001)	1553929	1000.00	1352	40.00-	60.00	50.00
8.169	8.168	(0.001)	1159527			29.85-	44.77	37.31
8.804	8.806	(-0.002)	765106			19.69-	29.54	24.62
		Average of Peak Amounts =			1315			

QC Flag Legend

M - Compound response manually integrated.

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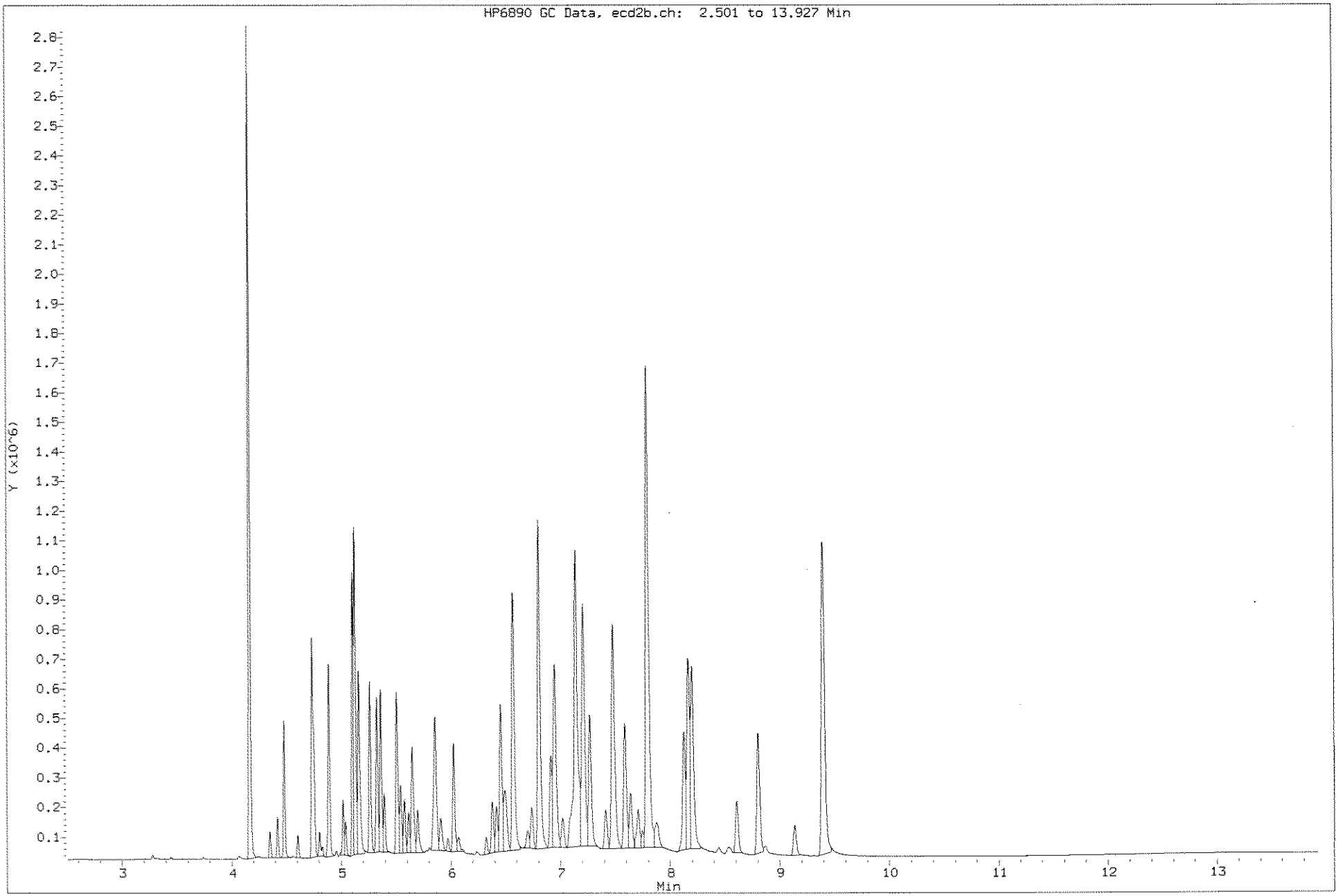
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\024R2401.D
Injection Date: 28-FEB-2011 20:40
Instrument: ecd3.i
Client Sample ID:



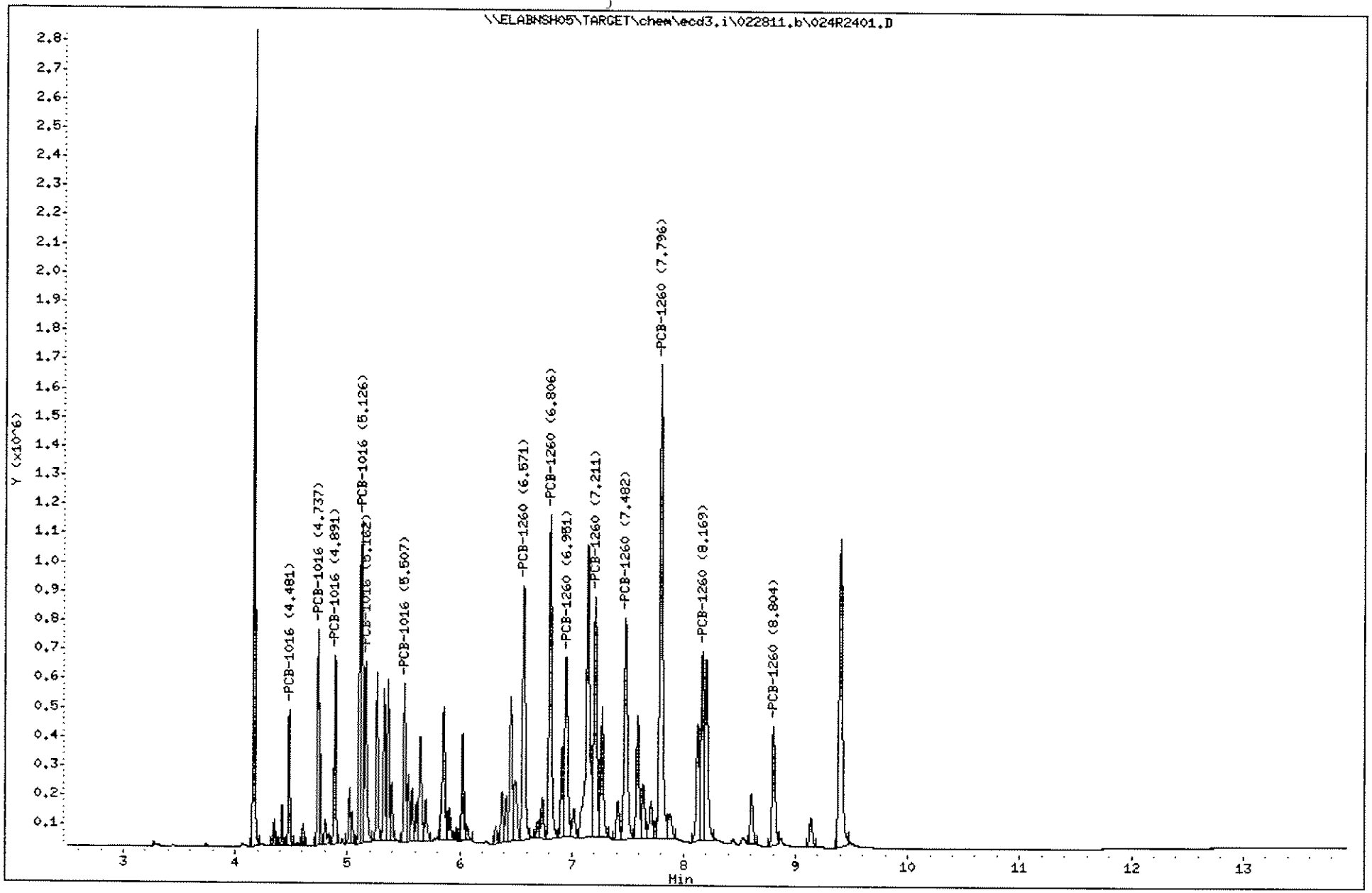
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\022811.b\024R2401.D
Date : 28-FEB-2011 20:40
Client ID:
Sample Info: SEQ-CCV8

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

B WL 3/1/11



755

1102180

PREPARATION BENCH SHEET

1B21019

Empirical Laboratories, LLC

Printed: 3/4/2011 11:14:57AM

Matrix: Solid **Prepared using: EXT - EXT_3546** **Surrogate used: 11B0080**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102180-01	SGC_PCB8082A_3546	02/25/2011 11:49	15.3	10				500	
1102180-01	SGC_PEST8081A_3546	02/25/2011 11:49	15.3	10				500	
1B21019-BLK1	QC	02/25/2011 11:49	15	10				500	
1B21019-BS1	QC	02/25/2011 11:49	15	10	11B0604		500	500	Pest AB LCS
1B21019-BS2	QC	02/25/2011 11:49	15	10	11A0653		500	500	PCB 1660 LCS
1B21019-BSD1	QC	02/25/2011 11:49	15	10	11B0604		500	500	Pest AB LCS
1B21019-BSD2	QC	02/25/2011 11:49	15	10	11A0653		500	500	PCB 1660 LCS

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

756

1102180

Data for SW8151A Forms

ANALYSIS SEQUENCE SUMMARY

SW8151A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C06015
Instrument: GL-ECD4
Calibration: 1060002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1C06015-CAL1	002R0201.D	03/01/11 11:00
Cal Standard	1C06015-CAL1	002F0201.D	03/01/11 11:00
Cal Standard	1C06015-CAL2	003F0301.D	03/01/11 11:44
Cal Standard	1C06015-CAL2	003R0301.D	03/01/11 11:44
Cal Standard	1C06015-CAL3	004F0401.D	03/01/11 12:27
Cal Standard	1C06015-CAL3	004R0401.D	03/01/11 12:27
Cal Standard	1C06015-CAL4	005R0501.D	03/01/11 13:11
Cal Standard	1C06015-CAL4	005F0501.D	03/01/11 13:11
Cal Standard	1C06015-CAL5	006R0601.D	03/01/11 13:54
Cal Standard	1C06015-CAL5	006F0601.D	03/01/11 13:54
Cal Standard	1C06015-CAL6	007F0701.D	03/01/11 14:38
Cal Standard	1C06015-CAL6	007R0701.D	03/01/11 14:38
Cal Standard	1C06015-CAL7	008F0801.D	03/01/11 15:22
Cal Standard	1C06015-CAL7	008R0801.D	03/01/11 15:22
Initial Cal Check	1C06015-ICV1	009R0901.D	03/01/11 16:05
Initial Cal Check	1C06015-ICV1	009F0901.D	03/01/11 16:05

ANALYSIS SEQUENCE SUMMARY

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C06106	Instrument:	GL-ECD4
Calibration:	1060002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1C06106-CCV1	010R1001.D	03/01/11 16:49
Calibration Check	1C06106-CCV1	010F1001.D	03/01/11 16:49
Blank	1B25011-BLK1	011R1101.D	03/01/11 17:32
Blank	1B25011-BLK1	011F1101.D	03/01/11 17:32
LCS	1B25011-BS1	012R1201.D	03/01/11 18:16
LCS	1B25011-BS1	012F1201.D	03/01/11 18:16
LCS Dup	1B25011-BSD1	013R1301.D	03/01/11 19:00
LCS Dup	1B25011-BSD1	013F1301.D	03/01/11 19:00
Backfilll (20110218)	1102180-01	014R1401.D	03/01/11 19:43
Backfilll (20110218)	1102180-01	014F1401.D	03/01/11 19:43
Calibration Check	1C06106-CCV2	024R2401.D	03/02/11 02:58
Calibration Check	1C06106-CCV2	024F2401.D	03/02/11 02:58

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1102180-01 File ID: 014R1401.D

Sampled: 02/18/11 16:15 Prepared: 02/26/11 10:25 Analyzed: 03/01/11 19:43

Solids: 80.80 Preparation: EXT_8151 Dilution: 1

Batch: 1B25011 Sequence: 1C06106 Calibration: 1060002 Instrument: GL-ECD4

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
93-76-5	2,4,5-T [2C]	9.05	3.00	6.01	PM
93-72-1	2,4,5-TP (Silvex)		3.00	6.01	U
94-75-7	2,4-D		30.0	60.1	U
94-82-6	2,4-DB		30.0	60.1	U
75-99-0	Dalapon		75.1	150	U
1918-00-9	Dicamba		3.00	6.01	U
120-36-5	Dichloroprop		30.0	60.1	U
88-85-7	Dinoseb		15.0	30.0	U
94-74-6	MCPA		3000	6010	U
7085-19-0	MCPP		3000	6010	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
2,4-Dichlorophenylacetic acid	120.2	113.7	94.6	30 - 120	
2,4-Dichlorophenylacetic acid [2C]	120.2	91.66	76.3	30 - 120	

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B25011	Laboratory ID:	1B25011-BS1
Preparation:	EXT_8151	Initial/Final:	10 g / 10 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
2,4,5-T	20.00	19.89	99.5	45 - 135
2,4,5-T [2C]	20.00	25.04	125	45 - 135
2,4,5-TP (Silvex)	20.00	16.41	82.1	45 - 125
2,4,5-TP (Silvex) [2C]	20.00	19.05	95.3	45 - 125
2,4-D	200.0	222.1	111	35 - 145
2,4-D [2C]	200.0	181.5	90.8	35 - 145
2,4-DB	200.0	128.1	64.0	50 - 155
2,4-DB [2C]	200.0	172.5	86.2	50 - 155
Dalapon	500.0	119.0	23.8	10 - 110
Dalapon [2C]	500.0	129.7	25.9	10 - 110
Dicamba	20.00	15.32	76.6	55 - 110
Dicamba [2C]	20.00	15.24	76.2	55 - 110
Dichloroprop	200.0	236.7	118	75 - 140
Dichloroprop [2C]	200.0	209.8	105	75 - 140
Dinoseb	100.0	28.29	28.3	5 - 130
Dinoseb [2C]	100.0	25.91	25.9	5 - 130
MCPA	20000	18030	90.1	30 - 115
MCPA [2C]	20000	18070	90.4	30 - 115
MCPP	20000	17350	86.8	35 - 135
MCPP [2C]	20000	16960	84.8	35 - 135

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4,5-T	20.00	20.95	105	5.17	30	45 - 135
2,4,5-T [2C]	20.00	18.83	94.1	28.3	30	45 - 135
2,4,5-TP (Silvex)	20.00	17.19	86.0	4.65	30	45 - 125
2,4,5-TP (Silvex) [2C]	20.00	20.91	105	9.30	30	45 - 125
2,4-D	200.0	206.3	103	7.36	30	35 - 145
2,4-D [2C]	200.0	180.2	90.1	0.719	30	35 - 145
2,4-DB	200.0	121.2	60.6	5.51	30	50 - 155

LCS / LCS DUPLICATE RECOVERY

SW8151A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Batch: 1B25011
Laboratory ID: 1B25011-BSD1
Preparation: EXT_8151
Initial/Final: 10 g / 10 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-DB [2C]	200.0	172.5	86.3	0.0220	30	50 - 155
Dalapon	500.0	136.2	27.2	13.5	30	10 - 110
Dalapon [2C]	500.0	125.3	25.1	3.48	30	10 - 110
Dicamba	20.00	15.93	79.7	3.89	30	55 - 110
Dicamba [2C]	20.00	15.47	77.3	1.49	30	55 - 110
Dichloroprop	200.0	236.8	118	0.00761	30	75 - 140
Dichloroprop [2C]	200.0	208.9	104	0.443	30	75 - 140
Dinoseb	100.0	22.85	22.8	21.3	30	5 - 130
Dinoseb [2C]	100.0	21.38	21.4	19.2	30	5 - 130
MCPA	20000	18550	92.7	2.84	30	30 - 115
MCPA [2C]	20000	17930	89.6	0.812	30	30 - 115
MCPP	20000	18600	93.0	6.95	30	35 - 135
MCPP [2C]	20000	17680	88.4	4.19	30	35 - 135

PREPARATION BATCH SUMMARY

SW8151A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1B25011 Batch Matrix: Solid Preparation: EXT_8151

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	02/26/11 10:25	10.30	10.00
Blank	1B25011-BLK1	02/26/11 10:25	10.00	10.00
LCS	1B25011-BS1	02/26/11 10:25	10.00	10.00
LCS Dup	1B25011-BSD1	02/26/11 10:25	10.00	10.00

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B25011-BLK1 File ID: 011R1101.D

Sampled: Prepared: 02/26/11 10:25 Analyzed: 03/01/11 17:32

Solids: Preparation: EXT_8151 Dilution:

Batch: 1B25011 Sequence: 1C06106 Calibration: 1060002 Instrument: GL-ECD4

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
93-76-5	2,4,5-T		2.50	5.00	U
93-72-1	2,4,5-TP (Silvex)		2.50	5.00	U
94-75-7	2,4-D		25.0	50.0	U
94-82-6	2,4-DB		25.0	50.0	U
75-99-0	Dalapon		62.5	125	U
1918-00-9	Dicamba		2.50	5.00	U
120-36-5	Dichloroprop		25.0	50.0	U
88-85-7	Dinoseb		12.5	25.0	U
94-74-6	MCPA		2500	5000	U
7085-19-0	MCPP		2500	5000	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2,4-Dichlorophenylacetic acid	100.0	96.36	96.4	30 - 120	
2,4-Dichlorophenylacetic acid [2C]	100.0	85.65	85.6	30 - 120	

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C06015	Instrument:	GL-ECD4
Calibration:	1060002		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10K0129	Herb/DCAA CAL7 @ 5/25 ppb	1C06015-CAL1	002R0201.D	03/01/11 11:00
10K0129	Herb/DCAA CAL7 @ 5/25 ppb	1C06015-CAL1	002F0201.D	03/01/11 11:00
10K0128	Herb/DCAA CAL6 @ 10/50 ppb	1C06015-CAL2	003R0301.D	03/01/11 11:44
10K0128	Herb/DCAA CAL6 @ 10/50 ppb	1C06015-CAL2	003F0301.D	03/01/11 11:44
10K0127	Herb/DCAA CAL5 @ 20/100 ppb (CCV)	1C06015-CAL3	004R0401.D	03/01/11 12:27
10K0127	Herb/DCAA CAL5 @ 20/100 ppb (CCV)	1C06015-CAL3	004F0401.D	03/01/11 12:27
10K0126	Herb/DCAA CAL4 @ 25/125 ppb	1C06015-CAL4	005R0501.D	03/01/11 13:11
10K0126	Herb/DCAA CAL4 @ 25/125 ppb	1C06015-CAL4	005F0501.D	03/01/11 13:11
10K0125	Herb/DCAA CAL3 @ 40/200 ppb	1C06015-CAL5	006R0601.D	03/01/11 13:54
10K0125	Herb/DCAA CAL3 @ 40/200 ppb	1C06015-CAL5	006F0601.D	03/01/11 13:54
10K0124	Herb/DCAA CAL2 @ 50/250 ppb	1C06015-CAL6	007R0701.D	03/01/11 14:38
10K0124	Herb/DCAA CAL2 @ 50/250 ppb	1C06015-CAL6	007F0701.D	03/01/11 14:38
10K0123	Herb/DCAA CAL1 @ 100/500 ppb	1C06015-CAL7	008R0801.D	03/01/11 15:22
10K0123	Herb/DCAA CAL1 @ 100/500 ppb	1C06015-CAL7	008F0801.D	03/01/11 15:22

INITIAL CALIBRATION DATA

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1060002	Instrument:	GL-ECD4
Matrix:	Water	Calibration Date:	3/1/2011 11:00:28AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
2,4,5-T	4.74	14704.64	9.479	14333.05	18.96	19312.13	23.7	18186.88	37.92	20707.86	47.4	22871.05
2,4,5-T [2C]	4.74	26502.95	9.479	24456.9	18.96	27101.42	23.7	27933.5	37.92	26465.11	47.4	29000.32
2,4,5-TP (Silvex)	4.753	22649.91	9.506	21644.64	19.01	24765.75	23.76	25283.8	38.02	24841.56	47.53	28121.8
2,4,5-TP (Silvex) [2C]	4.753	32098.67	9.506	29451.08	19.01	30166.6	23.76	31233.5	38.02	29791.14	47.53	31988.05
2,4-D	47.04	949.7236	94.07	917.6039	188.1	1061.611	235.2	1099.056	376.3	1059.668	470.4	1216.65
2,4-D [2C]	47.04	6936.586	94.07	6249.792	188.1	6173.908	235.2	6191.161	376.3	5490.449	470.4	5864.101
2,4-DB	47.35	3763.717	94.7	3536.494	189.4	3479.013	236.8	4269.392	378.8	4169.855	473.5	4284.433
2,4-DB [2C]	47.35	4851.7	94.7	4435.67	189.4	3786.61	236.8	4765.376	378.8	3830.222	473.5	4132.881
2,4-Dichlorophenylacetic acid	23.41	4273.473	46.82	4111.128	93.64	4313.616	117	4458.368	187.3	4144.33	234.1	4403.584
2,4-Dichlorophenylacetic acid [2C]	23.41	6317.129	46.82	6010.572	93.64	5213.221	117	5259.983	187.3	4842.605	234.1	5049.791
Dalapon	113.8	7513.208	227.7	7102.499	455.4	7083.579	569.2	7351.507	910.8	7171.401	1138	7577.762
Dalapon [2C]	113.8	8760.422	227.7	8452.481	455.4	8229.64	569.2	8415.231	910.8	7994.965	1138	8254.987
Dicamba	4.704	29741.71	9.407	24397.15	18.81	23238.12	23.52	24231.93	37.63	22249	47.04	23369.41
Dicamba [2C]	4.704	24048.68	9.407	25154.35	18.81	24286.76	23.52	25422.75	37.63	23441.64	47.04	23987.76
Dichloroprop	47.17	4983.125	94.34	4324.454	188.7	4406.603	235.8	4430.844	377.4	4229.404	471.7	4413.161
Dichloroprop [2C]	47.17	6128.79	94.34	5304.134	188.7	5073.037	235.8	5092.816	377.4	4614.647	471.7	4742.097
Dinoseb	23.63	13993.4	47.26	12239.65	94.52	13264.91	118.2	13946.48	189	13653.76	236.3	14961.84
Dinoseb [2C]	23.63	19493.19	47.26	17285.46	94.52	17996.2	118.2	18787.47	189	17874.78	236.3	19210.13
MCPA	4673	29.97261	9346	28.37824	18690	23.41402	23360	23.38031	37380	21.39098	46730	24.20049
MCPA [2C]	4673	71.65932	9346	54.9465	18690	43.56319	23360	41.81507	37380	34.48028	46730	34.63291
MCPP	4695	17.58339	9390	15.81416	18780	15.17513	23480	15.8	37560	14.29702	46950	15.18379
MCPP [2C]	4695	57.36251	9390	45.84111	18780	36.19318	23480	34.95924	37560	29.52441	46950	28.5957

INITIAL CALIBRATION DATA (Continued)

SW8151A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1060002
Instrument: GL-ECD4
Matrix: Water
Calibration Date: 3/1/2011 11:00:28AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
2,4,5-T	94.79	23030.18										
2,4,5-T [2C]	94.79	26568.29										
2,4,5-TP (Silvex)	95.06	27000.38										
2,4,5-TP (Silvex) [2C]	95.06	29058.12										
2,4-D	940.7	1231.203										
2,4-D [2C]	940.7	5193.397										
2,4-DB	947	3689.229										
2,4-DB [2C]	947	3658.312										
2,4-Dichlorophenylacetic acid	468.2	4080.622										
2,4-Dichlorophenylacetic acid [2C]	468.2	4536										
Dalapon	2277	7441.972										
Dalapon [2C]	2277	7693.865										
Dicamba	94.07	21519.22										
Dicamba [2C]	94.07	21711.44										
Dichloroprop	943.4	4081.367										
Dichloroprop [2C]	943.4	4293.79										
Dinoseb	472.6	14591.9										
Dinoseb [2C]	472.6	17497.02										
MCPA	93460	22.00019										
MCPA [2C]	93460	29.31392										
MCPP	93900	14.92989										
MCPP [2C]	93900	23.33803										

INITIAL CALIBRATION DATA (Continued)

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1060002	Instrument:	GL-ECD4
Matrix:	Water	Calibration Date:	3/1/2011 11:00:28AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,4,5-T	19020.83	18.60383	23.649	2.254054E-02			20	
2,4,5-T [2C]	26861.21	5.250617	19.32357	0.0415872			20	
2,4,5-TP (Silvex)	24901.12	9.072188	22.24386	1.089698E-02			20	
2,4,5-TP (Silvex) [2C]	30541.02	4.029983	18.569	0.0182353			20	
2,4-D	1076.502	11.1155	20.05143	1.891531E-02			20	
2,4-D [2C]	6014.199	9.439287	17.537	4.700886E-02			20	
2,4-DB	3884.59	8.965491	26.04943	2.222532E-02			20	
2,4-DB [2C]	4208.682	11.49758	20.30371	5.907761E-02			20	
2,4-Dichlorophenylacetic acid	4255.017	3.466895	17.89371	1.512849E-02			20	
2,4-Dichlorophenylacetic acid [2C]	5318.472	11.89594	15.77914	1.452249E-02			20	
Dalapon	7320.275	2.760016	6.304429	3.774477E-02			20	
Dalapon [2C]	8257.37	4.145987	3.437286	0.1312436			20	
Dicamba	24106.65	11.14343	17.97471	7.928221E-03			20	
Dicamba [2C]	24007.63	5.098749	15.96243	1.556412E-02			20	
Dichloroprop	4409.851	6.392873	19.371	1.404369E-02			20	
Dichloroprop [2C]	5035.616	11.70778	17.00671	9.697883E-03			20	
Dinoseb	13807.42	6.462913	25.81443	0.0132802			20	
Dinoseb [2C]	18306.32	4.697275	20.2	1.914352E-02			20	
MCPA	24.67669	13.15311	18.79114	0.013124			20	
MCPA [2C]	44.34446	32.97662	16.60971	2.762597E-02		0.9988253	0.99	
MCPP	15.54048	6.69521	18.33143	0.0183444			20	
MCPP [2C]	36.54488	31.78047	16.16414	2.395869E-02		0.9996234	0.99	

INITIAL CALIBRATION CHECK

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD4	Calibration:	1060002
Lab File ID:	009F0901.D	Calibration Date:	03/01/11 11:00
Sequence:	1C06015	Injection Date:	03/01/11
Lab Sample ID:	1C06015-ICV1	Injection Time:	16:05

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
2,4,5-T	A	18.96	18.15	19020.83	18208.23		-4.3	20
2,4,5-T [2C]	A	18.96	20.14	26861.21	28529.38		6.2	20
2,4,5-TP (Silvex)	A	19.01	19.02	24901.12	24920.09		0.08	20
2,4,5-TP (Silvex) [2C]	A	19.01	19.90	30541.02	31966.18		4.7	20
2,4-D	A	188.1	197.9	1076.502	1132.669		5.2	20
2,4-D [2C]	A	188.1	199.2	6014.199	6369.229		5.9	20
2,4-DB	A	189.4	189.7	3884.59	3890.713		0.2	20
2,4-DB [2C]	A	189.4	226.8	4208.682	5040.074		19.8	20
Dalapon	A	455.4	455.9	7320.275	7328.48		0.1	20
Dalapon [2C]	A	455.4	466.5	8257.37	8459.302		2.4	20
Dicamba	A	18.82	18.90	24106.65	24205.63		0.4	20
Dicamba [2C]	A	18.82	19.71	24007.63	25142.61		4.7	20
Dichloroprop	A	188.7	197.6	4409.851	4618.988		4.7	20
Dichloroprop [2C]	A	188.7	195.3	5035.616	5211.945		3.5	20
Dinoseb	A	94.52	98.18	13807.42	14341.85		3.9	20
Dinoseb [2C]	A	94.52	99.60	18306.32	19291.18		5.4	20
MCPA	A	18690	18340	24.67669	24.21958		-1.9	20
MCPA [2C]	Q	18690	19670	44.34446	44.44114		5.2	20
MCPP	A	18780	18930	15.54048	15.66384		0.8	20
MCPP [2C]	Q	18780	19800	36.54488	37.70437		5.4	20
2,4-Dichlorophenylacetic acid	A	93.64	99.35	4255.017	4514.385		6.1	20
2,4-Dichlorophenylacetic acid [2C]	A	93.64	95.96	5318.472	5449.968		2.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD4	Calibration:	1060002
Lab File ID:	010F1001.D	Calibration Date:	03/01/11 11:00
Sequence:	1C06106	Injection Date:	03/01/11
Lab Sample ID:	1C06106-CCV1	Injection Time:	16:49

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2,4,5-T	A	18.96	19.12	19020.83	19179.32		0.8	20
2,4,5-T [2C]	A	18.96	18.57	26861.21	26315.03		-2.0	20
2,4,5-TP (Silvex)	A	19.01	19.48	24901.12	25513.2		2.5	20
2,4,5-TP (Silvex) [2C]	A	19.01	19.05	30541.02	30606.84		0.2	20
2,4-D	A	188.1	183.0	1076.502	1047.48		-2.7	20
2,4-D [2C]	A	188.1	187.1	6014.199	5981.855		-0.5	20
2,4-DB	A	189.4	172.8	3884.59	3543.717		-8.8	20
2,4-DB [2C]	A	189.4	204.3	4208.682	4539.24		7.9	20
Dalapon	A	455.4	453.4	7320.275	7288.472		-0.4	20
Dalapon [2C]	A	455.4	469.3	8257.37	8509.761		3.1	20
Dicamba	A	18.81	19.28	24106.65	24713.13		2.5	20
Dicamba [2C]	A	18.81	20.11	24007.63	25669.22		6.9	20
Dichloroprop	A	188.7	192.4	4409.851	4495.654		1.9	20
Dichloroprop [2C]	A	188.7	187.8	5035.616	5010.859		-0.5	20
Dinoseb	A	94.52	92.88	13807.42	13567.94		-1.7	20
Dinoseb [2C]	A	94.52	94.84	18306.32	18367.6		0.3	20
MCPA	A	18690	19350	24.67669	25.55318		3.6	20
MCPA [2C]	Q	18690	19100	44.34446	43.51177		2.2	20
MCPP	A	18780	20100	15.54048	16.63222		7.0	20
MCPP [2C]	Q	18780	20420	36.54488	38.56954		8.7	20
2,4-Dichlorophenylacetic acid	A	93.64	97.57	4255.017	4433.575		4.2	20
2,4-Dichlorophenylacetic acid [2C]	A	93.64	93.20	5318.472	5293.539		-0.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8151A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD4	Calibration:	1060002
Lab File ID:	024F2401.D	Calibration Date:	03/01/11 11:00
Sequence:	1C06106	Injection Date:	03/02/11
Lab Sample ID:	1C06106-CCV2	Injection Time:	02:58

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
2,4,5-T	A	18.96	18.32	19020.83	18384.6		-3.3	20	
2,4,5-T [2C]	A	18.96	20.50	26861.21	29050		8.1	20	
2,4,5-TP (Silvex)	A	19.01	17.86	24901.12	23388.64		-6.1	20	
2,4,5-TP (Silvex) [2C]	A	19.01	20.23	30541.02	32495.21		6.4	20	
2,4-D	A	188.1	231.0	1076.502	1322.334		22.8	20	*
2,4-D [2C]	A	188.1	205.4	6014.199	6568.304		9.2	20	
2,4-DB	A	189.4	154.3	3884.59	3165.433		-18.5	20	
2,4-DB [2C]	A	189.4	185.3	4208.682	4116.753		-2.2	20	
Dalapon	A	455.4	476.8	7320.275	7665.04		4.7	20	
Dalapon [2C]	A	455.4	465.9	8257.37	8447.505		2.3	20	
Dicamba	A	18.81	18.80	24106.65	24096.97		-0.04	20	
Dicamba [2C]	A	18.81	20.62	24007.63	26318.13		9.6	20	
Dichloroprop	A	188.7	210.5	4409.851	4918.861		11.5	20	
Dichloroprop [2C]	A	188.7	202.6	5035.616	5407.944		7.4	20	
Dinoseb	A	94.52	109.8	13807.42	16040.73		16.2	20	
Dinoseb [2C]	A	94.52	102.1	18306.32	19783.94		8.1	20	
MCPA	A	18690	19110	24.67669	25.23007		2.2	20	
MCPA [2C]	Q	18690	19840	44.34446	44.72434		6.2	20	
MCPP	A	18780	19870	15.54048	16.44649		5.8	20	
MCPP [2C]	Q	18780	20450	36.54488	38.60346		8.9	20	
2,4-Dichlorophenylacetic acid	A	93.64	110.7	4255.017	5029.603		18.2	20	
2,4-Dichlorophenylacetic acid [2C]	A	93.64	100.1	5318.472	5684.376		6.9	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8151A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C06106
Instrument: GL-ECD4
Calibration: 1060002

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1C06106-CCV1) ug/L				Lab File ID: 010F1001.D		Analyzed: 03/01/11 16:49		
2,4-Dichlorophenylacetic acid	93.64	104	80 - 120	17.894	17.894	0.0000	+/-0.030	
2,4-Dichlorophenylacetic acid [2C]	93.64	99.5	80 - 120	15.779	15.779	0.0000	+/-0.030	
Blank (1B25011-BLK1) ug/Kg wet				Lab File ID: 011F1101.D		Analyzed: 03/01/11 17:32		
2,4-Dichlorophenylacetic acid	100.0	96.4	30 - 120	17.899	17.894	0.0050	+/-0.030	
2,4-Dichlorophenylacetic acid [2C]	100.0	85.6	30 - 120	15.792	15.779	0.0130	+/-0.030	
LCS (1B25011-BS1) ug/Kg wet				Lab File ID: 012F1201.D		Analyzed: 03/01/11 18:16		
2,4-Dichlorophenylacetic acid	100.0	98.1	30 - 120	17.895	17.894	0.0010	+/-0.030	
2,4-Dichlorophenylacetic acid [2C]	100.0	85.9	30 - 120	15.777	15.779	-0.0020	+/-0.030	
LCS Dup (1B25011-BSD1) ug/Kg wet				Lab File ID: 013F1301.D		Analyzed: 03/01/11 19:00		
2,4-Dichlorophenylacetic acid	100.0	95.2	30 - 120	17.894	17.894	0.0000	+/-0.030	
2,4-Dichlorophenylacetic acid [2C]	100.0	88.8	30 - 120	15.777	15.779	-0.0020	+/-0.030	
Backfilll (20110218) (1102180-01) ug/Kg dry				Lab File ID: 014F1401.D		Analyzed: 03/01/11 19:43		
2,4-Dichlorophenylacetic acid	120.2	94.6	30 - 120	17.895	17.894	0.0010	+/-0.030	
2,4-Dichlorophenylacetic acid [2C]	120.2	76.3	30 - 120	15.78	15.779	0.0010	+/-0.030	
Calibration Check (1C06106-CCV2) ug/L				Lab File ID: 024F2401.D		Analyzed: 03/02/11 02:58		
2,4-Dichlorophenylacetic acid	93.64	118	80 - 120	17.894	17.894	0.0000	+/-0.030	
2,4-Dichlorophenylacetic acid [2C]	93.64	107	80 - 120	15.777	15.779	-0.0020	+/-0.030	

HOLDING TIME SUMMARY

SW8151A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
Backfilll (20110218)	02/18/11 16:15	02/19/11 09:30	02/26/11 10:25	7.76	14.00	03/01/11 19:43	3.39	40.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B25011-BS1 File ID: 012F1201.D

Sampled: Prepared: Analyzed: 03/01/11 18:16

Solids: Preparation: EXT_8151 Dilution:

Batch: 1B25011 Sequence: 1C06106 Calibration: 1060002 Instrument: GL-ECD4

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
93-76-5	2,4,5-T	19.89	2.50	5.00	
93-72-1	2,4,5-TP (Silvex)	16.41	2.50	5.00	
94-75-7	2,4-D	222.1	25.0	50.0	X
94-82-6	2,4-DB	128.1	25.0	50.0	
75-99-0	Dalapon	119.0	62.5	125	
1918-00-9	Dicamba	15.32	2.50	5.00	
120-36-5	Dichloroprop	236.7	25.0	50.0	
88-85-7	Dinoseb	28.29	12.5	25.0	
94-74-6	MCPA	18030	2500	5000	
7085-19-0	MCPP	17350	2500	5000	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2,4-Dichlorophenylacetic acid	100.0	98.10	98.1	30 - 120	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Matrix: Laboratory ID: 1B25011-BS1 File ID: 012R1201.D

Sampled: Prepared: Analyzed: 03/01/11 18:16

Solids: Preparation: EXT_8151 Dilution:

Batch: 1B25011 Sequence: 1C06106 Calibration: 1060002 Instrument: GL-ECD4

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
93-76-5	2,4,5-T [2C]	25.04	2.50	5.00	
93-72-1	2,4,5-TP (Silvex) [2C]	19.05	2.50	5.00	
94-75-7	2,4-D [2C]	181.5	25.0	50.0	
94-82-6	2,4-DB [2C]	172.5	25.0	50.0	
75-99-0	Dalapon [2C]	129.7	62.5	125	
1918-00-9	Dicamba [2C]	15.24	2.50	5.00	
120-36-5	Dichloroprop [2C]	209.8	25.0	50.0	
88-85-7	Dinoseb [2C]	25.91	12.5	25.0	
94-74-6	MCPA [2C]	18070	2500	5000	
7085-19-0	MCPP [2C]	16960	2500	5000	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2,4-Dichlorophenylacetic acid [2C]	100.0	85.92	85.9	30 - 120	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1B25011-BSD1 File ID: 013F1301.D

Sampled: Prepared: Analyzed: 03/01/11 19:00

Solids: Preparation: EXT_8151 Dilution:

Batch: 1B25011 Sequence: 1C06106 Calibration: 1060002 Instrument: GL-ECD4

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
93-76-5	2,4,5-T	20.95	2.50	5.00	
93-72-1	2,4,5-TP (Silvex)	17.19	2.50	5.00	
94-75-7	2,4-D	206.3	25.0	50.0	X
94-82-6	2,4-DB	121.2	25.0	50.0	
75-99-0	Dalapon	136.2	62.5	125	
1918-00-9	Dicamba	15.93	2.50	5.00	
120-36-5	Dichloroprop	236.8	25.0	50.0	
88-85-7	Dinoseb	22.85	12.5	25.0	
94-74-6	MCPA	18550	2500	5000	
7085-19-0	MCPP	18600	2500	5000	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2,4-Dichlorophenylacetic acid	100.0	95.19	95.2	30 - 120	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant201(
Matrix:
Laboratory ID: 1B25011-BSD1
File ID: 013R1301.D
Sampled:
Prepared:
Analyzed: 03/01/11 19:00
Solids:
Preparation: EXT_8151
Dilution:
Batch: 1B25011
Sequence: 1C06106
Calibration: 1060002
Instrument: GL-ECD4

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
93-76-5	2,4,5-T [2C]	18.83	2.50	5.00	
93-72-1	2,4,5-TP (Silvex) [2C]	20.91	2.50	5.00	
94-75-7	2,4-D [2C]	180.2	25.0	50.0	
94-82-6	2,4-DB [2C]	172.5	25.0	50.0	
75-99-0	Dalapon [2C]	125.3	62.5	125	
1918-00-9	Dicamba [2C]	15.47	2.50	5.00	
120-36-5	Dichloroprop [2C]	208.9	25.0	50.0	
88-85-7	Dinoseb [2C]	21.38	12.5	25.0	
94-74-6	MCPA [2C]	17930	2500	5000	
7085-19-0	MCPP [2C]	17680	2500	5000	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
2,4-Dichlorophenylacetic acid [2C]	100.0	88.82	88.8	30 - 120	

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Backfilll (20110218)

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1102180-01 Date(s) Analyzed: 03/01/2011 03/01/2011

Instrument ID (1): GL-ECD4 Instrument ID (2): GL-ECD4

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	23.64	23.62	23.68	30.6	
	2	19.32	19.29	19.35	9.05	109

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1B25011-BS1 Date(s) Analyzed: 03/01/2011 03/01/2011

Instrument ID (1): GL-ECD4 Instrument ID (2): GL-ECD4

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	23.64	23.62	23.68	19.89	
	2	19.31	19.29	19.35	25.04	23
2,4,5-TP (Silvex)	1	22.24	22.21	22.27	16.41	
	2	18.56	18.54	18.60	19.05	15
2,4-D	1	20.05	20.02	20.08	222.1	
	2	17.53	17.51	17.57	181.5	20
2,4-DB	1	26.04	26.02	26.08	128.1	
	2	20.29	20.27	20.33	172.5	30
Dalapon	1	6.30	6.27	6.33	119.0	
	2	3.43	3.41	3.47	129.7	9
Dicamba	1	17.98	17.94	18.00	15.32	
	2	15.96	15.93	15.99	15.24	1
Dichloroprop	1	19.37	19.34	19.40	236.7	
	2	17.01	16.98	17.04	209.8	12
Dinoseb	1	25.82	25.78	25.84	28.29	
	2	20.20	20.17	20.23	25.91	9
MCPA	1	18.79	18.76	18.82	18030	
	2	16.61	16.58	16.64	18070	0
MCPP	1	18.33	18.30	18.36	17350	
	2	16.16	16.13	16.19	16960	2

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS Dup

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1B25011-BSD1 Date(s) Analyzed: 03/01/2011 03/01/2011

Instrument ID (1): GL-ECD4 Instrument ID (2): GL-ECD4

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	23.65	23.62	23.68	20.95	
	2	19.31	19.29	19.35	18.83	11
2,4,5-TP (Silvex)	1	22.24	22.21	22.27	17.19	
	2	18.56	18.54	18.60	20.91	20
2,4-D	1	20.05	20.02	20.08	206.3	
	2	17.53	17.51	17.57	180.2	14
2,4-DB	1	26.05	26.02	26.08	121.2	
	2	20.29	20.27	20.33	172.5	35
Dalapon	1	6.30	6.27	6.33	136.2	
	2	3.42	3.41	3.47	125.3	8
Dicamba	1	17.98	17.94	18.00	15.93	
	2	15.96	15.93	15.99	15.47	3
Dichloroprop	1	19.37	19.34	19.40	236.8	
	2	17.01	16.98	17.04	208.9	13
Dinoseb	1	25.82	25.78	25.84	22.85	
	2	20.20	20.17	20.23	21.38	7
MCPA	1	18.79	18.76	18.82	18550	
	2	16.61	16.58	16.64	17930	3
MCPP	1	18.33	18.30	18.36	18600	
	2	16.16	16.13	16.19	17680	5

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1102180

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** GL-ECD4

Analyte	MDL	MRL	Units	Method
2,4,5-T [2C]	2.50	5.00	ug/Kg	SW8151A
2,4,5-TP (Silvex)	2.50	5.00	ug/Kg	SW8151A
2,4-D	25.0	50.0	ug/Kg	SW8151A
2,4-DB	25.0	50.0	ug/Kg	SW8151A
Dalapon	62.5	125	ug/Kg	SW8151A
Dicamba	2.50	5.00	ug/Kg	SW8151A
Dichloroprop	25.0	50.0	ug/Kg	SW8151A
Dinoseb	12.5	25.0	ug/Kg	SW8151A
MCPA	2500	5000	ug/Kg	SW8151A
MCPP	2500	5000	ug/Kg	SW8151A

Data for SW8151A
Supporting Raw Data / Logs

Sequence: C:\HPCHEM\ECD4\SEQUENCE\030111.S | 8151 Aerns

P: 329

Seq 1C06015
CAL ID 1060002

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Sequence Table (Front | Back Injector):

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	PRIMER	8151	1	Sample		
2	Vial 2	SEQ-CAL1 10K0129	8151	1	Sample		
3	Vial 3	SEQ-CAL2 10K0128	8151	1	Sample		
4	Vial 4	SEQ-CAL3 10K0127	8151	1	Sample		
5	Vial 5	SEQ-CAL4 10K0126	8151	1	Sample		
6	Vial 6	SEQ-CAL5 10K0125	8151	1	Sample		
7	Vial 7	SEQ-CAL6 10K0124	8151	1	Sample		
8	Vial 8	SEQ-CAL7 10K0123	8151	1	Sample		
9	Vial 9	SEQ-ICV1 11A0219	8151	1	Sample		
10	Vial 10	SEQ-CCV1 10K0127	8151	1	Sample		
11	Vial 11	1B25011-BLK1	8151	1	Sample		
12	Vial 12	1B25011-BS1	8151	1	Sample		
13	Vial 13	1B25011-BSD1	8151	1	Sample		
14	Vial 14	1102180-01	8151	1	Sample		
15	Vial 15	1B25011-MRL1	8151	1	Sample		
16	Vial 16	1B25011-MRL2	8151	1	Sample		
17	Vial 17	1B25010-BLK1	8151	1	Sample		
18	Vial 18	1B25010-BS1	8151	1	Sample		
19	Vial 19	1102207-01	8151	1	Sample		
20	Vial 20	1102215-01	8151	1	Sample		
21	Vial 21	1B25010-MS1	8151	1	Sample		
22	Vial 22	1B25010-MSD1	8151	1	Sample		
23	Vial 23	1102215-02	8151	1	Sample		
24	Vial 24	SEQ-CCV2 10K0127	8151	1	Sample		

Helb curve

Soil 1ST+Q LOD/LOQ

1B25011, 1X

1B25010, 1X, TCLP only

Sequence Table (Back Injector):

~~No entries - empty table~~!

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\002F0201.D
Lab Smp Id: SEQ-CAL1
Inj Date : 01-MAR-2011 11:00 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:11 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon	6.304	6.308	-0.004	855003	D 113.800	116.8
$ 12 DCAA	17.897	17.893	0.004	100042	23.4100	23.51
6 Dicamba	17.976	17.975	0.001	139905	4.70400	5.804
10 MCPP	18.331	18.333	-0.002	82554	4695.00	5312
9 MCPA	18.791	18.793	-0.002	140062	4673.00	5676
7 Dichloroprop	19.374	19.372	0.002	235054	47.1700	53.30
1 2,4-D	20.057	20.048	0.009	44675	47.0400	41.50
3 2,4,5-TP (Silvex)	22.246	22.243	0.003	107655	4.75300	4.323
4 2,4,5-T	23.657	23.647	0.010	69700	4.74000	3.664
8 Dinoseb	25.816	25.818	-0.002	330664	* 23.6300	23.95
2 2,4-DB	26.059	26.047	0.012	178212	47.3500	45.88

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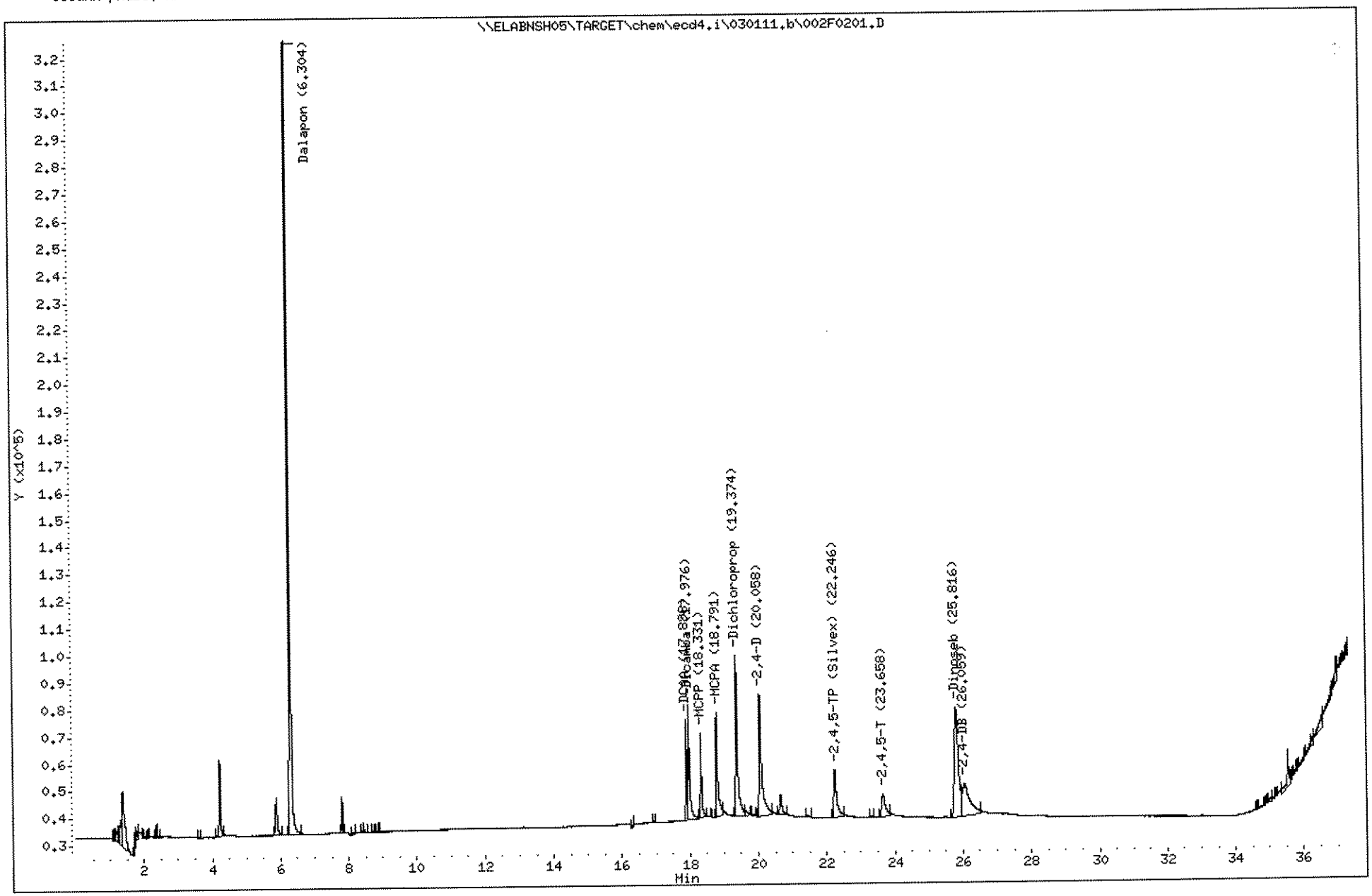
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\002F0201.D
Date : 01-MAR-2011 11:00
Client ID:
Sample Info: SEQ-CAL1

Column phase: MR-1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32



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1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\003F0301.D
Lab Smp Id: SEQ-CAL2
Inj Date : 01-MAR-2011 11:44 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL2
Misc Info : ;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:12 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon	6.305	6.308	-0.003	1617239		227.700	220.9
$ 12 DCAA	17.895	17.893	0.002	192483		46.8200	45.24
6 Dicamba	17.975	17.975	0.000	229504	D	9.40700	9.520
10 MCPP	18.330	18.333	-0.003	148495		9390.00	9555
9 MCPA	18.788	18.793	-0.005	265223		9346.00	10750
7 Dichloroprop	19.371	19.372	-0.001	407969	*	94.3400	92.51
1 2,4-D	20.056	20.048	0.008	86319		94.0700	80.18
3 2,4,5-TP (Silvex)	22.245	22.243	0.002	205754		9.50600	8.263
4 2,4,5-T	23.651	23.647	0.004	135863		9.47900	7.143
8 Dinoseb	25.815	25.818	-0.003	578446		47.2600	41.89
2 2,4-DB	26.056	26.047	0.009	334906		94.7000	86.21

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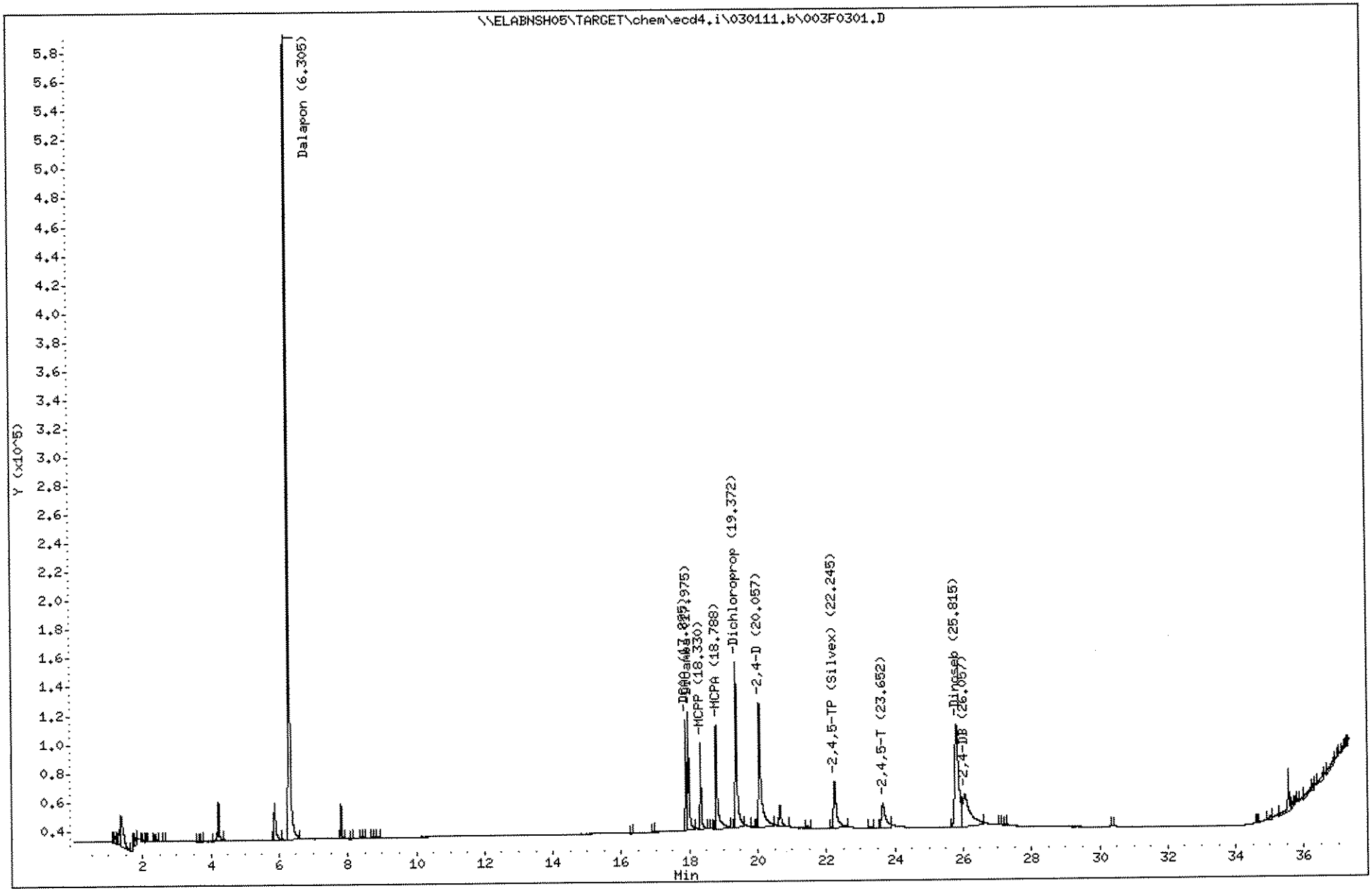
WL
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\003F0301.D
Date : 01-MAR-2011 11:44
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\004F0401.D
Lab Smp Id: SEQ-CAL3
Inj Date : 01-MAR-2011 12:27
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:12 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon	6.304	6.308	-0.004	3225862	* 455.400	440.7
$ 12 DCAA	17.893	17.893	0.000	403927	93.6400	94.93
6 Dicamba	17.974	17.975	-0.001	437109	18.8100	18.13
10 MCPP	18.329	18.333	-0.004	284989	D 18780.0	18340
9 MCPA	18.789	18.793	-0.004	437608	18690.0	17730
7 Dichloroprop	19.371	19.372	-0.001	831526	188.700	188.6
1 2,4-D	20.051	20.048	0.003	199689	188.100	185.5
3 2,4,5-TP (Silvex)	22.243	22.243	0.000	470797	19.0100	18.91
4 2,4,5-T	23.649	23.647	0.002	366158	18.9600	19.25
8 Dinoseb	25.813	25.818	-0.005	1253799	94.5200	90.81
2 2,4-DB	26.051	26.047	0.004	658925	189.400	169.6

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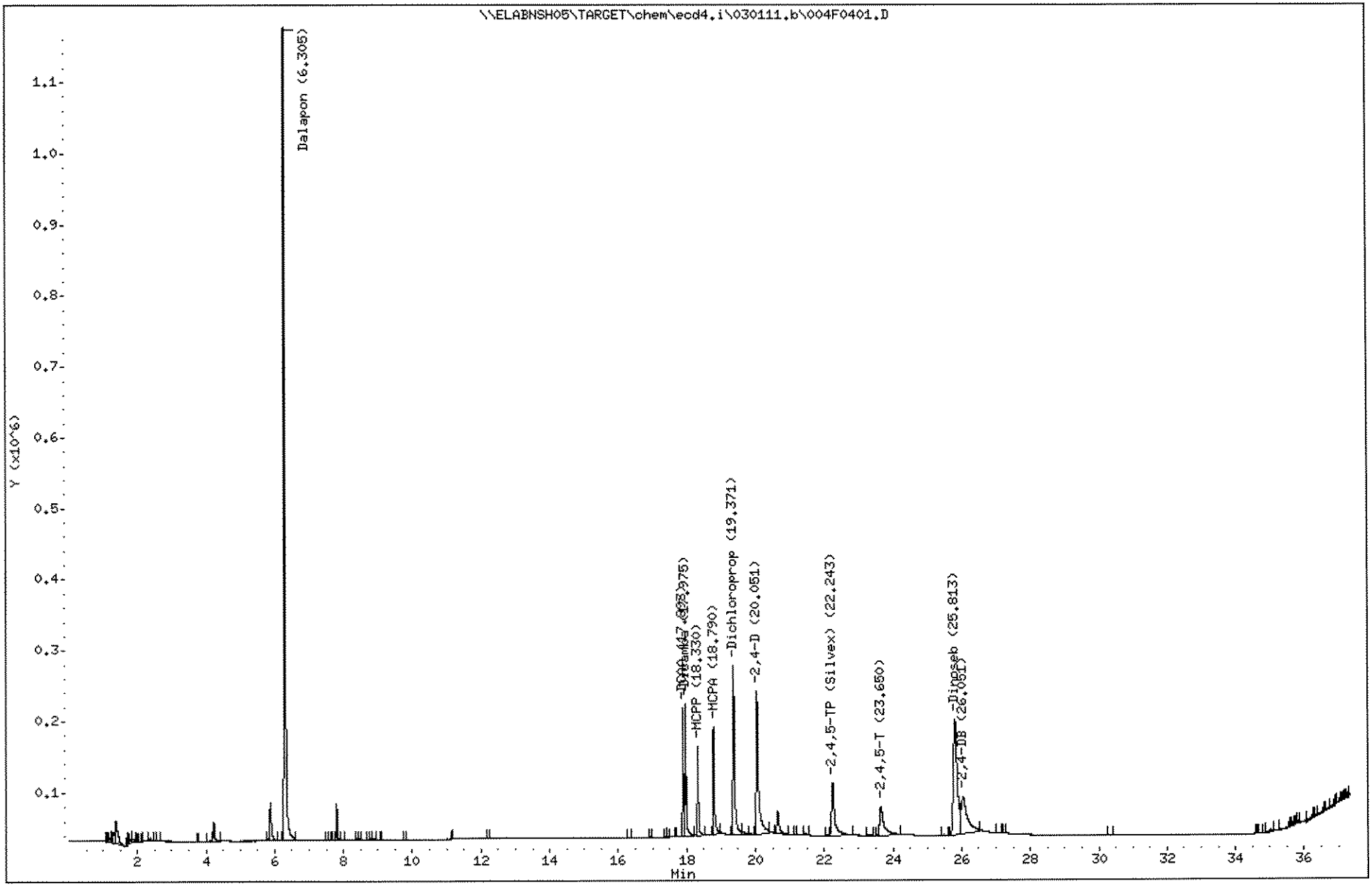
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\004F0401.D
Date : 01-MAR-2011 12:27
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd4.i
Operator: WAL
Column diameter: 0.32

Column phase: MR-1



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\005F0501.D
Lab Smp Id: SEQ-CAL4
Inj Date : 01-MAR-2011 13:11
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:13 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
	5 Dalapon	6.300	6.308	-0.008	4184478	569.200	571.6
$	12 DCAA	17.893	17.893	0.000	521629	117.000	122.6
	6 Dicamba	17.975	17.975	0.000	569935	23.5200	23.64
	10 MCPP	18.330	18.333	-0.003	370984	23480.0	23870
	9 MCPA	18.790	18.793	-0.003	546164	0 23360.0	22130
	7 Dichloroprop	19.371	19.372	-0.001	1044793	235.800	236.9
	1 2,4-D	20.050	20.048	0.002	258498	235.200	240.1
	3 2,4,5-TP (Silvex)	22.243	22.243	0.000	600743	23.7600	24.12
	4 2,4,5-T	23.653	23.647	0.006	431029	* 23.7000	22.66
	8 Dinoseb	25.811	25.818	-0.007	1648474	118.200	119.4
	2 2,4-DB	26.050	26.047	0.003	1010992	236.800	260.2

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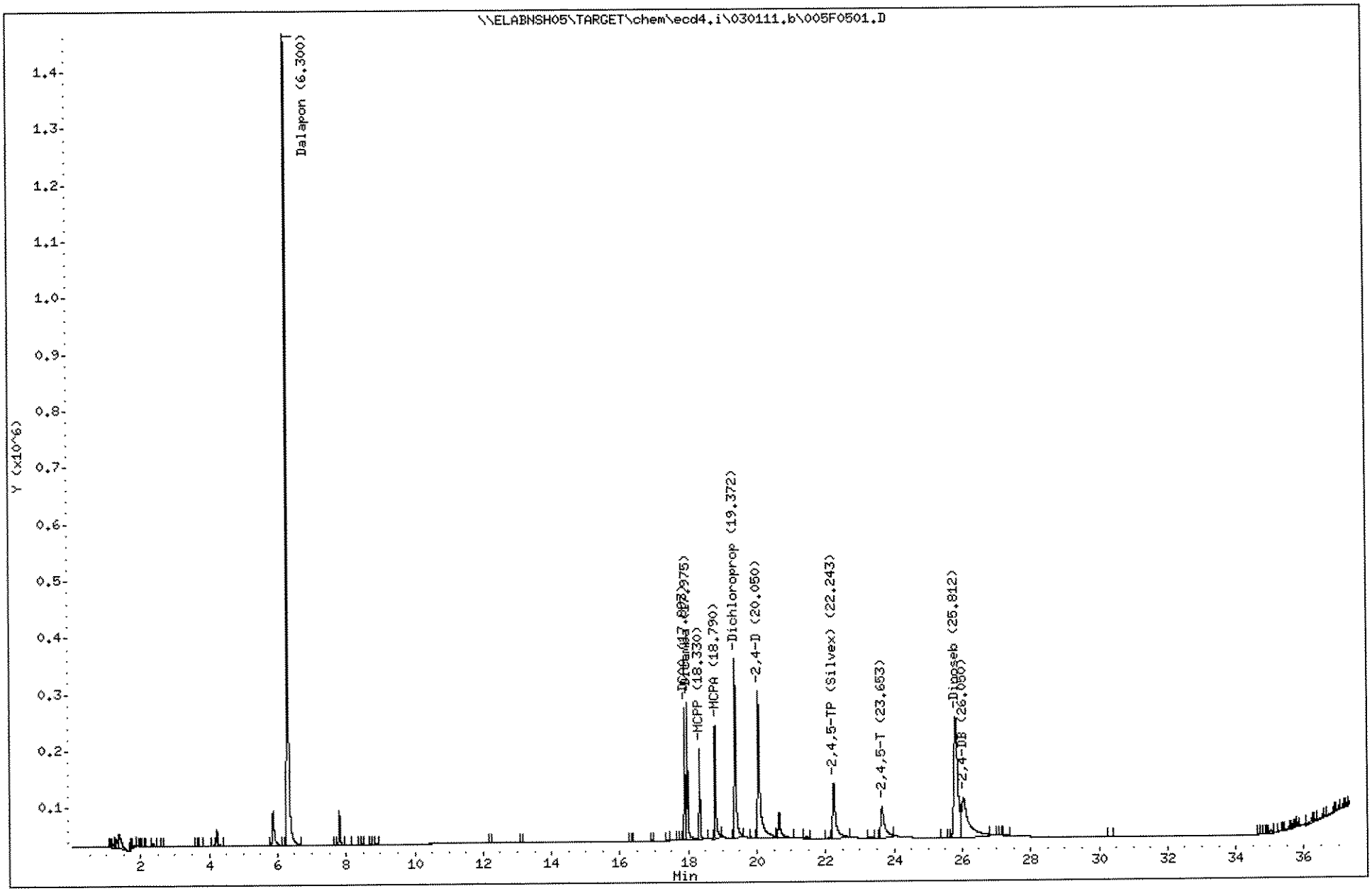
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\005F0501.D
Date : 01-MAR-2011 13:11
Client ID:
Sample Info: SEQ-CAL4

Column phase: MR-1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\006F0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 01-MAR-2011 13:54
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:14 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	5 Dalapon	6.304	6.308	-0.004	6531712		910.800	892.3
$	12 DCAA	17.892	17.893	-0.001	776233		187.300	182.4
	6 Dicamba	17.974	17.975	-0.001	837230		37.6300	34.73
	10 MCPP	18.331	18.333	-0.002	536996		37560.0	34550
	9 MCPA	18.791	18.793	-0.002	799595		37380.0	32400
	7 Dichloroprop	19.369	19.372	-0.003	1596177		377.400	362.0
	1 2,4-D	20.049	20.048	0.001	398753		376.300	370.4
	3 2,4,5-TP (Silvex)	22.246	22.243	0.003	944476	*	38.0200	37.93
	4 2,4,5-T	23.642	23.647	-0.005	785242		37.9200	41.28
	8 Dinoseb	25.812	25.818	-0.006	2580560		189.000	186.9
	2 2,4-DB	26.044	26.047	-0.003	1579541		378.800	406.6

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WL
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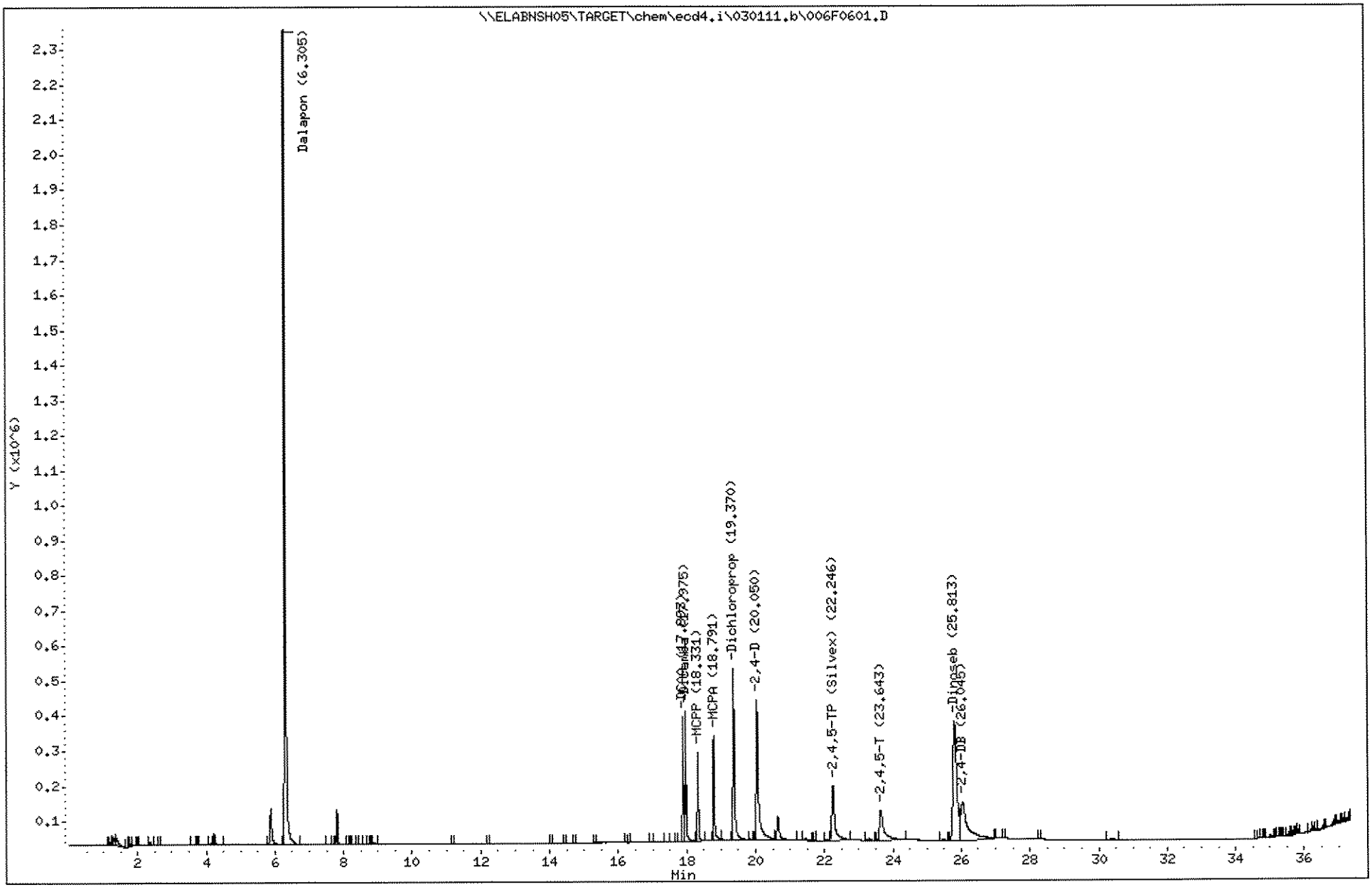
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\006F0601.D
Date : 01-MAR-2011 13:54
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd4.i
Operator: WAL
Column diameter: 0.32

Column phase: MR-1



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\007F0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 01-MAR-2011 14:38 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:14 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon	6.308	6.308	0.000	8623493	1138.00	1178
$ 12 DCAA	17.893	17.893	0.000	1030879	234.100	242.3
6 Dicamba	17.975	17.975	0.000	1099297	47.0400	45.60
10 MCPP	18.333	18.333	0.000	712879	46950.0	45870
9 MCPA	18.793	18.793	0.000	1130889	46730.0	45830
7 Dichloroprop	19.372	19.372	0.000	2081688	471.700	472.0
1 2,4-D	20.048	20.048	0.000	572312	0 470.400	531.6
3 2,4,5-TP (Silvex)	22.243	22.243	0.000	1336629	47.5300	53.68
4 2,4,5-T	23.647	23.647	0.000	1084088	47.4000	56.99
8 Dinoseb	25.818	25.818	0.000	3535484	236.300	256.0
2 2,4-DB	26.047	26.047	0.000	2028679	* 473.500	522.2

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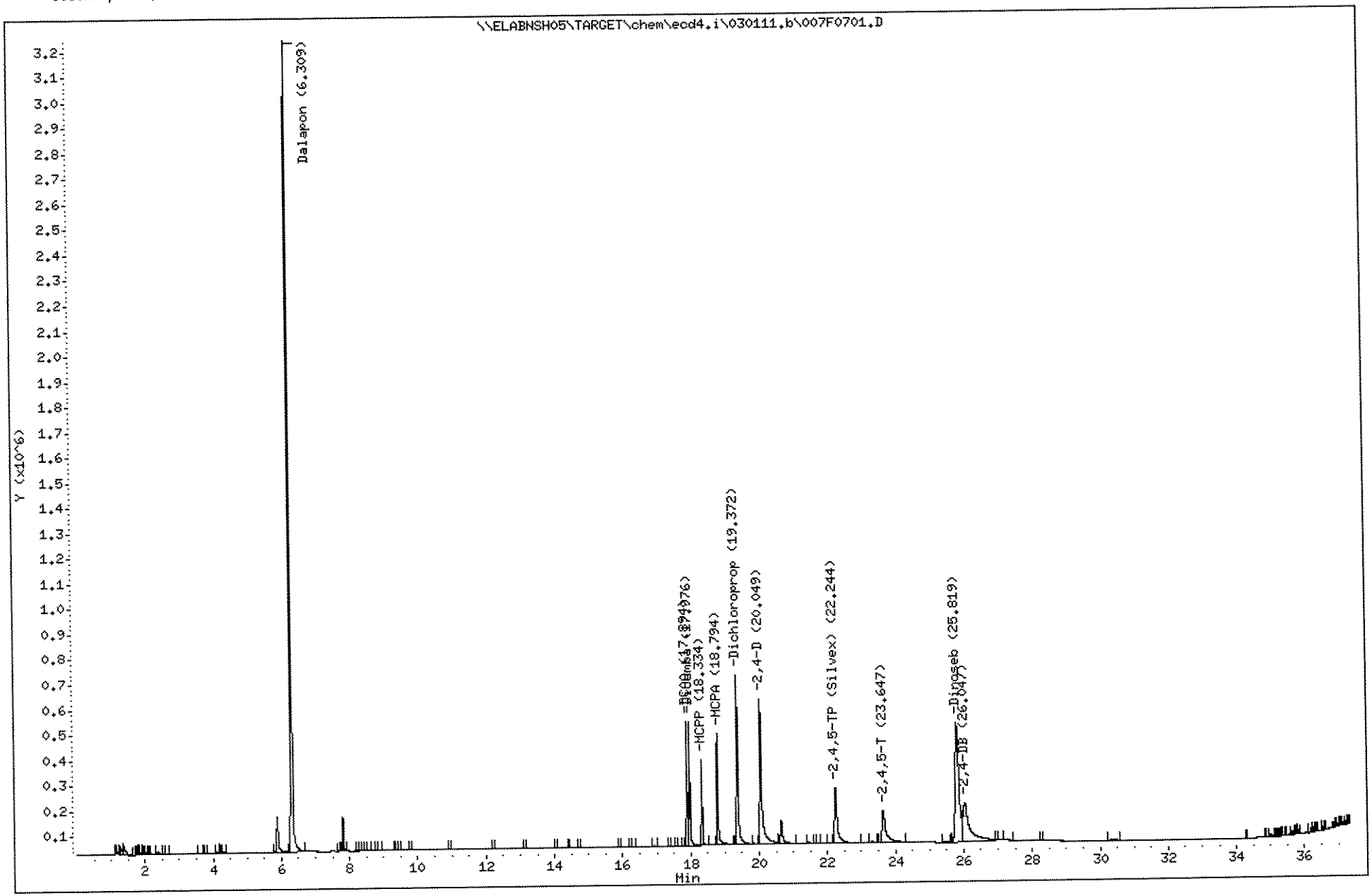
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\007F0701.D
Date : 01-MAR-2011 14:38
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\008F0801.D
Lab Smp Id: SEQ-CAL7
Inj Date : 01-MAR-2011 15:22
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:15 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
5	Dalapon	6.306	6.308	-0.002	16945370		2277.00	2315
$ 12	DCAA	17.893	17.893	0.000	1910547		468.200	449.0
6	Dicamba	17.974	17.975	-0.001	2024313		94.0700	83.97
10	MCPP	18.336	18.333	0.003	1401917		93900.0	90210
9	MCPA	18.796	18.793	0.003	2056138		93460.0	83320
7	Dichloroprop	19.369	19.372	-0.003	3850362		943.400	873.1
1	2,4-D	20.049	20.048	0.001	1158193	*	940.700	1076(A)
3	2,4,5-TP (Silvex)	22.241	22.243	-0.002	2566656	6	95.0600	103.1(A)
4	2,4,5-T	23.644	23.647	-0.003	2183031		94.7900	114.8(A)
8	Dinoseb	25.816	25.818	-0.002	6896131		472.600	499.4
2	2,4-DB	26.039	26.047	-0.008	3493700		947.000	899.4

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

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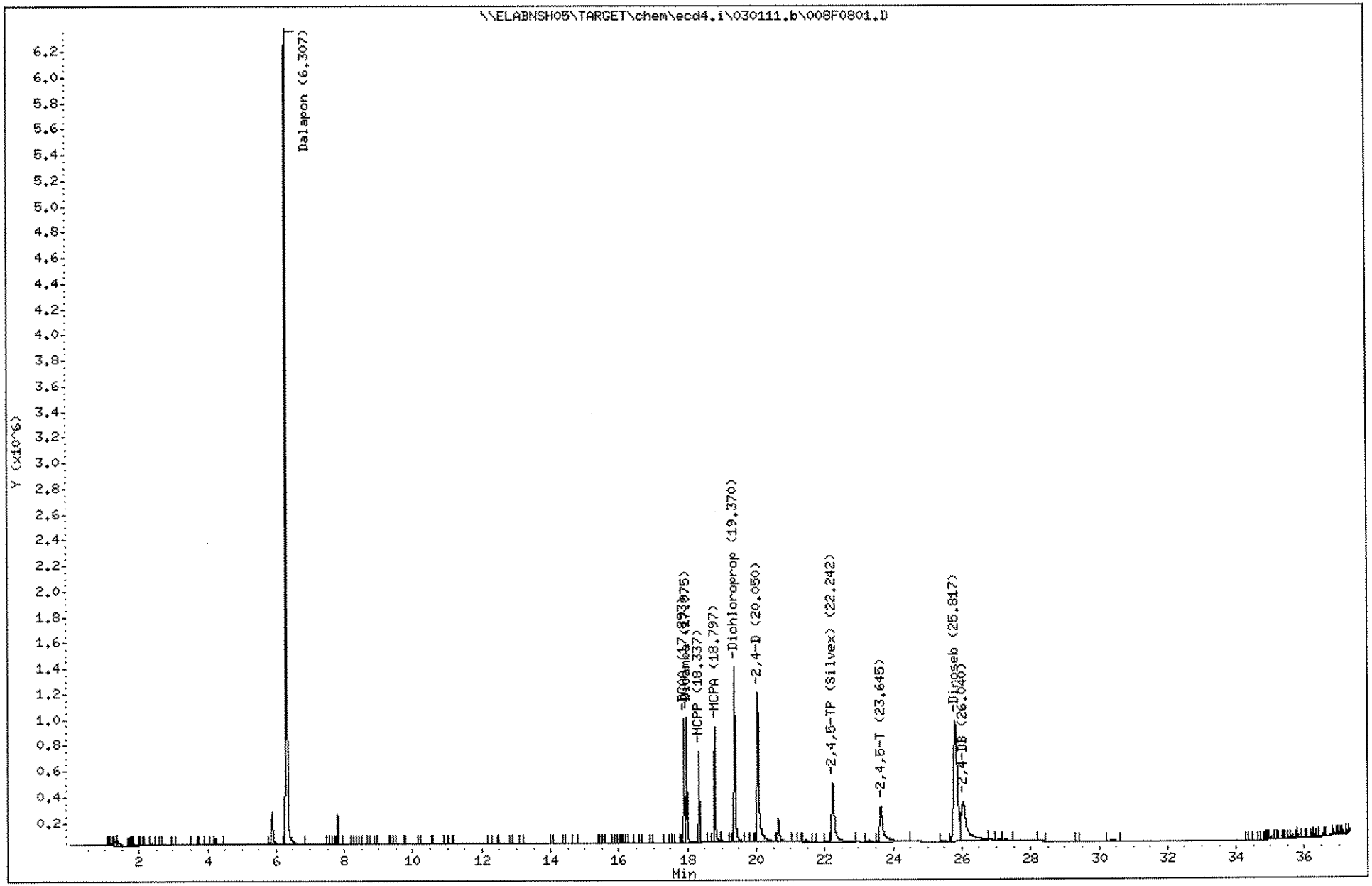
WL
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\008F0801.D
Date : 01-MAR-2011 15:22
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd4.i
Operator: WAL
Column diameter: 0.32

Column phase: MR-1



797
1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\009F0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 01-MAR-2011 16:05
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 17:27 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
		==	======	======	========		=======	=======
5	Dalapon	6.304	6.308	-0.004	3337390	0	455.400	455.9
$ 12	DCAA	17.894	17.893	0.001	422727		93.6400	99.35
6	Dicamba	17.975	17.975	0.000	455550	*	18.8100	18.90
10	MCPP	18.330	18.333	-0.003	294167		18780.0	18930
9	MCPA	18.790	18.793	-0.003	452664		18690.0	18340
7	Dichloroprop	19.370	19.372	-0.002	871603		188.700	197.6
1	2,4-D	20.052	20.048	0.004	213055		188.100	197.9
3	2,4,5-TP (Silvex)	22.245	22.243	0.002	473731		19.0100	19.02
4	2,4,5-T	23.644	23.647	-0.003	345228		18.9600	18.15
8	Dinoseb	25.822	25.818	0.004	1355592		94.5200	98.18
2	2,4-DB	26.052	26.047	0.005	736901		189.400	189.7

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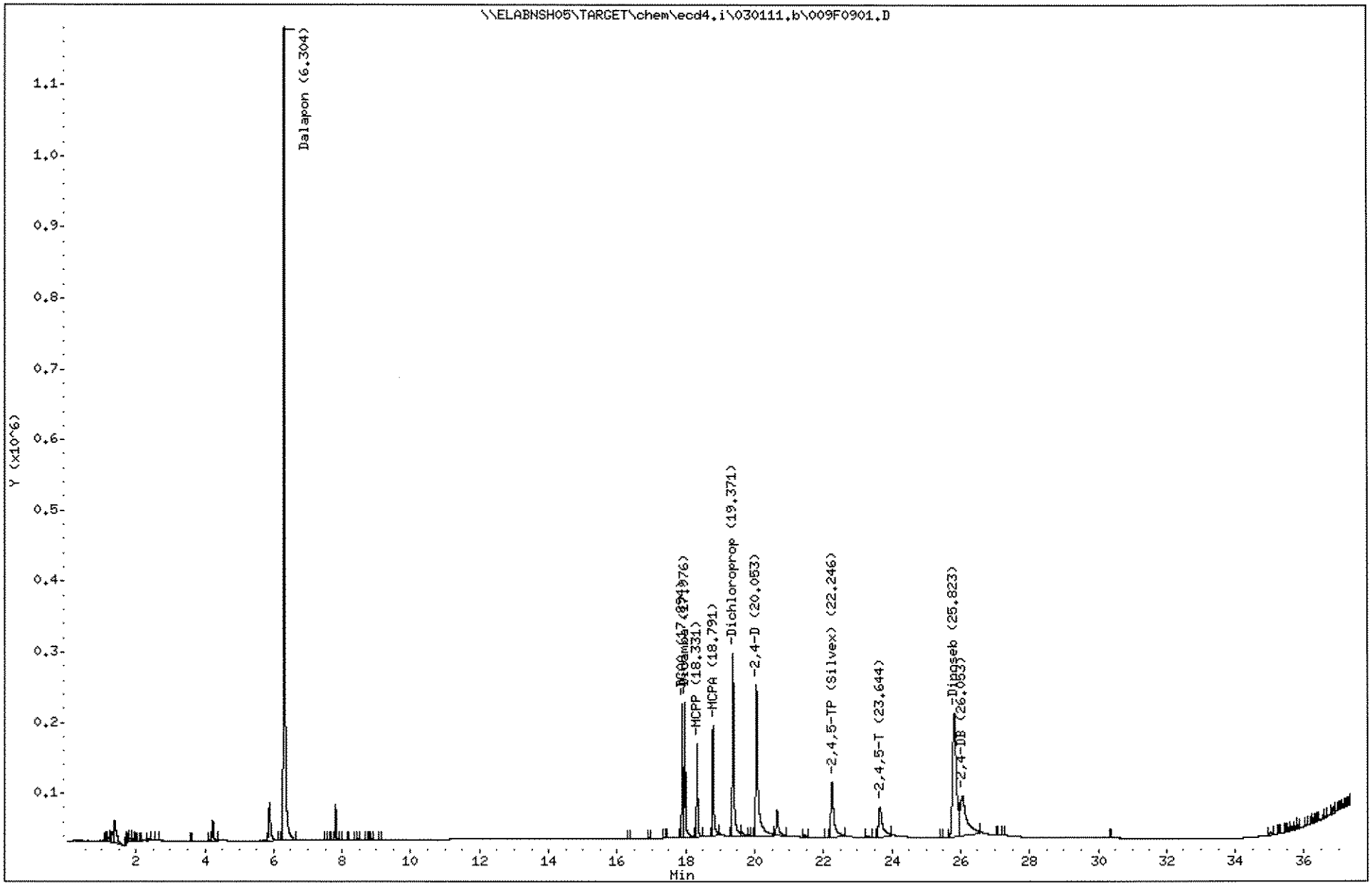
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\009F0901.D
Date : 01-MAR-2011 16:05
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd4.i
Operator: WAL
Column diameter: 0.32

Column phase: MR-1



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\002R0201.D
Lab Smp Id: SEQ-CAL1
Inj Date : 01-MAR-2011 11:00 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:11 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.437	3.442	-0.005	996936		113.800	120.7
$ 12 DCAA [2C]	15.782	15.777	0.005	147884		23.4100	27.80
6 Dicamba [2C]	15.964	15.962	0.002	113125		4.70400	4.712
10 MCPP [2C]	16.162	16.165	-0.003	269317		4695.00	4367
9 MCPA [2C]	16.609	16.612	-0.003	334864		4673.00	4157
7 Dichloroprop [2C]	17.012	17.007	0.005	289095		47.1700	57.41
1 2,4-D [2C]	17.552	17.530	0.022	326297		47.0400	54.25
3 2,4,5-TP (Silvex) [2C]	18.574	18.565	0.009	152565		4.75300	4.995
4 2,4,5-T [2C]	19.337	19.317	0.020	125624	D	4.74000	4.677
8 Dinoseb [2C]	20.204	20.197	0.007	460624	*	23.6300	25.16
2 2,4-DB [2C]	20.322	20.293	0.029	229728		47.3500	54.58

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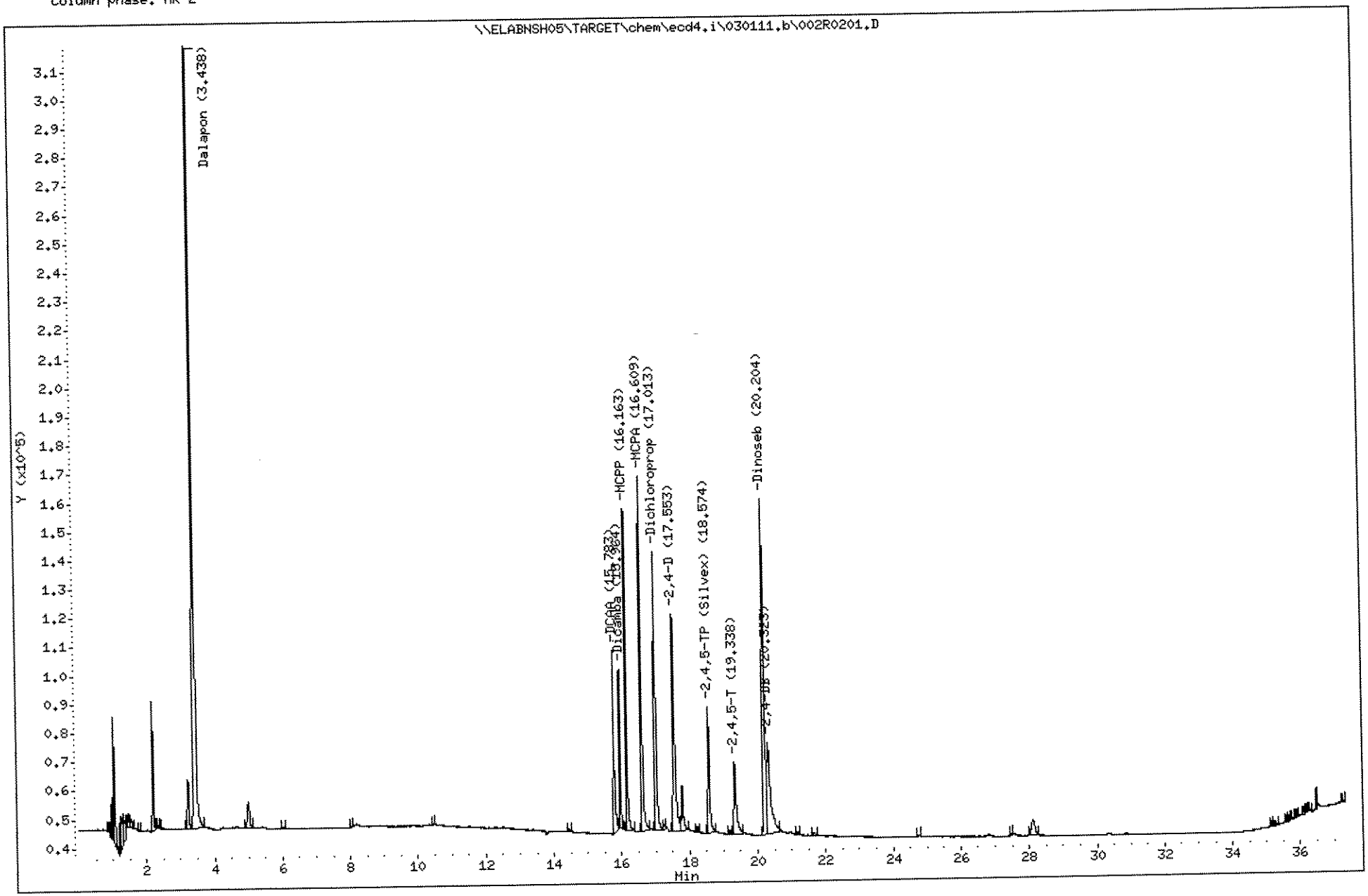
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\002R0201.D
Date : 01-MAR-2011 11:00
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\003R0301.D
Lab Smp Id: SEQ-CAL2
Inj Date : 01-MAR-2011 11:44 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:12 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.438	3.442	-0.004	1924630		227.700	233.1
$ 12 DCAA [2C]	15.781	15.777	0.004	281415		46.8200	52.91
6 Dicamba [2C]	15.963	15.962	0.001	236627	*	9.40700	9.856
10 MCPP [2C]	16.161	16.165	-0.004	430448		9390.00	9688
9 MCPA [2C]	16.606	16.612	-0.006	513530		9346.00	9573
7 Dichloroprop [2C]	17.008	17.007	0.001	500392		94.3400	99.37
1 2,4-D [2C]	17.543	17.530	0.013	587918		94.0700	97.75
3 2,4,5-TP (Silvex) [2C]	18.575	18.565	0.010	279962		9.50600	9.167
4 2,4,5-T [2C]	19.330	19.317	0.013	231827		9.47900	8.630
8 Dinoseb [2C]	20.205	20.197	0.008	816911	O	47.2600	44.62
2 2,4-DB [2C]	20.316	20.293	0.023	420058		94.7000	99.81

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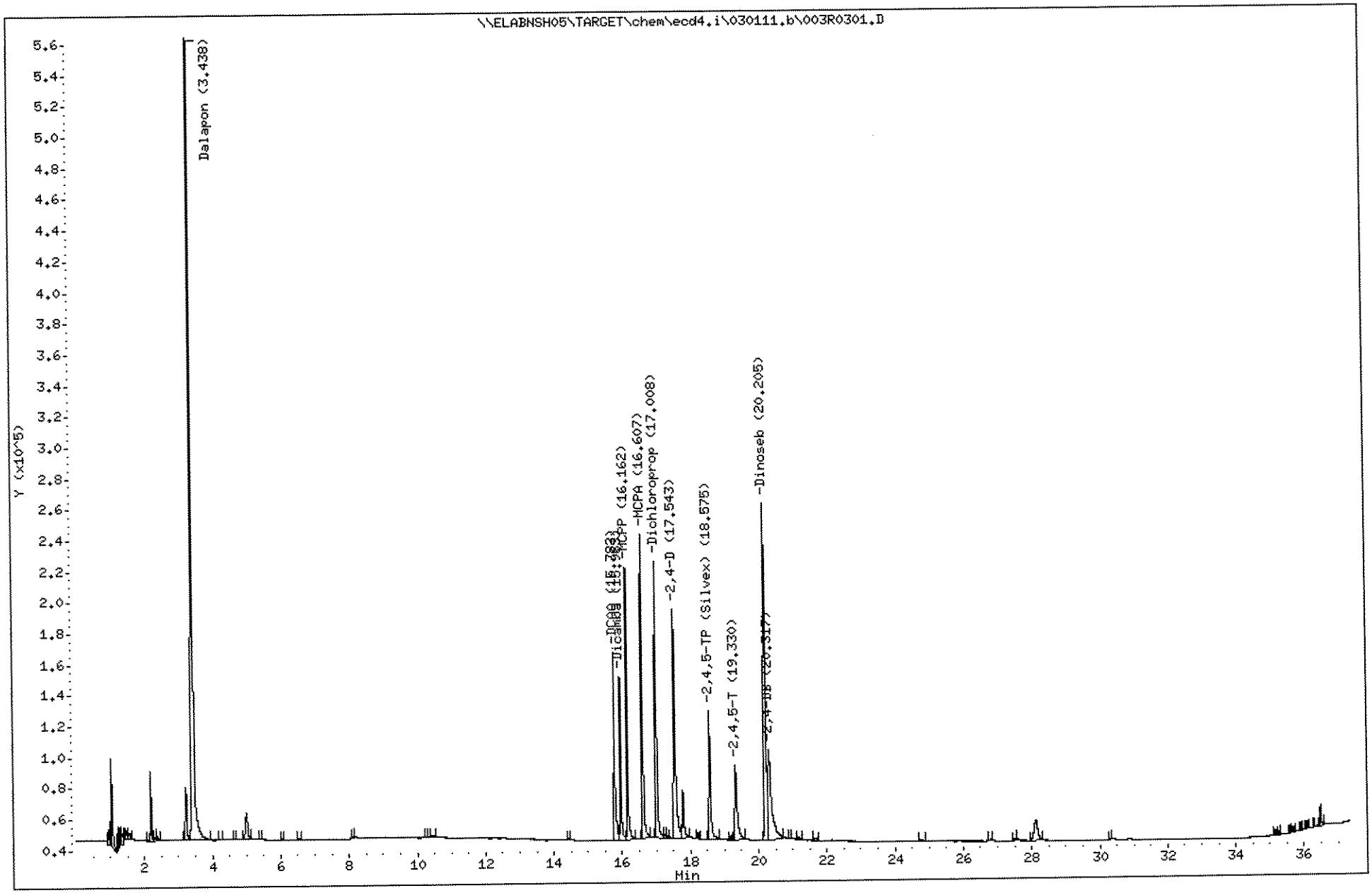
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\003R0301.D
Date : 01-MAR-2011 11:44
Client ID:
Sample Info: SEQ-CAL2

Column phase: MR-2

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\004R0401.D
Lab Smp Id: SEQ-CAL3
Inj Date : 01-MAR-2011 12:27 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:13 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.438	3.442	-0.004	3747778	*	455.400	453.9
$ 12 DCAA [2C]	15.779	15.777	0.002	488166		93.6400	91.79
6 Dicamba [2C]	15.963	15.962	0.001	456834		18.8100	19.03
10 MCPP [2C]	16.161	16.165	-0.004	679708		18780.0	18710
9 MCPA [2C]	16.606	16.612	-0.006	814196		18690.0	19130
7 Dichloroprop [2C]	17.006	17.007	-0.001	957282		188.700	190.1
1 2,4-D [2C]	17.538	17.530	0.008	1161312		188.100	193.1
3 2,4,5-TP (Silvex) [2C]	18.569	18.565	0.004	573467		19.0100	18.78
4 2,4,5-T [2C]	19.326	19.317	0.009	513843		18.9600	19.13
8 Dinoseb [2C]	20.201	20.197	0.004	1701001		94.5200	92.92
2 2,4-DB [2C]	20.308	20.293	0.015	717184	O	189.400	170.4

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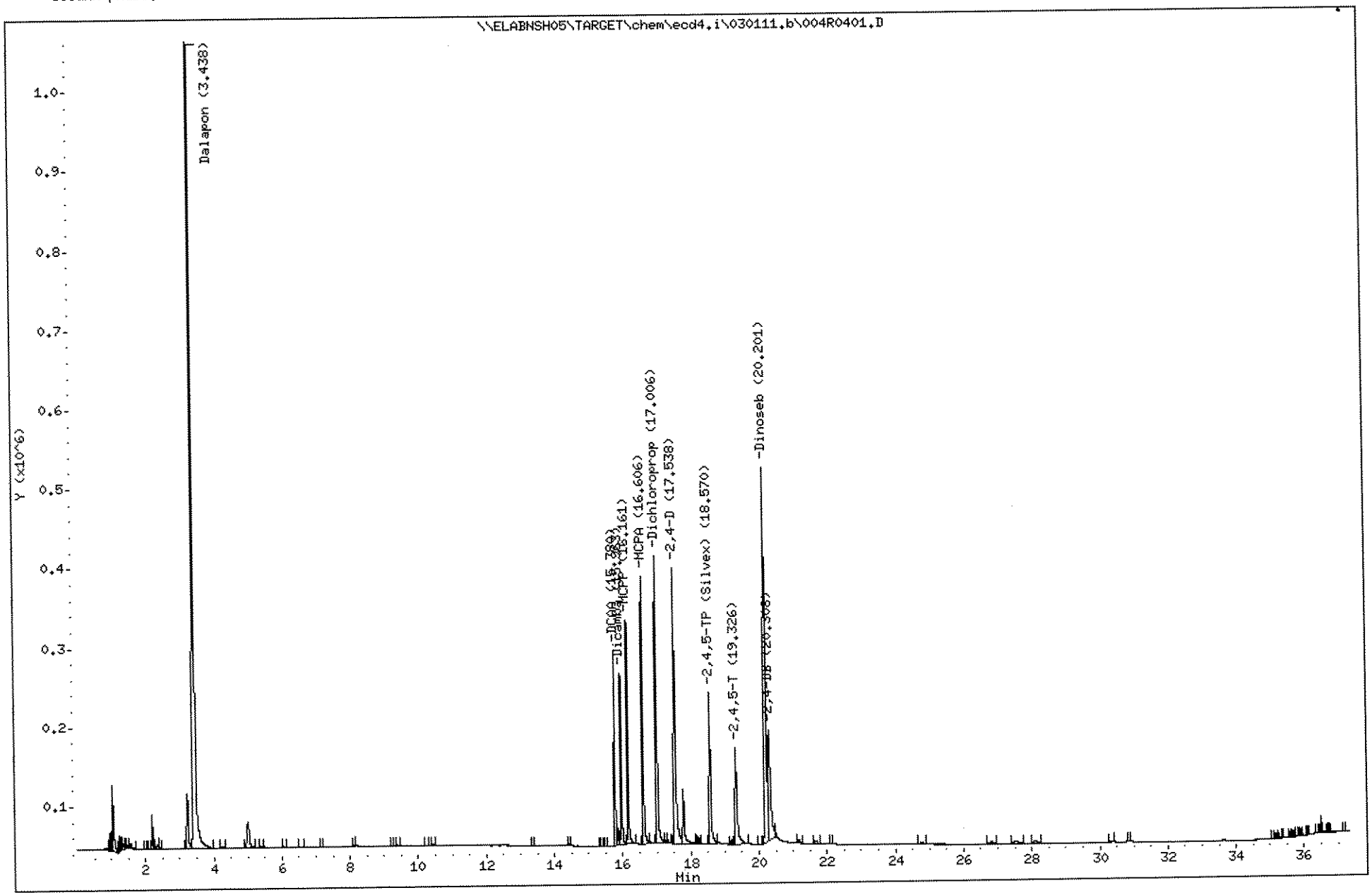
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\004R0401.D
Date : 01-MAR-2011 12:27
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\005R0501.D
Lab Smp Id: SEQ-CAL4
Inj Date : 01-MAR-2011 13:11 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:13 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.428	3.442	-0.014	4789950		569.200	580.1
$ 12 DCAA [2C]	15.780	15.777	0.003	615418		117.000	115.7
6 Dicamba [2C]	15.963	15.962	0.001	597943		23.5200	24.91
10 MCPP [2C]	16.163	16.165	-0.002	820843		23480.0	24240
9 MCPA [2C]	16.608	16.612	-0.004	976800		23360.0	24530
7 Dichloroprop [2C]	17.006	17.007	-0.001	1200886		235.800	238.5
1 2,4-D [2C]	17.536	17.530	0.006	1456161		235.200	242.1
3 2,4,5-TP (Silvex) [2C]	18.570	18.565	0.005	742108		23.7600	24.30
4 2,4,5-T [2C]	19.323	19.317	0.006	662024	*	23.7000	24.65
8 Dinoseb [2C]	20.200	20.197	0.003	2220679		118.200	121.3
2 2,4-DB [2C]	20.301	20.293	0.008	1128441		236.800	268.1

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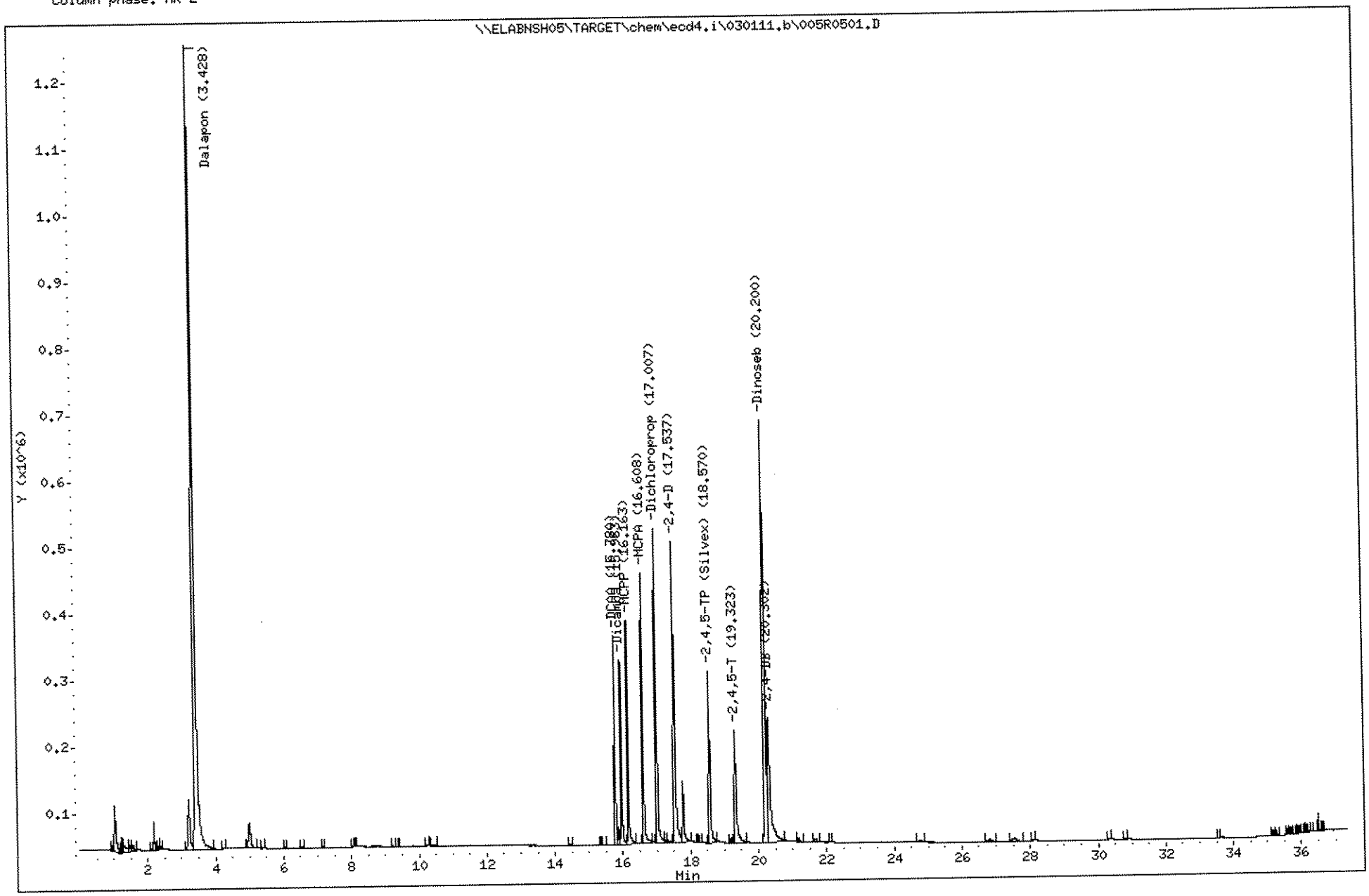
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\005R0501.D
Date : 01-MAR-2011 13:11
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\006R0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 01-MAR-2011 13:54 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:14 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000 Compound Sublist: herbd.sub
Integrator: Falcon
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.437	3.442	-0.005	7281814	910.800	881.8
$ 12 DCAA [2C]	15.777	15.777	0.000	907020	187.300	170.5
6 Dicamba [2C]	15.961	15.962	-0.001	882109	0 37.6300	36.74
10 MCPP [2C]	16.164	16.165	-0.001	1108937	37560.0	36480
9 MCPA [2C]	16.609	16.612	-0.003	1288873	37380.0	35350
7 Dichloroprop [2C]	17.004	17.007	-0.003	1741568	377.400	345.8
1 2,4-D [2C]	17.532	17.530	0.002	2066056	376.300	343.5
3 2,4,5-TP (Silvex) [2C]	18.567	18.565	0.002	1132659	* 38.0200	37.09
4 2,4,5-T [2C]	19.319	19.317	0.002	1003557	37.9200	37.36
8 Dinoseb [2C]	20.197	20.197	0.000	3378334	189.000	184.5
2 2,4-DB [2C]	20.297	20.293	0.004	1450888	378.800	344.7

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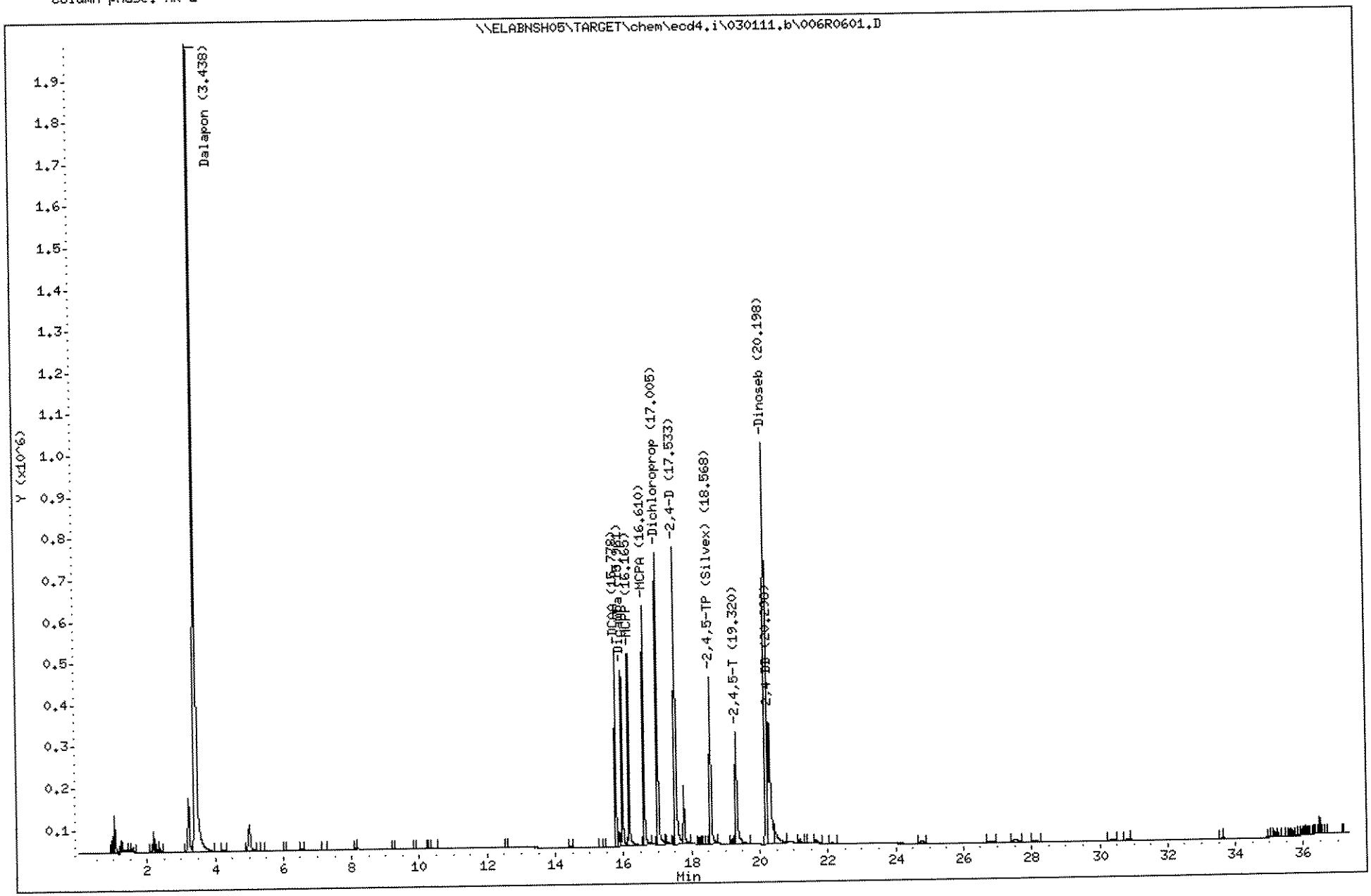
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\006R0601.D
Date : 01-MAR-2011 13:54
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\007R0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 01-MAR-2011 14:38 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:15 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
5 Dalapon [2C]	3.442	3.442	0.000	9394175		1138.00	1138
$ 12 DCAA [2C]	15.777	15.777	0.000	1182156		234.100	222.3
6 Dicamba [2C]	15.962	15.962	0.000	1128384		47.0400	47.00
10 MCPP [2C]	16.165	16.165	0.000	1342568	O	46950.0	47350
9 MCPA [2C]	16.612	16.612	0.000	1618396		46730.0	47420
7 Dichloroprop [2C]	17.007	17.007	0.000	2236847		471.700	444.2
1 2,4-D [2C]	17.530	17.530	0.000	2758473		470.400	458.7
3 2,4,5-TP (Silvex) [2C]	18.565	18.565	0.000	1520392		47.5300	49.78
4 2,4,5-T [2C]	19.317	19.317	0.000	1374615		47.4000	51.17
8 Dinoseb [2C]	20.197	20.197	0.000	4539354		236.300	248.0
2 2,4-DB [2C]	20.293	20.293	0.000	1956919	*	473.500	465.0

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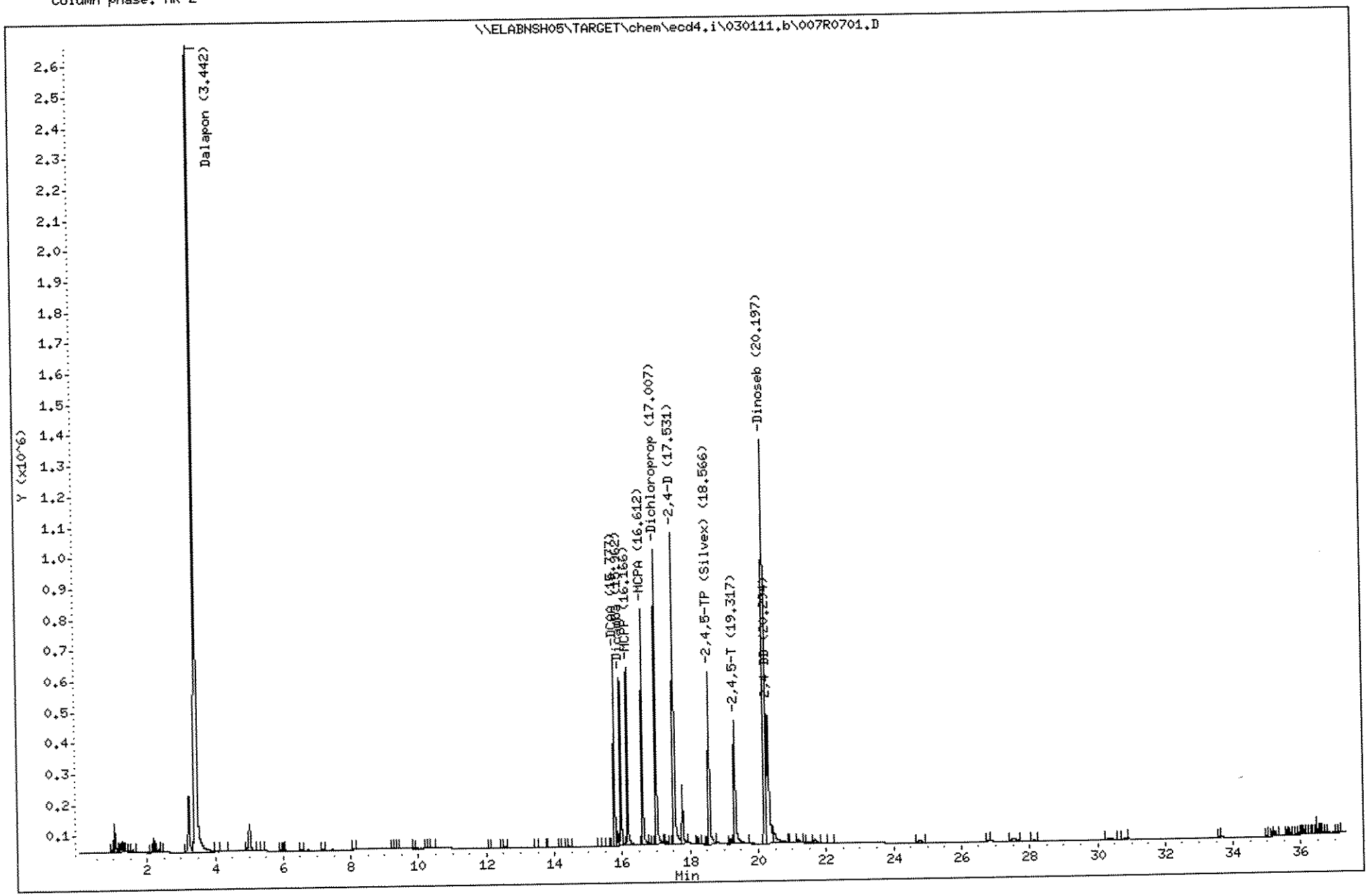
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\007R0701.D
Date : 01-MAR-2011 14:38
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\008R0801.D
Lab Smp Id: SEQ-CAL7
Inj Date : 01-MAR-2011 15:22 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:15 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.441	3.442	-0.001	17518929		2277.00	2122
$ 12 DCAA [2C]	15.778	15.777	0.001	2123755		468.200	399.3
6 Dicamba [2C]	15.961	15.962	-0.001	2042395		94.0700	85.07
10 MCPP [2C]	16.173	16.165	0.008	2191441		93900.0	93920
9 MCPA [2C]	16.618	16.612	0.006	2739679	d	93460.0	93480
7 Dichloroprop [2C]	17.004	17.007	-0.003	4050761		943.400	804.4
1 2,4-D [2C]	17.528	17.530	-0.002	4885429	*	940.700	812.3
3 2,4,5-TP (Silvex) [2C]	18.563	18.565	-0.002	2762265		95.0600	90.44
4 2,4,5-T [2C]	19.313	19.317	-0.004	2518408		94.7900	93.76
8 Dinoseb [2C]	20.196	20.197	-0.001	8269090		472.600	451.7
2 2,4-DB [2C]	20.289	20.293	-0.004	3464421		947.000	823.2

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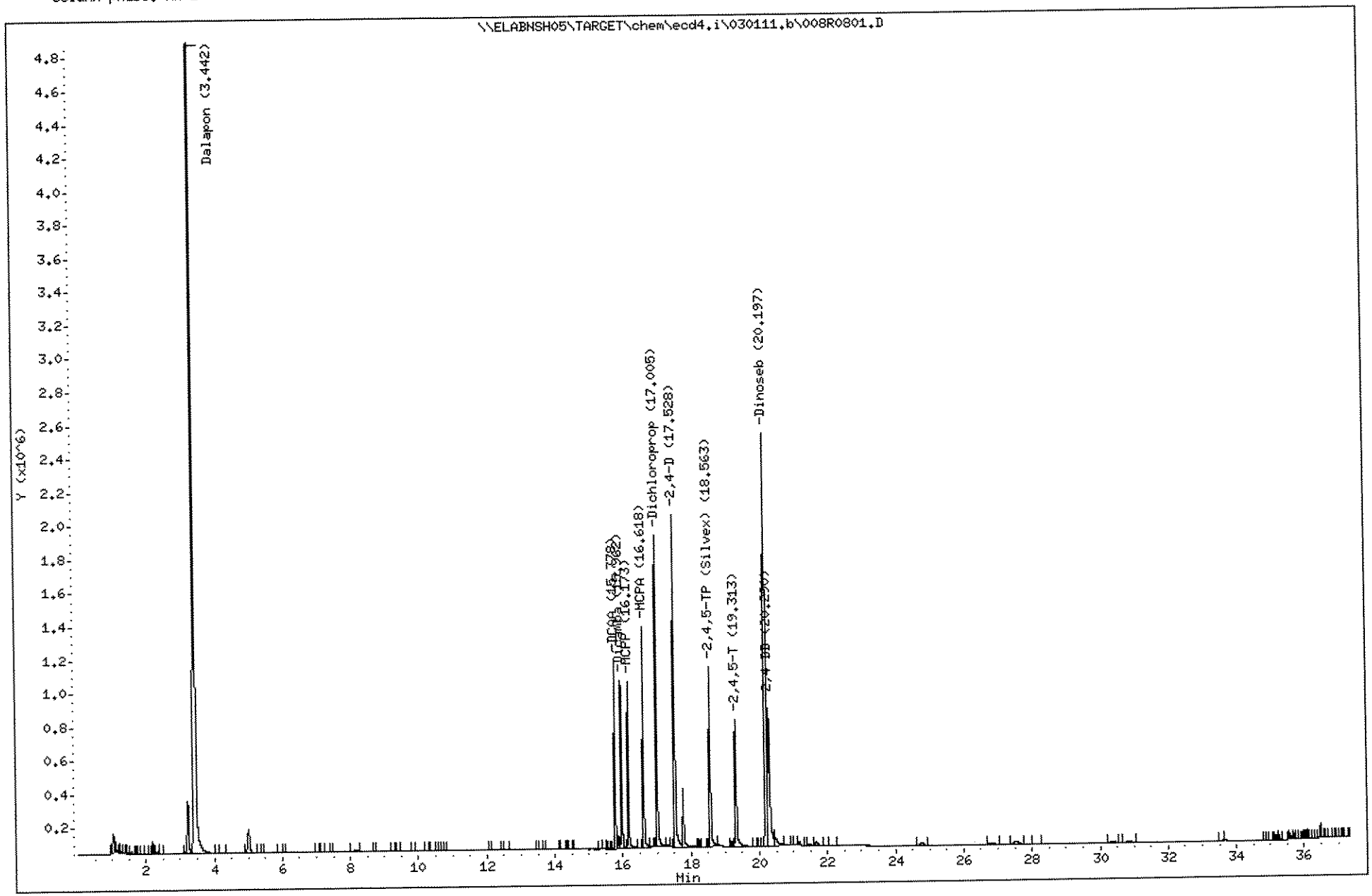
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\008R0801.D
Date : 01-MAR-2011 15:22
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\009R0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 01-MAR-2011 16:05 Inst ID: ecd4.i
Operator : WAL
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 17:27 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.435	3.442	-0.007	3852366	455.400	466.5
$ 12 DCAA [2C]	15.779	15.777	0.002	510335	* 93.6400	95.96
6 Dicamba [2C]	15.962	15.962	0.000	473184	18.8100	19.71
10 MCPP [2C]	16.162	16.165	-0.003	708088	18780.0	19800
9 MCPA [2C]	16.607	16.612	-0.005	830605	18690.0	19670
7 Dichloroprop [2C]	17.007	17.007	0.000	983494	188.700	195.3
1 2,4-D [2C]	17.537	17.530	0.007	1198052	188.100	199.2
3 2,4,5-TP (Silvex) [2C]	18.569	18.565	0.004	607677	19.0100	19.90
4 2,4,5-T [2C]	19.322	19.317	0.005	540917	18.9600	20.14
8 Dinoseb [2C]	20.202	20.197	0.005	1823402	94.5200	99.60
2 2,4-DB [2C]	20.307	20.293	0.014	954590	189.400	226.8

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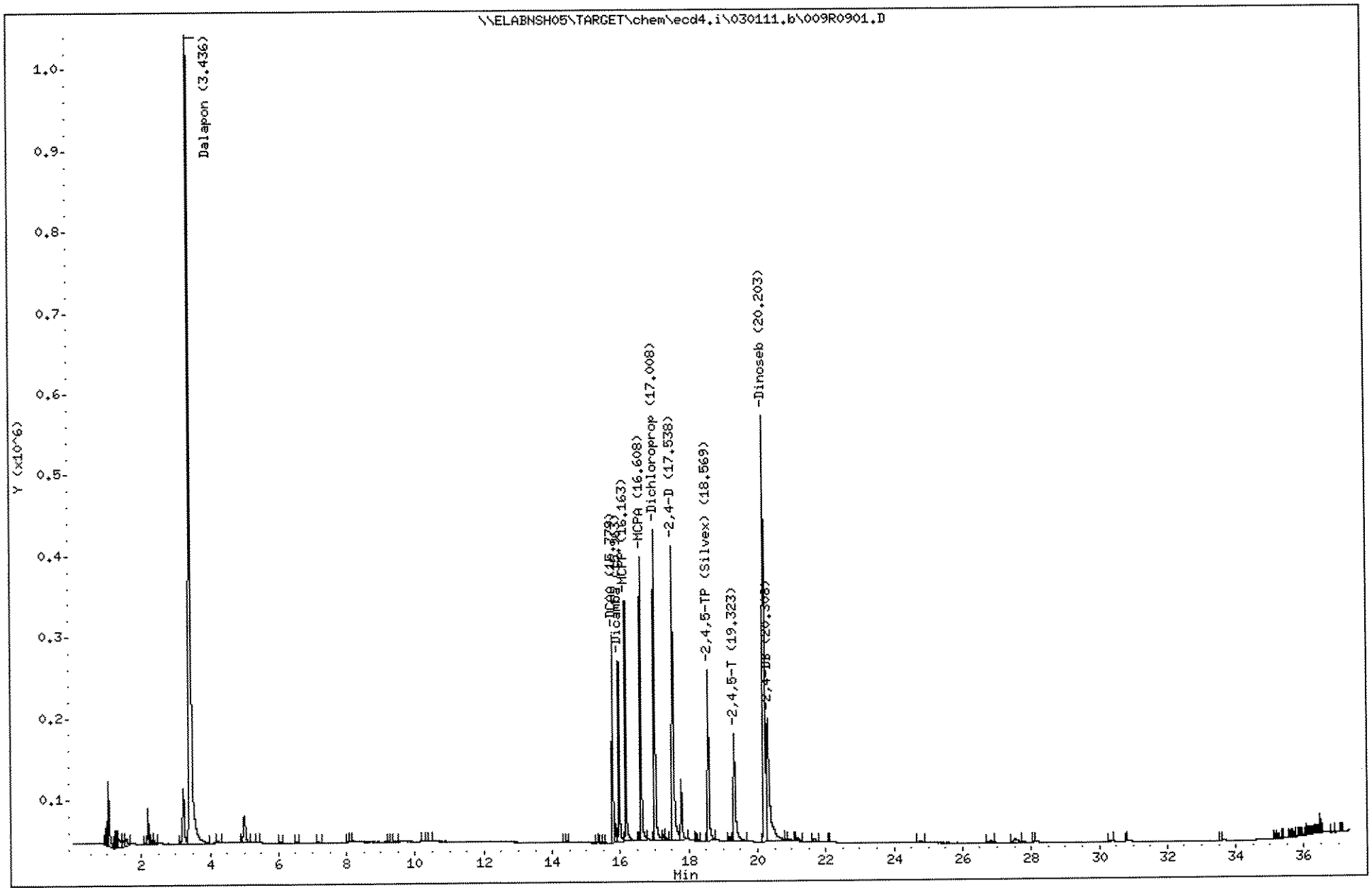
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\009R0901.D
Date : 01-MAR-2011 16:05
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



Sequence: C:\HPCHEM\ECD4\SEQUENCE\030111.S | 8151 Herbs

P: 329

Sequence Table (Front | Back Injector):

Seq 1C0610L

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Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	PRIMER	8151	1	Sample		
2	Vial 2	SEQ-CAL1 10K0129	8151	1	Sample		
3	Vial 3	SEQ-CAL2 10K0128	8151	1	Sample		
4	Vial 4	SEQ-CAL3 10K0127	8151	1	Sample		
5	Vial 5	SEQ-CAL4 10K0126	8151	1	Sample		
6	Vial 6	SEQ-CAL5 10K0125	8151	1	Sample		
7	Vial 7	SEQ-CAL6 10K0124	8151	1	Sample		
8	Vial 8	SEQ-CAL7 10K0123	8151	1	Sample		
9	Vial 9	SEQ-ICV1 11A0219	8151	1	Sample		
10	Vial 10	SEQ-CCV1 10K0122	8151	1	Sample		
11	Vial 11	1B25011-BLK1	8151	1	Sample		
12	Vial 12	1B25011-BS1	8151	1	Sample		
13	Vial 13	1B25011-BSD1	8151	1	Sample		
14	Vial 14	1102180-01	8151	1	Sample		
15	Vial 15	1B25011-MRL1	8151	1	Sample		
16	Vial 16	1B25011-MRL2	8151	1	Sample		
17	Vial 17	1B25010-BLK1	8151	1	Sample		
18	Vial 18	1B25010-BS1	8151	1	Sample		
19	Vial 19	1102207-01	8151	1	Sample		
20	Vial 20	1102215-01	8151	1	Sample		
21	Vial 21	1B25010-MS1	8151	1	Sample		
22	Vial 22	1B25010-MSD1	8151	1	Sample		
23	Vial 23	1102215-02	8151	1	Sample		
24	Vial 24	SEQ-CCV2 10K0127	8151	1	Sample		

Heb curve

1B25011, 1X

Soil 1T+Q LOD/LOQ

1B25010, 1X, TCLP only

Sequence Table (Back Injector):

~~No entries - empty table~~!

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\010F1001.D
Lab Smp Id: SEQ-CCV1
Inj Date : 01-MAR-2011 16:49
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 18:49 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon	6.301	6.308	-0.007	3319170	455.400	453.4
$ 12 DCAA	17.894	17.893	0.001	415160	93.6400	97.57
6 Dicamba	17.976	17.975	0.001	464854	D 18.8100	19.28
10 MCPP	18.331	18.333	-0.002	312353	18780.0	20100
9 MCPA	18.789	18.793	-0.004	477589	18690.0	19350
7 Dichloroprop	19.371	19.372	-0.001	848330	188.700	192.4
1 2,4-D	20.053	20.048	0.005	197031	188.100	183.0
3 2,4,5-TP (Silvex)	22.248	22.243	0.005	485006	19.0100	19.48
4 2,4,5-T	23.648	23.647	0.001	363640	18.9600	19.12
8 Dinoseb	25.816	25.818	-0.002	1282442	94.5200	92.88
2 2,4-DB	26.056	26.047	0.009	671180 *	189.400	172.8

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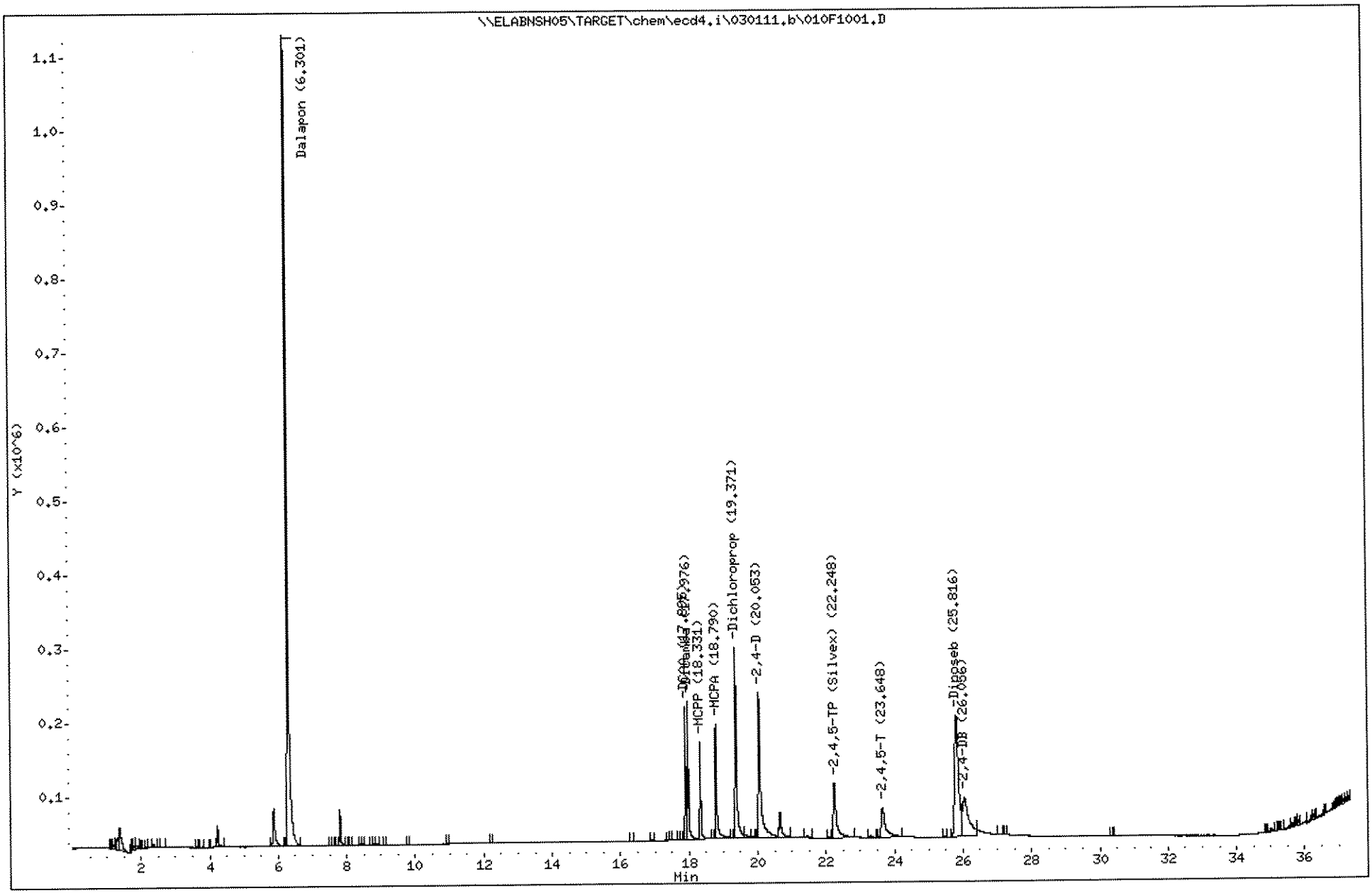
WL
3/1/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\010F1001.D
Date : 01-MAR-2011 16:49
Client ID:
Sample Info: SEQ-CCV1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\010R1001.D
Lab Smp Id: SEQ-CCV1
Inj Date : 01-MAR-2011 16:49
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 01-Mar-2011 18:50 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.431	3.442	-0.011	3875345	455.400	469.3
$ 12 DCAA [2C]	15.779	15.777	0.002	495687	93.6400	93.20
6 Dicamba [2C]	15.963	15.962	0.001	482838	18.8100	20.11
10 MCPP [2C]	16.163	16.165	-0.002	724336	18780.0	20420
9 MCPA [2C]	16.608	16.612	-0.004	813235	18690.0	19100
7 Dichloroprop [2C]	17.006	17.007	-0.001	945549	188.700	187.8
1 2,4-D [2C]	17.538	17.530	0.008	1125187	188.100	187.1
3 2,4,5-TP (Silvex) [2C]	18.571	18.565	0.006	581836	19.0100	19.05
4 2,4,5-T [2C]	19.324	19.317	0.007	498933	18.9600	18.57
8 Dinoseb [2C]	20.203	20.197	0.006	1736106	D 94.5200	94.84
2 2,4-DB [2C]	20.306	20.293	0.013	859732	* 189.400	204.3

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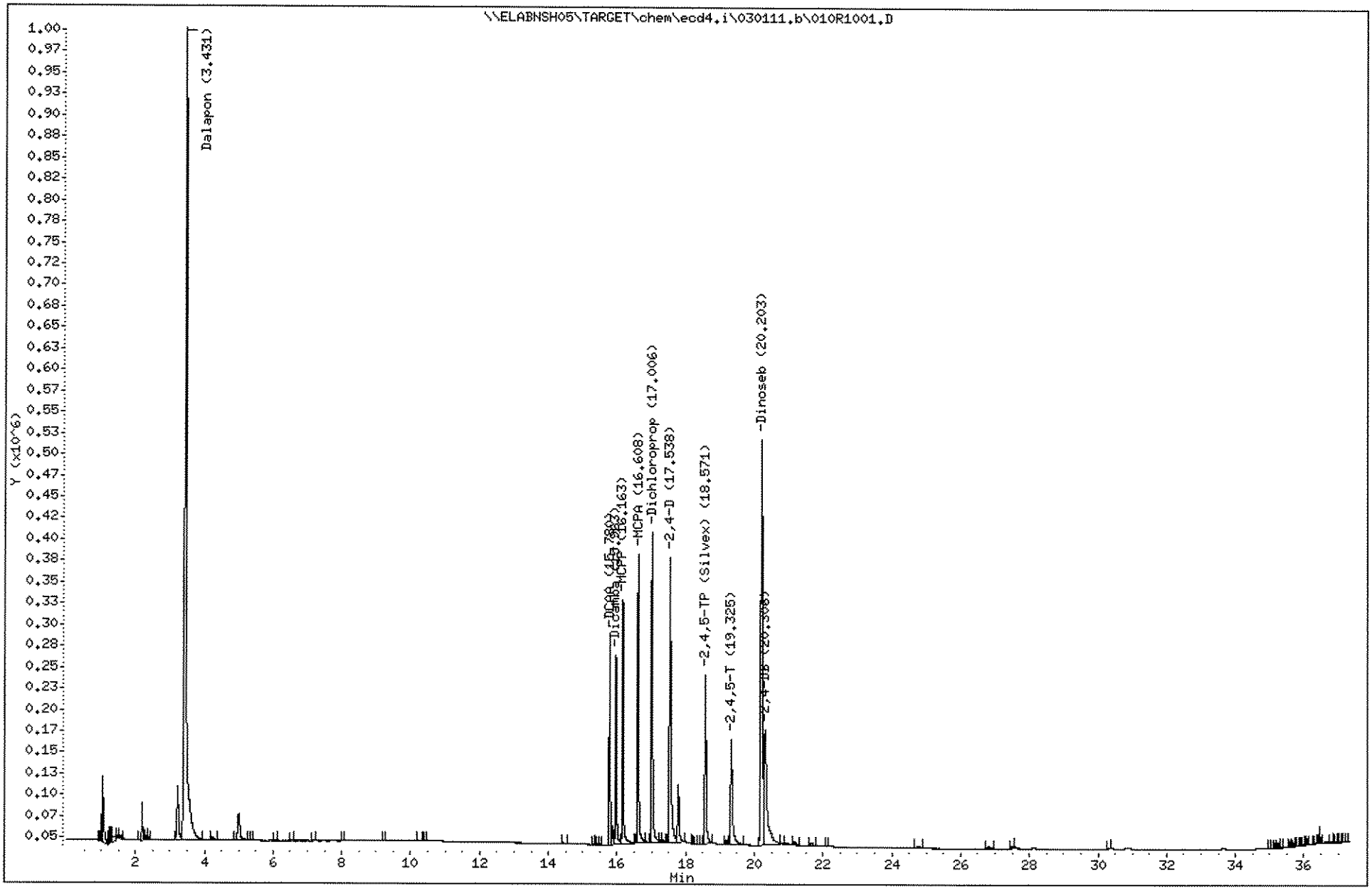
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\010R1001.D
Date : 01-MAR-2011 16:49
Client ID:
Sample Info: SEQ-CCV1

Instrument: ecd4.i
Operator: WAL
Column diameter: 0.32

Column phase: MR-2



820
1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\011F1101.D
Lab Smp Id: 1B25011-BLK1
Inj Date : 01-MAR-2011 17:32
Operator : WAL Inst ID: ecd4.i
Smp Info : 1B25011-BLK1
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 01-Mar-2011 18:49 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
$ 12 DCAA	17.899	17.893	0.006	410030	96.3639	96.36(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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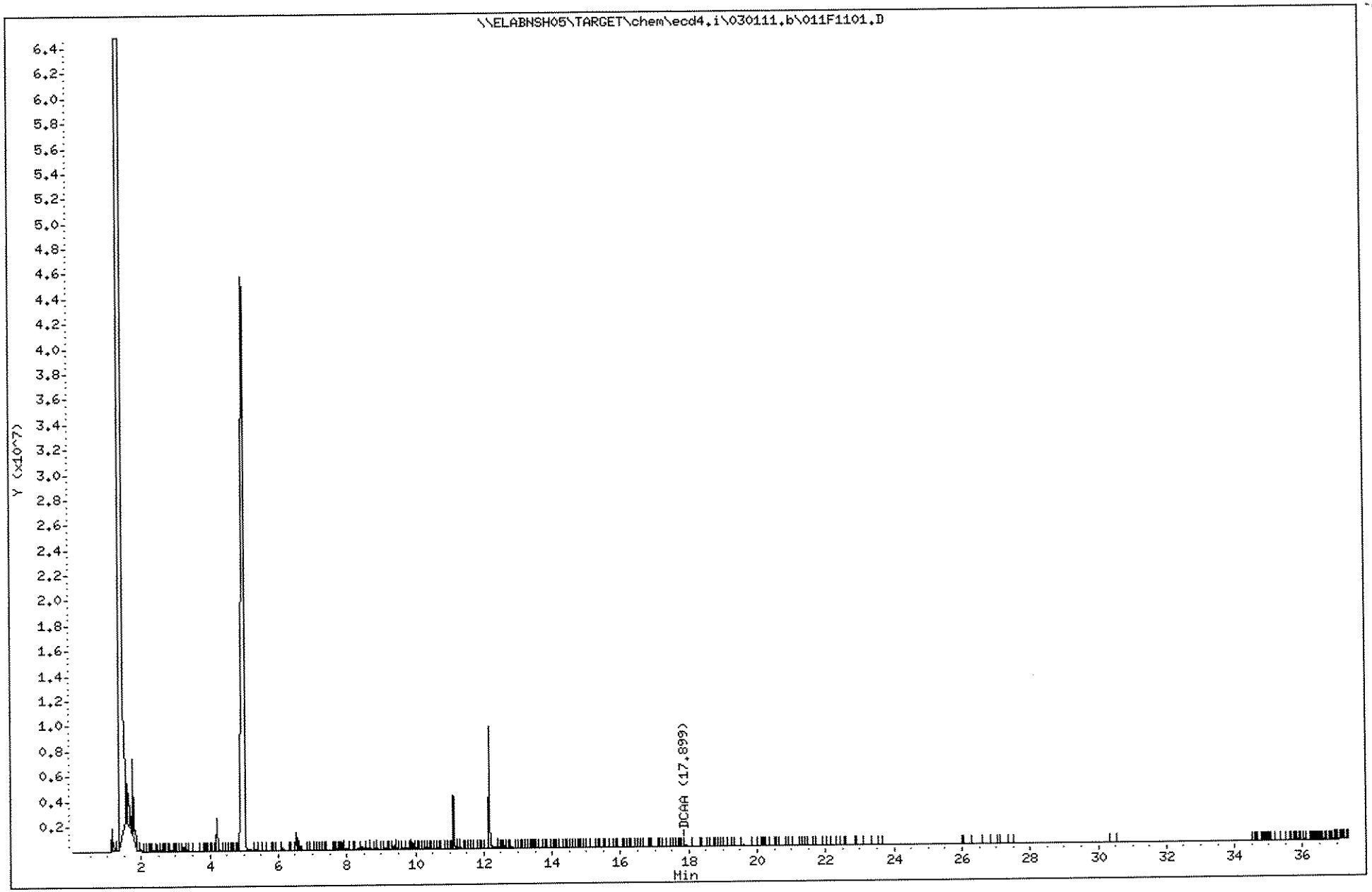
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\011F1101.D
Date : 01-MAR-2011 17:32
Client ID:
Sample Info: 1B25011-BLK1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



822
1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\011R1101.D
Lab Smp Id: 1B25011-BLK1
Inj Date : 01-MAR-2011 17:32
Operator : WAL Inst ID: ecd4.i
Smp Info : 1B25011-BLK1
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
$ 12 DCAA [2C]	15.792	15.777	0.015	455517	85.6481	85.65(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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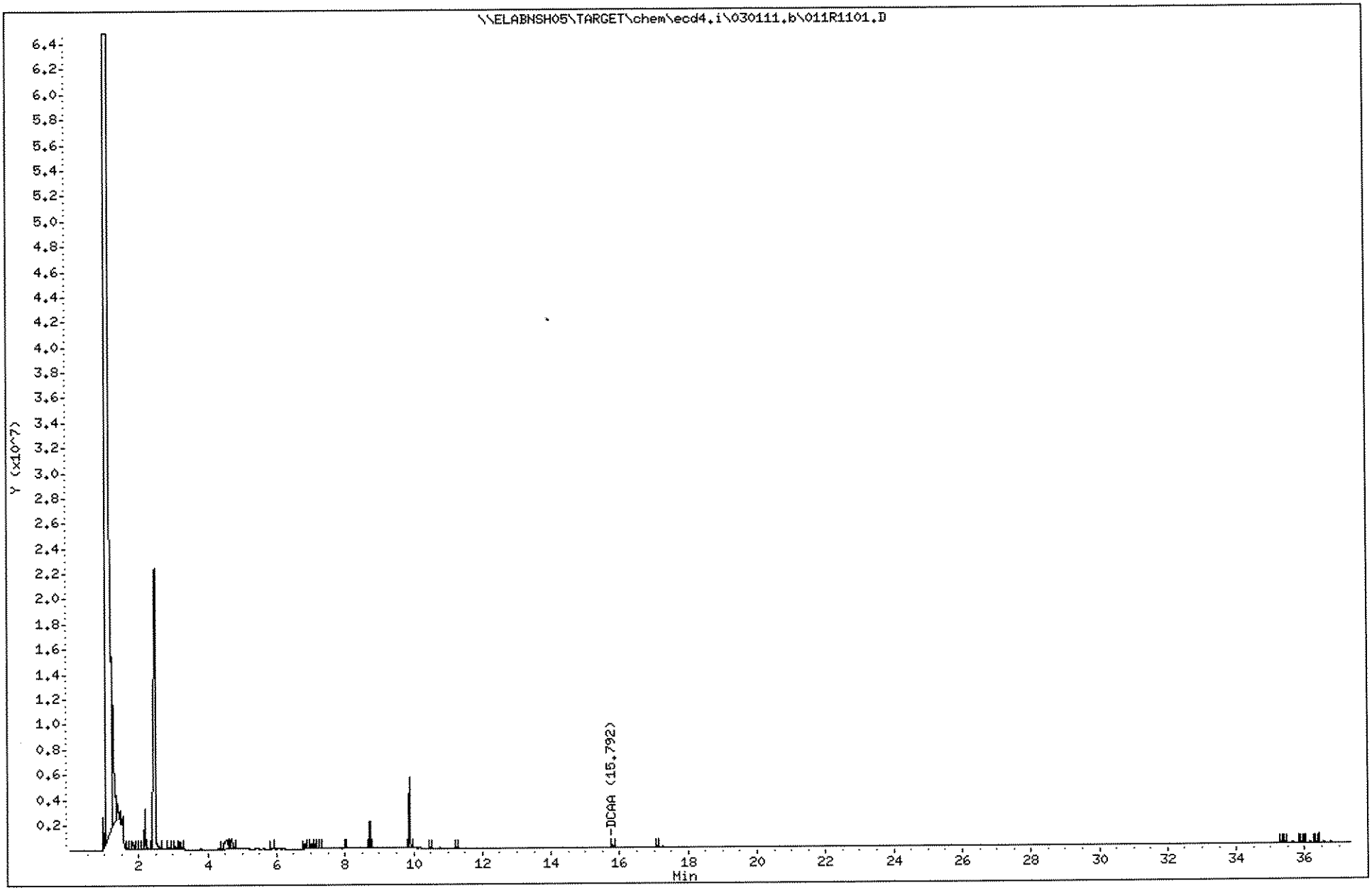
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\011R1101.D
Date : 01-MAR-2011 17:32
Client ID:
Sample Info: 1B25011-BLK1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\012F1201.D
Lab Smp Id: 1B25011-BS1
Inj Date : 01-MAR-2011 18:16
Operator : WAL Inst ID: ecd4.i
Smp Info : 1B25011-BS1
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
	5 Dalapon	6.302	6.308	-0.006	870795	118.957	119.0
$	12 DCAA	17.895	17.893	0.002	417416	98.0997	98.10(R)
	6 Dicamba	17.975	17.975	0.000	369367	15.3222	15.32
	10 MCPP	18.330	18.333	-0.003	269627	17350.0	17350
	9 MCPA	18.790	18.793	-0.003	444877	18028.2	18030
	7 Dichloroprop	19.372	19.372	0.000	1043967	236.735	236.7
	1 2,4-D	20.052	20.048	0.004	239057	222.068	222.1
	3 2,4,5-TP (Silvex)	22.238	22.243	-0.005	408671	16.4118	16.41
	4 2,4,5-T	23.643	23.647	-0.004	378387	19.8933	19.89
	8 Dinoseb	25.820	25.818	0.002	390555	28.2859	28.28
	2 2,4-DB	26.042	26.047	-0.005	497436	128.054	128.0

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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Dalapon: $\frac{870795}{7320.27538} = 118.967$

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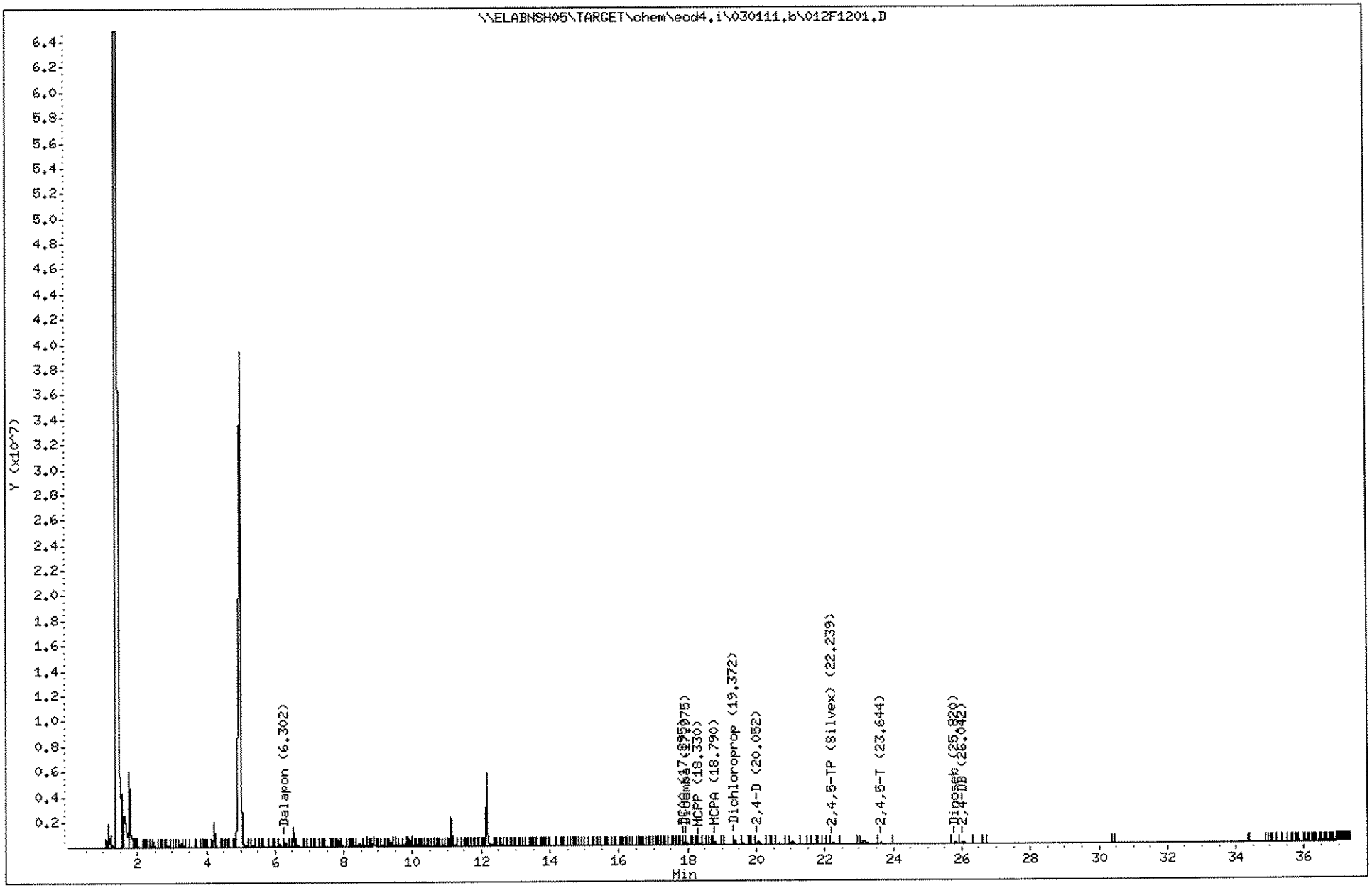
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\012F1201.D
Date : 01-MAR-2011 18:16
Client ID:
Sample Info: 1B25011-BS1

Column phase: MR-1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\012R1201.D
Lab Smp Id: 1B25011-BS1
Inj Date : 01-MAR-2011 18:16
Operator : WAL Inst ID: ecd4.i
Smp Info : 1B25011-BS1
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
5 Dalapon [2C]	3.432	3.442	-0.010	1071357	129.746	129.7
$ 12 DCAA [2C]	15.777	15.777	0.000	456966	85.9205	85.92(R)
6 Dicamba [2C]	15.962	15.962	0.000	365882	15.2402	15.24
10 MCPP [2C]	16.162	16.165	-0.003	633344	16957.4	16960
9 MCPA [2C]	16.608	16.612	-0.004	781765	18073.0	18070
7 Dichloroprop [2C]	17.005	17.007	-0.002	1056726	209.850	209.8
1 2,4-D [2C]	17.528	17.530	-0.002	1091593	181.503	181.5
3 2,4,5-TP (Silvex) [2C]	18.558	18.565	-0.007	581840	19.0511	19.05
4 2,4,5-T [2C]	19.312	19.317	-0.005	672610	25.0402	25.04
8 Dinoseb [2C]	20.197	20.197	0.000	474305	25.9094	25.91
2 2,4-DB [2C]	20.293	20.293	0.000	725923	172.482	172.5

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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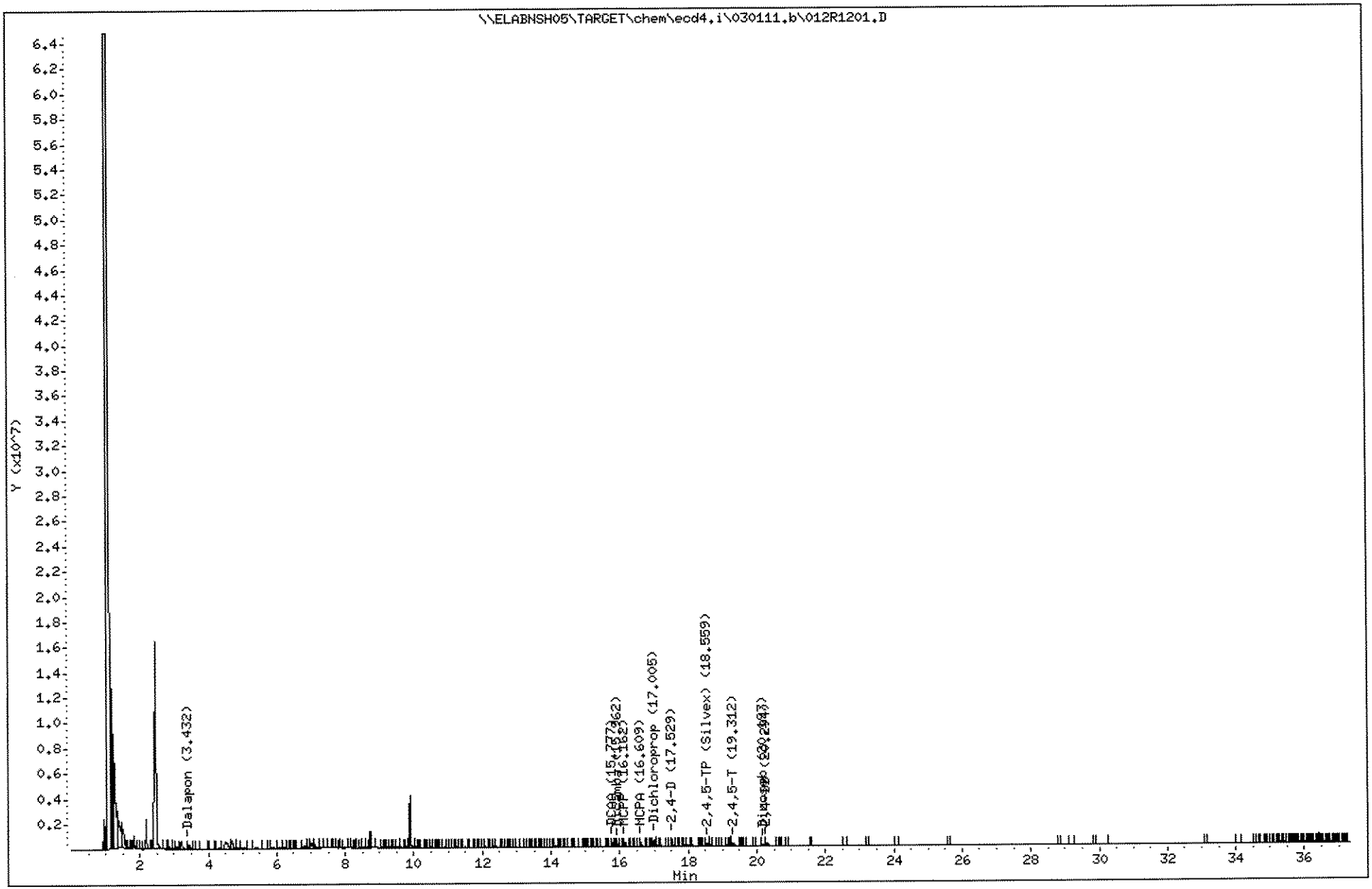
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\012R1201.D
Date : 01-MAR-2011 18:16
Client ID:
Sample Info: 1B25011-BS1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



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1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\013F1301.D
Lab Smp Id: 1B25011-BSD1
Inj Date : 01-MAR-2011 19:00
Operator : WAL Inst ID: ecd4.i
Smp Info : 1B25011-BSD1
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 02-Mar-2011 10:43 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	5 Dalapon	6.296	6.308	-0.012	996693	136.155	136.2
$	12 DCAA	17.894	17.893	0.001	405056	95.1949	95.19(R)
	6 Dicamba	17.976	17.975	0.001	384034	15.9306	15.93
	10 MCPP	18.331	18.333	-0.002	289041	18599.2	18600
	9 MCPA	18.791	18.793	-0.002	457705	18548.1	18550
	7 Dichloroprop	19.372	19.372	0.000	1044047	236.753	236.8
	1 2,4-D	20.051	20.048	0.003	222083	206.301	206.3
	3 2,4,5-TP (Silvex)	22.242	22.243	-0.001	428120	17.1928	17.19
	4 2,4,5-T	23.646	23.647	-0.001	398453	20.9482	20.95
	8 Dinoseb	25.819	25.818	0.001	315490	22.8493	22.85
	2 2,4-DB	26.047	26.047	0.000	470751	121.184	121.2

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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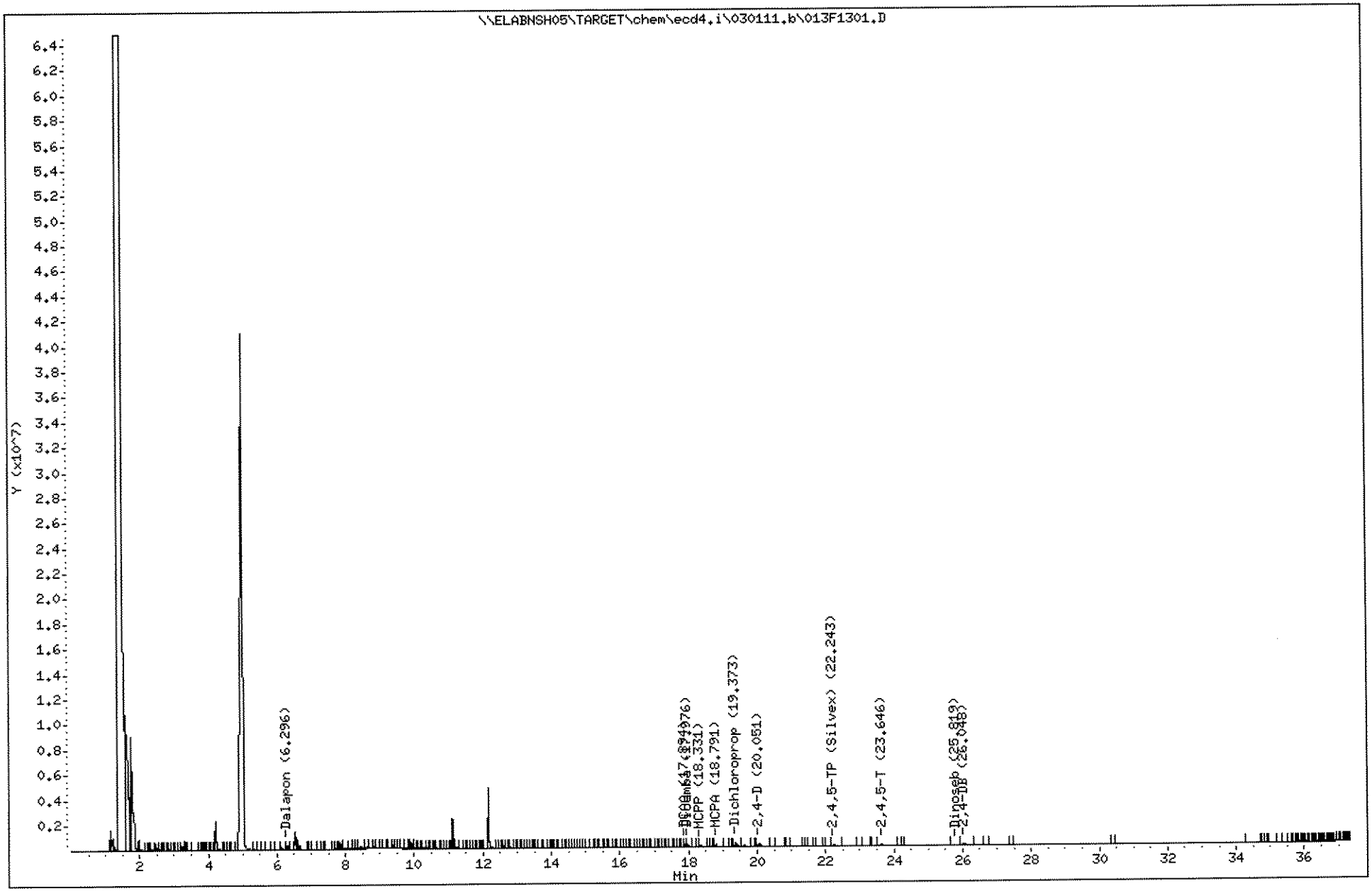
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\013F1301.D
Date : 01-MAR-2011 19:00
Client ID:
Sample Info: 1B25011-BSD1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



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1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\013R1301.D
Lab Smp Id: 1B25011-BSD1
Inj Date : 01-MAR-2011 19:00
Operator : WAL Inst ID: ecd4.i
Smp Info : 1B25011-BSD1
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 02-Mar-2011 10:43 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
5 Dalapon [2C]	3.422	3.442	-0.020	1034718	125.308	125.3
$ 12 DCAA [2C]	15.777	15.777	0.000	472407	88.8238	88.82(R)
6 Dicamba [2C]	15.962	15.962	0.000	371383	15.4694	15.47
10 MCPP [2C]	16.161	16.165	-0.004	652659	17682.5	17680
9 MCPA [2C]	16.607	16.612	-0.005	777269	17926.9	17930
7 Dichloroprop [2C]	17.006	17.007	-0.001	1052050	208.922	208.9
1 2,4-D [2C]	17.531	17.530	0.001	1083776	180.203	180.2
3 2,4,5-TP (Silvex) [2C]	18.561	18.565	-0.004	638573	20.9087	20.91
4 2,4,5-T [2C]	19.314	19.317	-0.003	505687	18.8259	18.82
8 Dinoseb [2C]	20.197	20.197	0.000	391388	21.3799	21.38
2 2,4-DB [2C]	20.289	20.293	-0.004	726080	172.520	172.5

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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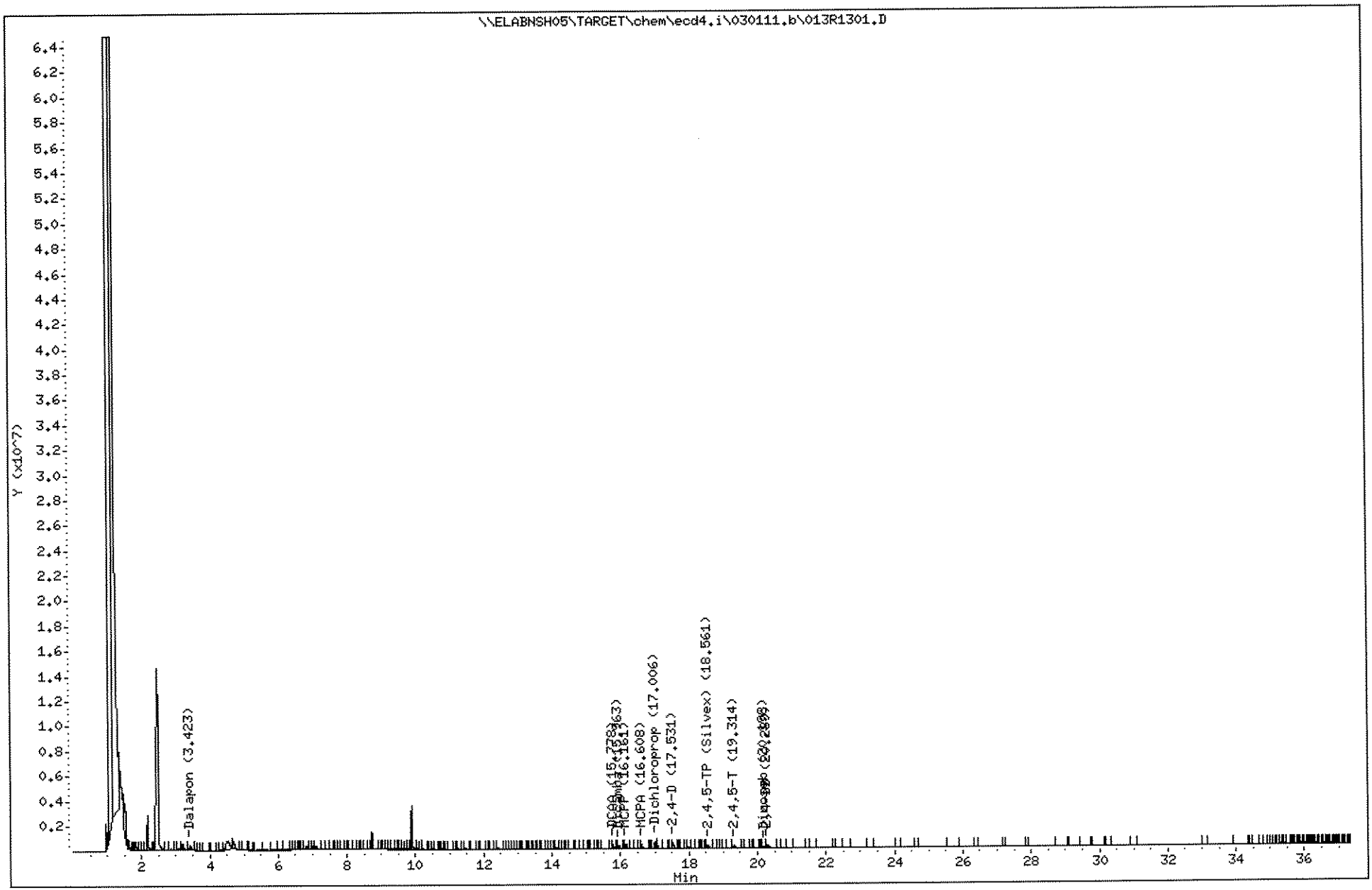
Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\013R1301.D
Date : 01-MAR-2011 19:00
Client ID:
Sample Info: 1B25011-BSD1

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-2



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\014F1401.D
Lab Smp Id: 1102180-01
Inj Date : 01-MAR-2011 19:43
Operator : WAL Inst ID: ecd4.i
Smp Info : 1102180-01
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

					CONCENTRATIONS		
					ON-COLUMN	FINAL	
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	
==========	==	======	======	========	=======	=======	
$ 12 DCAA	17.895	17.893	0.002	402583	94.6137	94.61(R)	
4 2,4,5-T	23.640	23.647	-0.007	484834	25.4896	25.49	mar

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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mr flag 2,4,5-T

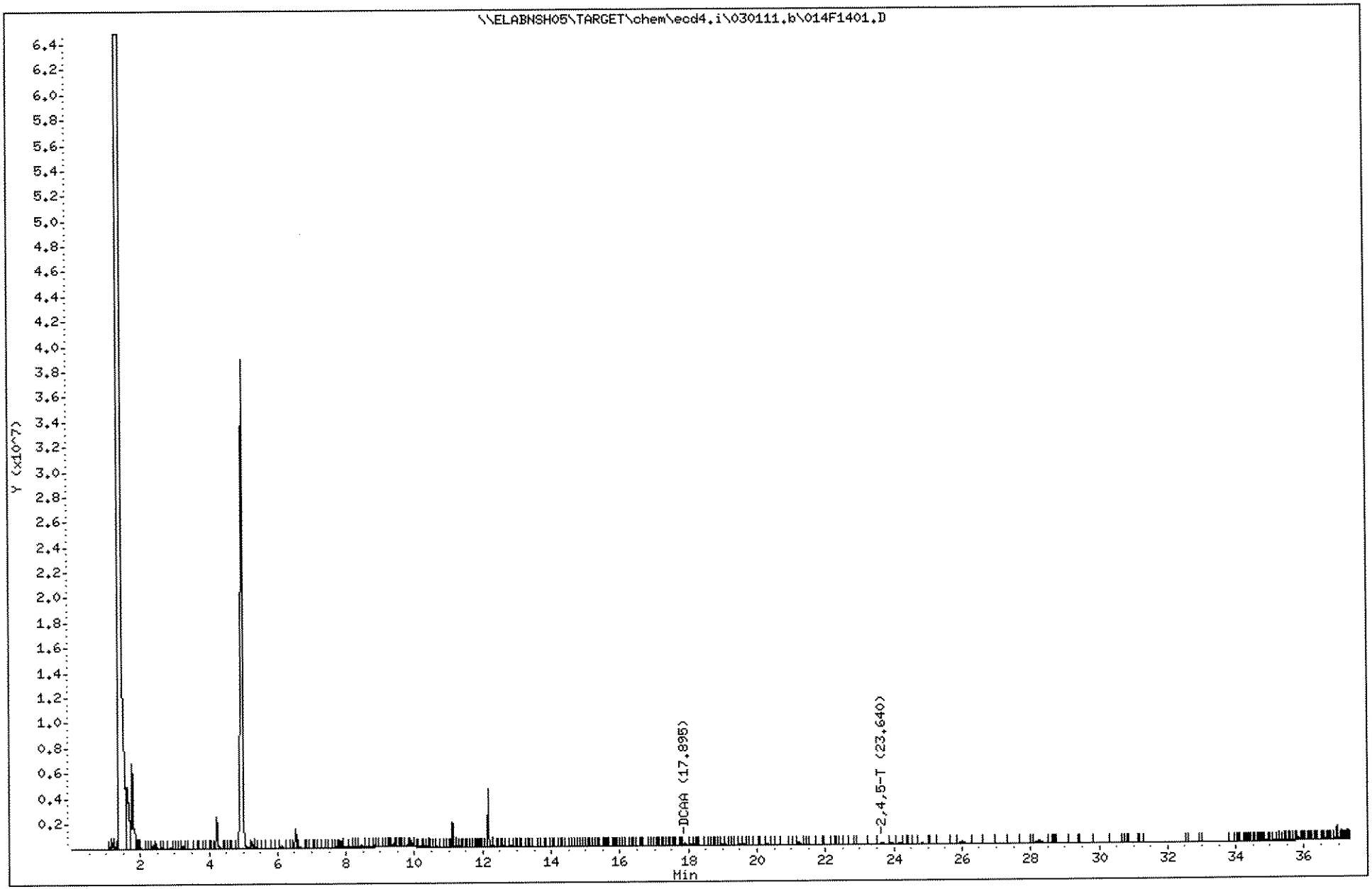
mr
3/2/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\014F1401.D
Date : 01-MAR-2011 19:43
Client ID:
Sample Info: 1102180-01

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



834

1102180

Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\014R1401.D
Lab Smp Id: 1102180-01
Inj Date : 01-MAR-2011 19:43
Operator : WAL Inst ID: ecd4.i
Smp Info : 1102180-01
Misc Info : ;;;;;;HERBD.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBD.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
$ 12 DCAA [2C]	15.780	15.777	0.003	405709	76.2830	76.28(R)
3 2,4,5-TP (Silvex) [2C]	18.560	18.565	-0.005	93276	3.05412	3.054 NC
4 2,4,5-T [2C]	19.315	19.317	-0.002	202342	7.53287	7.533

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

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M flg 2,4,5-T

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Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\024F2401.D
Lab Smp Id: SEQ-CCV2
Inj Date : 02-MAR-2011 02:58
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151F.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 01-MAR-2011 15:22 Cal File: 008F0801.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

	Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5	Dalapon	6.301	6.308	-0.007	3490659	D	455.400	476.8
$ 12	DCAA	17.894	17.893	0.001	470972		93.6400	110.7
6	Dicamba	17.974	17.975	-0.001	453264		18.8100	18.80
10	MCPP	18.331	18.333	-0.002	308865		18780.0	19870
9	MCPA	18.791	18.793	-0.002	471550		18690.0	19110
7	Dichloroprop	19.371	19.372	-0.001	928189		188.700	210.5
1	2,4-D	20.051	20.048	0.003	248731		188.100	231.0
3	2,4,5-TP (Silvex)	22.241	22.243	-0.002	444618		19.0100	17.86
4	2,4,5-T	23.642	23.647	-0.005	348572		18.9600	18.32
8	Dinoseb	25.814	25.818	-0.004	1516170	*	94.5200	109.8
2	2,4-DB	26.039	26.047	-0.008	599533		189.400	154.3

3/2/11

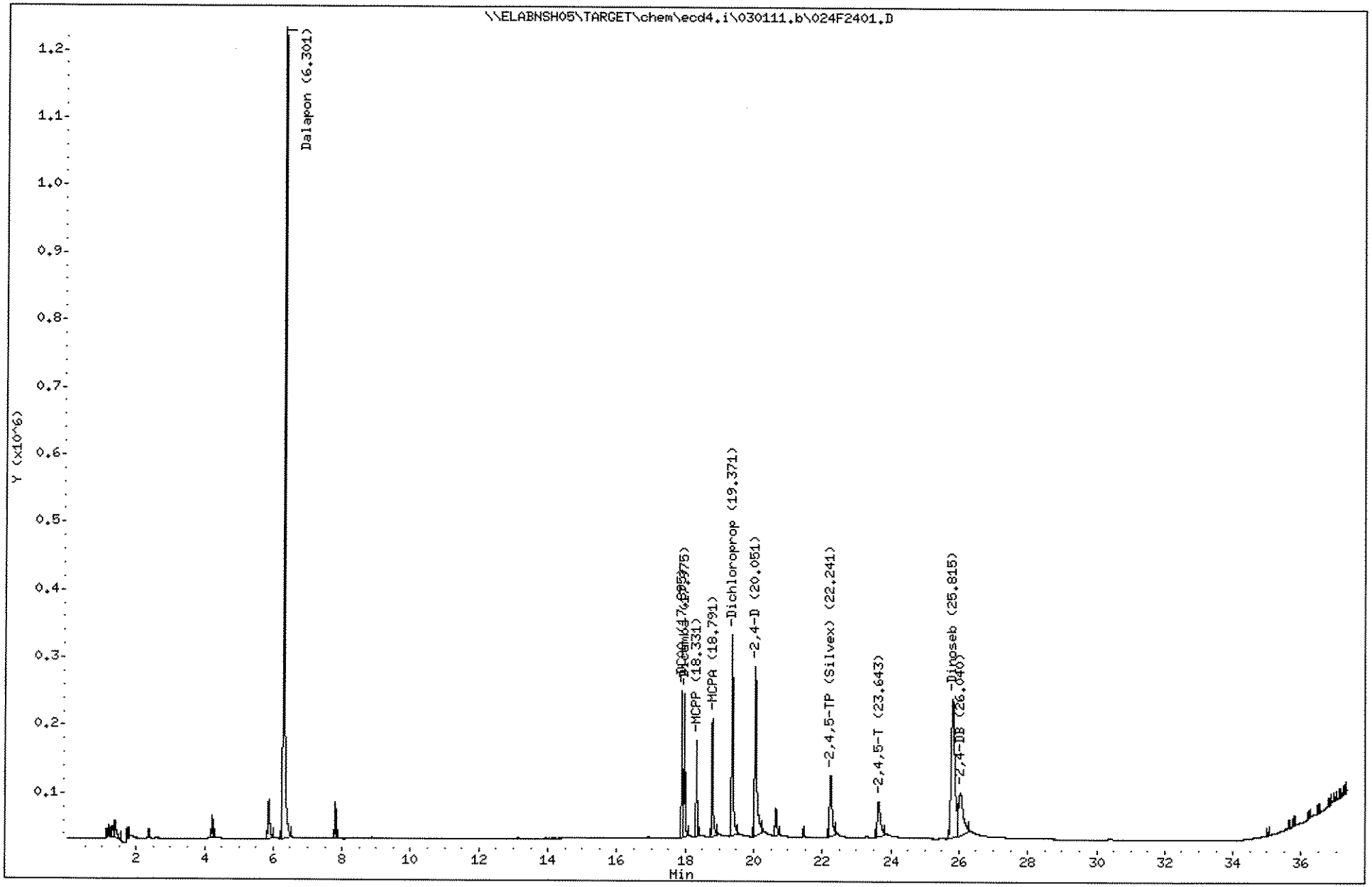
3/2/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\024F2401.D
Date : 02-MAR-2011 02:58
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd4.i

Operator: WAL
Column diameter: 0.32

Column phase: MR-1



Laboratory Name

SW-846 Method 8151A

Data file : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\024R2401.D
Lab Smp Id: SEQ-CCV2
Inj Date : 02-MAR-2011 02:58
Operator : WAL Inst ID: ecd4.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;herbd.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\8151R.m
Meth Date : 02-Mar-2011 10:55 wlancaster Quant Type: ESTD
Cal Date : 12-MAR-2010 17:18 Cal File: 002R0201.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbd.sub
Target Version: 4.04
Processing Host: TARGET18_VM

Compounds	RT	EXP RT	DLT RT	RESPONSE		AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
5 Dalapon [2C]	3.436	3.442	-0.006	3846994		455.400	465.9
$ 12 DCAA [2C]	15.777	15.777	0.000	532285		93.6400	100.1
6 Dicamba [2C]	15.961	15.962	-0.001	495044		18.8100	20.62
10 MCPP [2C]	16.162	16.165	-0.003	724973		18780.0	20450
9 MCPA [2C]	16.607	16.612	-0.005	835898		18690.0	19840
7 Dichloroprop [2C]	17.006	17.007	-0.001	1020479	#	188.700	202.6
1 2,4-D [2C]	17.534	17.530	0.004	1235498		188.100	205.4
3 2,4,5-TP (Silvex) [2C]	18.567	18.565	0.002	617734		19.0100	20.23
4 2,4,5-T [2C]	19.321	19.317	0.004	550788		18.9600	20.50
8 Dinoseb [2C]	20.197	20.197	0.000	1869978	*	94.5200	102.1
2 2,4-DB [2C]	20.299	20.293	0.006	779713		189.400	185.3

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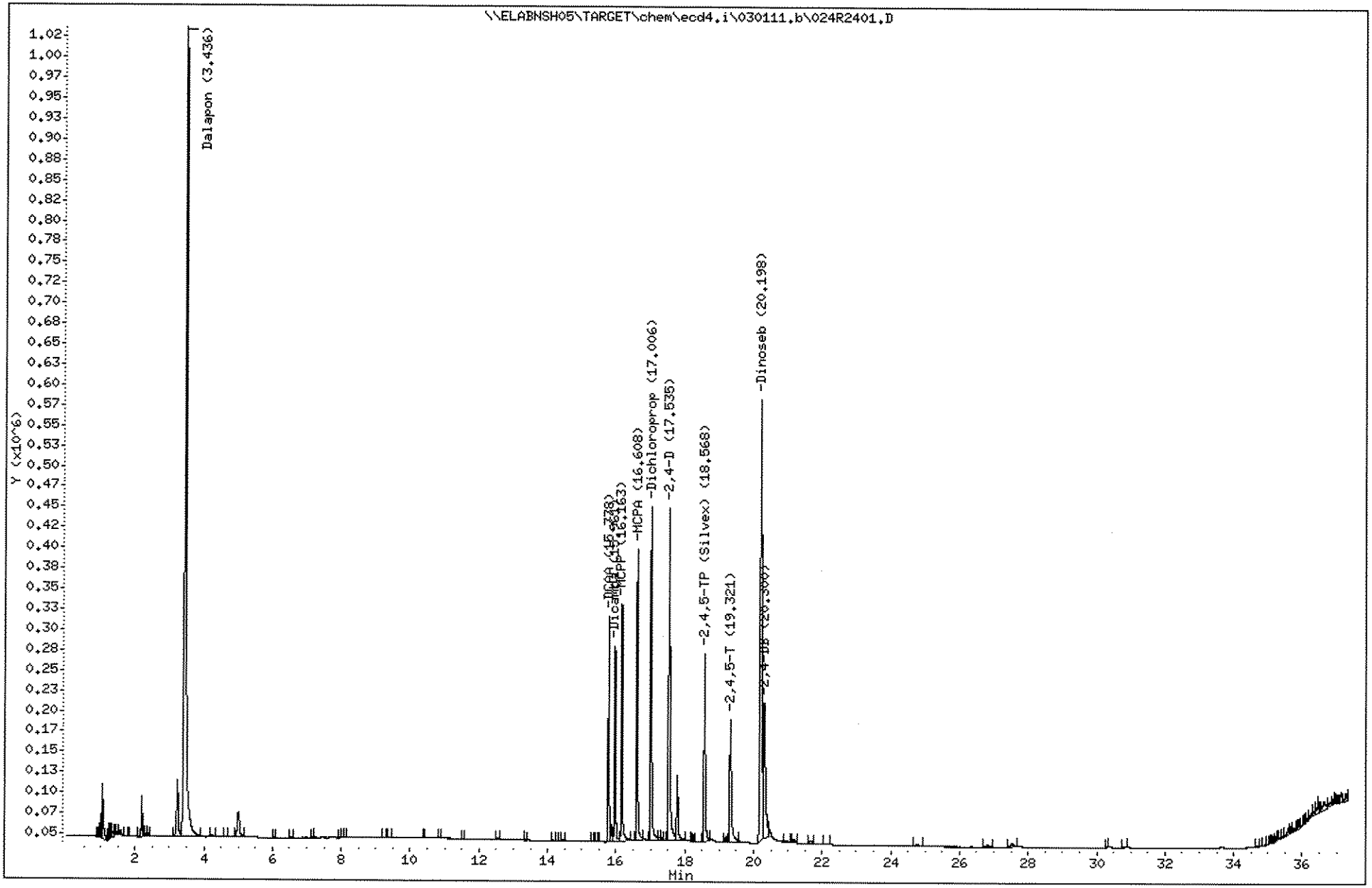
3/2/11

Data File: \\ELABNSH05\TARGET\chem\ecd4.i\030111.b\024R2401.D
Date : 02-MAR-2011 02:58
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd4.i
Operator: WAL
Column diameter: 0.32

Column phase: MR-2



PREPARATION BENCH SHEET

1B25011

Empirical Laboratories, LLC

Printed: 3/4/2011 11:09:53AM

840

Matrix: Solid **Prepared using: EXT - EXT_8151** **Surrogate used: 10L0911**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102180-01	SGC_HERB_8151A	02/26/2011 10:25	10.3	10				1000	
1B25011-BLK1	QC	02/26/2011 10:25	10	10				1000	
1B25011-BS1	QC	02/26/2011 10:25	10	10	11B0752		1000	1000	
1B25011-BSD1	QC	02/26/2011 10:25	10	10	11B0752		1000	1000	
1B25011-MRL1	QC	02/26/2011 10:25	10	10	11B0752		250	1000	Herb Soil LOD
1B25011-MRL2	QC	02/26/2011 10:25	10	10	11B0752		1000	1000	Herb Soil LOQ

includes Herb soil LOD/LOQ

esterified 2/28/11@18:43-19:26

1102180

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Data for SW7471A / SW6010B Forms

ANALYSIS DATA SHEET

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 02/18/11 16:15
% Solids: 80.80

SDG: 1102180
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1102180-01
Received: 02/19/11 09:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0569	0.0146	0.0371	1		SW7471A	1C01002	03/01/11 16:21
7429-90-5	Aluminum	23600	6.35	25.4	2	D	SW6010B	1C01006	03/02/11 13:32
7440-36-0	Antimony		0.635	1.90	2	U	SW6010B	1C01006	03/02/11 13:32
7440-38-2	Arsenic	9.54	0.381	0.635	2	D	SW6010B	1C01006	03/02/11 13:32
7440-39-3	Barium	60.6	0.635	5.08	2	D	SW6010B	1C01006	03/02/11 13:32
7440-41-7	Beryllium	2.03	0.0635	0.317	1		SW6010B	1C01006	03/02/11 13:13
7440-43-9	Cadmium		0.127	0.635	2	U	SW6010B	1C01006	03/02/11 13:32
7440-70-2	Calcium	817	63.5	317	1		SW6010B	1C01006	03/02/11 13:13
7440-47-3	Chromium	39.0	0.254	0.635	2	D	SW6010B	1C01006	03/02/11 13:32
7440-48-4	Cobalt	16.2	0.635	1.59	2	D	SW6010B	1C01006	03/02/11 13:32
7440-50-8	Copper	30.0	0.635	1.27	2	D	SW6010B	1C01006	03/02/11 13:32
7439-89-6	Iron	40600	3.81	12.7	2	D	SW6010B	1C01006	03/02/11 13:32
7439-92-1	Lead	21.6	0.190	0.381	2	D	SW6010B	1C01006	03/02/11 13:32
7439-95-4	Magnesium	3980	127	635	2	D	SW6010B	1C01006	03/02/11 13:32
7439-96-5	Manganese	524	0.381	1.90	2	D	SW6010B	1C01006	03/02/11 13:32
7440-02-0	Nickel	25.3	0.635	1.27	2	D	SW6010B	1C01006	03/02/11 13:32
7440-09-7	Potassium	1960	63.5	317	1		SW6010B	1C01006	03/02/11 13:13
7782-49-2	Selenium	0.504	0.381	0.762	2	J D	SW6010B	1C01006	03/02/11 13:32
7440-22-4	Silver		0.254	0.635	2	M U	SW6010B	1C01006	03/02/11 13:32
7440-23-5	Sodium		63.5	317	1	U	SW6010B	1C01006	03/02/11 13:13
7440-28-0	Thallium		0.762	1.02	2	M U	SW6010B	1C01006	03/02/11 13:32
7440-62-2	Vanadium	69.0	0.635	1.59	2	D	SW6010B	1C01006	03/02/11 13:32
7440-66-6	Zinc	60.7	0.635	2.54	2	D	SW6010B	1C01006	03/02/11 13:32

ANALYSIS DATA SHEET

1-1N (20110215)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 02/15/11 16:30
% Solids: 77.78

SDG: 1102180
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1102180-02
Received: 02/19/11 09:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0704	0.0173	0.0439	1		SW7471A	1B23003	02/23/11 13:58
7429-90-5	Aluminum	15500	6.12	24.5	2	D	SW6010B	1C01006	03/02/11 13:37
7440-36-0	Antimony		0.612	1.84	2	U	SW6010B	1C01006	03/02/11 13:37
7440-38-2	Arsenic	5.93	0.367	0.612	2	D	SW6010B	1C01006	03/02/11 13:37
7440-39-3	Barium	28.5	0.612	4.90	2	D	SW6010B	1C01006	03/02/11 13:37
7440-41-7	Beryllium	0.540	0.0612	0.306	1		SW6010B	1C01006	03/02/11 13:18
7440-43-9	Cadmium	0.144	0.122	0.612	2	J D	SW6010B	1C01006	03/02/11 13:37
7440-70-2	Calcium	2560	61.2	306	1		SW6010B	1C01006	03/02/11 13:18
7440-47-3	Chromium	29.5	0.245	0.612	2	D	SW6010B	1C01006	03/02/11 13:37
7440-48-4	Cobalt	4.56	0.612	1.53	2	D	SW6010B	1C01006	03/02/11 13:37
7440-50-8	Copper	24.3	0.612	1.22	2	D	SW6010B	1C01006	03/02/11 13:37
7439-89-6	Iron	34600	3.67	12.2	2	D	SW6010B	1C01006	03/02/11 13:37
7439-92-1	Lead	35.8	0.184	0.367	2	D	SW6010B	1C01006	03/02/11 13:37
7439-95-4	Magnesium	1360	122	612	2	D	SW6010B	1C01006	03/02/11 13:37
7439-96-5	Manganese	166	0.367	1.84	2	D	SW6010B	1C01006	03/02/11 13:37
7440-02-0	Nickel	9.65	0.612	1.22	2	D	SW6010B	1C01006	03/02/11 13:37
7440-09-7	Potassium	294	61.2	306	1	J	SW6010B	1C01006	03/02/11 13:18
7782-49-2	Selenium	0.856	0.367	0.735	2	D	SW6010B	1C01006	03/02/11 13:37
7440-22-4	Silver		0.245	0.612	2	M U	SW6010B	1C01006	03/02/11 13:37
7440-23-5	Sodium		61.2	306	1	U	SW6010B	1C01006	03/02/11 13:18
7440-28-0	Thallium		0.490	0.980	2	M U	SW6010B	1C01006	03/02/11 13:37
7440-62-2	Vanadium	58.6	0.612	1.53	2	D	SW6010B	1C01006	03/02/11 13:37
7440-66-6	Zinc	47.4	0.612	2.45	2	D	SW6010B	1C01006	03/02/11 13:37

ANALYSIS DATA SHEET

5-5S (20110215)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 02/17/11 11:20
% Solids: 79.90

SDG: 1102180
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1102180-03
Received: 02/19/11 09:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7439-97-6	Mercury	0.0581	0.0157	0.0400	1		SW7471A	1B23003	02/23/11 13:59
7429-90-5	Aluminum	14800	6.17	24.7	2	D	SW6010B	1C01006	03/02/11 13:42
7440-36-0	Antimony		0.617	1.85	2	U	SW6010B	1C01006	03/02/11 13:42
7440-38-2	Arsenic	7.60	0.370	0.617	2	D	SW6010B	1C01006	03/02/11 13:42
7440-39-3	Barium	39.5	0.617	4.93	2	D	SW6010B	1C01006	03/02/11 13:42
7440-41-7	Beryllium	0.727	0.0617	0.308	1		SW6010B	1C01006	03/02/11 13:23
7440-43-9	Cadmium	0.520	0.123	0.617	2	J D	SW6010B	1C01006	03/02/11 13:42
7440-70-2	Calcium	2530	61.7	308	1		SW6010B	1C01006	03/02/11 13:23
7440-47-3	Chromium	40.0	0.247	0.617	2	D	SW6010B	1C01006	03/02/11 13:42
7440-48-4	Cobalt	18.9	0.617	1.54	2	D	SW6010B	1C01006	03/02/11 13:42
7440-50-8	Copper	66.8	0.617	1.23	2	D	SW6010B	1C01006	03/02/11 13:42
7439-89-6	Iron	34100	3.70	12.3	2	D	SW6010B	1C01006	03/02/11 13:42
7439-92-1	Lead	151	0.185	0.370	2	D	SW6010B	1C01006	03/02/11 13:42
7439-95-4	Magnesium	1490	123	617	2	D	SW6010B	1C01006	03/02/11 13:42
7439-96-5	Manganese	309	0.370	1.85	2	D	SW6010B	1C01006	03/02/11 13:42
7440-02-0	Nickel	13.0	0.617	1.23	2	D	SW6010B	1C01006	03/02/11 13:42
7440-09-7	Potassium	392	61.7	308	1		SW6010B	1C01006	03/02/11 13:23
7782-49-2	Selenium	0.723	0.370	0.740	2	J D	SW6010B	1C01006	03/02/11 13:42
7440-22-4	Silver		0.247	0.617	2	M U	SW6010B	1C01006	03/02/11 13:42
7440-23-5	Sodium		61.7	308	1	U	SW6010B	1C01006	03/02/11 13:23
7440-28-0	Thallium		0.863	0.986	2	M U	SW6010B	1C01006	03/02/11 13:42
7440-62-2	Vanadium	56.4	0.617	1.54	2	D	SW6010B	1C01006	03/02/11 13:42
7440-66-6	Zinc	137	0.617	2.47	2	D	SW6010B	1C01006	03/02/11 13:42

INITIAL AND CONTINUING CALIBRATION CHECK

SW7471A

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-FIMS
SDG: 1102180
Project: Radford Army Ammunition Plant2010
Calibration: 1055001
Sequence: 1B05410

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1B05410-ICV1	Mercury	4.000	4.085	102	ug/L	+/- 15.00%
1B05410-CCV1	Mercury	4.000	3.934	98.4	ug/L	+/- 15.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW7471A

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-FIMS
SDG: 1102180
Project: Radford Army Ammunition Plant2010
Calibration: 1061002
Sequence: 1C06105

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1C06105-ICV1	Mercury	4.000	4.177	104	ug/L	+/- 15.00%
1C06105-CCV1	Mercury	4.000	3.999	100	ug/L	+/- 15.00%
1C06105-CCV2	Mercury	4.000	4.012	100	ug/L	+/- 15.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP

SDG: 1102180
Project: Radford Army Ammunition Plant2010
Calibration: 1063001
Sequence: 1C06303

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1C06303-ICV1	Aluminum	10000	9934	99.3	ug/L	+/- 10.00%
	Antimony	1000	1024	102	ug/L	+/- 10.00%
	Arsenic	1000	1010	101	ug/L	+/- 10.00%
	Barium	1000	1079	108	ug/L	+/- 10.00%
	Beryllium	1000	1029	103	ug/L	+/- 10.00%
	Cadmium	1000	1038	104	ug/L	+/- 10.00%
	Calcium	50000	48820	97.6	ug/L	+/- 10.00%
	Chromium	1000	968.8	96.9	ug/L	+/- 10.00%
	Cobalt	1000	1002	100	ug/L	+/- 10.00%
	Copper	1000	986.4	98.6	ug/L	+/- 10.00%
	Iron	10000	9695	96.9	ug/L	+/- 10.00%
	Lead	1000	1025	103	ug/L	+/- 10.00%
	Magnesium	50000	47640	95.3	ug/L	+/- 10.00%
	Manganese	1000	1023	102	ug/L	+/- 10.00%
	Nickel	1000	982.8	98.3	ug/L	+/- 10.00%
	Potassium	10000	9996	100	ug/L	+/- 10.00%
	Selenium	1000	1081	108	ug/L	+/- 10.00%
	Silver	500.0	488.5	97.7	ug/L	+/- 10.00%
	Sodium	50000	50220	100	ug/L	+/- 10.00%
	Thallium	1000	996.6	99.7	ug/L	+/- 10.00%
	Vanadium	1000	996.1	99.6	ug/L	+/- 10.00%
	Zinc	1000	1048	105	ug/L	+/- 10.00%
1C06303-CCV1	Aluminum	10000	9766	97.7	ug/L	+/- 10.00%
	Antimony	1000	1014	101	ug/L	+/- 10.00%
	Arsenic	1000	1013	101	ug/L	+/- 10.00%
	Barium	1000	1052	105	ug/L	+/- 10.00%
	Beryllium	1000	1020	102	ug/L	+/- 10.00%
	Cadmium	1000	1044	104	ug/L	+/- 10.00%
	Calcium	50000	49290	98.6	ug/L	+/- 10.00%
	Chromium	1000	978.8	97.9	ug/L	+/- 10.00%
	Cobalt	1000	991.9	99.2	ug/L	+/- 10.00%
	Copper	1000	994.3	99.4	ug/L	+/- 10.00%
	Iron	10000	9809	98.1	ug/L	+/- 10.00%
	Lead	1000	1009	101	ug/L	+/- 10.00%
	Magnesium	50000	47160	94.3	ug/L	+/- 10.00%
	Manganese	1000	1024	102	ug/L	+/- 10.00%
	Nickel	1000	986.3	98.6	ug/L	+/- 10.00%
	Potassium	10000	9772	97.7	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1063001
Sequence: 1C06303

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1C06303-CCV1	Selenium	1000	1048	105	ug/L	+/- 10.00%
	Silver	500.0	487.8	97.6	ug/L	+/- 10.00%
	Sodium	50000	49890	99.8	ug/L	+/- 10.00%
	Thallium	1000	996.0	99.6	ug/L	+/- 10.00%
	Vanadium	1000	994.6	99.5	ug/L	+/- 10.00%
	Zinc	1000	1026	103	ug/L	+/- 10.00%
1C06303-CCV2	Aluminum	10000	9838	98.4	ug/L	+/- 10.00%
	Antimony	1000	1016	102	ug/L	+/- 10.00%
	Arsenic	1000	1013	101	ug/L	+/- 10.00%
	Barium	1000	1057	106	ug/L	+/- 10.00%
	Beryllium	1000	1033	103	ug/L	+/- 10.00%
	Cadmium	1000	1045	105	ug/L	+/- 10.00%
	Calcium	50000	49270	98.5	ug/L	+/- 10.00%
	Chromium	1000	987.7	98.8	ug/L	+/- 10.00%
	Cobalt	1000	993.4	99.3	ug/L	+/- 10.00%
	Copper	1000	999.4	99.9	ug/L	+/- 10.00%
	Iron	10000	9678	96.8	ug/L	+/- 10.00%
	Lead	1000	1009	101	ug/L	+/- 10.00%
	Magnesium	50000	47430	94.9	ug/L	+/- 10.00%
	Manganese	1000	1026	103	ug/L	+/- 10.00%
	Nickel	1000	987.5	98.7	ug/L	+/- 10.00%
	Potassium	10000	9817	98.2	ug/L	+/- 10.00%
	Selenium	1000	1053	105	ug/L	+/- 10.00%
	Silver	500.0	486.1	97.2	ug/L	+/- 10.00%
	Sodium	50000	50300	101	ug/L	+/- 10.00%
	Thallium	1000	996.0	99.6	ug/L	+/- 10.00%
	Vanadium	1000	1008	101	ug/L	+/- 10.00%
	Zinc	1000	1026	103	ug/L	+/- 10.00%

CRDL STANDARD

SW7471A

Laboratory: Empirical Laboratories, LLC

SDG: 1102180

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-FIMS

Calibration: 1055001

Sequence: 1B05410

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1B05410-CRL1	Mercury	0.2000	0.1661	83.0	ug/L	70 - 130

CRDL STANDARD

SW7471A

Laboratory: Empirical Laboratories, LLC

SDG: 1102180

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-FIMS

Calibration: 1061002

Sequence: 1C06105

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1C06105-CRL1	Mercury	0.2000	0.1825	91.2	ug/L	70 - 130

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1102180

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1063001

Sequence: 1C06303

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1C06303-CRL1	Arsenic	5.000	4.874	97.5	ug/L	80 - 120
	Selenium	5.000	5.679	114	ug/L	80 - 120
1C06303-CRL2	Aluminum	100.0	93.11	93.1	ug/L	80 - 120
	Antimony	8.000	7.002	87.5	ug/L	80 - 120
	Barium	10.00	9.809	98.1	ug/L	80 - 120
	Beryllium	2.000	1.892	94.6	ug/L	80 - 120
	Cadmium	2.000	2.245	112	ug/L	80 - 120
	Calcium	2000	1836	91.8	ug/L	80 - 120
	Chromium	4.000	3.697	92.4	ug/L	80 - 120
	Cobalt	10.00	8.751	87.5	ug/L	80 - 120
	Copper	8.000	7.916	98.9	ug/L	80 - 120
	Iron	60.00	55.72	92.9	ug/L	80 - 120
	Magnesium	3000	2602	86.7	ug/L	80 - 120
	Manganese	6.000	6.032	101	ug/L	80 - 120
	Nickel	6.000	4.873	81.2	ug/L	80 - 120
	Potassium	3000	2722	90.7	ug/L	80 - 120
	Silver	2.000	1.711	85.6	ug/L	80 - 120
	Sodium	3000	2764	92.1	ug/L	80 - 120
	Thallium	4.000	3.444	86.1	ug/L	80 - 120
	Vanadium	10.00	9.256	92.6	ug/L	80 - 120
	Zinc	10.00	9.106	91.1	ug/L	80 - 120
1C06303-CRL3	Lead	3.000	2.889	96.3	ug/L	80 - 120

BLANKS
SW7471A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Instrument ID: ME-FIMS
Project: Radford Army Ammunition Plant2010
Sequence: 1B05410
Calibration: 1055001

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1B05410-ICB1	Mercury	-0.006676	0.0780	0.198	ug/L	U	SW7471A
1B23003-BLK1	Mercury	-0.00132	0.0130	0.0330	mg/Kg wet	U	SW7471A
1B05410-CCB1	Mercury	-0.00746	0.0780	0.198	ug/L	U	SW7471A

BLANKS
SW7471A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Instrument ID: ME-FIMS
Project: Radford Army Ammunition Plant2010
Sequence: 1C06105
Calibration: 1061002

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1C06105-ICB1	Mercury	0.007313	0.0780	0.198	ug/L	U	SW7471A
1C01002-BLK1	Mercury	0.00129	0.0130	0.0330	mg/Kg wet	U	SW7471A
1C06105-CCB1	Mercury	0.00486	0.0780	0.198	ug/L	U	SW7471A
1C06105-CCB2	Mercury	0.00468	0.0780	0.198	ug/L	U	SW7471A

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1C06303
Calibration: 1063001

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1C06303-ICB1	Aluminum	-0.6375	50.0	200	ug/L	U	SW6010B
	Antimony	0.2642	5.00	15.0	ug/L	U	SW6010B
	Arsenic	0.8304	3.00	5.00	ug/L	U	SW6010B
	Barium	0.2597	5.00	40.0	ug/L	U	SW6010B
	Beryllium	0.2850	1.00	5.00	ug/L	U	SW6010B
	Cadmium	1.150	1.00	5.00	ug/L	J	SW6010B
	Calcium	14.74	1000	5000	ug/L	U	SW6010B
	Chromium	0.1075	2.00	5.00	ug/L	U	SW6010B
	Cobalt	0.06600	5.00	12.5	ug/L	U	SW6010B
	Copper	1.168	5.00	10.0	ug/L	U	SW6010B
	Iron	2.238	30.0	100	ug/L	U	SW6010B
	Lead	0.6587	1.50	3.00	ug/L	U	SW6010B
	Magnesium	14.85	1000	5000	ug/L	U	SW6010B
	Manganese	0.2250	3.00	15.0	ug/L	U	SW6010B
	Nickel	-0.6772	3.00	10.0	ug/L	U	SW6010B
	Potassium	9.420	1000	5000	ug/L	U	SW6010B
	Selenium	0.4222	3.00	6.00	ug/L	U	SW6010B
	Silver	-0.01642	1.00	5.00	ug/L	U	SW6010B
	Sodium	-6.680	1000	5000	ug/L	U	SW6010B
	Thallium	0.3651	3.00	8.00	ug/L	U	SW6010B
	Vanadium	0.4130	5.00	12.5	ug/L	U	SW6010B
	Zinc	0.2748	5.00	20.0	ug/L	U	SW6010B
1C06303-CCB1	Aluminum	0.495	50.0	200	ug/L	U	SW6010B
	Antimony	0.0939	5.00	15.0	ug/L	U	SW6010B
	Arsenic	0.305	3.00	5.00	ug/L	U	SW6010B
	Barium	0.198	5.00	40.0	ug/L	U	SW6010B
	Beryllium	0.169	1.00	5.00	ug/L	U	SW6010B
	Cadmium	0.530	1.00	5.00	ug/L	U	SW6010B
	Calcium	11.5	1000	5000	ug/L	U	SW6010B
	Chromium	0.139	2.00	5.00	ug/L	U	SW6010B
	Cobalt	0.0628	5.00	12.5	ug/L	U	SW6010B
	Copper	0.720	5.00	10.0	ug/L	U	SW6010B
	Iron	3.07	30.0	100	ug/L	U	SW6010B

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1C06303
Calibration: 1063001

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1C06303-CCB1	Lead	0.942	1.50	3.00	ug/L	U	SW6010B
	Magnesium	13.1	1000	5000	ug/L	U	SW6010B
	Manganese	0.156	3.00	15.0	ug/L	U	SW6010B
	Nickel	-0.433	3.00	10.0	ug/L	U	SW6010B
	Potassium	8.64	1000	5000	ug/L	U	SW6010B
	Selenium	0.715	3.00	6.00	ug/L	U	SW6010B
	Silver	-0.0643	1.00	5.00	ug/L	U	SW6010B
	Sodium	3.92	1000	5000	ug/L	U	SW6010B
	Thallium	0.0757	3.00	8.00	ug/L	U	SW6010B
	Vanadium	0.236	5.00	12.5	ug/L	U	SW6010B
	Zinc	0.325	5.00	20.0	ug/L	U	SW6010B
1C01006-BLK1	Aluminum	0.0700	2.50	10.0	mg/Kg wet	U	SW6010B
	Antimony	-0.00537	0.250	0.750	mg/Kg wet	U	SW6010B
	Arsenic	-0.0443	0.150	0.250	mg/Kg wet	U	SW6010B
	Barium	0.0263	0.250	2.00	mg/Kg wet	U	SW6010B
	Beryllium	-0.000846	0.0500	0.250	mg/Kg wet	U	SW6010B
	Cadmium	0.0597	0.0500	0.250	mg/Kg wet	J	SW6010B
	Calcium	0.743	50.0	250	mg/Kg wet	U	SW6010B
	Chromium	0.121	0.100	0.250	mg/Kg wet	J	SW6010B
	Cobalt	-0.00201	0.250	0.625	mg/Kg wet	U	SW6010B
	Copper	0.0477	0.250	0.500	mg/Kg wet	U	SW6010B
	Iron	0.303	1.50	5.00	mg/Kg wet	U	SW6010B
	Lead	0.0420	0.0750	0.150	mg/Kg wet	U	SW6010B
	Magnesium	0.128	50.0	250	mg/Kg wet	U	SW6010B
	Manganese	0.0123	0.150	0.750	mg/Kg wet	U	SW6010B
	Nickel	-0.0128	0.250	0.500	mg/Kg wet	U	SW6010B
	Potassium	1.53	50.0	250	mg/Kg wet	U	SW6010B
	Selenium	0.0741	0.150	0.300	mg/Kg wet	U	SW6010B
	Silver	-0.00870	0.0500	0.250	mg/Kg wet	U	SW6010B
	Sodium	-1.21	50.0	250	mg/Kg wet	U	SW6010B
	Thallium	-0.104	0.150	0.400	mg/Kg wet	U	SW6010B
	Vanadium	0.0112	0.250	0.625	mg/Kg wet	U	SW6010B
	Zinc	0.243	0.250	1.00	mg/Kg wet	U	SW6010B

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1C06303
Calibration: 1063001

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1C06303-CCB2	Aluminum	-2.59	50.0	200	ug/L	U	SW6010B
	Antimony	-0.0612	5.00	15.0	ug/L	U	SW6010B
	Arsenic	1.38	3.00	5.00	ug/L	U	SW6010B
	Barium	0.0982	5.00	40.0	ug/L	U	SW6010B
	Beryllium	0.0693	1.00	5.00	ug/L	U	SW6010B
	Cadmium	0.622	1.00	5.00	ug/L	U	SW6010B
	Calcium	4.12	1000	5000	ug/L	U	SW6010B
	Chromium	0.0765	2.00	5.00	ug/L	U	SW6010B
	Cobalt	0.0708	5.00	12.5	ug/L	U	SW6010B
	Copper	0.679	5.00	10.0	ug/L	U	SW6010B
	Iron	3.64	30.0	100	ug/L	U	SW6010B
	Lead	0.160	1.50	3.00	ug/L	U	SW6010B
	Magnesium	6.71	1000	5000	ug/L	U	SW6010B
	Manganese	0.106	3.00	15.0	ug/L	U	SW6010B
	Nickel	-0.621	3.00	10.0	ug/L	U	SW6010B
	Potassium	3.40	1000	5000	ug/L	U	SW6010B
	Selenium	0.539	3.00	6.00	ug/L	U	SW6010B
	Silver	-0.0404	1.00	5.00	ug/L	U	SW6010B
	Sodium	-17.4	1000	5000	ug/L	U	SW6010B
	Thallium	-0.0772	3.00	8.00	ug/L	U	SW6010B
	Vanadium	-0.0714	5.00	12.5	ug/L	U	SW6010B
	Zinc	0.171	5.00	20.0	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1063001
Sequence: 1C06303

Lab Sample ID	Analyte	True	Found	%R	Units
1C06303-IFA1	Aluminum	500000	516,540.00	103	ug/L
	Antimony		0.94		ug/L
	Arsenic		1.28		ug/L
	Barium		1.06		ug/L
	Beryllium		0.02		ug/L
	Cadmium		-0.79		ug/L
	Calcium	500000	487,550.00	97.5	ug/L
	Chromium		-1.59		ug/L
	Cobalt		-0.12		ug/L
	Copper		-4.07		ug/L
	Iron	200000	197,210.00	98.6	ug/L
	Lead		8.49		ug/L
	Magnesium	500000	499,430.00	99.9	ug/L
	Manganese		4.13		ug/L
	Nickel		-2.56		ug/L
	Potassium		-64.11		ug/L
	Selenium		4.62		ug/L
	Silver		-0.58		ug/L
	Sodium		59.83		ug/L
	Thallium		-1.32		ug/L
	Vanadium		0.97		ug/L
	Zinc		7.02		ug/L
1C06303-IFB1	Aluminum	500000	486,780.00	97.4	ug/L
	Antimony	600.0	660.18	110	ug/L
	Arsenic	100.0	114.75	115	ug/L
	Barium	500.0	549.09	110	ug/L
	Beryllium	500.0	477.88	95.6	ug/L
	Cadmium	1000	1,179.30	118	ug/L
	Calcium	500000	462,800.00	92.6	ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1063001
Sequence: 1C06303

Lab Sample ID	Analyte	True	Found	%R	Units
1C06303-IFB1	Chromium	500.0	445.57	89.1	ug/L
	Cobalt	500.0	480.75	96.2	ug/L
	Copper	500.0	503.73	101	ug/L
	Iron	200000	185,530.00	92.8	ug/L
	Lead	50.00	54.01	108	ug/L
	Magnesium	500000	470,000.00	94.0	ug/L
	Manganese	500.0	458.10	91.6	ug/L
	Nickel	1000	952.44	95.2	ug/L
	Potassium		-47.40		ug/L
	Selenium	50.00	56.31	113	ug/L
	Silver	200.0	197.27	98.6	ug/L
	Sodium		41.41		ug/L
	Thallium	100.0	82.77	82.8	ug/L
	Vanadium	500.0	454.51	90.9	ug/L
	Zinc	1000	990.10	99.0	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW7471A

Backfilll (20110218)

Laboratory: Empirical Laboratories, LLC

SDG: 1102180

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Solid

Batch: 1C01002

% Solids: 80.80

Source Sample Name: **1102180-01**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Mercury	0.3750	0.05685	0.4607	108		80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.3640	0.4279	102	7.38		20	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1B23003	Laboratory ID:	1B23003-BS1
Preparation:	MET_HG_S	Initial/Final:	0.3 g / 50 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Mercury	0.3333	0.3470	104	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C01002	Laboratory ID:	1C01002-BS1
Preparation:	MET_HG_S	Initial/Final:	0.3 g / 50 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Mercury	0.3333	0.3511	105	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C01006	Laboratory ID:	1C01006-BS1
Preparation:	MET_3050B	Initial/Final:	2 g / 100 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Aluminum	100.0	106.5	107	80 - 120
Antimony	12.50	12.86	103	80 - 120
Arsenic	12.50	12.54	100	80 - 120
Barium	100.0	119.5	119	80 - 120
Beryllium	2.500	2.687	107	80 - 120
Cadmium	6.250	6.566	105	80 - 120
Calcium	250.0	258.6	103	80 - 120
Chromium	10.00	10.65	107	80 - 120
Cobalt	25.00	27.76	111	80 - 120
Copper	12.50	13.27	106	80 - 120
Iron	50.00	57.90	116	80 - 120
Lead	12.50	13.31	106	80 - 120
Magnesium	250.0	243.8	97.5	80 - 120
Manganese	25.00	27.98	112	80 - 120
Nickel	25.00	27.80	111	80 - 120
Potassium	250.0	263.4	105	80 - 120
Selenium	12.50	12.16	97.3	80 - 120
Silver	12.50	12.49	99.9	80 - 120
Sodium	250.0	264.9	106	80 - 120
Thallium	12.50	12.36	98.9	80 - 120
Vanadium	25.00	26.80	107	80 - 120
Zinc	25.00	27.89	112	80 - 120

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1102180

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-FIMS

Analyte	MDL	MRL	Units	Method
Mercury	0.0130	0.0330	mg/Kg	SW7471A

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1102180

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Aluminum	2.50	10.0	mg/Kg	SW6010B
Antimony	0.250	0.750	mg/Kg	SW6010B
Arsenic	0.150	0.250	mg/Kg	SW6010B
Barium	0.250	2.00	mg/Kg	SW6010B
Beryllium	0.0500	0.250	mg/Kg	SW6010B
Cadmium	0.0500	0.250	mg/Kg	SW6010B
Calcium	50.0	250	mg/Kg	SW6010B
Chromium	0.100	0.250	mg/Kg	SW6010B
Cobalt	0.250	0.625	mg/Kg	SW6010B
Copper	0.250	0.500	mg/Kg	SW6010B
Iron	1.50	5.00	mg/Kg	SW6010B
Lead	0.0750	0.150	mg/Kg	SW6010B
Magnesium	50.0	250	mg/Kg	SW6010B
Manganese	0.150	0.750	mg/Kg	SW6010B
Nickel	0.250	0.500	mg/Kg	SW6010B
Potassium	50.0	250	mg/Kg	SW6010B
Selenium	0.150	0.300	mg/Kg	SW6010B
Silver	0.0500	0.250	mg/Kg	SW6010B
Sodium	50.0	250	mg/Kg	SW6010B
Thallium	0.150	0.400	mg/Kg	SW6010B
Vanadium	0.250	0.625	mg/Kg	SW6010B
Zinc	0.250	1.00	mg/Kg	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1102180

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Aluminum	396.1	0.0000000	0.0000000	-0.0000600	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000300	0.0000000	0.0000000
Arsenic	189.0	0.0000120	0.0000000	0.0000020	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000090	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	0.0000000	0.0000000	-0.0000050	0.0021850	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000040	0.0056080	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000340	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000140	0.0287450	0.0000000
Nickel	231.6	0.0000000	0.0000000	-0.0000040	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000020	0.0000000	0.0000000
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	0.0000080	0.0000000	0.0000000
Vanadium	292.4	0.0000000	0.0000000	-0.0000160	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0013660	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1102180

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		As	B	Ba	Be	Cd
Aluminum	396.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	0.0045780	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1102180

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Co	Cr	Cu	K	Mn
Aluminum	396.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0060190	0.0000000	0.0000000	0.0000000
Arsenic	189.0	0.0000000	-0.0126310	0.0000000	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	-0.0025320	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0002500
Cobalt	228.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0009430
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000650
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0040870	0.0002110	0.0000000	0.0000000	0.0014070
Vanadium	292.4	0.0000000	-0.0023860	0.0000000	0.0000000	-0.0003500
Zinc	206.2	0.0000000	-0.0003020	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1102180

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Mo	Na	Ni	Pb	Sb
Aluminum	396.1	0.0317300	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	-0.0012790	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	189.0	-0.0001200	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.0	-0.0000250	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.8	0.0000000	0.0000000	-0.0000880	0.0000000	0.0000000
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.6	-0.0012520	0.0000000	0.0001940	0.0000000	0.0000000
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.6	-0.0000220	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000830	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.0	-0.0000590	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.4	-0.0001060	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.2	0.0001730	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1102180

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Aluminum	396.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.8	0.0000000	0.0000000	0.0004790	0.0000000	-0.0017000
Arsenic	189.0	0.0000000	0.0000000	0.0000750	0.0000000	0.0000000
Barium	233.5	0.0000000	0.0000000	0.0000000	0.0000000	-0.0017020
Beryllium	313.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0001050
Cadmium	228.8	0.0000000	0.0000000	0.0000000	0.0000000	0.0000560
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000700
Cobalt	228.6	0.0000000	0.0000000	0.0021640	0.0000000	0.0000000
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000300
Nickel	231.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.0	0.0000000	0.0000000	0.0000220	0.0000000	0.0000540
Silver	328.0	0.0000000	0.0000000	0.0000000	0.0000000	-0.0064060
Sodium	330.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.8	0.0000000	0.0000000	-0.0012830	0.0000000	0.0004040
Vanadium	292.4	0.0000000	0.0000000	0.0006540	0.0000000	0.0000000
Zinc	206.2	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1102180

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Aluminum	396.1	0.0000000				
Antimony	206.8	0.0000000				
Arsenic	189.0	0.0000000				
Barium	233.5	0.0000000				
Beryllium	313.0	0.0000000				
Cadmium	228.8	0.0000000				
Calcium	317.9	0.0000000				
Chromium	267.7	0.0000000				
Cobalt	228.6	0.0000000				
Copper	224.7	0.0000000				
Iron	261.1	0.0000000				
Lead	220.3	0.0000000				
Magnesium	279.0	0.0000000				
Manganese	257.6	0.0000000				
Nickel	231.6	0.0000000				
Potassium	766.4	0.0000000				
Selenium	196.0	0.0000000				
Silver	328.0	0.0000000				
Sodium	330.2	0.0000000				
Thallium	190.8	0.0000000				
Vanadium	292.4	0.0000000				
Zinc	206.2	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1102180

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Aluminum	15	500000	P
Antimony	15	10000	P
Arsenic	15	10000	P
Barium	15	5000	P
Beryllium	15	10000	P
Cadmium	15	10000	P
Calcium	15	500000	P
Chromium	15	10000	P
Cobalt	15	10000	P
Copper	15	10000	P
Iron	15	500000	P
Lead	15	10000	P
Magnesium	15	500000	P
Manganese	15	10000	P
Nickel	15	10000	P
Potassium	15	100000	P
Selenium	15	10000	P
Silver	15	2000	P
Sodium	15	500000	P
Thallium	15	10000	P
Vanadium	15	10000	P
Zinc	15	10000	P

PREPARATION BATCH SUMMARY

SW7471A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1B23003 Batch Matrix: Solid Preparation: MET_HG_S

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
1-1N (20110215)	1102180-02	02/23/11 08:22	0.29	50.00
5-5S (20110215)	1102180-03	02/23/11 08:22	0.31	50.00
Blank	1B23003-BLK1	02/23/11 08:22	0.30	50.00
LCS	1B23003-BS1	02/23/11 08:22	0.30	50.00

PREPARATION BATCH SUMMARY

SW7471A

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C01002 Batch Matrix: Solid Preparation: MET_HG_S

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	03/01/11 08:09	0.33	50.00
Blank	1C01002-BLK1	03/01/11 08:09	0.30	50.00
LCS	1C01002-BS1	03/01/11 08:09	0.30	50.00
Backfilll (20110218)	1C01002-MS1	03/01/11 08:09	0.33	50.00
Backfilll (20110218)	1C01002-MSD1	03/01/11 08:09	0.34	50.00

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1102180

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C01006 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
Backfilll (20110218)	1102180-01	03/01/11 09:06	1.95	100.00
Backfilll (20110218)	1102180-01RE1	03/01/11 09:06	1.95	100.00
1-1N (20110215)	1102180-02	03/01/11 09:06	2.10	100.00
1-1N (20110215)	1102180-02RE1	03/01/11 09:06	2.10	100.00
5-5S (20110215)	1102180-03	03/01/11 09:06	2.03	100.00
5-5S (20110215)	1102180-03RE1	03/01/11 09:06	2.03	100.00
Blank	1C01006-BLK1	03/01/11 09:06	2.00	100.00
LCS	1C01006-BS1	03/01/11 09:06	2.00	100.00

ANALYSIS SEQUENCE SUMMARY

SW7471A

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1B05410
Instrument: ME-FIMS
Calibration: 1055001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1B05410-CAL2	COPY022311S-003	02/23/11 13:40
Cal Standard	1B05410-CAL1	COPY022311S-002	02/23/11 13:40
Cal Standard	1B05410-CAL3	COPY022311S-004	02/23/11 13:42
Cal Standard	1B05410-CAL4	COPY022311S-005	02/23/11 13:43
Cal Standard	1B05410-CAL5	COPY022311S-006	02/23/11 13:44
Cal Standard	1B05410-CAL6	COPY022311S-007	02/23/11 13:45
Cal Standard	1B05410-CAL7	COPY022311S-008	02/23/11 13:47
Cal Standard	1B05410-CAL8	COPY022311S-009	02/23/11 13:48
Initial Cal Check	1B05410-ICV1	COPY022311S-010	02/23/11 13:49
Initial Cal Blank	1B05410-ICB1	COPY022311S-011	02/23/11 13:50
Instrument RL Check	1B05410-CRL1	COPY022311S-012	02/23/11 13:51
LCS	1B23003-BS1	COPY022311S-013	02/23/11 13:52
Blank	1B23003-BLK1	COPY022311S-014	02/23/11 13:54
1-1N (20110215)	1102180-02	COPY022311S-015	02/23/11 13:58
5-5S (20110215)	1102180-03	COPY022311S-016	02/23/11 13:59
Calibration Check	1B05410-CCV1	COPY022311S-019	02/23/11 14:03
Calibration Blank	1B05410-CCB1	COPY022311S-020	02/23/11 14:04

ANALYSIS SEQUENCE SUMMARY

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C06105	Instrument:	ME-FIMS
Calibration:	1061002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1C06105-CAL1	030111S-002	03/01/11 15:51
Cal Standard	1C06105-CAL2	030111S-003	03/01/11 15:52
Cal Standard	1C06105-CAL3	030111S-004	03/01/11 15:53
Cal Standard	1C06105-CAL4	030111S-005	03/01/11 15:54
Cal Standard	1C06105-CAL5	030111S-006	03/01/11 15:55
Cal Standard	1C06105-CAL6	030111S-007	03/01/11 15:57
Cal Standard	1C06105-CAL7	030111S-008	03/01/11 15:58
Cal Standard	1C06105-CAL8	030111S-009	03/01/11 15:59
Initial Cal Check	1C06105-ICV1	030111S-010	03/01/11 16:00
Initial Cal Blank	1C06105-ICB1	030111S-011	03/01/11 16:02
LCS	1C01002-BS1	030111S-012	03/01/11 16:03
Blank	1C01002-BLK1	030111S-013	03/01/11 16:04
Calibration Check	1C06105-CCV1	030111S-021	03/01/11 16:14
Calibration Blank	1C06105-CCB1	030111S-022	03/01/11 16:15
Backfilll (20110218)	1102180-01	030111S-027	03/01/11 16:21
Backfilll (20110218)	1C01002-MS1	030111S-028	03/01/11 16:22
Backfilll (20110218)	1C01002-MSD1	030111S-029	03/01/11 16:23
Instrument RL Check	1C06105-CRL1	030111S-030	03/01/11 16:25
Calibration Check	1C06105-CCV2	030111S-031	03/01/11 16:26
Calibration Blank	1C06105-CCB2	030111S-032	03/01/11 16:27

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C06303
Instrument: ME-ICP
Calibration: 1063001

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1C06303-CAL1	030211A-001	03/02/11 09:35
Cal Standard	1C06303-CAL3	030211A-004	03/02/11 09:49
Cal Standard	1C06303-CAL4	030211A-005	03/02/11 09:53
Cal Standard	1C06303-CAL5	030211A-006	03/02/11 09:58
Cal Standard	1C06303-CAL6	030211A-007	03/02/11 10:03
Cal Standard	1C06303-CAL7	030211A-008	03/02/11 10:08
Cal Standard	1C06303-CAL8	030211A-009	03/02/11 10:14
Cal Standard	1C06303-CAL2	030211A-010	03/02/11 10:21
Initial Cal Check	1C06303-ICV1	030211B-001	03/02/11 11:06
Initial Cal Blank	1C06303-ICB1	030211B-002	03/02/11 11:15
Instrument RL Check	1C06303-CRL1	030211B-004	03/02/11 11:25
Instrument RL Check	1C06303-CRL2	030211B-007	03/02/11 11:42
Instrument RL Check	1C06303-CRL3	030211B-008	03/02/11 11:48
Interference Check A	1C06303-IFA1	030211B-009	03/02/11 11:53
Interference Check B	1C06303-IFB1	030211B-010	03/02/11 11:58
Calibration Check	1C06303-CCV1	030211B-012	03/02/11 12:09
Calibration Blank	1C06303-CCB1	030211B-013	03/02/11 12:16
Blank	1C01006-BLK1	030211B-022	03/02/11 13:02
LCS	1C01006-BS1	030211B-023	03/02/11 13:07
Backfilll (20110218)	1102180-01	030211B-024	03/02/11 13:13
1-1N (20110215)	1102180-02	030211B-025	03/02/11 13:18
5-5S (20110215)	1102180-03	030211B-026	03/02/11 13:23
Backfilll (20110218)	1102180-01RE1	030211B-028	03/02/11 13:32
1-1N (20110215)	1102180-02RE1	030211B-029	03/02/11 13:37
5-5S (20110215)	1102180-03RE1	030211B-030	03/02/11 13:42
Calibration Check	1C06303-CCV2	030211B-031	03/02/11 13:49
Calibration Blank	1C06303-CCB2	030211B-032	03/02/11 13:57

INITIAL CALIBRATION DATA

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1055001	Instrument:	ME-FIMS
Matrix:	Solid	Calibration Date:	2/23/2011 10:59:15AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Mercury	0	0	0.2	0.01935	0.5	0.01846	1	0.01757	2	0.017275	4	0.017435

INITIAL CALIBRATION DATA (Continued)

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1055001	Instrument:	ME-FIMS
Matrix:	Solid	Calibration Date:	2/23/2011 10:59:15AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Mercury	6	1.660167E-02	10	0.016611								

INITIAL CALIBRATION DATA (Continued)

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1055001	Instrument:	ME-FIMS
Matrix:	Solid	Calibration Date:	2/23/2011 10:59:15AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Mercury	1.541283E-02	40.84347	0	0	0.9996976			

INITIAL CALIBRATION DATA

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1061002	Instrument:	ME-FIMS
Matrix:	Solid	Calibration Date:	3/1/2011 3:51:55PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Mercury	10	0.016897	6	0.01736	4	0.01728	2	0.01738	1	0.01729	0.5	0.0185

INITIAL CALIBRATION DATA (Continued)

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1061002	Instrument:	ME-FIMS
Matrix:	Solid	Calibration Date:	3/1/2011 3:51:55PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Mercury	0.2	0.01935	0	0								

INITIAL CALIBRATION DATA (Continued)

SW7471A

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1061002	Instrument:	ME-FIMS
Matrix:	Solid	Calibration Date:	3/1/2011 3:51:55PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Mercury	1.550712E-02	40.74041	0	0	0.9997969			

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1063001
Instrument: ME-ICP
Matrix: Water
Calibration Date: 3/2/2011 10:06:37AM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.821E-05	10000	1.8245E-05			500000	1.84038E-05		
Antimony	0	0	100	0.0007854	1000	8.3724E-04					10000	8.4249E-04
Arsenic	0	0	100	0.0003287	1000	3.5434E-04					10000	3.4941E-04
Barium	0	0	50	0.012103	1000	0.011448	5000	0.0111324				
Beryllium	0	0	100	0.0021193	1000	0.0021252					10000	0.0020439
Boron	0	0	50	0.0000118	1000	1.191E-05					5000	1.1664E-05
Cadmium	0	0	100	0.0090488	1000	0.0088173					10000	0.008304
Calcium	0	0	1100	3.251818E-05	50000	3.276E-05					10000	
Chromium	0	0	100	0.0000259	1000	2.478E-05					10000	2.5312E-05
Cobalt	0	0	100	0.0056779	1000	0.0056593					10000	0.0057939
Copper	0	0	100	8.519999E-05	1000	8.033E-05					10000	7.9947E-05
Iron	0	0	5100	1.402941E-05	10000	1.3793E-05			500000	1.34002E-05	10000	
Lead	0	0	100	0.0012459	1000	0.0012179					10000	0.0012379
Magnesium	0	0	5100		50000	1.3304E-06			500000	1.41704E-06	10000	
Manganese	0	0	100	0.0001813	1000	0.0001723	10000	1.6822E-04			10000	
Molybdenum	0	0	100	0.003711	1000	0.0038333					10000	0.0038154
Nickel	0	0	100	0.0029564	1000	0.0030567					10000	0.0031005
Potassium	0	0	1000	8.87E-06	10000	9.554E-06						
Selenium	0	0	100	0.0004149	1000	4.0966E-04					10000	4.0617E-04
Silver	0	0	20	0.0000475	500	0.0000447	2000	4.634E-05				
Sodium	0	0	1000		50000	4.2156E-05						
Thallium	0	0	100	0.0008337	1000	8.2754E-04					10000	8.3763E-04
Tin	0	0	50	0.0011382	1000	0.0011486					5000	1.17302E-03
Titanium	0	0	100	0.0001872	1000	1.8227E-04					10000	1.8354E-04
Vanadium	0	0	100	0.0000345	1000	3.283E-05					10000	3.3307E-05
Zinc	0	0	100	0.0040059	1000	0.0040852					10000	0.0040664

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1102180
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1063001
Instrument: ME-ICP
Matrix: Water
Calibration Date: 3/2/2011 10:06:37AM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	3.1762E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.3633E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.0038E-05										
Selenium												
Silver												
Sodium	100000	4.2833E-05	500000	4.2348E-05								
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1102180
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1063001	Instrument:	ME-ICP
Matrix:	Water	Calibration Date:	3/2/2011 10:06:37AM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.37147E-05	66.6695	7.123965	189.3478	1		0.998	
Antimony	6.162825E-04	66.79762	6.439818	166.4442	0.9999998		0.998	
Arsenic	2.581125E-04	66.80544	24.30553	191.1977	0.9999968		0.998	
Barium	8.67085E-03	66.82948	6.749143	167.8744	0.999969		0.998	
Beryllium	0.0015721	66.70823	67.72125	198.8142	0.9999853		0.998	
Boron	8.8435E-06	66.67638	17.70707	191.6433	0.999981		0.998	
Cadmium	6.542525E-03	66.83618	0.836495	82.37413	0.999971		0.998	
Calcium	2.426005E-05	66.68967	0.7232025	116.3105	0.9999903		0.998	
Chromium	1.8998E-05	66.71013	71.71265	198.1503	0.9999951		0.998	
Cobalt	4.282775E-03	66.68117	2.785768	138.8164	0.9999948		0.998	
Copper	6.136925E-05	66.78043	1.229852	78.60774	0.9999999		0.998	
Iron	1.030565E-05	66.71422	16.36598	194.0522	0.9999997		0.998	
Lead	9.25425E-04	66.67881	33.23654	192.6435	0.9999973		0.998	
Magnesium	1.027685E-06	66.75716	63.27829	198.7648	0.9999377		0.998	
Manganese	1.30455E-04	66.79813	12.04045	187.3746	0.9999952		0.998	
Molybdenum	2.839925E-03	66.69371	50.94831	195.2936	0.9999996		0.998	
Nickel	0.0022784	66.71921	3.140207	139.54	0.9999986		0.998	
Potassium	7.1155E-06	67.00591	3.830792	133.9197	0.9999851		0.998	
Selenium	3.076825E-04	66.67686	5.239315	156.0956	0.9999996		0.998	
Silver	3.4635E-05	66.74911	5.917765	186.5781	0.9999083		0.998	
Sodium	3.183425E-05	66.67267	2.809167	110.3631	0.999993		0.998	
Thallium	6.247175E-04	66.66998	23.47894	190.3282	0.9999987		0.998	
Tin	8.64955E-04	66.68801	1.312005	88.30205	0.999973		0.998	
Titanium	1.382525E-04	66.68381	9.143342	195.9801	0.9999993		0.998	
Vanadium	2.515925E-05	66.72509	4.63328	168.538	0.9999972		0.998	
Zinc	3.039375E-03	66.67596	22.99975	192.1444	0.9999997		0.998	

Data for SW7471A / SW6010B Supporting Raw Data / Logs

Mercury

Client:

ARCADIS
HWEA

Curve Date: 2/23/2011 Curve age OK

Correlation: 0.99985 Corr. OK

Slope: 0.016535
Intercept: 0.001223

RL= 0.20 ug/l for H2O and TCLP
0.033 mg/kg (using 0.30 g) for soils or other
MDL= 0.08 ug/L WATER AND 0.013 mg/Kg SOIL
QC Criteria: Method Blank < 1/2 RL for CORP Samples
LCS = ±20% of True Value
CCB =<MDL

Curve Data			
Analysis Time	Conc.(ug/L)	Pk Height	Cal. ID
13:40:06	0	0.00099	11B0662
13:40:58	0.2	0.00387	11B0663
13:42:09	0.5	0.00923	11B0664
13:43:21	1	0.01757	11B0665
13:44:35	2	0.03455	11B0666
13:45:50	4	0.06974	11B0667
13:47:05	6	0.09961	11B0668
13:48:20	10	0.16611	11B0669

Empirical Laboratories

Digestion Date: 2/23/2011
Digestion by: KH
Analysis Date: 2/23/2011
Analyst: KH
Analyst Authorization: KH
Method#: 245.1/7470A for H2O
7471A for soils
Method Type: Cold Vapor
Batch: 1B23003
SEQ: 1B05410

Concentration (ug/L) = (Peak Height - intercept)/slope * dilution
Conversion for soils from concentration (ug/L) to mg/kg (wet weight) = concentration (ug/L) * final volume (mL)/initial weight (g) * 1L/1000mL * 1000g/1kg * 1g/1000mg

Lab. #	Client	Waste Description	T.V. (ug/L) (mg/kg)	Analysis Time HH:MM (Military)	Matrix Type	Digestion		Analysis		Dilution	Peak Height	[Hg] ug/L	[Hg] mg/kg	Recovery %	Control Limits		RPD	Method
						Initial Sample Volume	Final Sample Volume (mL)	Initial Sample Volume (mL)	Final Sample Volume (mL)						Low Limit %	High Limit %		
SEQ-CAL1	QC	11B0662		13:40:06	H2O	50.00	50.0	50.0	50.0	1.00	0.00099	-0.0140						7471A
SEQ-CAL2	QC	11B0663		13:40:58	H2O	50.00	50.0	50.0	50.0	1.00	0.00387	0.1600						7471A
SEQ-CAL3	QC	11B0664		13:42:09	H2O	50.00	50.0	50.0	50.0	1.00	0.00923	0.4840						7471A
SEQ-CAL4	QC	11B0665		13:43:21	H2O	50.00	50.0	50.0	50.0	1.00	0.01757	0.9888						7471A
SEQ-CAL5	QC	11B0666		13:44:35	H2O	50.00	50.0	50.0	50.0	1.00	0.03455	2.0155						7471A
SEQ-CAL6	QC	11B0667		13:45:50	H2O	50.00	50.0	50.0	50.0	1.00	0.06974	4.1435						7471A
SEQ-CAL7	QC	111B0668		13:47:05	H2O	50.00	50.0	50.0	50.0	1.00	0.09961	5.9502						7471A
SEQ-CAL8	QC	11B0669		13:48:20	H2O	50.00	50.0	50.0	50.0	1.00	0.16611	9.9721						7471A
SEQ-ICV	QC	11B0670	4.0000	13:49:34	H2O	50.00	50.0	50.0	50.0	1.00	0.06877	4.0853		102.13	90.0	110.0		7471A
SEQ-ICB	QC	DI H2O		13:50:44	H2O	50.00	50.0	50.0	50.0	1.00	0.00111	-0.0067						7471A
SEQ-CRL	QC	11B0662	0.2000	13:51:37	H2O	50.00	50.0	50.0	50.0	1.00	0.00397	0.1661		83.04	70.0	130.0		7471A
1B23003-BS1	QC	10E0064	0.3333	13:52:49	SOIL	0.30	50.0	50.0	50.0	1.00	0.03565	2.0819	0.34698	104.11	80.0	120.0		7471A
1B23003-BLK1	QC	DI H2O		13:54:02	SOIL	0.30	50.0	50.0	50.0	1.00	0.00109	-0.0079	-0.00132					7471A
~~1102180-01~~	~~ARCADIS~~			~~13:54:54~~	~~SOIL~~	~~0.32~~	~~50.0~~	~~50.0~~	~~50.0~~	~~1.00~~	~~0.00543~~	~~0.2543~~	~~0.03973~~	-				7471A
~~1B23003-MS1~~	~~ARCADIS~~	~~10E0064~~	~~0.3226~~	~~13:56:10~~	~~SOIL~~	~~0.31~~	~~50.0~~	~~50.0~~	~~50.0~~	~~1.00~~	~~0.04076~~	~~2.3909~~	~~0.38563~~	~~119.54~~	~~80.0~~	~~120.0~~		7471A
~~1B23003-MSD1~~	~~ARCADIS~~	~~10E0064~~	~~0.3226~~	~~13:57:25~~	~~SOIL~~	~~0.31~~	~~50.0~~	~~50.0~~	~~50.0~~	~~1.00~~	~~0.07004~~	~~4.1617~~	~~0.67124~~	~~208.07~~	~~80.0~~	~~120.0~~		7471A
1102180-02	ARCADIS			13:58:38	SOIL	0.29	50.0	50.0	50.0	1.00	0.00648	0.3176	0.05477					7471A
1102180-03	ARCADIS			13:59:47	SOIL	0.31	50.0	50.0	50.0	1.00	0.00598	0.2878	0.04641					7471A
1102182-01	HWEA			14:00:57	SOIL	0.32	50.0	50.0	50.0	1.00	0.00808	0.4146	0.06479					7471A
SEQ-CRL	QC	11B0662	0.2000	14:02:08	H2O	50.00	50.0	50.0	50.0	1.00	0.00401	0.1682		84.12	70.0	130.0		7471A
SEQ-CCV	QC	11B0668	4.0000	14:03:18	H2O	50.00	50.0	50.0	50.0	1.00	0.06627	3.9341		98.35	85.0	115.0		7471A
SEQ-CCB	QC	DI H2O		14:04:30	H2O	50.00	50.0	50.0	50.0	1.00	0.00110	-0.0075						7471A

BS: 0.3g of boiling chips + 0.5mls of 10E0064 diluted to 50mls DI H2O final volume.
BLK: 0.3g of boiling chips into 50mls DI H2O final volume.

Sample crossed out to be redigested because MSD recovery twice that of MS.

Zach BLW 2/24/11

888

1102180

Mercury

Client:

TTNUS
ARCADIS

Curve Date: 3/1/2011 Curve age OK
Correlation: 0.99990 Corr. OK
Slope: 0.016921
Intercept: 0.000925

RL= 0.20 ug/l for H2O and TCLP
0.033 mg/kg (using 0.30 g) for soils or other
MDL= 0.08 ug/L WATER AND 0.013 mg/Kg SOIL
QC Criteria: Method Blank < 1/2 RL for CORP Samples
LCS = ±20% of True Value
CCB =<MDL

Curve Data			
Analysis Time	Conc.(ug/L)	Pk Height	Cal. ID
15:51:24	0	0.00100	11C0033
15:52:16	0.2	0.00387	11C0034
15:53:27	0.5	0.00925	11C0035
15:54:40	1	0.01729	11C0036
15:55:53	2	0.03476	11C0037
15:57:08	4	0.06912	11C0038
15:58:23	6	0.10416	11C0039
15:59:40	10	0.16897	11C0040

Empirical Laboratories

Digestion Date: 3/1/2011
Digestion by: KH
Analysis Date: 3/1/2011
Analyst: KH
Analyst Authorization: KH
Method#: 245.1/7470A for H2O
7471A for soils
Method Type: Cold Vapor
Batch: 1C01002
SEQ: 1C06105

Concentration (ug/L) = (Peak Height - intercept)/slope * dilution
Conversion for soils from concentration (ug/L) to mg/kg (wet weight) = concentration (ug/L) * final volume (mL)/initial weight (g) * 1L/1000mL * 1000g/1kg * 1g/1000mg

Lab. #	Client	Waste Description	T.V. (ug/L) (mg/kg)	Analysis Time HH:MM (Military)	Matrix Type	Digestion		Analysis		Dilution	Peak Height	[Hg] ug/L	[Hg] mg/kg	Recovery %	Control Limits		RPD	Method
						Initial Sample Volume	Final Sample Volume (mL)	Initial Sample Volume (mL)	Final Sample Volume (mL)						Low Limit %	High Limit %		
SEQ-CAL1	QC	11C0033		15:51:24	H2O	50.00	50.0	50.0	50.0	1.00	0.00100	0.00452						7471A
SEQ-CAL2	QC	11C0034		15:52:16	H2O	50.00	50.0	50.0	50.0	1.00	0.00387	0.17392						7471A
SEQ-CAL3	QC	11C0035		15:53:27	H2O	50.00	50.0	50.0	50.0	1.00	0.00925	0.49194						7471A
SEQ-CAL4	QC	11C0036		15:54:40	H2O	50.00	50.0	50.0	50.0	1.00	0.01729	0.96690						7471A
SEQ-CAL5	QC	11C0037		15:55:53	H2O	50.00	50.0	50.0	50.0	1.00	0.03476	1.99981						7471A
SEQ-CAL6	QC	11C0038		15:57:08	H2O	50.00	50.0	50.0	50.0	1.00	0.06912	4.03020						7471A
SEQ-CAL7	QC	11C0039		15:58:23	H2O	50.00	50.0	50.0	50.0	1.00	0.10416	6.10127						7471A
SEQ-CAL8	QC	11C0040		15:59:40	H2O	50.00	50.0	50.0	50.0	1.00	0.16897	9.93143						7471A
SEQ-ICV	QC	11C0041	4.0000	16:00:53	H2O	50.00	50.0	50.0	50.0	1.00	0.07161	4.17717		104.43	90.0	110.0		7471A
SEQ-ICB	QC	DI H2O		16:02:03	H2O	50.00	50.0	50.0	50.0	1.00	0.00105	0.00731						7471A
1C01002-BS1	QC	10E0064	0.3333	16:03:16	SOIL	0.30	50.0	50.0	50.0	1.00	0.03657	2.10685	0.35114	105.35	80.0	120.0		7471A
1C01002-BLK1	QC	DI H2O		16:04:29	SOIL	0.30	50.0	50.0	50.0	1.00	0.00106	0.00773	0.00129					7471A
1102160-01	TTNUS			16:05:43	SOIL	0.35	50.0	50.0	50.0	1.00	0.00185	0.05474	0.00782					7471A
1102160-02	TTNUS			16:06:59	SOIL	0.32	50.0	50.0	50.0	1.00	0.00177	0.04994	0.00780					7471A
1102160-03	TTNUS			16:08:15	SOIL	0.32	50.0	50.0	50.0	1.00	0.00169	0.04516	0.00706					7471A
1102160-05	TTNUS			16:09:28	SOIL	0.37	50.0	50.0	50.0	1.00	0.00203	0.06513	0.00880					7471A
1102160-06	TTNUS			16:10:37	SOIL	0.28	50.0	50.0	50.0	1.00	0.00184	0.05385	0.00962					7471A
1102160-07	TTNUS			16:11:47	SOIL	0.35	50.0	50.0	50.0	1.00	0.00168	0.04492	0.00642					7471A
1102160-08	TTNUS			16:12:57	SOIL	0.29	50.0	50.0	50.0	1.00	0.00187	0.05582	0.00962					7471A
SEQ-CCV	QC	11C0038	4.0000	16:14:08	H2O	50.00	50.0	50.0	50.0	1.00	0.06859	3.99906		99.98	85.0	115.0		7471A
SEQ-CCB	QC	DI H2O		16:15:20	H2O	50.00	50.0	50.0	50.0	1.00	0.00101	0.00486						7471A
1102160-09	TTNUS			16:16:31	SOIL	0.38	50.0	50.0	50.0	1.00	0.00501	0.24125	0.03174					7471A
1102160-10	TTNUS			16:17:44	SOIL	0.34	50.0	50.0	50.0	1.00	0.00226	0.07912	0.01164					7471A
1102160-11	TTNUS			16:18:57	SOIL	0.32	50.0	50.0	50.0	1.00	0.00300	0.12260	0.01916					7471A
1102160-12	TTNUS			16:20:10	SOIL	0.36	50.0	50.0	50.0	1.00	0.00219	0.07469	0.01037					7471A
1102180-01	ARCADIS			16:21:24	SOIL	0.33	50.0	50.0	50.0	1.00	0.00605	0.30319	0.04594					7471A
1C01002-MS1	ARCADIS	10E0064	0.3030	16:22:38	SOIL	0.33	50.0	50.0	50.0	1.00	0.04250	2.45700	0.37227	107.70	80.0	120.0	7.38	7471A
1C01002-MSD1	ARCADIS	10E0064	0.2941	16:23:53	SOIL	0.34	50.0	50.0	50.0	1.00	0.04071	2.35128	0.34578	101.95	80.0	120.0		7471A
SEQ-CRL	QC	11C0034	0.2000	16:25:09	H2O	50.00	50.0	50.0	50.0	1.00	0.00401	0.18250		91.25	70.0	130.0		7471A
SEQ-CCV	QC	11C0038	4.0000	16:26:25	H2O	50.00	50.0	50.0	50.0	1.00	0.06881	4.01186		100.30	85.0	115.0		7471A
SEQ-CCB	QC	DI H2O		16:27:37	H2O	50.00	50.0	50.0	50.0	1.00	0.00100	0.00468						7471A

2nd v BLD 3/3/11

889

1102180

Lab. #	Client	Waste Description	T.V. (ug/L) (mg/kg)	Analysis Time HH:MM (Military)	Matrix Type	Digestion		Analysis		Dilution	Peak Height	[Hg] ug/L	[Hg] mg/kg	Recovery %	Control Limits		RPD	Method
						Initial Sample Volume	Final Sample Volume (mL)	Initial Sample Volume (mL)	Final Sample Volume (mL)						Low Limit %	High Limit %		

BS: 0.3g of boiling chips + 0.5mls of 10E0064 diluted to 50mls DI H2O final volume.
BLK: 0.3g of boiling chips into 50mls DI H2O final volume.

890

1102180

Sample Name: SEQ-CAL1 Acquired: 3/2/2011 9:35:20 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00003	-.00008	-.00034	.00000	.00461	-.00001	-.00022
Stddev	.00001	.00002	.00032	.00000	.00109	.00003	.00016
%RSD	22.472	27.354	94.002	68.604	23.683	269.68	75.178
#1	.00003	-.00006	-.00038	.00001	.00449	.00002	-.00036
#2	.00003	-.00009	.00000	.00001	.00359	-.00003	-.00025
#3	.00004	-.00010	-.00063	.00000	.00576	-.00002	-.00004

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00028	.00030	.07626	.00439	.00000	.0000	.00026
Stddev	.00001	.00046	.00056	.00037	.00001	.000	.00001
%RSD	1.9799	153.73	.73971	8.4547	284.86	48.31	2.6181
#1	.00028	.00055	.07691	.00455	.00001	.0000	.00026
#2	.00027	-.00023	.07601	.00397	.00000	.0000	.00026
#3	.00028	.00057	.07587	.00466	.00000	.0000	.00027

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00004	-.00097	.00000	.00001	.00017	.00377	-.00481
Stddev	.00002	.00011	.00001	.00000	.00034	.00027	.00046
%RSD	64.000	11.372	251.94	45.873	200.19	7.2692	9.6157
#1	.00006	-.00091	.00001	.00000	-.00016	.00346	-.00534
#2	.00001	-.00091	.00000	.00001	.00052	.00399	-.00462
#3	.00004	-.00110	.00000	.00001	.00015	.00386	-.00447

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00061	-.00182	.00136	.00970	-.0002	.00009	-.00084
Stddev	.00079	.00041	.00024	.00025	.0000	.00003	.00076
%RSD	129.26	22.468	17.340	2.5470	18.92	36.022	90.492
#1	-.00129	-.00156	.00109	.00995	-.0001	.00011	-.00074
#2	-.00079	-.00162	.00153	.00967	-.0002	.00012	-.00013
#3	.00025	-.00229	.00145	.00946	-.0002	.00005	-.00165

Sample Name: SEQ-CAL1 Acquired: 3/2/2011 9:35:20 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	.00004	-.00032
Stddev	.00001	.00029
%RSD	16.310	89.277
#1	.00003	-.00039
#2	.00005	-.00001
#3	.00004	-.00057

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1140.8	588360.	89785.
Stddev	1.9	8537.	189.
%RSD	.16609	1.4510	.21031
#1	1142.1	582280.	89907.
#2	1138.6	598120.	89567.
#3	1141.6	584680.	89881.

Sample Name: SEQ-CAL3 Acquired: 3/2/2011 9:49:24 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2144
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02235**	**.18245**	**.35434**	**.01191**	**11.448**	**2.1252**	**1.6380**	**11.402**
Stddev	.00004	.00054	.00175	.00006	.029	.0030	.0038	.039
%RSD	.18752	.29532	.49267	.48703	.25044	.14115	.23096	.34399
#1	.02240	.18245	.35262	.01196	11.416	2.1217	1.6378	11.361
#2	.02232	.18191	.35611	.01193	11.471	2.1273	1.6419	11.440
#3	.02233	.18299	.35430	.01185	11.457	2.1265	1.6344	11.404

Elem	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.8173**	**5.6593**	**.02478**	**.0016**	**.08033**	**.13793**	**.09554**	**.06652**
Stddev	.0379	.0173	.00012	.0000	.00038	.00015	.00044	.00004
%RSD	.43025	.30596	.49155	.2630	.47811	.11137	.45651	.06160
#1	8.7786	5.6408	.02492	.0016	.08063	.13811	.09560	.06647
#2	8.8544	5.6751	.02470	.0016	.08045	.13784	.09508	.06654
#3	8.8188	5.6622	.02471	.0016	.07989	.13785	.09595	.06654

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.17230**	**3.8333**	**2.1078**	**3.0567**	**1.2179**	**.83724**	**.40966**	**1.1486**
Stddev	.00051	.0264	.0113	.0172	.0042	.00500	.00090	.0032
%RSD	.29596	.68898	.53473	.56277	.34635	.59757	.21918	.27906
#1	.17289	3.8055	2.1011	3.0382	1.2131	.83151	.40863	1.1450
#2	.17205	3.8580	2.1015	3.0722	1.2208	.84079	.41024	1.1512
#3	.17196	3.8364	2.1208	3.0598	1.2199	.83940	.41012	1.1494

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.438**	**.18227**	**.82754**	**.03283**	**4.0852**
Stddev	.002	.00025	.00407	.00012	.0109
%RSD	.1514	.13880	.49215	.37834	.26788
#1	1.435	.18198	.82298	.03297	4.0728
#2	1.438	.18248	.83081	.03273	4.0935
#3	1.440	.18234	.82883	.03280	4.0893

Sample Name: SEQ-CAL3 Acquired: 3/2/2011 9:49:24 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	971.27	562630.	88855.
Stddev	4.82	1229.	84.
%RSD	.49672	.21839	.09458
#1	976.84	561250.	88946.
#2	968.34	563030.	88781.
#3	968.64	563610.	88837.

Sample Name: SEQ-CAL4 Acquired: 3/2/2011 9:53:58 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Ba2335	Mn2576
Units	Cts/S	Cts/S	Cts/S
Avg	**.09268**	**55.662**	**1.6822**
Stddev	.00013	.343	.0088
%RSD	.13826	.61573	.52472
#1	.09275	55.284	1.6734
#2	.09276	55.751	1.6821
#3	.09253	55.952	1.6910

Int. Std.	Sc1880	Sc3613
Units	Cts/S	Cts/S
Avg	1112.8	591260.
Stddev	7.6	1969.
%RSD	.68603	.33297
#1	1120.5	593170.
#2	1112.8	591390.
#3	1105.2	589240.

Sample Name: SEQ-CAL5 Acquired: 3/2/2011 9:58:49 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Fe2611	Mg2790
Units	Cts/S	Cts/S	Cts/S
Avg	**9.2019**	**6.7001**	**.70852**
Stddev	.0667	.0699	.00627
%RSD	.72489	1.0438	.88515
#1	9.1334	6.6674	.70555
#2	9.2056	6.6525	.70429
#3	9.2666	6.7804	.71573

Int. Std.	Sc3613-2
Units	Cts/S
Avg	84850.
Stddev	584.
%RSD	.68804
#1	85119.
#2	85250.
#3	84180.

Sample Name: SEQ-CAL6 Acquired: 3/2/2011 10:03:43 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	B_2496	Be3130	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.4941**	**.05832**	**20.439**	**109.08**	**83.040**	**57.939**	**.25312**	**.0161**
Stddev	.0171	.00020	.158	.37	.281	.190	.00068	.0001
%RSD	.48816	.34817	.77531	.34206	.33852	.32751	.26846	.3267
#1	3.4942	.05809	20.476	109.16	82.957	57.945	.25277	.0161
#2	3.4769	.05841	20.577	108.67	82.810	57.746	.25268	.0162
#3	3.5110	.05846	20.266	109.40	83.353	58.125	.25390	.0162

Elem	Cu3247	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.79947**	**38.154**	**31.005**	**12.379**	**8.4249**	**4.0617**	**5.8651**	**14.08**
Stddev	.00542	.156	.107	.041	.0344	.0119	.0217	.08
%RSD	.67820	.40904	.34586	.32823	.40860	.29188	.37016	.6010
#1	.79357	38.132	31.026	12.361	8.4041	4.0557	5.8585	14.00
#2	.80424	38.010	30.889	12.350	8.4060	4.0541	5.8475	14.09
#3	.80060	38.320	31.101	12.425	8.4646	4.0754	5.8894	14.16

Elem	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8354**	**8.3763**	**.33307**	**40.664**
Stddev	.0039	.0291	.00079	.149
%RSD	.21007	.34782	.23608	.36702
#1	1.8334	8.3630	.33233	40.693
#2	1.8330	8.3562	.33298	40.502
#3	1.8399	8.4097	.33390	40.796

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	968.65	571640.	89691.
Stddev	3.59	1246.	109.
%RSD	.37022	.21790	.12159
#1	969.45	573070.	89814.
#2	971.76	571120.	89652.
#3	964.73	570740.	89607.

Sample Name: SEQ-CAL7 Acquired: 3/2/2011 10:08:58 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	1.0038	**4.2833**
Stddev	.0276	.1091
%RSD	2.7521	2.5476
#1	.98845	4.2544
#2	.98727	4.1916
#3	1.0357	4.4040

Int. Std.	Sc3613-2
Units	Cts/S
Avg	86842.
Stddev	2398.
%RSD	2.7614
#1	87856.
#2	88567.
#3	84104.

Sample Name: SEQ-CAL8 Acquired: 3/2/2011 10:14:07 Type: Cal
Method: DuoEnviroMethodNEW(v1990) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca3179	Mg2790	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**15.881**	**.13633**	**21.174**
Stddev	.065	.00031	.187
%RSD	.40755	.22639	.88514
#1	15.951	.13667	21.025
#2	15.823	.13626	21.384
#3	15.870	.13607	21.113

Int. Std.	Sc3613-2
Units	Cts/S
Avg	83899.
Stddev	260.
%RSD	.30992
#1	83611.
#2	83967.
#3	84118.

Sample Name: SEQ-CAL2 Acquired: 3/2/2011 10:21:27 Type: Cal
Method: DuoEnviroMethodNEW(v1991) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2144
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00095**	**.09105**	**.03287**	**.00059**	**.60515**	**.21193**	**.03577**	**1.1065**
Stddev	.00001	.00011	.00074	.00001	.01481	.00061	.00010	.0228
%RSD	.87328	.12165	2.2393	1.3891	2.4474	.28854	.27440	2.0644
#1	.00095	.09096	.03222	.00060	.59525	.21192	.03574	1.0934
#2	.00095	.09101	.03271	.00058	.59804	.21254	.03588	1.0933
#3	.00096	.09117	.03367	.00059	.62218	.21132	.03569	1.1329

Elem	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.90488**	**.56779**	**.00259**	**.0002**	**.00852**	**.07155**	**.00887**	**.01813**
Stddev	.01663	.01167	.00003	.0000	.00010	.00022	.00007	.00027
%RSD	1.8375	2.0549	1.2306	1.245	1.1450	.30876	.74256	1.4681
#1	.89596	.56101	.00258	.0002	.00846	.07138	.00886	.01803
#2	.89462	.56109	.00257	.0002	.00846	.07180	.00880	.01793
#3	.92407	.58126	.00263	.0002	.00863	.07147	.00894	.01843

Elem	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.37110**	**.29564**	**.12459**	**.07854**	**.04149**	**.05691**	**.1467**	**.01872**
Stddev	.00930	.00602	.00375	.00179	.00129	.00117	.0003	.00004
%RSD	2.5052	2.0365	3.0116	2.2851	3.1062	2.0518	.2038	.20250
#1	.36447	.29221	.12254	.07803	.04003	.05609	.1467	.01874
#2	.36711	.29211	.12231	.07706	.04201	.05640	.1471	.01874
#3	.38173	.30259	.12892	.08054	.04245	.05825	.1465	.01867

Elem	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**.08337**	**.00345**	**.40059**
Stddev	.00215	.00006	.00836
%RSD	2.5838	1.6087	2.0871
#1	.08202	.00342	.39577
#2	.08224	.00342	.39576
#3	.08585	.00352	.41024

Sample Name: SEQ-CAL2 Acquired: 3/2/2011 10:21:27 Type: Cal
Method: DuoEnviroMethodNEW(v1991) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1066.7	587670.	90350.
Stddev	23.1	6620.	164.
%RSD	2.1620	1.1265	.18180
#1	1083.4	589290.	90254.
#2	1076.2	593320.	90256.
#3	1040.3	580390.	90539.

Sample Name: SEQ-ICV Acquired: 3/2/2011 11:06:09 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0018

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**488.50**	**9934.0**	**1010.5**	**979.35**	F **1078.8**	**1029.1**	zF *****
Stddev	6.14	382.8	14.5	11.58	15.1	41.6	-----
%RSD	1.2573	3.8531	1.4347	1.1826	1.4016	4.0422	-----
#1	482.91	9563.4	1003.9	970.03	1074.9	988.05	z 176.73
#2	487.51	10328.	1000.6	975.69	1066.0	1071.2	z 175.63
#3	495.07	9910.9	1027.2	992.31	1095.5	1027.9	z 176.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value					1000.0		1000.0
Range					±50.000		±-50.000

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**48.824**	**1025.5**	**1038.4**	**1001.8**	**968.82**	**1023.**	**986.45**
Stddev	2.051	11.7	14.3	14.1	9.90	14.	12.13
%RSD	4.2007	1.1454	1.3727	1.4039	1.0218	1.411	1.2297
#1	46.827	1019.8	1032.1	997.20	958.99	1012.	977.79
#2	50.925	1017.7	1028.3	990.59	968.68	1017.	981.26
#3	48.721	1039.0	1054.7	1017.6	978.79	1039.	1000.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**9694.7**	**9.9964**	**47.642**	**1023.3**	**989.26**	**50.220**	**982.81**
Stddev	394.3	.3366	1.983	11.2	14.96	1.615	12.53
%RSD	4.0666	3.3670	4.1621	1.0906	1.5125	3.2150	1.2748
#1	9319.2	9.6887	45.715	1012.2	981.79	48.720	976.37
#2	10105.	10.356	49.676	1023.2	979.51	51.929	974.81
#3	9659.5	9.9445	47.534	1034.5	1006.5	50.011	997.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-ICV Acquired: 3/2/2011 11:06:09 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0018

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1025.4**	**1023.7**	F **1081.2**	**1031.4**	**1042.**	**1006.2**	**996.55**
Stddev	14.8	17.0	20.3	13.8	40.	39.9	15.56
%RSD	1.4434	1.6643	1.8819	1.3370	3.874	3.9658	1.5613
#1	1020.1	1017.9	1074.2	1029.3	1002.	966.31	990.51
#2	1013.9	1010.3	1065.2	1018.8	1083.	1046.1	984.90
#3	1042.1	1042.9	1104.1	1046.1	1041.	1006.0	1014.2
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1000.0				
Range			±50.000				

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**996.12**	**1047.6**
Stddev	10.28	14.2
%RSD	1.0319	1.3509
#1	986.48	1044.5
#2	994.96	1035.2
#3	1006.9	1063.0
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**914.19**	**561700.**	**87866.**
Stddev	13.67	6788.	3183.
%RSD	1.4956	1.2084	3.6220
#1	917.65	567570.	91112.
#2	925.80	563270.	84751.
#3	899.12	554270.	87734.

Sample Name: SEQ-ICB Acquired: 3/2/2011 11:15:10 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.01642**	**-.63753**	**.83042**	**1.1474**	**.25970**	**.28498**	z *****
Stddev	.05643	3.4500	1.4817	.1551	.10855	.04633	-----
%RSD	343.69	541.15	178.42	13.517	41.797	16.256	-----
#1	-.05929	3.3319	.06833	1.3140	.37461	.24012	z 138.97
#2	-.03747	-2.3303	2.5380	1.0073	.24559	.28216	z 137.85
#3	.04751	-2.9142	-.11506	1.1208	.15890	.33265	z 137.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.01474**	**.17370**	F **1.1500**	**.06600**	**.10751**	**.9725**	**1.1676**
Stddev	.00285	.06360	.1221	.21497	.23211	.6553	.0597
%RSD	19.337	36.616	10.614	325.70	215.90	67.39	5.1126
#1	.01169	.24700	1.1566	.16317	.33969	.4618	1.1375
#2	.01518	.14092	1.2686	.21523	.10738	1.711	1.1289
#3	.01734	.13317	1.0247	-.18040	-.12454	.7442	1.2363
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			1.0000				
Low Limit			-1.0000				

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**2.2377**	**.00942**	**.01485**	**.22501**	**1.2241**	**-.00668**	**-.67723**
Stddev	1.2742	.01024	.00898	.05163	.1710	.00546	.22968
%RSD	56.941	108.70	60.433	22.948	13.967	81.821	33.915
#1	2.2977	.01106	.00739	.27540	1.4199	-.01150	-.62901
#2	.93462	.01875	.01235	.17221	1.1044	-.00779	-.92720
#3	3.4809	-.00154	.02481	.22742	1.1481	-.00074	-.47549
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-ICB Acquired: 3/2/2011 11:15:10 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.65867**	**.26418**	**.42219**	**-9.4363**	**.3055**	**.27020**	**.36511**
Stddev	1.3478	.07781	1.1048	.5183	.0709	.20526	1.6555
%RSD	204.63	29.453	261.69	5.4927	23.20	75.966	453.44
#1	2.1039	.20614	1.5173	-9.0762	.2238	.08600	.87037
#2	.43627	.35260	.44144	-10.030	.3421	.23312	-1.4842
#3	-.56413	.23380	-.69215	-9.2023	.3505	.49146	1.7091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.41301**	**.27484**
Stddev	.14656	.16132
%RSD	35.485	58.698
#1	.34026	.45757
#2	.58170	.21481
#3	.31705	.15213
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1057.8	592320.	90409.
Stddev	1.3	1467.	221.
%RSD	.12617	.24762	.24418
#1	1059.4	592490.	90172.
#2	1057.0	593690.	90610.
#3	1057.1	590770.	90444.

Sample Name: SEQ-CRL Acquired: 3/2/2011 11:25:53 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**1.9862**	**207.47**	**4.8735**	**29.742**	**106.81**	**5.1942**	z *****
Stddev	.0821	1.31	1.3148	.398	.31	.0733	-----
%RSD	4.1340	.63378	26.979	1.3378	.28831	1.4118	-----
#1	2.0745	206.47	5.9137	29.464	106.82	5.1096	z 143.19
#2	1.9718	206.99	3.3957	29.564	107.11	5.2331	z 143.73
#3	1.9122	208.96	5.3111	30.198	106.50	5.2398	z 142.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value							
Range							

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.8343**	**5.0576**	F **6.0480**	**12.460**	**5.2832**	F **12.18**	**11.149**
Stddev	.0524	.0298	.1874	.125	.1030	1.10	.064
%RSD	1.0850	.58835	3.0980	1.0048	1.9496	9.017	.57445
#1	4.7820	5.0851	5.8318	12.592	5.2597	12.23	11.200
#2	4.8340	5.0617	6.1493	12.343	5.1939	11.06	11.169
#3	4.8870	5.0260	6.1629	12.445	5.3959	13.26	11.077
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value			5.0000			10.00	
Range			±1.0000			±2.000	

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**100.44**	**5.0041**	**4.7333**	**16.554**	**14.372**	**4.8757**	**8.7513**
Stddev	2.13	.0346	.0391	.191	.148	.0412	.0998
%RSD	2.1247	.69063	.82535	1.1556	1.0267	.84563	1.1404
#1	99.102	4.9678	4.6941	16.428	14.223	4.8366	8.8539
#2	102.90	5.0366	4.7337	16.461	14.375	4.9188	8.6546
#3	99.312	5.0079	4.7722	16.774	14.518	4.8716	8.7455
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/2/2011 11:25:53 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **3.8810**	**15.078**	**5.6786**	**20.658**	**.0234**	**15.602**	**7.5625**
Stddev	.6832	.551	.6622	.671	.0066	.184	.6647
%RSD	17.605	3.6548	11.662	3.2467	28.22	1.1824	8.7889
#1	3.2992	15.344	4.9505	19.901	.0276	15.646	8.2964
#2	3.7105	15.445	5.8401	20.898	.0268	15.399	7.3901
#3	4.6334	14.444	6.2451	21.176	.0158	15.760	7.0011
Check ?	Chk Fail	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass
Value	3.0000						
Range	±.60000						

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**12.968**	**20.574**
Stddev	.279	.159
%RSD	2.1502	.77169
#1	12.677	20.717
#2	12.995	20.603
#3	13.233	20.403
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1024.9	581000.	89870.
Stddev	1.5	4639.	634.
%RSD	.14442	.79851	.70562
#1	1026.4	585120.	90567.
#2	1023.5	581910.	89714.
#3	1024.7	575970.	89328.

Sample Name: SEQ-CRL Acquired: 3/2/2011 11:42:44 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**1.7110**	**93.110**	**4.8572**	**.49425**	**9.8087**	**1.8917**	z *****
Stddev	.0970	4.306	.7557	.19264	.0511	.0439	-----
%RSD	5.6694	4.6244	15.559	38.976	.52124	2.3218	-----
#1	1.7615	98.058	4.0294	.71668	9.8521	1.8540	z 139.66
#2	1.7724	90.216	5.5103	.38500	9.8216	1.8811	z 140.69
#3	1.5992	91.056	5.0317	.38107	9.7523	1.9399	z 140.28
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.8360**	**1.8768**	**2.2449**	**8.7507**	**3.6972**	**9.405**	**7.9158**
Stddev	.0413	.0210	.0671	.0828	.0893	.381	.0966
%RSD	2.2497	1.1187	2.9877	.94669	2.4152	4.046	1.2204
#1	1.7974	1.8961	2.1684	8.8427	3.6426	9.574	7.9086
#2	1.8310	1.8797	2.2725	8.7272	3.6488	8.970	8.0158
#3	1.8796	1.8544	2.2938	8.6821	3.8002	9.673	7.8230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**55.716**	**2.7218**	**2.6022**	**6.0320**	**8.8871**	**2.7642**	**4.8732**
Stddev	2.122	.0393	.0520	.0282	.1434	.0331	.2952
%RSD	3.8076	1.4430	1.9993	.46790	1.6134	1.1962	6.0584
#1	54.148	2.6998	2.5618	6.0445	8.7714	2.7410	5.2054
#2	54.870	2.6984	2.5838	6.0518	9.0475	2.7494	4.7731
#3	58.130	2.7671	2.6609	5.9997	8.8423	2.8020	4.6409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/2/2011 11:42:44 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **4.0250**	**7.0017**	**5.9912**	F **8.4229**	**5.682**	**9.1757**	**3.4435**
Stddev	.5107	.6670	.4814	.4171	.062	.1592	.1840
%RSD	12.688	9.5257	8.0348	4.9524	1.093	1.7354	5.3449
#1	4.5976	7.6100	6.5091	8.8972	5.648	8.9980	3.2475
#2	3.8610	6.2885	5.9069	8.2588	5.644	9.3055	3.4704
#3	3.6165	7.1064	5.5575	8.1128	5.753	9.2235	3.6127
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	3.0000			20.000			
Range	±.60000			±-4.0000			

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**9.2560**	**9.1055**
Stddev	.1646	.1705
%RSD	1.7778	1.8721
#1	9.3083	9.0025
#2	9.3881	9.3022
#3	9.0717	9.0117
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1074.2	584910.	90252.
Stddev	5.3	1168.	1672.
%RSD	.48919	.19967	1.8528
#1	1070.9	586170.	91849.
#2	1071.4	583860.	90393.
#3	1080.2	584690.	88514.

Sample Name: SEQ-CRL Acquired: 3/2/2011 11:48:23 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Pb only

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F **1.4456**	**83.288**	5.**0946**	**.31889**	**8.5818**	**1.7628**	z *****
Stddev	.0624	1.650	1.0331	.27503	.0256	.0203	-----
%RSD	4.3179	1.981**0**	20.279	86.247	.29891	1.1507	-----
#1	1.3993	82.172	4.0264	.02791	8.5547	1.7462	z 140.79
#2	1.4210	82.510	5.1687	.57457	8.5851	1.7854	z 140.01
#3	1.5166	85.184	6.0887	.35418	8.6057	1.7569	z 139.95
Check ?	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value	2.0000						
Range	±-.40000						

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7132**	**1.6484**	**2.0352**	F **7.7079**	**3.3914**	**7.408**	**7.145**9
Stddev	.0058	.0829	.0437	.0712	.1194	.327	.0675
%RSD	.33762	5.0277	2.1475	.92302	3.5198	4.414	.94469
#1	1.7150	1.5618	2.0731	7.7701	3.5031	7.212	7.0858
#2	1.7067	1.7269	2.0450	7.7232	3.2656	7.785	**7**.1330
#3	1.7178	1.6565	1.9874	7.6303	3.4056	7.227	7.2190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				10.000			
Range				±-2.0000			

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**50.238**	**2.434**9	F **2.3772**	**5.4909**	F **7.8326**	**2.5264**	F **4.4268**
Stddev	1.653	.0098	.0065	.0374	.1990	.0100	.2587
%RSD	3.2912	.40467	.27401	.68115	2.5403	.39430	5.8436
#1	51.704	2.4459	2.3847	5.4859	7.9884	2.5373	4.7062
#2	48.446	2.4317	2.3728	5.4563	7.9010	2.5241	4.1956
#3	50.565	2.4270	2.3742	5.5306	7.6085	2.5178	4.3785
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Fail
Value			3.0000		10.000		6.0000
Range			±-.60000		±-2.0000		±-1.2000

Sample Name: SEQ-CRL Acquired: 3/2/2011 11:48:23 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.8891**	F **5.9598**	F **4.0313**	F **6.0549**	**5.249**	**8.3794**	F **3.1391**
Stddev	.5103	.4254	.5791	.2051	.052	.1220	.7030
%RSD	17.664	7.1370	14.365	3.3867	1.000	1.4565	22.394
#1	3.3273	5.4712	4.5042	5.9755	5.308	8.4280	3.3515
#2	2.3288	6.2475	4.2042	6.2877	5.229	8.4696	2.3544
#3	3.0111	6.1606	3.3854	5.9013	5.209	8.2405	3.7113
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value		8.0000	6.0000	20.000			4.0000
Range		±-1.6000	±-1.2000	±-4.0000			±-.80000

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**8.6627**	**8.0058**
Stddev	.0980	.1628
%RSD	1.1308	2.0333
#1	8.6446	7.9201
#2	8.5750	7.9039
#3	8.7684	8.1936
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1096.3	579690.	88858.
Stddev	1.0	1515.	249.
%RSD	.08720	.26135	.28032
#1	1095.7	580190.	88620.
#2	1095.8	580890.	89117.
#3	* 1097.4	577990.	88836.

Sample Name: SEQ-IFA Acquired: 3/2/2011 11:53:25 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.58122**	**516540.**	**1.2802**	**53.328**	**1.0565**	**.02355**	z *****
Stddev	.24235	4010.	2.3082	.573	.0776	.01028	-----
%RSD	41.697	.77637	180.30	1.0744	7.3446	43.664	-----
#1	-.61348	513590.	-.45215	52.788	1.0951	.01213	z 315.92
#2	-.80582	514930.	3.9005	53.929	.96714	.03208	z 316.43
#3	-.32436	521110.	.39218	53.266	1.1072	.02645	z 315.00

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**487.55**	**.50371**	**-.79111**	**-.11860**	**-1.5943**	**-7.012**	**-4.0684**
Stddev	3.49	.11629	.05264	.36044	.1238	1.551	.0286
%RSD	.71551	23.087	6.6543	303.91	7.7635	22.13	.70371
#1	484.17	.52277	-.73452	-.27466	-1.4729	-5.964	-4.0462
#2	491.13	.37907	-.83862	.29358	-1.5896	-8.794	-4.1007
#3	487.35	.60930	-.80019	-.37472	-1.7203	-6.277	-4.0583

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**197210.**	**-.06411**	**499.43**	**4.1340**	**.52059**	**.05983**	**-2.5553**
Stddev	851.	.01349	.59	.0732	.44584	.00555	.3799
%RSD	.43153	21.039	.11726	1.7697	85.643	9.2818	14.868
#1	197960.	-.07798	499.47	4.0500	.38758	.06080	-2.1884
#2	196290.	-.06331	500.00	4.1682	.15638	.06484	-2.9470
#3	197380.	-.05104	498.83	4.1837	1.0178	.05386	-2.5303

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.4940**	**.93598**	**4.6195**	**-13.679**	**-5.435**	**-4.7080**	**-1.3247**
Stddev	2.3891	3.2372	3.1356	1.275	.064	.1713	2.3380
%RSD	28.127	345.86	67.876	9.3189	1.176	3.6381	176.48
#1	9.4499	4.6036	7.1085	-12.473	-5.396	-4.6758	1.0129
#2	5.7750	-.27249	5.6521	-15.013	-5.509	-4.8931	-1.3242
#3	10.257	-1.5231	1.0979	-13.551	-5.400	-4.5551	-3.6630

Sample Name: SEQ-IFA Acquired: 3/2/2011 11:53:25 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	.97069	7.0184
Stddev	.25338	.5402
%RSD	26.103	7.6974
#1	.71300	7.5694
#2	.97956	6.4896
#3	1.2195	6.9962

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	720.76	497820.	82885.
Stddev	3.93	2326.	12.
%RSD	.54520	.46730	.01393
#1	723.06	500440.	82875.
#2	723.00	496990.	82898.
#3	716.22	496020.	82882.

Sample Name: SEQ-IFB Acquired: 3/2/2011 11:58:18 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**197.27**	**486780.**	**114.75**	**4.7232**	**549.09**	**477.88**	zF *****
Stddev	1.24	2327.	1.00	.3090	3.69	1.98	-----
%RSD	.62763	.47797	.87434	6.5431	.67170	.41438	-----
#1	198.62	489280.	115.46	4.5269	545.27	475.65	z 317.99
#2	197.00	484680.	113.61	5.0794	549.38	479.43	z 317.83
#3	196.18	486380.	115.19	4.5632	552.62	478.56	z 318.37
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail
Value							200.00
Range							±-40.000

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**462.80**	**1030.9**	**1179.3**	**480.75**	**445.57**	**441.6**	**503.73**
Stddev	2.05	5.1	6.1	2.69	4.75	2.1	3.36
%RSD	.44390	.49120	.51650	.56030	1.0652	.4811	.66795
#1	461.82	1025.7	1174.2	477.99	451.02	442.7	507.15
#2	465.16	1031.1	1177.7	480.89	443.39	442.9	500.42
#3	461.41	1035.8	1186.0	483.37	442.30	439.1	503.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**185530.**	**-.04740**	**470.00**	**458.10**	**1.3250**	**.04141**	**952.44**
Stddev	744.	.00095	1.07	4.69	.2011	.02103	6.37
%RSD	.40114	2.0048	.22870	1.0235	15.173	50.785	.66926
#1	186020.	-.04746	469.47	463.23	1.2504	.01742	947.28
#2	185900.	-.04832	471.23	457.02	1.5527	.05668	950.49
#3	184670.	-.04642	469.29	454.04	1.1719	.05012	959.57
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	Chk Pass
Value							
Range							

Sample Name: SEQ-IFB Acquired: 3/2/2011 11:58:18 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.012**	**660.18**	**56.307**	**-15.231**	**-5.137**	**-4.1043**	**82.765**
Stddev	1.195	6.35	1.864	1.420	.065	.1729	1.162
%RSD	2.2124	.96223	3.3104	9.3247	1.269	4.2129	1.4038
#1	53.159	655.05	58.458	-15.684	-5.096	-3.9443	81.440
#2	55.378	658.20	55.180	-16.369	-5.213	-4.2877	83.249
#3	53.499	667.29	55.282	-13.639	-5.104	-4.0810	83.607
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**454.51**	**990.10**
Stddev	4.55	6.60
%RSD	1.0020	.66654
#1	459.42	982.64
#2	453.69	992.49
#3	450.42	995.17
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	742.25	506470.	85551.
Stddev	5.48	3207.	138.
%RSD	.73801	.63324	.16114
#1	747.19	502790.	85656.
#2	743.21	508660.	85395.
#3	736.36	507970.	85603.

Sample Name: SEQ-CCV Acquired: 3/2/2011 12:09:14 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0019

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**487.83**	**9766.2**	**1013.2**	**1000.9**	**1052.0**	**1019.5**	zF *****	**49.287**
Stddev	1.61	18.2	3.7	5.4	6.8	.7	-----	.140
%RSD	.33048	.18593	.36755	.53915	.64712	.07140	-----	.28408
#1	488.09	9748.7	1012.7	996.62	1047.9	1019.9	z 174.77	49.368
#2	486.10	9765.0	1009.7	999.17	1048.2	1020.0	z 176.06	49.367
#3	489.29	9785.0	1017.1	1007.0	1059.8	1018.7	z 177.05	49.125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value							1000.0	
Range							±-100.00	

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**1030.2**	**1044.0**	**991.90**	**978.80**	**1016.**	**994.30**	**9809.0**	**9.7718**
Stddev	5.3	2.7	4.45	1.59	6.	4.79	20.5	.0233
%RSD	.51508	.26252	.44852	.16194	.6211	.48125	.20892	.23811
#1	1027.7	1042.0	989.27	980.62	1013.	993.48	9810.4	9.7566
#2	1026.6	1043.0	989.40	977.72	1013.	989.98	9828.8	9.7602
#3	1036.3	1047.1	997.04	978.05	1024.	999.45	9787.9	9.7986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**47.161**	**1023.8**	**997.04**	**49.893**	**986.28**	**1009.2**	**1013.5**	**1047.9**
Stddev	.018	2.4	2.95	.168	3.40	4.2	2.4	3.3
%RSD	.03765	.23871	.29592	.33620	.34437	.41848	.23227	.31686
#1	47.141	1026.1	995.89	49.787	984.21	1006.6	1010.8	1048.9
#2	47.175	1021.2	994.83	49.806	984.42	1006.8	1014.8	1044.2
#3	47.168	1023.9	1000.4	50.086	990.20	1014.0	1015.0	1050.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/2/2011 12:09:14 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0019

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1007.4**	**1022.**	**991.11**	**996.04**	**994.58**	**1026.0**
Stddev	6.9	.	.66	1.69	2.01	10.9
%RSD	.68335	.0104	.06625	.16938	.20236	1.0590
#1	1002.9	1022.	991.79	994.09	996.72	1018.8
#2	1003.9	1022.	991.06	997.15	992.73	1020.8
#3	1015.3	1022.	990.48	996.87	994.30	1038.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	934.43	556850.	88472.
Stddev	2.50	1816.	95.
%RSD	.26758	.32605	.10735
#1	935.73	556550.	88536.
#2	936.01	558800.	88363.
#3	931.55	555210.	88519.

Sample Name: SEQ-CCB Acquired: 3/2/2011 12:16:34 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.06426**	**.49464**	**.30517**	**1.0605**	**.19837**	**.16929**	z *****	**.01152**
Stddev	.15691	3.3688	.83629	.2038	.02879	.08395	-----	.00580
%RSD	244.16	681.06	274.04	19.218	14.514	49.586	-----	50.342
#1	.11358	-3.1289	1.2093	1.2418	.17746	.07243	z 136.95	.00488
#2	-.18315	1.0810	-.44068	.83992	.23121	.21451	z 136.50	.01559
#3	-.12322	3.5318	.14691	1.0998	.18644	.22094	z 137.35	.01410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.14053**	**.52967**	**.06278**	**.13946**	**.3977**	**.72021**	**3.0652**	**.00864**
Stddev	.07154	.05816	.10753	.10864	.6638	.12997	1.0033	.01276
%RSD	50.910	10.980	171.29	77.900	166.9	18.046	32.731	147.67
#1	.18111	.59595	.13107	.24745	-.2743	.60275	2.2415	.02245
#2	.05792	.48721	-.06118	.03018	1.053	.85984	4.1825	-.00272
#3	.18256	.50583	.11843	.14077	.4144	.69804	2.7717	.00619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.01314**	**.15572**	**.92987**	**.00392**	**-.43261**	**.94182**	**.09386**	**.71497**
Stddev	.00532	.03235	.09739	.01385	.04723	.58449	.35377	1.9974
%RSD	40.487	20.773	10.474	353.44	10.916	62.059	376.92	279.37
#1	.00713	.18105	1.0129	.01989	-.42592	.79395	.17749	-1.5908
#2	.01726	.16683	.95403	-.00484	-.48283	.44547	.39831	1.9146
#3	.01503	.11928	.82267	-.00329	-.38909	1.5860	-.29424	1.8211
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/2/2011 12:16:34 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-9.3026**	**.1736**	**.21341**	**.07566**	**.23552**	**.32518**
Stddev	.3458	.0889	.05122	.82592	.04852	.12542
%RSD	3.7176	51.23	23.999	1091.6	20.600	38.571
#1	-8.9482	.0802	.23609	-.36960	.29152	.46936
#2	-9.6391	.1833	.15477	1.0287	.20908	.26491
#3	-9.3204	.2573	.24937	-.43208	.20597	.24126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1088.3	587330.	90218.
Stddev	4.1	1040.	379.
%RSD	.38101	.17713	.42060
#1	1084.1	587050.	89781.
#2	1088.6	586460.	90415.
#3	1092.4	588480.	90460.

Sample Name: 1C01006-BLK1 Acquired: 3/2/2011 13:02:33 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS030111B 2g->100ml

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.17403**	**1.4007**	**-.88615**	**1.4657**	**.52596**	**-.01692**	z *****
Stddev	.04922	1.9269	.77779	.5348	.07849	.00793	-----
%RSD	28.284	137.57	87.772	36.486	14.922	46.830	-----
#1	-.21989	2.6315	-1.6252	1.3024	.46523	-.02537	z 132.12
#2	-.18018	2.3905	-.95861	2.0630	.49807	-.00965	z 131.42
#3	-.12202	-.81991	-.07466	1.0315	.61459	-.01575	z 131.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.01486**	**-.00792**	F **1.1947**	**-.04020**	F 2.**4247**	**.5691**	**.95365**
Stddev	.00035	.02293	.1107	.06958	.3488	1.716	.57368
%RSD	2.3824	289.66	9.262**5**	173.10	14.385	301.6	60.156
#1	.01486	-.02773	1.0814	-.07436	2.0860	.8561	.68186
#2	.01522	.01720	1.3025	.03986	2.7828	-1.273	1.6127
#3	.01451	-.01321	1.2002	-.08610	2.4052	2.124	.56637
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit			1.0000		2.0000		
Low Limit			-1.0000		-2.0000		

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	6.**0664**	**.03054**	**.00256**	**.24596**	**.51424**	**-.02411**	**-.25515**
Stddev	1.9486	.01343	.00389	.03816	.19214	.00786	.02539
%RSD	32.121	43.982	151.87	15.516	37.365	32.581	9.9498
#1	3.9837	.04390	.00137	.21933	.31665	-.02291	-.24243
#2	6.3704	.01704	.00691	.28969	.52562	-.01692	-.23864
#3	7.8451	.03068	-.00059	.22888	.70043	-.03249	-.28439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1C01006-BLK1 Acquired: 3/2/2011 13:02:33 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS030111B 2g->100ml

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.83949**	**-.10742**	**1.4818**	F **17.577**	**.1510**	**.29882**	**-2.0845**
Stddev	.39678	.94359	.2639	.410	.0409	.26237	.1976
%RSD	47.264	878.44	17.810	2.3320	27.10	87.801	9.4794
#1	1.2976	.67624	1.3387	17.499	.1191	.11742	-1.9871
#2	.60780	.15633	1.3203	18.020	.1972	.17939	-1.9545
#3	.61303	-1.1548	1.7863	17.212	.1367	.59965	-2.3118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000			
Low Limit				-10.000			

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.22319**	**4.8631**
Stddev	.18941	.2095
%RSD	84.867	4.3085
#1	.09790	4.8079
#2	.44109	5.0947
#3	.13057	4.6867
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	968.28	557350.	89510.
Stddev	19.45	79080.	572.
%RSD	2.0085	14.189	.63944
#1	980.68	606500.	89802.
#2	945.87	466130.	88850.
#3	978.29	599420.	89877.

Sample Name: 1C01006-BS1 Acquired: 3/2/2011 13:07:14 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS030111B 2g->100ml

119.5%

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**249.79**	2130.1	**250.84**	**942.88**	F 2389.5	**53.743**	z *****
Stddev	1.24	2.6	1.06	4.21	5.7	.041	-----
%RSD	.49530	.12112	.42442	.44635	.23815	.07571	-----
#1	249.49	2127.6	251.01	939.54	2384.6	53.697	z 142.42
#2	248.72	2132.8	249.70	941.48	2388.2	53.759	z 143.81
#3	251.14	2129.8	251.81	947.61	2395.8	53.774	z 143.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None
Value					2000.0		
Range					±300.00		

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.1712**	**133.99**	**131.31**	**555.12**	213.05	**254.2**	265.36
Stddev	.0075	.22	.45	1.53	1.66	2.3	.98
%RSD	.14421	.16153	.34607	.27479	.78017	.9166	.36794
#1	5.1637	133.90	131.34	555.06	211.49	252.1	264.50
#2	5.1787	133.83	130.85	553.62	212.87	253.9	265.16
#3	5.1712	134.23	131.75	556.67	214.80	256.7	266.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

115.8%

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	F **1158.0**	**5.2671**	**4.8769**	**559.64**	**1132.6**	**5.2976**	**556.07**
Stddev	6.2	.0267	.0034	3.69	4.4	.0287	1.52
%RSD	.53243	.50610	.06982	.65920	.38960	.54216	.27412
#1	1151.4	5.2864	4.8730	555.98	1129.3	5.3180	554.85
#2	1163.5	5.2782	4.8792	559.59	1130.9	5.3101	555.58
#3	1159.3	5.2367	4.8786	563.36	1137.6	5.2648	557.78
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	1000.0						
Range	±150.00						

Sample Name: 1C01006-BS1 Acquired: 3/2/2011 13:07:14 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS030111B 2g->100ml

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**266.15**	**257.12**	**243.28**	**1120.8**	**1107.**	**1069.3**	247.24
Stddev	1.38	.73	.98	2.7	1.	2.2	2.18
%RSD	.51698	.28528	.40189	.23810	.1251	.20624	.87996
#1	265.38	257.54	244.40	1118.0	1106.	1067.4	246.59
#2	265.34	256.28	242.61	1121.2	1108.	1071.8	245.45
#3	267.74	257.55	242.82	1123.2	1106.	1068.8	249.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**536.10**	**557.82**
Stddev	4.58	2.35
%RSD	.85354	.42182
#1	531.99	555.20
#2	535.28	558.51
#3	541.03	559.75
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	945.98	593100.	90153.
Stddev	2.21	2386.	113.
%RSD	.23362	.40220	.12534
#1	948.40	594760.	90267.
#2	945.46	594170.	90041.
#3	944.07	590360.	90153.

Sample Name: 1102180-01 Acquired: 3/2/2011 13:13:36 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-2.7861**	**354690.**	**142.28**	**24.346**	**959.80**	**31.975**
Stddev	.1376	1631.	3.24	.883	2.89	.082
%RSD	4.9397	.45978	2.2769	3.6252	.30106	.25701
#1	-2.6297	355610.	143.24	23.328	963.13	31.909
#2	-2.8398	352810.	144.94	24.821	958.30	31.949
#3	-2.8887	355660.	138.67	24.890	957.97	32.067

Elem	Bi2230	Ca3179	Cd2144	Cd2288	Co2286	Cr2677
Units	Cts/S	ppm	ppb	ppb	ppb	ppb
Avg	z *****	**12.867**	**8.0432**	**-.98371**	**252.30**	**575.07**
Stddev	-----	.061	.7054	.50836	.95	2.01
%RSD	-----	.47480	8.7706	51.678	.37680	.35025
#1	z 472.17	12.845	8.8071	-1.4318	253.29	576.92
#2	z 468.54	12.820	7.9060	-.43130	251.40	572.92
#3	z 469.67	12.936	7.4164	-1.0880	252.20	575.36

Elem	Cu2199	Cu3247	Fe2611	K_7664	Mg2790	Mn2576
Units	ppb	ppb	ppb	ppm	ppm	ppb
Avg	**398.3**	**454.68**	F **579960.**	**30.814**	**59.329**	**7601.9**
Stddev	1.6	1.51	5333.	.121	.112	19.3
%RSD	.4122	.33133	.91955	.39394	.18844	.25391
#1	399.8	454.12	573990.	30.700	59.264	7580.1
#2	398.4	453.54	581630.	30.941	59.265	7616.8
#3	396.5	456.39	584250.	30.800	59.458	7608.8

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**14.237**	**.20958**	**374.98**	**322.36**	**1.3343**	**11.988**
Stddev	.210	.00527	.85	2.13	.9585	2.294
%RSD	1.4738	2.5125	.22610	.66049	71.833	19.133
#1	14.146	.21075	375.10	323.98	2.0285	13.980
#2	14.089	.21416	374.08	323.15	1.7339	9.4805
#3	14.477	.20383	375.76	319.95	.24071	12.505

Sample Name: 1102180-01 Acquired: 3/2/2011 13:13:36 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	20.668	108.6	3923.1	F -13.195	1030.3	939.36
Stddev	1.257	.2	11.3	1.403	4.2	3.10
%RSD	6.0824	.2111	.28730	10.633	.41022	.33018
#1	19.283	108.3	3910.1	-11.625	1033.4	942.94
#2	21.737	108.8	3929.4	-13.631	1025.5	937.76
#3	20.985	108.6	3929.9	-14.328	1032.0	937.40

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	826.25	582780.	93371.
Stddev	2.50	2147.	99.
%RSD	.30238	.36833	.10650
#1	823.39	583030.	93363.
#2	828.04	584800.	93475.
#3	827.31	580520.	93277.

Sample Name: 1102180-02 Acquired: 3/2/2011 13:18:26 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.7395**	**240830.**	**98.348**	**10.942**	**470.06**	**8.8189**
Stddev	.1593	688.	2.841	.709	7.45	.0161
%RSD	9.1562	.28574	2.8887	6.4837	1.5843	.18234
#1	-1.8647	240050.	95.227	11.709	465.97	8.8026
#2	-1.7937	241350.	99.036	10.807	465.55	8.8347
#3	-1.5602	241100.	100.78	10.310	478.65	8.8193

Elem	Bi2230	Ca3179	Cd2144	Cd2288	Co2286	Cr2677
Units	Cts/S	ppm	ppb	ppb	ppb	ppb
Avg	z *****	**41.815**	**6.4873**	F **-1.3926**	**78.339**	**453.88**
Stddev	-----	.072	1.3901	.4416	2.088	2.49
%RSD	-----	.17141	21.427	31.708	2.6658	.54775
#1	z 431.61	41.736	5.7548	-1.1323	77.589	452.47
#2	z 432.41	41.832	5.6167	-1.1431	76.729	456.75
#3	z 432.74	41.877	8.0905	-1.9025	80.699	452.42

Elem	Cu2199	Cu3247	Fe2611	K_7664	Mg2790	Mn2576
Units	ppb	ppb	ppb	ppm	ppm	ppb
Avg	**346.5**	**386.47**	F **531690.**	**4.7977**	**21.036**	**2527.4**
Stddev	1.0	.70	4055.	.0168	.040	9.4
%RSD	.2915	.18140	.76261	.35048	.19040	.37137
#1	345.5	386.10	530850.	4.8121	20.991	2522.1
#2	347.5	387.28	536100.	4.8019	21.066	2538.3
#3	346.4	386.03	528120.	4.7792	21.052	2521.9

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**11.394**	**.08955**	**154.16**	**562.65**	**.67395**	**11.975**
Stddev	.285	.00459	1.70	6.96	2.1776	1.099
%RSD	2.4987	5.1232	1.1048	1.2367	323.11	9.1730
#1	11.463	.08554	152.61	558.79	-.44199	13.243
#2	11.638	.09455	153.87	558.47	3.1834	11.356
#3	11.081	.08855	155.98	570.68	-.71951	11.326

Sample Name: 1102180-02 Acquired: 3/2/2011 13:18:26 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	23.803	59.58	1985.3	F -6.2529	904.26	766.83
Stddev	1.800	.08	6.6	.9500	3.61	10.80
%RSD	7.5629	.1287	.33113	15.193	.39878	1.4080
#1	22.365	59.57	1977.8	-5.5266	902.56	760.42
#2	23.223	59.67	1990.2	-5.9040	908.40	760.78
#3	25.822	59.51	1987.9	-7.3280	901.82	779.30

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	823.09	584810.	92314.
Stddev	12.20	1425.	254.
%RSD	1.4817	.24365	.27492
#1	830.40	586300.	92351.
#2	829.85	583460.	92043.
#3	809.01	584670.	92547.

Sample Name: 1102180-03 Acquired: 3/2/2011 13:23:08 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-3.2307**	**232200.**	**131.69**	**13.270**	**640.52**	**11.790**
Stddev	.0885	2193.	1.85	1.637	5.45	.059
%RSD	2.7381	.94422	1.4050	12.336	.85022	.49682
#1	-3.1387	234390.	129.72	15.138	634.64	11.778
#2	-3.3152	230010.	131.94	12.083	641.55	11.739
#3	-3.2382	232210.	133.40	12.590	645.38	11.854

Elem	Bi2230	Ca3179	Cd2144	Cd2288	Co2286	Cr2677
Units	Cts/S	ppm	ppb	ppb	ppb	ppb
Avg	z *****	**41.026**	**10.606**	**5.2062**	**308.16**	**615.31**
Stddev	-----	.179	.255	.0706	3.31	5.70
%RSD	-----	.43660	2.4060	1.3550	1.0748	.92702
#1	z 431.84	41.001	10.353	**5**.2712	304.67	608.84
#2	z 430.41	40.861	10.863	5.2163	308.55	617.47
#3	z 430.62	41.217	10.603	5.1312	311.26	619.62

Elem	Cu2199	Cu3247	Fe2611	K_7664	Mg2790	Mn2576
Units	ppb	ppb	ppb	ppm	ppm	ppb
Avg	**953.1**	**1072.6**	F **529590.**	**6.3590**	**22.978**	**4610.3**
Stddev	6.7	7.5	2166.	.0127	.073	28.9
%RSD	.7009	.70308	.40894	.19887	.31864	.62667
#1	945.5	1064.2	528910.	6.3577	22.998	4588.8
#2	958.1	1078.8	527850.	6.3723	22.897	4643.1
#3	955.7	1074.8	532020.	6.3471	23.039	4598.9

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**16.329**	**.12350**	**209.62**	**2326.2**	**-1.0716**	**11.409**
Stddev	.132	.00401	1.15	19.4	.9563	1.014
%RSD	.80736	3.2502	.55088	.83444	89.242	8.8911
#1	16.466	.12813	208.81	2304.2	-2.1758	12.390
#2	16.204	.12097	209.10	2333.4	-.52457	11.474
#3	16.316	.12140	210.94	2340.9	-.51437	10.364

Sample Name: 1102180-03 Acquired: 3/2/2011 13:23:08 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**42.572**	**51.40**	**2286.8**	F **-15.140**	**867.47**	**2172.1**
Stddev	.645	.12	3.8	2.452	6.14	13.4
%RSD	1.5158	.2331	.16507	16.192	.70726	.61589
#1	41.953	51.53	2288.1	-17.903	860.39	2157.6
#2	42.524	51.30	2282.6	-14.292	871.12	2174.7
#3	43.241	51.36	2289.8	-13.225	870.91	2184.0

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	834.49	582980.	92717.
Stddev	7.48	3745.	187.
%RSD	.89604	.64246	.20176
#1	842.91	587300.	92585.
#2	831.92	580640.	92931.
#3	828.63	580990.	92635.

Sample Name: 1102180-01RE1@2X Acquired: 3/2/2011 13:32:53 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F **-1.6338**	**186220.**	**75.181**	**13.914**	**477.07**	**16.925**	z *****
Stddev	.1357	1539.	1.559	1.925	2.99	.104	-----
%RSD	8.3060	.82627	2.0731	13.838	.62738	.61347	-----
#1	-1.7672	184450.	76.762	12.996	474.21	16.851	z 323.09
#2	-1.4959	186960.	75.134	12.618	476.83	16.879	z 321.72
#3	-1.6382	187250.	73.646	16.126	480.18	17.043	z 323.68

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.9835**	**.44693**	**.87032**	**127.35**	**306.96**	**215.4**	**236.16**
Stddev	.0517	.26441	.09025	1.06	1.22	.3	1.42
%RSD	.74048	59.160	10.370	.82861	.39735	.1455	.60320
#1	6.9376	.14253	.83721	126.49	305.56	215.7	235.16
#2	6.9735	.57871	.97245	127.02	307.51	215.3	237.79
#3	7.0395	.61955	.80130	128.53	307.80	215.1	235.52

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**319600.**	**16.009**	**31.380**	**4129.1**	**7.2918**	**.10021**	**198.98**
Stddev	2011.	.059	.191	31.1	.1332	.00206	.93
%RSD	.62917	.36583	.60992	.75210	1.8269	2.0533	.46572
#1	317830.	15.968	31.201	4106.3	7.2277	.10003	197.93
#2	319170.	15.983	31.355	4164.5	7.4450	.10235	199.35
#3	321790.	16.076	31.582	4116.5	7.2028	.09825	199.67

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**170.06**	**.11827**	**3.9688**	**5.5924**	**56.40**	**2039.0**	F **-5.2422**
Stddev	2.11	1.0703	3.8548	.2867	.26	7.5	.6467
%RSD	1.2383	904.93	97.128	5.1268	.4538	.36569	12.336
#1	167.91	.44076	5.4426	5.2739	56.10	2032.5	-4.9948
#2	170.15	.99022	-.40549	5.6731	56.53	2037.2	-5.9761
#3	172.12	-1.0762	6.8693	5.8300	56.56	2047.1	-4.7557

Sample Name: 1102180-01RE1@2X Acquired: 3/2/2011 13:32:53 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**543.85**	**478.01**
Stddev	1.64	4.78
%RSD	.30244	.99976
#1	541.99	473.78
#2	545.13	477.07
#3	544.42	483.19

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	875.42	578150.	91150.
Stddev	5.63	2026.	370.
%RSD	.64311	.35044	.40558
#1	881.48	580280.	91416.
#2	874.45	576240.	91307.
#3	870.34	577940.	90728.

Sample Name: 1102180-02RE1@2X Acquired: 3/2/2011 13:37:44 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

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Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F **-1.2022**	**126350.**	**48.459**	**8.3293**	**232.92**	**4.6236**	z *****
Stddev	.2797	1300.	2.861	1.6224	1.65	.0497	-----
%RSD	23.263	1.0286	5.9040	19.479	.70673	1.0757	-----
#1	-.91049	125280.	47.480	6.5076	232.61	4.5997	z 301.55
#2	-1.2280	127790.	46.216	8.8615	231.45	4.6807	z 299.51
#3	-1.4680	125960.	51.681	9.6187	234.70	4.5902	z 298.87

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**21.745**	**1.5051**	**1.1743**	**37.228**	**240.61**	**188.4**	**198.40**
Stddev	.285	.4731	.2171	.337	.94	.6	1.15
%RSD	1.3088	31.430	18.485	.90609	.39004	.3389	.57813
#1	21.640	1.7804	1.1688	37.440	241.67	189.1	199.21
#2	22.067	.95886	1.3940	36.839	240.25	188.4	198.91
#3	21.528	1.7760	.95998	37.405	239.90	187.8	197.09

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**282800.**	**2.4854**	**11.093**	**1353.8**	**5.6548**	**.03341**	**78.841**
Stddev	3319.	.0216	.112	2.4	.0754	.00299	1.106
%RSD	1.1737	.86988	1.0059	.17986	1.3327	8.9370	1.4029
#1	279430.	2.4605	11.027	1356.0	5.6503	.03207	78.854
#2	286060.	2.4999	11.222	1354.2	5.5818	.03133	77.728
#3	282910.	2.4957	11.030	1351.2	5.7323	.03683	79.940

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Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**292.71**	**.90352**	**6.9898**	**6.6731**	**31.09**	**1030.2**	F **-3.9698**
Stddev	1.87	1.8902	1.0216	.6806	.30	10.5	.7848
%RSD	.63753	209.20	14.616	10.200	.9735	1.0200	19.768
#1	294.19	-.57155	6.3232	7.4082	30.84	1023.9	-4.3711
#2	290.62	.24790	6.4803	6.0647	31.42	1042.3	-3.0656
#3	293.33	3.0342	8.1660	6.5466	31.00	1024.4	-4.4728

Sample Name: 1102180-02RE1@2X Acquired: 3/2/2011 13:37:44 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**478.95**	**387.12**
Stddev	.16	2.95
%RSD	.03362	.76176
#1	479.13	387.09
#2	478.83	384.18
#3	478.89	390.08

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	879.37	584270.	91368.
Stddev	5.36	780.	990.
%RSD	.60963	.13349	1.0831
#1	882.02	583610.	91996.
#2	882.89	584070.	90227.
#3	873.20	585130.	91882.

Sample Name: 1102180-03RE1@2X Acquired: 3/2/2011 13:42:48 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X2

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F -1.9997	120420.	61.632	10.724	320.48	6.1355	z *****
Stddev	.3080	394.	2.022	.548	.18	.0024	-----
%RSD	15.399	.32687	3.2806	5.1111	.05543	.03898	-----
#1	-2.2348	120350.	60.315	11.300	320.60	6.1327	z 299.15
#2	-1.6511	120070.	63.960	10.208	320.27	6.1371	z 300.43
#3	-2.1132	120850.	60.622	10.665	320.56	6.1366	z 300.37

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	21.136	4.6381	4.2164	153.55	324.06	519.9	541.69
Stddev	.075	.2310	.1499	.31	1.61	3.4	3.47
%RSD	.35683	4.9802	3.5558	.20158	.49635	.6495	.64038
#1	21.084	4.6143	4.3187	153.58	325.02	518.9	539.07
#2	21.223	4.4199	4.2862	153.22	324.96	523.7	545.62
#3	21.102	4.8801	4.0443	153.84	322.21	517.2	540.37

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	276180.	3.2488	12.043	2507.0	7.7794	.06252	105.20
Stddev	3218.	.0246	.014	6.3	.4152	.00229	.14
%RSD	1.1652	.75785	.11572	.25169	5.3372	3.6596	.13370
#1	278060.	3.2557	12.034	2506.7	7.4297	.06242	105.04
#2	278020.	3.2214	12.059	2513.5	7.6703	.06485	105.23
#3	272470.	3.2692	12.037	2500.9	8.2383	.06028	105.32

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1221.2	-1.4781	5.8642	16.576	26.81	1179.5	F -6.9242
Stddev	3.5	.3191	.9310	.722	.06	1.2	1.0493
%RSD	.28700	21.586	15.876	4.3539	.2138	.10321	15.153
#1	1223.1	-1.2104	6.4452	15.864	26.85	1178.8	-7.9914
#2	1217.2	-1.3929	4.7904	17.307	26.75	1178.7	-5.8939
#3	1223.4	-1.8312	6.3570	16.559	26.84	1180.9	-6.8872

Sample Name: 1102180-03RE1@2X Acquired: 3/2/2011 13:42:48 Type: Unk
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X2

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**457.59**	**1113.5**
Stddev	1.49	1.3
%RSD	.32642	.11561
#1	457.80	1112.5
#2	458.97	1115.0
#3	456.00	1113.0

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	885.28	582860.	91286.
Stddev	1.36	2249.	246.
%RSD	.15405	.38577	.26979
#1	883.82	583920.	91296.
#2	886.52	580280.	91036.
#3	885.50	584390.	91528.

Sample Name: SEQ-CCV Acquired: 3/2/2011 13:49:49 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0019

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**486.08**	**9838.2**	**1012.7**	**998.74**	**1057.0**	**1033.1**	zF *****	**49.274**
Stddev	4.26	13.9	6.1	6.50	7.2	1.6	-----	.032
%RSD	.87555	.14118	.60012	.65050	.68249	.15107	-----	.06508
#1	489.66	9829.0	1008.9	1004.4	1051.2	1031.8	z 173.73	49.247
#2	487.21	9831.5	1009.4	1000.1	1054.8	1034.9	z 173.66	49.309
#3	481.38	9854.2	1019.7	991.67	1065.1	1032.7	z 174.65	49.265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value							1000.0	
Range							±-100.00	

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**1030.0**	**1045.3**	**993.40**	**987.72**	**1016.**	**999.39**	**9677.7**	**9.8171**
Stddev	5.1	5.5	5.73	2.79	6.	5.39	22.9	.0487
%RSD	.49240	.52370	.57717	.28208	.6187	.53971	.23663	.49589
#1	1025.9	1040.5	989.07	988.28	1019.	1004.8	9684.7	9.7658
#2	1028.5	1044.0	991.23	990.18	1020.	999.42	9652.2	9.8228
#3	1035.7	1051.3	999.90	984.69	1009.	993.99	9696.4	9.8627
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**47.430**	**1026.5**	**997.03**	**50.297**	**987.47**	**1009.4**	**1016.2**	**1053.2**
Stddev	.025	4.0	7.61	.290	5.52	6.9	8.3	8.7
%RSD	.05271	.39397	.76360	.57569	.55935	.68356	.81669	.82583
#1	47.453	1030.2	990.66	49.992	984.88	1003.3	1009.6	1045.3
#2	47.434	1027.2	994.96	50.331	983.72	1007.9	1013.5	1051.7
#3	47.404	1022.2	1005.5	50.568	993.81	1016.9	1025.5	1062.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/2/2011 13:49:49 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0019

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1007.3**	**1041.**	**1001.6**	**996.01**	**1007.8**	**1026.1**
Stddev	9.1	2.	1.3	5.10	3.4	7.9
%RSD	.89847	.2124	.12863	.51171	.33502	.77460
#1	999.81	1038.	1000.3	992.32	1009.9	1019.9
#2	1004.7	1043.	1002.9	993.88	1009.5	1023.2
#3	1017.3	1041.	1001.6	1001.8	1003.9	1035.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	928.97	558020.	88059.
Stddev	6.33	3518.	41.
%RSD	.68156	.63046	.04673
#1	933.94	554960.	88011.
#2	931.14	557240.	88086.
#3	921.84	561860.	88078.

Sample Name: SEQ-CCB Acquired: 3/2/2011 13:57:06 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.04039**	**-2.5870**	1.3**806**	**.98449**	**.09822**	**.06933**	z *****	**.00412**
Stddev	.25151	3.7455	1.7908	.42341	.02781	.05148	-----	.00349
%RSD	622.76	144.78	129.71	43.008	28.312	74.256	-----	84.728
#1	.23379	-6.9118	-.17639	1.3958	.12977	.00997	z 135.61	.00046
#2	-.26041	-.44434	.98056	1.0078	.07727	.10173	z 136.11	.00742
#3	-.09454	-.40476	3.3376	.54992	.08763	.09628	z 136.41	.00447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.15955**	**.62227**	**.07083**	**.07649**	**1.058**	**.67900**	**3.6422**	**.00340**
Stddev	.02211	.06109	.11439	.11512	.599	.19839	.6936	.00560
%RSD	13.856	9.8179	161.51	150.50	56.59	29.217	19.042	164.97
#1	.18508	.62544	.01446	.20631	1.225	.87688	2.9583	-.00250
#2	.14695	.55965	.20246	-.01319	.3936	.48011	4.3450	.00864
#3	.14663	.68171	-.00444	.03636	1.556	.68001	3.6234	.00404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.00671**	**.10607**	**.96116**	**-.01736**	**-.62131**	**.16000**	**-.06124**	**.53868**
Stddev	.00673	.02748	.12779	.00838	.24398	.95060	.25244	1.3216
%RSD	100.33	25.902	13.295	48.271	39.268	594.14	412.24	245.35
#1	.00166	.12785	1.1014	-.02674	-.76494	1.0084	-.16466	.45018
#2	.01435	.07520	.93074	-.01061	-.33961	.33888	-.24553	-.73649
#3	.00411	.11517	.85132	-.01473	-.75937	-.86734	.22649	1.9024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/2/2011 13:57:06 Type: QC
Method: DuoEnviroMethodNEW(v1994) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-9.4062**	**.0620**	**.16734**	**-.07715**	**-.07144**	**.17061**
Stddev	.6619	.0764	.25971	1.1845	.11176	.06997
%RSD	7.0369	123.2	155.20	1535.3	156.44	41.011
#1	-10.118	-.0184	-.02461	-1.1846	-.06046	.21047
#2	-8.8093	.1336	.06378	-.21853	-.18828	.21154
#3	-9.2913	.0709	.46285	1.1717	.03443	.08982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1079.5	585940.	89947.
Stddev	11.7	22291.	214.
%RSD	1.0856	3.8043	.23778
#1	1084.9	560200.	89804.
#2	1087.6	598540.	89843.
#3	1066.1	599080.	90192.

PREPARATION BENCH SHEET

1C01002

Empirical Laboratories, LLC

Printed: 3/4/2011 11:04:32AM

940

Matrix: Solid **Prepared using: METALS - MET_HG_S** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102160-01	MET_7471A_MERCURY	03/01/2011 08:09	0.35	50					MS/Dup
1102160-02	MET_7471A_MERCURY	03/01/2011 08:09	0.32	50					MS/Dup
1102160-03	MET_7471A_MERCURY	03/01/2011 08:09	0.32	50					MS/Dup
1102160-05	MET_7471A_MERCURY	03/01/2011 08:09	0.37	50					MS/Dup
1102160-06	MET_7471A_MERCURY	03/01/2011 08:09	0.28	50					MS/Dup
1102160-07	MET_7471A_MERCURY	03/01/2011 08:09	0.35	50					MS/Dup
1102160-08	MET_7471A_MERCURY	03/01/2011 08:09	0.29	50					MS/Dup
1102160-09	MET_7471A_MERCURY	03/01/2011 08:09	0.38	50					MS/Dup
1102160-10	MET_7471A_MERCURY	03/01/2011 08:09	0.34	50					MS/Dup
1102160-11	MET_7471A_MERCURY	03/01/2011 08:09	0.32	50					MS/Dup
1102160-12	MET_7471A_MERCURY	03/01/2011 08:09	0.36	50					MS/Dup
1102180-01	MET_7471A_MERCURY	03/01/2011 08:09	0.33	50					
1C01002-BLK1	QC	03/01/2011 08:09	0.3	50					
1C01002-BS1	QC	03/01/2011 08:09	0.3	50	10E0064		500		
1C01002-MS1	QC	03/01/2011 08:09	0.33	50	10E0064	1102180-01	500		
1C01002-MSD1	QC	03/01/2011 08:09	0.34	50	10E0064	1102180-01	500		

1102180

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

PREPARATION BENCH SHEET

1B23003

Empirical Laboratories, LLC

Printed: 3/4/2011 11:04:10AM

941

Matrix: Solid **Prepared using: METALS - MET_HG_S** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102180-02	MET_7471A_MERCURY	02/23/2011 08:22	0.29	50					
1102180-03	MET_7471A_MERCURY	02/23/2011 08:22	0.31	50					
1102182-01	MET_7471A_MERCURY	02/23/2011 08:22	0.32	50					
1B23003-BLK1	QC	02/23/2011 08:22	0.3	50					
1B23003-BS1	QC	02/23/2011 08:22	0.3	50	10E0064		500		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1102180

PREPARATION BENCH SHEET

1C01006

Empirical Laboratories, LLC

Printed: 3/4/2011 11:04:55AM

942

Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1102160-01	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	2.06	100					Added for BatchQC in: 1C01006
1102160-01	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2.06	100					MS/Dup
1102160-02	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	1.99	100					MS/Dup
1102160-03	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2.01	100					MS/Dup
1102160-05	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	1.98	100					MS/Dup
1102160-06	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	1.97	100					MS/Dup
1102160-07	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	1.97	100					MS/Dup
1102160-08	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2	100					MS/Dup
1102160-09	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2.04	100					MS/Dup
1102160-10	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2.04	100					MS/Dup
1102160-11	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2.05	100					MS/Dup
1102160-12	MET_ICP_LOW6010C_FULL	03/01/2011 09:06	2.05	100					MS/Dup
1102180-01	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	1.95	100					
1102180-01RE1	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	1.95	100					Added 3/2/2011 by RGB
1102180-02	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	2.1	100					
1102180-02RE1	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	2.1	100					Added 3/2/2011 by RGB
1102180-03	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	2.03	100					
1102180-03RE1	MET_ICP_LOW6010B_TAL	03/01/2011 09:06	2.03	100					Added 3/2/2011 by RGB
1C01006-BLK1	QC	03/01/2011 09:06	2	100					
1C01006-BS1	QC	03/01/2011 09:06	2	100	11A0488		100		
1C01006-DUP1	QC	03/01/2011 09:06	2.06	100		1102160-01			
1C01006-DUP2	QC	03/01/2011 09:06	2.02	100		1102160-01			
1C01006-MS1	QC	03/01/2011 09:06	2.04	100	11A0488	1102160-01	100		

1102180

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

PREPARATION BENCH SHEET

1C01006

Empirical Laboratories, LLC

Printed: 3/4/2011 11:04:55AM

943

Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1C01006-PS1	QC	03/01/2011 09:06	2.06	100	11A0488	1102160-01	100		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1102180

Subcontractor Data Package

EMLab P&K

RECEIVED
FEB 28 2011

Regarding: Project: Ravford Army Ammunition Plant
EML ID: 755352

Report for:

Sonya Gordon
Emperical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Approved by:

NHawthorne

Technical Manager
Nicole Hawthorne

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 02-23-2011

Project SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

For clarity, we report the number of significant digits as calculated; but, due to the nature of this type of biological data, the number of significant digits that is used for interpretation should generally be one or two. All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

9020102

EMLab P&K

Report for:

Sonya Gordon
Emperical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: Ravford Army Ammunition Plant
EML ID: 755352

Approved by:

Technical Manager
Nicole Hawthorne

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 02-23-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

9020203

EMLab P&K
2100 N. Highway 360, Suite 1400, Grand Prairie, TX 75050
(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Emperical Laboratories, LLC
C/O: Sonya Gordon
Re: Ravford Army Ammunition Plant

Date of Sampling: 02-15-2011
Date of Receipt: 02-22-2011
Date of Report: 02-24-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	2
Total Samples Analysed:	2
Total Samples with Layer Asbestos Content > 1%:	0

Location: 1-1N (20110215), Solid Lab ID-Version‡: 3340709-1

Sample Layers	Asbestos Content
Brown Semi-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

Location: 5-5S (20110215), Solid Lab ID-Version‡: 3340710-1

Sample Layers	Asbestos Content
Brown Semi-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

9020304

000755352

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1102180

~~11-0223~~

NDING LABORATORY:

pirical Laboratories, LLC
1 Mainstream Drive, Suite 270
shville, TN 37228
one: 615.345.1115
x: 866.417.0548
oject Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
2100 N. Highway 360, Suite 1400
Grand Prairie, TX 75050
Phone :(972) 988-0502
Fax: (972) 606-1552

PO#: 11-0223

Project: Redford Army Ammunition plant

nalysis	Due	Expires	Laboratory ID	Comments
mple ID: 1-1N (20110215)				
ference No: 1102180-02	**Solid**	**Sampled:02/15/2011 16:30**	[redacted]	
JB_Asbestos Lab SOP	03/02/2011 14:00	02/17/2011 15:30		% Asbestos EPA 600
ontainers Supplied:				
mple ID: 5-5S (20110215)				
ference No: 1102180-03	**Solid**	**Sampled:02/17/2011 11:20**	[redacted]	
JB_Asbestos Lab SOP	03/02/2011 14:00	02/19/2011 10:20		% Asbestos EPA 600
ontainers Supplied:				

2-24-11		2/22/11 12:30 pm	
eased By	Date	Received By	Date
eased By	Date	Received By	Date

9020416

1102180

948

ANALYTICAL DATA PACKAGE
SDG # 1103066

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
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Email: sgordon@empirlabs.com

Original Report Date: March 18, 2011
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Total # of Pages: 154

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. Samples were subcontracted to EMLab P&K for Asbestos by EPA-600/M4-82-020 and EPA 600/R-93-116.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW6010B:
The matrix spike duplicate associated to sample 1103066-17 exceeded criteria with a negative bias for Copper.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

_____
Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 2

Project Number/Name GP08 RAAP. 4IAA. KGIAA

Project Location NRU Dublin, Va.

Laboratory Empirical Laboratories

Project Manager Chris Kalinowski

Sampler(s)/Affiliation Keith Carr/ARCADIS

1103066

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Lead/Copper (USEPA 6010)	%Asbestos TEM USEPA 600/R-93/116 CARB435					Remarks	Total
-01	2-3W (20110305)	SO	03.05.11 0830		1	1					2-Day Turn	2
-02	2-2B (20110305)	SO	03.05.11 0845		1	1					Around	2
-03	4-5S (20110305)	SO	03.05.11 0855		1	1						2
-04	529-1NW (20110305)	SO	03.05.11 0905		1	1						2
-05	528-1B (20110305)	SO	03.05.11 0915		1	1						2
-06	XXXX-2W (20110305)	SO	03.05.11 0930		1	1						2
-07	522-9W (20110305)	SO	03.05.11 0935		1	1						2
-08	502-4NE (20110305)	SO	03.05.11 0940		1	1						2
-09	XYYY-2SW (20110305)	SO	03.05.11 0945		1	1						2
-10	508-1S (20110305)	SO	03.05.11 0950		1	1						2
-11	509-1B (20110305)	SO	03.05.11 0955		1	1						2
-12	565B-1B (20110305)	SO	03.05.11 1130		1	1						2
-13	571-1B (20110305)	SO	03.05.11 1145		1	1						2
-14	570-1B (20110305)	SO	03.05.11 1200		1	1						2
-15	562-7W (20110305)	SO	03.05.11 1215		1	1						2
											Total No. of Bottles/ Containers	30

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 03/07/11	Time	Seal Intact?		
Received by: FED EX 8700 9833 9750	Organization: FED EX	Date / /	Time	Yes	No	N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?		
Received by: 2.1°C	Organization: [illegible]	Date 3/8/11	Time 08:45	(Yes)	No	N/A

Special Instructions/Remarks:

Please contact Chris Kalinowski with questions 919.656.7731

Delivery Method: ☐ In Person ☑ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

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1103066

ARCADIS

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Number/Name GP08RAAP.4IAA.KGIAA

Project Location NRU Dublin, Va.

Laboratory Empirical Laboratories

Project Manager Chris Kalinowski

Sampler(s)/Affiliation W. Keith Carr / ARCADIS

1103066

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Lead/Copper (USEPA 6010)	% Asbestos TEM USEPA 600/R-93/116 CARB 435					Remarks	Total
16 565-3N (20110305)	SO	03.05.11 1230		1	1					2-day Turn Around	2
17 565-7S (20110305)	SO	03.05.11 1245		1	1					" " "	2

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Total No. of Bottles/Containers: 4

Relinquished by: W. Keith Carr	Organization: ARCADIS	Date / /	Time	Seal Intact? Yes No N/A
Received by: FED EX 8700 9833 9750	Organization:	Date / /	Time	
Relinquished by: 2.1°C	Organization:	Date 3/8/11	Time 8:45	Seal Intact? (Yes) No N/A
Received by:	Organization: Empirical			

Special Instructions/Remarks: 2-Day Turnaround Please contact Chris Kalinowski with Questions 919.656.7731

Delivery Method: ☐ In Person ☑ Common Carrier FED EX SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

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1103066

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1103066 Number of Coolers: 1 of 1

Client: Arcadis Project: GPCX AAAP. 4TAA. KGTAA

Date/Time Received: 3-8-11/08:45 Date cooler(s) opened: 3-8-11

Opened By (print): Chris Pondy (signature):

Circle response below as appropriate

1. How did the samples arrive? FedEx UPS DHL Hand Delivered
EL Courier Other:

If applicable, enter airbill number here: 9750

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3-7-11 Seal Initials: S

3. Were custody seals unbroken and intact at the date and time of arrival?	Yes	No	N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler?	Yes	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	Yes	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	Yes	No	N/A
7. Was project identifiable from custody papers?	Yes	No	N/A
8. If required, was enough ice present in the cooler(s)?	Yes	No	N/A

Type of Coolant: WET DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 2.4 °C Correction Factor: -0.3 °C Final Value: 2.1 °C

Dates samples were logged-in: 3-8-11

9. Initial this form to acknowledge login of sample(s): (Name): (Initial): CP

10. Were all bottle lids intact and sealed tightly?	Yes	No	N/A
11. Did all bottles arrive unbroken?	Yes	No	N/A
12. Was all required bottle label information complete?	Yes	No	N/A
13. Did all bottle labels agree with custody papers?	Yes	No	N/A
14. Were correct containers used for the analyses indicated?	Yes	No	N/A
15. Were preservative levels correct in all applicable sample containers?	Yes	No	N/A
16. Was residual chlorine present in any applicable sample containers?	Yes	No	N/A
17. Was sufficient amount of sample sent for the analyses required?	Yes	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	N/A

If Non-Conformance issues were present, list by sample ID:

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103066

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 2-3W (20110305)				
Reference No: 1103066-01 **Solid**		**Sampled:03/05/2011 08:30**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 07:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 2-2B (20110305)				
Reference No: 1103066-02 **Solid**		**Sampled:03/05/2011 08:45**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 07:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 4-5S (20110305)				
Reference No: 1103066-03 **Solid**		**Sampled:03/05/2011 08:55**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 07:55		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 529-1NW (20110305)				
Reference No: 1103066-04 **Solid**		**Sampled:03/05/2011 09:05**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:05		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 528-1B (20110305)				
Reference No: 1103066-05 **Solid**		**Sampled:03/05/2011 09:15**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: XXXX-2W (20110305)				
Reference No: 1103066-06 **Solid**		**Sampled:03/05/2011 09:30**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:30		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103066

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 522-9W (20110305)				
Reference No: 1103066-07	**Solid**	**Sampled:03/05/2011 09:35**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:35		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 502-4NE (20110305)				
Reference No: 1103066-08	**Solid**	**Sampled:03/05/2011 09:40**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: YYYY-2SW (20110305)				
Reference No: 1103066-09	**Solid**	**Sampled:03/05/2011 09:45**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 508-1S (20110305)				
Reference No: 1103066-10	**Solid**	**Sampled:03/05/2011 09:50**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 509-1B (20110305)				
Reference No: 1103066-11	**Solid**	**Sampled:03/05/2011 09:55**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 08:55		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 565B-1B (20110305)				
Reference No: 1103066-12	**Solid**	**Sampled:03/05/2011 11:30**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 10:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 571-1B (20110305)				
Reference No: 1103066-13	**Solid**	**Sampled:03/05/2011 11:45**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 10:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 570-1B (20110305)				
Reference No: 1103066-14	**Solid**	**Sampled:03/05/2011 12:00**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 11:00		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103066

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 562-7W (20110305)				
Reference No: 1103066-15	**Solid**	**Sampled:03/05/2011 12:15**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 11:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 565-3N (20110305)				
Reference No: 1103066-16	**Solid**	**Sampled:03/05/2011 12:30**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 11:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 565-7S (20110305)				
Reference No: 1103066-17	**Solid**	**Sampled:03/05/2011 12:45**		
SUB_Asbestos Lab SOP	03/11/2011 14:00	03/07/2011 11:45		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

WORK ORDER

1103066

Printed: 3/18/2011 1:20:45PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 03/11/2011 16:00 (3 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 03/08/2011 08:45
Date Logged In 03/08/2011 09:28

Samples Received at: **2.1°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	No		

Analysis	Due	TAT	Expires	Version	Comments
1103066-01 2-3W (20110305) [Solid] Sampled 03/05/2011 08:30 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 07:30		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 07:30		
1103066-02 2-2B (20110305) [Solid] Sampled 03/05/2011 08:45 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 07:45		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 07:45		
1103066-03 4-5S (20110305) [Solid] Sampled 03/05/2011 08:55 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 07:55		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 07:55		

1103066

WORK ORDER

1103066

Printed: 3/18/2011 1:20:45PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103066-04 529-1NW (20110305) [Solid] Sampled 03/05/2011 09:05 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 08:05		
SW6010B	03/11/2011 14:00	3	09/01/2011 08:05		Pb & Cu
1103066-05 528-1B (20110305) [Solid] Sampled 03/05/2011 09:15 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 08:15		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 08:15		
1103066-06 XXXX-2W (20110305) [Solid] Sampled 03/05/2011 09:30 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 08:30		
SW6010B	03/11/2011 14:00	3	09/01/2011 08:30		Pb & Cu
1103066-07 522-9W (20110305) [Solid] Sampled 03/05/2011 09:35 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 08:35		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 08:35		
1103066-08 502-4NE (20110305) [Solid] Sampled 03/05/2011 09:40 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 08:40		
SW6010B	03/11/2011 14:00	3	09/01/2011 08:40		Pb & Cu
1103066-09 YYYY-2SW (20110305) [Solid] Sampled 03/05/2011 09:45 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 08:45		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 08:45		
1103066-10 508-1S (20110305) [Solid] Sampled 03/05/2011 09:50 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 08:50		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 08:50		

1103066

WORK ORDER

1103066

Printed: 3/18/2011 1:20:45PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103066-11 509-1B (20110305) [Solid] Sampled 03/05/2011 09:55 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 08:55		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 08:55		
1103066-12 565B-1B (20110305) [Solid] Sampled 03/05/2011 11:30 Eastern					
SW6010B	03/11/2011 14:00	3	09/01/2011 10:30		Pb & Cu
SM2540B	03/11/2011 14:00	3	03/12/2011 10:30		
1103066-13 571-1B (20110305) [Solid] Sampled 03/05/2011 11:45 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 10:45		
SW6010B	03/11/2011 14:00	3	09/01/2011 10:45		Pb & Cu
1103066-14 570-1B (20110305) [Solid] Sampled 03/05/2011 12:00 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 11:00		
SW6010B	03/11/2011 14:00	3	09/01/2011 11:00		Pb & Cu
1103066-15 562-7W (20110305) [Solid] Sampled 03/05/2011 12:15 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 11:15		
SW6010B	03/11/2011 14:00	3	09/01/2011 11:15		Pb & Cu
1103066-16 565-3N (20110305) [Solid] Sampled 03/05/2011 12:30 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 11:30		
SW6010B	03/11/2011 14:00	3	09/01/2011 11:30		Pb & Cu
1103066-17 565-7S (20110305) [Solid] Sampled 03/05/2011 12:45 Eastern					
SM2540B	03/11/2011 14:00	3	03/12/2011 11:45		
SW6010B	03/11/2011 14:00	3	09/01/2011 11:45		Pb & Cu

1103066

WORK ORDER

1103066

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Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103066-01 2-3W (20110305) [Solid] Sampled 03/05/2011 08:30 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 07:30		% Asbestos EPA 600
1103066-02 2-2B (20110305) [Solid] Sampled 03/05/2011 08:45 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 07:45		% Asbestos EPA 600
1103066-03 4-5S (20110305) [Solid] Sampled 03/05/2011 08:55 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 07:55		% Asbestos EPA 600
1103066-04 529-1NW (20110305) [Solid] Sampled 03/05/2011 09:05 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:05		% Asbestos EPA 600
1103066-05 528-1B (20110305) [Solid] Sampled 03/05/2011 09:15 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:15		% Asbestos EPA 600
1103066-06 XXXX-2W (20110305) [Solid] Sampled 03/05/2011 09:30 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:30		% Asbestos EPA 600
1103066-07 522-9W (20110305) [Solid] Sampled 03/05/2011 09:35 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:35		% Asbestos EPA 600
1103066-08 502-4NE (20110305) [Solid] Sampled 03/05/2011 09:40 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:40		% Asbestos EPA 600
1103066-09 YYYY-2SW (20110305) [Solid] Sampled 03/05/2011 09:45 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:45		% Asbestos EPA 600

1103066

WORK ORDER

1103066

Printed: 3/18/2011 1:20:45PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103066-10 508-1S (20110305) [Solid] Sampled 03/05/2011 09:50 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:50		% Asbestos EPA 600
1103066-11 509-1B (20110305) [Solid] Sampled 03/05/2011 09:55 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 08:55		% Asbestos EPA 600
1103066-12 565B-1B (20110305) [Solid] Sampled 03/05/2011 11:30 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 10:30		% Asbestos EPA 600
1103066-13 571-1B (20110305) [Solid] Sampled 03/05/2011 11:45 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 10:45		% Asbestos EPA 600
1103066-14 570-1B (20110305) [Solid] Sampled 03/05/2011 12:00 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 11:00		% Asbestos EPA 600
1103066-15 562-7W (20110305) [Solid] Sampled 03/05/2011 12:15 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 11:15		% Asbestos EPA 600
1103066-16 565-3N (20110305) [Solid] Sampled 03/05/2011 12:30 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 11:30		% Asbestos EPA 600
1103066-17 565-7S (20110305) [Solid] Sampled 03/05/2011 12:45 Eastern					
bAsbestos Lab SOP-S	03/11/2011 14:00	3	03/07/2011 11:45		% Asbestos EPA 600

1103066

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1103066
MATRIX: Soil

QC LEVEL: Level IV
Report Due: 3/11/2011
Client Sample Count: 17

Sample Type	Sampled	Received	Lab ID	Client ID	bAsbestos Lab SOP-S	SM2540B	SW6010B
Client Sample	3/5/2011	3/8/2011	1103066-01	2-3W (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-02	2-2B (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-03	4-5S (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-04	529-1NW (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-05	528-1B (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-06	XXXX-2W (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-07	522-9W (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-08	502-4NE (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-09	YYYY-2SW (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-10	508-1S (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-11	509-1B (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-12	565B-1B (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-13	571-1B (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-14	570-1B (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-15	562-7W (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-16	565-3N (20110305)	X	X	X
Client Sample	3/5/2011	3/8/2011	1103066-17	565-7S (20110305)	X	X	X

Data for SW6010B Forms

ANALYSIS DATA SHEET

2-3W (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 08:30
% Solids: 70.80

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-01
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	34.4	1.19	2.97	1	N	SW6010B	1C08008	03/09/11 11:45
7439-92-1	Lead	26.5	0.446	0.892	1		SW6010B	1C08008	03/09/11 11:45

ANALYSIS DATA SHEET

2-2B (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 08:45
% Solids: 63.80

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-02
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	49.4	1.28	3.20	1	N	SW6010B	1C08008	03/09/11 11:49
7439-92-1	Lead	33.5	0.480	0.960	1		SW6010B	1C08008	03/09/11 11:49

ANALYSIS DATA SHEET

4-5S (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 08:55
% Solids: 74.50

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-03
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	14.1	1.08	2.71	1	N	SW6010B	1C08008	03/09/11 11:54
7439-92-1	Lead	19.6	0.407	0.814	1		SW6010B	1C08008	03/09/11 11:54

ANALYSIS DATA SHEET

529-1NW (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:05
% Solids: 68.80

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-04
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	42.1	1.07	2.67	1	N	SW6010B	1C08008	03/09/11 11:58
7439-92-1	Lead	27.2	0.400	0.800	1		SW6010B	1C08008	03/09/11 11:58

ANALYSIS DATA SHEET

528-1B (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:15
% Solids: 76.20

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-05
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	97.9	1.00	2.50	1	N	SW6010B	1C08008	03/09/11 12:03
7439-92-1	Lead	38.5	0.375	0.750	1		SW6010B	1C08008	03/09/11 12:03

ANALYSIS DATA SHEET

XXXX-2W (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 03/05/11 09:30
% Solids: 72.20

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-06
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	123	1.08	2.69	1	N	SW6010B	1C08008	03/09/11 12:08
7439-92-1	Lead	31.5	0.403	0.807	1		SW6010B	1C08008	03/09/11 12:08

ANALYSIS DATA SHEET

522-9W (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:35
% Solids: 81.60

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-07
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	62.8	1.00	2.50	1	N	SW6010B	1C08008	03/09/11 12:12
7439-92-1	Lead	84.9	0.375	0.750	1		SW6010B	1C08008	03/09/11 12:12

ANALYSIS DATA SHEET

502-4NE (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:40
% Solids: 70.90

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-08
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	47.4	1.12	2.79	1	N	SW6010B	1C08008	03/09/11 12:16
7439-92-1	Lead	79.1	0.419	0.838	1		SW6010B	1C08008	03/09/11 12:16

ANALYSIS DATA SHEET

YYYY-2SW (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:45
% Solids: 77.90

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-09
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	68.7	1.02	2.54	1	N	SW6010B	1C08008	03/09/11 12:21
7439-92-1	Lead	26.5	0.381	0.763	1		SW6010B	1C08008	03/09/11 12:21

ANALYSIS DATA SHEET

508-1S (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:50
% Solids: 81.60

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-10
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	208	1.01	2.53	1	N	SW6010B	1C08008	03/09/11 12:26
7439-92-1	Lead	185	0.379	0.758	1		SW6010B	1C08008	03/09/11 12:26

ANALYSIS DATA SHEET

509-1B (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 09:55
% Solids: 78.80

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-11
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	98.4	0.976	2.44	1	N	SW6010B	1C08008	03/09/11 14:08
7439-92-1	Lead	41.1	0.366	0.732	1		SW6010B	1C08008	03/09/11 14:08

ANALYSIS DATA SHEET

565B-1B (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 11:30
% Solids: 80.70

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-12
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	55.7	0.991	2.48	1	N	SW6010B	1C08008	03/09/11 14:12
7439-92-1	Lead	14.7	0.372	0.743	1		SW6010B	1C08008	03/09/11 14:12

ANALYSIS DATA SHEET

571-1B (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 11:45
% Solids: 80.00

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-13
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	24.7	1.03	2.58	1	N	SW6010B	1C08008	03/09/11 14:17
7439-92-1	Lead	9.89	0.387	0.773	1		SW6010B	1C08008	03/09/11 14:17

ANALYSIS DATA SHEET

570-1B (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 12:00
% Solids: 81.50

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-14
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	26.1	1.01	2.53	1	N	SW6010B	1C08008	03/09/11 14:21
7439-92-1	Lead	13.5	0.379	0.759	1		SW6010B	1C08008	03/09/11 14:21

ANALYSIS DATA SHEET

562-7W (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 12:15
% Solids: 81.80

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-15
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	107	1.01	2.52	1	N	SW6010B	1C08008	03/09/11 14:26
7439-92-1	Lead	13.2	0.378	0.756	1		SW6010B	1C08008	03/09/11 14:26

ANALYSIS DATA SHEET

565-3N (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 12:30
% Solids: 76.60

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-16
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	31.1	1.05	2.64	1	N	SW6010B	1C08008	03/09/11 14:30
7439-92-1	Lead	26.5	0.396	0.791	1		SW6010B	1C08008	03/09/11 14:30

ANALYSIS DATA SHEET

565-7S (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/05/11 12:45
% Solids: 80.50

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103066-17
Received: 03/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	56.6	1.01	2.54	1	N	SW6010B	1C08008	03/09/11 14:35
7439-92-1	Lead	52.4	0.380	0.761	1		SW6010B	1C08008	03/09/11 14:35

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP
SDG: 1103066
Project: Radford Army Ammunition Plant2010
Calibration: 1070003
Sequence: 1C07036

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1C07036-ICV1	Copper	1000	970.9	97.1	ug/L	+/- 10.00%
	Lead	1000	969.7	97.0	ug/L	+/- 10.00%
1C07036-CCV1	Copper	1000	968.4	96.8	ug/L	+/- 10.00%
	Lead	1000	981.4	98.1	ug/L	+/- 10.00%
1C07036-CCV2	Copper	1000	939.6	94.0	ug/L	+/- 10.00%
	Lead	1000	936.1	93.6	ug/L	+/- 10.00%
1C07036-CCV3	Copper	1000	928.6	92.9	ug/L	+/- 10.00%
	Lead	1000	938.5	93.9	ug/L	+/- 10.00%
1C07036-CCV4	Copper	1000	903.8	90.4	ug/L	+/- 10.00%
	Lead	1000	937.8	93.8	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1103066

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1070003

Sequence: 1C07036

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1C07036-CRL1	Copper	8.000	7.336	91.7	ug/L	80 - 120
1C07036-CRL2	Lead	3.000	2.763	92.1	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103066
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1C07036
Calibration: 1070003

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1C07036-ICB1	Copper	-0.2122	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.6214	1.50	3.00	ug/L	U	SW6010B
1C07036-CCB1	Copper	-0.0414	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.244	1.50	3.00	ug/L	U	SW6010B
1C08008-BLK1	Copper	-0.0187	0.800	2.00	mg/Kg wet	U	SW6010B
	Lead	0.0265	0.300	0.600	mg/Kg wet	U	SW6010B
1C07036-CCB2	Copper	-0.328	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.788	1.50	3.00	ug/L	U	SW6010B
1C07036-CCB3	Copper	-0.157	4.00	10.0	ug/L	U	SW6010B
	Lead	0.807	1.50	3.00	ug/L	U	SW6010B
1C07036-CCB4	Copper	-0.0312	4.00	10.0	ug/L	U	SW6010B
	Lead	0.774	1.50	3.00	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103066
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1070003
Sequence: 1C07036

Lab Sample ID	Analyte	True	Found	%R	Units
1C07036-IFA1	Aluminum	500000	518,030.00	104	ug/L
	Antimony		-0.77		ug/L
	Arsenic		4.30		ug/L
	Barium		0.64		ug/L
	Beryllium		0.00		ug/L
	Boron		11.05		ug/L
	Cadmium		-1.50		ug/L
	Calcium	500000	520,660.00	104	ug/L
	Chromium		-1.71		ug/L
	Cobalt		-1.76		ug/L
	Copper		-4.93		ug/L
	Iron	200000	207,240.00	104	ug/L
	Lead		6.21		ug/L
	Magnesium	500000	513,760.00	103	ug/L
	Manganese		3.85		ug/L
	Molybdenum		0.25		ug/L
	Nickel		-3.09		ug/L
	Potassium		-61.59		ug/L
	Selenium		-1.34		ug/L
	Silver		-0.80		ug/L
	Sodium		20.64		ug/L
	Strontium		-5.98		ug/L
	Thallium		1.72		ug/L
	Tin		1.50		ug/L
	Titanium		-5.83		ug/L
	Vanadium		0.79		ug/L
	Zinc		6.85		ug/L
1C07036-IFB1	Aluminum	500000	475,510.00	95.1	ug/L
	Antimony	600.0	636.10	106	ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103066
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1070003
Sequence: 1C07036

Lab Sample ID	Analyte	True	Found	%R	Units
1C07036-IFB1	Arsenic	100.0	111.98	112	ug/L
	Barium	500.0	526.78	105	ug/L
	Beryllium	500.0	478.50	95.7	ug/L
	Boron		16.55		ug/L
	Cadmium	1000	1,137.90	114	ug/L
	Calcium	500000	478,290.00	95.7	ug/L
	Chromium	500.0	423.33	84.7	ug/L
	Cobalt	500.0	462.98	92.6	ug/L
	Copper	500.0	474.38	94.9	ug/L
	Iron	200000	189,110.00	94.6	ug/L
	Lead	50.00	52.53	105	ug/L
	Magnesium	500000	469,730.00	93.9	ug/L
	Manganese	500.0	441.10	88.2	ug/L
	Molybdenum		1.06		ug/L
	Nickel	1000	924.22	92.4	ug/L
	Potassium		-43.57		ug/L
	Selenium	50.00	50.27	101	ug/L
	Silver	200.0	195.85	97.9	ug/L
	Sodium		55.62		ug/L
	Strontium		-5.51		ug/L
	Thallium	100.0	84.10	84.1	ug/L
	Tin		1.01		ug/L
	Titanium		-4.78		ug/L
	Vanadium	500.0	427.28	85.5	ug/L
	Zinc	1000	976.07	97.6	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

565-7S (20110305)

Laboratory: Empirical Laboratories, LLC

SDG: 1103066

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Solid

Batch: 1C08008

% Solids: 80.50

Source Sample Name: **1103066-17**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Copper	60.89	56.59	109.5	86.8		80 - 120
Lead	60.89	52.41	103.4	83.7		80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Copper	60.30	101.9	75.2	7.14	N	20	80 - 120
Lead	60.30	102.1	82.4	1.22		20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

565-7S (20110305)

Laboratory: Empirical Laboratories, LLC

Client: Arcadis (A285)

Matrix: Solid

Batch: 1C08008

Preparation: MET_3050B

SDG: 1103066

Project: Radford Army Ammunition Plant2010

Laboratory ID: 1C08008-PS1

Lab Source ID: 1103066-17

Initial/Final: 0.98 g / 200 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Copper	451.9	223.2	250.0	91.5	80 - 120
Lead	442.8	206.8	250.0	94.4	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103066
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C08008	Laboratory ID:	1C08008-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Copper	50.00	50.33	101	80 - 120
Lead	50.00	49.38	98.8	80 - 120

SERIAL DILUTION

SW6010B

565-7S (20110305)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sequence: 1C07036
Preparation: MET_3050B

SDG: 1103066
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1C08008-DUP1
Lab Source ID: 1103066-17
Initial/Final: 0.98 / 200

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Copper	223.23	227.58	1.95		SW6010B	10.00
Lead	206.75	214.51	3.75		SW6010B	10.00

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1103066

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Copper	0.800	2.00	mg/Kg	SW6010B
Lead	0.300	0.600	mg/Kg	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103066

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103066

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	B	Ba	Be	Cd
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103066

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Co	Cr	Cu	K	Mn
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103066

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Mo	Na	Ni	Pb	Sb
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103066

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103066

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Copper	224.7	0.0000000				
Lead	220.3	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1103066

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Copper	15	10000	P
Lead	15	10000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1103066

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C08008 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
2-3W (20110305)	1103066-01	03/08/11 11:22	0.95	200.00
2-2B (20110305)	1103066-02	03/08/11 11:22	0.98	200.00
4-5S (20110305)	1103066-03	03/08/11 11:22	0.99	200.00
529-1NW (20110305)	1103066-04	03/08/11 11:22	1.09	200.00
528-1B (20110305)	1103066-05	03/08/11 11:22	1.05	200.00
XXXX-2W (20110305)	1103066-06	03/08/11 11:22	1.03	200.00
522-9W (20110305)	1103066-07	03/08/11 11:22	0.98	200.00
502-4NE (20110305)	1103066-08	03/08/11 11:22	1.01	200.00
YYYY-2SW (20110305)	1103066-09	03/08/11 11:22	1.01	200.00
508-1S (20110305)	1103066-10	03/08/11 11:22	0.97	200.00
509-1B (20110305)	1103066-11	03/08/11 11:22	1.04	200.00
565B-1B (20110305)	1103066-12	03/08/11 11:22	1.00	200.00
571-1B (20110305)	1103066-13	03/08/11 11:22	0.97	200.00
570-1B (20110305)	1103066-14	03/08/11 11:22	0.97	200.00
562-7W (20110305)	1103066-15	03/08/11 11:22	0.97	200.00
565-3N (20110305)	1103066-16	03/08/11 11:22	0.99	200.00
565-7S (20110305)	1103066-17	03/08/11 11:22	0.98	200.00
Blank	1C08008-BLK1	03/08/11 11:22	1.00	200.00
LCS	1C08008-BS1	03/08/11 11:22	1.00	200.00
565-7S (20110305)	1C08008-DUP1	03/08/11 11:22	0.98	200.00
565-7S (20110305)	1C08008-MS1	03/08/11 11:22	1.02	200.00
565-7S (20110305)	1C08008-MSD1	03/08/11 11:22	1.03	200.00
565-7S (20110305)	1C08008-PS1	03/08/11 11:22	0.98	200.00

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103066
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C07036
Instrument: ME-ICP
Calibration: 1070003

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1C07036-CAL1	030911A-001	03/09/11 09:27
Cal Standard	1C07036-CAL2	030911A-002	03/09/11 09:32
Cal Standard	1C07036-CAL3	030911A-003	03/09/11 09:38
Cal Standard	1C07036-CAL4	030911A-004	03/09/11 09:42
Cal Standard	1C07036-CAL5	030911A-005	03/09/11 09:48
Cal Standard	1C07036-CAL6	030911A-006	03/09/11 09:54
Cal Standard	1C07036-CAL7	030911A-007	03/09/11 10:00
Cal Standard	1C07036-CAL8	030911A-008	03/09/11 10:05
Initial Cal Check	1C07036-ICV1	030911B-001	03/09/11 10:37
Initial Cal Blank	1C07036-ICB1	030911B-002	03/09/11 10:45
Instrument RL Check	1C07036-CRL1	030911B-003	03/09/11 10:49
Instrument RL Check	1C07036-CRL2	030911B-005	03/09/11 10:59
Interference Check A	1C07036-IFA1	030911B-006	03/09/11 11:04
Interference Check B	1C07036-IFB1	030911B-007	03/09/11 11:10
Calibration Check	1C07036-CCV1	030911B-009	03/09/11 11:21
Calibration Blank	1C07036-CCB1	030911B-010	03/09/11 11:28
Blank	1C08008-BLK1	030911B-011	03/09/11 11:34
LCS	1C08008-BS1	030911B-012	03/09/11 11:38
2-3W (20110305)	1103066-01	030911B-013	03/09/11 11:45
2-2B (20110305)	1103066-02	030911B-014	03/09/11 11:49
4-5S (20110305)	1103066-03	030911B-015	03/09/11 11:54
529-1NW (20110305)	1103066-04	030911B-016	03/09/11 11:58
528-1B (20110305)	1103066-05	030911B-017	03/09/11 12:03
XXXX-2W (20110305)	1103066-06	030911B-018	03/09/11 12:08
522-9W (20110305)	1103066-07	030911B-019	03/09/11 12:12
502-4NE (20110305)	1103066-08	030911B-020	03/09/11 12:16
YYYY-2SW (20110305)	1103066-09	030911B-021	03/09/11 12:21
508-1S (20110305)	1103066-10	030911B-022	03/09/11 12:26
Calibration Check	1C07036-CCV2	030911B-023	03/09/11 12:31
Calibration Blank	1C07036-CCB2	030911B-024	03/09/11 12:38
Calibration Check	1C07036-CCV3	030911C-014	03/09/11 13:54
Calibration Blank	1C07036-CCB3	030911C-015	03/09/11 14:01

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103066
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C07036	Instrument:	ME-ICP
Calibration:	1070003		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
509-1B (20110305)	1103066-11	030911D-001	03/09/11 14:08
565B-1B (20110305)	1103066-12	030911D-002	03/09/11 14:12
571-1B (20110305)	1103066-13	030911D-003	03/09/11 14:17
570-1B (20110305)	1103066-14	030911D-004	03/09/11 14:21
562-7W (20110305)	1103066-15	030911D-005	03/09/11 14:26
565-3N (20110305)	1103066-16	030911D-006	03/09/11 14:30
565-7S (20110305)	1103066-17	030911D-007	03/09/11 14:35
565-7S (20110305)	1C08008-MS1	030911D-008	03/09/11 14:39
565-7S (20110305)	1C08008-MSD1	030911D-009	03/09/11 14:44
565-7S (20110305)	1C08008-PS1	030911D-010	03/09/11 14:48
565-7S (20110305)	1C08008-DUP1	030911D-011	03/09/11 14:54
Calibration Check	1C07036-CCV4	030911D-012	03/09/11 14:59
Calibration Blank	1C07036-CCB4	030911D-013	03/09/11 15:07

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103066
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1070003
Instrument: ME-ICP
Matrix: Water
Calibration Date: 3/9/2011 2:09:37PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.8456E-05	10000	1.8425E-05			500000	1.83992E-05		
Antimony	0	0	100	0.0007706	1000	8.4984E-04					10000	0.0008456
Arsenic	0	0	100	0.0003252	1000	0.0003566					10000	3.5343E-04
Barium	0	0	50	0.0111778	1000	0.011119	5000	0.010711				
Beryllium	0	0	100	0.0021827	1000	0.0021067					10000	0.0020175
Boron	0	0	50	0.0000126	1000	1.179E-05					5000	1.1732E-05
Cadmium	0	0	100	0.0084952	1000	0.0088162					10000	0.0082575
Calcium	0	0	1100	3.110909E-05	50000	2.995E-05					10000	
Chromium	0	0	100	0.0000259	1000	2.433E-05					10000	2.5062E-05
Cobalt	0	0	100	0.0054425	1000	0.0055742					10000	0.0056736
Copper	0	0	100	8.670001E-05	1000	8.207E-05					10000	8.3579E-05
Iron	0	0	5100	1.382353E-05	10000	1.2733E-05			500000	1.26132E-05	10000	
Lead	0	0	100	0.0011668	1000	0.0011982					10000	0.0012044
Magnesium	0	0	5100		50000	1.284E-06			500000	1.34648E-06	10000	
Manganese	0	0	100	0.0001734	1000	1.6505E-04	10000	1.6125E-04			10000	
Molybdenum	0	0	100	0.0037432	1000	0.0040527					10000	0.0039843
Nickel	0	0	100	0.0029052	1000	0.0030301					10000	0.0030872
Potassium	0	0	1000	9.66E-06	10000	1.0228E-05						
Selenium	0	0	100	0.0003983	1000	4.1605E-04					10000	4.0594E-04
Silver	0	0	20	0.000044	500	4.244E-05	2000	4.3515E-05				
Sodium	0	0	1000		50000	4.6212E-05						
Strontium	0	0	100	0.001589	1000	0.001517					10000	0.00147
Thallium	0	0	100	0.000832	1000	8.3326E-04					10000	8.4484E-04
Tin	0	0	50	0.0010426	1000	0.0010928					5000	1.10728E-03
Titanium	0	0	100	0.0001915	1000	1.8239E-04					10000	1.8154E-04
Vanadium	0	0	100	0.0000345	1000	3.283E-05					10000	3.3525E-05
Zinc	0	0	100	0.0035169	1000	0.0037582					10000	0.0036898

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103066
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1070003
Instrument: ME-ICP
Matrix: Water
Calibration Date: 3/9/2011 2:09:37PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	2.9542E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.3014E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.0432E-05										
Selenium												
Silver												
Sodium	100000	4.5969E-05	500000	4.5038E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103066
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Calibration:	1070003	Instrument:	ME-ICP
Matrix:	Water	Calibration Date:	3/9/2011 2:09:37PM

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.382005E-05	66.66688	4.3067	79.96439	1		0.998	
Antimony	6.1651E-04	66.92755	9.022432	178.1548	0.9999987		0.998	
Arsenic	2.588075E-04	66.88936	24.41173	191.3116	0.9999979		0.998	
Barium	8.25195E-03	66.71411	4.96912	187.6992	0.99994		0.998	
Beryllium	1.576725E-03	66.80403	94.35101	195.7845	0.999983		0.998	
Boron	9.0305E-06	66.81089	6.862335	171.7068	0.9999995		0.998	
Cadmium	6.392225E-03	66.7628	1.03107	80.5176	0.9999585		0.998	
Calcium	2.265027E-05	66.73106	5.522025	112.221	0.9999982		0.998	
Chromium	1.8823E-05	66.7537	25.6274	191.0832	0.9999905		0.998	
Cobalt	4.172575E-03	66.70525	3.4381	153.2854	0.9999973		0.998	
Copper	6.308725E-05	66.73667	1.215108	61.29824	0.9999954		0.998	
Iron	9.792433E-06	66.89816	11.02912	157.9624	0.9999993		0.998	
Lead	8.9235E-04	66.69218	88.39959	197.5818	0.9999998		0.998	
Magnesium	9.829701E-07	66.72045	27.77425	189.884	0.9999549		0.998	
Manganese	1.24925E-04	66.79032	3.842677	167.9891	0.9999955		0.998	
Molybdenum	2.94505E-03	66.81888	11.67099	181.273	0.9999958		0.998	
Nickel	2.255625E-03	66.75176	3.587477	152.6479	0.9999976		0.998	
Potassium	7.58E-06	66.80579	4.472852	123.723	0.999998		0.998	
Selenium	3.050725E-04	66.70924	10.33214	174.5167	0.9999937		0.998	
Silver	3.248875E-05	66.69685	2.069347	137.7761	0.999955		0.998	
Sodium	3.430475E-05	66.68298	3.938405	163.7662	0.9999839		0.998	
Strontium	0.001144	66.80377	5.060475	127.9007	0.9999914		0.998	
Thallium	6.27525E-04	66.67303	14.03663	181.9085	0.9999984		0.998	
Tin	8.1067E-04	66.75427	7.590532	173.7623	0.9999939		0.998	
Titanium	1.388575E-04	66.74567	10.98559	168.1677	0.9999998		0.998	
Vanadium	2.521375E-05	66.72199	5.884315	164.4373	0.9999949		0.998	
Zinc	2.741225E-03	66.7695	8.77111	181.4259	0.9999955		0.998	

Data for SW6010B
Supporting Raw Data / Logs

Sample Name: SEQ-CAL1 Acquired: 3/9/2011 9:27:54 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**-.00016**	**-.00036**	**.00002**	**.00527**	**.00001**	**-.00047**
Stddev	.00000	.00001	.00034	.00000	.00100	.00002	.00016
%RSD	6.3240	9.1828	94.458	24.517	18.959	371.43	33.085
#1	.00003	-.00016	-.00034	.00001	.00484	.00001	-.00046
#2	.00003	-.00017	-.00003	.00001	.00456	-.00002	-.00032
#3	.00003	-.00014	-.00070	.00002	.00641	.00002	-.00063

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00020**	**.00012**	**.04024**	**.00427**	**.00000**	**.0000**	**.00030**
Stddev	.00003	.00041	.00056	.00048	.00000	.000	.00000
%RSD	14.627	344.68	1.3880	11.244	99.079	154.2	1.0988
#1	.00018	-.00024	.04003	.00482	.00000	.0000	.00030
#2	.00023	.00056	.03982	.00394	.00000	.0000	.00030
#3	.00019	.00004	.04087	.00405	.00001	.0000	.00031

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00002**	**-.00054**	**-.00001**	**.00001**	**.00062**	**.00248**	**-.00558**
Stddev	.00001	.00007	.00001	.00000	.00027	.00034	.00065
%RSD	37.099	12.568	106.88	13.514	43.383	13.599	11.717
#1	.00002	-.00047	-.00001	.00001	.00066	.00243	-.00626
#2	.00004	-.00055	-.00001	.00001	.00087	.00284	-.00496
#3	.00002	-.00061	.00000	.00001	.00033	.00217	-.00552

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00030**	**-.00204**	**.00090**	**-.00068**	**-.0002**	**.00006**	**-.00082**
Stddev	.00107	.00068	.00033	.00019	.0000	.00002	.00043
%RSD	350.39	33.106	37.359	27.341	14.47	38.645	52.328
#1	-.00079	-.00137	.00095	-.00056	-.0002	.00005	-.00083
#2	.00134	-.00202	.00054	-.00058	-.0002	.00008	-.00039
#3	.00037	-.00272	.00120	-.00089	-.0002	.00004	-.00125

Sample Name: SEQ-CAL1 Acquired: 3/9/2011 9:27:54 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.00004**	**-.00063**
Stddev	.00001	.00021
%RSD	20.376	32.610
#1	.00003	-.00084
#2	.00005	-.00043
#3	.00003	-.00062

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1048.3	564680.	91655.
Stddev	16.8	10884.	98.
%RSD	1.5992	1.9275	.10694
#1	1063.9	571370.	91744.
#2	1030.6	570540.	91550.
#3	1050.4	552120.	91670.

Sample Name: SEQ-CAL2 Acquired: 3/9/2011 9:32:41 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2144
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00088**	**.09228**	**.03252**	**.00063**	**.55889**	**.21827**	**.03422**	**1.0493**
Stddev	.00001	.00377	.00027	.00000	.00112	.00862	.00145	.0006
%RSD	.88719	4.0848	.83202	.30587	.20005	3.9506	4.2285	.06111
#1	.00087	.09663	.03250	.00063	.55885	.22819	.03587	1.0493
#2	.00088	.09016	.03280	.00063	.56003	.21406	.03358	1.0486
#3	.00089	.09005	.03226	.00062	.55780	.21256	.03320	1.0499

Elem	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.84952**	**.54425**	**.00259**	**.0002**	**.00867**	**.07050**	**.00966**	**.01734**
Stddev	.00345	.00059	.00001	.0000	.00004	.00283	.00034	.00007
%RSD	.40572	.10885	.53651	.5003	.46173	4.0082	3.4988	.39970
#1	.84577	.54475	.00257	.0002	.00869	.07376	.01005	.01727
#2	.85254	.54360	.00260	.0002	.00870	.06907	.00945	.01741
#3	.85026	.54439	.00259	.0002	.00862	.06868	.00948	.01734

Elem	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.37432**	**.29052**	**.11668**	**.07706**	**.03983**	**.05213**	**.1589**	**.01915**
Stddev	.00163	.00094	.00093	.00010	.00058	.00040	.0065	.00064
%RSD	.43670	.32443	.79515	.12937	1.4528	.76788	4.104	3.3377
#1	.37319	.29094	.11773	.07695	.04038	.05234	.1665	.01989
#2	.37619	.28945	.11597	.07712	.03988	.05167	.1554	.01882
#3	.37358	.29119	.11634	.07711	.03923	.05238	.1549	.01875

Elem	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**.08320**	**.00345**	**.35169**
Stddev	.00093	.00001	.00097
%RSD	1.1190	.36786	.27648
#1	.08287	.00344	.35133
#2	.08425	.00346	.35096
#3	.08247	.00345	.35280

Sample Name: SEQ-CAL2 Acquired: 3/9/2011 9:32:41 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1027.7	561920.	88490.
Stddev	1.7	1818.	3100.
%RSD	.16138	.32344	3.5032
#1	1025.8	562740.	84925.
#2	1028.3	559840.	89994.
#3	1029.0	563190.	90552.

Sample Name: SEQ-CAL3 Acquired: 3/9/2011 9:38:00 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Ca3179	Cd2144
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02122**	**.18425**	**.35660**	**.01179**	**11.119**	**2.1067**	**1.4975**	**10.874**
Stddev	.00017	.00240	.00132	.00011	.046	.0264	.0205	.016
%RSD	.82125	1.3001	.36928	.94957	.41482	1.2549	1.3708	.15064
#1	.02140	.18698	.35577	.01188	11.099	2.1372	1.5191	10.868
#2	.02122	.18329	.35591	.01184	11.087	2.0912	1.4783	10.862
#3	.02105	.18249	.35812	.01167	11.172	2.0917	1.4952	10.893

Elem	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.8162**	**5.5742**	**.02433**	**.0015**	**.08207**	**.12733**	**.10228**	**.06420**
Stddev	.0261	.0222	.00033	.0000	.00087	.00151	.00108	.00079
%RSD	.29546	.39795	1.3691	1.223	1.0562	1.1879	1.0511	1.2352
#1	8.8117	5.5647	.02462	.0016	.08295	.12902	.10341	.06511
#2	8.7926	5.5584	.02439	.0015	.08206	.12609	.10216	.06363
#3	8.8441	5.5996	.02397	.0015	.08122	.12688	.10127	.06387

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.16505**	**4.0527**	**2.3106**	**3.0301**	**1.1982**	**.84984**	**.41605**	**1.0928**
Stddev	.00176	.0261	.0262	.0097	.0052	.00736	.00172	.0022
%RSD	1.0655	.64315	1.1318	.32098	.43509	.86586	.41436	.20635
#1	.16660	4.0398	2.3373	3.0225	1.1933	.84471	.41406	1.0932
#2	.16542	4.0357	2.3094	3.0268	1.1976	.84654	.41692	1.0903
#3	.16314	4.0827	2.2850	3.0411	1.2037	.85827	.41716	1.0947

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.517**	**.18239**	**.83326**	**.03283**	**3.7582**
Stddev	.020	.00225	.00559	.00037	.0087
%RSD	1.331	1.2315	.67083	1.1158	.23236
#1	1.540	.18498	.83152	.03316	3.7510
#2	1.509	.18120	.82874	.03289	3.7558
#3	1.502	.18099	.83951	.03244	3.7679

Sample Name: SEQ-CAL3 Acquired: 3/9/2011 9:38:00 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	899.74	541150.	89309.
Stddev	5.24	5089.	847.
%RSD	.58191	.94042	.94844
#1	900.47	536090.	88339.
#2	904.58	541080.	89906.
#3	894.18	546270.	89681.

Sample Name: SEQ-CAL4 Acquired: 3/9/2011 9:42:57 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Ba2335	Mn2576
Units	Cts/S	Cts/S	Cts/S
Avg	**.08703**	**53.555**	**1.6125**
Stddev	.00021	.162	.0063
%RSD	.24495	.30261	.39151
#1	.08717	53.401	1.6188
#2	.08714	53.724	1.6062
#3	.08678	53.539	1.6124

Int. Std.	Sc1880	Sc3613
Units	Cts/S	Cts/S
Avg	1044.6	571230.
Stddev	2.7	1653.
%RSD	.25848	.28942
#1	1047.4	569360.
#2	1042.0	572510.
#3	1044.3	571810.

Sample Name: SEQ-CAL5 Acquired: 3/9/2011 9:48:40 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Fe2611	Mg2790
Units	Cts/S	Cts/S	Cts/S
Avg	**9.1996**	**6.3066**	**.67324**
Stddev	.2446	.1149	.01337
%RSD	2.6591	1.8214	1.9857
#1	9.0513	6.2281	.66772
#2	9.0655	6.2532	.66351
#3	9.4819	6.4384	.68848

Int. Std.	Sc3613-2
Units	Cts/S
Avg	85208.
Stddev	1534.
%RSD	1.7998
#1	85736.
#2	86409.
#3	83481.

Sample Name: SEQ-CAL6 Acquired: 3/9/2011 9:54:09 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	B_2496	Be3130	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.5343**	**.05866**	**20.175**	**104.81**	**82.575**	**56.736**	**.25062**	**.0158**
Stddev	.0703	.00098	.155	2.12	1.681	1.136	.00382	.0003
%RSD	1.9876	1.6769	.76856	2.0247	2.0351	2.0016	1.5250	2.049
#1	3.5004	.05977	20.254	103.58	82.003	56.233	.25504	.0161
#2	3.4874	.05790	19.996	103.59	81.254	55.938	.24851	.0155
#3	3.6151	.05831	20.275	107.26	84.466	58.036	.24833	.0157

Elem	Cu3247	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.83579**	**39.843**	**30.872**	**12.044**	**8.4560**	**4.0594**	**5.5364**	**14.70**
Stddev	.01875	.885	.614	.238	.1681	.0853	.1133	.05
%RSD	2.2437	2.2211	1.9875	1.9781	1.9885	2.1024	2.0469	.3369
#1	.85452	39.545	30.550	11.958	8.3895	4.0365	5.4908	14.76
#2	.81701	39.146	30.487	11.861	8.3313	3.9878	5.4530	14.68
#3	.83583	40.838	31.580	12.313	8.6472	4.1538	5.6654	14.67

Elem	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8154**	**8.4484**	**.33525**	**36.898**
Stddev	.0132	.1714	.00562	.725
%RSD	.72816	2.0287	1.6776	1.9656
#1	1.8247	8.3800	.34173	36.556
#2	1.8002	8.3217	.33228	36.408
#3	1.8212	8.6434	.33173	37.731

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	911.89	542840.	91169.
Stddev	18.26	10219.	532.
%RSD	2.0021	1.8825	.58316
#1	917.48	531650.	90610.
#2	926.70	551670.	91668.
#3	891.49	545210.	91228.

Sample Name: SEQ-CAL7 Acquired: 3/9/2011 10:00:11 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	1.0432	4.5969
Stddev	.0081	.0341
%RSD	.77351	.74172
#1	1.0351	4.5724
#2	1.0513	4.6359
#3	1.0433	4.5825

Int. Std.	Sc3613-2
Units	Cts/S
Avg	88401.
Stddev	784.
%RSD	.88714
#1	89220.
#2	87657.
#3	88327.

Sample Name: SEQ-CAL8 Acquired: 3/9/2011 10:05:20 Type: Cal
Method: DuoEnviroMethodNEW(v2006) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca3179	Mg2790	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**14.771**	**.13014**	**22.519**
Stddev	.275	.00130	.063
%RSD	1.8618	.99611	.28110
#1	14.471	.12967	22.447
#2	14.832	.12916	22.566
#3	15.011	.13161	22.543

Int. Std.	Sc3613-2
Units	Cts/S
Avg	85261.
Stddev	797.
%RSD	.93421
#1	85549.
#2	85873.
#3	84360.

Sample Name: SEQ-ICV Acquired: 3/9/2011 10:37:47 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0223

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**494.95**	**9806.9**	**1005.3**	F **1052.8**	**1019.6**	**1040.9**	zF *****
Stddev	1.71	21.2	5.7	6.5	3.3	2.9	-----
%RSD	.34466	.21616	.56824	.61409	.32462	.28130	-----
#1	496.87	9813.7	1010.9	1060.0	1022.5	1037.5	z 168.08
#2	494.34	9783.2	999.48	1051.0	1016.0	1042.2	z 167.15
#3	493.63	9824.0	1005.7	1047.5	1020.2	1042.9	z 167.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				1000.0			1000.0
Range				±50.000			±-50.000

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.456**	**1047.4**	**1037.1**	**969.31**	**961.31**	**972.4**	**970.94**
Stddev	.180	4.5	2.6	4.06	3.92	4.6	5.19
%RSD	.34905	.43240	.25206	.41876	.40737	.4696	.53463
#1	51.287	1051.5	1039.6	971.72	965.18	977.3	976.50
#2	51.645	1042.6	1034.4	964.62	961.41	971.5	966.23
#3	51.436	1048.0	1037.2	971.58	957.35	968.3	970.08
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**10268.**	F **9.1531**	**48.369**	**1027.8**	**1008.7**	**50.670**	**976.95**
Stddev	48.	.0495	.118	3.3	3.2	.207	3.86
%RSD	.46324	.54126	.24380	.32334	.31546	.40863	.39497
#1	10214.	9.1901	48.233	1030.7	1010.6	50.762	979.71
#2	10301.	9.0968	48.425	1028.5	1005.0	50.433	972.54
#3	10291.	9.1723	48.448	1024.1	1010.5	50.815	978.61
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		10.000					
Range		±-.50000					

Sample Name: SEQ-ICV Acquired: 3/9/2011 10:37:47 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0223

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**969.73**	**983.37**	**979.57**	**961.50**	**1039.**	**1011.4**	F **947.39**
Stddev	5.00	5.86	4.18	4.07	2.	1.5	4.12
%RSD	.51591	.59635	.42664	.42370	.1955	.15198	.43482
#1	974.33	982.46	982.51	965.84	1038.	1009.7	949.69
#2	964.41	978.02	974.78	957.76	1039.	1012.0	942.64
#3	970.45	989.64	981.41	960.89	1042.	1012.6	949.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk ~~Fail~~ Pass BLD 3/9/11
Value							1000.0
Range							±-50.000

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**984.87**	**1000.8**
Stddev	2.96	2.5
%RSD	.30098	.25382
#1	988.13	1002.9
#2	984.16	997.99
#3	982.33	1001.7
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	943.52	548340.	90258.
Stddev	4.23	2475.	76.
%RSD	.44839	.45133	.08449
#1	941.23	545490.	90345.
#2	948.40	549570.	90223.
#3	940.93	549960.	90205.

Sample Name: SEQ-ICB Acquired: 3/9/2011 10:45:04 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.10672**	**2.2709**	**.70752**	**1.0072**	**.01248**	**-.00572**	z *****	**.00146**
Stddev	.11000	3.2512	1.3926	.2324	.11145	.01755	-----	.00087
%RSD	103.08	143.17	196.83	23.077	893.25	306.90	-----	59.277
#1	-.01277	4.0724	-.78417	.74793	.14019	-.01036	z 128.97	.00061
#2	-.22773	4.2225	.93323	1.0769	-.06510	-.02048	z 129.68	.00143
#3	-.07966	-1.4823	1.9735	1.1969	-.03766	.01369	z 128.74	.00235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.11559**	**-.19419**	**-.06165**	**.06786**	**-.1897**	**-.21217**	**1.5712**	**.00753**
Stddev	.03537	.07783	.06225	.14142	.3782	.12246	.7973	.00803
%RSD	30.604	40.081	100.97	208.40	199.4	57.718	50.748	106.64
#1	.07626	-.28298	-.00194	.06232	-.4700	-.29620	.65759	.00490
#2	.12570	-.13773	-.12616	-.07071	.2405	-.26864	1.9291	.01655
#3	.14480	-.16186	-.05685	.21197	-.3397	-.07166	2.1268	.00115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.00397**	**.13966**	**.71418**	**-.00124**	**.42033**	**-.62144**	**.98237**	**1.2969**
Stddev	.00263	.04887	.03051	.00434	.06761	.43254	.18630	.8340
%RSD	66.117	34.992	4.2721	348.50	16.086	69.603	18.964	64.307
#1	.00257	.08549	.68989	-.00594	.35947	-.13114	1.1012	.99839
#2	.00235	.15306	.70422	-.00039	.40840	-.94902	1.0782	.65329
#3	.00700	.18044	.74842	.00260	.49311	-.78416	.76766	2.2392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-ICB Acquired: 3/9/2011 10:45:04 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.53645**	**.0216**	**.21321**	**.05644**	**.20307**	**.16699**
Stddev	.29978	.0270	.08944	1.0126	.24772	.04306
%RSD	55.883	125.3	41.949	1794.1	121.98	25.787
#1	.80146	.0267	.31585	-1.0791	-.06033	.18788
#2	.59680	-.0076	.15199	.38308	.23818	.11747
#3	.21108	.0457	.17178	.86537	.43137	.19562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1115.7	580220.	92814.
Stddev	5.6	5968.	191.
%RSD	.49749	1.0285	.20531
#1	1121.9	586570.	92609.
#2	1114.0	579370.	92986.
#3	1111.3	574730.	92846.

Sample Name: SEQ-CRL Acquired: 3/9/2011 10:49:47 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**1.9564**	**103.77**	**4.8409**	**5.9345**	**10.146**	**2.1276**	z *****
Stddev	.1775	2.64	.1485	.1306	.082	.0167	-----
%RSD	9.0704	2.5435	3.0681	2.1998	.80989	.78318	-----
#1	1.8043	104.59	4.9972	5.7972	10.053	2.1374	z 132.43
#2	2.1513	105.90	4.7016	5.9490	10.178	2.1370	z 131.10
#3	1.9136	100.82	4.8239	6.0571	10.208	2.1084	z 133.54
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
Value							
Range							

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.0936**	**2.0920**	**1.8620**	**9.4130**	**3.8591**	**7.904**	**7.3357**
Stddev	.0268	.0671	.0548	.0907	.0493	.382	.0893
%RSD	1.2799	3.2070	2.9413	.96365	1.2774	4.832	1.2176
#1	2.1246	2.1375	1.8132	9.3235	3.8150	7.845	7.2543
#2	2.0785	2.0149	1.9212	9.5048	3.9123	8.312	7.4312
#3	2.0778	2.1235	1.8516	9.4106	3.8500	7.556	7.3215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**64.395**	**2.8548**	**2.8764**	**6.4876**	**9.4033**	**3.0520**	**6.0541**
Stddev	.836	.0098	.0187	.0491	.2465	.0148	.1993
%RSD	1.2988	.34197	.65109	.75763	2.6218	.48600	3.2926
#1	63.612	2.8626	2.8979	6.4425	9.4051	3.0548	5.8783
#2	65.276	2.8579	2.8680	6.4804	9.6490	3.0653	6.2707
#3	64.296	2.8439	2.8634	6.5400	9.1559	3.0360	6.0132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/9/2011 10:49:47 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **1.9250**	**6.4237**	**6.7390**	**18.831**	**6.247**	**10.283**	**3.4120**
Stddev	.3556	.4315	.9058	.314	.066	.042	.6299
%RSD	18.472	6.7174	13.441	1.6679	1.054	.40561	18.462
#1	2.1110	6.5378	6.7303	18.535	6.305	10.250	3.4376
#2	1.5150	5.9466	7.4828	18.798	6.261	10.269	4.0287
#3	2.1491	6.7867	7.0040	19.161	6.175	10.330	2.7696
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	3.0000						
Range	±-.60000						

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**9.8626**	**9.6383**
Stddev	.0903	.1835
%RSD	.91559	1.9042
#1	9.8471	9.7752
#2	9.7811	9.4297
#3	9.9597	9.7099
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1076.0	579900.	91873.
Stddev	12.1	1763.	781.
%RSD	1.1217	.30394	.84996
#1	1087.3	579300.	91022.
#2	1063.3	581880.	92042.
#3	1077.6	578510.	92556.

Sample Name: SEQ-CRL Acquired: 3/9/2011 10:59:29 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**1.8181**	**204.41**	**5.3068**	**34.846**	**95.208**	**5.1265**	z *****	**5.0552**
Stddev	.0500	1.44	.2465	.359	.611	.1295	-----	.1268
%RSD	2.7498	.70399	4.6454	1.0291	.64159	2.5253	-----	2.5074
#1	1.8641	206.06	5.2463	34.848	94.598	4.9993	z 135.77	4.9321
#2	1.7649	203.78	5.0962	35.204	95.206	5.2581	z 134.73	5.1853
#3	1.8254	203.40	5.5780	34.486	95.819	5.1220	z 135.30	5.0481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass
Value								
Range								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**4.9039**	**4.5224**	**11.424**	**4.8192**	**9.627**	**9.2415**	**102.95**	**4.7153**
Stddev	.0995	.1700	.036	.2380	.695	.0918	1.73	.0631
%RSD	2.0288	3.7596	.31577	4.9385	7.216	.99319	1.6817	1.3383
#1	4.7934	4.4361	11.388	4.6467	10.02	9.2963	101.15	4.6490
#2	4.9862	4.4129	11.460	5.0907	8.825	9.2927	104.60	4.7746
#3	4.9322	4.7183	11.423	4.7202	10.04	9.1356	103.12	4.7225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**4.6375**	**15.655**	**13.606**	**4.8762**	**9.5848**	**2.7629**	**13.896**	**5.9356**
Stddev	.1114	.173	.099	.0679	.1262	.1714	.211	.8437
%RSD	2.4019	1.1072	.72792	1.3924	1.3170	6.2039	1.5211	14.215
#1	4.5243	15.680	13.517	4.8017	9.5389	2.7322	13.764	5.0031
#2	4.7470	15.815	13.588	4.9346	9.4879	2.6089	13.784	6.1575
#3	4.6412	15.471	13.713	4.8923	9.7276	2.9476	14.140	6.6463
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CRL Acquired: 3/9/2011 10:59:29 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD1

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.309**	**-.0176**	**15.004**	**8.2349**	**12.179**	**18.840**
Stddev	.127	.0290	.599	.4419	.140	.144
%RSD	.46376	164.8	3.9913	5.3658	1.1459	.76540
#1	27.227	.0014	14.494	8.0886	12.032	18.684
#2	27.455	-.0032	15.663	8.7313	12.310	18.968
#3	27.245	-.0510	14.854	7.8847	12.195	18.869
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1085.9	585930.	93848.
Stddev	5.3	4703.	1789.
%RSD	.48387	.80267	1.9062
#1	1091.8	585170.	95635.
#2	1084.1	581650.	92057.
#3	1081.8	590970.	93853.

Sample Name: SEQ-IFA Acquired: 3/9/2011 11:04:34 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.79706**	**518030.**	**4.3041**	**11.047**	**.64274**	**.00425**	z *****
Stddev	.26412	10675.	6.4955	.981	.11090	.01969	-----
%RSD	33.137	2.0607	150.91	8.8800	17.255	463.44	-----
#1	-.69691	530100.	11.590	11.729	.72489	-.00902	z 301.60
#2	-1.0966	514160.	-.88134	11.490	.68674	.02687	z 301.77
#3	-.59765	509820.	2.2038	9.9231	.51659	-.00511	z 302.57

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**520.66**	**.07549**	**-1.4993**	**-1.7620**	**-1.7100**	**-5.681**	**-4.9291**
Stddev	6.15	.30001	.2692	.2148	.2720	1.640	.1265
%RSD	1.1816	397.43	17.953	12.191	15.908	28.87	2.5658
#1	527.62	-.06781	-1.7023	-1.9056	-2.0240	-4.430	-5.0708
#2	518.42	-.12600	-1.1940	-1.8654	-1.5591	-5.075	-4.8890
#3	515.94	.42027	-1.6015	-1.5151	-1.5468	-7.537	-4.8276

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**207240.**	**-.06159**	**513.76**	**3.8529**	**.25368**	**.02064**	**-3.0873**
Stddev	2493.	.01134	7.36	.0561	.12709	.00187	.1970
%RSD	1.2029	18.414	1.4316	1.4559	50.097	9.0450	6.3822
#1	210080.	-.04977	522.15	3.8328	.31285	.02273	-2.9480
#2	206200.	-.06260	510.72	3.8097	.34038	.02008	-3.3127
#3	205430.	-.07239	508.42	3.9163	.10780	.01913	-3.0011

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.2054**	**-.76887**	**-1.3363**	**1.4994**	**-5.982**	**-5.8330**	**1.7238**
Stddev	3.4292	2.0494	3.0720	.3974	.074	.1992	2.6295
%RSD	55.263	266.54	229.89	26.505	1.243	3.4148	152.55
#1	2.3609	1.5553	-1.0143	1.6882	-6.064	-6.0400	4.2811
#2	7.3063	-2.3163	-4.5566	1.0427	-5.919	-5.8163	-.97249
#3	8.9489	-1.5456	1.5620	1.7671	-5.964	-5.6427	1.8627

Sample Name: SEQ-IFA Acquired: 3/9/2011 11:04:34 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.79278**	**6.8529**
Stddev	.27397	.3197
%RSD	34.558	4.6657
#1	1.1084	6.4930
#2	.61655	7.1042
#3	.65336	6.9616

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	732.53	495710.	83843.
Stddev	6.24	881.	980.
%RSD	.85210	.17782	1.1688
#1	727.71	494940.	82729.
#2	739.58	496670.	84228.
#3	730.31	495530.	84572.

Sample Name: SEQ-IFB Acquired: 3/9/2011 11:10:35 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**195.85**	**475510.**	**111.98**	**16.550**	**526.78**	**478.50**	zF *****
Stddev	1.00	2457.	.81	.440	.95	1.55	-----
%RSD	.50915	.51674	.72595	2.6607	.18075	.32438	-----
#1	196.15	475180.	111.63	17.004	525.91	480.27	z 304.00
#2	196.67	473230.	111.39	16.124	526.64	477.84	z 304.04
#3	194.74	478110.	112.90	16.521	527.80	477.38	z 303.85
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Fail
Value							200.00
Range							±-40.000

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**478.29**	**1021.5**	**1137.9**	**462.98**	**423.33**	**422.2**	**474.38**
Stddev	2.48	2.4	2.7	1.15	.94	2.7	.92
%RSD	.51815	.23295	.23711	.24943	.22187	.6448	.19405
#1	480.87	1023.7	1134.9	463.66	422.34	419.2	475.43
#2	478.06	1018.9	1138.7	461.64	424.20	424.6	473.70
#3	475.93	1021.9	1140.1	463.62	423.47	422.8	474.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**189110.**	**-.04357**	**469.73**	**441.10**	**1.0638**	**.05562**	**924.22**
Stddev	693.	.00969	1.68	.81	.4870	.01506	3.23
%RSD	.36657	22.229	.35861	.18342	45.778	27.079	.34920
#1	189910.	-.05193	471.62	441.47	.55367	.04771	924.25
#2	188700.	-.03296	469.17	441.66	1.5238	.07299	920.98
#3	188720.	-.04583	468.39	440.17	1.1140	.04616	927.43
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	Chk Pass
Value							
Range							

Sample Name: SEQ-IFB Acquired: 3/9/2011 11:10:35 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**52.533**	**636.10**	**50.269**	**1.0133**	**-5.510**	**-4.7756**	**84.098**
Stddev	.951	3.52	2.808	.9205	.037	.1763	.218
%RSD	1.8094	.55404	5.5857	90.843	.6691	3.6918	.25947
#1	51.506	633.73	47.523	1.6349	-5.532	-4.6271	84.127
#2	52.714	634.43	53.135	1.4493	-5.531	-4.9705	84.300
#3	53.381	640.15	50.148	-.04420	-5.468	-4.7293	83.866
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**427.28**	**976.07**
Stddev	.57	.81
%RSD	.13428	.08331
#1	426.92	975.70
#2	427.94	975.50
#3	426.97	977.00
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	750.97	515880.	88738.
Stddev	1.37	1245.	339.
%RSD	.18280	.24130	.38204
#1	751.15	515410.	88352.
#2	752.25	514940.	88875.
#3	749.52	517290.	88988.

Sample Name: SEQ-CCV Acquired: 3/9/2011 11:21:15 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**486.70**	**9679.9**	**1013.6**	**1017.0**	**1013.0**	**1039.2**	zF *****	**51.223**
Stddev	9.27	13.9	24.0	16.6	24.8	2.2	-----	.368
%RSD	1.9049	.14406	2.3690	1.6286	2.4455	.21217	-----	.71844
#1	480.97	9671.7	1001.6	1006.8	997.15	1041.3	z 168.09	51.554
#2	497.40	9696.0	997.93	1036.1	1000.3	1039.4	z 167.96	51.286
#3	481.73	9671.9	1041.2	1008.2	1041.5	1036.9	z 168.59	50.827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value							1000.0	
Range							±-100.00	

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**1049.0**	**1036.4**	**977.30**	**973.96**	**976.1**	**968.36**	**10044.**	**9.5014**
Stddev	23.8	25.8	23.69	15.04	13.0	17.83	27.	.0406
%RSD	2.2699	2.4853	2.4242	1.5438	1.327	1.8416	.27075	.42728
#1	1033.3	1021.7	962.88	962.04	966.2	957.44	10073.	9.4601
#2	1037.4	1021.5	964.37	990.86	990.8	988.94	10041.	9.5412
#3	1076.4	1066.2	1004.6	968.99	971.4	958.70	10018.	9.5030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**47.857**	**1013.8**	**990.99**	**49.828**	**985.62**	**981.36**	**988.39**	**1003.1**
Stddev	.112	16.9	24.56	.196	22.86	23.09	24.61	26.1
%RSD	.23460	1.6632	2.4784	.39433	2.3195	2.3524	2.4896	2.6012
#1	47.960	1002.2	976.30	49.603	969.89	966.63	973.86	992.47
#2	47.875	1033.2	977.33	49.970	975.12	969.47	974.51	983.99
#3	47.737	1006.1	1019.3	49.909	1011.8	1008.0	1016.8	1032.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/9/2011 11:21:15 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**982.49**	1001.	**984.14**	**982.55**	**968.72**	1017.2
Stddev	23.73	1.	2.35	22.37	14.78	23.3
%RSD	2.4150	.0895	.23883	2.2765	1.5259	2.2912
#1	967.82	1001.	986.01	968.33	957.16	1001.4
#2	969.79	1000.	984.91	970.99	985.37	1006.2
#3	1009.9	1002.	981.50	1008.3	963.62	1044.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	946.00	556420.	92026.
Stddev	20.18	9288.	252.
%RSD	2.1333	1.6692	.27389
#1	957.70	561820.	91818.
#2	957.59	545700.	91954.
#3	922.69	561750.	92306.

Sample Name: SEQ-CCB Acquired: 3/9/2011 11:28:34 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.01975**	**.75598**	**.49676**	**.69258**	**.11427**	**.01302**	z *****	**.00252**
Stddev	.17701	3.0463	.32626	.24820	.05545	.02873	-----	.00154
%RSD	896.23	402.96	65.678	35.837	48.522	220.63	-----	61.067
#1	-.14269	3.7133	.19626	.77871	.16885	-.00715	z 131.63	.00142
#2	.18313	-2.3721	.84379	.88625	.11597	.00030	z 131.03	.00186
#3	-.09969	.92671	.45025	.41279	.05799	.04592	z 130.84	.00428
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.17866**	**.09928**	**.12345**	**.06349**	**.6249**	**-.04144**	**-.57508**	**.00568**
Stddev	.02095	.09689	.09248	.13029	.3802	.13225	.13816	.00889
%RSD	11.725	97.596	74.914	205.21	60.83	319.14	24.025	156.40
#1	.15642	.15976	.20924	-.07685	.3911	.10478	-.42650	.00070
#2	.19802	.15055	.13563	.18060	1.064	-.15270	-.69969	.00041
#3	.18155	-.01248	.02548	.08672	.4201	-.07639	-.59904	.01595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.01017**	**.11857**	**.91592**	**.01738**	**.35711**	**-.24425**	**-.01540**	**1.5340**
Stddev	.01153	.00130	.15381	.00780	.13933	.74486	.27332	1.1142
%RSD	113.37	1.0995	16.793	44.898	39.016	304.96	1775.3	72.635
#1	.00389	.12007	1.0397	.01866	.45848	-.55540	-.05254	2.7381
#2	.02349	.11786	.96439	.00901	.41461	-.78309	-.26824	1.3248
#3	.00315	.11777	.74372	.02446	.19823	.60573	.27460	.53923
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/9/2011 11:28:34 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.67738**	**.0475**	**.18283**	**.13001**	**.11072**	**.25856**
Stddev	.06676	.0327	.09858	.47722	.15594	.11783
%RSD	9.8563	68.96	53.916	367.05	140.84	45.571
#1	.75219	.0155	.14401	-.33899	.23617	.39203
#2	.62384	.0460	.29491	.61504	.15987	.21471
#3	.65612	.0810	.10958	.11399	-.06387	.16895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1127.5	590660.	94895.
Stddev	2.7	20184.	314.
%RSD	.24380	3.4171	.33097
#1	1128.5	567380.	95207.
#2	1129.7	601350.	94898.
#3	1124.5	603240.	94579.

Sample Name: 1C08008-BLK1 Acquired: 3/9/2011 11:34:14 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS030811A 1g->200ml

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.23845**	**3.2683**	**.28240**	**.60060**	**.15724**	**-.01403**	z *****
Stddev	.04028	3.5996	.12289	.28847	.05369	.00839	-----
%RSD	16.894	110.14	43.515	48.030	34.145	59.777	-----
#1	-.28352	-.86180	.38874	.93349	.14423	-.00767	z 126.34
#2	-.20596	5.7380	.31059	.42401	.21623	-.01088	z 126.50
#3	-.22588	4.9288	.14787	.44430	.11124	-.02354	z 127.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00701**	**.05493**	**.03919**	**-.05758**	**1.2464**	**-.3134**	**-.09354**
Stddev	.00031	.03324	.08607	.14868	.0433	.4174	.07697
%RSD	4.4604	60.518	219.65	258.23	3.4758	133.2	82.287
#1	.00719	.07769	.11870	-.03401	1.2009	-.7316	-.07310
#2	.00665	.07032	-.05221	.07791	1.2871	-.3118	-.02885
#3	.00720	.01678	.05107	-.21663	1.2513	.1032	-.17866
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**7.3874**	**.00920**	**.00454**	**.18087**	**.43411**	**.02504**	**.34078**
Stddev	1.5572	.00204	.00667	.01589	.13425	.01396	.22237
%RSD	21.079	22.189	147.04	8.7863	30.926	55.746	65.254
#1	8.3014	.00849	.00020	.18519	.52053	.01272	.59209
#2	8.2714	.00761	.00120	.16326	.50236	.04020	.26074
#3	5.5894	.01150	.01222	.19415	.27945	.02220	.16950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1C08008-BLK1 Acquired: 3/9/2011 11:34:14 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS030811A 1g->200ml

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.13262**	**-.13896**	**2.0332**	F **12.039**	**-.0010**	**.09062**	**-.04062**
Stddev	.37385	.12256	.5542	.415	.0307	.06323	.57277
%RSD	281.90	88.196	27.256	3.4474	3022.	69.776	1410.2
#1	-.27171	.00164	2.0793	12.179	-.0358	.09490	.45889
#2	.46576	-.19529	1.4574	11.572	.0106	.15160	.08505
#3	.20380	-.22322	2.5629	12.365	.0222	.02536	-.66579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000			
Low Limit				-10.000			

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.09107**	**.47753**
Stddev	.21577	.13718
%RSD	236.92	28.727
#1	.15579	.35636
#2	.26708	.62647
#3	-.14965	.44977
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1098.0	600840.	94539.
Stddev	2.9	3424.	836.
%RSD	.26602	.56979	.88469
#1	1095.3	597130.	93596.
#2	1097.7	601500.	94830.
#3	1101.1	603880.	95192.

Sample Name: 1C08008-BS1 Acquired: 3/9/2011 11:38:56 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS030811A 1g->200ml

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**250.86**	**2049.3**	**238.08**	F **.13640**	**2077.6**	**53.451**	z *****
Stddev	2.43	.6	2.84	.19750	24.8	.199	-----
%RSD	.96811	.02831	1.1945	144.80	1.1934	.37241	-----
#1	253.36	2048.7	236.35	.05858	2079.1	53.639	z 135.03
#2	250.70	2049.4	236.52	-.01035	2052.1	53.473	z 135.60
#3	248.51	2049.8	241.36	.36095	2101.6	53.242	z 134.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None
Value				1000.0			
Range				±-150.00			

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.3728**	**130.15**	**124.32**	**499.47**	**212.50**	**256.9**	**251.66**
Stddev	.0291	1.17	1.42	6.12	1.72	1.7	1.84
%RSD	.54228	.90224	1.1426	1.2247	.80934	.6697	.73053
#1	5.4039	130.18	124.15	500.07	214.39	258.6	253.41
#2	5.3683	128.97	122.99	493.07	212.05	256.9	251.82
#3	5.3461	131.31	125.82	505.26	211.04	255.1	249.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	F **1155.5**	**5.0298**	**4.9406**	**555.13**	F **.43718**	**5.2894**	**511.95**
Stddev	7.5	.0175	.0124	5.32	.10390	.0231	5.91
%RSD	.65065	.34874	.25062	.95751	23.767	.43725	1.1549
#1	1162.7	5.0115	4.9464	560.87	.52821	5.2894	512.09
#2	1156.1	5.0314	4.9490	554.17	.32398	5.2663	505.96
#3	1147.7	5.0464	4.9264	550.37	.45935	5.3125	517.79
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value	1000.0				1000.0		
Range	±150.00				±-150.00		

Sample Name: 1C08008-BS1 Acquired: 3/9/2011 11:38:56 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS030811A 1g->200ml

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**246.88**	**240.44**	**228.61**	F **12.199**	F **-.0377**	F **.70778**	**240.68**
Stddev	3.64	3.50	2.91	.096	.0307	.04752	2.44
%RSD	1.4731	1.4544	1.2709	.79045	81.46	6.7136	1.0120
#1	246.71	240.53	228.69	12.133	-.0106	.70136	240.79
#2	243.33	236.89	225.66	12.154	-.0711	.66380	238.18
#3	250.60	243.89	231.47	12.309	-.0315	.75819	243.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				1000.0	1000.	1000.0	
Range				±-150.00	±-150.0	±-150.00	

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**519.57**	**509.77**
Stddev	4.41	5.65
%RSD	.84974	1.1086
#1	524.47	510.59
#2	518.32	503.76
#3	515.91	514.97
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1048.2	592650.	94075.
Stddev	11.9	2258.	217.
%RSD	1.1390	.38105	.23089
#1	1049.5	590550.	93828.
#2	1059.4	592340.	94158.
#3	1035.7	595040.	94238.

Sample Name: 1103066-01 Acquired: 3/9/2011 11:45:22 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.32093**	**67863.**	**34.658**	**5.1988**	**75.845**	**2.1145**	z *****
Stddev	.14719	517.	1.140	1.2789	.857	.0190	-----
%RSD	45.864	.76158	3.2884	24.600	1.1300	.89853	-----
#1	-.41398	68253.	35.866	6.5365	76.648	2.1173	z 207.16
#2	-.15123	68060.	34.504	5.0717	74.943	2.1319	z 206.21
#3	-.39758	67277.	33.603	3.9882	75.945	2.0942	z 207.93

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.9842**	**-.64070**	**.18701**	**8.2833**	**121.87**	**112.4**	**115.55**
Stddev	.0224	.09686	.21755	.4962	2.23	1.9	2.04
%RSD	.37426	15.117	116.33	5.9902	1.8292	1.694	1.7666
#1	5.9858	-.57180	.22722	8.8134	119.32	110.2	113.20
#2	6.0058	-.75144	.38164	7.8300	122.88	113.1	116.74
#3	5.9611	-.59885	-.04784	8.2066	123.42	113.8	116.72

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**139590.**	**1.6502**	**3.4654**	**337.97**	**4.2691**	**.02909**	**33.956**
Stddev	839.	.0186	.0280	5.39	.0925	.00491	.368
%RSD	.60104	1.1281	.80805	1.5963	2.1661	16.872	1.0840
#1	140290.	1.6659	3.4877	331.77	4.1926	.03209	34.306
#2	139830.	1.6551	3.4746	340.57	4.3718	.03176	33.572
#3	138660.	1.6297	3.4340	341.58	4.2429	.02343	33.989

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**89.230**	**-.59350**	**1.7906**	**14.686**	**12.15**	**689.19**	**.08278**
Stddev	2.170	.50404	1.8882	.588	.12	3.55	.65987
%RSD	2.4317	84.926	105.45	4.0015	1.027	.51485	797.16
#1	89.258	-1.1744	1.0026	15.085	12.29	691.39	.15292
#2	87.046	-.27191	3.9452	14.011	12.12	691.09	.70477
#3	91.385	-.33419	.42405	14.961	12.05	685.10	-.60936

Sample Name: 1103066-01 Acquired: 3/9/2011 11:45:22 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**226.68**	**122.05**	
Stddev	3.51	5.79	
%RSD	1.5498	4.7469	
#1	222.62	128.60	
#2	228.65	119.94	
#3	228.76	117.60	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	997.05	604390.	96095.
Stddev	9.57	10807.	527.
%RSD	.96016	1.7881	.54857
#1	987.89	616820.	95870.
#2	1007.0	597250.	95719.
#3	996.28	599090.	96698.

Sample Name: 1103066-02 Acquired: 3/9/2011 11:49:53 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.62739**	**61310.**	**28.533**	**5.7322**	**129.52**	**2.3883**	z *****
Stddev	.14346	984.	2.066	1.1450	.67	.0453	-----
%RSD	22.866	1.6053	7.2388	19.975	.51805	1.8962	-----
#1	-.46554	60922.	26.868	4.6007	129.94	2.3562	z 212.48
#2	-.73887	62429.	27.888	6.8903	128.75	2.4401	z 212.13
#3	-.67775	60578.	30.844	5.7055	129.88	2.3686	z 210.66

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**23.466**	**-.65061**	**.34150**	**17.977**	**97.004**	**149.6**	**154.29**
Stddev	.389	.24411	.06084	.561	1.246	.4	1.00
%RSD	1.6592	37.521	17.817	3.1201	1.2845	.2416	.65082
#1	23.355	-.49134	.40016	18.249	97.973	149.2	155.42
#2	23.899	-.93166	.34564	17.332	97.440	149.9	153.93
#3	23.144	-.52884	.27869	18.350	95.598	149.7	153.51

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**143230.**	**1.6060**	**3.8685**	**604.45**	**3.3707**	**.07600**	**36.696**
Stddev	2000.	.0228	.0629	6.63	.1321	.01200	.229
%RSD	1.3960	1.4200	1.6252	1.0962	3.9201	15.792	.62431
#1	142380.	1.6021	3.8456	610.66	3.3994	.06326	36.931
#2	145510.	1.6306	3.9396	605.21	3.4861	.07763	36.473
#3	141790.	1.5855	3.8203	597.47	3.2266	.08710	36.684

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**104.70**	**-.28677**	**2.7632**	**12.957**	**85.47**	**639.02**	**-.99987**
Stddev	1.94	.28490	2.0168	.104	1.16	10.60	1.1062
%RSD	1.8484	99.348	72.987	.80087	1.361	1.6579	110.63
#1	105.60	-.01163	2.9314	12.908	84.84	633.78	-.14153
#2	102.48	-.58051	4.6906	12.887	86.81	651.22	-2.2483
#3	106.03	-.26817	.66761	13.076	84.75	632.08	-.60982

Sample Name: 1103066-02 Acquired: 3/9/2011 11:49:53 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**190.42**	**237.18**
Stddev	2.06	1.69
%RSD	1.0807	.71092
#1	192.47	238.81
#2	190.44	235.45
#3	188.36	237.29

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	981.24	606400.	95227.
Stddev	4.99	3862.	1155.
%RSD	.50869	.63690	1.2134
#1	978.37	602360.	95585.
#2	987.01	606790.	93935.
#3	978.35	610050.	96161.

Sample Name: 1103066-03 Acquired: 3/9/2011 11:54:25 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F **-1.1564**	**40216.**	**18.611**	**3.4770**	**274.61**	**2.3679**	z *****
Stddev	.1519	224.	.754	.2422	1.29	.0237	-----
%RSD	13.131	.55578	4.0521	6.9666	.47005	1.0004	-----
#1	-1.1372	39992.	19.270	3.2883	273.36	2.3643	z 165.18
#2	-1.3170	40439.	17.789	3.3924	274.54	2.3932	z 165.26
#3	-1.0151	40216.	18.776	3.7501	275.94	2.3462	z 165.47

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**15.161**	**-.35419**	**.13063**	**22.388**	**41.853**	**50.51**	**51.931**
Stddev	.102	.03444	.18920	.111	.389	.70	.345
%RSD	.67152	9.7242	144.83	.49443	.92827	1.385	.66476
#1	15.132	-.33051	.33371	22.265	41.723	50.10	52.195
#2	15.274	-.39370	.09883	22.422	42.290	50.11	52.058
#3	15.076	-.33835	-.04065	22.478	41.547	51.32	51.540

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**45668.**	**.94791**	**8.7138**	**2133.6**	**2.2163**	**.05414**	**21.988**
Stddev	410.	.01014	.0559	17.8	.1406	.00809	.041
%RSD	.89788	1.0693	.64135	.83207	6.3441	14.936	.18511
#1	45545.	.94830	8.6746	2146.2	2.1951	.06191	21.962
#2	46125.	.95784	8.7778	2141.3	2.0874	.05476	21.968
#3	45333.	.93758	8.6889	2113.3	2.3662	.04577	22.035

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**72.300**	**-1.9176**	**1.5623**	**9.8475**	**27.34**	**485.46**	F **-4.0738**
Stddev	.648	1.0929	1.2141	.4033	.25	2.52	.9260
%RSD	.89563	56.997	77.710	4.0953	.9072	.51890	22.730
#1	73.034	-2.3375	.19205	10.313	27.14	486.60	-4.7778
#2	72.052	-.67693	2.5039	9.6154	27.62	487.21	-3.0248
#3	71.812	-2.7383	1.9910	9.6139	27.25	482.57	-4.4187

Sample Name: 1103066-03 Acquired: 3/9/2011 11:54:25 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**81.895**	**48.411**
Stddev	.804	.344
%RSD	.98170	.70991
#1	82.253	48.316
#2	82.458	48.125
#3	80.974	48.793

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1000.2	596120.	94519.
Stddev	3.9	4623.	509.
%RSD	.39091	.77547	.53905
#1	1003.9	592590.	94929.
#2	1000.6	594420.	93949.
#3	996.15	601350.	94680.

Sample Name: 1103066-04 Acquired: 3/9/2011 11:58:59 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.57987**	**83609.**	**97.949**	**6.1297**	**96.623**	**2.1007**	z *****
Stddev	.25472	231.	1.479	.7517	.823	.0336	-----
%RSD	43.927	.27574	1.5102	12.263	.85220	1.5984	-----
#1	-.32331	83371.	99.011	5.3398	96.242	2.0642	z 216.19
#2	-.58360	83832.	96.259	6.8362	96.059	2.1076	z 216.05
#3	-.83272	83624.	98.576	6.2130	97.568	2.1303	z 216.16

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.5470**	**-.91151**	**.10039**	**7.1023**	**171.42**	**154.1**	**157.81**
Stddev	.0180	.09967	.07869	.2442	1.58	2.5	1.53
%RSD	.70600	10.935	78.382	3.4388	.92062	1.635	.96742
#1	2.5479	-1.0257	.19053	7.3659	172.83	156.8	159.58
#2	2.5286	-.84176	.06529	6.8837	171.71	153.8	156.97
#3	2.5645	-.86710	.04536	7.0573	169.72	151.8	156.89

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**163560.**	**1.2897**	**1.7353**	**323.88**	**3.9090**	**.05105**	**33.348**
Stddev	707.	.0096	.0084	2.65	.0782	.00702	.153
%RSD	.43204	.74559	.48247	.81694	2.0010	13.749	.45739
#1	163580.	1.2844	1.7445	326.55	3.9907	.05877	33.177
#2	162840.	1.3008	1.7281	323.83	3.9016	.04933	33.398
#3	164250.	1.2838	1.7333	321.26	3.8348	.04506	33.469

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**101.83**	**-.57680**	**3.5240**	**15.332**	**15.68**	**734.60**	**-.97695**
Stddev	.51	.76254	1.8392	.252	.06	2.01	.88225
%RSD	.50031	132.20	52.192	1.6426	.4079	.27403	90.307
#1	101.24	.20129	1.7660	15.403	15.61	733.60	-.63158
#2	102.17	-1.3228	3.3710	15.541	15.74	733.28	-1.9796
#3	102.06	-.60891	5.4349	15.053	15.68	736.91	-.31963

Sample Name: 1103066-04 Acquired: 3/9/2011 11:58:59 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**289.37**	**155.30**
Stddev	2.98	1.40
%RSD	1.0297	.90082
#1	292.33	154.48
#2	289.41	154.52
#3	286.37	156.92

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	996.97	602050.	95946.
Stddev	9.19	4999.	227.
%RSD	.92176	.83025	.23680
#1	1003.8	597020.	96049.
#2	1000.6	602110.	96104.
#3	986.52	607010.	95686.

Sample Name: 1103066-05 Acquired: 3/9/2011 12:03:32 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.65335**	**81957.**	**358.14**	**6.6288**	**257.94**	**2.4195**	z *****
Stddev	.16729	979.	5.66	.4579	3.51	.0090	-----
%RSD	25.605	1.1949	1.5806	6.9079	1.3627	.37266	-----
#1	-.79863	80956.	355.50	7.0082	255.87	2.4182	z 211.77
#2	-.47045	82913.	354.29	6.7580	255.95	2.4291	z 214.34
#3	-.69097	82004.	364.64	6.1201	262.00	2.4112	z 213.96

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.2099**	**-.00855**	**-.36544**	**7.4281**	**527.11**	**381.8**	**391.48**
Stddev	.0520	.37784	.15419	.1463	7.22	5.4	6.50
%RSD	.99742	4416.7	42.194	1.9699	1.3707	1.424	1.6615
#1	5.1546	-.16308	-.53855	7.2743	525.49	376.3	387.80
#2	5.2577	-.28463	-.24282	7.4444	535.01	387.2	398.99
#3	5.2173	.42205	-.31495	7.5656	520.83	381.8	387.65

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**149030.**	**1.4061**	**3.1968**	**435.88**	**4.5130**	**.07506**	**38.146**
Stddev	1711.	.0134	.0325	5.50	.1858	.00826	.413
%RSD	1.1481	.94938	1.0150	1.2612	4.1161	11.009	1.0836
#1	147800.	1.3959	3.1637	433.81	4.2994	.07161	37.669
#2	150990.	1.4212	3.2285	442.11	4.6369	.06908	38.399
#3	148310.	1.4012	3.1980	431.71	4.6027	.08449	38.370

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**153.95**	**-1.8419**	**2.7704**	**15.004**	**16.23**	**805.16**	**-1.3722**
Stddev	1.92	.6895	.5291	.209	.21	7.63	1.2154
%RSD	1.2467	37.435	19.099	1.3927	1.288	.94791	88.573
#1	152.56	-2.2313	2.3877	14.926	16.10	797.94	-.25084
#2	153.15	-2.2485	2.5493	14.845	16.47	813.14	-2.6638
#3	156.14	-1.0457	3.3742	15.240	16.12	804.38	-1.2021

Sample Name: 1103066-05 Acquired: 3/9/2011 12:03:32 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	260.76	789.70
Stddev	3.74	9.79
%RSD	1.4345	1.2391
#1	259.43	782.99
#2	264.99	785.18
#3	257.87	800.93

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	991.82	594960.	95689.
Stddev	12.24	8967.	947.
%RSD	1.2345	1.5071	.98938
#1	998.65	600880.	96667.
#2	999.13	584640.	94777.
#3	977.69	599360.	95624.

Sample Name: 1103066-06 Acquired: 3/9/2011 12:08:02 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.56217**	**81230.**	**49.690**	**5.9567**	**1484.3**	**2.7539**	z *****
Stddev	.11913	467.	2.429	.3600	9.1	.0113	-----
%RSD	21.192	.57460	4.8874	6.0439	.61109	.41113	-----
#1	-.67410	81764.	50.057	5.6784	1477.9	2.7638	z 215.00
#2	-.43695	81022.	51.915	5.8284	1494.7	2.7415	z 215.14
#3	-.57547	80903.	47.099	6.3633	1480.4	2.7563	z 212.79

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.4608**	**-.31519**	**.51261**	**5.9356**	**116.20**	**442.8**	**457.39**
Stddev	.0098	.01918	.13894	.1891	.87	.9	2.46
%RSD	.21852	6.0868	27.104	3.1850	.74702	.1925	.53788
#1	4.4632	-.32789	.67186	5.9809	116.99	443.8	460.14
#2	4.4691	-.29312	.41612	6.0979	116.35	442.4	456.60
#3	4.4500	-.32455	.44986	5.7280	115.27	442.3	455.41

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**152540.**	**1.8223**	**2.4517**	**686.86**	**4.7360**	**.03170**	**49.378**
Stddev	287.	.0141	.0081	3.04	.1407	.00713	.391
%RSD	.18826	.77523	.32957	.44222	2.9708	22.501	.79178
#1	152330.	1.8357	2.4586	690.03	4.7955	.03464	48.940
#2	152870.	1.8075	2.4428	686.58	4.5754	.02357	49.504
#3	152430.	1.8236	2.4537	683.98	4.8372	.03691	49.691

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**117.02**	**.16690**	**2.7568**	**16.113**	**28.39**	**810.83**	**-1.2740**
Stddev	1.54	.37763	.4608	.339	.09	3.81	.3208
%RSD	1.3150	226.26	16.716	2.1020	.3321	.47008	25.178
#1	116.03	.03394	2.6355	16.333	28.50	814.68	-1.1387
#2	118.79	.59303	2.3688	15.723	28.35	810.74	-1.6402
#3	116.23	-.12626	3.2662	16.283	28.33	807.06	-1.0430

Sample Name: 1103066-06 Acquired: 3/9/2011 12:08:02 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**272.88**	**536.32**
Stddev	1.24	5.01
%RSD	.45406	.93406
#1	274.28	533.33
#2	272.43	542.11
#3	271.93	533.53

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	996.39	604320.	96308.
Stddev	4.71	2393.	89.
%RSD	.47242	.39600	.09217
#1	999.14	601580.	96298.
#2	990.96	605380.	96225.
#3	999.08	606000.	96402.

Sample Name: 1103066-07 Acquired: 3/9/2011 12:12:31 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.62326**	**49767.**	**22.357**	**5.5637**	**793.67**	**2.1384**	z *****	**20.160**
Stddev	.17224	158.	1.535	.2162	2.18	.0035	-----	.037
%RSD	27.635	.31705	6.8675	3.8863	.27424	.16542	-----	.18326
#1	-.42612	49883.	22.709	5.7666	792.05	2.1366	z 184.50	20.119
#2	-.74460	49587.	23.685	5.3363	796.14	2.1361	z 182.29	20.192
#3	-.69905	49831.	20.676	5.5882	792.82	2.1425	z 182.60	20.169

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.31861**	**1.2422**	**13.301**	**70.824**	**244.8**	**251.06**	**76282.**	**2.1339**
Stddev	.01584	.1715	.137	.602	.8	.68	75.	.0065
%RSD	4.9729	13.804	1.0276	.84935	.3308	.27175	.09860	.30365
#1	.33168	1.3402	13.232	71.304	245.3	251.74	76294.	2.1354
#2	.30099	1.0442	13.458	70.150	243.8	250.38	76351.	2.1268
#3	.32316	1.3423	13.212	71.020	245.2	251.06	76202.	2.1395

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**13.410**	**849.43**	**2.8910**	**.06254**	**28.037**	**339.49**	**-.26626**	**2.0774**
Stddev	.011	3.69	.1196	.00133	.156	.45	.84442	.9549
%RSD	.07877	.43474	4.1369	2.1203	.55803	.13271	317.15	45.963
#1	13.414	852.75	2.9123	.06175	28.180	339.13	.53254	2.7032
#2	13.417	845.45	2.9985	.06180	28.063	340.00	-1.1499	2.5507
#3	13.398	850.08	2.7622	.06407	27.870	339.34	-.18140	.97839

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**19.817**	**62.77**	**523.25**	**-1.7083**	**139.56**	**281.12**
Stddev	.276	.08	.76	1.4656	1.10	1.44
%RSD	1.3914	.1290	.14544	85.794	.78920	.51091
#1	19.591	62.85	522.46	-2.4051	140.42	281.72
#2	19.736	62.78	523.31	-2.6955	138.32	282.15
#3	20.124	62.69	523.98	-.02427	139.94	279.48

Sample Name: 1103066-07 Acquired: 3/9/2011 12:12:31 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1020.5	596490.	94996.
Stddev	2.6	1687.	135.
%RSD	.25443	.28278	.14161
#1	1023.5	594910.	95065.
#2	1018.9	598260.	94841.
#3	1019.2	596290.	95081.

Sample Name: 1103066-08 Acquired: 3/9/2011 12:16:59 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.36994**	**90048.**	**43.712**	**5.9690**	**280.79**	**2.3831**	z *****
Stddev	.39529	249.	1.240	1.1338	3.28	.0076	-----
%RSD	106.85	.27691	2.8365	18.994	1.1667	.32059	-----
#1	.02944	89783.	42.330	4.9917	277.72	2.3744	z 219.51
#2	-.37826	90083.	44.077	7.2120	280.43	2.3888	z 219.35
#3	-.76100	90278.	44.728	5.7032	284.24	2.3859	z 220.25

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.9038**	F **-1.3956**	**.52639**	**6.0568**	**182.84**	**162.9**	**169.76**
Stddev	.0073	.1928	.04059	.5013	3.54	2.6	3.72
%RSD	.14846	13.812	7.7110	8.2764	1.9369	1.566	2.1938
#1	4.9103	-1.4908	.49126	5.5278	186.24	164.5	173.36
#2	4.9052	-1.5221	.57082	6.1179	179.17	160.0	165.92
#3	4.8960	-1.1737	.51709	6.5248	183.12	164.2	169.98

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**169800.**	**1.8062**	**2.5168**	**247.20**	**8.0207**	**.04505**	**43.781**
Stddev	420.	.0165	.0121	5.63	.1907	.01129	.437
%RSD	.24761	.91348	.48003	2.2780	2.3774	25.072	.99877
#1	169790.	1.7893	2.5221	252.62	7.8388	.05795	43.279
#2	170230.	1.8072	2.5254	241.38	8.0042	.04028	44.077
#3	169390.	1.8222	2.5030	247.61	8.2191	.03693	43.986

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**283.19**	**-.32282**	**3.2355**	**15.655**	**26.36**	**894.71**	**-.01022**
Stddev	3.70	.71318	3.1169	.326	.11	1.39	.74233
%RSD	1.3081	220.92	96.334	2.0796	.4196	.15580	7262.4
#1	279.34	-.52308	1.1844	15.416	26.23	893.10	.77822
#2	283.51	-.91446	6.8222	16.026	26.45	895.42	-.11320
#3	286.72	.46908	1.6998	15.522	26.39	895.60	-.69569

Sample Name: 1103066-08 Acquired: 3/9/2011 12:16:59 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**320.13**	**263.23**	
Stddev	7.28	3.34	
%RSD	2.2740	1.2702	
#1	327.42	259.96	
#2	312.86	263.11	
#3	320.12	266.64	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1007.6	595910.	95052.
Stddev	8.8	13156.	127.
%RSD	.87222	2.2077	.13341
#1	1016.1	582750.	95159.
#2	1008.3	609070.	94912.
#3	998.55	595910.	95086.

Sample Name: 1103066-09 Acquired: 3/9/2011 12:21:30 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.79467**	**50555.**	**26.969**	**4.0346**	**218.38**	**2.2177**	z *****	**2.4830**
Stddev	.13550	50.	1.300	.2893	.92	.0185	-----	.0052
%RSD	17.051	.09887	4.8208	7.1698	.42008	.83206	-----	.20945
#1	-.64114	50505.	25.692	4.0635	217.79	2.2380	z 183.77	2.4793
#2	-.89754	50556.	28.291	3.7320	217.92	2.2131	z 184.09	2.4890
#3	-.84533	50604.	26.924	4.3083	219.44	2.2020	z 182.67	2.4809

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**-.91752**	**.08869**	**16.646**	**93.978**	**264.4**	**270.39**	**92263.**	**1.5530**
Stddev	.18438	.10153	.128	.689	1.5	.82	319.	.0063
%RSD	20.096	114.48	.76899	.73326	.5614	.30245	.34600	.40706
#1	-1.1232	.17536	16.564	94.757	266.1	271.32	92205.	1.5571
#2	-.86223	.11374	16.581	93.729	263.2	270.08	92608.	1.5563
#3	-.76711	-.02302	16.793	93.448	264.0	269.77	91977.	1.5457

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**2.1884**	**1036.4**	**4.3110**	**.03701**	**29.344**	**104.09**	**-.32748**	**.68873**
Stddev	.0029	3.3	.1561	.01390	.289	1.49	.65551	1.2874
%RSD	.13341	.31507	3.6207	37.560	.98403	1.4350	200.17	186.92
#1	2.1867	1040.1	4.3426	.02253	29.569	102.45	.27050	-.78193
#2	2.1868	1035.0	4.1415	.03825	29.018	104.44	-1.0284	1.6116
#3	2.1918	1034.0	4.4489	.05025	29.443	105.38	-.22460	1.2365

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12.478**	**12.01**	**618.29**	**-1.2597**	**166.83**	**140.52**
Stddev	.032	.07	2.34	1.0229	.82	.68
%RSD	.25968	.6016	.37883	81.201	.49381	.48743
#1	12.441	11.93	618.00	-1.3514	167.74	140.64
#2	12.490	12.05	620.76	-.19404	166.61	139.78
#3	12.503	12.06	616.10	-2.2336	166.14	141.13

Sample Name: 1103066-09 Acquired: 3/9/2011 12:21:30 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1032.5	604730.	95664.
Stddev	4.0	2550.	307.
%RSD	.39203	.42160	.32111
#1	1035.2	601850.	95917.
#2	1034.5	606700.	95322.
#3	1027.9	605620.	95752.

Sample Name: 1103066-10 Acquired: 3/9/2011 12:26:01 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.50451**	**71815.**	**336.14**	**4.7879**	**246.77**	**2.9281**	z *****
Stddev	.13078	286.	4.69	.4727	5.01	.0121	-----
%RSD	25.922	.39841	1.3949	9.8718	2.0291	.41229	-----
#1	-.42987	71758.	331.03	4.6219	241.32	2.9414	z 229.66
#2	-.42815	72125.	337.14	5.3211	247.83	2.9178	z 231.30
#3	-.65552	71561.	340.25	4.4206	251.17	2.9253	z 231.88

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.9159**	**-.09473**	**.54049**	**56.137**	**529.22**	**793.4**	**821.41**
Stddev	.0135	.31575	.18145	1.377	2.60	1.2	2.18
%RSD	.27505	333.32	33.571	2.4528	.49038	.1459	.26536
#1	4.9136	-.45517	.74558	54.594	527.83	792.5	822.28
#2	4.9037	.03793	.40087	56.573	527.61	793.0	818.92
#3	4.9305	.13306	.47500	57.242	532.21	794.8	823.01

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**184210.**	**1.6338**	**2.9472**	**779.27**	**6.2798**	**.06995**	**56.176**
Stddev	488.	.0157	.0079	3.53	.3702	.00721	1.048
%RSD	.26473	.96222	.26657	.45267	5.8948	10.306	1.8657
#1	183990.	1.6382	2.9478	780.60	5.9605	.06531	55.011
#2	183880.	1.6468	2.9391	775.27	6.6856	.07826	56.472
#3	184770.	1.6163	2.9547	781.94	6.1935	.06629	57.043

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**732.48**	**.36724**	**2.4119**	**17.851**	**21.43**	**750.21**	**-1.9871**
Stddev	14.34	.56067	.9252	.409	.04	2.14	.8358
%RSD	1.9573	152.67	38.362	2.2927	.1825	.28499	42.063
#1	716.51	-.01978	1.3788	17.383	21.39	747.92	-2.7377
#2	736.69	.11131	2.6926	18.141	21.45	752.15	-1.0864
#3	744.24	1.0102	3.1642	18.029	21.46	750.55	-2.1373

Sample Name: 1103066-10 Acquired: 3/9/2011 12:26:01 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**282.58**	**500.44**
Stddev	1.01	10.25
%RSD	.35838	2.0481
#1	282.62	489.21
#2	281.55	502.81
#3	283.58	509.29

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1017.3	602730.	96367.
Stddev	16.1	1186.	86.
%RSD	1.5820	.19681	.08916
#1	1035.0	602450.	96274.
#2	1013.1	604020.	96444.
#3	1003.7	601700.	96383.

Sample Name: SEQ-CCV Acquired: 3/9/2011 12:31:29 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**471.76**	**9398.2**	**972.75**	**1005.3**	**961.82**	**1034.9**	zF *****	**51.500**
Stddev	5.41	20.9	4.37	9.5	3.40	2.4	-----	.093
%RSD	1.1465	.22262	.44901	.94631	.35327	.23258	-----	.18065
#1	477.52	9375.8	967.79	1015.4	963.71	1033.0	z 171.69	51.570
#2	466.78	9417.2	974.46	996.59	957.90	1034.1	z 171.14	51.536
#3	470.97	9401.6	976.01	1003.8	963.86	1037.6	z 172.89	51.395
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value							1000.0	
Range							±-100.00	

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**1022.1**	**983.11**	**937.03**	**971.05**	**941.6**	**939.57**	**10067.**	**9.1264**
Stddev	5.3	4.77	3.31	10.40	7.2	7.24	6.	.0333
%RSD	.51687	.48537	.35330	1.0710	.7696	.77048	.06390	.36454
#1	1017.1	987.39	934.57	982.32	949.9	947.59	10064.	9.0957
#2	1021.5	977.96	935.73	961.82	937.2	933.54	10062.	9.1617
#3	1027.6	983.97	940.80	969.00	937.5	937.57	10074.	9.1219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**47.572**	**997.76**	**932.20**	**48.584**	**952.94**	**936.08**	**942.54**	**949.40**
Stddev	.021	10.68	2.07	.177	4.03	3.64	2.43	5.71
%RSD	.04313	1.0702	.22200	.36393	.42287	.38923	.25779	.60186
#1	47.549	1009.3	933.58	48.436	949.30	937.41	943.32	955.59
#2	47.581	988.16	929.82	48.537	952.24	931.96	939.82	944.33
#3	47.587	995.86	933.20	48.780	957.27	938.88	944.49	948.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/9/2011 12:31:29 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**936.74**	**979.1**	**977.86**	**943.02**	**952.91**	**978.01**
Stddev	2.75	2.8	1.46	5.96	10.52	2.78
%RSD	.29366	.2850	.14965	.63198	1.1044	.28476
#1	938.30	977.7	976.62	939.19	964.45	979.45
#2	933.56	977.3	977.48	939.98	943.85	974.80
#3	938.35	982.3	979.47	949.89	950.42	979.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1009.4	576750.	93709.
Stddev	3.2	4361.	108.
%RSD	.31417	.75611	.11528
#1	1007.1	572100.	93751.
#2	1013.0	580760.	93789.
#3	1008.1	577380.	93586.

Sample Name: SEQ-CCB Acquired: 3/9/2011 12:38:47 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.18687**	**16.286**	**.28717**	**.67399**	**.09178**	**.15054**	z *****	**.01149**
Stddev	.01433	8.552	.55374	.22730	.08462	.11056	-----	.00560
%RSD	7.6661	52.510	192.82	33.724	92.195	73.438	-----	48.730
#1	-.17036	6.6469	.34232	.42752	.16792	.03308	z 134.32	.00592
#2	-.19596	22.962	-.29208	.87536	.10675	.25257	z 134.67	.01712
#3	-.19430	19.249	.81128	.71909	.00068	.16599	z 133.95	.01143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.16166**	**-.25449**	**.03906**	**.13378**	**.8273**	**-.32789**	**28.482**	**-.00574**
Stddev	.01825	.19219	.02337	.14891	.0177	.09037	15.950	.00581
%RSD	11.287	75.519	59.834	111.31	2.143	27.562	56.003	101.12
#1	.17166	-.04057	.06529	-.01490	.8452	-.43194	12.062	-.00297
#2	.14060	-.31031	.03144	.28292	.8098	-.26900	43.918	-.01241
#3	.17271	-.41259	.02045	.13332	.8268	-.28273	29.464	-.00184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.01264**	**.15497**	**.74055**	**.02172**	**.38557**	**-.78809**	**.02027**	**.88259**
Stddev	.00257	.03790	.07937	.01453	.05971	.37264	.51082	.97419
%RSD	20.360	24.456	10.717	66.876	15.486	47.284	2519.8	110.38
#1	.00967	.19031	.82862	.03458	.40289	-.77655	-.56873	.59875
#2	.01410	.11495	.67455	.02462	.31911	-1.1664	.34200	.08185
#3	.01414	.15965	.71849	.00596	.43470	-.42136	.28755	1.9672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/9/2011 12:38:47 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.35559**	**.1576**	**.44261**	**-.22990**	**.05578**	**.14631**
Stddev	.24168	.0734	.16324	.45979	.08128	.02629
%RSD	67.966	46.59	36.881	200.00	145.72	17.972
#1	.45517	.0856	.59664	-.42519	.05964	.15062
#2	.08003	.2323	.45967	-.55982	.13506	.17018
#3	.53156	.1547	.27150	.29530	-.02737	.11813
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1179.7	610110.	95706.
Stddev	2.7	1652.	142.
%RSD	.23276	.27073	.14871
#1	1182.4	610400.	95544.
#2	1176.9	608330.	95808.
#3	1179.7	611600.	95767.

Sample Name: SEQ-CCV Acquired: 3/9/2011 13:54:38 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**475.63**	**9255.4**	**960.74**	**995.92**	**969.27**	**1021.5**	zF *****
Stddev	1.86	71.7	5.56	4.71	6.22	1.4	-----
%RSD	.39156	.77450	.57842	.47252	.64179	.13590	-----
#1	476.13	9338.0	956.26	995.28	963.15	1022.0	z 176.28
#2	473.57	9219.2	966.96	991.57	975.59	1019.9	z 175.85
#3	477.20	9209.1	959.00	1000.9	969.06	1022.6	z 176.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							1000.0
Range							±-100.00

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.795**	**1018.3**	**991.83**	**934.25**	**982.77**	**956.6**	**928.58**
Stddev	.036	7.1	6.68	6.72	6.27	2.2	1.94
%RSD	.07048	.69864	.67306	.71910	.63749	.2308	.20842
#1	50.763	1010.7	985.98	927.48	980.95	954.1	929.62
#2	50.833	1024.8	999.10	940.91	977.62	957.2	926.34
#3	50.788	1019.3	990.41	934.36	989.75	958.4	929.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**9827.8**	F **8.9865**	**47.089**	**1013.8**	**941.81**	**47.083**	**940.61**
Stddev	**2**7.7	.1220	.062	6.1	7.22	.586	7.86
%RSD	.28206	1.3575	.13236	.60330	.76642	1.2447	.83535
#1	9807.2	9.1214	47.132	1012.9	934.16	47.745	933.30
#2	9816.9	8.9540	47.017	1008.1	948.50	46.872	948.92
#3	9859.3	8.8840	47.117	1020.3	942.77	46.632	939.63
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		10.000					
Range		±-1.0000					

Sample Name: SEQ-CCV Acquired: 3/9/2011 13:54:38 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**938.51**	**932.97**	**955.45**	**948.00**	**959.5**	**965.81**	**928.15**
Stddev	4.21	5.87	5.89	7.43	3.4	1.53	6.69
%RSD	.44885	.62938	.61597	.78365	.3560	.15874	.72130
#1	934.42	926.32	952.18	941.34	962.8	967.06	921.60
#2	942.84	937.45	962.25	956.01	956.0	964.10	934.98
#3	938.27	935.13	951.93	946.64	959.8	966.27	927.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**965.61**	**998.00**
Stddev	5.91	5.92
%RSD	.61247	.59306
#1	965.29	991.54
#2	959.87	1003.2
#3	971.68	999.32
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1035.6	589580.	96754.
Stddev	6.0	365.	68.
%RSD	.57460	.06190	.06986
#1	1041.4	589590.	96677.
#2	1029.5	589940.	96804.
#3	1035.8	589210.	96780.

Sample Name: SEQ-CCB Acquired: 3/9/2011 14:01:56 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	**-.17668**	**2.7369**	**1.0987**	**.68455**	**.33380**	**.05575**	z *****	**.00463**
Stddev	.09863	1.2171	.7058	.47224	.07805	.01244	-----	.00137
%RSD	55.824	44.471	64.242	68.985	23.383	22.307	-----	29.517
#1	-.06893	1.3600	.55717	.34221	.39649	.04204	z 139.62	.00378
#2	-.26249	3.1814	.84191	1.2233	.35854	.06632	z 138.23	.00620
#3	-.19862	3.6693	1.8969	.48814	.24638	.05888	z 137.43	.00390
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.24132**	**.00766**	**.18956**	**.13789**	**.3994**	**-.15741**	**.91750**	**-.02619**
Stddev	.03477	.05896	.08637	.18391	.2811	.09511	1.4120	.00693
%RSD	14.410	769.53	45.562	133.38	70.38	60.418	153.90	26.467
#1	.26444	-.05604	.17558	.14796	.6679	-.26512	1.9223	-.02245
#2	.25820	.06032	.28206	.31656	.4229	-.08500	1.5271	-.02194
#3	.20133	.01870	.11104	-.05086	.1073	-.12212	-.69690	-.03419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.00910**	**.20249**	**.86704**	**-.00303**	**.18451**	**.80708**	**.61005**	**1.5646**
Stddev	.00462	.10735	.10410	.00919	.07819	.58208	.47869	1.1971
%RSD	50.827	53.014	12.006	303.09	42.378	72.122	78.467	76.514
#1	.01397	.08115	.98599	-.01129	.14651	.14591	.79150	.61176
#2	.00477	.24121	.79256	-.00468	.27444	1.0330	.97148	1.1737
#3	.00855	.28511	.82258	.00687	.13258	1.2424	.06717	2.9083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/9/2011 14:01:56 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.56289**	**.0614**	**.19170**	**.16889**	**.17775**	**.34229**
Stddev	.13513	.0210	.10962	.16272	.10788	.08019
%RSD	24.007	34.12	57.181	96.347	60.696	23.428
#1	.50014	.0437	.29994	.20983	.07148	.35179
#2	.47055	.0846	.08076	-.01039	.17458	.41732
#3	.71799	.0560	.19440	.30723	.28718	.25777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1220.1	621830.	98775.
Stddev	6.4	8890.	422.
%RSD	.52048	1.4297	.42745
#1	1223.6	620750.	99174.
#2	1223.9	613520.	98819.
#3	1212.8	631200.	98333.

Sample Name: 1103066-11 Acquired: 3/9/2011 14:08:01 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.88534**	**82028.**	**385.43**	**8.4423**	**137.05**	**4.1374**	z *****
Stddev	.02984	92.	5.40	.2058	1.94	.0173	-----
%RSD	3.3705	.11222	1.4009	2.4372	1.4157	.41896	-----
#1	-.85721	82125.	387.96	8.5487	137.94	4.1548	z 234.23
#2	-.91664	81943.	379.23	8.5730	134.83	4.1201	z 233.16
#3	-.88216	82015.	389.10	8.2051	138.39	4.1374	z 233.70

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.5968**	**-.44088**	**-.38950**	**32.743**	**351.78**	**401.5**	**403.29**
Stddev	.0362	.17008	.10193	.611	.61	.8	.86
%RSD	.54901	38.577	26.170	1.8675	.17360	.2087	.21277
#1	6.5867	-.33391	-.44225	32.837	352.33	401.6	402.72
#2	6.6370	-.63700	-.27201	32.090	351.90	402.3	404.27
#3	6.5667	-.35173	-.45426	33.302	351.13	400.6	402.86

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**170650.**	**1.9732**	**4.2105**	**983.85**	**5.4952**	**.05971**	**67.770**
Stddev	631.	.0073	.0068	2.72	.2360	.01754	.891
%RSD	.36962	.37246	.16109	.27692	4.2948	29.374	1.3141
#1	170390.	1.9752	4.2028	985.80	5.7612	.05352	68.072
#2	171370.	1.9651	4.2134	985.02	5.4137	.04611	66.768
#3	170190.	1.9793	4.2154	980.74	5.3108	.07950	68.470

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**168.59**	**.28897**	**1.2692**	**13.805**	**18.29**	**840.53**	**-1.7463**
Stddev	2.71	1.8010	.8205	.502	.06	1.52	.5316
%RSD	1.6077	623.24	64.646	3.6398	.3335	.18050	30.442
#1	169.63	-.23114	1.4169	14.008	18.24	841.37	-1.2617
#2	165.51	-1.1947	2.0057	14.174	18.35	841.45	-2.3148
#3	170.62	2.2927	.38486	13.233	18.27	838.78	-1.6623

Sample Name: 1103066-11 Acquired: 3/9/2011 14:08:01 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**292.86**	**742.49**	
Stddev	.51	11.53	
%RSD	.17248	1.5531	
#1	292.45	749.36	
#2	293.43	729.17	
#3	292.71	748.92	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1049.1	628850.	99701.
Stddev	11.9	1506.	299.
%RSD	1.1386	.23941	.30000
#1	1043.7	628090.	99990.
#2	1062.8	627880.	99393.
#3	1040.8	630590.	99722.

Sample Name: 1103066-12 Acquired: 3/9/2011 14:12:38 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.62872**	**62795.**	**28.633**	**5.0182**	**98.061**	**2.4332**	z *****
Stddev	.19190	486.	2.158	.4298	.389	.0195	-----
%RSD	30.523	.77319	7.5380	8.5638	.39654	.79982	-----
#1	-.40713	62249.	30.035	5.4752	97.848	2.4112	z 200.79
#2	-.74059	63179.	26.147	4.9570	97.824	2.4401	z 200.13
#3	-.73843	62957.	29.716	4.6223	98.510	2.4482	z 199.02

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	~~Cu3247~~
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.6203**	**-.52371**	**.40368**	**15.263**	**124.32**	**226.5**	**224.93**
Stddev	.0252	.17754	.17998	.185	.48	.6	.80
%RSD	.69600	33.901	44.583	1.2106	.38576	.2851	.35446
#1	3.5918	-.39263	.45140	15.297	124.52	225.8	225.85
#2	3.6396	-.72575	.20466	15.064	123.78	226.7	224.53
#3	3.6294	-.45274	.55500	15.429	124.68	227.0	224.42

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**106690.**	**1.8950**	**2.9325**	**609.00**	**3.0610**	**.03057**	**40.665**
Stddev	647.	.0117	.0313	1.19	.1523	.00583	.297
%RSD	.60655	.61787	1.0682	.19488	4.9750	19.056	.73127
#1	106010.	1.8842	2.8973	610.07	2.8878	.03643	41.000
#2	107300.	1.8934	2.9573	607.73	3.1217	.02478	40.433
#3	106750.	1.9075	2.9428	609.20	3.1736	.03051	40.562

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**59.341**	**-.29178**	**2.3380**	**15.104**	**9.481**	**495.25**	**-1.2551**
Stddev	1.142	.61170	1.5442	.897	.106	4.29	.3082
%RSD	1.9250	209.65	66.049	5.9405	1.122	.86697	24.555
#1	58.262	-.18180	1.3844	14.134	9.365	490.46	-1.5454
#2	59.224	-.95100	1.5100	15.273	9.574	498.75	-.93171
#3	60.538	.25747	4.1197	15.904	9.505	496.54	-1.2882

Sample Name: 1103066-12 Acquired: 3/9/2011 14:12:38 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**183.14**	**83.047**	
Stddev	.45	.320	
%RSD	.24816	.38577	
#1	183.38	83.249	
#2	182.62	82.678	
#3	183.43	83.215	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1072.6	632150.	100340.
Stddev	4.8	980.	613.
%RSD	.44824	.15504	.61075
#1	1073.9	631110.	101020.
#2	1076.6	633050.	99828.
#3	1067.2	632290.	100170.

Sample Name: 1103066-13 Acquired: 3/9/2011 14:17:10 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.51078**	**74861.**	**28.908**	**7.7630**	**216.67**	**1.8246**	z *****
Stddev	.28702	128.	1.693	.2215	1.17	.0130	-----
%RSD	56.194	.17077	5.8558	2.8536	.53953	.71211	-----
#1	-.73596	74714.	28.052	7.9911	216.78	1.8303	z 210.42
#2	-.18758	74923.	30.858	7.7492	215.45	1.8097	z 208.56
#3	-.60878	74946.	27.814	7.5487	217.78	1.8337	z 209.86

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.3616**	F **-1.3322**	**.16900**	**4.7282**	**121.53**	**94.34**	**95.686**
Stddev	.0086	.1062	.09502	.1544	.14	.13	.221
%RSD	.25596	7.9747	56.223	3.2650	.11414	.1357	.23135
#1	3.3567	-1.4357	.06012	4.5732	121.55	94.28	95.751
#2	3.3565	-1.2234	.21174	4.7296	121.38	94.48	95.440
#3	3.3715	-1.3374	.23513	4.8819	121.66	94.25	95.868

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**127110.**	**1.8731**	**4.5935**	**186.93**	**4.3766**	**.05194**	**19.889**
Stddev	420.	.0025	.0255	.38	.1264	.00468	.277
%RSD	.33080	.13274	.55458	.20375	2.8887	9.0190	1.3914
#1	126620.	1.8716	4.5642	186.56	4.3144	.04817	20.141
#2	127320.	1.8717	4.6100	186.92	4.5221	.05045	19.593
#3	127380.	1.8760	4.6064	187.32	4.2933	.05718	19.932

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.372**	**-.02917**	**1.6865**	**13.403**	**15.51**	**672.13**	**.49698**
Stddev	.789	1.9473	.4668	.389	.08	1.75	.37432
%RSD	2.0551	6675.8	27.677	2.8994	.5307	.25997	75.318
#1	38.572	-2.0763	2.0005	13.285	15.43	670.14	.73926
#2	39.042	.18880	1.9089	13.087	15.53	672.86	.68583
#3	37.503	1.8000	1.1501	13.837	15.59	673.39	.06586

Sample Name: 1103066-13 Acquired: 3/9/2011 14:17:10 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**220.09**	**50.346**
Stddev	.96	.294
%RSD	.43767	.58486
#1	219.53	50.240
#2	219.54	50.118
#3	221.21	50.678

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1057.5	625460.	99026.
Stddev	5.4	1223.	186.
%RSD	.51279	.19558	.18802
#1	1061.4	625030.	99231.
#2	1059.8	626840.	98980.
#3	1051.3	624510.	98868.

Sample Name: 1103066-14 Acquired: 3/9/2011 14:21:44 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.46567**	**66333.**	**31.747**	**7.3167**	**123.22**	**2.2943**	z *****
Stddev	.05143	303.	2.586	.2047	.62	.0086	-----
%RSD	11.045	.45745	8.1443	2.7976	.50482	.37445	-----
#1	-.50795	66411.	28.886	7.1564	122.94	2.2844	z 213.77
#2	-.48064	66590.	33.918	7.5473	122.78	2.2998	z 212.95
#3	-.40841	65998.	32.436	7.2465	123.93	2.2988	z 215.71

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.0734**	F **-1.6160**	**.29174**	**5.5396**	**141.52**	**103.2**	**103.16**
Stddev	.0092	.0684	.04452	.2728	.22	.4	.41
%RSD	.29836	4.2358	15.260	4.9241	.15755	.4057	.40016
#1	3.0632	-1.5837	.24753	5.5833	141.78	103.4	102.98
#2	3.0810	-1.6946	.33656	5.2477	141.37	102.8	102.87
#3	3.0760	-1.5697	.29111	5.7879	141.42	103.6	103.63

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**139580.**	**1.3555**	**3.6789**	**425.03**	**3.4556**	**.03099**	**28.939**
Stddev	368.	.0183	.0019	1.41	.2862	.00286	.318
%RSD	.26367	1.3517	.05108	.33056	8.2826	9.2347	1.0990
#1	139170.	1.3642	3.6774	424.36	3.4406	.02878	28.678
#2	139890.	1.3678	3.6810	424.09	3.7490	.02997	29.293
#3	139670.	1.3345	3.6782	426.65	3.1772	.03422	28.845

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**53.418**	**-.41221**	**.84358**	**12.869**	**10.49**	**733.50**	**-1.2220**
Stddev	.507	.74691	.89451	1.072	.03	4.58	.1847
%RSD	.94912	181.20	106.04	8.3299	.2595	.62470	15.115
#1	53.428	-.36695	.86255	11.632	10.46	728.33	-1.3677
#2	53.921	.31104	-.06026	13.443	10.51	737.07	-1.0143
#3	52.907	-1.1807	1.7284	13.531	10.49	735.09	-1.2841

Sample Name: 1103066-14 Acquired: 3/9/2011 14:21:44 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**245.15**	**94.681**
Stddev	.43	.569
%RSD	.17544	.60142
#1	244.65	94.358
#2	245.36	94.346
#3	245.43	95.338

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1062.6	622920.	98916.
Stddev	2.4	1693.	141.
%RSD	.22273	.27172	.14210
#1	1064.9	623690.	98920.
#2	1062.8	624090.	98774.
#3	1060.2	620980.	99055.

Sample Name: 1103066-15 Acquired: 3/9/2011 14:26:19 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.29319**	**57172.**	**24.295**	**5.2766**	**442.90**	**1.6434**	z *****
Stddev	.07788	188.	1.280	.7550	5.06	.0129	-----
%RSD	26.562	.32926	5.2681	14.307	1.1436	.78558	-----
#1	-.38307	56967.	23.057	4.4274	445.27	1.6293	z 199.08
#2	-.24564	57211.	24.214	5.5309	437.08	1.6461	z 199.11
#3	-.25087	57337.	25.613	5.8716	446.34	1.6547	z 197.27

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.2153**	**-.78107**	**.30555**	**6.0007**	**109.49**	**427.5**	**424.33**
Stddev	.0182	.09473	.20440	.3098	.34	1.3	.35
%RSD	.43276	12.128	66.898	5.1625	.31373	.3036	.08173
#1	4.2058	-.68545	.08971	6.1258	109.45	427.4	423.93
#2	4.2364	-.87488	.49619	5.6479	109.85	428.9	424.48
#3	4.2038	-.78287	.33073	6.2284	109.16	426.3	424.57

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**102280.**	**1.4432**	**3.1751**	**414.60**	**3.6036**	**.11489**	**21.490**
Stddev	410.	.0135	.0204	1.22	.1221	.02183	.122
%RSD	.40075	.93176	.64290	.29424	3.3888	19.003	.56837
#1	102390.	1.4335	3.1518	414.55	3.7348	.12231	21.589
#2	102620.	1.4377	3.1897	415.84	3.5829	.13205	21.528
#3	101820.	1.4586	3.1838	413.40	3.4932	.09032	21.354

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**52.219**	**.47381**	**1.1595**	**13.416**	**11.47**	**619.91**	**-1.0751**
Stddev	1.033	.90190	.7831	.091	.05	2.36	.5522
%RSD	1.9788	190.35	67.532	.67876	.4380	.38054	51.367
#1	52.136	-.49177	2.0358	13.520	11.48	622.63	-.97187
#2	51.230	.61872	.52828	13.374	11.42	618.39	-1.6717
#3	53.291	1.2945	.91452	13.353	11.52	618.70	-.58174

Sample Name: 1103066-15 Acquired: 3/9/2011 14:26:19 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**206.09**	**93.451**
Stddev	.53	.957
%RSD	.25602	1.0237
#1	205.92	94.121
#2	206.68	92.355
#3	205.67	93.877

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1072.8	633350.	100030.
Stddev	11.5	2224.	205.
%RSD	1.0729	.35120	.20532
#1	1067.1	633850.	100260.
#2	1086.0	630920.	99869.
#3	1065.2	635280.	99967.

Sample Name: 1103066-16 Acquired: 3/9/2011 14:30:49 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**-.66245**	**102110.**	**70.241**	**6.5847**	**137.16**	**3.5082**	z *****
Stddev	.25514	1567.	1.816	.7185	3.55	.0313	-----
%RSD	38.514	1.5345	2.5858	10.912	2.5894	.89267	-----
#1	-.38425	103240.	71.764	6.9157	140.34	3.5339	z 255.21
#2	-.88550	100320.	68.231	7.0781	133.33	3.4733	z 255.79
#3	-.71760	102770.	70.729	5.7604	137.81	3.5175	z 254.79

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.3415**	**-.84497**	**.33377**	**8.9370**	**193.26**	**117.3**	**117.98**
Stddev	.1028	.27836	.13608	.3083	2.32	1.2	1.36
%RSD	1.4001	32.943	40.770	3.4495	1.1980	1.008	1.1562
#1	7.3749	-.55660	.24432	9.2921	193.83	118.2	118.98
#2	7.2261	-1.1121	.26661	8.7386	190.72	115.9	116.43
#3	7.4234	-.86622	.49037	8.7802	195.24	117.6	118.52

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**207290.**	**1.4450**	**2.7932**	**337.85**	**9.7300**	**.01566**	**62.415**
Stddev	1941.	.0168	.0383	4.20	.1647	.00479	1.264
%RSD	.93650	1.1641	1.3717	1.2444	1.6924	30.571	2.0258
#1	209090.	1.4594	2.8178	340.03	9.8706	.02091	63.800
#2	205230.	1.4265	2.7491	333.01	9.5489	.01455	61.322
#3	207560.	1.4492	2.8129	340.52	9.7706	.01153	62.123

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**100.46**	**-.14740**	**2.1530**	**16.079**	**19.30**	**1051.0**	**.65534**
Stddev	2.30	1.4086	1.5644	1.079	.25	15.8	.90652
%RSD	2.2925	955.64	72.658	6.7119	1.276	1.5023	138.33
#1	103.04	-1.6063	3.9235	17.228	19.44	1059.3	1.1003
#2	98.606	-.04075	.95744	15.087	19.01	1032.8	1.2534
#3	99.732	1.2048	1.5782	15.922	19.44	1060.9	-.38768

Sample Name: 1103066-16 Acquired: 3/9/2011 14:30:49 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**412.79**	**219.38**	
Stddev	4.62	5.07	
%RSD	1.1188	2.3089	
#1	414.71	224.06	
#2	407.52	214.00	
#3	416.13	220.09	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1046.8	637840.	101150.
Stddev	20.9	4967.	880.
%RSD	1.9967	.77864	.86987
#1	1028.5	636570.	100610.
#2	1069.6	643320.	102170.
#3	1042.4	633630.	100680.

Sample Name: 1103066-17 Acquired: 3/9/2011 14:35:28 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F **-4.0165**	**116370.**	**49.900**	**9.6252**	**182.79**	**4.6183**	z *****
Stddev	.0459	289.	.855	.8495	1.10	.0295	-----
%RSD	1.1419	.24878	1.7139	8.8260	.60203	.63889	-----
#1	-4.0025	116220.	49.675	8.6969	182.96	4.6213	z 244.21
#2	-3.9792	116180.	49.179	10.364	181.61	4.6462	z 243.65
#3	-4.0677	116700.	50.845	9.8149	183.80	4.5874	z 243.31

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.7405**	F **-1.5288**	**.20936**	**80.637**	**167.48**	**219.9**	**223.23**
Stddev	.0208	.1227	.06282	.480	3.14	4.4	2.84
%RSD	.55710	8.0228	30.003	.59540	1.8768	1.986	1.2709
#1	3.7505	-1.5128	.20717	80.363	171.10	224.9	226.50
#2	3.7545	-1.6587	.14767	80.356	165.71	216.9	221.63
#3	3.7166	-1.4149	.27325	81.191	165.61	218.0	221.55

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**182820.**	**3.1411**	**4.5234**	**671.69**	**6.2627**	**.02205**	**75.014**
Stddev	161.	.0347	.0132	9.81	.3448	.00321	.489
%RSD	.08800	1.1046	.29067	1.4612	5.5062	14.580	.65224
#1	182680.	3.1106	4.5360	683.02	5.9277	.02466	74.584
#2	183000.	3.1339	4.5245	665.86	6.6166	.01846	74.912
#3	182780.	3.1789	4.5098	666.18	6.2437	.02303	75.546

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**206.75**	**-5.4106**	**-1.7863**	**15.729**	**13.73**	**966.09**	F **-14.532**
Stddev	1.79	.7295	1.6627	.978	.08	1.27	.587
%RSD	.86541	13.483	93.076	6.2206	.5525	.13197	4.0372
#1	206.17	-6.2043	-.00950	15.221	13.75	965.23	-15.050
#2	205.33	-4.7694	-2.0450	15.109	13.65	967.56	-14.652
#3	208.76	-5.2580	-3.3045	16.857	13.79	965.50	-13.895

Sample Name: 1103066-17 Acquired: 3/9/2011 14:35:28 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**321.25**	**292.30**	
Stddev	3.79	.84	
%RSD	1.1804	.28644	
#1	325.61	292.16	
#2	319.38	291.55	
#3	318.76	293.21	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1060.2	633770.	100310.
Stddev	3.7	7871.	183.
%RSD	.34542	1.2419	.18232
#1	1062.1	624730.	100410.
#2	1062.5	637510.	100100.
#3	1056.0	639080.	100430.

Sample Name: 1C08008-MS1 Acquired: 3/9/2011 14:39:54 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**231.76**	**132810.**	**293.40**	**7.6379**	**2277.1**	**55.584**	z *****
Stddev	.63	333.	.40	1.1190	17.6	.270	-----
%RSD	.27379	.25065	.13483	14.651	.77233	.48545	-----
#1	231.03	132470.	293.51	8.3136	2257.3	55.274	z 257.54
#2	232.21	132830.	292.96	6.3462	2282.9	55.714	z 257.51
#3	232.04	133130.	293.73	8.2540	2291.0	55.764	z 257.53

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.8937**	**131.76**	**126.99**	**613.47**	**370.26**	**439.8**	**449.43**
Stddev	.0100	1.22	1.13	4.68	1.10	2.4	.71
%RSD	.11289	.92461	.88929	.76266	.29603	.5537	.15804
#1	8.8933	130.43	125.70	608.09	371.48	437.0	448.88
#2	8.8838	132.04	127.47	615.79	369.92	441.0	450.23
#3	8.9039	132.82	127.80	616.54	369.37	441.5	449.18

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**190660.**	**7.8730**	**9.6886**	**1336.2**	**8.5733**	**4.7950**	**580.36**
Stddev	1064.	.0468	.0292	1.4	.2317	.0362	4.05
%RSD	.55815	.59452	.30120	.10504	2.7021	.75458	.69753
#1	191020.	7.8369	9.6708	1337.6	8.4001	4.7557	576.02
#2	189460.	7.8563	9.6727	1336.2	8.4834	4.8025	581.01
#3	191490.	7.9259	9.7223	1334.8	8.8365	4.8269	584.04

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**424.38**	**22.214**	**213.34**	**15.704**	**14.01**	**916.35**	**205.61**
Stddev	2.25	2.429	1.55	.744	.08	2.56	.62
%RSD	.52948	10.936	.72499	4.7406	.5840	.27980	.30132
#1	421.79	19.769	213.60	15.461	13.91	913.64	206.25
#2	425.59	24.627	211.68	16.539	14.03	916.68	205.56
#3	425.77	22.245	214.74	15.110	14.07	918.74	205.01

Sample Name: 1C08008-MS1 Acquired: 3/9/2011 14:39:54 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**811.44**	**803.99**
Stddev	3.22	5.27
%RSD	.39658	.65588
#1	814.89	797.92
#2	810.93	807.44
#3	808.52	806.62

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1043.7	636330.	101340.
Stddev	6.4	1697.	232.
%RSD	.61306	.26665	.22903
#1	1051.1	637840.	101420.
#2	1040.9	634490.	101520.
#3	1039.2	636660.	101080.

Sample Name: 1C08008-MSD1 Acquired: 3/9/2011 14:44:22 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**233.19**	**126420.**	**285.91**	**6.8496**	**2251.4**	**55.431**	z *****
Stddev	4.92	362.	1.48	.7768	1.4	.139	-----
%RSD	2.1092	.28624	.51822	11.340	.06141	.25060	-----
#1	231.96	126080.	286.32	6.9900	2250.0	55.351	z 250.10
#2	229.01	126800.	287.14	7.5466	2251.3	55.350	z 248.33
#3	238.61	126370.	284.26	6.0122	2252.7	55.591	z 247.95

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.6463**	**130.07**	**126.14**	**740.67**	**370.83**	**411.0**	**422.55**
Stddev	.0369	.75	.42	1.68	6.83	6.2	8.92
%RSD	.42729	.57311	.33224	.22640	1.8422	1.498	2.1112
#1	8.6363	130.57	125.80	739.87	370.17	409.9	419.91
#2	8.6153	129.21	126.61	739.54	364.35	405.4	415.25
#3	8.6872	130.43	126.01	742.60	377.96	417.6	432.50

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**181000.**	**7.6633**	**9.5026**	**1782.0**	**8.5987**	**4.7425**	**571.22**
Stddev	974.	.0457	.0531	32.8	.2120	.0276	2.27
%RSD	.53807	.59627	.55850	1.8418	2.4654	.58252	.39724
#1	180510.	7.6332	9.4705	1779.7	8.4249	4.7264	571.64
#2	180370.	7.7159	9.4736	1750.5	8.5365	4.7744	568.77
#3	182120.	7.6409	9.5639	1816.0	8.8349	4.7268	573.25

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**423.35**	**22.962**	**213.65**	**14.967**	**13.73**	**926.84**	**201.89**
Stddev	1.74	.011	1.49	.235	.06	3.85	.55
%RSD	.41153	.04974	.69968	1.5686	.4284	.41555	.27441
#1	422.53	22.960	212.26	14.825	13.67	924.37	201.42
#2	422.17	22.952	215.23	14.838	13.74	924.88	201.76
#3	425.35	22.974	213.45	15.238	13.78	931.28	202.50

Sample Name: 1C08008-MSD1 Acquired: 3/9/2011 14:44:22 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**813.78**	**767.29**
Stddev	15.43	.90
%RSD	1.8961	.11698
#1	811.64	768.23
#2	799.53	767.21
#3	830.17	766.44

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1039.6	618960.	100550.
Stddev	3.1	12651.	414.
%RSD	.30182	2.0439	.41212
#1	1042.9	621240.	100860.
#2	1039.3	630310.	100700.
#3	1036.6	605320.	100080.

Sample Name: 1C08008-PS1 Acquired: 3/9/2011 14:48:44 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**230.61**	**117000.**	**295.32**	**8.0783**	**2215.4**	**54.521**	z *****
Stddev	1.25	792.	2.05	.7853	15.5	.422	-----
%RSD	.54222	.67674	.69495	9.7207	.69905	.77442	-----
#1	230.59	117540.	292.97	8.7618	2212.8	54.835	z 247.92
#2	231.88	116090.	296.19	7.2205	2201.4	54.041	z 248.85
#3	229.38	117370.	296.79	8.2525	2232.0	54.687	z 249.02

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.7125**	**132.67**	**128.03**	**558.00**	**360.14**	**444.2**	**451.89**
Stddev	.0597	.96	.52	3.53	2.07	2.3	1.02
%RSD	.68530	.72700	.40883	.63235	.57447	.5203	.22532
#1	8.7503	132.15	128.22	557.20	362.39	441.7	450.93
#2	8.6436	132.07	127.44	554.94	358.33	444.8	452.96
#3	8.7435	133.78	128.43	561.86	359.69	446.2	451.78

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**180810.**	**7.5377**	**8.9964**	**1167.7**	**6.2318**	**4.6587**	**558.68**
Stddev	1468.	.0633	.0292	3.3	.1412	.0496	3.66
%RSD	.81183	.83931	.32418	.28299	2.2660	1.0639	.65598
#1	181940.	7.5505	9.0177	1171.4	6.3770	4.6811	558.39
#2	179150.	7.4690	8.9631	1166.5	6.0949	4.6019	**555**.17
#3	181330.	7.5936	9.0083	1165.1	6.2234	4.6932	562.49

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**442.79**	**233.95**	**232.32**	**15.504**	**13.48**	**950.93**	**208.93**
Stddev	3.72	1.57	4.37	.206	.10	7.13	3.49
%RSD	.84044	.67023	1.8795	1.3281	.7207	.74996	1.6720
#1	442.94	232.51	232.21	15.370	13.57	957.61	207.00
#2	438.99	233.73	228.00	15.400	13.38	943.42	206.83
#3	446.43	235.62	236.73	15.741	13.50	951.77	212.96

Sample Name: 1C08008-PS1 Acquired: 3/9/2011 14:48:44 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**790.45**	**806.25**	
Stddev	2.06	3.68	
%RSD	.26066	.45625	
#1	792.53	805.22	
#2	788.41	803.19	
#3	790.40	810.33	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1044.2	630240.	100880.
Stddev	7.5	803.	517.
%RSD	.71756	.12742	.51203
#1	1045.8	631040.	100540.
#2	1050.8	630240.	101470.
#3	1036.0	629430.	100620.

Sample Name: 1C08008-DUP1 Acquired: 3/9/2011 14:54:06 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	F -1.0095	23205.	10.172	4.2863	36.466	.93977	z *****
Stddev	.2110	167.	1.121	.3144	.441	.02722	-----
%RSD	20.901	.71917	11.020	7.3345	1.2092	2.8969	-----
#1	-.90312	23058.	11.458	4.1140	36.102	.91357	z 162.83
#2	-1.2525	23172.	9.3993	4.0957	36.339	.93783	z 162.11
#3	-.87285	23386.	9.6593	4.6491	36.956	.96791	z 163.64

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.76285	-.24027	.14156	15.878	34.882	49.16	45.517
Stddev	.00606	.05965	.06926	.218	.260	.36	.236
%RSD	.79455	24.824	48.923	1.3727	.74529	.7266	.51803
#1	.75809	-.30869	.06986	15.805	34.715	48.97	45.470
#2	.76079	-.21294	.14673	15.706	35.181	49.57	45.309
#3	.76968	-.19919	.20809	16.123	34.748	48.94	45.773

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	37111.	.62533	.93943	142.06	1.3000	.00223	14.512
Stddev	474.	.00609	.01475	.57	.1453	.00908	.236
%RSD	1.2760	.97432	1.5698	.40420	11.176	407.98	1.6253
#1	36779.	.62439	.92529	141.71	1.1519	-.00001	14.256
#2	36900.	.61976	.93828	142.72	1.3057	-.00553	14.558
#3	37653.	.63184	.95472	141.73	1.4423	.01221	14.721

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	42.901	-1.2881	2.1096	3.6415	2.778	196.32	-2.2044
Stddev	1.308	.8509	1.7976	.3876	.033	2.25	.8593
%RSD	3.0489	66.063	85.211	10.644	1.174	1.1472	38.981
#1	41.449	-1.0505	3.4470	4.0868	2.751	195.19	-2.0154
#2	43.988	-2.2325	2.8157	3.4579	2.768	194.86	-3.1425
#3	43.266	-.58112	.06615	3.3799	2.814	198.92	-1.4554

Sample Name: 1C08008-DUP1 Acquired: 3/9/2011 14:54:06 Type: Unk
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**67.077**	**58.073**	
Stddev	.578	.514	
%RSD	.86218	.88520	
#1	66.737	58.111	
#2	67.745	57.541	
#3	66.750	58.567	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1157.0	635570.	100820.
Stddev	6.6	2199.	820.
%RSD	.57095	.34597	.81325
#1	1155.2	637910.	101470.
#2	1164.3	633550.	101080.
#3	1151.5	635240.	99895.

Sample Name: SEQ-CCV Acquired: 3/9/2011 14:59:41 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S
Avg	**478.43**	F **8976.5**	**937.95**	**967.00**	**977.42**	**993.36**	zF *****
Stddev	8.61	21.5	7.31	19.69	3.36	3.42	-----
%RSD	1.7990	.23969	.77911	2.0360	.34384	.34389	-----
#1	486.39	8957.2	929.77	984.90	974.47	993.84	z 179.72
#2	479.60	8999.7	943.85	970.20	976.71	996.51	z 180.33
#3	469.30	8972.7	940.22	945.91	981.08	989.72	z 179.88
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value		10000.					1000.0
Range		±-1000.0					±-100.00

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**48.954**	**998.88**	**998.72**	**924.21**	**966.77**	**966.8**	**903.77**
Stddev	.265	5.35	4.43	3.99	18.75	17.8	18.30
%RSD	.54159	.53577	.44396	.43148	1.9389	1.839	2.0249
#1	48.904	993.13	994.04	919.70	985.14	985.5	920.35
#2	49.241	999.78	999.27	925.61	967.50	964.6	906.83
#3	48.718	1003.7	1002.9	927.30	947.67	950.1	884.13
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**9511.3**	F **8.7445**	**46.058**	**1014.4**	**950.71**	**45.032**	**917.07**
Stddev	48.0	.0231	.194	18.2	4.64	.236	5.19
%RSD	.50462	.26372	.42168	1.7975	.48804	.52476	.56640
#1	9487.2	8.7365	46.052	1031.3	946.11	44.831	911.13
#2	9566.5	8.7706	46.256	1016.7	950.61	45.292	919.31
#3	9480.1	8.7266	45.867	995.05	955.39	44.972	920.77
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		10.000					
Range		±-1.0000					

Sample Name: SEQ-CCV Acquired: 3/9/2011 14:59:41 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0224

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**937.80**	**918.41**	**962.48**	**950.07**	**932.0**	**940.85**	**904.78**
Stddev	5.18	1.38	3.07	5.13	2.4	4.06	5.17
%RSD	.55207	.15025	.31928	.54040	.2525	.43104	.57187
#1	932.42	916.92	959.08	944.19	931.5	938.71	898.90
#2	938.22	918.67	965.07	952.33	934.6	945.53	906.80
#3	942.75	919.64	963.30	953.68	929.9	938.31	908.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**957.40**	**1016.0**
Stddev	16.98	5.1
%RSD	1.7732	.50617
#1	973.70	1010.9
#2	958.69	1015.9
#3	939.82	1021.2
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1062.1	603480.	100110.
Stddev	3.9	11247.	202.
%RSD	.36708	1.8636	.20145
#1	1066.5	592830.	100250.
#2	1059.3	602360.	99879.
#3	1060.4	615240.	100200.

Sample Name: SEQ-CCB Acquired: 3/9/2011 15:07:00 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2496	Ba2335	Be3130	Bi2230	Ca3179
Units	ppb	ppb	ppb	ppb	ppb	ppb	Cts/S	ppm
Avg	-.10985	5.6727	1.4677	.74001	.44283	.06430	z *****	.00682
Stddev	.17655	4.7003	.7929	.56848	.05796	.04501	-----	.00328
%RSD	160.72	82.858	54.024	76.821	13.089	69.991	-----	48.017
#1	-.14435	1.2267	.62253	.11113	.49163	.01845	z 140.91	.00410
#2	-.26659	5.1999	2.1952	.89149	.45811	.06604	z 141.03	.00590
#3	.08141	10.592	1.5853	1.2174	.37876	.10842	z 141.48	.01046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	.32773	.13746	.24420	.19224	.0764	-.03123	6.6516	-.01102
Stddev	.06001	.06631	.10056	.07598	.1480	.12164	4.6691	.00645
%RSD	18.310	48.239	41.181	39.523	193.7	389.47	70.195	58.577
#1	.37039	.16616	.25745	.12664	.2434	-.16603	2.8738	-.01847
#2	.35369	.18459	.33749	.27549	.0240	.00196	5.2093	-.00719
#3	.25912	.06164	.13767	.17458	-.0382	.07037	11.872	-.00739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	.01088	.31195	.93276	-.00782	.24461	.77400	1.1276	1.2226
Stddev	.00870	.18687	.12439	.00420	.17982	.66997	1.2251	1.1368
%RSD	79.981	59.905	13.335	53.662	73.514	86.560	108.65	92.977
#1	.00329	.16224	1.0702	-.00527	.42643	.53915	.64792	2.5271
#2	.00898	.25223	.90021	-.00553	.06686	1.5298	2.5200	.69725
#3	.02038	.52139	.82788	-.01267	.24054	.25306	.21490	.44359
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/9/2011 15:07:00 Type: QC
Method: DuoEnviroMethodNEW(v2009) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: , Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.77301**	**.0575**	**.21324**	**.53601**	**.36658**	**.50740**
Stddev	.45982	.0577	.19849	.44846	.06857	.08915
%RSD	59.484	100.4	93.083	83.666	18.704	17.571
#1	.56996	.0000	.34819	1.0106	.32874	.54918
#2	1.2994	.0572	-.01467	.47803	.44573	.56798
#3	.44968	.1154	.30621	.11936	.32527	.40503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1248.7	647930.	101190.
Stddev	3.6	1796.	239.
%RSD	.28792	.27713	.23602
#1	1244.7	649690.	101460.
#2	1249.7	647990.	101080.
#3	1251.7	646110.	101020.

PREPARATION BENCH SHEET

1C08008

Empirical Laboratories, LLC

Printed: 3/18/2011 11:33:53AM

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Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1103066-01	MET_ICP_6010B_FULL	03/08/2011 11:22	0.95	200					Pb & Cu
1103066-02	MET_ICP_6010B_FULL	03/08/2011 11:22	0.98	200					Pb & Cu
1103066-03	MET_ICP_6010B_FULL	03/08/2011 11:22	0.99	200					Pb & Cu
1103066-04	MET_ICP_6010B_FULL	03/08/2011 11:22	1.09	200					Pb & Cu
1103066-05	MET_ICP_6010B_FULL	03/08/2011 11:22	1.05	200					Pb & Cu
1103066-06	MET_ICP_6010B_FULL	03/08/2011 11:22	1.03	200					Pb & Cu
1103066-07	MET_ICP_6010B_FULL	03/08/2011 11:22	0.98	200					Pb & Cu
1103066-08	MET_ICP_6010B_FULL	03/08/2011 11:22	1.01	200					Pb & Cu
1103066-09	MET_ICP_6010B_FULL	03/08/2011 11:22	1.01	200					Pb & Cu
1103066-10	MET_ICP_6010B_FULL	03/08/2011 11:22	0.97	200					Pb & Cu
1103066-11	MET_ICP_6010B_FULL	03/08/2011 11:22	1.04	200					Pb & Cu
1103066-12	MET_ICP_6010B_FULL	03/08/2011 11:22	1	200					Pb & Cu
1103066-13	MET_ICP_6010B_FULL	03/08/2011 11:22	0.97	200					Pb & Cu
1103066-14	MET_ICP_6010B_FULL	03/08/2011 11:22	0.97	200					Pb & Cu
1103066-15	MET_ICP_6010B_FULL	03/08/2011 11:22	0.97	200					Pb & Cu
1103066-16	MET_ICP_6010B_FULL	03/08/2011 11:22	0.99	200					Pb & Cu
1103066-17	MET_ICP_6010B_FULL	03/08/2011 11:22	0.98	200					Pb & Cu
1C08008-BLK1	QC	03/08/2011 11:22	1	200					
1C08008-BS1	QC	03/08/2011 11:22	1	200	11C0110		200		
1C08008-DUP1	QC	03/08/2011 11:22	0.98	200		1103066-17			
1C08008-MS1	QC	03/08/2011 11:22	1.02	200	11C0110	1103066-17	200		
1C08008-MSD1	QC	03/08/2011 11:22	1.03	200	11C0110	1103066-17	200		
1C08008-PS1	QC	03/08/2011 11:22	0.98	200	11C0110	1103066-17	200		

1103066

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

PREPARATION BENCH SHEET

1C08008

Empirical Laboratories, LLC

Printed: 3/18/2011 11:33:53AM

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Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1103066

Subcontractor Data Package

EMLab P&K

Report for:

Ms. Sonya Gordon
Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: 1103066; Radford Ammunition Plant
EML ID: 760479

Approved by:

Lab Director
Eric Ciotti

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 03-11-2011 to 03-14-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103066; Radford Ammunition Plant

Date of Sampling: 03-05-2011
Date of Receipt: 03-09-2011
Date of Report: 03-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	17
Total Samples Analysed:	17
Total Samples with Layer Asbestos Content > 1%:	0

Location: 2-3W, 1103066-01 Lab ID-Version‡: 3364185-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

Location: 2-2B, 1103066-02 Lab ID-Version‡: 3364186-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 4-5S, 1103066-03 Lab ID-Version‡: 3364187-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

Location: 529-1NW, 1103066-04 Lab ID-Version‡: 3364188-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 528-1B, 1103066-05 Lab ID-Version‡: 3364189-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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Date of Sampling: 03-05-2011
Date of Receipt: 03-09-2011
Date of Report: 03-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: XXXX-2W, 1103066-06 Lab ID-Version‡: 3364190-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

Location: 522-9W, 1103066-07 Lab ID-Version‡: 3364191-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

Location: 502-4NE, 1103066-08 Lab ID-Version‡: 3364192-1

Sample Layers	Asbestos Content
Multicolored Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

Location: YYYY-2SW, 1103066-09 Lab ID-Version‡: 3364193-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

Location: 508-1S, 1103066-10 Lab ID-Version‡: 3364194-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

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Client: Empirical Laboratories, LLC
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Re: 1103066; Radford Ammunition Plant

Date of Sampling: 03-05-2011
Date of Receipt: 03-09-2011
Date of Report: 03-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 509-1B, 1103066-11 Lab ID-Version‡: 3364195-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 565B-1B, 1103066-12 Lab ID-Version‡: 3364196-1

Sample Layers	Asbestos Content
Multicolored Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 571-1B, 1103066-13 Lab ID-Version‡: 3364197-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 570-1B, 1103066-14 Lab ID-Version‡: 3364198-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 562-7W, 1103066-15 Lab ID-Version‡: 3364199-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103066; Radford Ammunition Plant

Date of Sampling: 03-05-2011
Date of Receipt: 03-09-2011
Date of Report: 03-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 565-3N, 1103066-16

Lab ID-Version‡: 3364200-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 565-7S, 1103066-17

Lab ID-Version‡: 3364201-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

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ANALYTICAL DATA PACKAGE
SDG # 1103223

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
Fax (866)417-0548
Email: sgordon@empirlabs.com

Original Report Date: April 13, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 457

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. Samples were subcontracted to EMLab P&K for Asbestos by EPA 600/R-93/116.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW8082A:
The surrogate Decachlorobiphenyl exceeded criteria with a negative bias on column 1 in samples 1103223-24 and -27 and on both columns for sample 1103223-26.

The batch spikes associated to batch 1C28019 exceeded criteria with a positive bias on column 2 for Aroclor-1260. The continuing calibration verifications surrounding the batch spikes exceeded criteria with a positive bias on column 2; therefore, the exceedences in the batch spikes are most likely due to the positive bias.

The continuing calibration verifications 1D09111-CCV1 and –CCV3 exceeded criteria with a positive bias on column 2 for Aroclor-1260.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW6010B:
The matrix spikes associated to sample 1103223-20 exceeded criteria with a positive bias for Copper and Lead. The matrix spikes associated to sample 1103223-35 exceeded criteria with a negative bias for Copper and Lead.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

_____
Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 2

Project Number/Name GP08RAAP.4BLA.KGBLA
Project Location NRA Dublin, Va. (RAAP)
Laboratory Empirical Laboratories
Project Manager Chris Kalinowski
Sampler(s)/Affiliation W. Keith Carr / ARCADIS

1103223

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Lead/Copper (USEPA 6010)	*Asbestos TEM USEPA 600/R-93/116 (CARB 435)					Remarks	Total
-01	405-1N (20110324)	SO	03.24.11 1515		1	1					2-Day Turn Around	2
-02	405-4N (20110324)		03.24.11 1530		1	1						
-03	405-9N (20110324)		03.24.11 1545		1	1						
-04	405-11E (20110324)		03.24.11 1550		1	1						
-05	405-16B (20110324)		03.24.11 1555		1	1						
-06	405-21W (20110324)		03.24.11 1605		1	1						
-07	405-24B (20110324)		03.24.11 1610		1	1						
-08	405-27W (20110324)		03.24.11 1615		1	1						
-09	405-31S (20110324)		03.24.11 1625		1	1						
-10	405-33B (20110324)		03.24.11 1630		1	1						
-11	404-2N (20110324)		03.24.11 1635		1	1						
-12	404-6N (20110324)		03.24.11 1640		1	1						
-13	404-6B (20110324)		03.24.11 1645		1	1						
-14	404-10W (20110324)		03.24.11 1650		1	1						
-15	404-14W (20110324)		03.24.11 1655		1	1						
											Total No. of Bottles/ Containers	30

2m

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 03/24/11	Time	Seal Intact?		
Received by:	Organization: FEDEX# 8757 0206 7046	Date 03/24/11	Time	Yes	No	N/A
Relinquished by: 3.6°C	Organization:	Date / /	Time	Seal Intact?		
Received by:	Organization:	Date 3/24/11	Time 11:30	Yes	No	N/A

Special Instructions/Remarks:
Please contact Chris Kalinowski with any questions
919.656.7731

Delivery Method: ☐ In Person ☒ Common Carrier FED EX SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

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1103223

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 2 of 3

Project Number/Name GP08RAAP.4BLA.K6BLA
Project Location NRU Dublin, Va. RAAP
Laboratory Empirical Laboratories
Project Manager Chris Kalinowski
Sampler(s)/Affiliation W. Keith Cain / ARCADIS

1103223

ANALYSIS / METHOD / SIZE

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Lead/Copper USEPA (6010)	% Asbestos TEM USEPA 600/R93/116 CARB335	Aroclor-1254 (8082 B)				Remarks	Total
16	404-17E (20110324)	SO	03.24.11 1700		1	1					2-Day Turn Around	2
17	404-22E (20110324)		03.24.11 1705		1	1						
18	404-25B (20110324)		03.24.11 1710		1	1						
	~~8102(1)-1NW (20110324)~~		~~03.24.11 1715~~									
19	404-29S (20110324)		03.24.11 1715		1	1						
20	404-32S (20110324)		03.24.11 1720		1	1						
21	8102(1)-1NW (20110324)		03.24.11 1725		1	1						
22	8102(1)-3E (20110324)		03.24.11 1730		1	1						
23	8102(1)-10W (20110324)		03.24.11 1735		1	1						
24	8101-1W (20110325)		03.25.11 1405				1					1
25	8101-2N (20110325)		03.25.11 1410				1					1
26	8101-3N (20110325)		03.25.11 1415				1					1
27	8101-4B (20110325)		03.25.11 1420				1					1
28	8102(2)-2N (20110325)		03.25.11 1505		1	1						2
29	8102(2)-5E (20110325)		03.25.11 1510		1	1						2
											Total No. of Bottles/ Containers	26

2m 1m 2m

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

						Seal Intact?
Relinquished by: W. Keith Cain	Organization: ARCADIS	Date 03/25/2011	Time			Yes No N/A
Received by: FED EX	Organization: 8757 0206 7046	Date / /	Time			
Relinquished by: 5.6°C	Organization:	Date / /	Time			Seal Intact?
Received by:	Organization: Empirical	Date 3/26/11	Time 1130			Yes No N/A

Special Instructions/Remarks: Any Questions Contact Chris Kalinowski 919.656.7731

Delivery Method: ☐ In Person ☑ Common Carrier FEDEX SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

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1103223

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 3 of 3

Project Number/Name GP08RAAP.4BLA.KGBLA
Project Location NRU Dublin, Va. RAAP
Laboratory Empirical Laboratories
Project Manager Chris Kalinowski
Sampler(s)/Affiliation W. Keith Carr

1103223

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Lead/Copper (USEPA 6010)	% Asbestos TEM USEPA 600/R-93/116 CARB 435					Remarks	Total
30 8102(2)-9W(20110325)	SO	03.25.11 1520		1	1						2
31 8102(2)-12W(20110325)		03.25.11 1525		1	1						2
32 8102(3)-3E(20110325)		03.25.11 1530		1	1						2
33 8102(3)-6E(20110325)		03.25.11 1540		1	1						2
34 8102(3)-10W(20110325)		03.25.11 1550		1	1						2
35 406-2E(20110325)		03.25.11 1605		1	1						2

2w

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Total No. of Bottles/ Containers 12

						Seal Intact?
Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 03/25/11	Time			Yes No N/A
Received by: FED EX	Organization: FED EX # 8757 0206 7046	Date 03/25/11	Time			
Relinquished by:	Organization:	Date / /	Time			Seal Intact?
Received by: 5.6°C	Organization:	Date 3/26/11	Time 11:30			Yes No N/A

Special Instructions/Remarks: _____

Delivery Method: ☐ In Person ☑ Common Carrier FED EX SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

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1103223

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1103223 Number of Coolers: 1 of 2

Client: Arcadis Project: NAS Dublin, VA. (RAAP)

Date/Time Received: 3-26-11/11:30 Date cooler(s) opened: 3-26-11

Opened By (print): (signature):

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered

EL Courier Other:

If applicable, enter airbill number here: 4192

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 1 Seal date: 3-25-11 Seal Initials: CK

3. Were custody seals unbroken and intact at the date and time of arrival?	(Yes)	No	N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler?	(Yes)	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	(Yes)	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	(Yes)	No	N/A
7. Was project identifiable from custody papers?	(Yes)	No	N/A
8. If required, was enough ice present in the cooler(s)?	(Yes)	No	N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 3.9 °C Correction Factor: -0.3 °C Final Value: 3.6 °C

Dates samples were logged-in: 3-28-11

9. Initial this form to acknowledge login of sample(s): (Name): (Initial):

10. Were all bottle lids intact and sealed tightly?	(Yes)	No	N/A
11. Did all bottles arrive unbroken?	(Yes)	No	N/A
12. Was all required bottle label information complete?	(Yes)	No	N/A
13. Did all bottle labels agree with custody papers?	(Yes)	No	N/A
14. Were correct containers used for the analyses indicated?	(Yes)	No	N/A
15. Were preservative levels correct in all applicable sample containers?	Yes	No	(N/A)
16. Was residual chlorine present in any applicable sample containers?	Yes	No	(N/A)
17. Was sufficient amount of sample sent for the analyses required?	(Yes)	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	(N/A)

If Non-Conformance issues were present, list by sample ID:

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1103223 Number of Coolers: 2 of 2

Client: Arcadis Project: NKU Dublin, VA. (RAAP)

Date/Time Received: 3-26-11/11:30 Date cooler(s) opened: 3-26-11

Opened By (print): Chris Dow (signature):

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered
EL Courier Other:

If applicable, enter airbill number here: 7046

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 1 Seal date: 3-25-11 Seal Initials: CK

3. Were custody seals unbroken and intact at the date and time of arrival?	(Yes)	No	N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler?	(Yes)	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	(Yes)	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	(Yes)	No	N/A
7. Was project identifiable from custody papers?	(Yes)	No	N/A
8. If required, was enough ice present in the cooler(s)?	(Yes)	No	N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 2.6 °C Correction Factor: -0.3 °C Final Value: 2.3 °C

Dates samples were logged-in: 3-28-11

9. Initial this form to acknowledge login of sample(s): (Name): (Initial):

10. Were all bottle lids intact and sealed tightly?	(Yes)	No	N/A
11. Did all bottles arrive unbroken?	(Yes)	No	N/A
12. Was all required bottle label information complete?	(Yes)	No	N/A
13. Did all bottle labels agree with custody papers?	(Yes)	No	N/A
14. Were correct containers used for the analyses indicated?	(Yes)	No	N/A
15. Were preservative levels correct in all applicable sample containers?	Yes	No	(N/A)
16. Was residual chlorine present in any applicable sample containers?	Yes	No	(N/A)
17. Was sufficient amount of sample sent for the analyses required?	(Yes)	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	(N/A)

If Non-Conformance issues were present, list by sample ID:

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 405-IN (20110324)				
Reference No: 1103223-01 **Solid**	**Sampled:03/24/2011 15:15**			
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 14:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-4N (20110324)				
Reference No: 1103223-02 **Solid**	**Sampled:03/24/2011 15:30**			
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-9N (20110324)				
Reference No: 1103223-03 **Solid**	**Sampled:03/24/2011 15:45**			
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 14:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-11E (20110324)				
Reference No: 1103223-04 **Solid**	**Sampled:03/24/2011 15:50**			
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 14:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-16B (20110324)				
Reference No: 1103223-05 **Solid**	**Sampled:03/24/2011 15:55**			
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 14:55		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-21W (20110324)				
Reference No: 1103223-06 **Solid**	**Sampled:03/24/2011 16:05**			
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:05		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 405-24B (20110324)				
Reference No: 1103223-07	**Solid**	**Sampled:03/24/2011 16:10**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-27W (20110324)				
Reference No: 1103223-08	**Solid**	**Sampled:03/24/2011 16:15**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-31S (20110324)				
Reference No: 1103223-09	**Solid**	**Sampled:03/24/2011 16:25**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:25		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-33B (20110324)				
Reference No: 1103223-10	**Solid**	**Sampled:03/24/2011 16:30**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-2N (20110324)				
Reference No: 1103223-11	**Solid**	**Sampled:03/24/2011 16:35**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:35		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-6N (20110324)				
Reference No: 1103223-12	**Solid**	**Sampled:03/24/2011 16:40**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-6B (20110324)				
Reference No: 1103223-13	**Solid**	**Sampled:03/24/2011 16:45**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-10W (20110324)				
Reference No: 1103223-14	**Solid**	**Sampled:03/24/2011 16:50**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:50		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 404-14W (20110324)				
Reference No: 1103223-15	**Solid**	**Sampled:03/24/2011 16:55**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 15:55		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-17E (20110324)				
Reference No: 1103223-16	**Solid**	**Sampled:03/24/2011 17:00**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-22E (20110324)				
Reference No: 1103223-17	**Solid**	**Sampled:03/24/2011 17:05**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:05		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-25B (20110324)				
Reference No: 1103223-18	**Solid**	**Sampled:03/24/2011 17:10**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-29S (20110324)				
Reference No: 1103223-19	**Solid**	**Sampled:03/24/2011 17:15**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-32S (20110324)				
Reference No: 1103223-20	**Solid**	**Sampled:03/24/2011 17:20**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(1)-INW- (20110324)				
Reference No: 1103223-21	**Solid**	**Sampled:03/24/2011 17:25**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:25		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(1)-3E- (20110324)				
Reference No: 1103223-22	**Solid**	**Sampled:03/24/2011 17:30**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:30		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102(1)-10W- (20110324)				
Reference No: 1103223-23 **Solid**		**Sampled:03/24/2011 17:35**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/26/2011 16:35		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-2N (20110325)				
Reference No: 1103223-28 **Solid**		**Sampled:03/25/2011 15:05**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:05		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-5E (20110325)				
Reference No: 1103223-29 **Solid**		**Sampled:03/25/2011 15:10**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-9W (20110325)				
Reference No: 1103223-30 **Solid**		**Sampled:03/25/2011 15:20**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-12W (20110325)				
Reference No: 1103223-31 **Solid**		**Sampled:03/25/2011 15:25**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:25		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-3E (20110325)				
Reference No: 1103223-32 **Solid**		**Sampled:03/25/2011 15:30**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-6E (20110325)				
Reference No: 1103223-33 **Solid**		**Sampled:03/25/2011 15:40**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-10W (20110325)				
Reference No: 1103223-34 **Solid**		**Sampled:03/25/2011 15:50**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 14:50		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 406-2E (20110325)				
Reference No: 1103223-35	**Solid**	**Sampled: 03/25/2011 16:05**		
SUB_Asbestos Lab SOP	03/31/2011 14:00	03/27/2011 15:05		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

WORK ORDER

1103223

Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 03/31/2011 16:00 (3 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 03/26/2011 11:30
Date Logged In 03/28/2011 11:50

Samples Received at: **3.6°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	Yes		

Analysis	Due	TAT	Expires	Version	Comments
1103223-01 405-IN (20110324) [Solid] Sampled 03/24/2011 15:15 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 14:15		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 14:15		
1103223-02 405-4N (20110324) [Solid] Sampled 03/24/2011 15:30 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 14:30		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 14:30		
1103223-03 405-9N (20110324) [Solid] Sampled 03/24/2011 15:45 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 14:45		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 14:45		

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WORK ORDER

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Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103223-04 405-11E (20110324) [Solid] Sampled 03/24/2011 15:50 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 14:50		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 14:50		
1103223-05 405-16B (20110324) [Solid] Sampled 03/24/2011 15:55 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 14:55		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 14:55		
1103223-06 405-21W (20110324) [Solid] Sampled 03/24/2011 16:05 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 15:05		
SW6010B	03/31/2011 14:00	3	09/20/2011 15:05		Pb & Cu
1103223-07 405-24B (20110324) [Solid] Sampled 03/24/2011 16:10 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 15:10		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 15:10		
1103223-08 405-27W (20110324) [Solid] Sampled 03/24/2011 16:15 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 15:15		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 15:15		
1103223-09 405-31S (20110324) [Solid] Sampled 03/24/2011 16:25 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 15:25		
SW6010B	03/31/2011 14:00	3	09/20/2011 15:25		Pb & Cu
1103223-10 405-33B (20110324) [Solid] Sampled 03/24/2011 16:30 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 15:30		
SW6010B	03/31/2011 14:00	3	09/20/2011 15:30		Pb & Cu

1103223

WORK ORDER

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Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103223-11 404-2N (20110324) [Solid] Sampled 03/24/2011 16:35 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 15:35		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 15:35		
1103223-12 404-6N (20110324) [Solid] Sampled 03/24/2011 16:40 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 15:40		
SW6010B	03/31/2011 14:00	3	09/20/2011 15:40		Pb & Cu
1103223-13 404-6B (20110324) [Solid] Sampled 03/24/2011 16:45 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 15:45		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 15:45		
1103223-14 404-10W (20110324) [Solid] Sampled 03/24/2011 16:50 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 15:50		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 15:50		
1103223-15 404-14W (20110324) [Solid] Sampled 03/24/2011 16:55 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 15:55		
SW6010B	03/31/2011 14:00	3	09/20/2011 15:55		Pb & Cu
1103223-16 404-17E (20110324) [Solid] Sampled 03/24/2011 17:00 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 16:00		
SW6010B	03/31/2011 14:00	3	09/20/2011 16:00		Pb & Cu
1103223-17 404-22E (20110324) [Solid] Sampled 03/24/2011 17:05 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 16:05		
SW6010B	03/31/2011 14:00	3	09/20/2011 16:05		Pb & Cu

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WORK ORDER

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Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103223-18 404-25B (20110324) [Solid] Sampled 03/24/2011 17:10 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 16:10		
SW6010B	03/31/2011 14:00	3	09/20/2011 16:10		Pb & Cu
1103223-19 404-29S (20110324) [Solid] Sampled 03/24/2011 17:15 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 16:15		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 16:15		
1103223-20 404-32S (20110324) [Solid] Sampled 03/24/2011 17:20 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 16:20		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 16:20		
1103223-21 8102(1)-INW- (20110324) [Solid] Sampled 03/24/2011 17:25 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 16:25		
SW6010B	03/31/2011 14:00	3	09/20/2011 16:25		Pb & Cu
1103223-22 8102(1)-3E- (20110324) [Solid] Sampled 03/24/2011 17:30 Eastern					
SM2540B	03/31/2011 14:00	3	03/31/2011 16:30		
SW6010B	03/31/2011 14:00	3	09/20/2011 16:30		Pb & Cu
1103223-23 8102(1)-10W- (20110324) [Solid] Sampled 03/24/2011 17:35 Eastern					
SW6010B	03/31/2011 14:00	3	09/20/2011 16:35		Pb & Cu
SM2540B	03/31/2011 14:00	3	03/31/2011 16:35		
1103223-24 8101-1W (20110325) [Solid] Sampled 03/25/2011 14:05 Eastern					
SM2540B	03/31/2011 14:00	3	04/01/2011 13:05		
SW8082A	03/31/2011 14:00	3	04/08/2011 13:05	Aroclor-1254	Aroclor-1254

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WORK ORDER

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Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103223-25 8101-2N (20110325) [Solid] Sampled 03/25/2011 14:10 Eastern					
SW8082A	03/31/2011 14:00	3	04/08/2011 13:10	Aroclor-1254	Aroclor-1254
SM2540B	03/31/2011 14:00	3	04/01/2011 13:10		
1103223-26 8101-3N (20110325) [Solid] Sampled 03/25/2011 14:15 Eastern					
SW8082A	03/31/2011 14:00	3	04/08/2011 13:15	Aroclor-1254	Aroclor-1254
SM2540B	03/31/2011 14:00	3	04/01/2011 13:15		
1103223-27 8101-4B (20110325) [Solid] Sampled 03/25/2011 14:20 Eastern					
SW8082A	03/31/2011 14:00	3	04/08/2011 13:20	Aroclor-1254	Aroclor-1254
SM2540B	03/31/2011 14:00	3	04/01/2011 13:20		
1103223-28 8102(2)-2N (20110325) [Solid] Sampled 03/25/2011 15:05 Eastern					
SW6010B	03/31/2011 14:00	3	09/21/2011 14:05		Pb & Cu
SM2540B	03/31/2011 14:00	3	04/01/2011 14:05		
1103223-29 8102(2)-5E (20110325) [Solid] Sampled 03/25/2011 15:10 Eastern					
SW6010B	03/31/2011 14:00	3	09/21/2011 14:10		Pb & Cu
SM2540B	03/31/2011 14:00	3	04/01/2011 14:10		
1103223-30 8102(2)-9W (20110325) [Solid] Sampled 03/25/2011 15:20 Eastern					
SM2540B	03/31/2011 14:00	3	04/01/2011 14:20		
SW6010B	03/31/2011 14:00	3	09/21/2011 14:20		Pb & Cu
1103223-31 8102(2)-12W (20110325) [Solid] Sampled 03/25/2011 15:25 Eastern					
SW6010B	03/31/2011 14:00	3	09/21/2011 14:25		Pb & Cu
SM2540B	03/31/2011 14:00	3	04/01/2011 14:25		

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WORK ORDER

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Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103223-32 8102(3)-3E (20110325) [Solid] Sampled 03/25/2011 15:30 Eastern					
SW6010B	03/31/2011 14:00	3	09/21/2011 14:30		Pb & Cu
SM2540B	03/31/2011 14:00	3	04/01/2011 14:30		
1103223-33 8102(3)-6E (20110325) [Solid] Sampled 03/25/2011 15:40 Eastern					
SW6010B	03/31/2011 14:00	3	09/21/2011 14:40		Pb & Cu
SM2540B	03/31/2011 14:00	3	04/01/2011 14:40		
1103223-34 8102(3)-10W (20110325) [Solid] Sampled 03/25/2011 15:50 Eastern					
SM2540B	03/31/2011 14:00	3	04/01/2011 14:50		
SW6010B	03/31/2011 14:00	3	09/21/2011 14:50		Pb & Cu
1103223-35 406-2E (20110325) [Solid] Sampled 03/25/2011 16:05 Eastern					
SM2540B	03/31/2011 14:00	3	04/01/2011 15:05		
SW6010B	03/31/2011 14:00	3	09/21/2011 15:05		Pb & Cu
EMLab P&K (SUB)					
1103223-01 405-IN (20110324) [Solid] Sampled 03/24/2011 15:15 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 14:15		% Asbestos EPA 600
1103223-02 405-4N (20110324) [Solid] Sampled 03/24/2011 15:30 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 14:30		% Asbestos EPA 600
1103223-03 405-9N (20110324) [Solid] Sampled 03/24/2011 15:45 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 14:45		% Asbestos EPA 600
1103223-04 405-11E (20110324) [Solid] Sampled 03/24/2011 15:50 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 14:50		% Asbestos EPA 600

1103223

WORK ORDER

1103223

Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103223-05 405-16B (20110324) [Solid] Sampled 03/24/2011 15:55 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 14:55		% Asbestos EPA 600
1103223-06 405-21W (20110324) [Solid] Sampled 03/24/2011 16:05 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:05		% Asbestos EPA 600
1103223-07 405-24B (20110324) [Solid] Sampled 03/24/2011 16:10 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:10		% Asbestos EPA 600
1103223-08 405-27W (20110324) [Solid] Sampled 03/24/2011 16:15 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:15		% Asbestos EPA 600
1103223-09 405-31S (20110324) [Solid] Sampled 03/24/2011 16:25 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:25		% Asbestos EPA 600
1103223-10 405-33B (20110324) [Solid] Sampled 03/24/2011 16:30 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:30		% Asbestos EPA 600
1103223-11 404-2N (20110324) [Solid] Sampled 03/24/2011 16:35 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:35		% Asbestos EPA 600
1103223-12 404-6N (20110324) [Solid] Sampled 03/24/2011 16:40 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:40		% Asbestos EPA 600
1103223-13 404-6B (20110324) [Solid] Sampled 03/24/2011 16:45 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:45		% Asbestos EPA 600

1103223

WORK ORDER

1103223

Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103223-14 404-10W (20110324) [Solid] Sampled 03/24/2011 16:50 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:50		% Asbestos EPA 600
1103223-15 404-14W (20110324) [Solid] Sampled 03/24/2011 16:55 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 15:55		% Asbestos EPA 600
1103223-16 404-17E (20110324) [Solid] Sampled 03/24/2011 17:00 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:00		% Asbestos EPA 600
1103223-17 404-22E (20110324) [Solid] Sampled 03/24/2011 17:05 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:05		% Asbestos EPA 600
1103223-18 404-25B (20110324) [Solid] Sampled 03/24/2011 17:10 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:10		% Asbestos EPA 600
1103223-19 404-29S (20110324) [Solid] Sampled 03/24/2011 17:15 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:15		% Asbestos EPA 600
1103223-20 404-32S (20110324) [Solid] Sampled 03/24/2011 17:20 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:20		% Asbestos EPA 600
1103223-21 8102(1)-INW- (20110324) [Solid] Sampled 03/24/2011 17:25 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:25		% Asbestos EPA 600
1103223-22 8102(1)-3E- (20110324) [Solid] Sampled 03/24/2011 17:30 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:30		% Asbestos EPA 600

1103223

WORK ORDER

1103223

Printed: 4/13/2011 12:45:52PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103223-23 8102(1)-10W- (20110324) [Solid] Sampled 03/24/2011 17:35 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/26/2011 16:35		% Asbestos EPA 600
1103223-28 8102(2)-2N (20110325) [Solid] Sampled 03/25/2011 15:05 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:05		% Asbestos EPA 600
1103223-29 8102(2)-5E (20110325) [Solid] Sampled 03/25/2011 15:10 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:10		% Asbestos EPA 600
1103223-30 8102(2)-9W (20110325) [Solid] Sampled 03/25/2011 15:20 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:20		% Asbestos EPA 600
1103223-31 8102(2)-12W (20110325) [Solid] Sampled 03/25/2011 15:25 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:25		% Asbestos EPA 600
1103223-32 8102(3)-3E (20110325) [Solid] Sampled 03/25/2011 15:30 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:30		% Asbestos EPA 600
1103223-33 8102(3)-6E (20110325) [Solid] Sampled 03/25/2011 15:40 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:40		% Asbestos EPA 600
1103223-34 8102(3)-10W (20110325) [Solid] Sampled 03/25/2011 15:50 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 14:50		% Asbestos EPA 600
1103223-35 406-2E (20110325) [Solid] Sampled 03/25/2011 16:05 Eastern					
bAsbestos Lab SOP-S	03/31/2011 14:00	3	03/27/2011 15:05		% Asbestos EPA 600

1103223

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1103223
MATRIX: Soil

QC LEVEL: Level IV
Report Due: 3/31/2011
Client Sample Count: 35

Sample Type	Sampled	Received	Lab ID	Client ID	bAsbestos Lab SOP-S	SM2540B	SW6010B	SW8082A
Client Sample	3/24/2011	3/26/2011	1103223-01	405-IN (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-02	405-4N (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-03	405-9N (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-04	405-11E (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-05	405-16B (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-06	405-21W (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-07	405-24B (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-08	405-27W (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-09	405-31S (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-10	405-33B (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-11	404-2N (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-12	404-6N (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-13	404-6B (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-14	404-10W (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-15	404-14W (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-16	404-17E (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-17	404-22E (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-18	404-25B (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-19	404-29S (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-20	404-32S (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-21	8102(1)-INW- (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-22	8102(1)-3E- (20110324)	X	X	X	
Client Sample	3/24/2011	3/26/2011	1103223-23	8102(1)-10W- (20110324)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-24	8101-1W (20110325)		X		X
Client Sample	3/25/2011	3/26/2011	1103223-25	8101-2N (20110325)		X		X
Client Sample	3/25/2011	3/26/2011	1103223-26	8101-3N (20110325)		X		X
Client Sample	3/25/2011	3/26/2011	1103223-27	8101-4B (20110325)		X		X
Client Sample	3/25/2011	3/26/2011	1103223-28	8102(2)-2N (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-29	8102(2)-5E (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-30	8102(2)-9W (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-31	8102(2)-12W (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-32	8102(3)-3E (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-33	8102(3)-6E (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-34	8102(3)-10W (20110325)	X	X	X	
Client Sample	3/25/2011	3/26/2011	1103223-35	406-2E (20110325)	X	X	X	

Data for SW8082A Forms

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	0K33419	Instrument:	GL-ECD3
Calibration:	1090003		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	0K33419-CAL1	001R0101.D	11/24/10 17:39
Cal Standard	0K33419-CAL1	001F0101.D	11/24/10 17:39
Cal Standard	0K33419-CAL2	002R0201.D	11/24/10 17:58
Cal Standard	0K33419-CAL2	002F0201.D	11/24/10 17:58
Cal Standard	0K33419-CAL3	003R0301.D	11/24/10 18:16
Cal Standard	0K33419-CAL3	003F0301.D	11/24/10 18:16
Cal Standard	0K33419-CAL4	004R0401.D	11/24/10 18:35
Cal Standard	0K33419-CAL4	004F0401.D	11/24/10 18:35
Cal Standard	0K33419-CAL5	005R0601.D	11/24/10 19:12
Cal Standard	0K33419-CAL5	005F0601.D	11/24/10 19:12
Cal Standard	0K33419-CAL6	006R0701.D	11/24/10 19:31
Cal Standard	0K33419-CAL6	006F0701.D	11/24/10 19:31
Initial Cal Check	0K33419-ICV1	007R0801.D	11/24/10 19:49
Initial Cal Check	0K33419-ICV1	007F0801.D	11/24/10 19:49

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C09040
Instrument: GL-ECD3
Calibration: 1090003

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1C09040-CAL1	007R0101.D	03/28/11 14:09
Cal Standard	1C09040-CAL1	007F0101.D	03/28/11 14:09
Cal Standard	1C09040-CAL2	008F0201.D	03/28/11 14:28
Cal Standard	1C09040-CAL2	008R0201.D	03/28/11 14:28
Cal Standard	1C09040-CAL3	009F0301.D	03/28/11 14:46
Cal Standard	1C09040-CAL3	009R0301.D	03/28/11 14:46
Cal Standard	1C09040-CAL4	010F0401.D	03/28/11 15:05
Cal Standard	1C09040-CAL4	010R0401.D	03/28/11 15:05
Cal Standard	1C09040-CAL5	011F0501.D	03/28/11 15:24
Cal Standard	1C09040-CAL5	011R0501.D	03/28/11 15:24
Cal Standard	1C09040-CAL6	012F0601.D	03/28/11 15:42
Cal Standard	1C09040-CAL6	012R0601.D	03/28/11 15:42
Cal Standard	1C09040-CAL7	013R0701.D	03/28/11 16:01
Cal Standard	1C09040-CAL7	013F0701.D	03/28/11 16:01
Cal Standard	1C09040-CAL8	015R0901.D	03/28/11 16:38
Cal Standard	1C09040-CAL8	015F0901.D	03/28/11 16:38
Cal Standard	1C09040-CAL9	016F1001.D	03/28/11 16:57
Cal Standard	1C09040-CAL9	016R1001.D	03/28/11 16:57
Cal Standard	1C09040-CALA	017F1101.D	03/28/11 17:15
Cal Standard	1C09040-CALA	017R1101.D	03/28/11 17:15
Cal Standard	1C09040-CALB	018F1201.D	03/28/11 17:34
Cal Standard	1C09040-CALB	018R1201.D	03/28/11 17:34
Cal Standard	1C09040-CALC	019F1301.D	03/28/11 17:53
Cal Standard	1C09040-CALC	019R1301.D	03/28/11 17:53
Cal Standard	1C09040-CALD	020F1401.D	03/28/11 18:11
Cal Standard	1C09040-CALD	020R1401.D	03/28/11 18:11
Initial Cal Check	1C09040-ICV2	021R1501.D	03/28/11 18:30
Initial Cal Check	1C09040-ICV2	021F1501.D	03/28/11 18:30

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D09111
Instrument: GL-ECD3
Calibration: 1090003

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1D09111-CCV1	002F0201.D	03/31/11 19:33
Calibration Check	1D09111-CCV1	002R0201.D	03/31/11 19:33
Calibration Check	1D09111-CCV2	003F0301.D	03/31/11 19:51
Calibration Check	1D09111-CCV2	003R0301.D	03/31/11 19:51
Blank	1C28019-BLK1	004F0401.D	03/31/11 20:10
Blank	1C28019-BLK1	004R0401.D	03/31/11 20:10
LCS	1C28019-BS1	005R0501.D	03/31/11 20:29
LCS	1C28019-BS1	005F0501.D	03/31/11 20:29
LCS Dup	1C28019-BSD1	006R0601.D	03/31/11 20:47
LCS Dup	1C28019-BSD1	006F0601.D	03/31/11 20:47
8101-1W (20110325)	1103223-24	007R0701.D	03/31/11 21:06
8101-1W (20110325)	1103223-24	007F0701.D	03/31/11 21:06
8101-3N (20110325)	1103223-26	009R0901.D	03/31/11 21:43
8101-3N (20110325)	1103223-26	009F0901.D	03/31/11 21:43
8101-4B (20110325)	1103223-27	010R1001.D	03/31/11 22:03
8101-4B (20110325)	1103223-27	010F1001.D	03/31/11 22:03
Calibration Check	1D09111-CCV3	011R1101.D	03/31/11 22:21
Calibration Check	1D09111-CCV3	011F1101.D	03/31/11 22:21
Calibration Check	1D09111-CCV4	012F1201.D	03/31/11 22:40
Calibration Check	1D09111-CCV4	012R1201.D	03/31/11 22:40
8101-2N (20110325)	1103223-25	013F1301.D	04/01/11 09:17
8101-2N (20110325)	1103223-25	013R1301.D	04/01/11 09:17
Calibration Check	1D09111-CCV5	014R1401.D	04/01/11 09:35
Calibration Check	1D09111-CCV5	014F1401.D	04/01/11 09:35
Calibration Check	1D09111-CCV6	015R1501.D	04/01/11 09:54
Calibration Check	1D09111-CCV6	015F1501.D	04/01/11 09:54

ANALYSIS DATA SHEET

8101-1W (20110325)

Laboratory:	Empirical Laboratories, LLC			SDG:	1103223
Client:	Arcadis (A285)			Project:	Radford Army Ammunition Plant201(
Matrix:	Soil	Laboratory ID:	1103223-24	File ID:	007F0701.D
Sampled:	03/25/11 14:05	Prepared:	03/28/11 16:30	Analyzed:	03/31/11 21:06
Solids:	76.43	Preparation:	EXT_3546	Dilution:	1
Batch:	1C28019	Sequence:	1D09111	Calibration:	1090003
Instrument:	GL-ECD3				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254	587	5.32	21.5	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	21.10	15.17	71.9	70 - 125	
Tetrachloro-m-xylene [2C]	21.10	14.94	70.8	70 - 125	
Decachlorobiphenyl	21.10	12.13	57.5	60 - 125	*
Decachlorobiphenyl [2C]	21.10	13.25	62.8	60 - 125	

* Values outside of QC limits

ANALYSIS DATA SHEET

8101-2N (20110325)

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1103223-25 File ID: 013F1301.D

Sampled: 03/25/11 14:10 Prepared: 03/28/11 16:30 Analyzed: 04/01/11 09:17

Solids: 79.38 Preparation: EXT_3546 Dilution: 2

Batch: 1C28019 Sequence: 1D09111 Calibration: 1090003 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254	1120	10.6	42.8	D

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	21.00	15.57	74.2	70 - 125	
Tetrachloro-m-xylene [2C]	21.00	17.20	81.9	70 - 125	
Decachlorobiphenyl	21.00	13.76	65.5	60 - 125	
Decachlorobiphenyl [2C]	21.00	16.49	78.5	60 - 125	

* Values outside of QC limits

ANALYSIS DATA SHEET

8101-3N (20110325)

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1103223-26 File ID: 009F0901.D

Sampled: 03/25/11 14:15 Prepared: 03/28/11 16:30 Analyzed: 03/31/11 21:43

Solids: 69.73 Preparation: EXT_3546 Dilution: 1

Batch: 1C28019 Sequence: 1D09111 Calibration: 1090003 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254	84.4	6.02	24.4	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	23.90	19.03	79.6	70 - 125	
Tetrachloro-m-xylene [2C]	23.90	18.09	75.7	70 - 125	
Decachlorobiphenyl	23.90	13.60	56.9	60 - 125	*
Decachlorobiphenyl [2C]	23.90	13.43	56.2	60 - 125	*

* Values outside of QC limits

ANALYSIS DATA SHEET

8101-4B (20110325)

Laboratory:	Empirical Laboratories, LLC			SDG:	1103223
Client:	Arcadis (A285)			Project:	Radford Army Ammunition Plant2010
Matrix:	Soil	Laboratory ID:	1103223-27	File ID:	010F1001.D
Sampled:	03/25/11 14:20	Prepared:	03/28/11 16:30	Analyzed:	03/31/11 22:03
Solids:	66.11	Preparation:	EXT_3546	Dilution:	1
Batch:	1C28019	Sequence:	1D09111	Calibration:	1090003
Instrument:	GL-ECD3				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254		6.23	25.2	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	24.72	21.03	85.1	70 - 125	
Tetrachloro-m-xylene [2C]	24.72	20.27	82.0	70 - 125	
Decachlorobiphenyl	24.72	12.34	49.9	60 - 125	*
Decachlorobiphenyl [2C]	24.72	15.14	61.2	60 - 125	

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C28019	Laboratory ID:	1C28019-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
Aroclor-1016	166.7	207.9	125	40 - 140
Aroclor-1016 [2C]	166.7	217.6	131	40 - 140
Aroclor-1260	166.7	193.5	116	60 - 130
Aroclor-1260 [2C]	**166.7**	**250.0**	**150**	**60 - 130**

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCSD CONCENTRATION (ug/Kg wet)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor-1016	166.7	219.6	132	5.44	30	40 - 140
Aroclor-1016 [2C]	166.7	220.1	132	1.14	30	40 - 140
Aroclor-1260	166.7	210.1	126	8.26	30	60 - 130
Aroclor-1260 [2C]	**166.7**	**253.4**	**152 ***	**1.35**	**30**	**60 - 130**

PREPARATION BATCH SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C28019 Batch Matrix: Solid Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
8101-1W (20110325)	1103223-24	03/28/11 16:30	15.50	5.00
8101-2N (20110325)	1103223-25	03/28/11 16:30	15.00	5.00
8101-3N (20110325)	1103223-26	03/28/11 16:30	15.00	5.00
8101-4B (20110325)	1103223-27	03/28/11 16:30	15.30	5.00
Blank	1C28019-BLK1	03/28/11 16:30	15.00	5.00
LCS	1C28019-BS1	03/28/11 16:30	15.00	5.00
LCS Dup	1C28019-BSD1	03/28/11 16:30	15.00	5.00

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1C28019-BLK1 File ID: 004R0401.D

Sampled: Prepared: 03/28/11 16:30 Analyzed: 03/31/11 20:10

Solids: Preparation: EXT_3546 Dilution:

Batch: 1C28019 Sequence: 1D09111 Calibration: 1090003 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
11097-69-1	Aroclor-1254		4.20	17.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.61	93.7	70 - 125	
Tetrachloro-m-xylene [2C]	16.67	15.06	90.3	70 - 125	
Decachlorobiphenyl	16.67	14.24	85.4	60 - 125	
Decachlorobiphenyl [2C]	16.67	17.06	102	60 - 125	

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	0K33419	Instrument:	GL-ECD3
Calibration:	1090003		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10I0240	Aroclor-1254 CAL1@2500ppb	0K33419-CAL1	001R0101.D	11/24/10 17:39
10I0240	Aroclor-1254 CAL1@2500ppb	0K33419-CAL1	001F0101.D	11/24/10 17:39
10I0241	Aroclor-1254 CAL2@1000ppb	0K33419-CAL2	002F0201.D	11/24/10 17:58
10I0241	Aroclor-1254 CAL2@1000ppb	0K33419-CAL2	002R0201.D	11/24/10 17:58
10I0242	Aroclor-1254 CAL3@750ppb	0K33419-CAL3	003F0301.D	11/24/10 18:16
10I0242	Aroclor-1254 CAL3@750ppb	0K33419-CAL3	003R0301.D	11/24/10 18:16
10I0243	Aroclor-1254 CAL4@500ppb	0K33419-CAL4	004F0401.D	11/24/10 18:35
10I0243	Aroclor-1254 CAL4@500ppb	0K33419-CAL4	004R0401.D	11/24/10 18:35
10I0244	Aroclor-1254 CAL5@100ppb	0K33419-CAL5	005F0601.D	11/24/10 19:12
10I0244	Aroclor-1254 CAL5@100ppb	0K33419-CAL5	005R0601.D	11/24/10 19:12
10I0245	Aroclor-1254 CAL6@50ppb	0K33419-CAL6	006R0701.D	11/24/10 19:31
10I0245	Aroclor-1254 CAL6@50ppb	0K33419-CAL6	006F0701.D	11/24/10 19:31

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1C09040	Instrument:	GL-ECD3
Calibration:	1090003		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
11C0272	Pest_ICAL1@200ppb	1C09040-CAL1	007F0101.D	03/28/11 14:09
11C0272	Pest_ICAL1@200ppb	1C09040-CAL1	007R0101.D	03/28/11 14:09
11C0273	Pest. AB/Sur CCV @ 100ppb	1C09040-CAL2	008F0201.D	03/28/11 14:28
11C0273	Pest. AB/Sur CCV @ 100ppb	1C09040-CAL2	008R0201.D	03/28/11 14:28
11C0274	Pest_ICAL3@50ppb	1C09040-CAL3	009F0301.D	03/28/11 14:46
11C0274	Pest_ICAL3@50ppb	1C09040-CAL3	009R0301.D	03/28/11 14:46
11C0275	Pest_ICAL4@25ppb	1C09040-CAL4	010R0401.D	03/28/11 15:05
11C0275	Pest_ICAL4@25ppb	1C09040-CAL4	010F0401.D	03/28/11 15:05
11C0276	Pest_ICAL5@10ppb	1C09040-CAL5	011F0501.D	03/28/11 15:24
11C0276	Pest_ICAL5@10ppb	1C09040-CAL5	011R0501.D	03/28/11 15:24
11C0277	Pest_ICAL6@5ppb	1C09040-CAL6	012F0601.D	03/28/11 15:42
11C0277	Pest_ICAL6@5ppb	1C09040-CAL6	012R0601.D	03/28/11 15:42
11C0278	Pest_ICAL7@1ppb	1C09040-CAL7	013F0701.D	03/28/11 16:01
11C0278	Pest_ICAL7@1ppb	1C09040-CAL7	013R0701.D	03/28/11 16:01
11A0220	Aro-1660 Cal1@2500/125	1C09040-CAL8	015R0901.D	03/28/11 16:38
11A0220	Aro-1660 Cal1@2500/125	1C09040-CAL8	015F0901.D	03/28/11 16:38
11C0777	Aro-1660 Cal2@1000/50 (CCV)	1C09040-CAL9	016F1001.D	03/28/11 16:57
11C0777	Aro-1660 Cal2@1000/50 (CCV)	1C09040-CAL9	016R1001.D	03/28/11 16:57
11A0221	Aro-1660 Cal3@750/37.5	1C09040-CALA	017F1101.D	03/28/11 17:15
11A0221	Aro-1660 Cal3@750/37.5	1C09040-CALA	017R1101.D	03/28/11 17:15
11A0222	Aro-1660 Cal4@500/25	1C09040-CALB	018F1201.D	03/28/11 17:34
11A0222	Aro-1660 Cal4@500/25	1C09040-CALB	018R1201.D	03/28/11 17:34
11A0223	Aro-1660 Cal5@100/5	1C09040-CALC	019F1301.D	03/28/11 17:53
11A0223	Aro-1660 Cal5@100/5	1C09040-CALC	019R1301.D	03/28/11 17:53
11A0224	Aro-1660 Cal6@50/2.5	1C09040-CALD	020R1401.D	03/28/11 18:11
11A0224	Aro-1660 Cal6@50/2.5	1C09040-CALD	020F1401.D	03/28/11 18:11

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene	200	28684.66	100	29048.18	50	28660.7	25	28692.92	10	27971.4	5	27943

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene [2C]	200	17948.65	100	19557.93	50	20449.62	25	21605.76	10	21931.4	5	22862.4
Decachlorobiphenyl	200	30262.04	100	30039.23	50	32351.12	25	34012.36	10	34709.9	5	38251.6
Decachlorobiphenyl [2C]	200	15460.22	100	17174.18	50	18169.9	25	19610	10	20307.2	5	19907.4

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)			2500	1223.295	1000	1269.255	750	1176.671	500	1198.51	100	1226.14
Aroclor-1016 (2)			2500	404.442	1000	429.036	750	411.6227	500	431.148	100	453.11
Aroclor-1016 (3)			2500	608.9372	1000	622.611	750	611.836	500	618.226	100	672.68
Aroclor-1016 (4)			2500	610.2892	1000	631.155	750	627.2094	500	603.624	100	631.1
Aroclor-1016 (5)			2500	471.2144	1000	484.43	750	462.2387	500	479.848	100	434.24
Aroclor-1016 (1) [2C]			2500	720.8684	1000	780.636	750	766.0306	500	726.26	100	778.11
Aroclor-1016 (2) [2C]			2500	462.8308	1000	509.554	750	491.6613	500	482.762	100	587.01
Aroclor-1016 (3) [2C]			2500	464.8092	1000	506.601	750	502.8293	500	451.66	100	546.49
Aroclor-1016 (4) [2C]			2500	552.8888	1000	594.95	750	614.584	500	505.814	100	614.22
Aroclor-1016 (5) [2C]			2500	390.8908	1000	413.823	750	416.908	500	371.88	100	388.57
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260 (1)			2500	4026.488	1000	3992.496	750	3889.015	500	3793.202	100	3811.02
Aroclor-1260 (2)			2500	1708.401	1000	1562.699	750	1468.084	500	1833.114	100	1504.04
Aroclor-1260 (3)			2500	1978.272	1000	2211.792	750	1702.957	500	2026.014	100	2032.16
Aroclor-1260 (4)			2500	1540.928	1000	1576.186	750	1330.449	500	1491.048	100	1583.43
Aroclor-1260 (5)			2500	943.7648	1000	936.206	750	916.1453	500	979.582	100	896.47
Aroclor-1260 (1) [2C]			2500	1973.12	1000	1956.462	750	1733.8	500	2020.642	100	1855.72
Aroclor-1260 (2) [2C]			2500	984.2468	1000	869.241	750	946.7466	500	981.578	100	953.56
Aroclor-1260 (3) [2C]			2500	1185.387	1000	1094.581	750	1061.395	500	1200.962	100	1109.18
Aroclor-1260 (4) [2C]			2500	851.276	1000	791.139	750	730.368	500	807.898	100	835.29
Aroclor-1260 (5) [2C]			2500	953.024	1000	912.866	750	839.2493	500	955.432	100	935.04
Tetrachloro-m-xylene	1	27454	250		100		75		50		10	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene [2C]	1	23425	250		100		75		50		10	
Decachlorobiphenyl	1	46053	250		100		75		50		10	
Decachlorobiphenyl [2C]	1	16979	250		100		75		50		10	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)	50	1209.04										
Aroclor-1016 (2)	50	427.66										
Aroclor-1016 (3)	50	662.28										
Aroclor-1016 (4)	50	617.98										
Aroclor-1016 (5)	50	435.46										
Aroclor-1016 (1) [2C]	50	771.44										
Aroclor-1016 (2) [2C]	50	576.98										
Aroclor-1016 (3) [2C]	50	521.76										
Aroclor-1016 (4) [2C]	50	560.92										
Aroclor-1016 (5) [2C]	50	386.88										
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260 (1)	50	3217.22										
Aroclor-1260 (2)	50	1462.08										
Aroclor-1260 (3)	50	1574.32										
Aroclor-1260 (4)	50	1271.4										
Aroclor-1260 (5)	50	805.08										
Aroclor-1260 (1) [2C]	50	1822.7										
Aroclor-1260 (2) [2C]	50	899.16										
Aroclor-1260 (3) [2C]	50	1062.84										
Aroclor-1260 (4) [2C]	50	749.5										
Aroclor-1260 (5) [2C]	50	933.9										
Tetrachloro-m-xylene	5											

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene [2C]	5											
Decachlorobiphenyl	5											
Decachlorobiphenyl [2C]	5											

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)			2500	1816.263	1000	1800.472	750	1761.127	500	1853.234	100	1754.93
Aroclor-1254 (2)			2500	1061.708	1000	1065.415	750	1042.129	500	1090.35	100	1097.12
Aroclor-1254 (3)			2500	1081.426	1000	1086.616	750	1072.105	500	1129.022	100	1064.89
Aroclor-1254 (4)			2500	1504.907	1000	1496.942	750	1467.855	500	1547.658	100	1529.54
Aroclor-1254 (5)			2500	1548.73	1000	1558.402	750	1501.871	500	1605.23	100	1504.21
Aroclor-1254 (1) [2C]			2500	1211.378	1000	1259.03	750	1287.229	500	1346.022	100	1382.74
Aroclor-1254 (2) [2C]			2500	940.7952	1000	998.081	750	1019.987	500	1086.73	100	1255.29
Aroclor-1254 (3) [2C]			2500	820.3788	1000	867.261	750	876.9533	500	913.634	100	1068.46
Aroclor-1254 (4) [2C]			2500	648.5668	1000	671.711	750	683.1773	500	719.072	100	750.24
Aroclor-1254 (5) [2C]			2500	806.4816	1000	809.888	750	806.7466	500	1004.288	100	1007.23
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

~~SW8082A~~

Laboratory: Empirical Laboratories, LLC

SDG: 1103223

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Calibration: 1090003

Instrument: GL-ECD3

Matrix: Water

Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 31		Level 32		Level 33		Level 34		Level 35		Level 36	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)	50	1833800										
Aroclor-1254 (2)	50	1156000										
Aroclor-1254 (3)	50	1126500										
Aroclor-1254 (4)	50	1591980										
Aroclor-1254 (5)	50	1549600										
Aroclor-1254 (1) [2C]	50	1548680										
Aroclor-1254 (2) [2C]	50	1443460										
Aroclor-1254 (3) [2C]	50	1207540										
Aroclor-1254 (4) [2C]	50	840580										
Aroclor-1254 (5) [2C]	50	1168280										
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												

INITIAL CALIBRATION DATA (Continued)

~~SW8082A~~

Laboratory: Empirical Laboratories, LLC

SDG: 1103223

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Calibration: 1090003

Instrument: GL-ECD3

Matrix: Water

Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Level 31		Level 32		Level 33		Level 34		Level 35		Level 36	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor-1016 (1)	1217.152	2.568125	6.649333	1.576836E-02			20	
Aroclor-1016 (2)	426.1698	3.988619	5.7845	3.103333E-02			20	
Aroclor-1016 (3)	632.7617	4.347962	6.132167	2.334303E-02			20	
Aroclor-1016 (4)	620.2263	1.860621	6.3335	1.664266E-02			20	
Aroclor-1016 (5)	461.2385	4.728322	6.931833	2.146386E-02			20	
Aroclor-1016 (1) [2C]	757.2242	3.516154	5.4535	1.931681E-02			20	
Aroclor-1016 (2) [2C]	518.4664	9.943953	5.036667	1.371854E-02			20	
Aroclor-1016 (3) [2C]	499.0249	7.088194	5.202	1.890494E-02			20	
Aroclor-1016 (4) [2C]	573.8961	7.380221	5.492833	0.0200636			20	
Aroclor-1016 (5) [2C]	394.8253	4.376311	5.7035	1.101219E-02			20	
Aroclor-1254 (1)	1803.304	2.178697	8.235666	0.0355389			20	
Aroclor-1254 (2)	1085.454	3.680311	7.543	0.0399491			20	
Aroclor-1254 (3)	1093.427	2.527954	8.131333	4.376735E-02			20	
Aroclor-1254 (4)	1523.147	2.855178	8.584667	4.521186E-02			20	
Aroclor-1254 (5)	1544.674	2.484758	9.099166	3.591379E-02			20	
Aroclor-1254 (1) [2C]	1339.18	8.916472	6.924167	0.0325885			20	
Aroclor-1254 (2) [2C]	1124.057	16.92267	6.330667	1.678979E-02			20	
Aroclor-1254 (3) [2C]	959.0379	15.47823	6.4945	2.867968E-02			20	
Aroclor-1254 (4) [2C]	718.8912	9.684997	6.824833	3.501469E-02			20	
Aroclor-1254 (5) [2C]	933.819	16.10215	7.189167	4.059321E-02			20	
Aroclor-1260 (1)	3788.24	7.788336	9.924	1.565204E-02			20	
Aroclor-1260 (2)	1589.736	9.434873	8.808833	2.039362E-02			20	
Aroclor-1260 (3)	1920.919	12.29624	9.153667	2.291894E-02			20	
Aroclor-1260 (4)	1465.573	9.073377	9.251	1.715549E-02			20	
Aroclor-1260 (5)	912.8747	6.544819	11.0175	7.116871E-03			20	
Aroclor-1260 (1) [2C]	1893.741	5.707515	8.235167	8.072312E-03			20	
Aroclor-1260 (2) [2C]	939.0887	4.899676	6.977833	0.0304234			20	
Aroclor-1260 (3) [2C]	1119.057	5.404675	7.220333	2.724687E-02			20	
Aroclor-1260 (4) [2C]	794.2452	5.963111	7.370167	2.199035E-02			20	
Aroclor-1260 (5) [2C]	921.5852	4.685241	7.916667	2.008078E-02			20	
Tetrachloro-m-xylene	28350.7	1.99811	5.391857	2.885737E-02			20	
Tetrachloro-m-xylene [2C]	21111.54	9.109202	4.437571	2.381239E-02			20	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090003
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 3/28/11 18:11

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Decachlorobiphenyl	35097.04	15.94089	11.61986	1.640847E-02			20	
Decachlorobiphenyl [2C]	18229.7	9.860752	9.865714	1.113978E-02			20	

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	007F0801.D	Calibration Date:	03/28/11 14:09
Sequence:	0K33419	Injection Date:	11/24/10
Lab Sample ID:	0K33419-ICV1	Injection Time:	19:49

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1254 (1)	A	1000	973.1	1803.304	1754.749		-2.7	20
Aroclor-1254 (2)	A	1000	953.1	1085.454	1034.595		-4.7	20
Aroclor-1254 (3)	A	1000	978.3	1093.427	1069.689		-2.2	20
Aroclor-1254 (4)	A	1000	956.1	1523.147	1456.336		-4.4	20
Aroclor-1254 (5)	A	1000	971.9	1544.674	1501.287		-2.8	20
Aroclor-1254 (1) [2C]	A	1000	945.5	1339.18	1266.188		-5.5	20
Aroclor-1254 (2) [2C]	A	1000	878.8	1124.057	987.794		-12.1	20
Aroclor-1254 (3) [2C]	A	1000	890.6	959.0379	854.17		-10.9	20
Aroclor-1254 (4) [2C]	A	1000	931.2	718.8912	669.47		-6.9	20
Aroclor-1254 (5) [2C]	A	1000	887.5	933.819	828.766		-11.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	021F1501.D	Calibration Date:	03/28/11 14:09
Sequence:	1C09040	Injection Date:	03/28/11
Lab Sample ID:	1C09040-ICV2	Injection Time:	18:30

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1016 (1)	A	1000	1044	1217.152	1270.258		4.4	20
Aroclor-1016 (2)	A	1000	1015	426.1698	432.582		1.5	20
Aroclor-1016 (3)	A	1000	992.5	632.7617	628.034		-0.7	20
Aroclor-1016 (4)	A	1000	1027	620.2263	637.274		2.7	20
Aroclor-1016 (5)	A	1000	1053	461.2385	485.738		5.3	20
Aroclor-1016 (1) [2C]	A	1000	1016	757.2242	769.422		1.6	20
Aroclor-1016 (2) [2C]	A	1000	996.3	518.4664	516.542		-0.4	20
Aroclor-1016 (3) [2C]	A	1000	998.7	499.0249	498.374		-0.1	20
Aroclor-1016 (4) [2C]	A	1000	1055	573.8961	605.375		5.5	20
Aroclor-1016 (5) [2C]	A	1000	1036	394.8253	409.184		3.6	20
Aroclor-1260 (1)	A	1000	1071	3788.24	4058.323		7.1	20
Aroclor-1260 (2)	A	1000	989.9	1589.736	1573.705		-1.0	20
Aroclor-1260 (3)	A	1000	956.8	1920.919	1837.906		-4.3	20
Aroclor-1260 (4)	A	1000	1089	1465.573	1596.205		8.9	20
Aroclor-1260 (5)	A	1000	1035	912.8747	944.515		3.5	20
Aroclor-1260 (1) [2C]	A	1000	1162	1893.741	2199.741		16.2	20
Aroclor-1260 (2) [2C]	A	1000	1198	939.0887	1124.645		19.8	20
Aroclor-1260 (3) [2C]	A	1000	1120	1119.057	1253.015		12.0	20
Aroclor-1260 (4) [2C]	A	1000	1163	794.2452	923.534		16.3	20
Aroclor-1260 (5) [2C]	A	1000	1171	921.5852	1079.562		17.1	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	002F0201.D	Calibration Date:	03/28/11 14:09
Sequence:	1D09111	Injection Date:	03/31/11
Lab Sample ID:	1D09111-CCV1	Injection Time:	19:33

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1016 (1)	A	1000	1025	1217.152	1247.378		2.5	20	
Aroclor-1016 (2)	A	1000	1040	426.1698	443.325		4.0	20	
Aroclor-1016 (3)	A	1000	1038	632.7617	656.603		3.8	20	
Aroclor-1016 (4)	A	1000	1065	620.2263	660.517		6.5	20	
Aroclor-1016 (5)	A	1000	1082	461.2385	498.908		8.2	20	
Aroclor-1016 (1) [2C]	A	1000	1115	757.2242	844.636		11.5	20	
Aroclor-1016 (2) [2C]	A	1000	1040	518.4664	539.293		4.0	20	
Aroclor-1016 (3) [2C]	A	1000	1134	499.0249	565.712		13.4	20	
Aroclor-1016 (4) [2C]	A	1000	1315	573.8961	754.63		31.5	20	*
Aroclor-1016 (5) [2C]	A	1000	1259	394.8253	497.167		25.9	20	*
Aroclor-1260 (1)	A	1000	1067	3788.24	4042.595		6.7	20	
Aroclor-1260 (2)	A	1000	1054	1589.736	1675.002		5.4	20	
Aroclor-1260 (3)	A	1000	1068	1920.919	2052.336		6.8	20	
Aroclor-1260 (4)	A	1000	1096	1465.573	1606.097		9.6	20	
Aroclor-1260 (5)	A	1000	1030	912.8747	940.575		3.0	20	
Aroclor-1260 (1) [2C]	A	1000	1265	1893.741	2394.857		26.5	20	*
Aroclor-1260 (2) [2C]	A	1000	1226	939.0887	1151.07		22.6	20	*
Aroclor-1260 (3) [2C]	A	1000	1193	1119.057	1334.874		19.3	20	
Aroclor-1260 (4) [2C]	A	1000	1207	794.2452	958.975		20.7	20	*
Aroclor-1260 (5) [2C]	A	1000	1242	921.5852	1144.5		24.2	20	*
Tetrachloro-m-xylene	A	100.0	104.8	28350.7	29712.76		4.8	20	
Tetrachloro-m-xylene [2C]	A	100.0	98.57	21111.54	20809.78		-1.4	20	
Decachlorobiphenyl	A	100.0	88.52	35097.04	31068.59		-11.5	20	
Decachlorobiphenyl [2C]	A	100.0	106.4	18229.7	19398.4		6.4	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	003F0301.D	Calibration Date:	03/28/11 14:09
Sequence:	1D09111	Injection Date:	03/31/11
Lab Sample ID:	1D09111-CCV2	Injection Time:	19:51

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	942.5	1803.304	1699.604		-5.8	20	
Aroclor-1254 (2)	A	1000	850.7	1085.454	923.428		-14.9	20	
Aroclor-1254 (3)	A	1000	917.8	1093.427	1003.529		-8.2	20	
Aroclor-1254 (4)	A	1000	762.2	1523.147	1160.938		-23.8	20	*
Aroclor-1254 (5)	A	1000	897.8	1544.674	1386.748		-10.2	20	
Aroclor-1254 (1) [2C]	A	1000	955.3	1339.18	1279.266		-4.5	20	
Aroclor-1254 (2) [2C]	A	1000	891.6	1124.057	1002.241		-10.8	20	
Aroclor-1254 (3) [2C]	A	1000	901.6	959.0379	864.628		-9.8	20	
Aroclor-1254 (4) [2C]	A	1000	929.7	718.8912	668.336		-7.0	20	
Aroclor-1254 (5) [2C]	A	1000	808.4	933.819	754.862		-19.2	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	011F1101.D	Calibration Date:	03/28/11 14:09
Sequence:	1D09111	Injection Date:	03/31/11
Lab Sample ID:	1D09111-CCV3	Injection Time:	22:21

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1016 (1)	A	1000	1040	1217.152	1266.146		4.0	20	
Aroclor-1016 (2)	A	1000	1049	426.1698	447.214		4.9	20	
Aroclor-1016 (3)	A	1000	1022	632.7617	647.025		2.3	20	
Aroclor-1016 (4)	A	1000	1053	620.2263	652.942		5.3	20	
Aroclor-1016 (5)	A	1000	1123	461.2385	518.078		12.3	20	
Aroclor-1016 (1) [2C]	A	1000	1162	757.2242	879.819		16.2	20	
Aroclor-1016 (2) [2C]	A	1000	1024	518.4664	530.911		2.4	20	
Aroclor-1016 (3) [2C]	A	1000	1148	499.0249	573.022		14.8	20	
Aroclor-1016 (4) [2C]	A	1000	1328	573.8961	762.442		32.9	20	*
Aroclor-1016 (5) [2C]	A	1000	1266	394.8253	499.887		26.6	20	*
Aroclor-1260 (1)	A	1000	1075	3788.24	4072.333		7.5	20	
Aroclor-1260 (2)	A	1000	1036	1589.736	1647.838		3.7	20	
Aroclor-1260 (3)	A	1000	1023	1920.919	1966.039		2.3	20	
Aroclor-1260 (4)	A	1000	1106	1465.573	1621.085		10.6	20	
Aroclor-1260 (5)	A	1000	1047	912.8747	955.797		4.7	20	
Aroclor-1260 (1) [2C]	A	1000	1299	1893.741	2460.655		29.9	20	*
Aroclor-1260 (2) [2C]	A	1000	1297	939.0887	1217.773		29.7	20	*
Aroclor-1260 (3) [2C]	A	1000	1296	1119.057	1450.464		29.6	20	*
Aroclor-1260 (4) [2C]	A	1000	1296	794.2452	1029.318		29.6	20	*
Aroclor-1260 (5) [2C]	A	1000	1318	921.5852	1215.2		31.9	20	*
Tetrachloro-m-xylene	A	100.0	103.7	28350.7	29401.21		3.7	20	
Tetrachloro-m-xylene [2C]	A	100.0	99.46	21111.54	20996.78		-0.5	20	
Decachlorobiphenyl	A	100.0	87.73	35097.04	30790.11		-12.3	20	
Decachlorobiphenyl [2C]	A	100.0	104.6	18229.7	19060.21		4.6	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	012F1201.D	Calibration Date:	03/28/11 14:09
Sequence:	1D09111	Injection Date:	03/31/11
Lab Sample ID:	1D09111-CCV4	Injection Time:	22:40

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	978.4	1803.304	1764.391		-2.2	20	
Aroclor-1254 (2)	A	1000	877.5	1085.454	952.514		-12.2	20	
Aroclor-1254 (3)	A	1000	950.0	1093.427	1038.723		-5.0	20	
Aroclor-1254 (4)	A	1000	794.8	1523.147	1210.68		-20.5	20	*
Aroclor-1254 (5)	A	1000	925.3	1544.674	1429.269		-7.5	20	
Aroclor-1254 (1) [2C]	A	1000	1091	1339.18	1461.345		9.1	20	
Aroclor-1254 (2) [2C]	A	1000	942.7	1124.057	1059.688		-5.7	20	
Aroclor-1254 (3) [2C]	A	1000	967.1	959.0379	927.527		-3.3	20	
Aroclor-1254 (4) [2C]	A	1000	984.3	718.8912	707.589		-1.6	20	
Aroclor-1254 (5) [2C]	A	1000	839.1	933.819	783.61		-16.1	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	014F1401.D	Calibration Date:	03/28/11 14:09
Sequence:	1D09111	Injection Date:	04/01/11
Lab Sample ID:	1D09111-CCV5	Injection Time:	09:35

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloro-m-xylene	A	100.0	109.6	28350.7	31074.23		9.6	20
Tetrachloro-m-xylene [2C]	A	100.0	105.2	21111.54	22207.95		5.2	20
Decachlorobiphenyl	A	100.0	95.34	35097.04	33460.03		-4.7	20
Decachlorobiphenyl [2C]	A	100.0	114.4	18229.7	20850.31		14.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1090003
Lab File ID:	015F1501.D	Calibration Date:	03/28/11 14:09
Sequence:	1D09111	Injection Date:	04/01/11
Lab Sample ID:	1D09111-CCV6	Injection Time:	09:54

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	961.2	1803.304	1733.358		-3.9	20	
Aroclor-1254 (2)	A	1000	870.5	1085.454	944.876		-13.0	20	
Aroclor-1254 (3)	A	1000	935.4	1093.427	1022.754		-6.5	20	
Aroclor-1254 (4)	A	1000	759.6	1523.147	1156.926		-24.0	20	*
Aroclor-1254 (5)	A	1000	892.7	1544.674	1378.886		-10.7	20	
Aroclor-1254 (1) [2C]	A	1000	1098	1339.18	1470.83		9.8	20	
Aroclor-1254 (2) [2C]	A	1000	942.8	1124.057	1059.705		-5.7	20	
Aroclor-1254 (3) [2C]	A	1000	957.3	959.0379	918.088		-4.3	20	
Aroclor-1254 (4) [2C]	A	1000	961.9	718.8912	691.517		-3.8	20	
Aroclor-1254 (5) [2C]	A	1000	839.0	933.819	783.452		-16.1	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D09111
Instrument: GL-ECD3
Calibration: 1090003

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1D09111-CCV1) ug/L				Lab File ID: 002F0201.D		Analyzed: 03/31/11 19:33		
Tetrachloro-m-xylene	100.0	105	80 - 120	5.354	5.354	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	98.6	80 - 120	4.412	4.412	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	88.5	80 - 120	11.571	11.571	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	106	80 - 120	9.822	9.822	0.0000	+/-0.030	
Blank (1C28019-BLK1) ug/Kg wet				Lab File ID: 004F0401.D		Analyzed: 03/31/11 20:10		
Tetrachloro-m-xylene	16.67	93.7	70 - 125	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	90.3	70 - 125	4.413	4.412	0.0010	+/-0.030	
Decachlorobiphenyl	16.67	85.4	60 - 125	11.569	11.571	-0.0020	+/-0.030	
Decachlorobiphenyl [2C]	16.67	102	60 - 125	9.82	9.822	-0.0020	+/-0.030	
LCS (1C28019-BS1) ug/Kg wet				Lab File ID: 005F0501.D		Analyzed: 03/31/11 20:29		
Tetrachloro-m-xylene	16.67	92.9	70 - 125	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	89.3	70 - 125	4.413	4.412	0.0010	+/-0.030	
Decachlorobiphenyl	16.67	83.5	60 - 125	11.569	11.571	-0.0020	+/-0.030	
Decachlorobiphenyl [2C]	16.67	102	60 - 125	9.823	9.822	0.0010	+/-0.030	
LCS Dup (1C28019-BSD1) ug/Kg wet				Lab File ID: 006F0601.D		Analyzed: 03/31/11 20:47		
Tetrachloro-m-xylene	16.67	93.0	70 - 125	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	91.2	70 - 125	4.412	4.412	0.0000	+/-0.030	
Decachlorobiphenyl	16.67	85.1	60 - 125	11.568	11.571	-0.0030	+/-0.030	
Decachlorobiphenyl [2C]	16.67	104	60 - 125	9.822	9.822	0.0000	+/-0.030	
8101-1W (20110325) (1103223-24) ug/Kg dry				Lab File ID: 007F0701.D		Analyzed: 03/31/11 21:06		
Tetrachloro-m-xylene	21.10	71.9	70 - 125	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	21.10	70.8	70 - 125	4.412	4.412	0.0000	+/-0.030	
Decachlorobiphenyl	21.10	57.5	60 - 125	11.57	11.571	-0.0010	+/-0.030	*
Decachlorobiphenyl [2C]	21.10	62.8	60 - 125	9.819	9.822	-0.0030	+/-0.030	
8101-3N (20110325) (1103223-26) ug/Kg dry				Lab File ID: 009F0901.D		Analyzed: 03/31/11 21:43		
Tetrachloro-m-xylene	23.90	79.6	70 - 125	5.352	5.354	-0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	23.90	75.7	70 - 125	4.412	4.412	0.0000	+/-0.030	
Decachlorobiphenyl	23.90	56.9	60 - 125	11.567	11.571	-0.0040	+/-0.030	*
Decachlorobiphenyl [2C]	23.90	56.2	60 - 125	9.822	9.822	0.0000	+/-0.030	*
8101-4B (20110325) (1103223-27) ug/Kg dry				Lab File ID: 010F1001.D		Analyzed: 03/31/11 22:03		
Tetrachloro-m-xylene	24.72	85.1	70 - 125	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	24.72	82.0	70 - 125	4.413	4.412	0.0010	+/-0.030	
Decachlorobiphenyl	24.72	49.9	60 - 125	11.57	11.571	-0.0010	+/-0.030	*
Decachlorobiphenyl [2C]	24.72	61.2	60 - 125	9.821	9.822	-0.0010	+/-0.030	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D09111
Instrument: GL-ECD3
Calibration: 1090003

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1D09111-CCV3) ug/L				Lab File ID: 011F1101.D		Analyzed: 03/31/11 22:21		
Tetrachloro-m-xylene	100.0	104	80 - 120	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	99.5	80 - 120	4.413	4.412	0.0010	+/-0.030	
Decachlorobiphenyl	100.0	87.7	80 - 120	11.57	11.571	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	100.0	105	80 - 120	9.821	9.822	-0.0010	+/-0.030	
8101-2N (20110325) (1103223-25) ug/Kg dry				Lab File ID: 013F1301.D		Analyzed: 04/01/11 09:17		
Tetrachloro-m-xylene	21.00	74.2	70 - 125	5.362	5.354	0.0080	+/-0.030	
Tetrachloro-m-xylene [2C]	21.00	81.9	70 - 125	4.413	4.412	0.0010	+/-0.030	
Decachlorobiphenyl	21.00	65.5	60 - 125	11.582	11.571	0.0110	+/-0.030	
Decachlorobiphenyl [2C]	21.00	78.5	60 - 125	9.825	9.822	0.0030	+/-0.030	
Calibration Check (1D09111-CCV5) ug/L				Lab File ID: 014F1401.D		Analyzed: 04/01/11 09:35		
Tetrachloro-m-xylene	100.0	110	80 - 120	5.355	5.354	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	105	80 - 120	4.411	4.412	-0.0010	+/-0.030	
Decachlorobiphenyl	100.0	95.3	80 - 120	11.57	11.571	-0.0010	+/-0.030	
Decachlorobiphenyl [2C]	100.0	114	80 - 120	9.821	9.822	-0.0010	+/-0.030	

HOLDING TIME SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
8101-1W (20110325)	03/25/11 14:05	03/26/11 11:30	03/28/11 16:30	3.14	14.00	03/31/11 21:06	3.19	40.00	
8101-2N (20110325)	03/25/11 14:10	03/26/11 11:30	03/28/11 16:30	3.14	14.00	04/01/11 09:17	3.70	40.00	
8101-3N (20110325)	03/25/11 14:15	03/26/11 11:30	03/28/11 16:30	3.14	14.00	03/31/11 21:43	3.22	40.00	
8101-4B (20110325)	03/25/11 14:20	03/26/11 11:30	03/28/11 16:30	3.13	14.00	03/31/11 22:03	3.23	40.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1C28019-BS1 File ID: 005F0501.D

Sampled: Prepared: Analyzed: 03/31/11 20:29

Solids: Preparation: EXT 3546 Dilution:

Batch: 1C28019 Sequence: 1D09111 Calibration: 1090003 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016	207.9	4.20	17.0	
11097-69-1	Aroclor-1254		4.20	17.0	U
11096-82-5	Aroclor-1260	193.5	4.20	17.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.48	92.9	70 - 125	
Decachlorobiphenyl	16.67	13.92	83.5	60 - 125	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1C28019-BS1 File ID: 005R0501.D

Sampled: Prepared: Analyzed: 03/31/11 20:29

Solids: Preparation: EXT_3546 Dilution:

Batch: 1C28019 Sequence: 1D09111 Calibration: 1090003 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016 [2C]	217.6	4.20	17.0	
11097-69-1	Aroclor-1254 [2C]		4.20	17.0	U
11096-82-5	Aroclor-1260 [2C]	250.0	4.20	17.0	X

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	14.88	89.3	70 - 125	
Decachlorobiphenyl [2C]	16.67	17.02	102	60 - 125	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1C28019-BSD1 File ID: 006F0601.D

Sampled: Prepared: Analyzed: 03/31/11 20:47

Solids: Preparation: EXT_3546 Dilution:

Batch: 1C28019 Sequence: 1D09111 Calibration: 1090003 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016	219.6	4.20	17.0	
11097-69-1	Aroclor-1254		4.20	17.0	U
11096-82-5	Aroclor-1260	210.1	4.20	17.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.49	93.0	70 - 125	
Decachlorobiphenyl	16.67	14.18	85.1	60 - 125	

ANALYSIS DATA SHEET

LCS Dup

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant201(
Matrix:
Laboratory ID: 1C28019-BSD1
File ID: 006R0601.D
Sampled:
Prepared:
Analyzed: 03/31/11 20:47
Solids:
Preparation: EXT_3546
Dilution:
Batch: 1C28019
Sequence: 1D09111
Calibration: 1090003
Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016 [2C]	220.1	4.20	17.0	
11097-69-1	Aroclor-1254 [2C]		4.20	17.0	U
11096-82-5	Aroclor-1260 [2C]	253.4	4.20	17.0	X

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	15.20	91.2	70 - 125	
Decachlorobiphenyl [2C]	16.67	17.33	104	60 - 125	

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

8101-1W (20110325)

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1103223-24 Date(s) Analyzed: 03/31/2011 03/31/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1254	1	8.59	-0.03	0.03	587	
	2	6.78	-0.03	0.03	562	4

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

8101-2N (20110325)

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1103223-25 Date(s) Analyzed: 04/01/2011 04/01/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1254	1	8.60	-0.03	0.03	1090	
	2	7.07	-0.03	0.03	1120	3

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

8101-3N (20110325)

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1103223-26 Date(s) Analyzed: 03/31/2011 03/31/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1254	1	8.59	-0.03	0.03	84.4	
	2	6.78	-0.03	0.03	64.6	27

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1C28019-BS1 Date(s) Analyzed: 03/31/2011 03/31/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	6.89	-0.03	0.03	207.9	
	2	5.67	-0.03	0.03	217.6	5
Aroclor-1260	1	10.97	-0.03	0.03	193.5	
	2	8.20	-0.03	0.03	250.0	26

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS Dup

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1C28019-BSD1 Date(s) Analyzed: 03/31/2011 03/31/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	6.89	-0.03	0.03	219.6	
	2	5.67	-0.03	0.03	220.1	0
Aroclor-1260	1	10.97	-0.03	0.03	210.1	
	2	8.19	-0.03	0.03	253.4	19

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1103223

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** GL-ECD3

Analyte	MDL	MRL	Units	Method
Aroclor-1254	4.20	17.0	ug/Kg	SW8082A

Data for SW8082A
Supporting Raw Data / Logs

Sequence Table (Front Injector): Back

p 296

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	SEQ-CAL1 10J0240	8081_82	1	Sample		
2	Vial 2	SEQ-CAL2 10J0241	8081_82	1	Sample		
3	Vial 3	SEQ-CAL3 10J0242	8081_82	1	Sample		
4	Vial 4	SEQ-CAL4 10J0243	8081_82	1	Sample		
~~5~~	~~Vial 25~~	~~0K22021-BS1,R&D~~	~~8081_82~~	~~1~~	~~Sample~~		
6	Vial 5	SEQ-CAL5 11J0244	8081_82	1	Sample		
7	Vial 6	SEQ-CAL6 10J0245	8081_82	1	Sample		
8	Vial 7	SEQ-ICV1 10J0248	8081_82	1	Sample		
9	Vial 8	SEQ-CAL7 10K0734	8081_82	1	Sample		
10	Vial 9	SEQ-CAL8 10K0735	8081_82	1	Sample		
11	Vial 10	SEQ-CAL9 10K0736	8081_82	1	Sample		
12	Vial 11	SEQ-CALA 10K0737	8081_82	1	Sample		
13	Vial 12	SEQ-CALB 10K0738	8081_82	1	Sample		
14	Vial 13	SEQ-CALC 10K0739	8081_82	1	Sample		
15	Vial 14	SEQ-ICV2 10K0742	8081_82	1	Sample		
16	Vial 15	SEQ-CCV1 10J0157 AB	8081_82	1	Sample		
17	Vial 16	SEQ-CCV2 1060159 1660	8081_82	1	Sample		
18	Vial 17	SEQ-CCV3 10J0241 1254	8081_82	1	Sample		
19	Vial 18	SEQ-CCV4 10K0735 1268	8081_82	1	Sample		
20	Vial 19	1011193-01 IX	8081_82	1	Sample		
21	Vial 20	1011193-03 IX	8081_82	1	Sample		
22	Vial 21	SEQ-CCV5 10J0157 AO	8081_82	1	Sample		
23	Vial 22	SEQ-CCV6 1060159 1660	8081_82	1	Sample		
24	Vial 23	SEQ-CCV7 10J0241 1254	8081_82	1	Sample		
25	Vial 24	SEQ-CCV8 10K0735	8081_82	1	Sample		
~~26~~	~~Vial 25~~	~~0K22021-BS1~~	~~8081_82~~	~~1~~	~~Sample~~		

1254 curve

1254 curve

1268 curve

11/30/10

not used

~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

JCG 12-1-10

Laboratory Name:

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001F0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 24-NOV-2010 17:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.242	8.235	(0.007)	4540658	2500.00	2518	80.00- 120.00	100.00
7.549	7.542	(0.007)	2654271	2500.00	2445	46.76- 70.15	58.46
7.809	7.802	(0.007)	4346663			76.58- 114.87	95.73
8.139	8.128	(0.011)	2703565	2500.00	2472	47.63- 71.45	59.54
8.592	8.582	(0.010)	3762268	2500.00	2470	66.29- 99.43	82.86
9.105	9.098	(0.007)	3871825	2500.00	2506	68.22- 102.32	85.27
		Average of Peak Amounts =			2482		

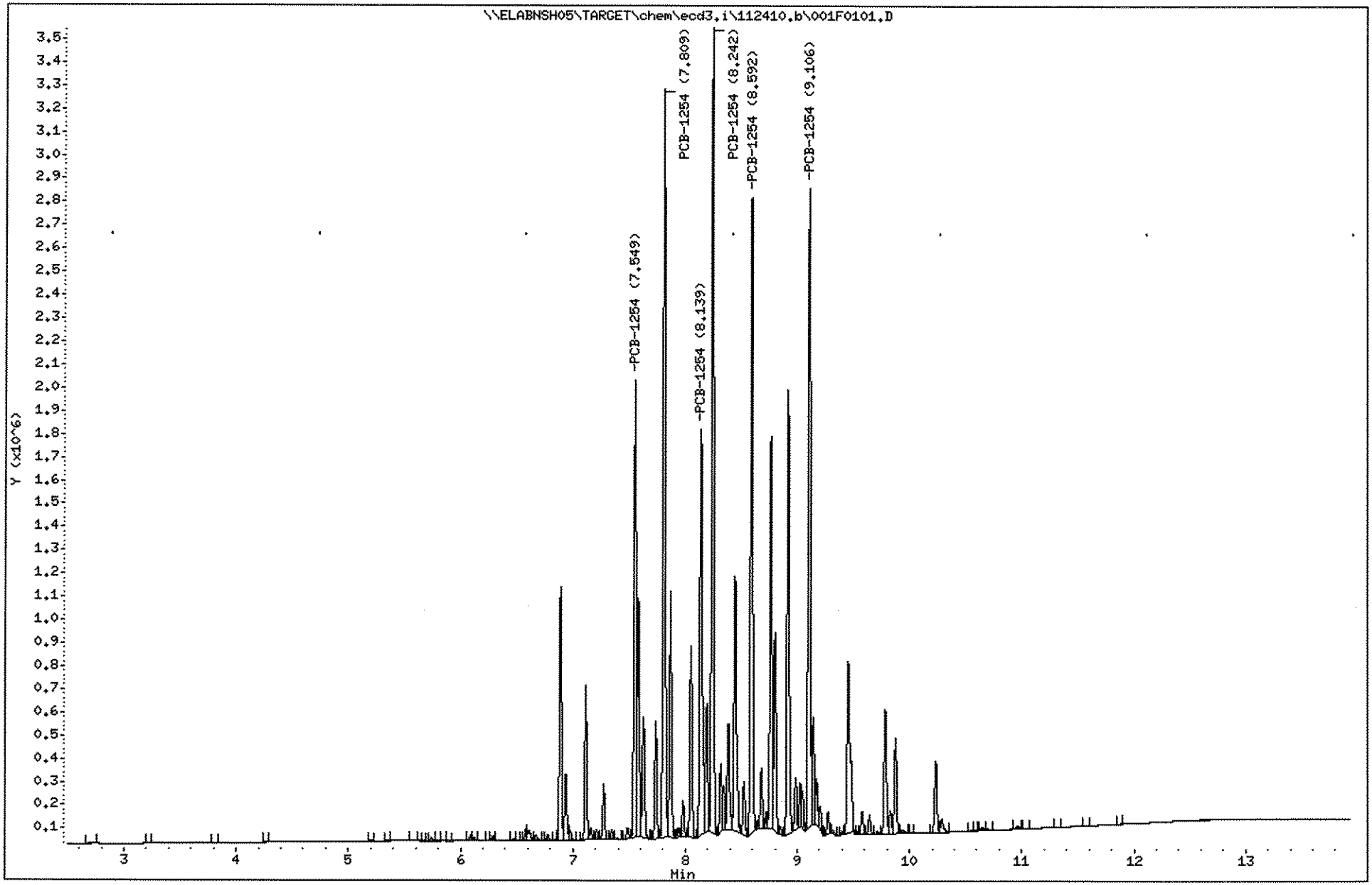
WL
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001F0101.D
Date : 24-NOV-2010 17:39
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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1103223

12.1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002F0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 24-NOV-2010 17:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			-
8.235	8.235	(0.000)	1800472	1000.00	998.4	80.00-	120.00	100.00
7.542	7.542	(0.000)	1065415	1000.00	981.5	47.34-	71.01	59.17
7.802	7.802	(0.000)	1718086			76.34-	114.51	95.42
8.128	8.128	(0.000)	1086616	1000.00	993.8	48.28-	72.42	60.35
8.582	8.582	(0.000)	1496942	1000.00	982.8	66.51-	99.77	83.14
9.098	9.098	(0.000)	1558402	1000.00	1009	69.24-	103.87	86.56
		Average of Peak Amounts =			993.1			

11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002F0201.D

Date : 24-NOV-2010 17:58

Client ID:

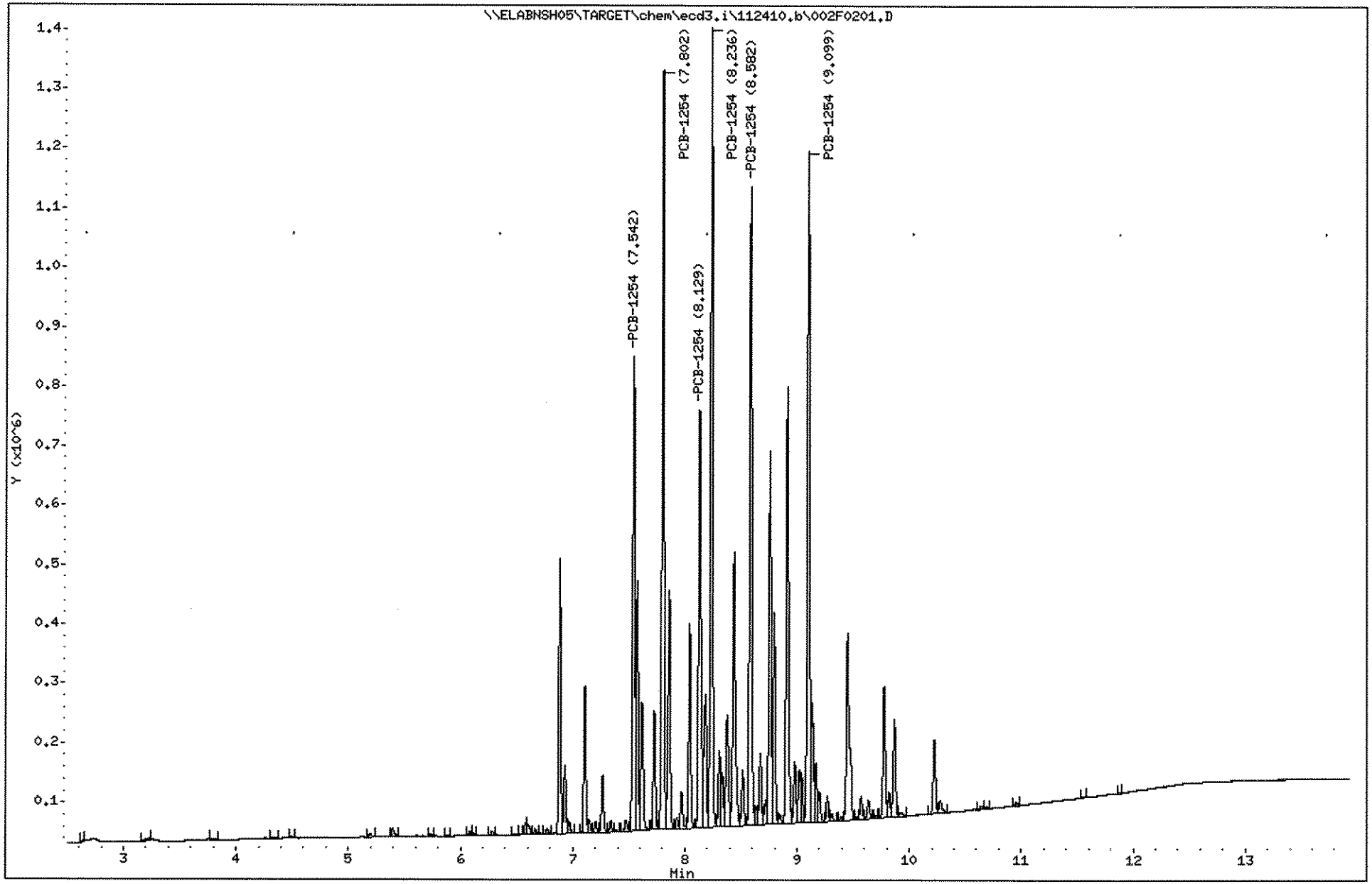
Sample Info: SEQ-CAL2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL

Column diameter: 0.32



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003F0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 24-NOV-2010 18:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.233	8.235	(-0.002)	1320845	750.000	732.4	80.00-	120.00	100.00
7.540	7.542	(-0.002)	781597	750.000	720.1	47.34-	71.01	59.17
7.800	7.802	(-0.002)	1268132			76.81-	115.21	96.01
8.130	8.128	(0.002)	804079	750.000	735.4	48.70-	73.05	60.88
8.581	8.582	(-0.001)	1100891	750.000	722.8	66.68-	100.02	83.35
9.096	9.098	(-0.002)	1126403	750.000	729.2	68.22-	102.33	85.28
		Average of Peak Amounts =			728			

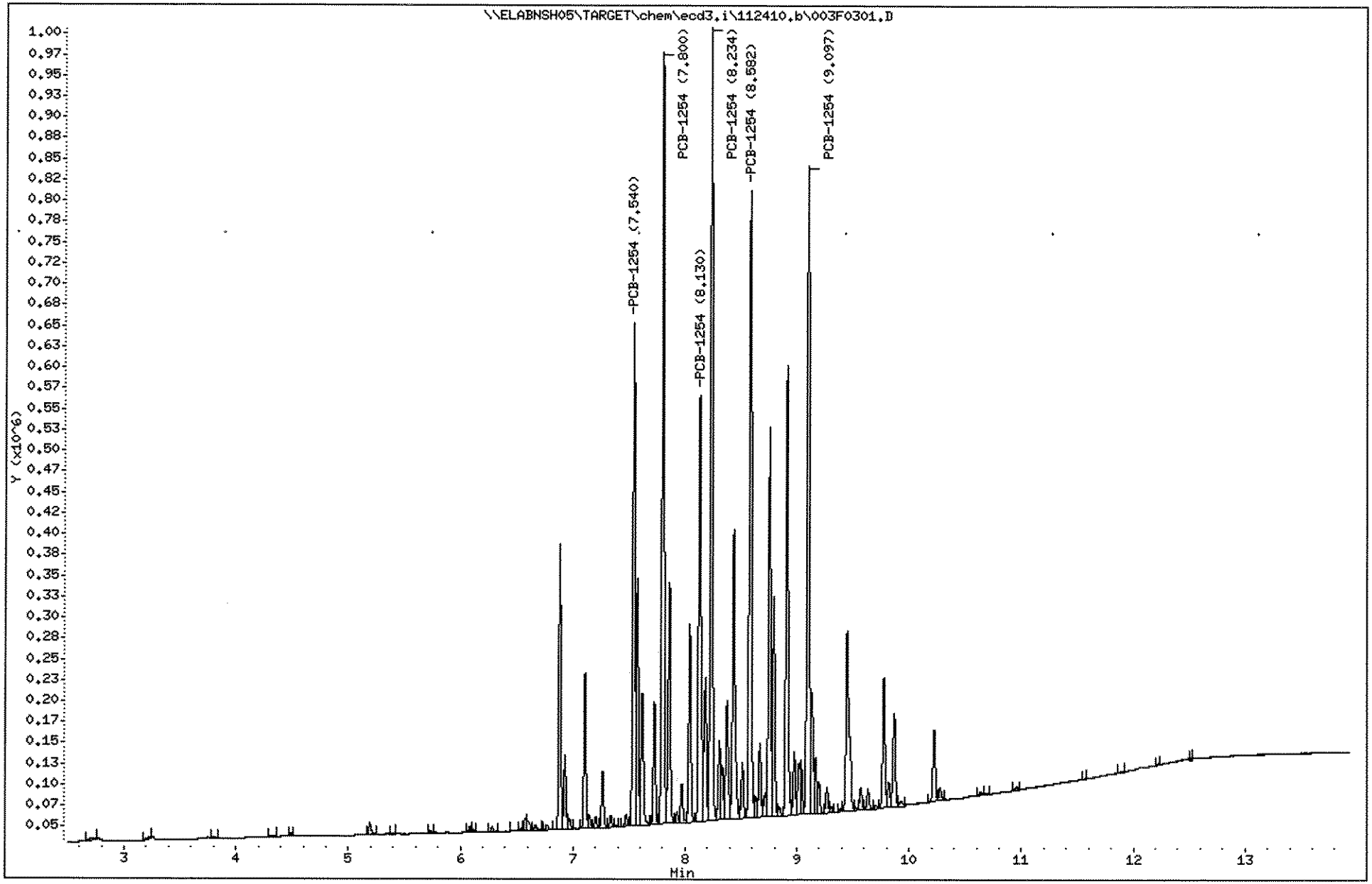
11/30 lb

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003F0301.D
Date : 24-NOV-2010 18:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

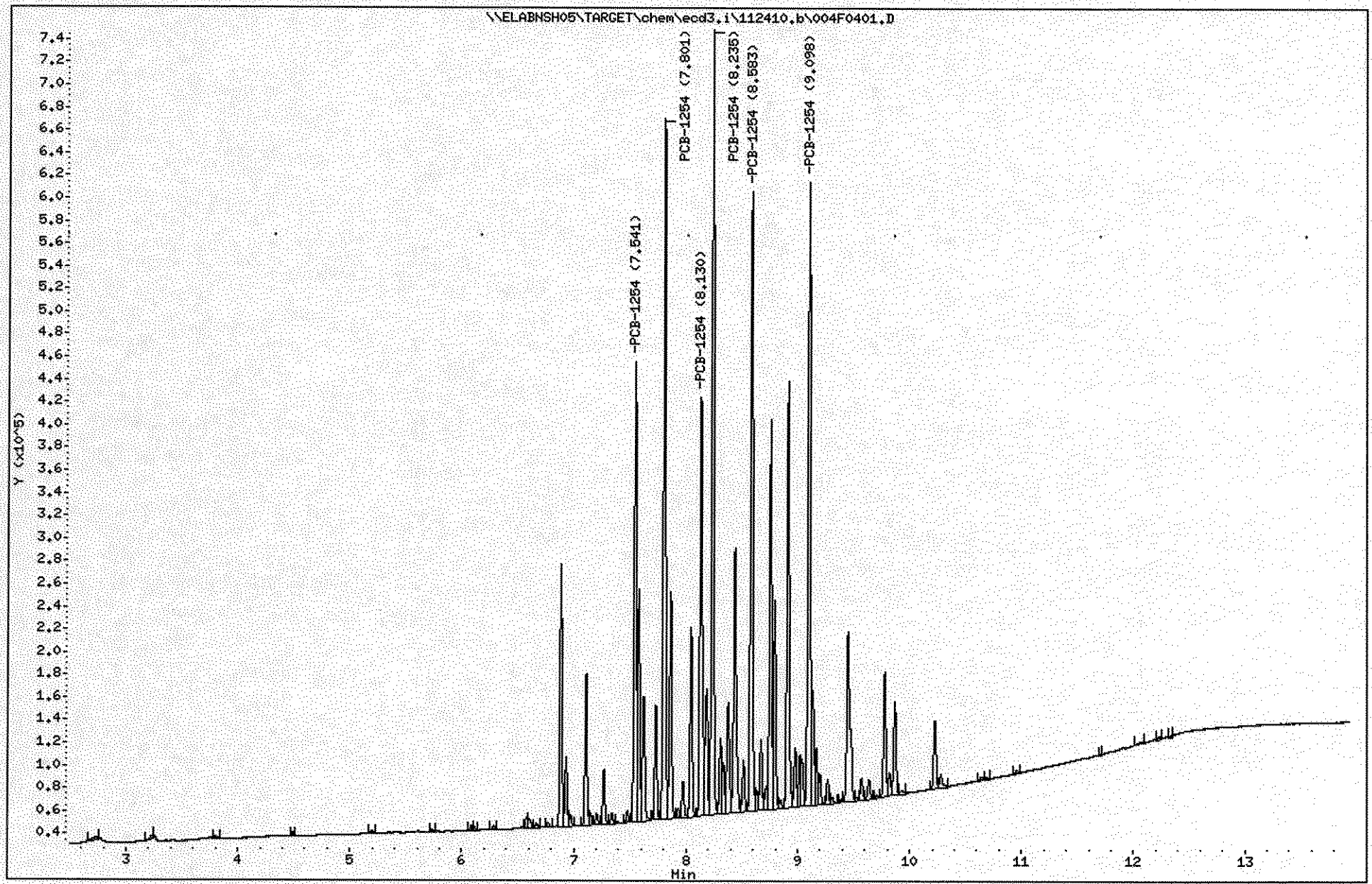
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004F0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 24-NOV-2010 18:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.234	8.235	(-0.001)	926617	500.000	513.8	80.00- 120.00	100.00
7.541	7.542	(-0.001)	545175	500.000	502.2	47.07- 70.60	58.83
7.801	7.802	(-0.001)	888930			76.75- 115.12	95.93
8.129	8.128	(0.001)	564511	500.000	516.3	48.74- 73.11	60.92
8.583	8.582	(0.001)	773829	500.000	508.0	66.81- 100.21	83.51
9.098	9.098	(0.000)	802615	500.000	519.6	69.29- 103.94	86.62
		Average of Peak Amounts =			512		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004F0401.D
Date : 24-NOV-2010 18:35
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



JLG 12-1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005F0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 24-NOV-2010 19:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.235	8.235	(0.000)	175493	100.000	97.32	80.00-	120.00	100.00
7.543	7.542	(0.001)	109712	100.000	101.1	50.01-	75.02	62.52
7.800	7.802	(-0.002)	172231			78.51-	117.77	98.14
8.131	8.128	(0.003)	106489	100.000	97.39	48.54-	72.82	60.68
8.585	8.582	(0.003)	152954	100.000	100.4	69.73-	104.59	87.16
9.100	9.098	(0.002)	150421	100.000	97.38	68.57-	102.86	85.71
		Average of Peak Amounts =			98.72			

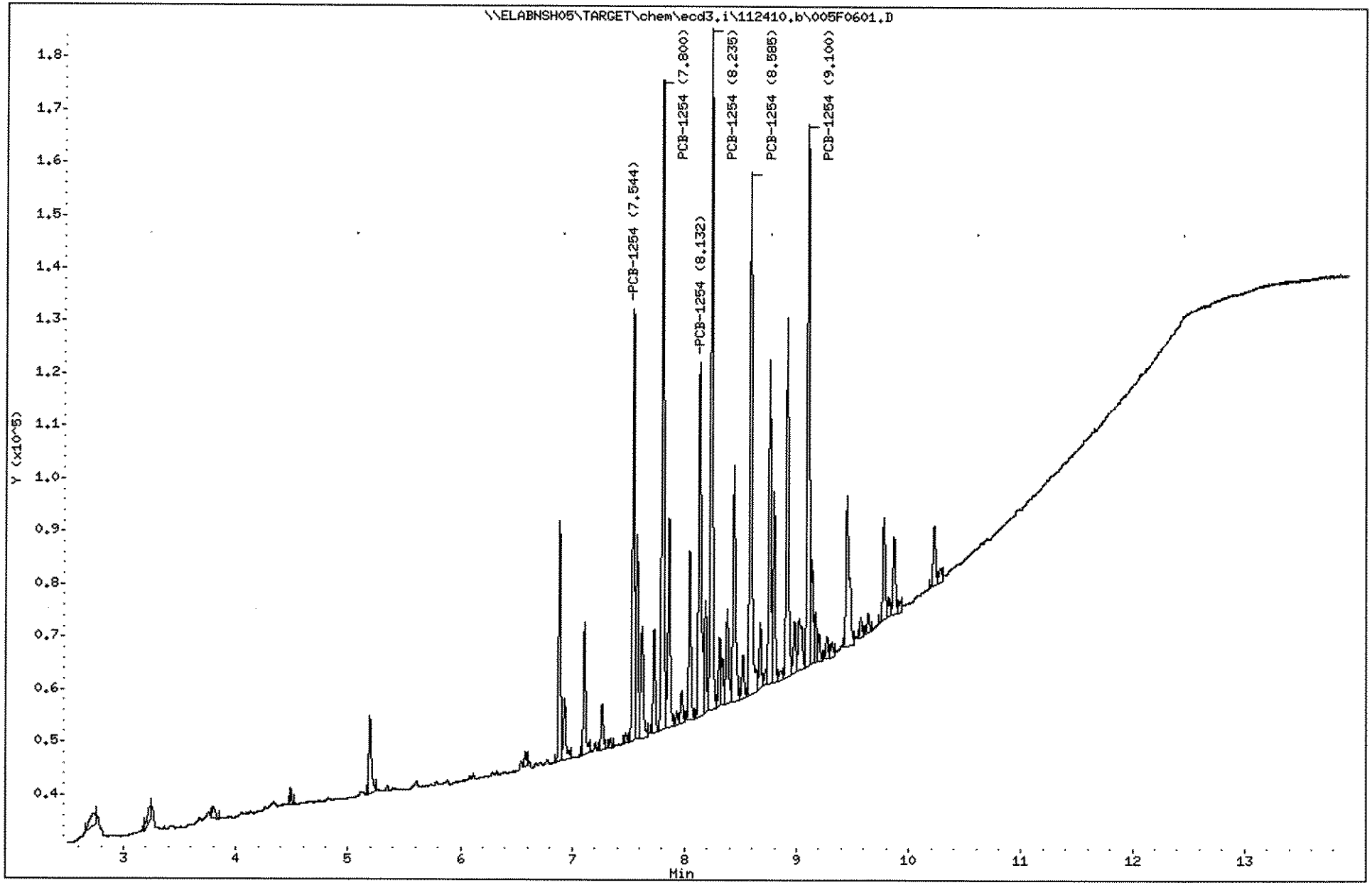
WL 11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005F0601.D
Date : 24-NOV-2010 19:12
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006F0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 24-NOV-2010 19:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.235	8.235	(0.000)	91690	50.0000	50.84	80.00-	120.00	100.00
7.543	7.542	(0.001)	57800	50.0000	53.25	50.43-	75.65	63.04
7.801	7.802	(-0.001)	91309			79.67-	119.50	99.58
8.131	8.128	(0.003)	56325	50.0000	51.51	49.14-	73.72	61.43
8.585	8.582	(0.003)	79599	50.0000	52.26	69.45-	104.18	86.81
9.098	9.098	(0.000)	77480	50.0000	50.16	67.60-	101.40	84.50
Average of Peak Amounts =					51.61			

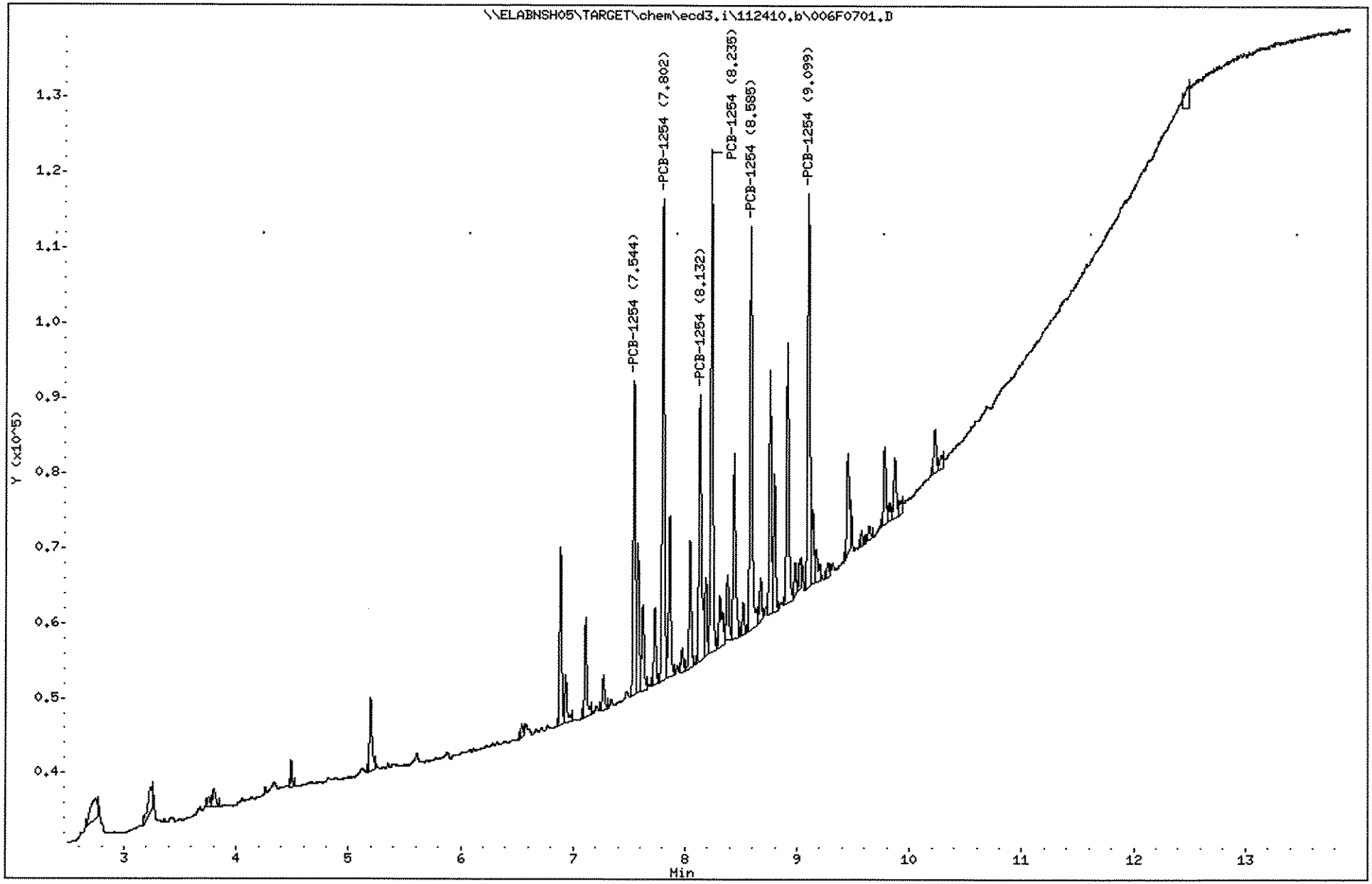
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006F0701.D
Date : 24-NOV-2010 19:31
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

JLG 12-1-10

Instrument ID: ecd3.i Injection Date: 24-NOV-2010 19:49
Lab File ID: 007F0801.D Init. Cal. Date(s): 01-JUL-2010 24-NOV-2010
Analysis Type: Init. Cal. Times: 08:58 21:41
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1755	0.010	-2.7	20.0	
(2)	1085	1035	0.010	-4.7	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1070	0.010	-2.2	20.0	
(5)	1523	1456	0.010	-4.4	20.0	
(6)	1545	1501	0.010	-2.8	20.0	

11/30/10

JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007F0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 24-NOV-2010 19:49
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.236	8.235	(0.001)	1754749	1000.00	973.1	80.00- 120.00	100.00
7.543	7.542	(0.001)	1034595	1000.00	953.1	47.17- 70.75	58.96
7.803	7.802	(0.001)	1680755			76.63- 114.94	95.78
8.131	8.128	(0.003)	1069689	1000.00	978.3	48.77- 73.15	60.96
8.585	8.582	(0.003)	1456336	1000.00	956.1	66.40- 99.59	82.99
9.100	9.098	(0.002)	1501287	1000.00	971.9	68.44- 102.67	85.56
		Average of Peak Amounts =			966.5		

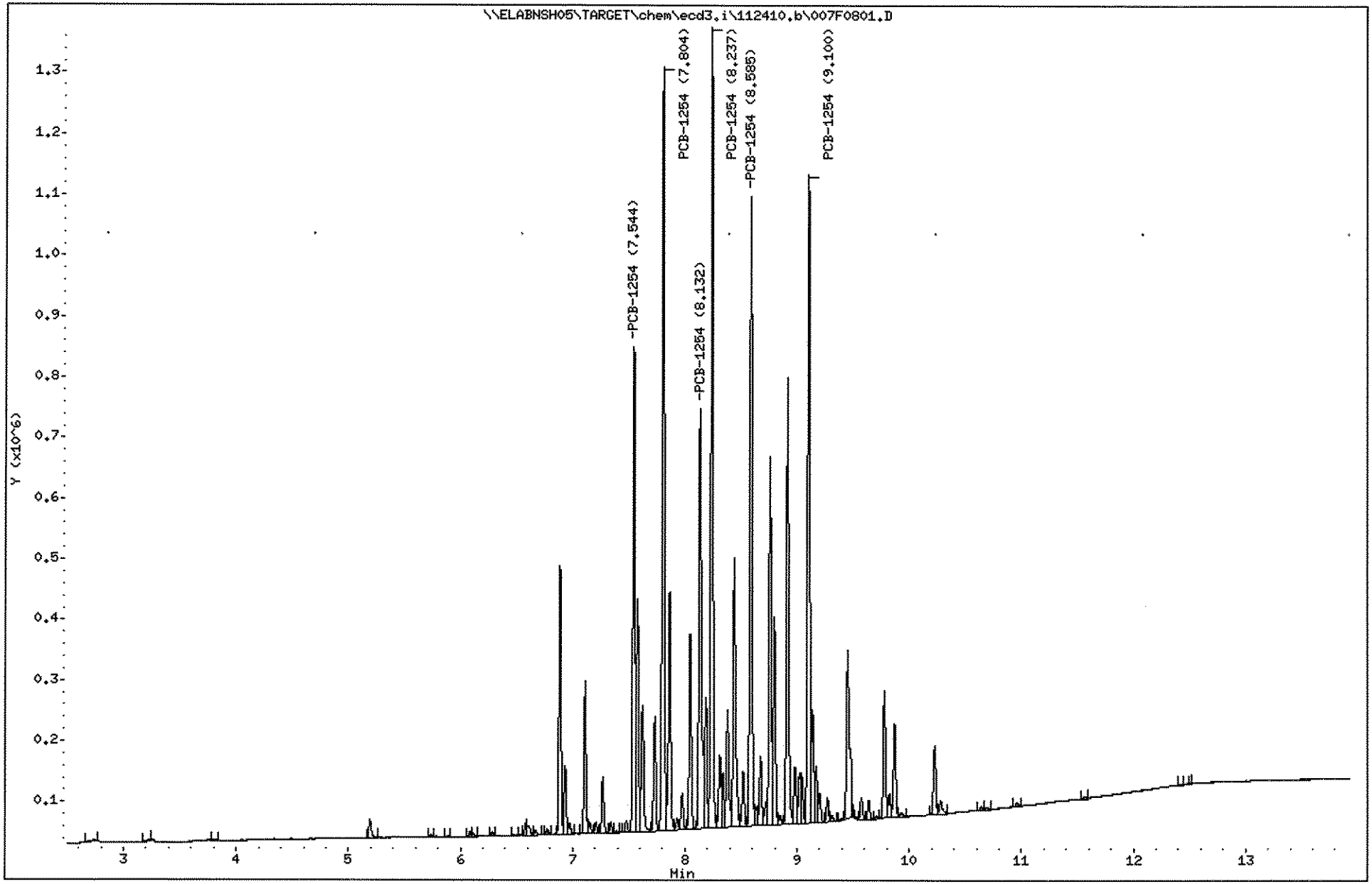
WL 11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007F0801.D
Date : 24-NOV-2010 19:49
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



93

1103223

JLS 12-1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001R0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 24-NOV-2010 17:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)	TARGET RANGE	RATIO
RT	EXP RT	DLT RT	RESPONSE				
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.924	6.922	(0.002)	3028444	2500.00	2261	80.00- 120.00	100.00
5.760	5.760	(0.000)	1008424			26.64- 39.96	33.30
6.330	6.329	(0.001)	2351988	2500.00	2092	62.13- 93.20	77.66
6.494	6.492	(0.002)	2050947	2500.00	2138	54.18- 81.27	67.72
6.825	6.822	(0.003)	1621417	2500.00	2255	42.83- 64.25	53.54
7.187	7.187	(0.000)	2016204	2500.00	2159	53.26- 79.89	66.58
		Average of Peak Amounts =			2181		

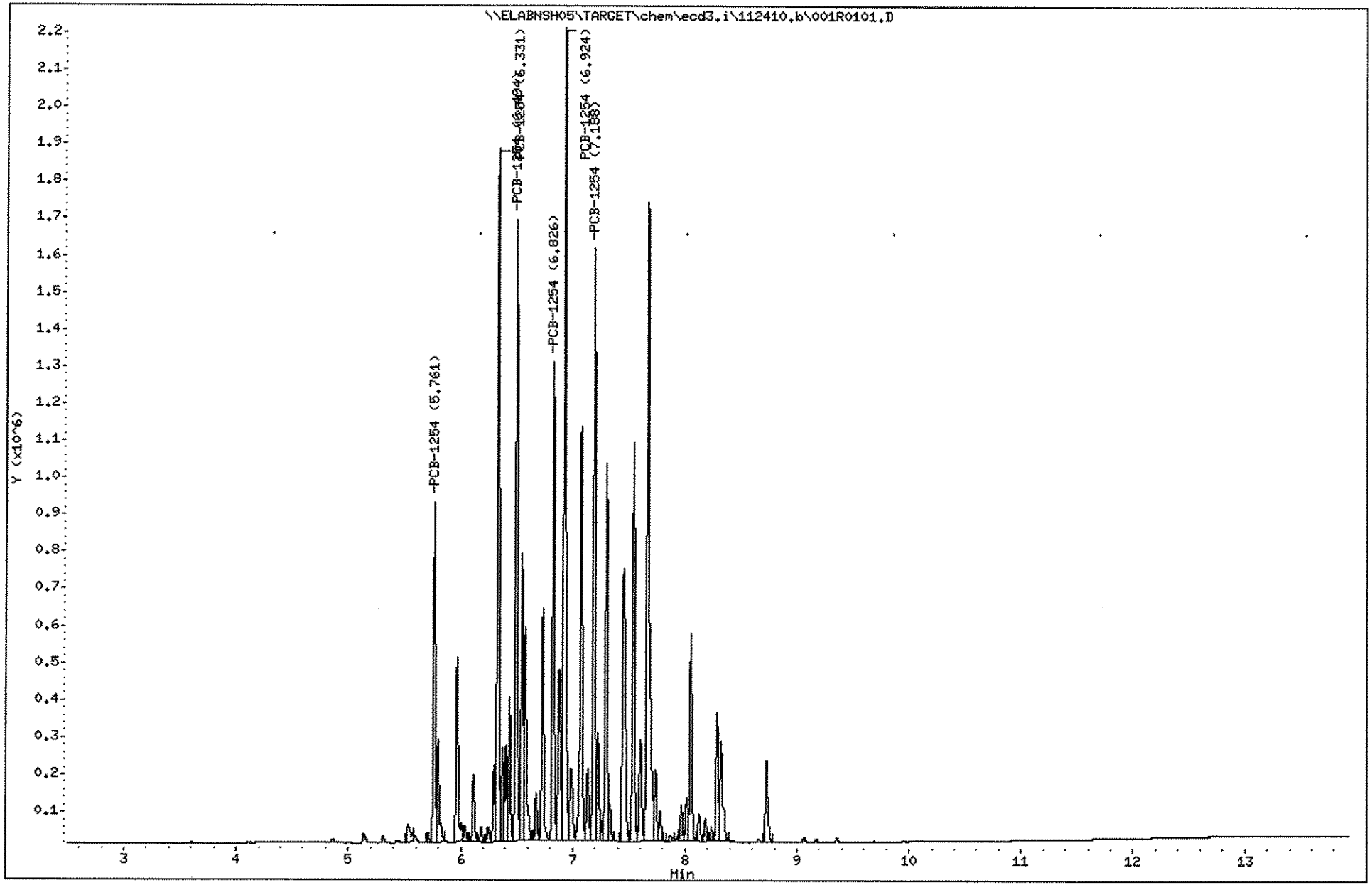
WL 1/31/11

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001R0101.D
Date : 24-NOV-2010 17:39
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLS 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002R0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 24-NOV-2010 17:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.922	6.922	(0.000)	1259030	1000.00	940.2	80.00-	120.00	100.00
5.760	5.760	(0.000)	426725			27.11-	40.67	33.89
6.329	6.329	(0.000)	998081	1000.00	887.9	63.42-	95.13	79.27
6.492	6.492	(0.000)	867261	1000.00	904.3	55.11-	82.66	68.88
6.822	6.822	(0.000)	671711	1000.00	934.4	42.68-	64.02	53.35
7.187	7.187	(0.000)	809888	1000.00	867.3	51.46-	77.19	64.33
Average of Peak Amounts =					906.8			

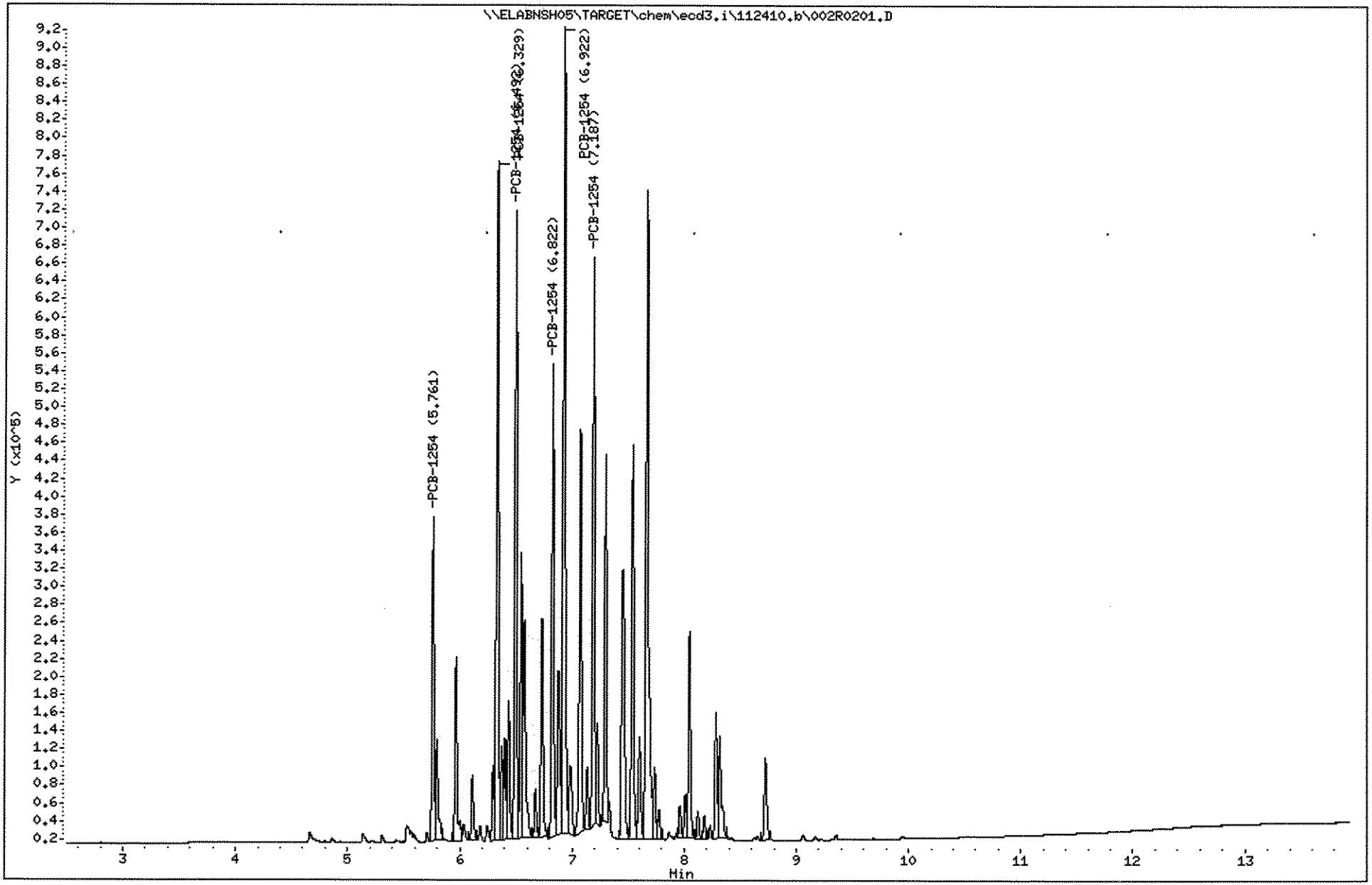
WL
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002R0201.D
Date : 24-NOV-2010 17:58
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003R0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 24-NOV-2010 18:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.922	6.922	(0.000)	965422	750.000	720.9	80.00-	120.00	100.00
5.760	5.760	(0.000)	314051			26.02-	39.04	32.53
6.330	6.329	(0.001)	764990	750.000	680.6	63.39-	95.09	79.24
6.493	6.492	(0.001)	657715	750.000	685.8	54.50-	81.75	68.13
6.823	6.822	(0.001)	512383	750.000	712.7	42.46-	63.69	53.07
7.187	7.187	(0.000)	605060	750.000	647.9	50.14-	75.21	62.67
Average of Peak Amounts =					689.6			

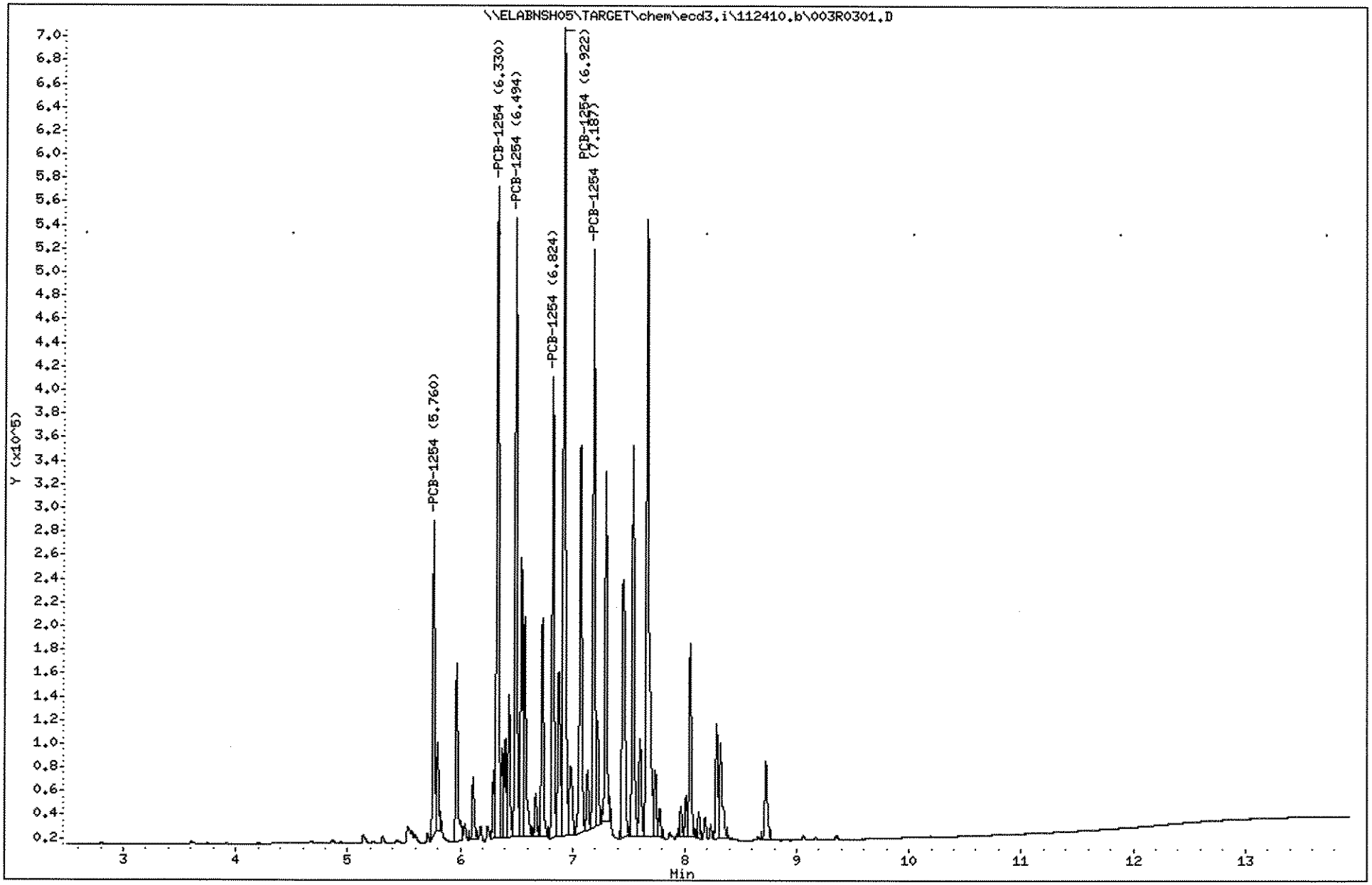
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003R0301.D
Date : 24-NOV-2010 18:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004R0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 24-NOV-2010 18:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
**	======	========	========	=======	=======	==========		=====
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.923	6.922	(0.001)	673011	500.000	502.6	80.00-	120.00	100.00
5.761	5.760	(0.001)	223775			26.60-	39.90	33.25
6.331	6.329	(0.002)	543365	500.000	483.4	64.59-	96.88	80.74
6.494	6.492	(0.002)	456817	500.000	476.3	54.30-	81.45	67.88
6.824	6.822	(0.002)	359536	500.000	500.1	42.74-	64.11	53.42
7.188	7.187	(0.001)	502144	500.000	537.7	59.69-	89.53	74.61
Average of Peak Amounts =					500			

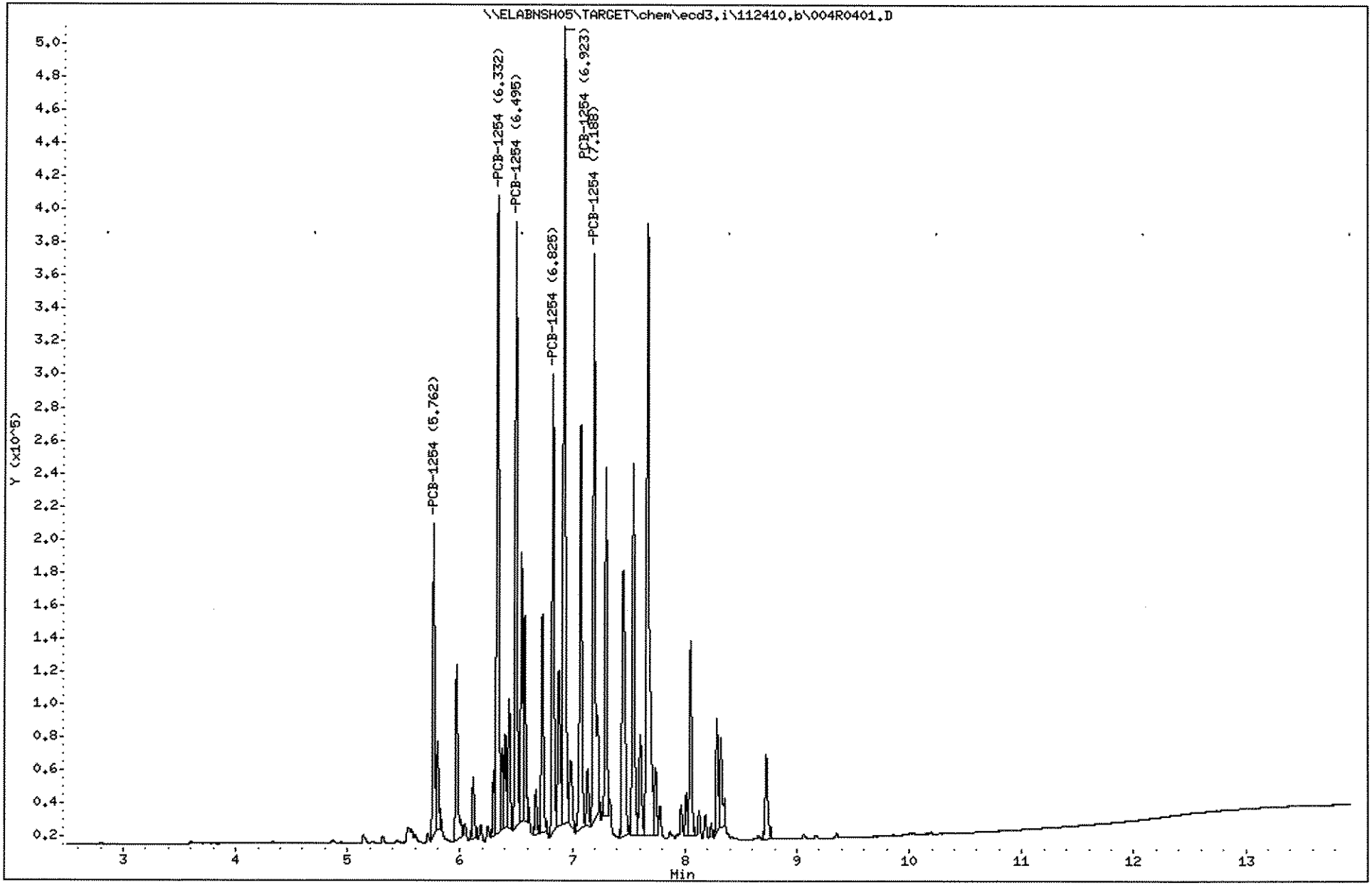
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004R0401.D
Date : 24-NOV-2010 18:35
Client ID:
Sample Info: SEQ-CAL4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



JLG 12.1.10

Laboratory Name:

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005R0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 24-NOV-2010 19:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)		
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.927	6.922	(0.005)	138274	100.000	103.2	80.00- 120.00	100.00
5.765	5.760	(0.005)	54356			31.45- 47.17	39.31
6.332	6.329	(0.003)	125529	100.000	111.7	72.63- 108.94	90.78
6.497	6.492	(0.005)	106846	100.000	111.4	61.82- 92.73	77.27
6.827	6.822	(0.005)	75024	100.000	104.4	43.41- 65.11	54.26
7.193	7.187	(0.006)	100723	p100.000	107.9	58.27- 87.41	72.84
		Average of Peak Amounts =			107.7		

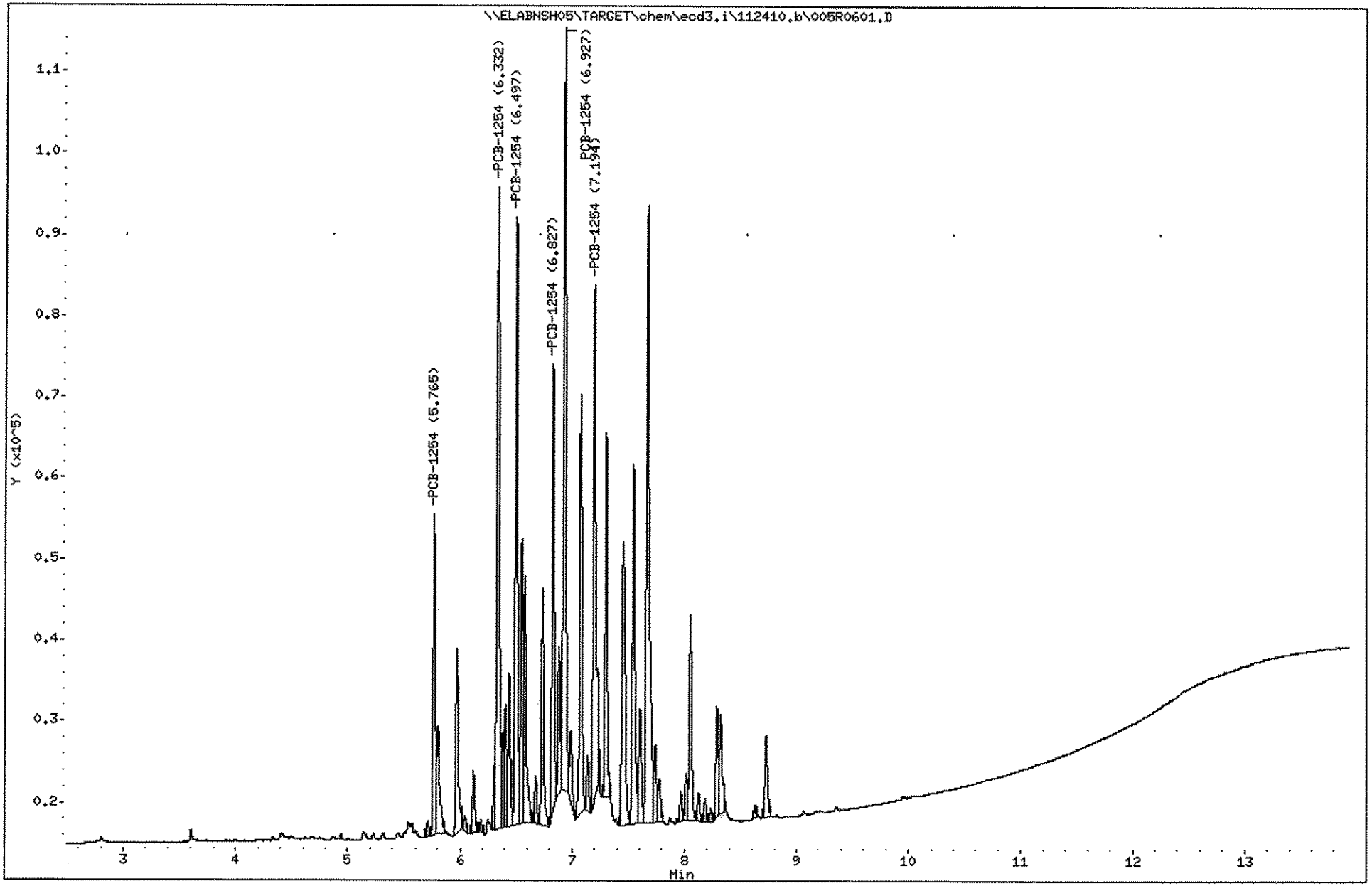
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005R0601.D
Date : 24-NOV-2010 19:12
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006R0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 24-NOV-2010 19:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

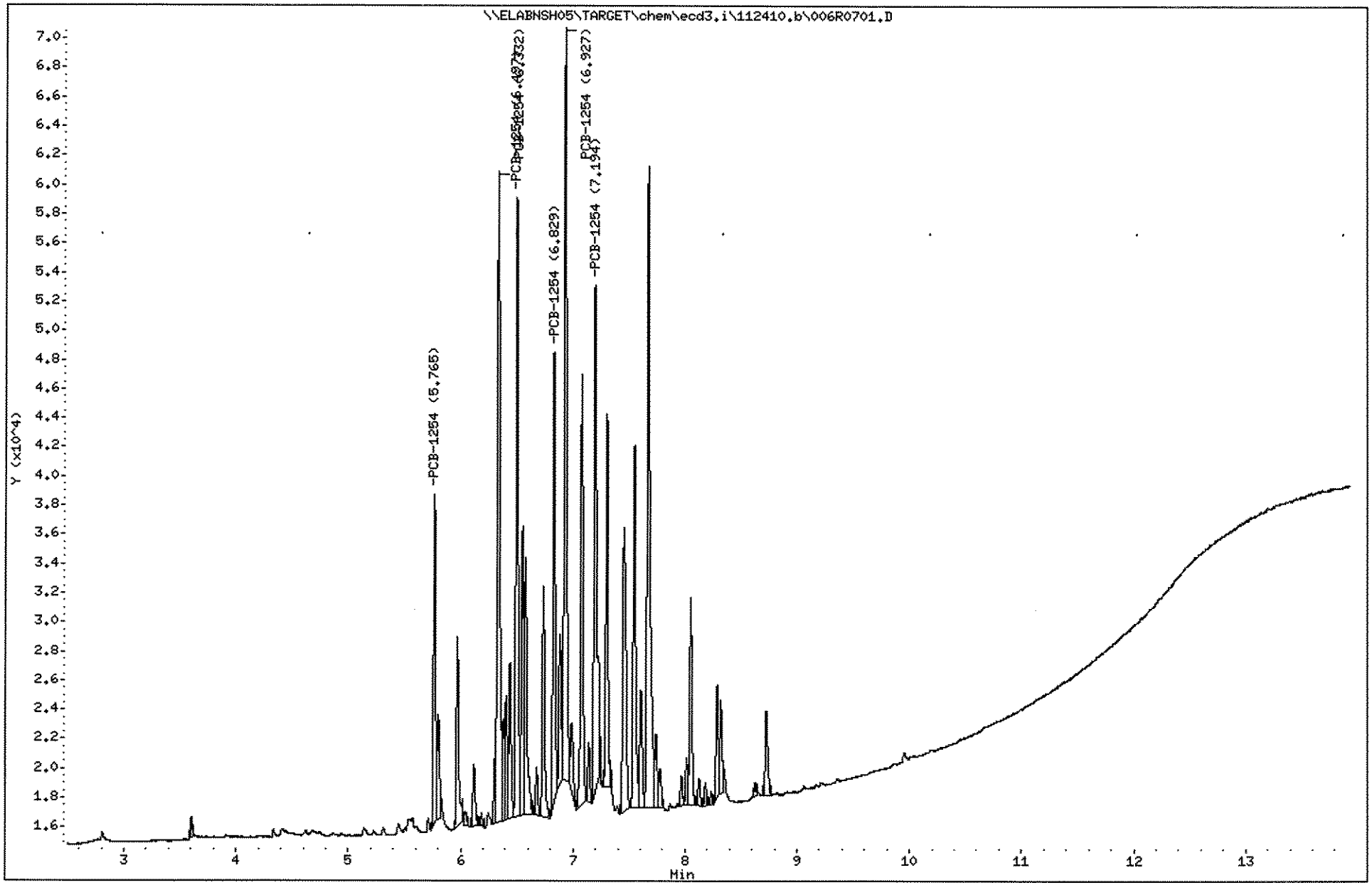
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.927	6.922	(0.005)	77434	50.0000	57.82	80.00-	120.00	100.00
5.765	5.760	(0.005)	29750			30.74-	46.10	38.42
6.332	6.329	(0.003)	72173	50.0000	64.21	74.56-	111.85	93.21
6.497	6.492	(0.005)	60377	50.0000	62.96	62.38-	93.57	77.97
6.828	6.822	(0.006)	42029	50.0000	58.46	43.42-	65.13	54.28
7.193	7.187	(0.006)	58414	50.0000	62.55	60.35-	90.52	75.44
Average of Peak Amounts =					61.2			

11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006R0701.D
Date : 24-NOV-2010 19:31
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

12-1-10

Instrument ID: ecd3.i Injection Date: 24-NOV-2010 19:49
Lab File ID: 007R0801.D Init. Cal. Date(s): 01-JUL-2010 24-NOV-2010
Analysis Type: Init. Cal. Times: 08:58 21:41
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1266	0.010	-5.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	988	0.010	-12.1	20.0	
(4)	959	854	0.010	-10.9	20.0	
(5)	719	669	0.010	-6.9	20.0	
(6)	934	829	0.010	-11.2	20.0	

12/30/10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007R0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 24-NOV-2010 19:49
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

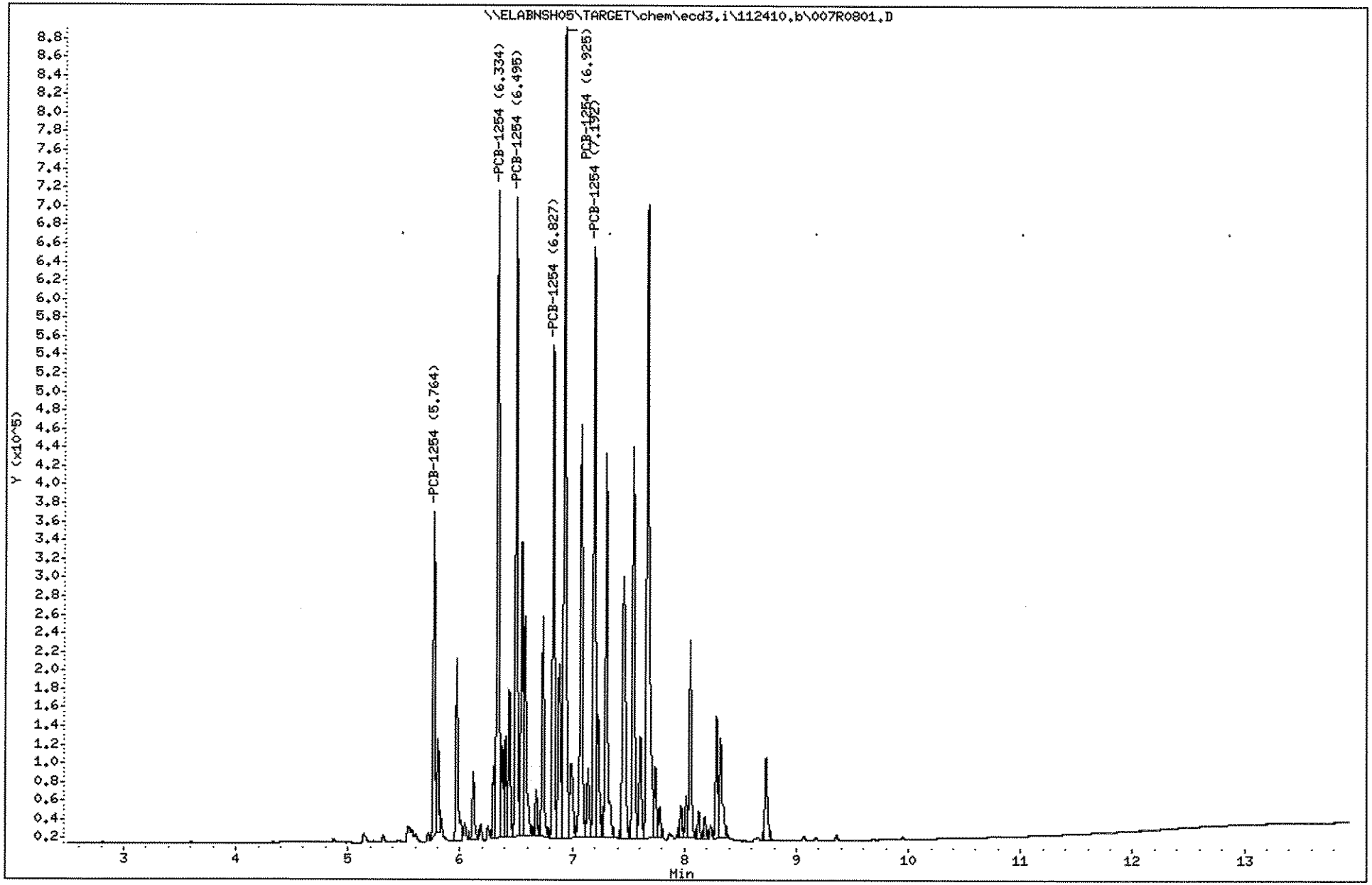
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.925	6.922	(0.003)	1266188	1000.00	945.5	80.00-	120.00	100.00
5.763	5.760	(0.003)	412426			26.06-	39.09	32.57
6.333	6.329	(0.004)	987794	1000.00	878.8	62.41-	93.62	78.01
6.495	6.492	(0.003)	854170	1000.00	890.6	53.97-	80.95	67.46
6.827	6.822	(0.005)	669470	1000.00	931.2	42.30-	63.45	52.87
7.192	7.187	(0.005)	828766	1000.00	887.5	52.36-	78.54	65.45
		Average of Peak Amounts =			906.7			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007R0801.D
Date : 24-NOV-2010 19:49
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Sequence: C:\HPCHEM\ECD3\SEQUENCE\032911.S (ECD 3 \ 11F 1F \ 0001_02

PG. 340

Sequence Table (Front/BACK Injector):

3-29-11

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PEST PRIMER				
2	Vial 2	SEQ-PEM1	I.S.# 11B0224			
3	Vial 3	SEQ-CCV1				
4	Vial 4	SEQ-CCV2				
5	Vial 5	SEQ-CCV3				
6	Vial 6	SEQ-CCV4				
7	Vial 7	SEQ-CAL1	I.S.# 11C0272			
8	Vial 8	SEQ-CAL2				
9	Vial 9	SEQ-CAL3				
10	Vial 10	SEQ-CAL4				
11	Vial 11	SEQ-CAL5				
12	Vial 12	SEQ-CAL6				
13	Vial 13	SEQ-CAL7				
14	Vial 14	SEQ-ICV1				
15	Vial 15	SEQ-CAL8	11A0220			
16	Vial 16	SEQ-CAL9	11C0777			
17	Vial 17	SEQ-CALA	11A0221			
18	Vial 18	SEQ-CALB				
19	Vial 19	SEQ-CALC				
20	Vial 20	SEQ-CALD				
21	Vial 21	SEQ-ICV2	11A0059			
22	Vial 22	SEQ-PEM1	11B0224			
23	Vial 23	SEQ-CCV1	11C0273			
24	Vial 24	SEQ-CCV2	11C0777			
25	Vial 25	SEQ-CCV3	10L0487			
26	Vial 26	SEQ-CCV4	10L0071			
27	Vial 27	1C28009-BLK1	x 1			
28	Vial 28	1C28009-BS1				
29	Vial 29	1C28009-BSD1				
30	Vial 30	1C28009-BS2				
31	Vial 31	1C28009-BSD2				
32	Vial 32	1103196-33RE1				
33	Vial 33	1103196-34RE1				
34	Vial 34	1103210-01RE1				
35	Vial 35	1103212-01RE1				
36	Vial 36	1003213-06RE1				
37	Vial 37	1103185-14				
38	Vial 38	1103185-15				
39	Vial 39	1103185-15@5X				
40	Vial 40	1103185-16 x 1				
41	Vial 41	1103185-16@10X				
42	Vial 42	1103196-09 x 1				
43	Vial 43	1103196-10 x 1				
44	Vial 44	SEQ-CCV5	I.S.# 11C0273			
45	Vial 45	SEQ-CCV6	11C0777			
46	Vial 46	SEQ-CCV7	10L0487			
47	Vial 47	SEQ-CCV8	10L0071			
48	Vial 48	SEQ-PEM3	11B0224			
49	Vial 49	1103196-11	x 1			
50	Vial 50	1C23008-MS2	(3196-11) x 1			
51	Vial 51	1C23008-MSD2				
52	Vial 52	1103213-04				
53	Vial 53	1103213-05				
54	Vial 54	1103211-01				
55	Vial 55	1103185-08@100X				
56	Vial 56	1103185-09 x 1				
57	Vial 57	1103185-10@10X				
58	Vial 58	1103185-12 x 1				
59	Vial 59	1C09028-BLK1	x 1 (SOIL)			

NOT USED

Instrument 1 3/29/2011 10:37:55 AM JH

JH 3.29.11

JLG 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\007F0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 28-MAR-2011 14:09
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

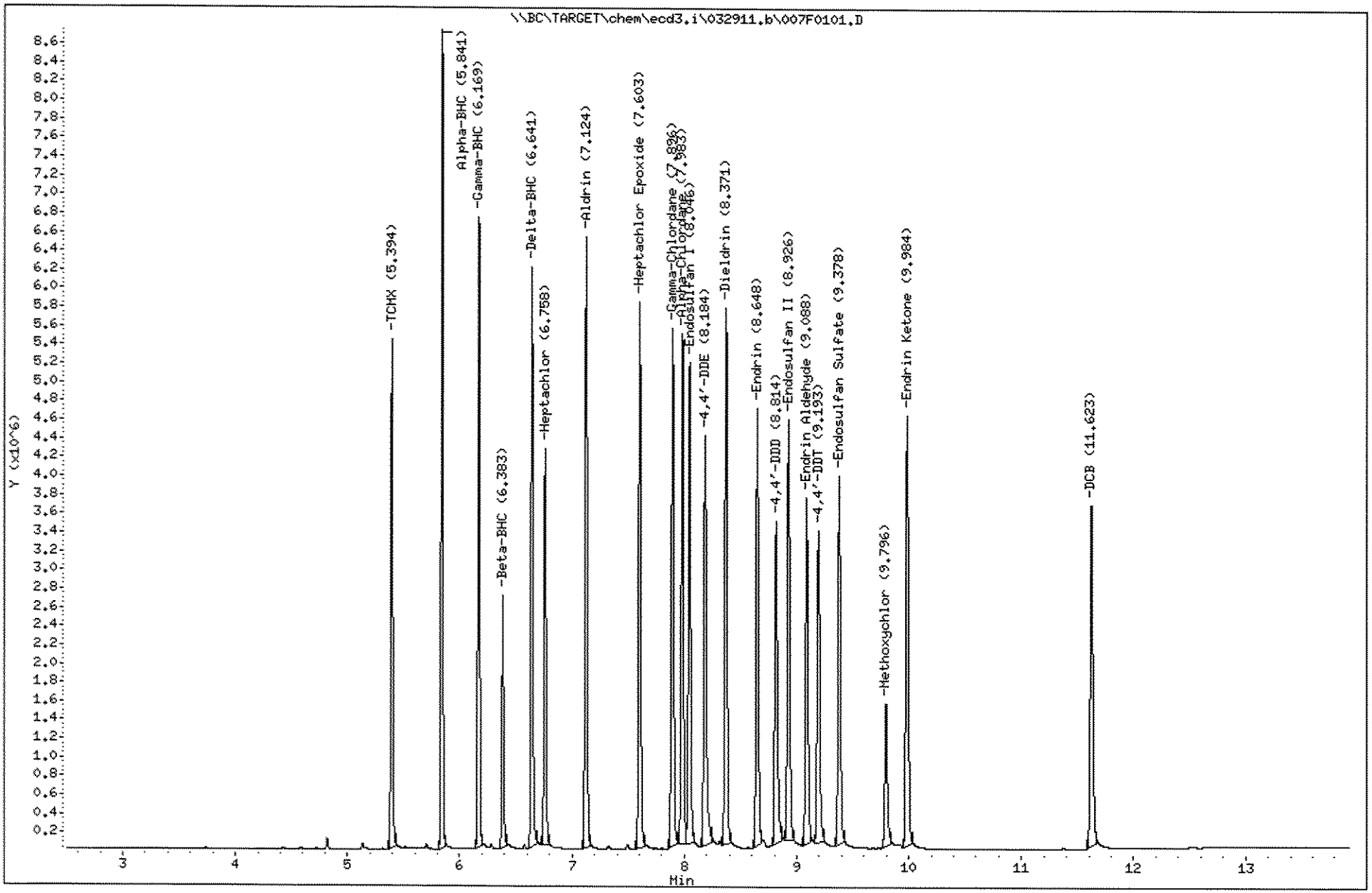
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.394	5.390	0.004	5736933	200.000	202.4(A)
3 Alpha-BHC	5.840	5.835	0.005	9244811	200.000	221.7(A)
23 Gamma-BHC	6.169	6.165	0.004	7523238	200.000	225.6(A)
5 Beta-BHC	6.382	6.380	0.002	3045393	200.000	200.2(A)
15 Delta-BHC	6.640	6.637	0.003	7460564	200.000	201.3(A)
25 Heptachlor	6.757	6.754	0.003	5156561	200.000	204.2(A)
2 Aldrin	7.124	7.119	0.005	8383231	200.000	215.2(A)
26 Heptachlor Epoxide	7.602	7.597	0.005	7554682	200.000	212.2(A)
24 Gamma-Chlordane	7.895	7.889	0.006	7610433	200.000	216.9(A)
4 Alpha-Chlordane	7.982	7.975	0.007	7281116	200.000	211.0(A)
17 Endosulfan I	8.045	8.040	0.005	7032390	200.000	206.4(A)
13 4,4'-DDE	8.184	8.177	0.007	6780901	200.000	203.2(A)
16 Dieldrin	8.370	8.364	0.006	7903653	200.000	218.8(A)
20 Endrin	8.647	8.642	0.005	6448109	200.000	220.2(A)
12 4,4'-DDD	8.814	8.809	0.005	5449862	200.000	204.1(A)
18 Endosulfan II	8.925	8.920	0.005	6540512	200.000	214.9(A)
21 Endrin Aldehyde	9.087	9.082	0.005	5406776	200.000	217.1(A)
14 4,4'-DDT	9.192	9.185	0.007	5247285	200.000	240.1(A)
19 Endosulfan Sulfate	9.377	9.372	0.005	5730423	200.000	220.2(A)
27 Methoxychlor	9.795	9.792	0.003	2346916	200.000	242.4(A)
22 Endrin Ketone	9.984	9.979	0.005	7064732	200.000	224.2(A)
$ 39 DCB	11.622	11.619	0.003	6052407	200.000	172.4

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\007F0101.D
Date : 28-MAR-2011 14:09
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



3.29.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\008F0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 28-MAR-2011 14:28
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

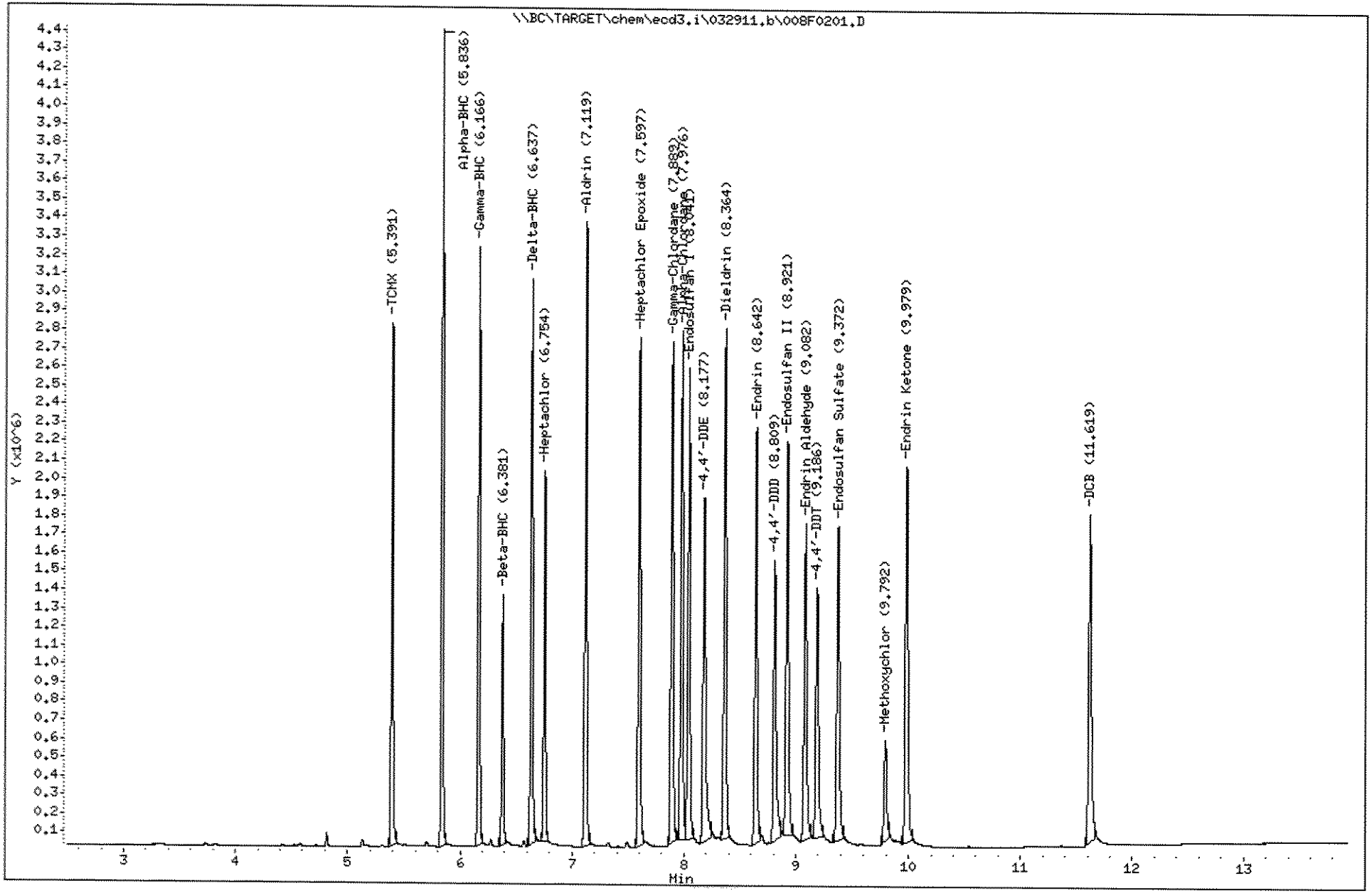
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.390	5.390	0.000	2904818	100.000	102.5
3 Alpha-BHC	5.835	5.835	0.000	4578892	100.000	109.8
23 Gamma-BHC	6.165	6.165	0.000	3633208	100.000	108.9
5 Beta-BHC	6.380	6.380	0.000	1527496	100.000	100.4
15 Delta-BHC	6.637	6.637	0.000	3606580	100.000	98.52
25 Heptachlor	6.754	6.754	0.000	2273546	100.000	91.98
2 Aldrin	7.119	7.119	0.000	4207111	100.000	108.0
26 Heptachlor Epoxide	7.597	7.597	0.000	3757787	100.000	105.5
24 Gamma-Chlordane	7.889	7.889	0.000	3742496	100.000	106.7
4 Alpha-Chlordane	7.975	7.975	0.000	3614172	100.000	104.7
17 Endosulfan I	8.040	8.040	0.000	3506770	100.000	102.9
13 4,4'-DDE	8.177	8.177	0.000	3104720	100.000	95.22
16 Dieldrin	8.364	8.364	0.000	3908237	100.000	108.2
20 Endrin	8.642	8.642	0.000	3117242	100.000	106.4
12 4,4'-DDD	8.809	8.809	0.000	2420846	100.000	93.55
18 Endosulfan II	8.920	8.920	0.000	3228309	100.000	106.1
21 Endrin Aldehyde	9.082	9.082	0.000	2638159	100.000	105.9
14 4,4'-DDT	9.185	9.185	0.000	2181674	100.000	100.6
19 Endosulfan Sulfate	9.372	9.372	0.000	2742953	100.000	105.4
27 Methoxychlor	9.792	9.792	0.000	879870	100.000	90.89
22 Endrin Ketone	9.979	9.979	0.000	3292918	100.000	104.5
$ 39 DCB	11.619	11.619	0.000	3003923	100.000	85.59

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\008F0201.D
Date : 28-MAR-2011 14:28
Client ID:
Sample Info: SEQ-CAL2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



JH 3.29.11

Empirical Laboratories, LLC

JLG 4.1.11

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\009F0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 28-MAR-2011 14:46
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

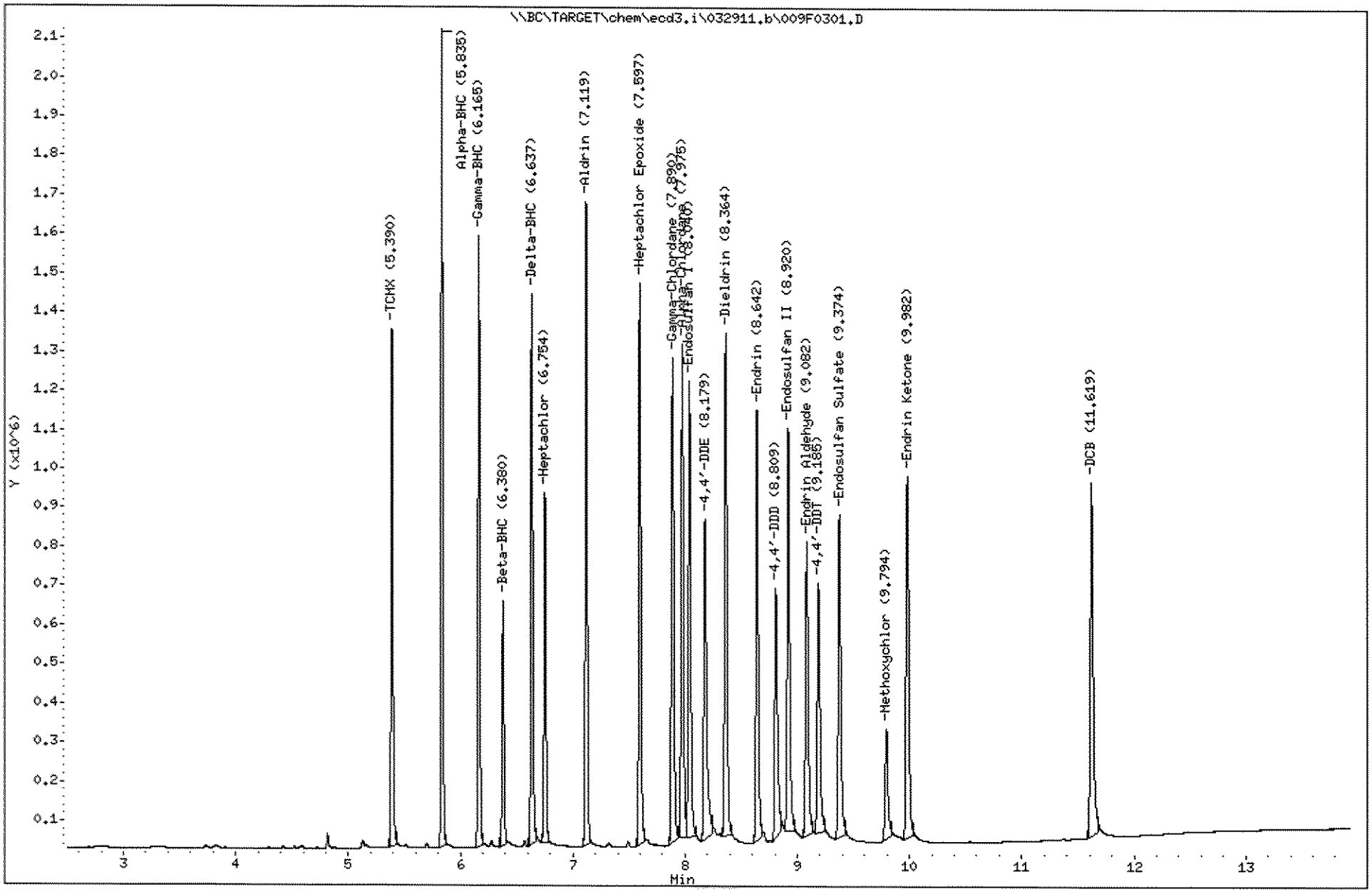
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.390	5.390	0.000	1433035	50.0000	50.55
3	Alpha-BHC	5.835	5.835	0.000	2224796	50.0000	53.36
23	Gamma-BHC	6.165	6.165	0.000	1744945	50.0000	52.32
5	Beta-BHC	6.380	6.380	0.000	744131	50.0000	48.93
15	Delta-BHC	6.637	6.637	0.000	1697125	50.0000	47.60
25	Heptachlor	6.753	6.754	-0.001	1082559	50.0000	45.61
2	Aldrin	7.118	7.119	-0.001	2046371	50.0000	52.53
26	Heptachlor Epoxide	7.597	7.597	0.000	1828490	50.0000	51.36
24	Gamma-Chlordane	7.890	7.889	0.001	1813150	50.0000	51.67
4	Alpha-Chlordane	7.975	7.975	0.000	1753968	50.0000	50.82
17	Endosulfan I	8.040	8.040	0.000	1707713	50.0000	50.13
13	4,4'-DDE	8.178	8.177	0.001	1414502	50.0000	45.59
16	Dieldrin	8.363	8.364	-0.001	1909910	50.0000	52.87
20	Endrin	8.642	8.642	0.000	1549349	50.0000	52.90
12	4,4'-DDD	8.808	8.809	-0.001	1054621	50.0000	43.69
18	Endosulfan II	8.920	8.920	0.000	1552570	50.0000	51.02
21	Endrin Aldehyde	9.082	9.082	0.000	1259541	50.0000	50.58
14	4,4'-DDT	9.185	9.185	0.000	1043216	50.0000	48.82
19	Endosulfan Sulfate	9.373	9.372	0.001	1305958	50.0000	50.18
27	Methoxychlor	9.793	9.792	0.001	473423	50.0000	48.90
22	Endrin Ketone	9.982	9.979	0.003	1561013	50.0000	49.55
$ 39	DCB	11.618	11.619	-0.001	1617556	50.0000	46.09

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\009F0301.D
Date : 28-MAR-2011 14:46
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



115

1103223

3.29.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\010F0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 28-MAR-2011 15:05
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 10 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

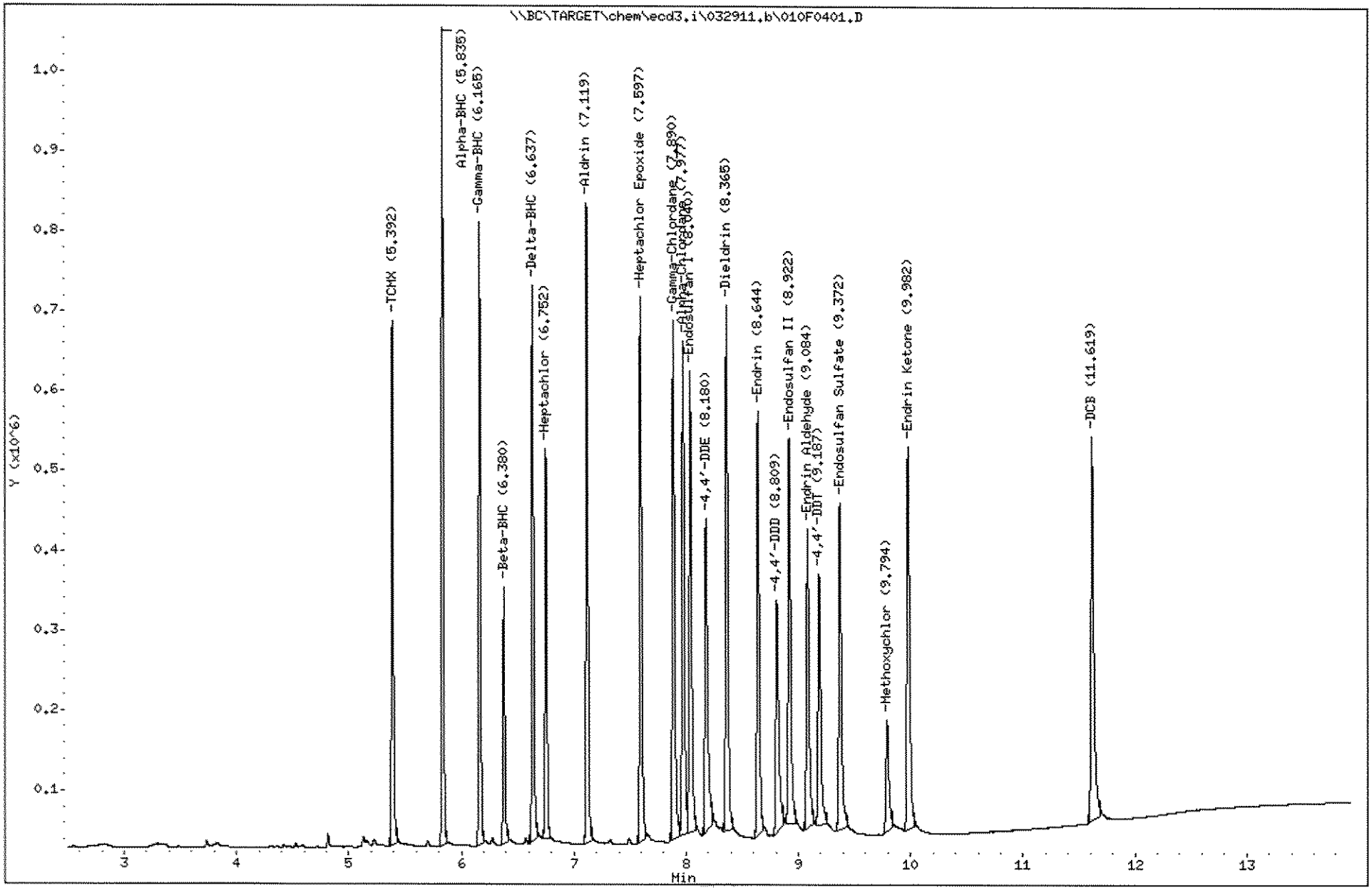
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.391	5.390	0.001	717323	25.0000	25.30
3 Alpha-BHC	5.835	5.835	0.000	1099624	25.0000	26.37
23 Gamma-BHC	6.165	6.165	0.000	872065	25.0000	26.15
5 Beta-BHC	6.380	6.380	0.000	376914	25.0000	24.78
15 Delta-BHC	6.636	6.637	-0.001	822773	25.0000	24.29
25 Heptachlor	6.751	6.754	-0.003	581181	25.0000	26.09
2 Aldrin	7.118	7.119	-0.001	1013403	25.0000	26.01
26 Heptachlor Epoxide	7.596	7.597	-0.001	908509	25.0000	25.52
24 Gamma-Chlordane	7.890	7.889	0.001	905866	25.0000	25.82
4 Alpha-Chlordane	7.976	7.975	0.001	883067	25.0000	25.58
17 Endosulfan I	8.040	8.040	0.000	853769	25.0000	25.06
13 4,4'-DDE	8.180	8.177	0.003	654948	25.0000	23.29
16 Dieldrin	8.365	8.364	0.001	937952	25.0000	25.96
20 Endrin	8.643	8.642	0.001	764410	25.0000	26.10
12 4,4'-DDD	8.808	8.809	-0.001	501756	25.0000	23.51
18 Endosulfan II	8.921	8.920	0.001	765420	25.0000	25.15
21 Endrin Aldehyde	9.083	9.082	0.001	617687	25.0000	24.81
14 4,4'-DDT	9.186	9.185	0.001	519713	25.0000	25.00
19 Endosulfan Sulfate	9.371	9.372	-0.001	667958	25.0000	25.66
27 Methoxychlor	9.793	9.792	0.001	242525	25.0000	25.05
22 Endrin Ketone	9.981	9.979	0.002	800151	25.0000	25.40
$ 39 DCB	11.618	11.619	-0.001	850309	25.0000	24.23

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\010F0401.D
Date : 28-MAR-2011 15:05
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



JH 3.29.11
JSG 4.1.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\011F0501.D
Lab Smp Id: SEQ-CAL5
Inj Date : 28-MAR-2011 15:24
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 11 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

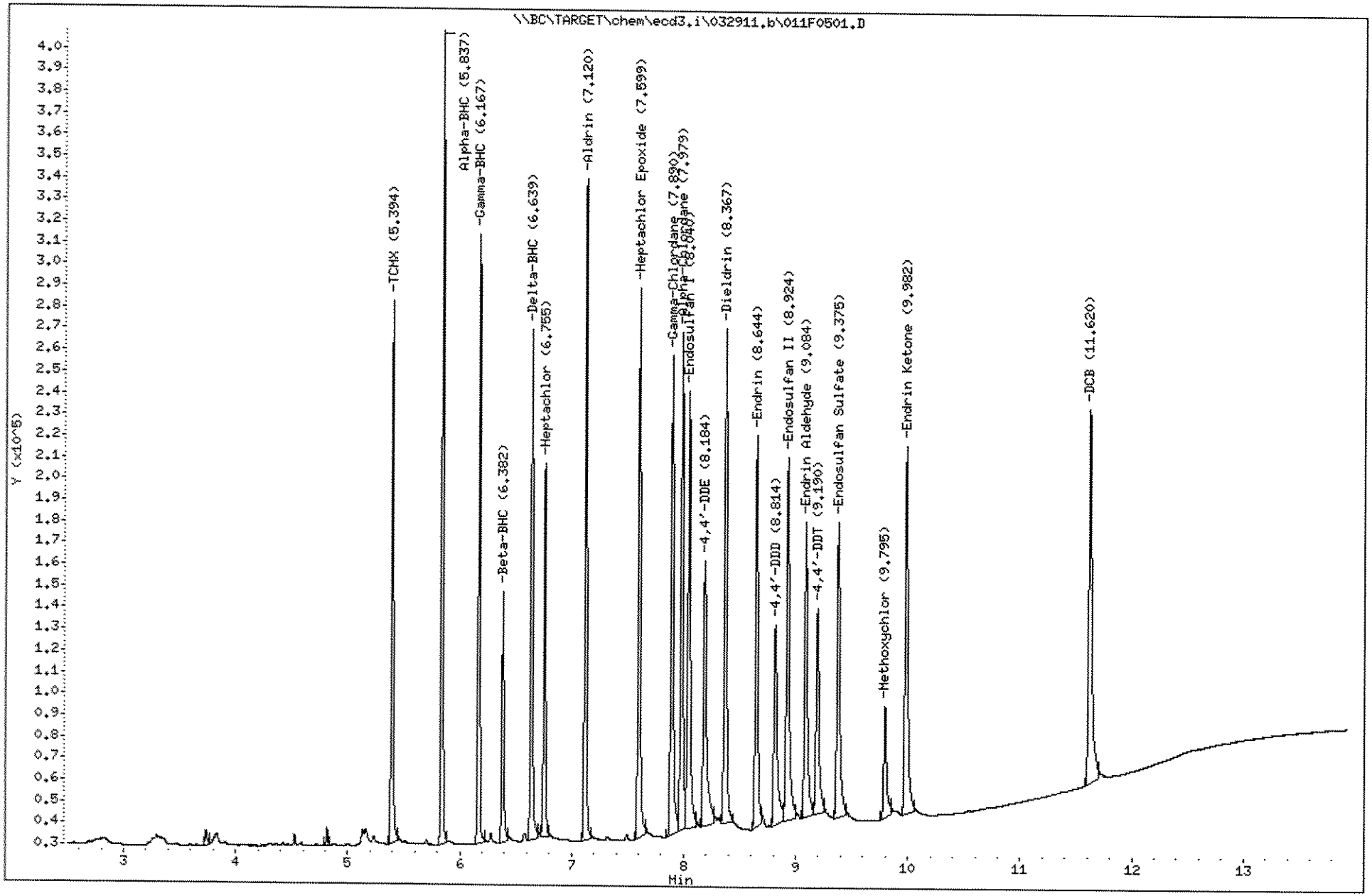
					AMOUNTS	
Compounds	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
$ 38 TCMX	5.393	5.390	0.003	279714	10.0000	9.866
3 Alpha-BHC	5.836	5.835	0.001	403084	10.0000	9.667
23 Gamma-BHC	6.166	6.165	0.001	315361	10.0000	9.456
5 Beta-BHC	6.381	6.380	0.001	146357	10.0000	9.623
15 Delta-BHC	6.638	6.637	0.001	295829	10.0000	10.24
25 Heptachlor	6.755	6.754	0.001	202721	10.0000	11.36
2 Aldrin	7.120	7.119	0.001	377428	10.0000	9.688
26 Heptachlor Epoxide	7.598	7.597	0.001	343338	10.0000	9.643
24 Gamma-Chlordane	7.890	7.889	0.001	335743	10.0000	9.569
4 Alpha-Chlordane	7.978	7.975	0.003	333213	10.0000	9.654
17 Endosulfan I	8.040	8.040	0.000	331391	10.0000	9.728
13 4,4'-DDE	8.183	8.177	0.006	249589	10.0000	11.39
16 Dieldrin	8.366	8.364	0.002	346803	10.0000	9.600
20 Endrin	8.643	8.642	0.001	275363	10.0000	9.402
12 4,4'-DDD	8.813	8.809	0.004	189056	10.0000	12.10
18 Endosulfan II	8.923	8.920	0.003	307723	10.0000	10.11
21 Endrin Aldehyde	9.083	9.082	0.001	240850	10.0000	9.672
14 4,4'-DDT	9.190	9.185	0.005	174378	10.0000	9.290
19 Endosulfan Sulfate	9.375	9.372	0.003	247044	10.0000	9.492
27 Methoxychlor	9.795	9.792	0.003	89948	10.0000	9.291
22 Endrin Ketone	9.981	9.979	0.002	293888	10.0000	9.329
$ 39 DCB	11.620	11.619	0.001	347099	10.0000	9.890

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\011F0501.D
Date : 28-MAR-2011 15:24
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-1

Instrument: ecd3,i

Operator: JH
Column diameter: 0.32



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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\012F0601.D
Lab Smp Id: SEQ-CAL6
Inj Date : 28-MAR-2011 15:42
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

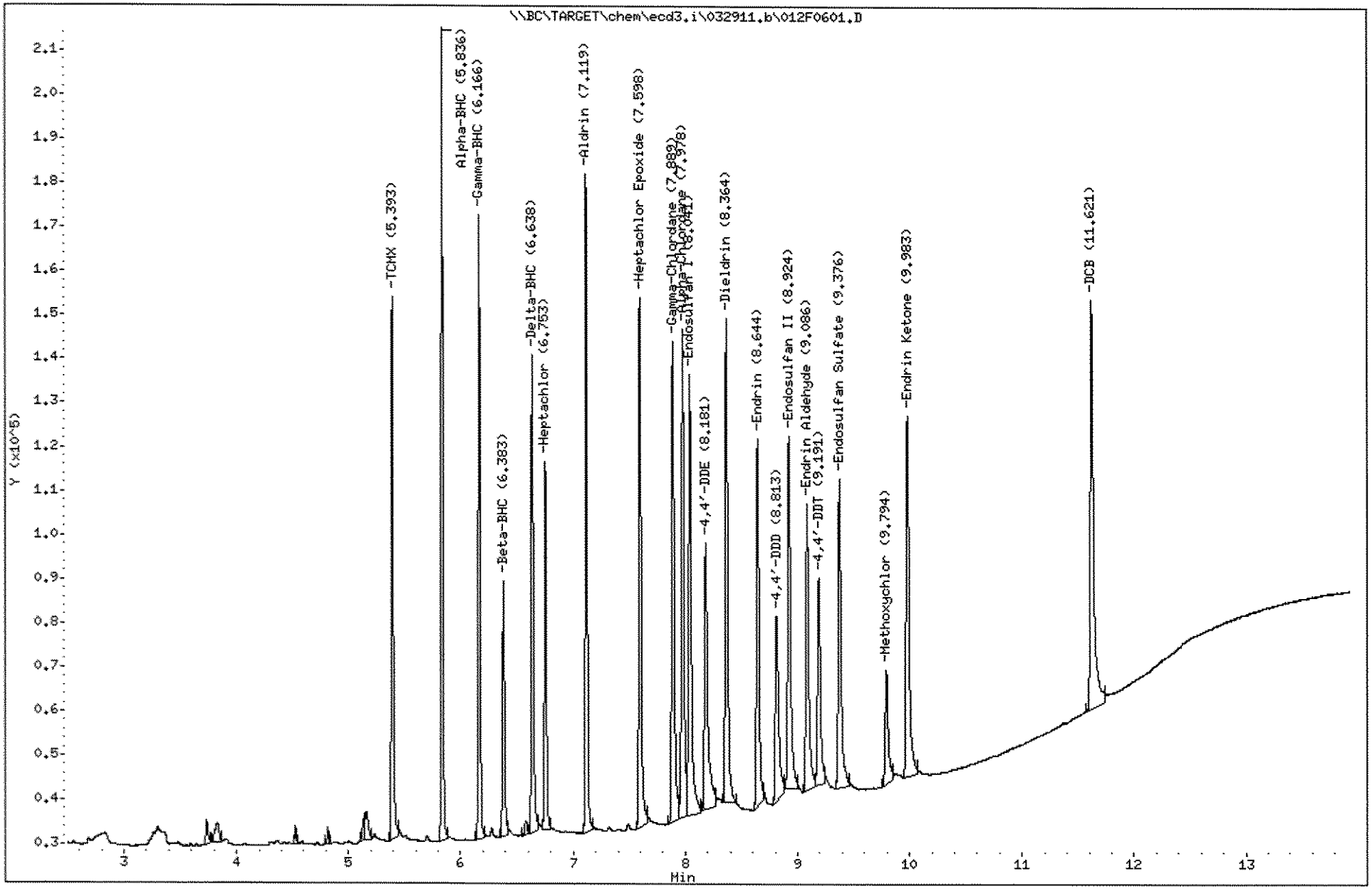
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.392	5.390	0.002	139715	5.00000	4.928
3	Alpha-BHC	5.836	5.835	0.001	192445	5.00000	4.615
23	Gamma-BHC	6.166	6.165	0.001	153653	5.00000	4.607
5	Beta-BHC	6.382	6.380	0.002	74017	5.00000	4.867
15	Delta-BHC	6.637	6.637	0.000	138159	5.00000	6.031
25	Heptachlor	6.752	6.754	-0.002	102954	5.00000	7.476
2	Aldrin	7.119	7.119	0.000	183887	5.00000	4.720
26	Heptachlor Epoxide	7.597	7.597	0.000	171692	5.00000	4.822
24	Gamma-Chlordane	7.889	7.889	0.000	166832	5.00000	4.755
4	Alpha-Chlordane	7.977	7.975	0.002	168791	5.00000	4.890
17	Endosulfan I	8.041	8.040	0.001	171734	5.00000	5.041
13	4,4'-DDE	8.181	8.177	0.004	121131	5.00000	7.617
16	Dieldrin	8.364	8.364	0.000	167518	5.00000	4.637
20	Endrin	8.644	8.642	0.002	131461	5.00000	4.489
12	4,4'-DDD	8.812	8.809	0.003	84427	5.00000	8.284
18	Endosulfan II	8.924	8.920	0.004	143939	5.00000	4.730
21	Endrin Aldehyde	9.086	9.082	0.004	120087	5.00000	4.823
14	4,4'-DDT	9.191	9.185	0.006	85604	5.00000	5.252
19	Endosulfan Sulfate	9.376	9.372	0.004	123944	5.00000	4.762
27	Methoxychlor	9.794	9.792	0.002	48895	5.00000	5.051
22	Endrin Ketone	9.982	9.979	0.003	152932	5.00000	4.854
$ 39	DCB	11.621	11.619	0.002	191258	5.00000	5.449

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\012F0601.D
Date : 28-MAR-2011 15:42
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



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JH 3.29.11

JLB 4.1.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\013F0701.D
Lab Smp Id: SEQ-CAL7
Inj Date : 28-MAR-2011 16:01
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 13 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

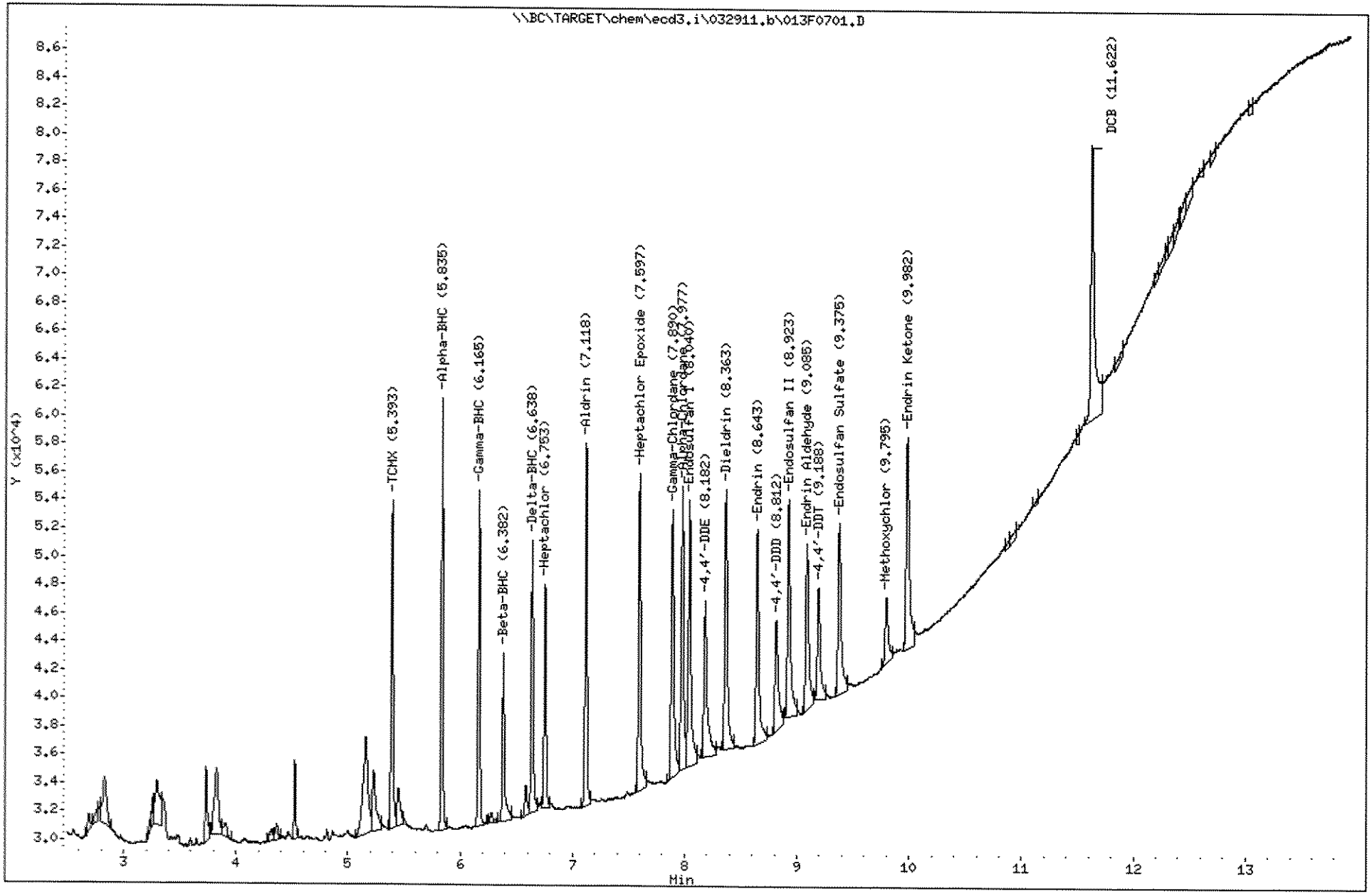
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.393	5.390	0.003	27454	1.00000	0.9684
3 Alpha-BHC	5.835	5.835	0.000	32584	1.00000	0.7814
23 Gamma-BHC	6.165	6.165	0.000	27444	1.00000	0.8229
5 Beta-BHC	6.381	6.380	0.001	16563	1.00000	1.089
15 Delta-BHC	6.638	6.637	0.001	25021	1.00000	3.014
25 Heptachlor	6.753	6.754	-0.001	20355	1.00000	4.260
2 Aldrin	7.118	7.119	-0.001	32723	1.00000	0.8400
26 Heptachlor Epoxide	7.596	7.597	-0.001	32289	1.00000	0.9069
24 Gamma-Chlordane	7.890	7.889	0.001	30699	1.00000	0.8749
4 Alpha-Chlordane	7.976	7.975	0.001	31570	1.00000	0.9147
17 Endosulfan I	8.040	8.040	0.000	32429	1.00000	0.9520
13 4,4'-DDE	8.181	8.177	0.004	22712	1.00000	4.727
16 Dieldrin	8.363	8.364	-0.001	30373	1.00000	0.8408
20 Endrin	8.643	8.642	0.001	26200	1.00000	0.8946
12 4,4'-DDD	8.811	8.809	0.002	15769	1.00000	5.778
18 Endosulfan II	8.923	8.920	0.003	26805	1.00000	0.8808
21 Endrin Aldehyde	9.085	9.082	0.003	22887	1.00000	0.9191
14 4,4'-DDT	9.188	9.185	0.003	14931	1.00000	2.036
19 Endosulfan Sulfate	9.375	9.372	0.003	23779	1.00000	0.9136
27 Methoxychlor	9.795	9.792	0.003	9289	1.00000	0.9595
22 Endrin Ketone	9.981	9.979	0.002	29068	1.00000	0.9227
$ 39 DCB	11.621	11.619	0.002	46053	1.00000	1.312

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\013F0701.D
Date : 28-MAR-2011 16:01
Client ID:
Sample Info: SEQ-CAL7

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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J.H. 3.29.11

JH 4.1.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\015F0901.D
Lab Smp Id: SEQ-CAL8
Inj Date : 28-MAR-2011 16:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 15 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

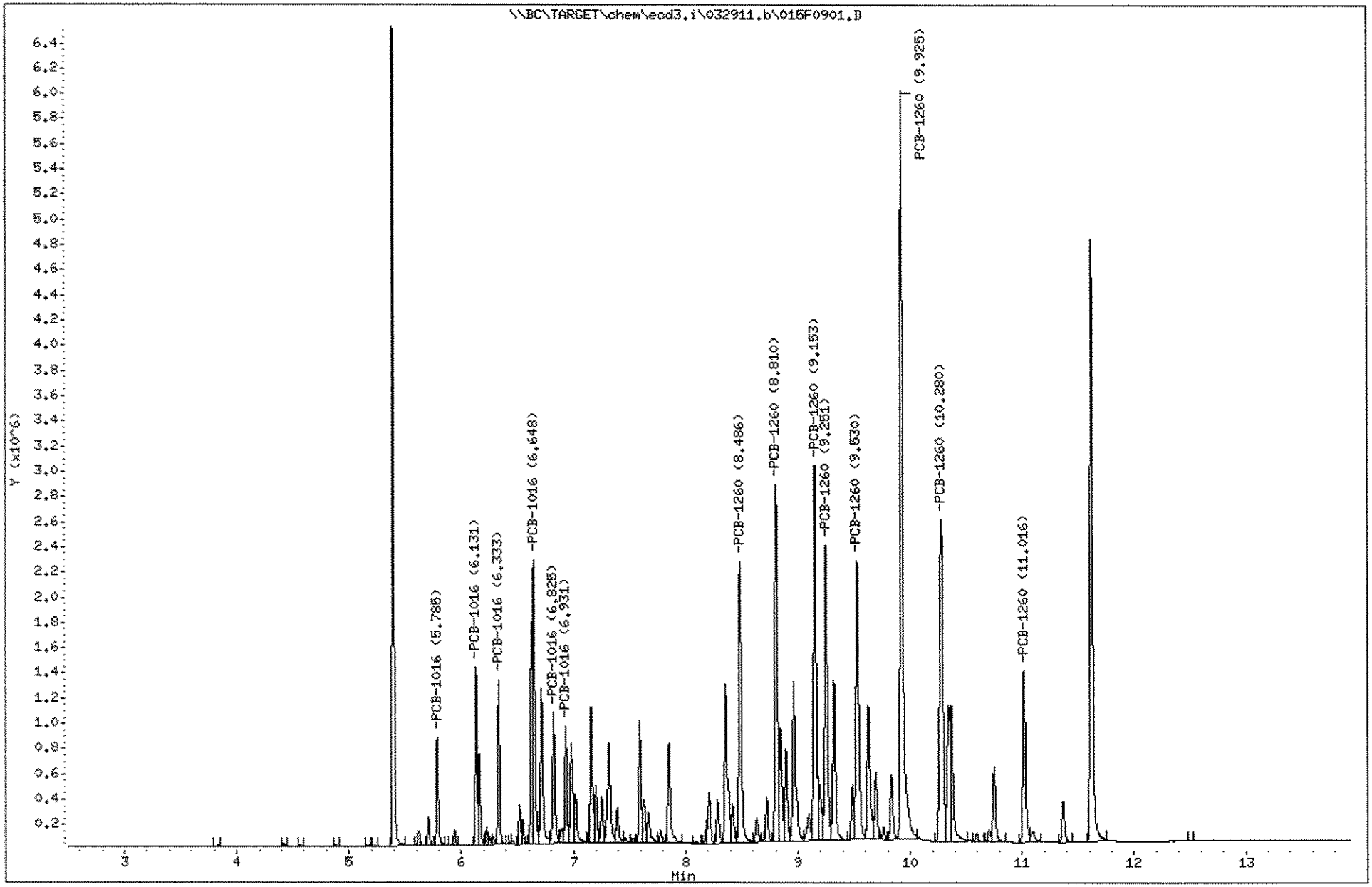
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016						CAS #: 12674-11-2		
6.648	6.649	(-0.001)	3058237	2500.00	2513	80.00-	120.00	100.00
5.784	5.784	(0.000)	1011105	2500.00	2372	26.45-	39.67	33.06
6.131	6.132	(-0.001)	1522343	2500.00	2406	39.82-	59.73	49.78
6.333	6.334	(-0.001)	1525723	2500.00	2460	39.91-	59.87	49.89
6.824	6.824	(0.000)	1495064			39.11-	58.66	48.89
6.931	6.932	(-0.001)	1178036	2500.00	2554	30.82-	46.22	38.52
		Average of Peak Amounts =			2461			
35 PCB-1260						CAS #: 11096-82-5		
9.924	9.922	(0.002)	10066223	2500.00	2657	80.00-	120.00	100.00(A)
8.486	8.487	(-0.001)	3617086			28.75-	43.12	35.93
8.809	8.807	(0.002)	4271003	2500.00	2687	33.94-	50.91	42.43
9.153	9.154	(-0.001)	4945681	2500.00	2575	39.31-	58.96	49.13
9.251	9.251	(0.000)	3852319	2500.00	2628	30.62-	45.92	38.27
9.529	9.527	(0.002)	4008161			31.85-	47.78	39.82
10.279	10.281	(-0.002)	5321059			42.29-	63.43	52.86
11.016	11.019	(-0.003)	2359412	2500.00	2584	18.75-	28.13	23.44
		Average of Peak Amounts =			2626			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\015F0901.D
Date : 28-MAR-2011 16:38
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3.i
Operator: JH
Column phase: ZB MR-1
Column diameter: 0.32



JH 3.29.11

JH 4-1-11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\016F1001.D
Lab Smp Id: SEQ-CAL9
Inj Date : 28-MAR-2011 16:57
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

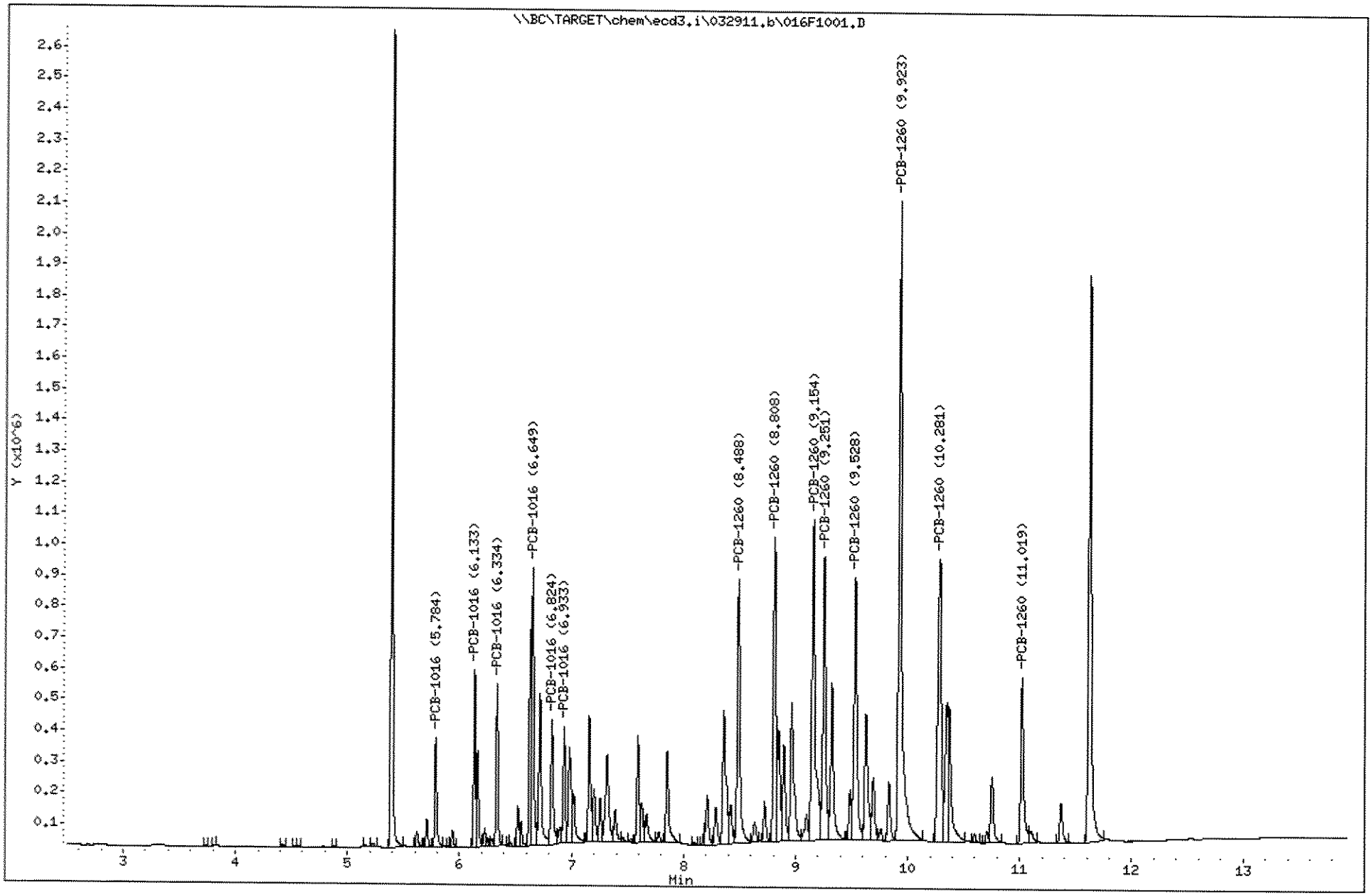
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.649	6.649	(0.000)	1269255	1000.00	1043	80.00- 120.00	100.00
5.784	5.784	(0.000)	429036	1000.00	1007	27.04- 40.56	33.80
6.132	6.132	(0.000)	622611	1000.00	984.0	39.24- 58.86	49.05
6.334	6.334	(0.000)	631155	1000.00	1018	39.78- 59.67	49.73
6.824	6.824	(0.000)	631958			39.83- 59.75	49.79
6.932	6.932	(0.000)	484430	1000.00	1050	30.53- 45.80	38.17
		Average of Peak Amounts =			1020		
35 PCB-1260					CAS #: 11096-82-5		
9.922	9.922	(0.000)	3992496	1000.00	1054	80.00- 120.00	100.00
8.487	8.487	(0.000)	1475274			29.56- 44.34	36.95
8.807	8.807	(0.000)	1562699	1000.00	983.0	31.31- 46.97	39.14
9.154	9.154	(0.000)	2211792	1000.00	1151	44.32- 66.48	55.40
9.251	9.251	(0.000)	1576186	1000.00	1075	31.58- 47.37	39.48
9.527	9.527	(0.000)	1622838			32.52- 48.78	40.65
10.281	10.281	(0.000)	2034474			40.77- 61.15	50.96
11.019	11.019	(0.000)	936206	1000.00	1026	18.76- 28.14	23.45
		Average of Peak Amounts =			1058		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\016F1001.D
Date : 28-MAR-2011 16:57
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



JH 3.29.11

JH 3.29.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\017F1101.D
Lab Smp Id: SEQ-CALA
Inj Date : 28-MAR-2011 17:15
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

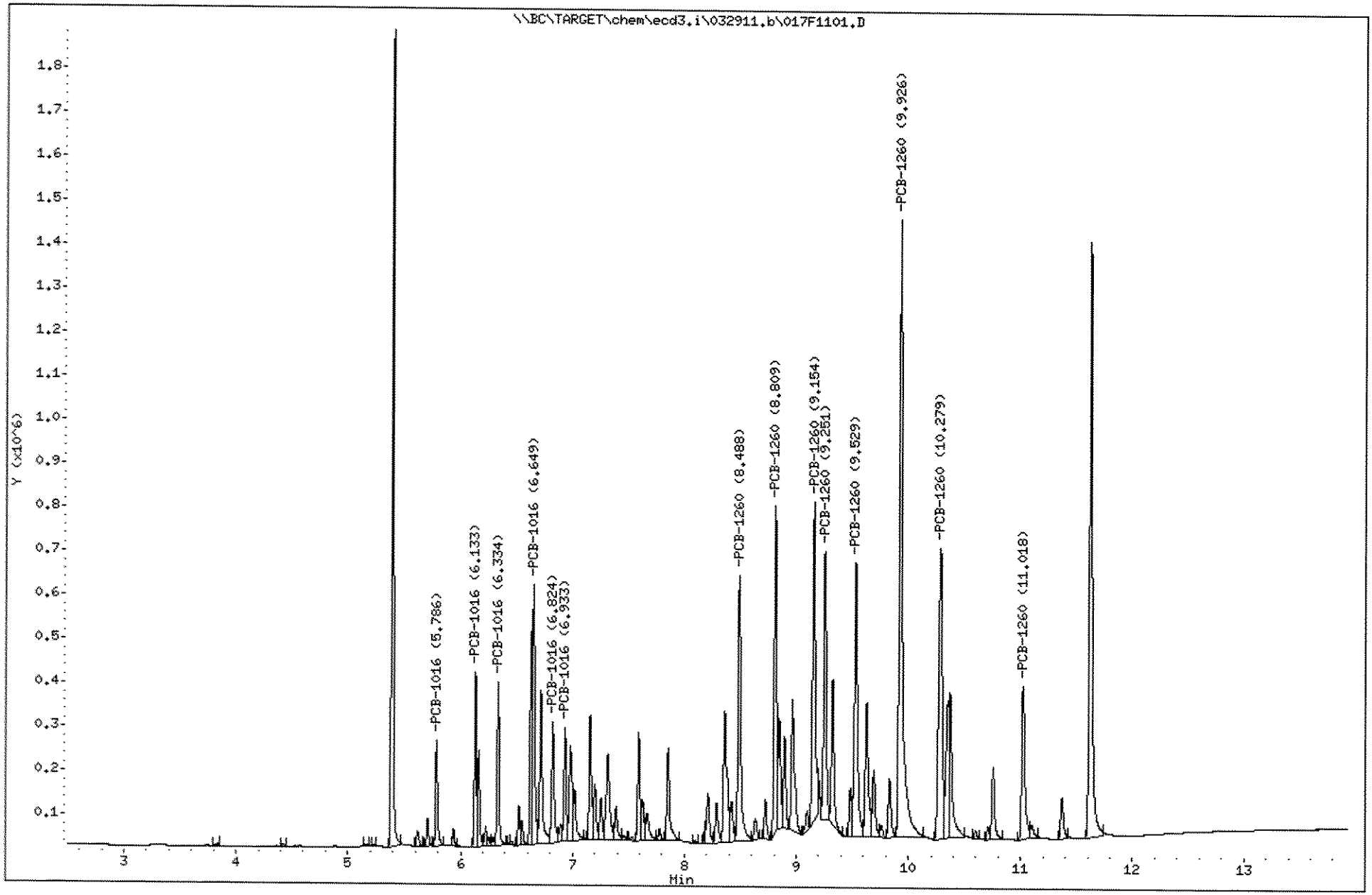
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.649	6.649	(0.000)	882503	750.000	725.0	80.00-	120.00	100.00
5.785	5.784	(0.001)	308717	750.000	724.4	27.99-	41.98	34.98
6.132	6.132	(0.000)	458877	750.000	725.2	41.60-	62.40	52.00
6.334	6.334	(0.000)	470407	750.000	758.4	42.64-	63.96	53.30
6.824	6.824	(0.000)	452253			41.00-	61.50	51.25
6.932	6.932	(0.000)	346679	750.000	751.6	31.43-	47.14	39.28
		Average of Peak Amounts =			736.9			
35 PCB-1260					CAS #: 11096-82-5			
9.925	9.922	(0.003)	2916761	750.000	770.0	80.00-	120.00	100.00
8.487	8.487	(0.000)	1091355			29.93-	44.90	37.42
8.809	8.807	(0.002)	1101063	750.000	692.6	30.20-	45.30	37.75
9.154	9.154	(0.000)	1277218	750.000	664.9	35.03-	52.55	43.79
9.250	9.251	(-0.001)	997837	750.000	680.8	27.37-	41.05	34.21
9.529	9.527	(0.002)	1183954			32.47-	48.71	40.59
10.279	10.281	(-0.002)	1479664			40.58-	60.88	50.73
11.017	11.019	(-0.002)	687109	750.000	752.7	18.85-	28.27	23.56
		Average of Peak Amounts =			712.2			

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\017F1101.D
Date : 28-MAR-2011 17:15
Client ID:
Sample Info: SEQ-CALA

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\018F1201.D
Lab Smp Id: SEQ-CALB
Inj Date : 28-MAR-2011 17:34
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 18 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

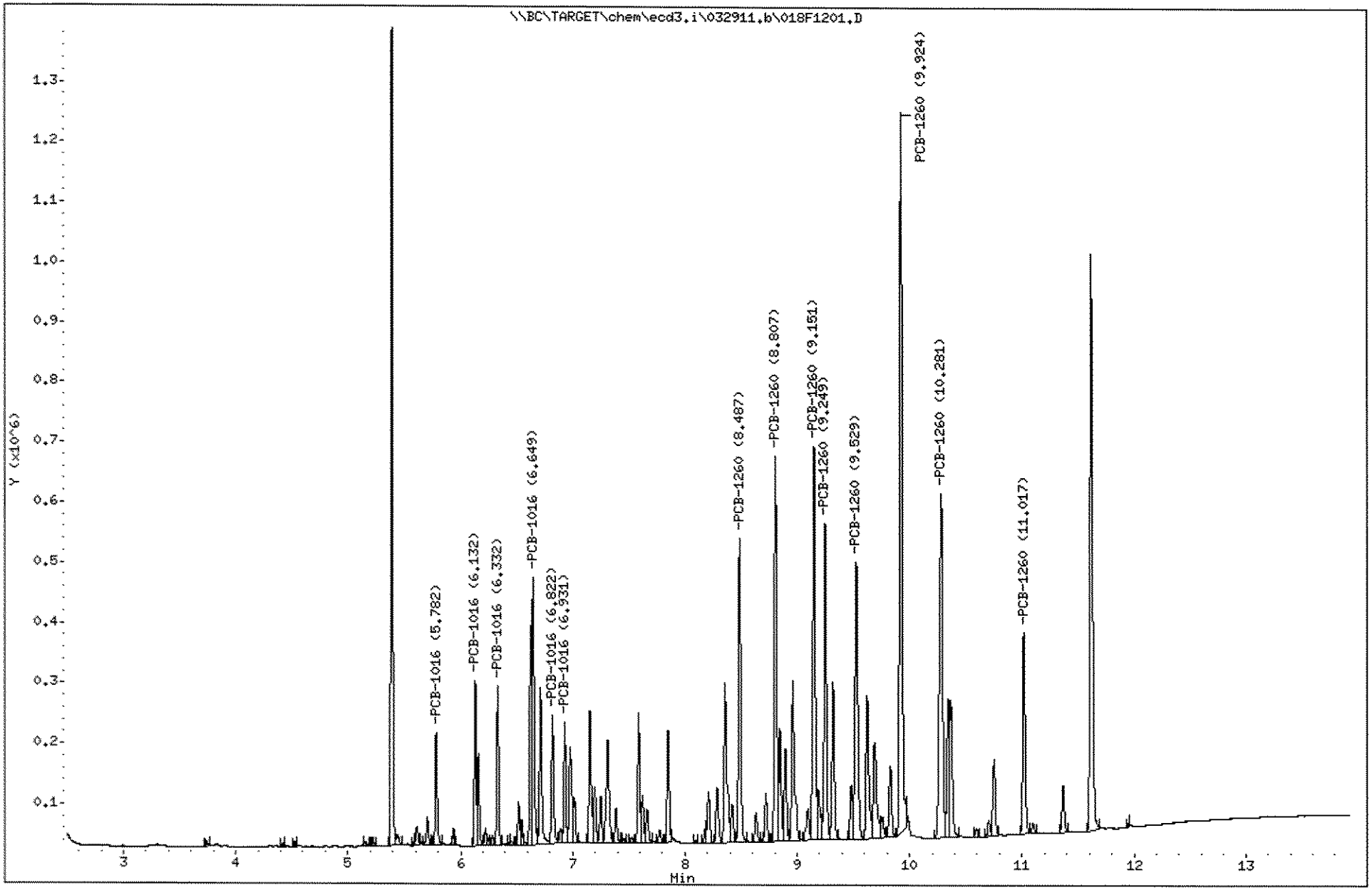
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016					CAS #: 12674-11-2		
6.648	6.649	(-0.001)	599255	500.000	492.3	80.00- 120.00	100.00
5.782	5.784	(-0.002)	215574	500.000	505.8	28.78- 43.17	35.97
6.132	6.132	(0.000)	309113	500.000	488.5	41.27- 61.90	51.58
6.332	6.334	(-0.002)	301812	500.000	486.6	40.29- 60.44	50.36
6.822	6.824	(-0.002)	296816			39.62- 59.44	49.53
6.930	6.932	(-0.002)	239924	500.000	520.2	32.03- 48.04	40.04
		Average of Peak Amounts =			498.7		
35 PCB-1260					CAS #: 11096-82-5		
9.923	9.922	(0.001)	1896601	500.000	500.6	80.00- 120.00	100.00
8.487	8.487	(0.000)	718288			30.30- 45.45	37.87
8.807	8.807	(0.000)	916557	500.000	576.5	38.66- 57.99	48.33
9.150	9.154	(-0.004)	1013007	500.000	527.4	42.73- 64.09	53.41
9.248	9.251	(-0.003)	745524	500.000	508.7	31.45- 47.17	39.31
9.528	9.527	(0.001)	820975			34.63- 51.94	43.29
10.280	10.281	(-0.001)	1114991			47.03- 70.55	58.79
11.017	11.019	(-0.002)	489791	500.000	536.5	20.66- 30.99	25.82
		Average of Peak Amounts =			530		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\018F1201.D
Date : 28-MAR-2011 17:34
Client ID:
Sample Info: SEQ-CALB

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



JH 3-29-11
JLG 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\019F1301.D
Lab Smp Id: SEQ-CALC
Inj Date : 28-MAR-2011 17:53
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 19 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

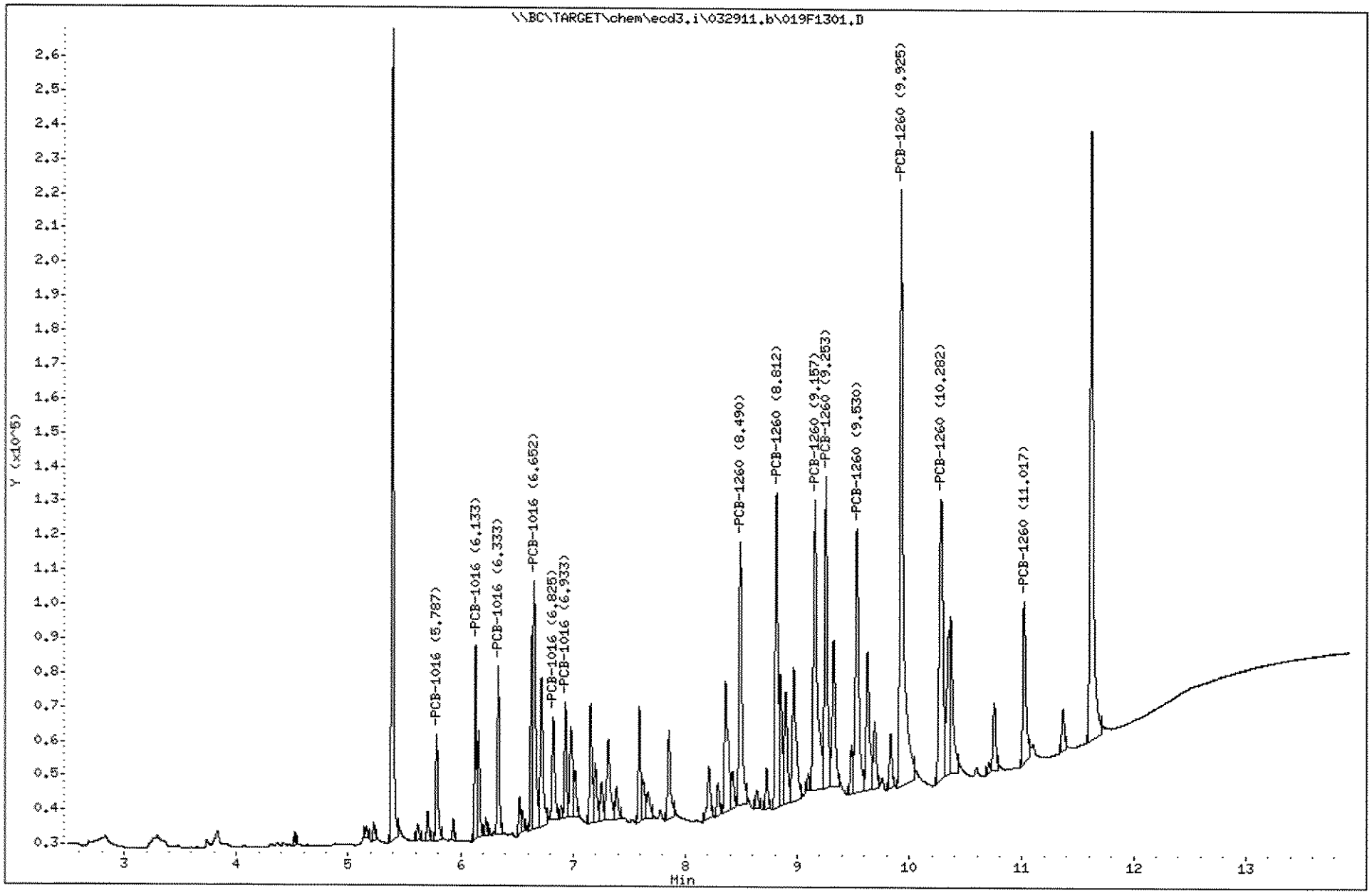
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016					CAS #: 12674-11-2		
6.651	6.649	(0.002)	122614	100.000	100.7	80.00- 120.00	100.00
5.786	5.784	(0.002)	45311	100.000	106.3	29.56- 44.35	36.95
6.133	6.132	(0.001)	67268	100.000	106.3	43.89- 65.83	54.86
6.333	6.334	(-0.001)	63110	100.000	101.8	41.18- 61.76	51.47
6.825	6.824	(0.001)	52140			34.02- 51.03	42.52
6.933	6.932	(0.001)	43424	100.000	94.15	28.33- 42.50	35.42
		Average of Peak Amounts =			101.9		
35 PCB-1260					CAS #: 11096-82-5		
9.925	9.922	(0.003)	381102	100.000	100.6	80.00- 120.00	100.00
8.490	8.487	(0.003)	140502			29.49- 44.24	36.87
8.811	8.807	(0.004)	150404	100.000	94.61	31.57- 47.36	39.47
9.156	9.154	(0.002)	203216	100.000	105.8	42.66- 63.99	53.32
9.253	9.251	(0.002)	158343	100.000	108.0	33.24- 49.86	41.55
9.530	9.527	(0.003)	164969			34.63- 51.94	43.29
10.281	10.281	(0.000)	194127			40.75- 61.13	50.94
11.016	11.019	(-0.003)	89647	100.000	98.20	18.82- 28.23	23.52
		Average of Peak Amounts =			101.4		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\019F1301.D
Date : 28-MAR-2011 17:53
Client ID:
Sample Info: SEQ-CALC

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



JH 3.29.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

JLB 4.1.11

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\020F1401.D
Lab Smp Id: SEQ-CALD
Inj Date : 28-MAR-2011 18:11
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALD
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 20 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

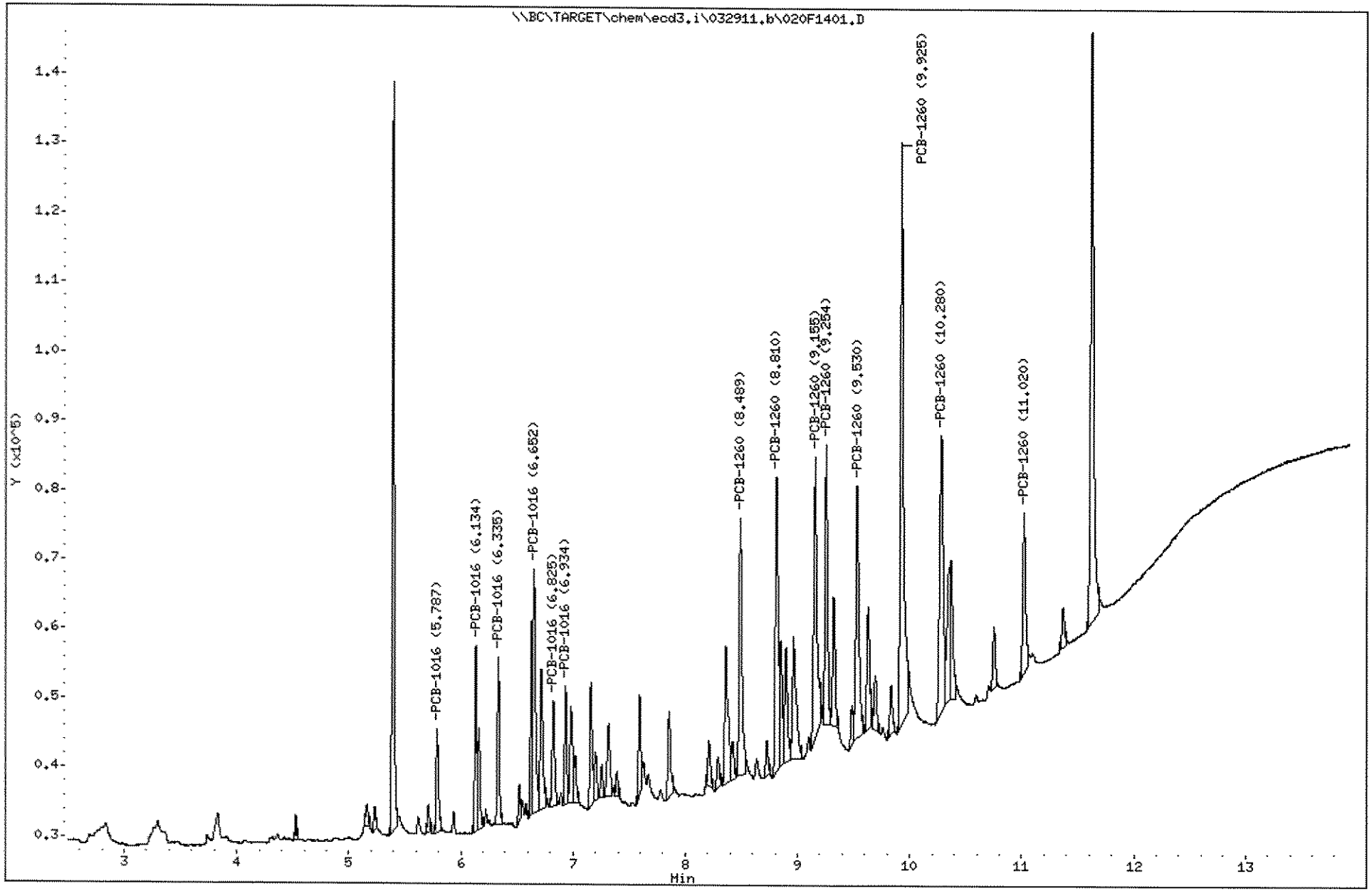
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016						CAS #: 12674-11-2		
6.651	6.649	(0.002)	60452	50.0000	49.67	80.00-	120.00	100.00
5.786	5.784	(0.002)	21383	50.0000	50.17	28.30-	42.45	35.37
6.133	6.132	(0.001)	33114	50.0000	52.33	43.82-	65.73	54.78
6.335	6.334	(0.001)	30899	50.0000	49.82	40.89-	61.34	51.11
6.825	6.824	(0.001)	24673			32.65-	48.98	40.81
6.933	6.932	(0.001)	21773	50.0000	47.20	28.81-	43.22	36.02
		Average of Peak Amounts =			49.84			
35 PCB-1260						CAS #: 11096-82-5		
9.925	9.922	(0.003)	160861	50.0000	42.46	80.00-	120.00	100.00
8.488	8.487	(0.001)	68346			33.99-	50.99	42.49
8.810	8.807	(0.003)	73104	50.0000	45.98	36.36-	54.53	45.45
9.155	9.154	(0.001)	78716	50.0000	40.98	39.15-	58.72	48.93
9.253	9.251	(0.002)	63570	50.0000	43.38	31.61-	47.42	39.52
9.530	9.527	(0.003)	71386			35.50-	53.25	44.38
10.280	10.281	(-0.001)	89983			44.75-	67.13	55.94
11.020	11.019	(0.001)	40254	50.0000	44.10	20.02-	30.03	25.02
		Average of Peak Amounts =			43.38			

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\020F1401.D
Date : 28-MAR-2011 18:11
Client ID:
Sample Info: SEQ-CALD

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



3.29.11

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ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

JLG 4.1.11

Instrument ID: ecd3.i
Lab File ID: 021F1501.D
Analysis Type:
Lab Sample ID: SEQ-ICV2
Method: \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m

Injection Date: 28-MAR-2011 18:30
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1217	1270	0.010	4.4	20.0	
(2)	426	433	0.010	1.5	20.0	
(3)	633	628	0.010	-0.7	20.0	
(4)	620	637	0.010	2.7	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	461	486	0.010	5.3	20.0	
35 PCB-1260(1)	3788	4058	0.010	7.1	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1590	1574	0.010	-1.0	20.0	
(4)	1921	1838	0.010	-4.3	20.0	
(5)	1466	1596	0.010	8.9	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	913	945	0.010	3.5	20.0	

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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\021F1501.D
Lab Smp Id: SEQ-ICV2
Inj Date : 28-MAR-2011 18:30
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82F.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

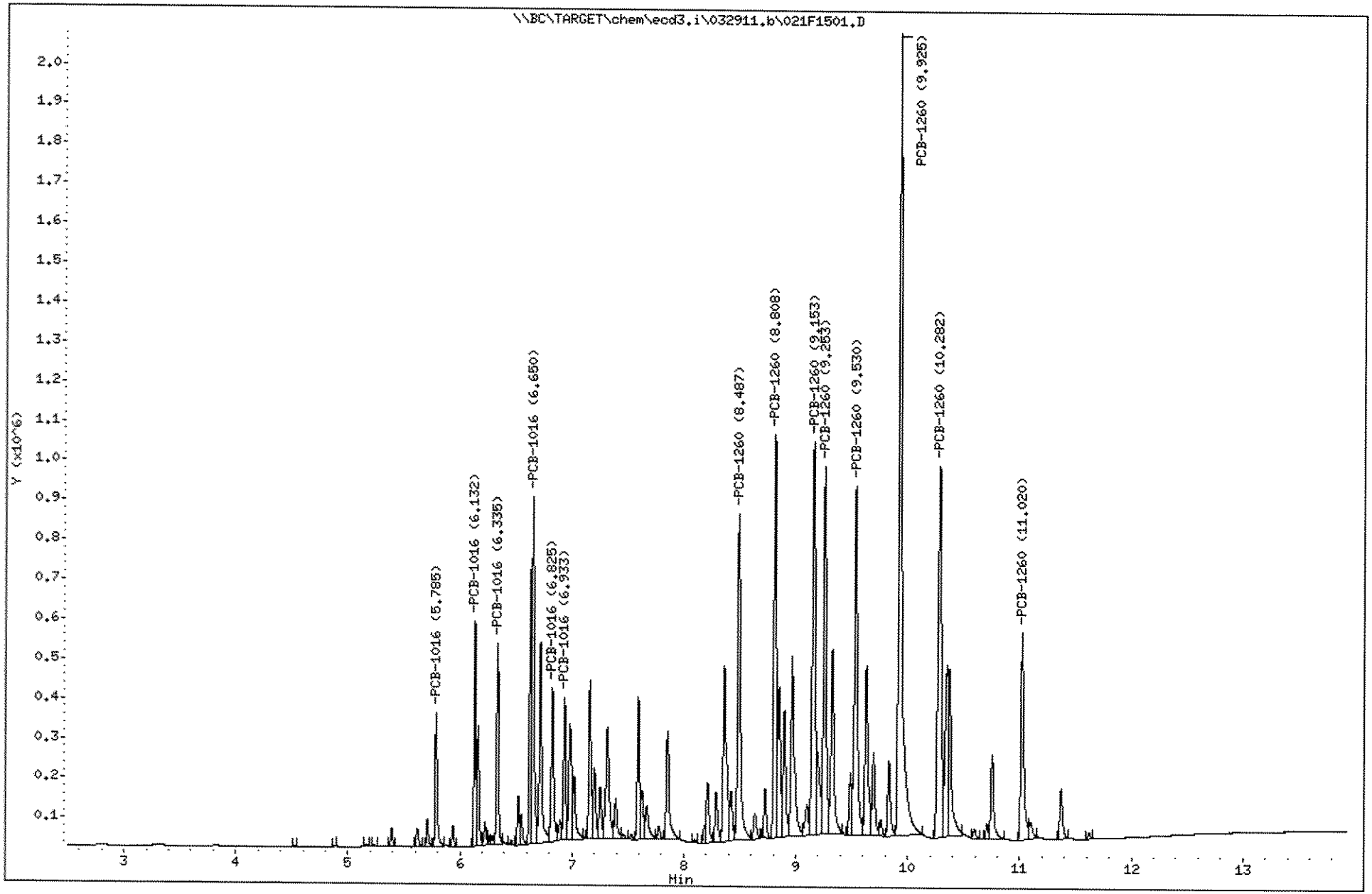
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.650	6.649	(0.001)	1270258	1000.00 X	1044	80.00- 120.00	100.00
5.785	5.784	(0.001)	432582	1000.00	1015	27.24- 40.87	34.05
6.131	6.132	(-0.001)	628034	1000.00	992.5	39.55- 59.33	49.44
6.335	6.334	(0.001)	637274	1000.00	1027	40.14- 60.20	50.17
6.825	6.824	(0.001)	635341			40.01- 60.02	50.02
6.933	6.932	(0.001)	485738	1000.00	1053	30.59- 45.89	38.24
		Average of Peak Amounts =			1026		
35 PCB-1260					CAS #: 11096-82-5		
9.925	9.922	(0.003)	4058323	1000.00	1071	80.00- 120.00	100.00
8.486	8.487	(-0.001)	1505046			29.67- 44.50	37.09
8.808	8.807	(0.001)	1573705	1000.00	989.9	31.02- 46.53	38.78
9.153	9.154	(-0.001)	1837906	1000.00	956.8	36.23- 54.34	45.29
9.253	9.251	(0.002)	1596205	1000.00	1089	31.47- 47.20	39.33
9.530	9.527	(0.003)	1643163			32.39- 48.59	40.49
10.281	10.281	(0.000)	2046453			40.34- 60.51	50.43
11.020	11.019	(0.001)	944515	1000.00	1035	18.62- 27.93	23.27
		Average of Peak Amounts =			1028		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\021F1501.D
Date : 28-MAR-2011 18:30
Client ID:
Sample Info: SEQ-ICV2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



3.29.11 JH

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\007R0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 28-MAR-2011 14:09
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

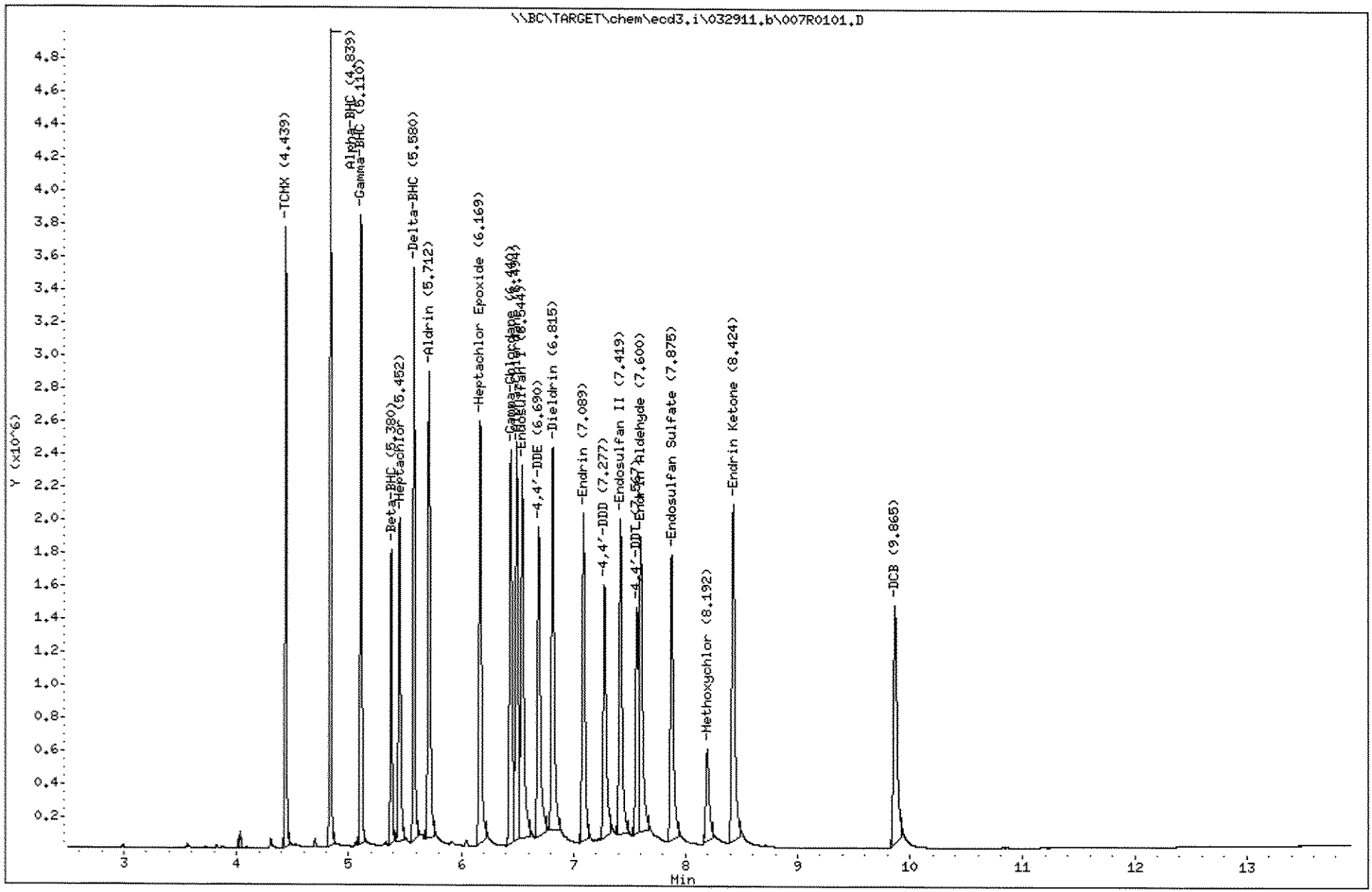
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.438	4.438	0.000	3589731	200.000	170.0
3 Alpha-BHC [2C]	4.838	4.836	0.002	4896517	200.000	177.5
23 Gamma-BHC [2C]	5.110	5.110	0.000	4059487	200.000	182.9
5 Beta-BHC [2C]	5.380	5.378	0.002	1868957	200.000	169.0
25 Heptachlor [2C]	5.451	5.451	0.000	2722081	200.000	185.0
15 Delta-BHC [2C]	5.580	5.578	0.002	3950756	200.000	188.1
2 Aldrin [2C]	5.711	5.710	0.001	4112518	200.000	173.1
26 Heptachlor Epoxide [2C]	6.168	6.166	0.002	3831902	200.000	173.5
24 Gamma-Chlordane [2C]	6.440	6.438	0.002	3695996	200.000	188.8
4 Alpha-Chlordane [2C]	6.493	6.491	0.002	3782059	200.000	179.9
17 Endosulfan I [2C]	6.543	6.541	0.002	4060932	200.000	170.6
13 4,4'-DDE [2C]	6.690	6.685	0.005	3378521	200.000	213.5(A)
16 Dieldrin [2C]	6.815	6.813	0.002	4048126	200.000	176.6
20 Endrin [2C]	7.088	7.086	0.002	3324707	200.000	180.1
12 4,4'-DDD [2C]	7.276	7.275	0.001	2855233	200.000	224.9(A)
18 Endosulfan II [2C]	7.418	7.416	0.002	3454473	200.000	188.7
14 4,4'-DDT [2C]	7.566	7.563	0.003	2198842	200.000	204.8(A)
21 Endrin Aldehyde [2C]	7.600	7.598	0.002	3553760	200.000	181.2
19 Endosulfan Sulfate [2C]	7.875	7.873	0.002	3154666	200.000	199.6
27 Methoxychlor [2C]	8.191	8.195	-0.004	1131993	200.000	203.7(A)
22 Endrin Ketone [2C]	8.423	8.421	0.002	3889206	200.000	187.4
$ 39 DCB [2C]	9.865	9.865	0.000	3092044	200.000	169.6

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\007R0101.D
Date : 28-MAR-2011 14:09
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



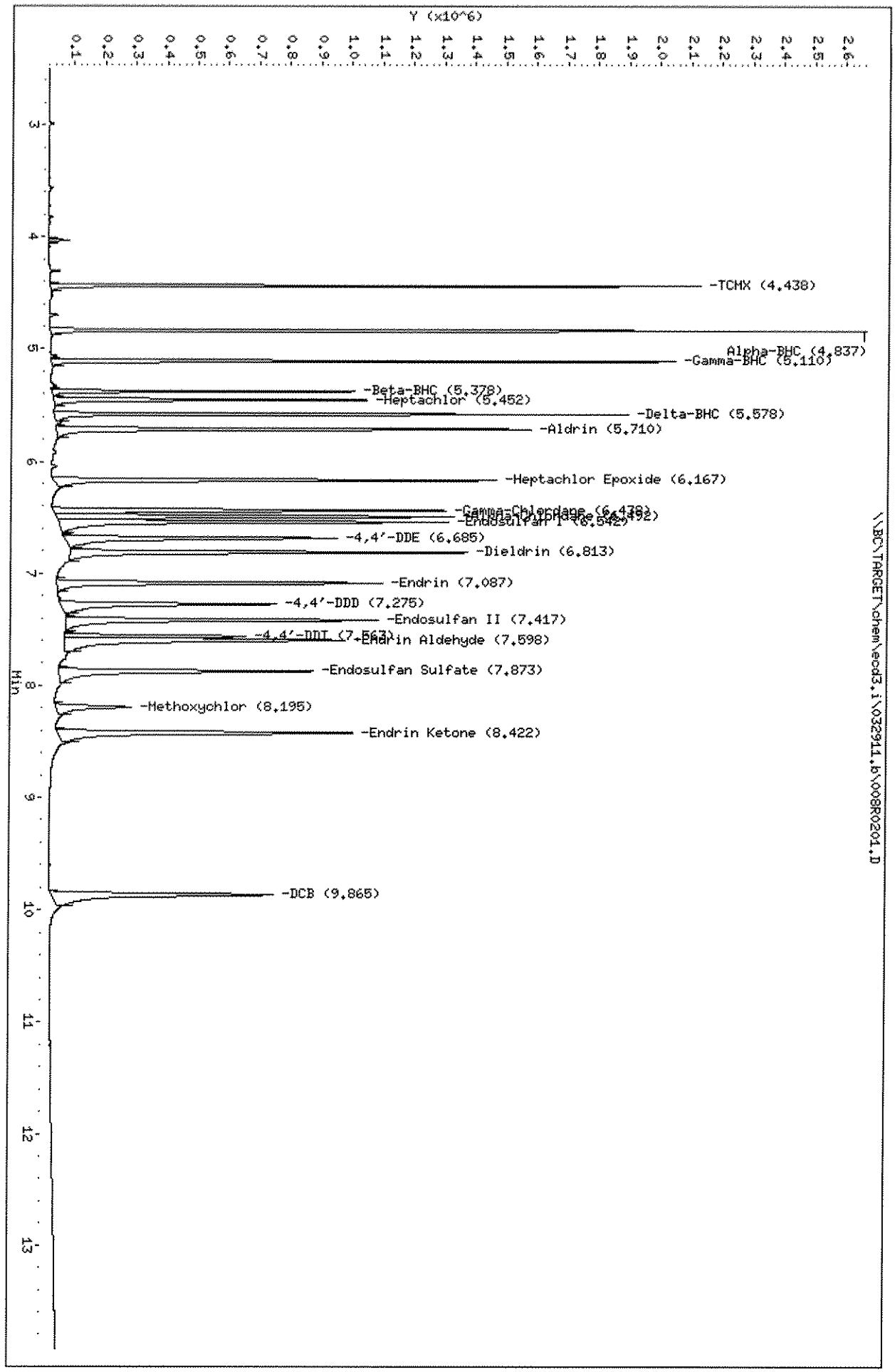
J.H. 3.29.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\008R0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 28-MAR-2011 14:28
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.438	4.438	0.000	1955793	100.000	92.64
3 Alpha-BHC [2C]	4.836	4.836	0.000	2635084	100.000	95.53
23 Gamma-BHC [2C]	5.110	5.110	0.000	2141482	100.000	96.50
5 Beta-BHC [2C]	5.378	5.378	0.000	1024023	100.000	92.60
25 Heptachlor [2C]	5.451	5.451	0.000	1360089	100.000	92.42
15 Delta-BHC [2C]	5.578	5.578	0.000	2126709	100.000	101.2
2 Aldrin [2C]	5.710	5.710	0.000	2286794	100.000	96.26
26 Heptachlor Epoxide [2C]	6.166	6.166	0.000	2082930	100.000	94.32
24 Gamma-Chlordane [2C]	6.438	6.438	0.000	1988337	100.000	101.6
4 Alpha-Chlordane [2C]	6.491	6.491	0.000	2024193	100.000	96.27
17 Endosulfan I [2C]	6.541	6.541	0.000	2236431	100.000	93.95
13 4,4'-DDE [2C]	6.685	6.685	0.000	1611016	100.000	101.8
16 Dieldrin [2C]	6.813	6.813	0.000	2156702	100.000	94.11
20 Endrin [2C]	7.086	7.086	0.000	1778239	100.000	96.32
12 4,4'-DDD [2C]	7.275	7.275	0.000	1386351	100.000	109.2
18 Endosulfan II [2C]	7.416	7.416	0.000	1827110	100.000	99.79
14 4,4'-DDT [2C]	7.563	7.563	0.000	945525	100.000	90.51
21 Endrin Aldehyde [2C]	7.598	7.598	0.000	2020078	100.000	103.0
19 Endosulfan Sulfate [2C]	7.873	7.873	0.000	1649858	100.000	104.4
27 Methoxychlor [2C]	8.195	8.195	0.000	532446	100.000	95.81
22 Endrin Ketone [2C]	8.421	8.421	0.000	1971988	100.000	95.01
$ 39 DCB [2C]	9.865	9.865	0.000	1717418	100.000	94.21



Data File: \BC\TARGET\chem\ecd3.i\032911.b\008R0201.D
Date : 28-MAR-2011 14:28
Client ID:
Sample Info: SEQ-CAL2
Column phase: ZB MR-2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

JH 3.29.11

Empirical Laboratories, LLC

JLG 4.1.11

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\009R0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 28-MAR-2011 14:46
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

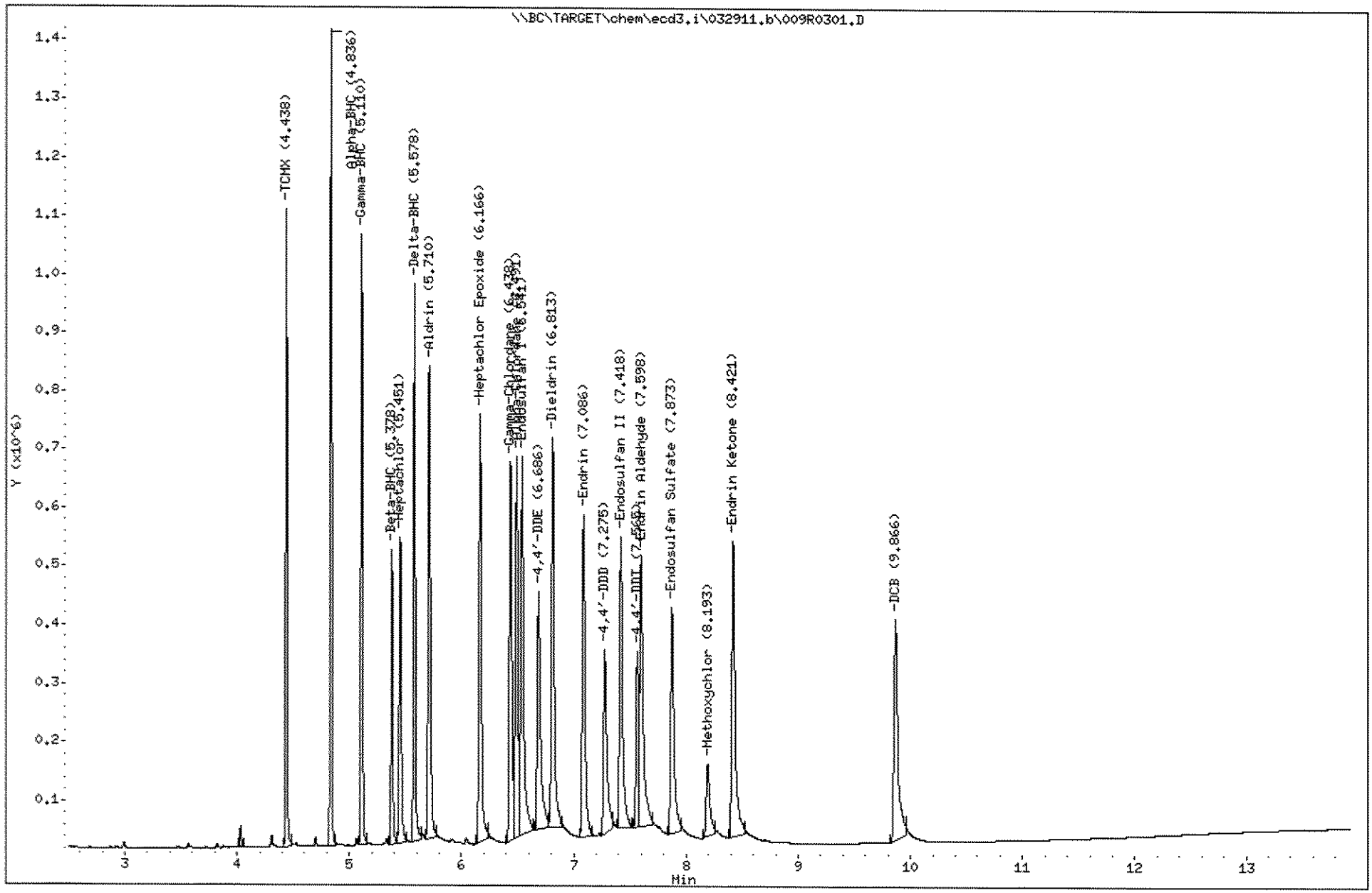
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)
$ 38 TCMX [2C]	4.438	4.438	0.000	1022481	50.0000	48.43
3 Alpha-BHC [2C]	4.836	4.836	0.000	1370932	50.0000	49.70
23 Gamma-BHC [2C]	5.109	5.110	-0.001	1092619	50.0000	49.24
5 Beta-BHC [2C]	5.378	5.378	0.000	529196	50.0000	47.85
25 Heptachlor [2C]	5.451	5.451	0.000	700310	50.0000	47.59
15 Delta-BHC [2C]	5.578	5.578	0.000	1072810	50.0000	51.07
2 Aldrin [2C]	5.709	5.710	-0.001	1179114	50.0000	49.64
26 Heptachlor Epoxide [2C]	6.166	6.166	0.000	1083892	50.0000	49.08
24 Gamma-Chlordane [2C]	6.438	6.438	0.000	993963	50.0000	50.79
4 Alpha-Chlordane [2C]	6.491	6.491	0.000	1050622	50.0000	49.97
17 Endosulfan I [2C]	6.541	6.541	0.000	1155524	50.0000	48.54
13 4,4'-DDE [2C]	6.686	6.685	0.001	812298	50.0000	51.32
16 Dieldrin [2C]	6.813	6.813	0.000	1154274	50.0000	50.37
20 Endrin [2C]	7.086	7.086	0.000	939296	50.0000	50.88
12 4,4'-DDD [2C]	7.274	7.275	-0.001	647792	50.0000	51.02
18 Endosulfan II [2C]	7.418	7.416	0.002	932972	50.0000	50.95
14 4,4'-DDT [2C]	7.564	7.563	0.001	453542	50.0000	45.64
21 Endrin Aldehyde [2C]	7.598	7.598	0.000	982261	50.0000	50.07
19 Endosulfan Sulfate [2C]	7.873	7.873	0.000	797221	50.0000	50.43
27 Methoxychlor [2C]	8.193	8.195	-0.002	289212	50.0000	52.04
22 Endrin Ketone [2C]	8.421	8.421	0.000	1046698	50.0000	50.43
$ 39 DCB [2C]	9.866	9.865	0.001	908495	50.0000	49.84

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\009R0301.D
Date : 28-MAR-2011 14:46
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\010R0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 28-MAR-2011 15:05
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:03 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 10 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

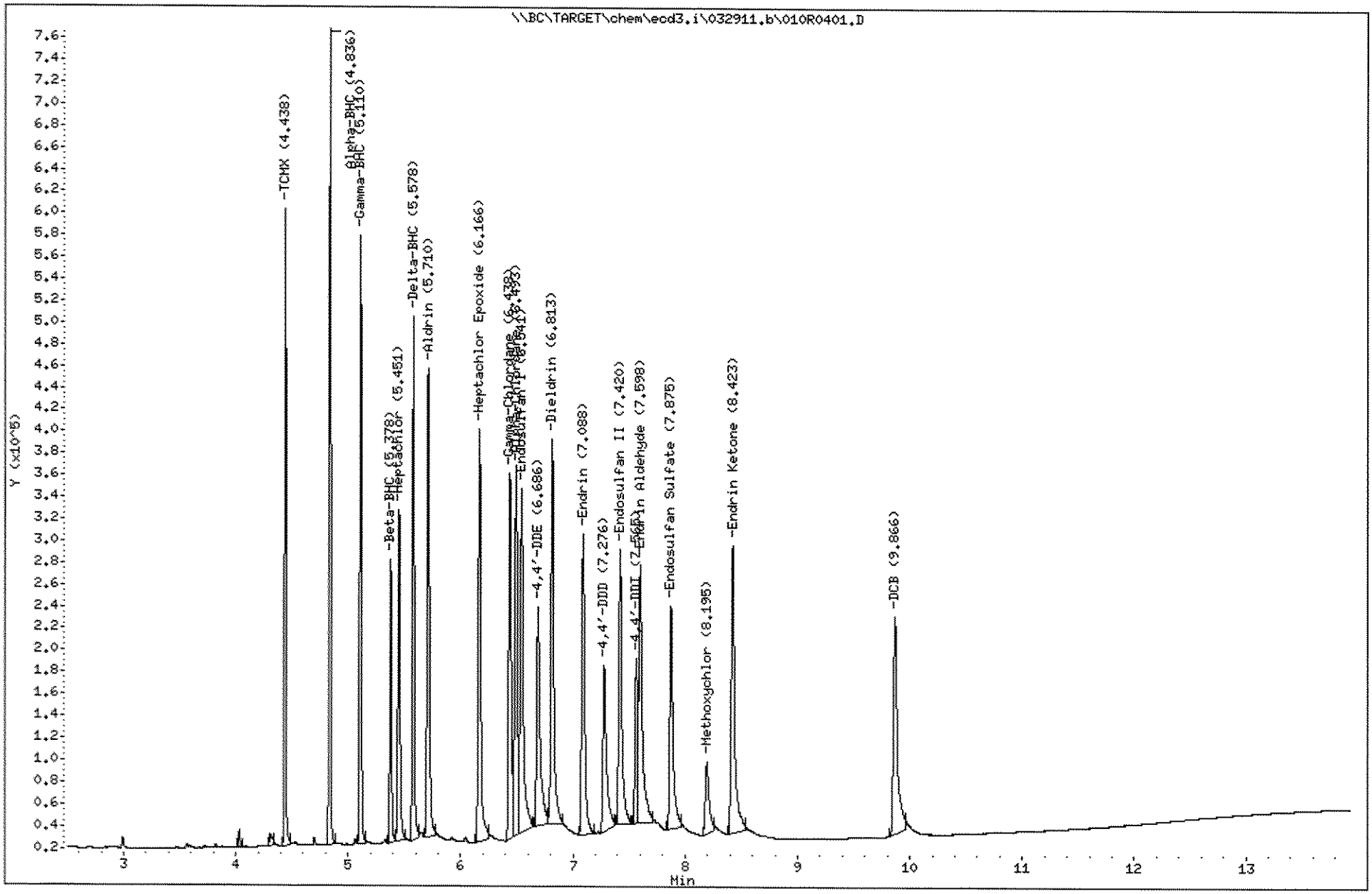
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.437	4.438	-0.001	540144	25.0000	25.58
3 Alpha-BHC [2C]	4.836	4.836	0.000	721997	25.0000	26.17
23 Gamma-BHC [2C]	5.109	5.110	-0.001	578276	25.0000	26.06
5 Beta-BHC [2C]	5.377	5.378	-0.001	276624	25.0000	25.01
25 Heptachlor [2C]	5.451	5.451	0.000	398068	25.0000	27.05
15 Delta-BHC [2C]	5.577	5.578	-0.001	552679	25.0000	26.31
2 Aldrin [2C]	5.709	5.710	-0.001	618987	25.0000	26.06
26 Heptachlor Epoxide [2C]	6.166	6.166	0.000	582335	25.0000	26.37
24 Gamma-Chlordane [2C]	6.437	6.438	-0.001	507892	25.0000	25.95
4 Alpha-Chlordane [2C]	6.492	6.491	0.001	546921	25.0000	26.01
17 Endosulfan I [2C]	6.541	6.541	0.000	615848	25.0000	25.87
13 4,4'-DDE [2C]	6.686	6.685	0.001	405478	25.0000	25.62
16 Dieldrin [2C]	6.812	6.813	-0.001	605860	25.0000	26.44
20 Endrin [2C]	7.087	7.086	0.001	500943	25.0000	27.14
12 4,4'-DDD [2C]	7.276	7.275	0.001	335345	25.0000	26.41
18 Endosulfan II [2C]	7.419	7.416	0.003	485306	25.0000	26.50
14 4,4'-DDT [2C]	7.564	7.563	0.001	234389	25.0000	25.66
21 Endrin Aldehyde [2C]	7.597	7.598	-0.001	511615	25.0000	26.08
19 Endosulfan Sulfate [2C]	7.874	7.873	0.001	413477	25.0000	26.16
27 Methoxychlor [2C]	8.194	8.195	-0.001	154967	25.0000	27.88
22 Endrin Ketone [2C]	8.422	8.421	0.001	564380	25.0000	27.19
$ 39 DCB [2C]	9.866	9.865	0.001	490250	25.0000	26.89

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\010R0401.D
Date : 28-MAR-2011 15:05
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 3.29.11

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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\011R0501.D
Lab Smp Id: SEQ-CAL5
Inj Date : 28-MAR-2011 15:24
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 11 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

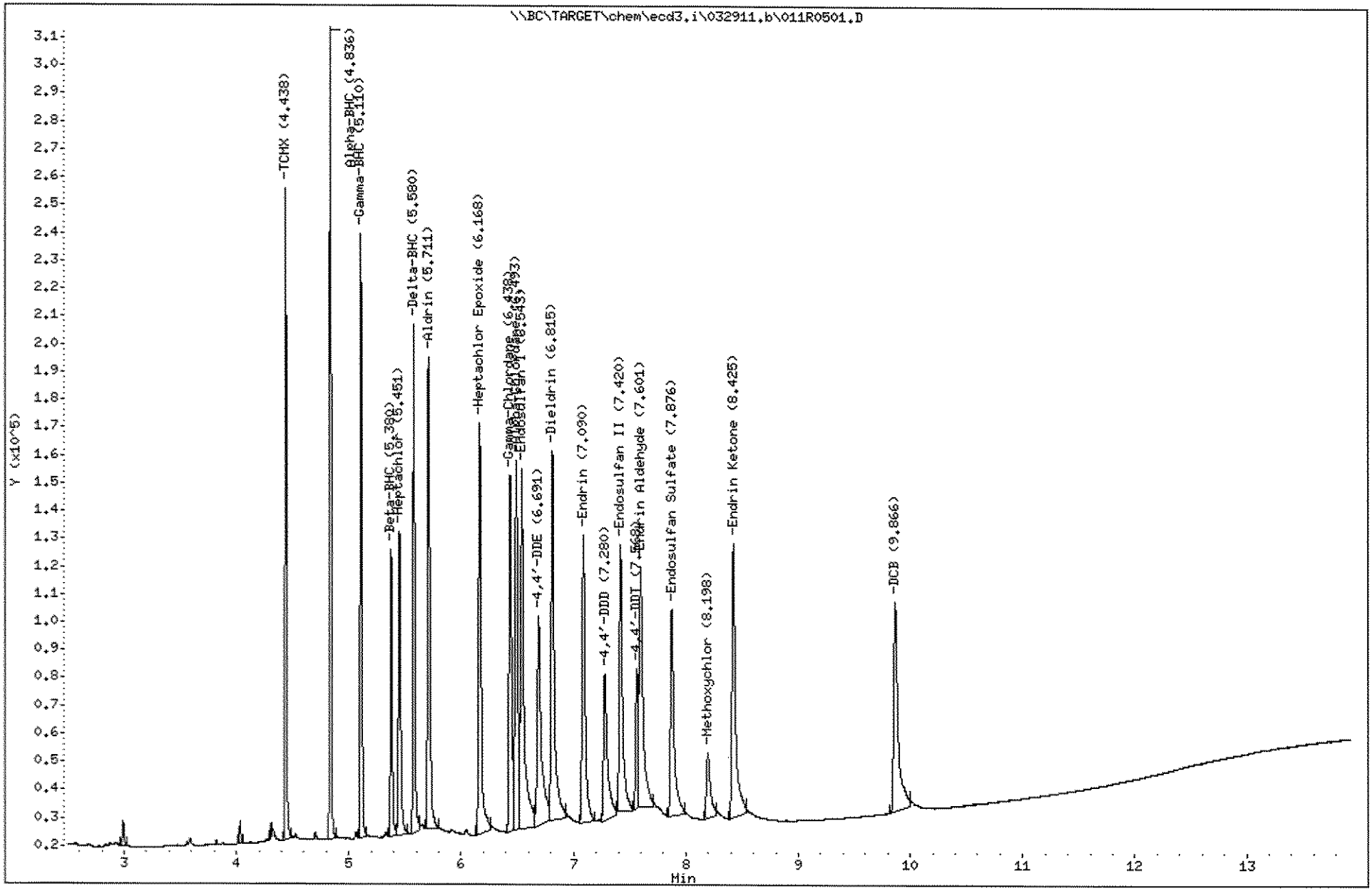
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.437	4.438	-0.001	219314	10.0000	10.39
3 Alpha-BHC [2C]	4.836	4.836	0.000	286839	10.0000	10.40
23 Gamma-BHC [2C]	5.109	5.110	-0.001	226086	10.0000	10.19
5 Beta-BHC [2C]	5.379	5.378	0.001	112911	10.0000	10.21
25 Heptachlor [2C]	5.451	5.451	0.000	149877	10.0000	10.18
15 Delta-BHC [2C]	5.579	5.578	0.001	211469	10.0000	10.07
2 Aldrin [2C]	5.711	5.710	0.001	247323	10.0000	10.41
26 Heptachlor Epoxide [2C]	6.167	6.166	0.001	234719	10.0000	10.63
24 Gamma-Chlordane [2C]	6.437	6.438	-0.001	197959	10.0000	10.12
4 Alpha-Chlordane [2C]	6.492	6.491	0.001	219683	10.0000	10.45
17 Endosulfan I [2C]	6.542	6.541	0.001	275409	10.0000	11.57
13 4,4'-DDE [2C]	6.691	6.685	0.006	183690	10.0000	11.60
16 Dieldrin [2C]	6.814	6.813	0.001	263103	10.0000	11.48
20 Endrin [2C]	7.089	7.086	0.003	193130	10.0000	10.46
12 4,4'-DDD [2C]	7.279	7.275	0.004	126792	10.0000	9.987
18 Endosulfan II [2C]	7.419	7.416	0.003	189653	10.0000	10.36
14 4,4'-DDT [2C]	7.567	7.563	0.004	78977	10.0000	11.49
21 Endrin Aldehyde [2C]	7.601	7.598	0.003	197697	10.0000	10.08
19 Endosulfan Sulfate [2C]	7.876	7.873	0.003	163202	10.0000	10.32
27 Methoxychlor [2C]	8.197	8.195	0.002	58608	10.0000	10.55
22 Endrin Ketone [2C]	8.424	8.421	0.003	215940	10.0000	10.40
$ 39 DCB [2C]	9.866	9.865	0.001	203072	10.0000	11.14

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\011R0501.D
Date : 28-MAR-2011 15:24
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\012R0601.D
Lab Smp Id: SEQ-CAL6
Inj Date : 28-MAR-2011 15:42
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

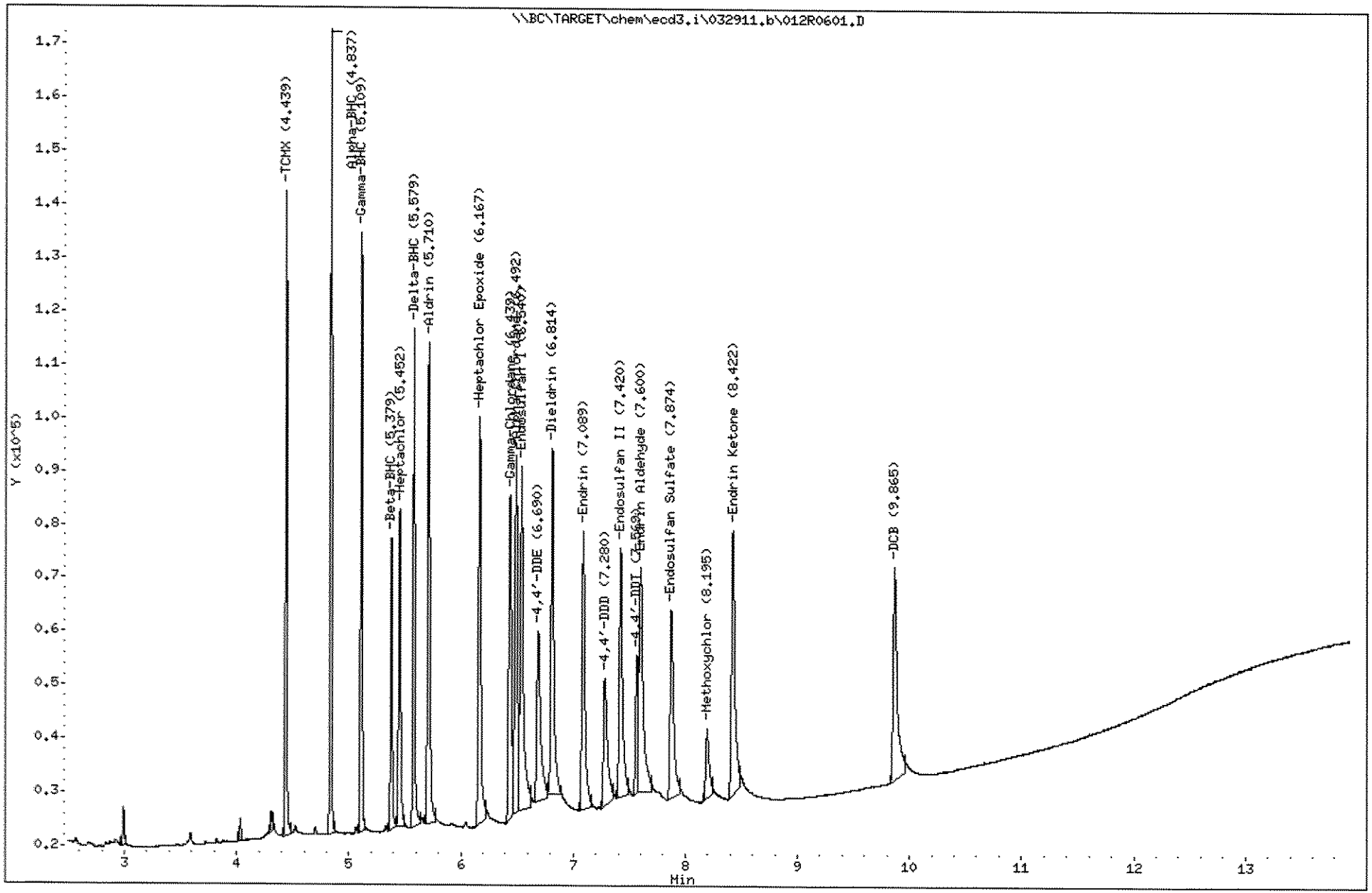
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.438	4.438	0.000	114312	5.00000	5.415
3 Alpha-BHC [2C]	4.837	4.836	0.001	146260	5.00000	5.302
23 Gamma-BHC [2C]	5.108	5.110	-0.002	116173	5.00000	5.235
5 Beta-BHC [2C]	5.378	5.378	0.000	59039	5.00000	5.338
25 Heptachlor [2C]	5.452	5.451	0.001	76766	5.00000	5.216
15 Delta-BHC [2C]	5.578	5.578	0.000	106683	5.00000	5.078
2 Aldrin [2C]	5.710	5.710	0.000	126537	5.00000	5.327
26 Heptachlor Epoxide [2C]	6.167	6.166	0.001	115182	5.00000	5.216
24 Gamma-Chlordane [2C]	6.438	6.438	0.000	99195	5.00000	5.069
4 Alpha-Chlordane [2C]	6.492	6.491	0.001	109467	5.00000	5.206
17 Endosulfan I [2C]	6.540	6.541	-0.001	126247	5.00000	5.304
13 4,4'-DDE [2C]	6.690	6.685	0.005	73058	5.00000	4.616
16 Dieldrin [2C]	6.813	6.813	0.000	114122	5.00000	4.980
20 Endrin [2C]	7.088	7.086	0.002	94607	5.00000	5.125
12 4,4'-DDD [2C]	7.280	7.275	0.005	58944	5.00000	4.643
18 Endosulfan II [2C]	7.420	7.416	0.004	93502	5.00000	5.106
14 4,4'-DDT [2C]	7.568	7.563	0.005	40442	5.00000	7.976
21 Endrin Aldehyde [2C]	7.600	7.598	0.002	103320	5.00000	5.267
19 Endosulfan Sulfate [2C]	7.873	7.873	0.000	76945	5.00000	4.868
27 Methoxychlor [2C]	8.195	8.195	0.000	27197	5.00000	4.894
22 Endrin Ketone [2C]	8.422	8.421	0.001	103521	5.00000	4.988
$ 39 DCB [2C]	9.865	9.865	0.000	99537	5.00000	5.460

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\012R0601.D
Date : 28-MAR-2011 15:42
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



JH 3.29.11

JH 4.1.11

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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\013R0701.D
Lab Smp Id: SEQ-CAL7
Inj Date : 28-MAR-2011 16:01
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;indabd.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 13 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indabd.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

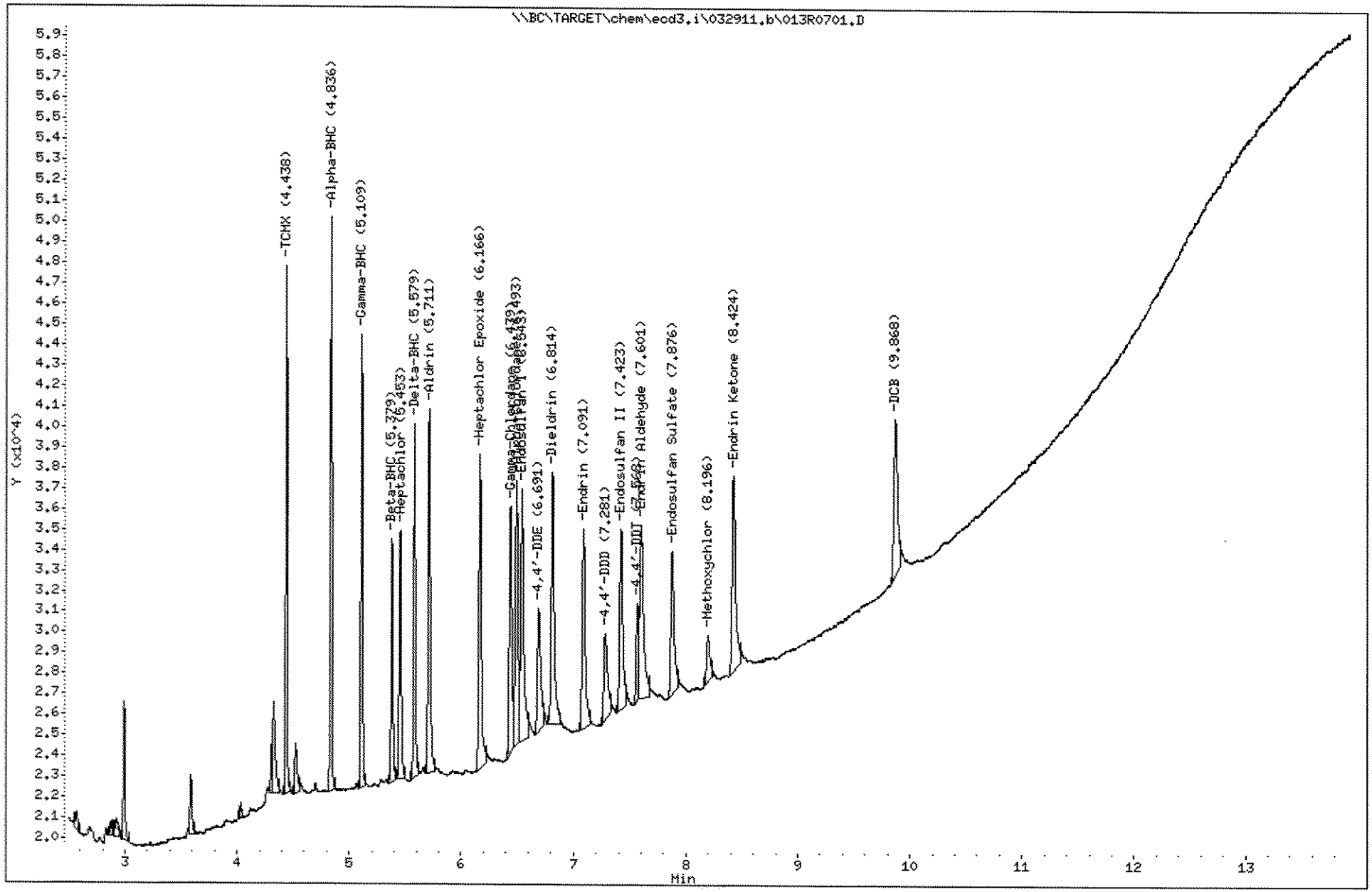
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.437	4.438	-0.001	23425	1.00000	1.110
3 Alpha-BHC [2C]	4.836	4.836	0.000	28026	1.00000	1.016
23 Gamma-BHC [2C]	5.109	5.110	-0.001	22803	1.00000	1.028
5 Beta-BHC [2C]	5.379	5.378	0.001	13081	1.00000	1.183
25 Heptachlor [2C]	5.452	5.451	0.001	15532	1.00000	1.055
15 Delta-BHC [2C]	5.579	5.578	0.001	19981	1.00000	0.9512
2 Aldrin [2C]	5.711	5.710	0.001	24476	1.00000	1.030
26 Heptachlor Epoxide [2C]	6.166	6.166	0.000	23116	1.00000	1.047
24 Gamma-Chlordane [2C]	6.439	6.438	0.001	18798	1.00000	0.9605
4 Alpha-Chlordane [2C]	6.492	6.491	0.001	21280	1.00000	1.012
17 Endosulfan I [2C]	6.542	6.541	0.001	23419	1.00000	0.9838
13 4,4'-DDE [2C]	6.691	6.685	0.006	12343	1.00000	0.7798
16 Dieldrin [2C]	6.814	6.813	0.001	22148	1.00000	0.9665
20 Endrin [2C]	7.091	7.086	0.005	17764	1.00000	0.9622
12 4,4'-DDD [2C]	7.281	7.275	0.006	9896	1.00000	0.7794
18 Endosulfan II [2C]	7.422	7.416	0.006	16891	1.00000	0.9225
14 4,4'-DDT [2C]	7.567	7.563	0.004	7057	1.00000	4.932
21 Endrin Aldehyde [2C]	7.601	7.598	0.003	18809	1.00000	0.9588
19 Endosulfan Sulfate [2C]	7.876	7.873	0.003	14187	1.00000	0.8975
27 Methoxychlor [2C]	8.196	8.195	0.001	4634	1.00000	0.8338
22 Endrin Ketone [2C]	8.424	8.421	0.003	20315	1.00000	0.9788
$ 39 DCB [2C]	9.867	9.865	0.002	16979	1.00000	0.9314

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\013R0701.D
Date : 28-MAR-2011 16:01
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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JLG 4.1.11

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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\015R0901.D
Lab Smp Id: SEQ-CAL8
Inj Date : 28-MAR-2011 16:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL8
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:04 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 15 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET	RANGE	RATIO
29 PCB-1016 [2C]						CAS #: 12674-11-2		
5.454	5.453	(0.001)	1802171	2500.00	2380	80.00-	120.00	100.00
4.764	4.763	(0.001)	725694			32.21-	48.32	40.27
5.037	5.037	(0.000)	1157077	2500.00	2232	51.36-	77.05	64.20
5.202	5.202	(0.000)	1162023	2500.00	2328	51.58-	77.37	64.48
5.492	5.493	(-0.001)	1382222	2500.00	2408	61.36-	92.04	76.70
5.704	5.703	(0.001)	977227	2500.00	2475	43.38-	65.07	54.22
		Average of Peak Amounts =			2365			
35 PCB-1260 [2C]						CAS #: 11096-82-5		
8.235	8.235	(0.000)	4932801	2500.00	2605	80.00-	120.00	100.00(A)
6.975	6.978	(-0.003)	2460617	2500.00	2620	39.91-	59.86	49.88
7.219	7.220	(-0.001)	2963467	2500.00	2648	48.06-	72.09	60.08
7.369	7.370	(-0.001)	2128190	2500.00	2680	34.51-	51.77	43.14
7.635	7.633	(0.002)	2599424			42.16-	63.24	52.70
7.917	7.917	(0.000)	2382560	2500.00	2585	38.64-	57.96	48.30
8.617	8.617	(0.000)	1774592			28.78-	43.17	35.98
9.262	9.262	(0.000)	1333684			21.63-	32.44	27.04
		Average of Peak Amounts =			2628			

QC Flag Legend

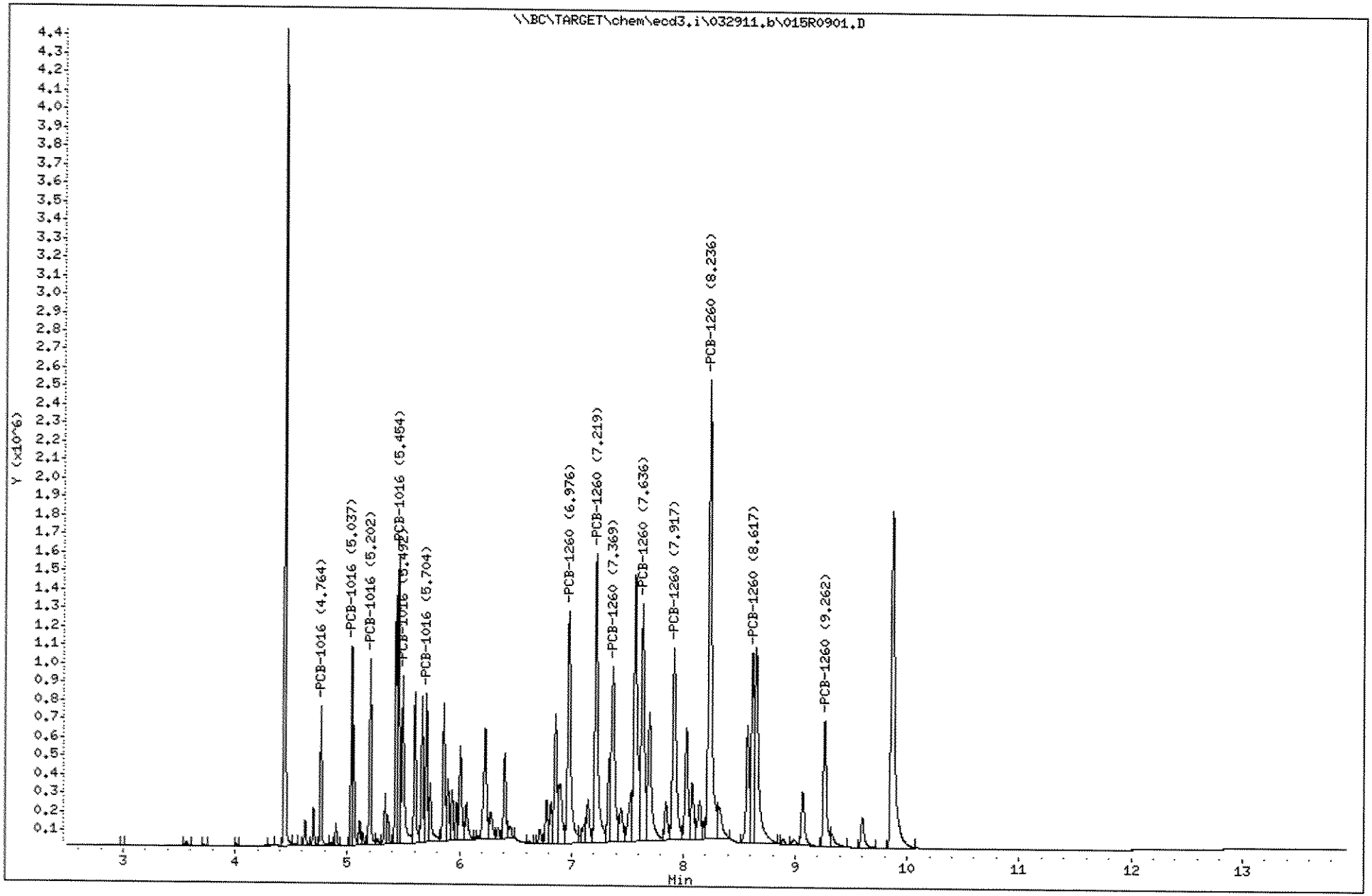
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\015R0901.D
Date : 28-MAR-2011 16:38
Client ID:
Sample Info: SEQ-CAL8

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 3.29.11

J.H. 3.29.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\016R1001.D
Lab Smp Id: SEQ-CAL9
Inj Date : 28-MAR-2011 16:57
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL9
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

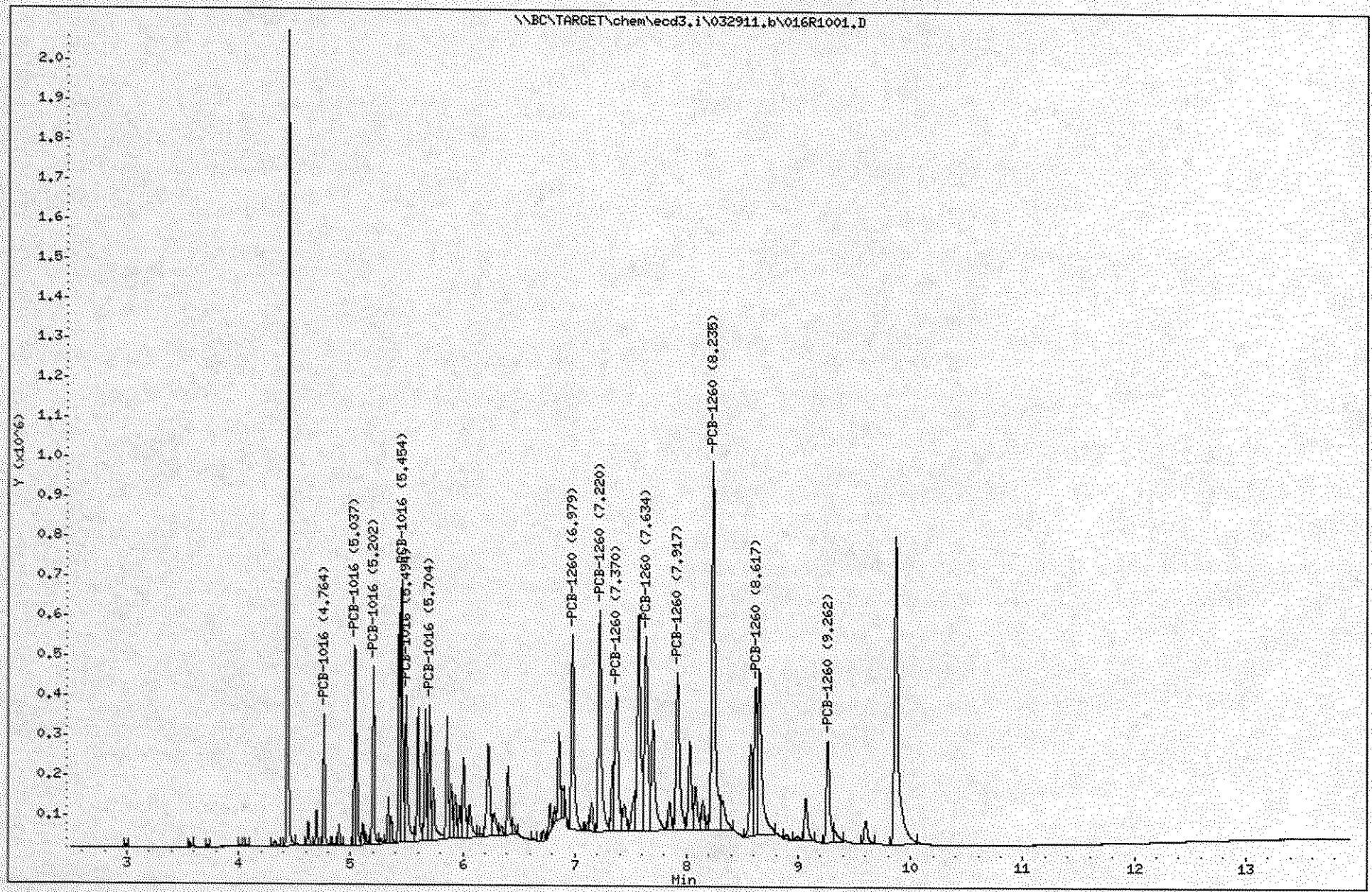
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.453	5.453	(0.000)	780636	1000.00	1031	80.00- 120.00	100.00
4.763	4.763	(0.000)	322178			33.02- 49.53	41.27
5.037	5.037	(0.000)	509554	1000.00	982.8	52.22- 78.33	65.27
5.202	5.202	(0.000)	506601	1000.00	1015	51.92- 77.88	64.90
5.493	5.493	(0.000)	594950	1000.00	1037	60.97- 91.46	76.21
5.703	5.703	(0.000)	413823	1000.00	1048	42.41- 63.61	53.01
	Average of Peak Amounts =				1023		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.235	8.235	(0.000)	1956462	1000.00	1033	80.00- 120.00	100.00
6.978	6.978	(0.000)	869241	1000.00	925.6	35.54- 53.32	44.43
7.220	7.220	(0.000)	1094581	1000.00	978.1	44.76- 67.14	55.95
7.370	7.370	(0.000)	791139	1000.00	996.1	32.35- 48.52	40.44
7.633	7.633	(0.000)	1031216			42.17- 63.25	52.71
7.917	7.917	(0.000)	912866	1000.00	990.5	37.33- 55.99	46.66
8.617	8.617	(0.000)	652025			26.66- 39.99	33.33
9.262	9.262	(0.000)	515061			21.06- 31.59	26.33
	Average of Peak Amounts =				984.7		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\016R1001.D
Date : 28-MAR-2011 16:57
Client ID:
Sample Info: SEQ-CAL9

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 3.29.11

J.H. 4.1.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\017R1101.D
Lab Smp Id: SEQ-CALA
Inj Date : 28-MAR-2011 17:15
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALA
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 17 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

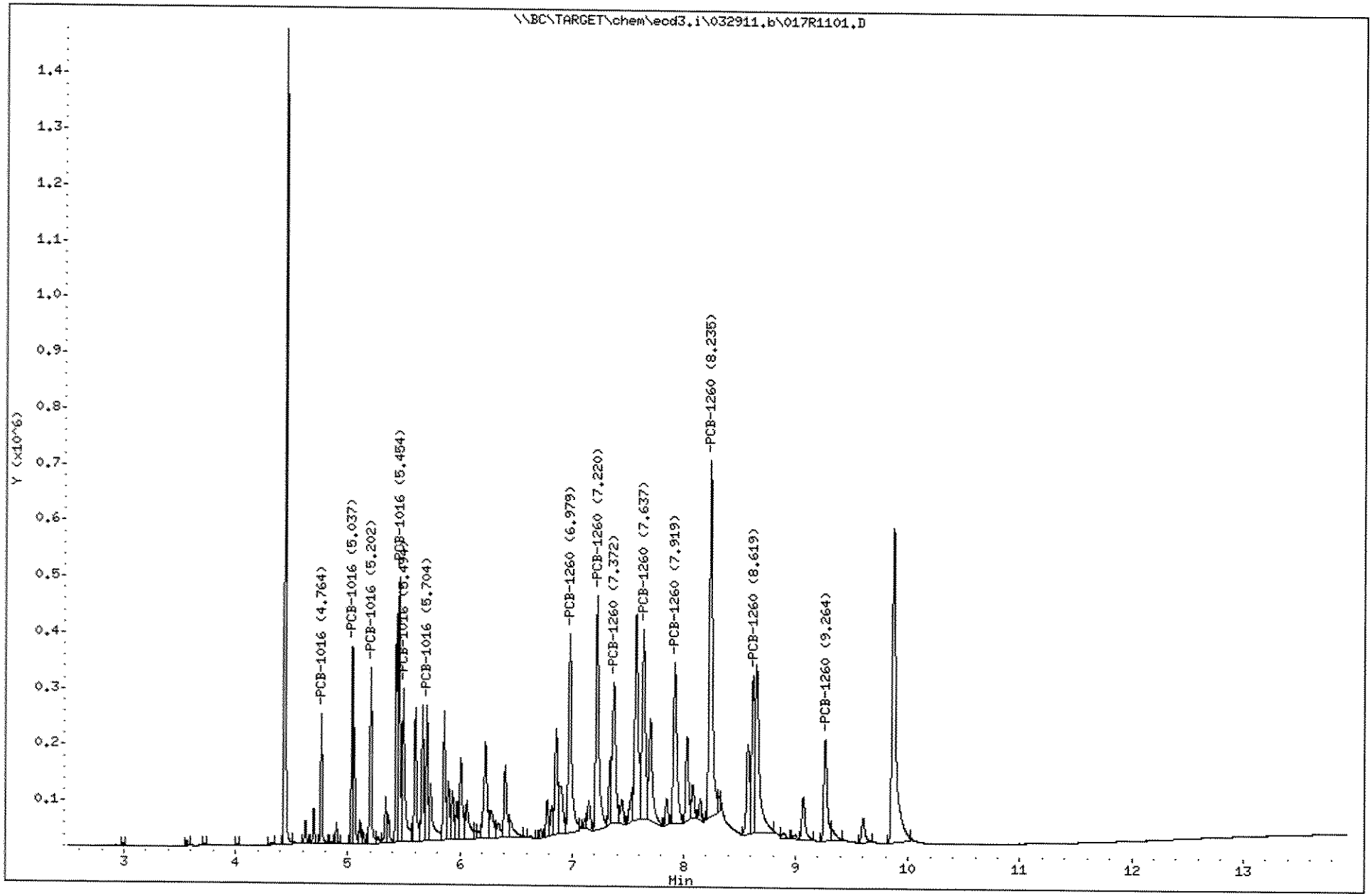
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.453	5.453	(0.000)	574523	750.000	758.7	80.00- 120.00	100.00
4.763	4.763	(0.000)	235503			32.79- 49.19	40.99
5.036	5.037	(-0.001)	368746	750.000	711.2	51.35- 77.02	64.18
5.201	5.202	(-0.001)	377122	750.000	755.7	52.51- 78.77	65.64
5.493	5.493	(0.000)	460938	750.000	803.2	64.18- 96.28	80.23
5.703	5.703	(0.000)	312681	750.000	791.9	43.54- 65.31	54.42
		Average of Peak Amounts =			764.2		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.235	8.235	(0.000)	1300350	750.000	686.6	80.00- 120.00	100.00
6.978	6.978	(0.000)	710060	750.000	756.1	43.68- 65.53	54.61
7.220	7.220	(0.000)	796046	750.000	711.4	48.97- 73.46	61.22
7.371	7.370	(0.001)	547776	750.000	689.7	33.70- 50.55	42.13
7.636	7.633	(0.003)	708895			43.61- 65.42	54.52
7.918	7.917	(0.001)	629437	750.000	683.0	38.72- 58.09	48.41
8.618	8.617	(0.001)	491434			30.23- 45.35	37.79
9.263	9.262	(0.001)	383400			23.59- 35.38	29.48
		Average of Peak Amounts =			705.4		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\017R1101.D
Date : 28-MAR-2011 17:15
Client ID:
Sample Info: SEQ-CALA

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



3.29.11 J.H.

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\018R1201.D
Lab Smp Id: SEQ-CALB
Inj Date : 28-MAR-2011 17:34
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALB
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 18 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	========	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.453	5.453	(0.000)	363130	500.000	479.6	80.00- 120.00	100.00
4.763	4.763	(0.000)	149485			32.93- 49.40	41.17
5.038	5.037	(0.001)	241381	500.000	465.6	53.18- 79.77	66.47
5.203	5.202	(0.001)	225830	500.000	452.5	49.75- 74.63	62.19
5.493	5.493	(0.000)	252907	500.000	440.7	55.72- 83.58	69.65
5.703	5.703	(0.000)	185940	500.000	470.9	40.96- 61.45	51.20
		Average of Peak Amounts =			461.9		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.233	8.235	(-0.002)	1010321	500.000	533.5	80.00- 120.00	100.00
6.976	6.978	(-0.002)	490789	500.000	522.6	38.86- 58.29	48.58
7.218	7.220	(-0.002)	600481	500.000	536.6	47.55- 71.32	59.43
7.368	7.370	(-0.002)	403949	500.000	508.6	31.99- 47.98	39.98
7.634	7.633	(0.001)	491285			38.90- 58.35	48.63
7.914	7.917	(-0.003)	477716	500.000	518.4	37.83- 56.74	47.28
8.616	8.617	(-0.001)	384655			30.46- 45.69	38.07
9.259	9.262	(-0.003)	280602			22.22- 33.33	27.77
		Average of Peak Amounts =			523.9		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\018R1201.D

Date : 28-MAR-2011 17:34

Client ID:

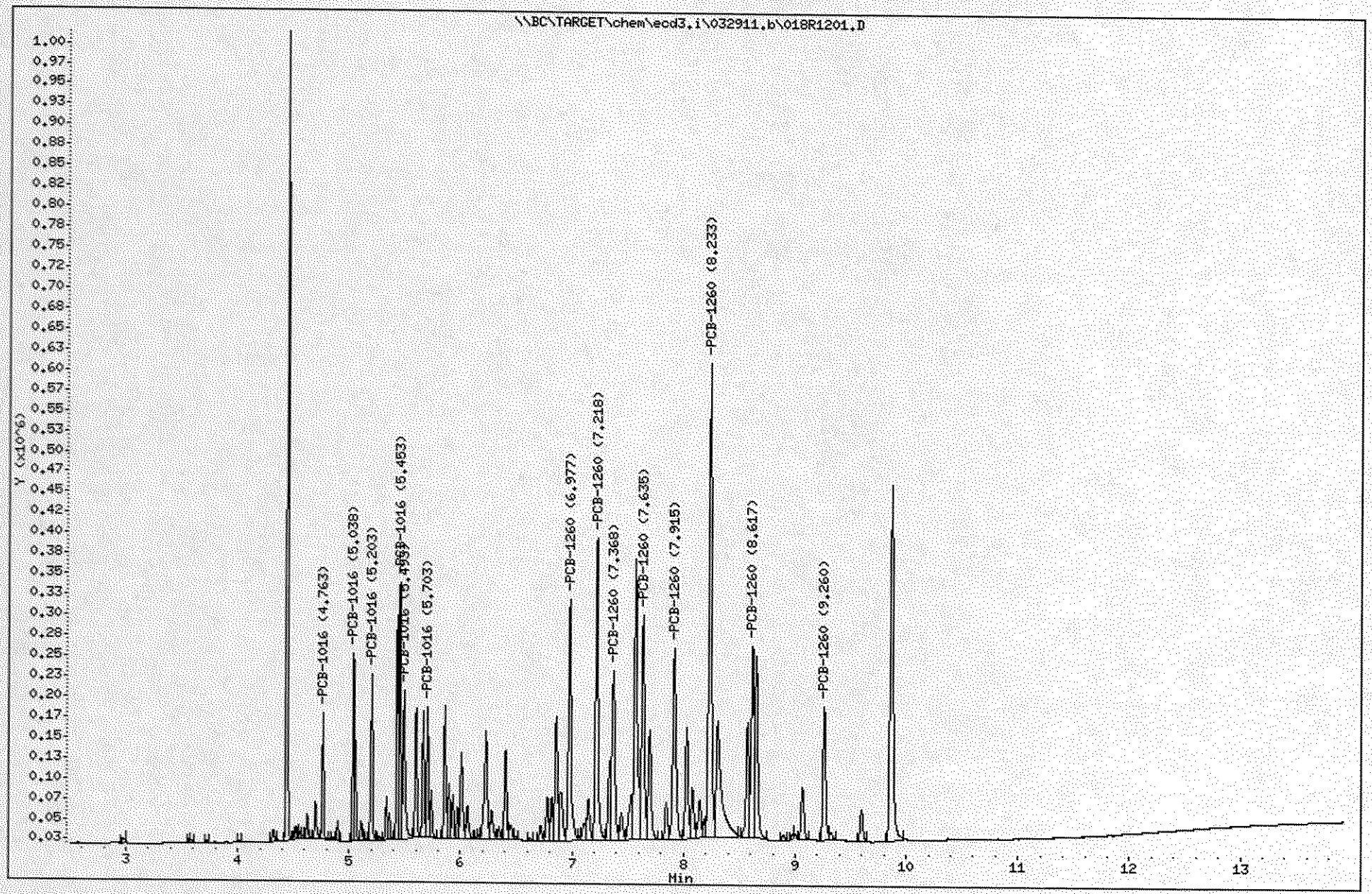
Sample Info: SEQ-CALB

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



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3.29.11 J.H.

JLB 4-1-11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\019R1301.D
Lab Smp Id: SEQ-CALC
Inj Date : 28-MAR-2011 17:53
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALC
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 19 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

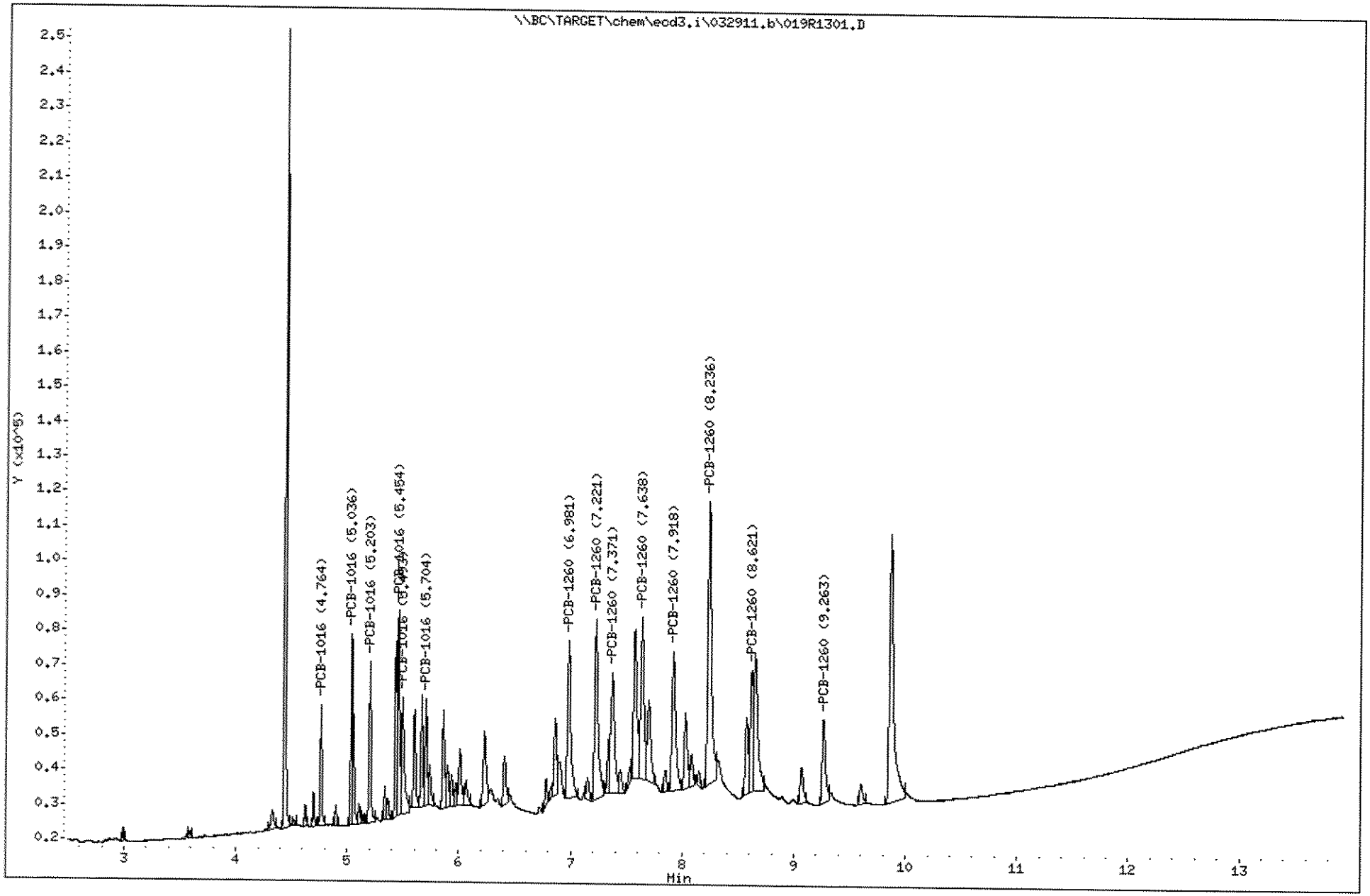
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.454	5.453	(0.001)	77811	100.000	102.8	80.00- 120.00	100.00
4.764	4.763	(0.001)	36494			37.52- 56.28	46.90
5.036	5.037	(-0.001)	58701	100.000	113.2	60.35- 90.53	75.44
5.202	5.202	(0.000)	54649	100.000	109.5	56.19- 84.28	70.23
5.492	5.493	(-0.001)	61422	100.000	107.0	63.15- 94.72	78.94
5.704	5.703	(0.001)	38857	100.000	98.42	39.95- 59.93	49.94
		Average of Peak Amounts =			106.2		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.236	8.235	(0.001)	185572	100.000	97.99	80.00- 120.00	100.00
6.981	6.978	(0.003)	95356	100.000	101.5	41.11- 61.66	51.38
7.221	7.220	(0.001)	110918	100.000	99.12	47.82- 71.73	59.77
7.371	7.370	(0.001)	83529	100.000	105.2	36.01- 54.01	45.01
7.637	7.633	(0.004)	96043			41.40- 62.11	51.76
7.917	7.917	(0.000)	93504	100.000	101.4	40.31- 60.46	50.39
8.621	8.617	(0.004)	60222			25.96- 38.94	32.45
9.262	9.262	(0.000)	50249			21.66- 32.49	27.08
		Average of Peak Amounts =			101.1		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\019R1301.D
Date : 28-MAR-2011 17:53
Client ID:
Sample Info: SEQ-CALC

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



JH 3.29.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\032911.b\020R1401.D
Lab Smp Id: SEQ-CALD
Inj Date : 28-MAR-2011 18:11
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CALD
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 20 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

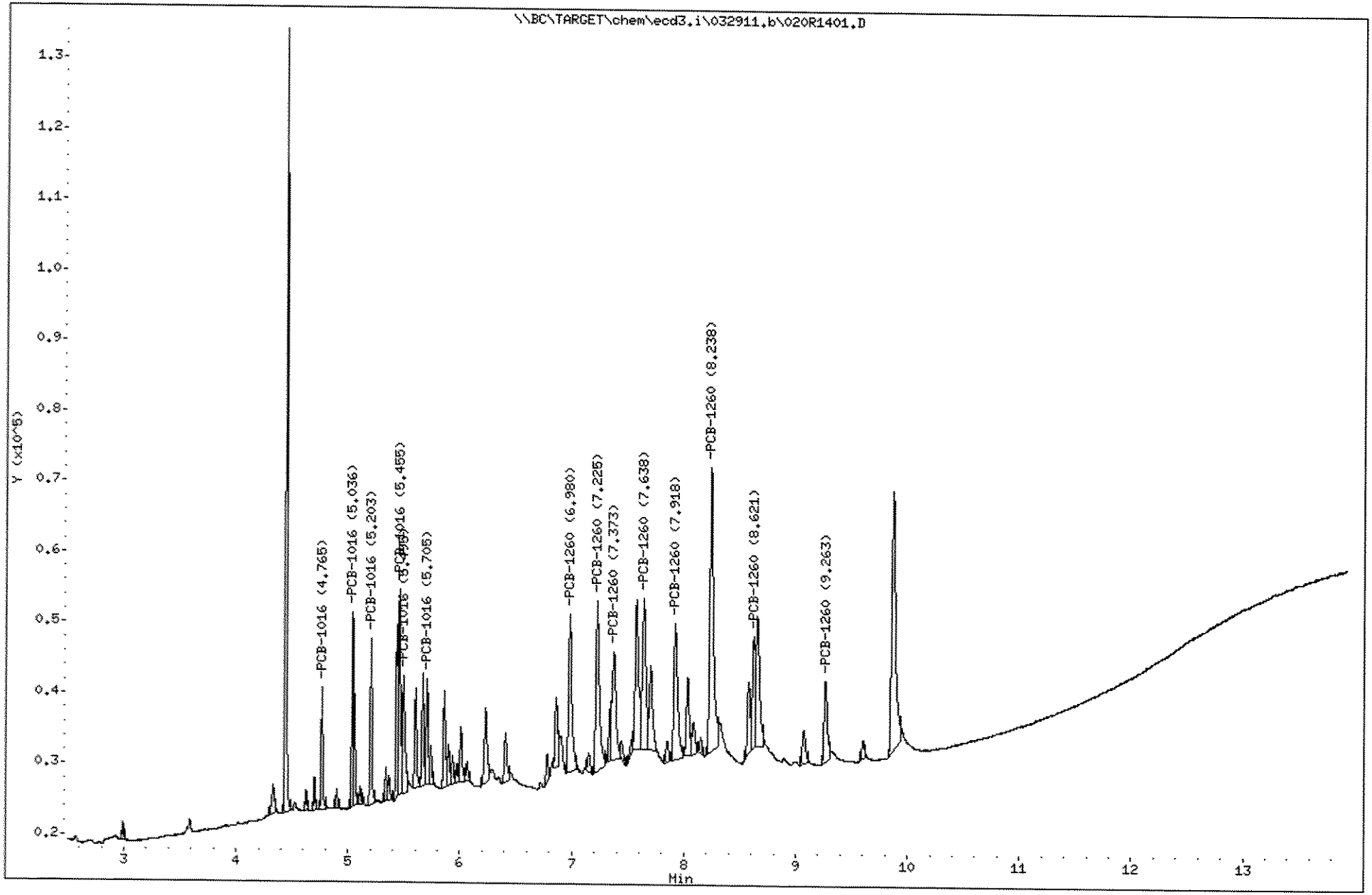
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]						CAS #: 12674-11-2		
5.454	5.453	(0.001)	38572	50.0000	50.94	80.00-	120.00	100.00
4.764	4.763	(0.001)	17920			37.17-	55.75	46.46
5.036	5.037	(-0.001)	28849	50.0000	55.64	59.83-	89.75	74.79
5.202	5.202	(0.000)	26088	50.0000	52.28	54.11-	81.16	67.63
5.494	5.493	(0.001)	28046	50.0000	48.87	58.17-	87.25	72.71
5.704	5.703	(0.001)	19344	50.0000	48.99	40.12-	60.18	50.15
		Average of Peak Amounts =			51.34			
35 PCB-1260 [2C]						CAS #: 11096-82-5		
8.237	8.235	(0.002)	91135	50.0000	48.12	80.00-	120.00	100.00
6.979	6.978	(0.001)	44958	50.0000	47.87	39.46-	59.20	49.33
7.224	7.220	(0.004)	53142	50.0000	47.49	46.65-	69.97	58.31
7.372	7.370	(0.002)	37475	50.0000	47.18	32.90-	49.34	41.12
7.637	7.633	(0.004)	47526			41.72-	62.58	52.15
7.917	7.917	(0.000)	46695	50.0000	50.67	40.99-	61.48	51.24
8.621	8.617	(0.004)	26207			23.00-	34.51	28.76
9.262	9.262	(0.000)	23330			20.48-	30.72	25.60
		Average of Peak Amounts =			48.27			

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\020R1401.D
Date : 28-MAR-2011 18:11
Client ID:
Sample Info: SEQ-CALD

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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1103223

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ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 021R1501.D
Analysis Type:
Lab Sample ID: SEQ-ICV2
Method: \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m

Injection Date: 28-MAR-2011 18:30
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	757	769	0.010	1.6	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	518	517	0.010	-0.4	20.0	
(4)	499	498	0.010	-0.1	20.0	
(5)	574	605	0.010	5.5	20.0	
(6)	395	409	0.010	3.6	20.0	
35 PCB-1260(1)	1894	2200	0.010	16.2	20.0	
(2)	939	1125	0.010	19.8	20.0	
(3)	1119	1253	0.010	12.0	20.0	
(4)	794	924	0.010	16.3	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	922	1080	0.010	17.1	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-

J.H. 3.29.11

JLG 4.1.11

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Data file : \\BC\TARGET\chem\ecd3.i\032911.b\021R1501.D
Lab Smp Id: SEQ-ICV2
Inj Date : 28-MAR-2011 18:30
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\032911.b\8081_82R.m
Meth Date : 29-Mar-2011 08:05 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

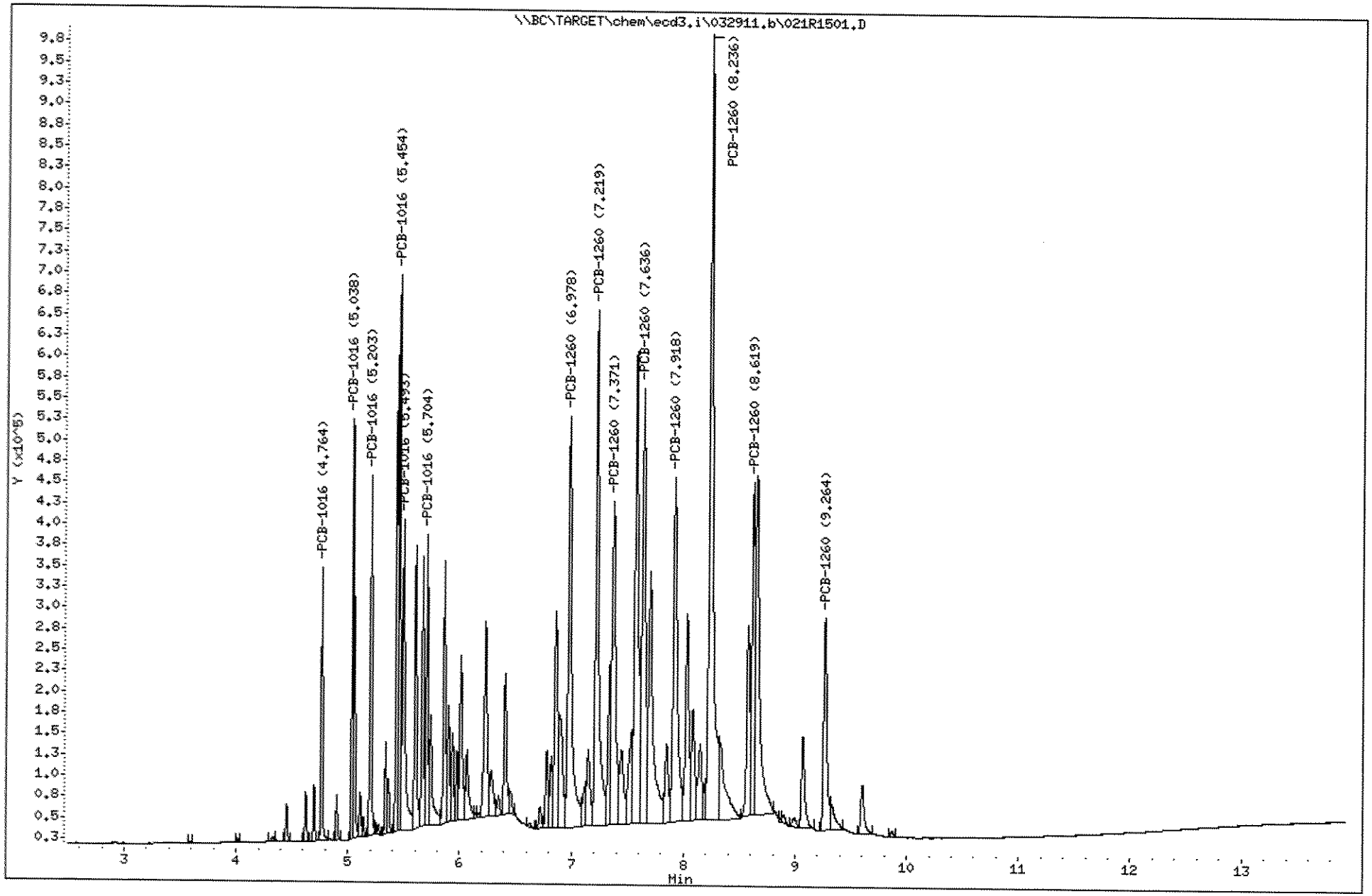
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.454	5.453	(0.001)	769422	1000.00	1016	80.00- 120.00	100.00
4.764	4.763	(0.001)	328063			34.11- 51.17	42.64
5.037	5.037	(0.000)	516542	1000.00	996.3	53.71- 80.56	67.13
5.202	5.202	(0.000)	498374	1000.00	998.7	51.82- 77.73	64.77
5.492	5.493	(-0.001)	605375	1000.00	1055	62.94- 94.42	78.68
5.704	5.703	(0.001)	409184	1000.00	1036	42.54- 63.82	53.18
		Average of Peak Amounts =			1020		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.236	8.235	(0.001)	2199741	1000.00	1162	80.00- 120.00	100.00
6.977	6.978	(-0.001)	1124645	1000.00	1198	40.90- 61.35	51.13
7.219	7.220	(-0.001)	1253015	1000.00	1120	45.57- 68.35	56.96
7.371	7.370	(0.001)	923534	1000.00	1163	33.59- 50.38	41.98
7.636	7.633	(0.003)	1148944			41.78- 62.68	52.23
7.917	7.917	(0.000)	1079562	1000.00	1171	39.26- 58.89	49.08
8.619	8.617	(0.002)	627166			22.81- 34.21	28.51
9.264	9.262	(0.002)	522787			19.01- 28.52	23.77
		Average of Peak Amounts =			1163		

Data File: \\BC\TARGET\chem\ecd3.i\032911.b\021R1501.D
Date : 28-MAR-2011 18:30
Client ID:
Sample Info: SEQ-ICV2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



PG. 34

Sequence Table (Front/Injector): BACK

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PCB PRIMER				
2	Vial 2	SEQ-CCV1 I.S. #110777				
3	Vial 3	SEQ-CCV2 I.S. #110028				
4	Vial 4	1C28019-BLK1 x 1 AC I.S.				
5	Vial 5	1C28019-BS1				
6	Vial 6	1C28019-BSD1				
7	Vial 7	1103223-24				
8	Vial 8	1103223-25				
9	Vial 9	1103223-26				
10	Vial 10	1103223-27				
11	Vial 11	SEQ-CCV3 I.S. #110777				
12	Vial 12	SEQ-CCV4 I.S. #110028				
13	Vial 13	1103223-25@2X AC I.S.				
14	Vial 14	SEQ-CCV3 I.S. #110777				
15	Vial 15	SEQ-CCV4 I.S. #110028				

~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

4.1.11

J.H. 4.1.11

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 002F0201.D
Analysis Type:
Lab Sample ID: SEQ-CCV1
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m

Injection Date: 31-MAR-2011 19:33
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

			MIN		MAX	
COMPOUND	RRF	RF100	RRF	%D	%D	
29 PCB-1016(1)	1217	X 1247	0.010	2.5	20.0	
(2)	426	443	0.010	4.0	20.0	
(3)	633	657	0.010	3.8	20.0	
(4)	620	661	0.010	6.5	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	461	499	0.010	8.2	20.0	
35 PCB-1260(1)	3788	4043	0.010	6.7	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1590	1675	0.010	5.4	20.0	
(4)	1921	2052	0.010	6.8	20.0	
(5)	1466	1606	0.010	9.6	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	913	* 941	0.010	3.0	20.0	
$ 38 TCMX	28351	29713	0.010	4.8	20.0	
$ 39 DCB	35097	31069	0.010	-11.5	20.0	

04/05/11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\002F0201.D
Lab Smp Id: SEQ-CCV1
Inj Date : 31-MAR-2011 19:33
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;1660d.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Meth Date : 01-Apr-2011 12:01 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

				AMOUNTS CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.606	6.606	(0.000)	1247378	1000.00 X	1025	80.00-	120.00	100.00
5.746	5.746	(0.000)	443325	1000.00	1040	28.43-	42.65	35.54
6.091	6.091	(0.000)	656603	1000.00	1038	42.11-	63.17	52.64
6.293	6.293	(0.000)	660517	1000.00	1065	42.36-	63.54	52.95
6.781	6.781	(0.000)	640561			41.08-	61.62	51.35
6.889	6.889	(0.000)	498908	1000.00	1082	32.00-	48.00	40.00
		Average of Peak Amounts =			1050			
35 PCB-1260					CAS #: 11096-82-5			
9.874	9.874	(0.000)	4042595	1000.00	1067	80.00-	120.00	100.00
8.441	8.441	(0.000)	1517894			30.04-	45.06	37.55
8.761	8.761	(0.000)	1675002	1000.00	1054	33.15-	49.72	41.43
9.106	9.106	(0.000)	2052336	1000.00	1068	40.61-	60.92	50.77
9.203	9.203	(0.000)	1606097	1000.00	1096	31.78-	47.68	39.73
9.481	9.481	(0.000)	1659316			32.84-	49.25	41.05
10.231	10.231	(0.000)	2085575			41.27-	61.91	51.59
10.968	10.968	(0.000)	*940575	1000.00	1030	18.61-	27.92	23.27
		Average of Peak Amounts =			1063			
$ 38 TCMX					CAS #: 877-09-8			
5.354	5.354	(0.000)	2971276	100.000	104.8			(A)
$ 39 DCB					CAS #: 2051-24-3			
11.571	11.571	(0.000)	3106859	100.000	88.52			

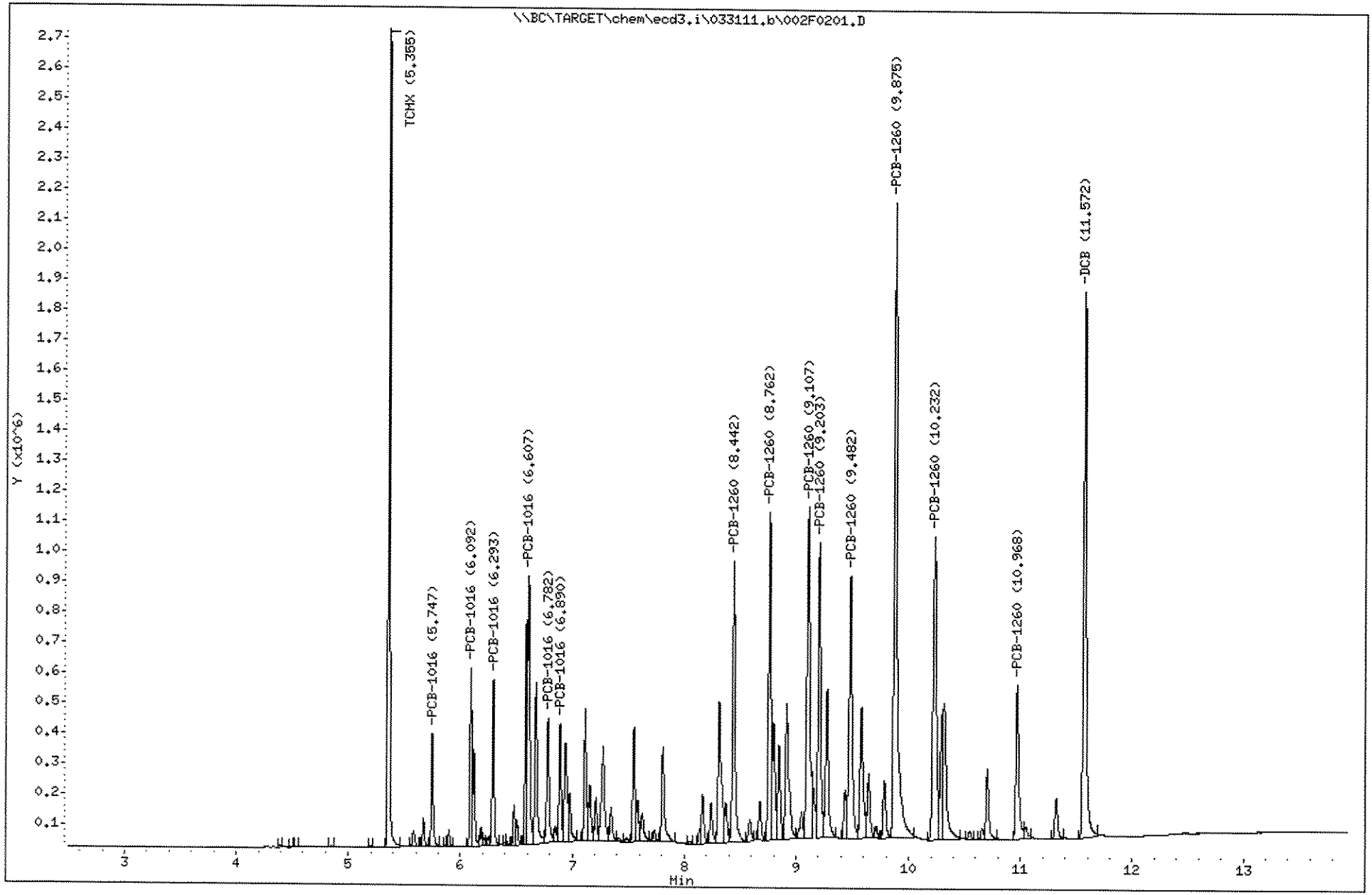
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\002F0201.D
Date : 31-MAR-2011 19:33
Client ID:
Sample Info: SEQ-CCV1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



171

1103223

J.H. 4.1.11

Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 002R0201.D
Analysis Type:
Lab Sample ID: SEQ-CCV1
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m

Injection Date: 31-MAR-2011 19:33
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	757	845	0.010	11.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	518	539	0.010	4.0	20.0	
(4)	499	566	0.010	13.4	20.0	
(5)	574	755	0.010	31.5	20.0	<-
(6)	395	497	0.010	25.9	20.0	<-
35 PCB-1260(1)	1894	x 2395	0.010	26.5	20.0	<-
(2)	939	1151	0.010	22.6	20.0	<-
(3)	1119	1335	0.010	19.3	20.0	
(4)	794	959	0.010	20.7	20.0	<-
(5)	++++	++++	0.010	++++	20.0	<-
(6)	922	* 1145	0.010	24.2	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21112	20810	0.010	-1.4	20.0	
$ 39 DCB	18230	19398	0.010	6.4	20.0	

17.3%D (O.K.)

22.6%D (HIGH)

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\002R0201.D
Lab Smp Id: SEQ-CCV1
Inj Date : 31-MAR-2011 19:33
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;1660d.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Meth Date : 01-Apr-2011 12:01 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.422	5.422	(0.000)	844636	1000.00	1115	80.00- 120.00	100.00
4.735	4.735	(0.000)	327473			31.02- 46.53	38.77
5.007	5.007	(0.000)	539293	1000.00	1040	51.08- 76.62	63.85
5.172	5.172	(0.000)	565712	1000.00	1134	53.58- 80.37	66.98
5.460	5.460	(0.000)	754630	1000.00	1315	71.48- 107.21	89.34
5.670	5.670	(0.000)	497167	1000.00	1259	47.09- 70.63	58.86
	Average of Peak Amounts =				1173		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.194	8.194	(0.000)	2394857	1000.00	1265	80.00- 120.00	100.00
6.937	6.937	(0.000)	1151070	1000.00	1226	38.45- 57.68	48.06
7.180	7.180	(0.000)	1334874	1000.00	1193	44.59- 66.89	55.74
7.330	7.330	(0.000)	958975	1000.00	1207	32.03- 48.05	40.04
7.595	7.595	(0.000)	1229587			41.07- 61.61	51.34
7.877	7.877	(0.000)	*1144500	1000.00	1242	38.23- 57.35	47.79
8.577	8.577	(0.000)	822343			27.47- 41.21	34.34
9.219	9.219	(0.000)	599008			20.01- 30.01	25.01
	Average of Peak Amounts =				1226		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.412	4.412	(0.000)	2080978	100.000	98.57		
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.822	9.822	(0.000)	1939840	100.000	106.4		(A)

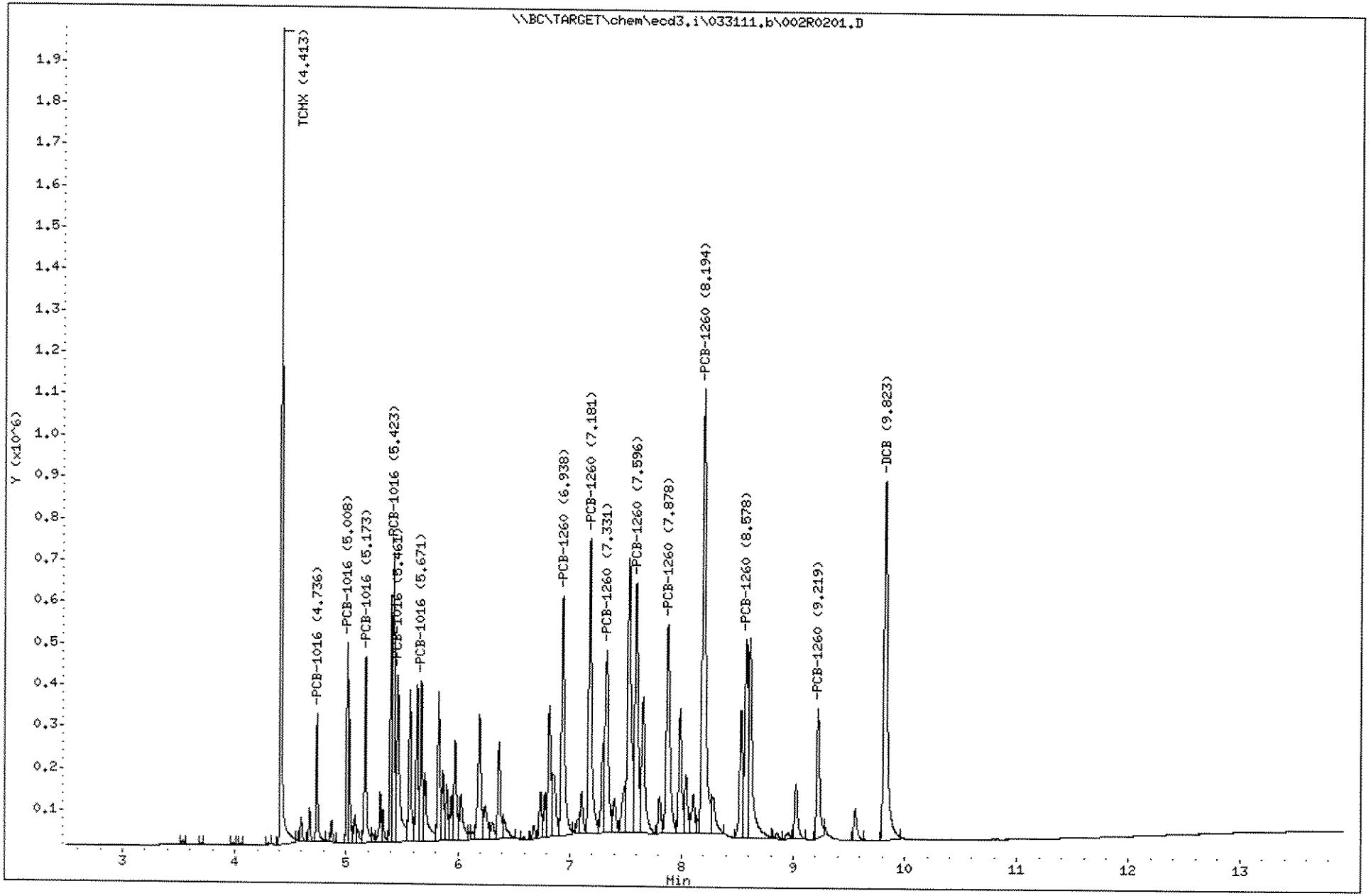
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\002R0201.D
Date : 31-MAR-2011 19:33
Client ID:
Sample Info: SEQ-CCV1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 31-MAR-2011 19:51
Lab File ID: 003F0301.D Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Analysis Type: Init. Cal. Times: 08:58 18:11
Lab Sample ID: SEQ-CCV2 Quant Type: ESTD
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	*1700	0.010	-5.8	20.0	
(2)	1085	923	0.010	-14.9	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1004	0.010	-8.2	20.0	
(5)	1523	1161	0.010	-23.8	20.0	<-
(6)	1545	*1620	0.010	4.9	20.0	

-9.6%D

04/05/11

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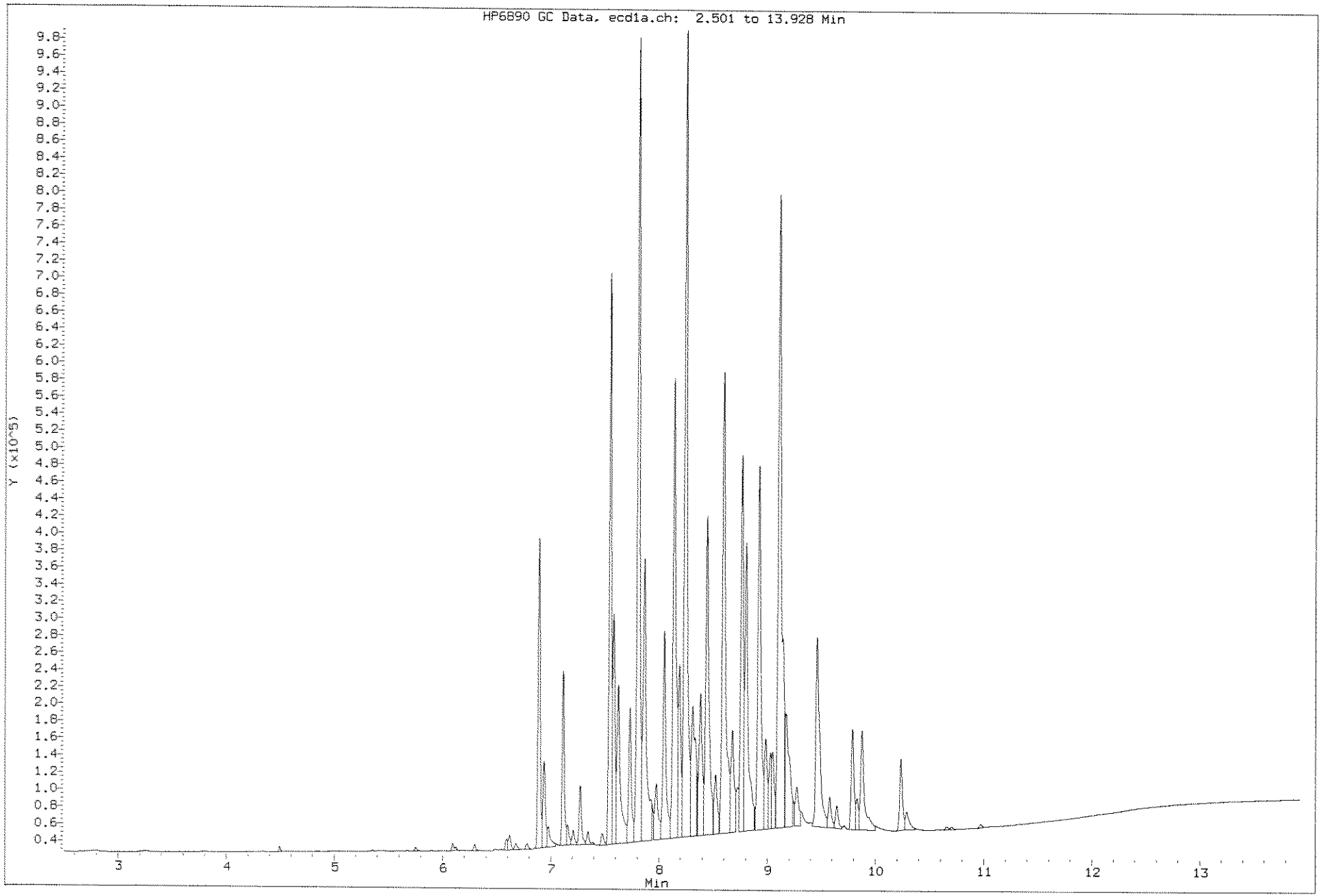
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\003F0301.D
Lab Smp Id: SEQ-CCV2
Inj Date : 31-MAR-2011 19:51
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Meth Date : 01-Apr-2011 12:01 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.241	8.241	(0.000)	1699604	1000.00	942.5	80.00-	120.00	100.00
7.546	7.546	(0.000)	923428	1000.00	850.7	43.47-	65.20	54.33
7.804	7.804	(0.000)	1530519			72.04-	108.06	90.05
8.136	8.136	(0.000)	1003529	1000.00	917.8	47.24-	70.85	59.04
8.591	8.591	(0.000)	1160938	1000.00	762.2	54.65-	81.97	68.31
9.106	9.106	(0.000)	* 1620186	1000.00	1049	76.26-	114.39	95.33
		Average of Peak Amounts =			904.4			

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\003F0301.D
Injection Date: 31-MAR-2011 19:51
Instrument: ecd3.i
Client Sample ID:

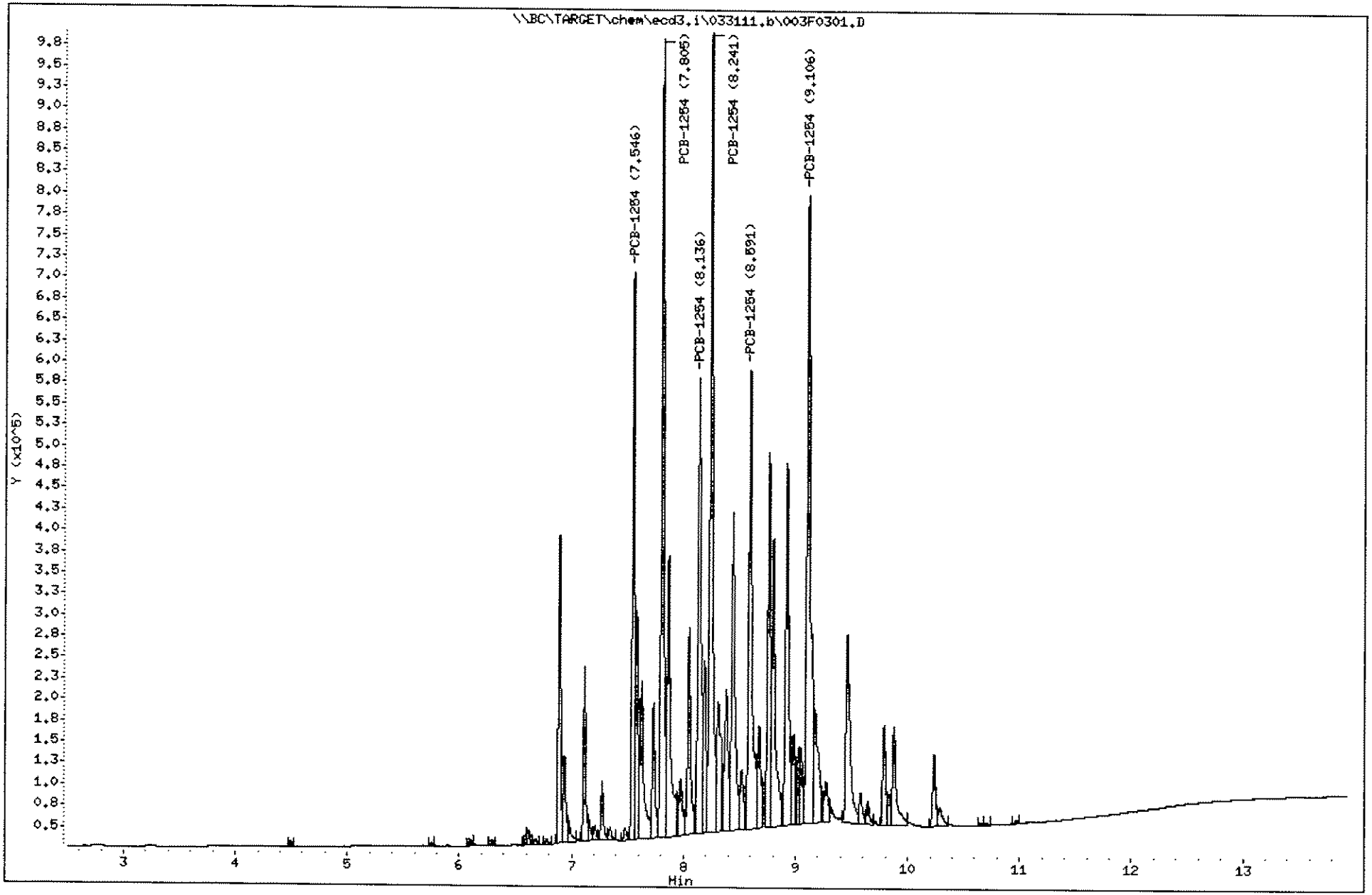


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\003F0301.D
Date : 31-MAR-2011 19:51
Client ID:
Sample Info: SEQ-CCV2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 31-MAR-2011 19:51
Lab File ID: 003R0301.D Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Analysis Type: Init. Cal. Times: 08:58 18:11
Lab Sample ID: SEQ-CCV2 Quant Type: ESTD
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	* 1279	0.010	-4.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1002	0.010	-10.8	20.0	
(4)	959	865	0.010	-9.8	20.0	
(5)	719	668	0.010	-7.0	20.0	
(6)	934	* 755	0.010	-19.2	20.0	

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J.H. 4.1.11

Empirical Laboratories, LLC

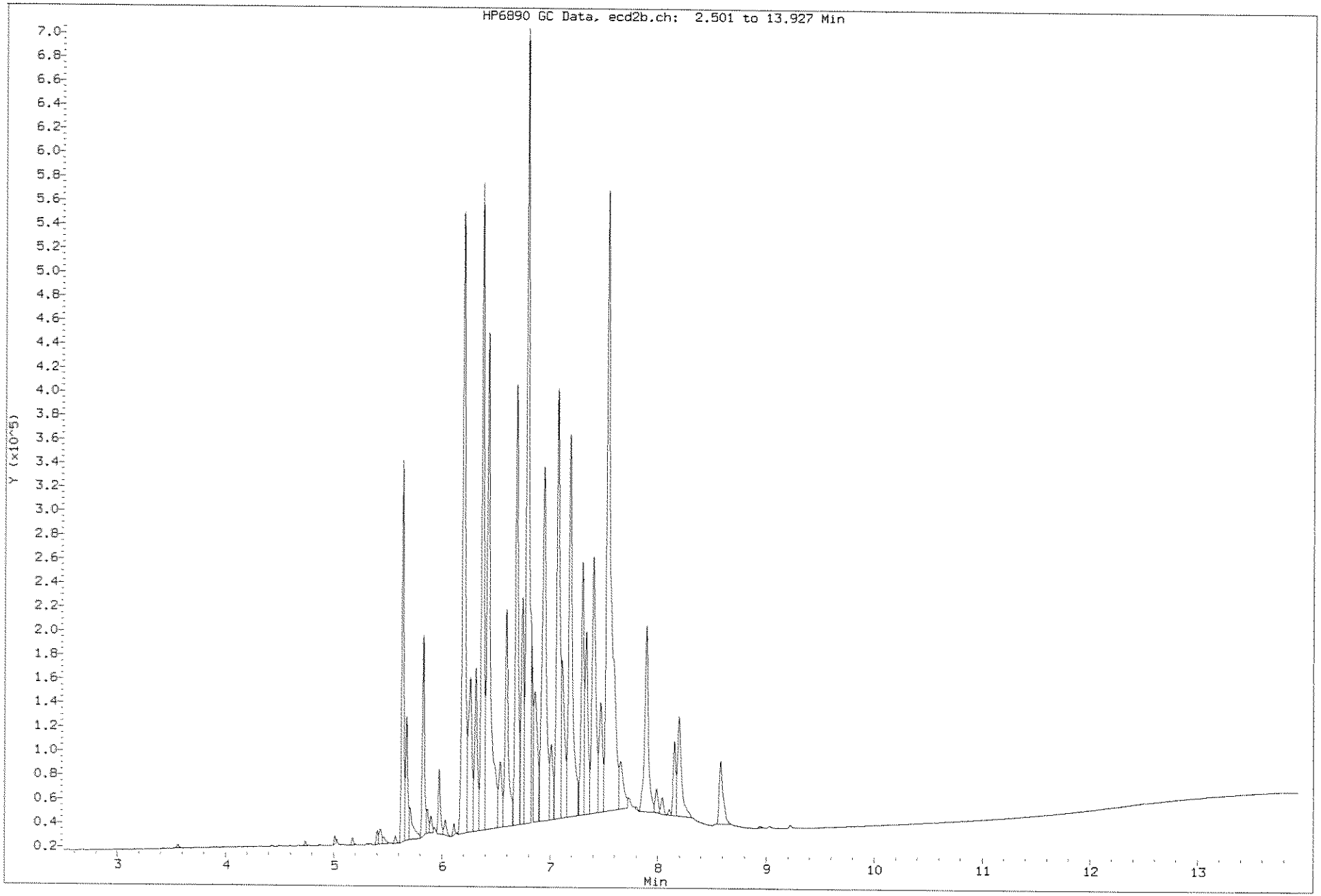
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\003R0301.D
Lab Smp Id: SEQ-CCV2
Inj Date : 31-MAR-2011 19:51
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Meth Date : 01-Apr-2011 12:02 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
**	=======	========	========	=======	========	==========		======
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.780	6.780	(0.000)	1279266	1000.00	X 955.3	80.00-	120.00	100.00
5.632	5.632	(0.000)	411893			25.76-	38.64	32.20
6.193	6.193	(0.000)	1002241	1000.00	891.6	62.68-	94.01	78.35
6.368	6.368	(0.000)	864628	1000.00	901.6	54.07-	81.11	67.59
6.683	6.683	(0.000)	668336	1000.00	929.7	41.79-	62.69	52.24
7.065	7.065	(0.000)	*754862	1000.00	808.4	47.21-	70.81	59.01
		Average of Peak Amounts =			897.3			

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\003R0301.D
Injection Date: 31-MAR-2011 19:51
Instrument: ecd3.i
Client Sample ID:

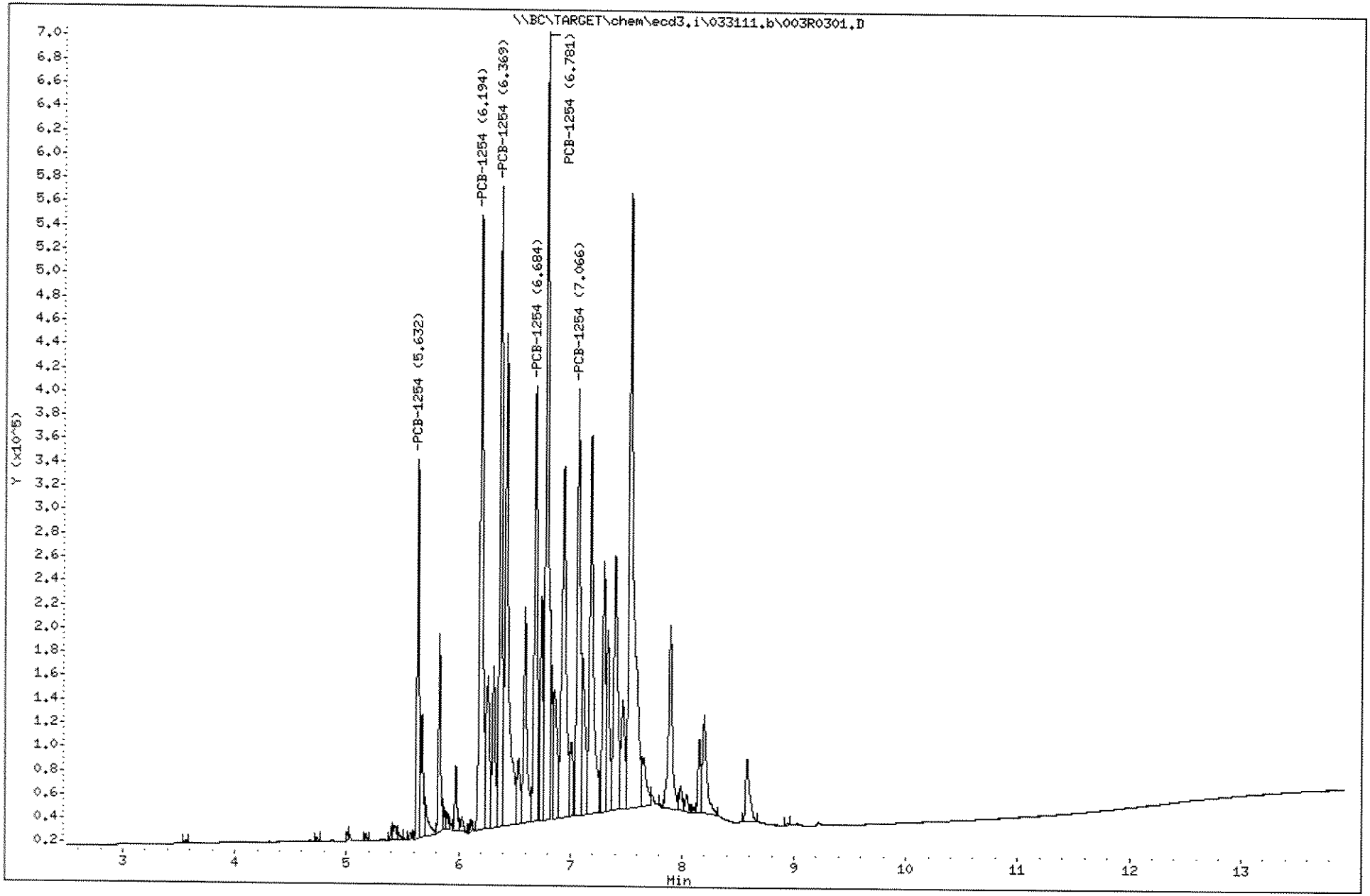


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\003R0301.D
Date : 31-MAR-2011 19:51
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.1.11

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\004R0401.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\004F0401.D
Inj Date : 31-MAR-2011 20:10
Sample Info: 1C28019-BLK1
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
TCMX [2C]	4.413	5.356	953513	1328037	45.16	46.84		100.00(R)
DCB [2C]	9.820	11.569	932911	1498911	51.18	42.71		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

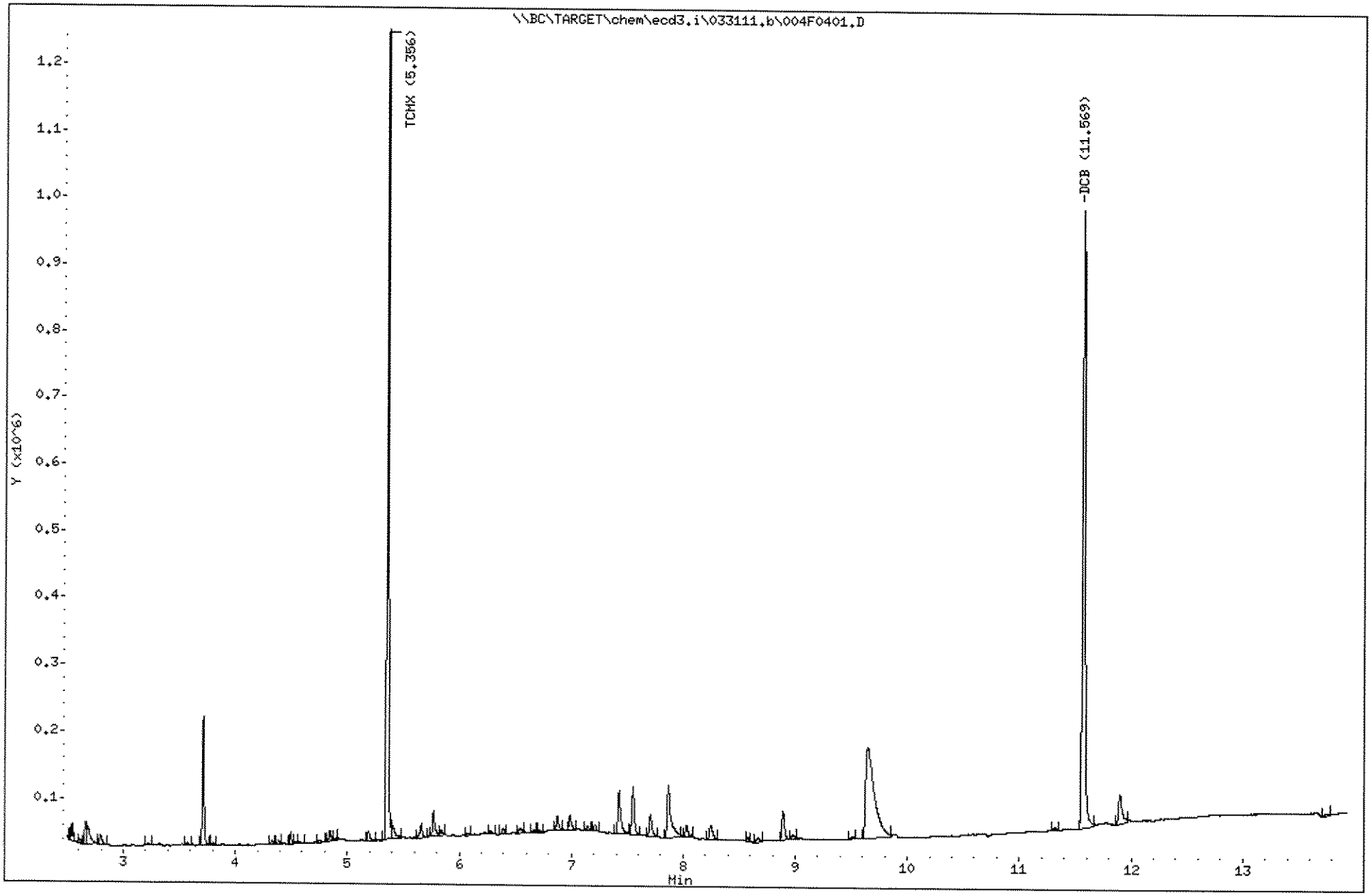
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\004F0401.D
Date : 31-MAR-2011 20:10
Client ID:
Sample Info: 1C28019-BLK1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

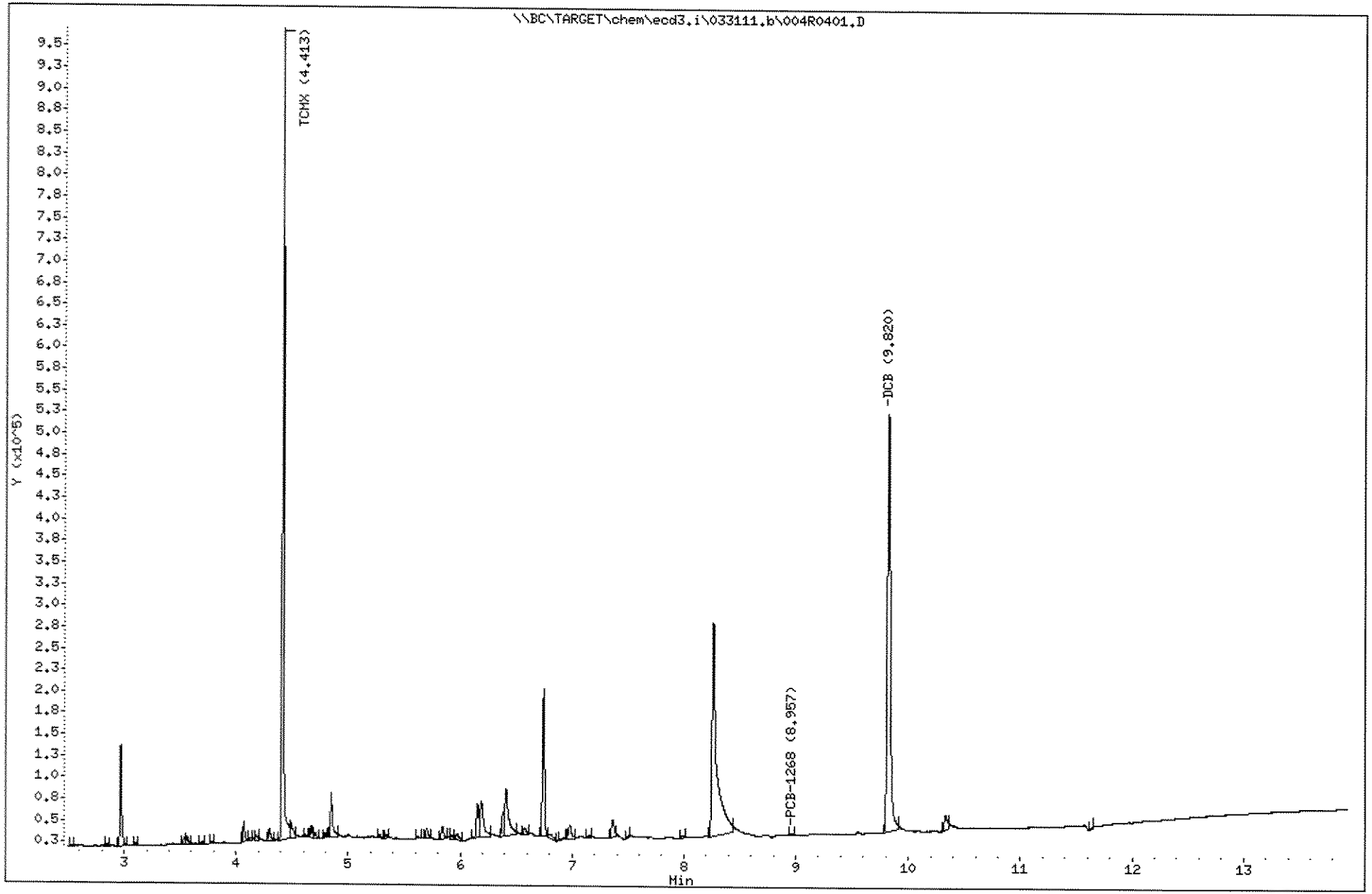


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\004R0401.D
Date : 31-MAR-2011 20:10
Client ID:
Sample Info: 1C28019-BLK1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



J.H. 4.1.11

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\005R0501.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\005F0501.D
Inj Date : 31-MAR-2011 20:29
Sample Info: 1C28019-BS1
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1016 [2C]	5.423	6.607	489040	715498	645.8	587.8	80.00- 120.00	100.00
	4.737	5.746	166649	268290		629.5	28.06- 42.08	37.50
	5.010	6.092	296945	359845	572.7	568.7	47.03- 70.55	60.72
	5.175	6.294	291192	413625	583.5	666.9	51.97- 77.95	59.54
	5.462	6.781	430943	379270	750.9		67.92- 101.88	88.12
	5.672	6.891	280968	307296	711.6	666.2	45.92- 68.88	57.45
			Average of Peak Amounts =		652.9	623.8		
PCB-1260 [2C]	8.195	9.874	1345507	2140588	710.5	565.1	80.00- 120.00	100.00
	6.942	8.439	723021	895297	769.9		37.97- 56.96	53.74
	7.182	8.761	890459	1026054	795.7	645.4	44.99- 67.49	66.18
	7.332	9.104	599793	1313924	755.2	684.0	32.53- 48.80	44.58
	7.597	9.204	684615	733774		500.7	31.52- 47.28	34.28
	7.878	9.479	661835	923640	718.1		38.69- 58.04	49.19
	8.577	10.232	541071	1165585			40.92- 61.37	54.45
	9.220	10.967	315956	462493		506.6	18.56- 27.85	21.61
			Average of Peak Amounts =		749.9	580.4		
TCMX [2C]	4.413	5.356	942424	1316887	44.64	46.45		100.00(R)
DCB [2C]	9.823	11.569	930939	1465543	51.07	41.76		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

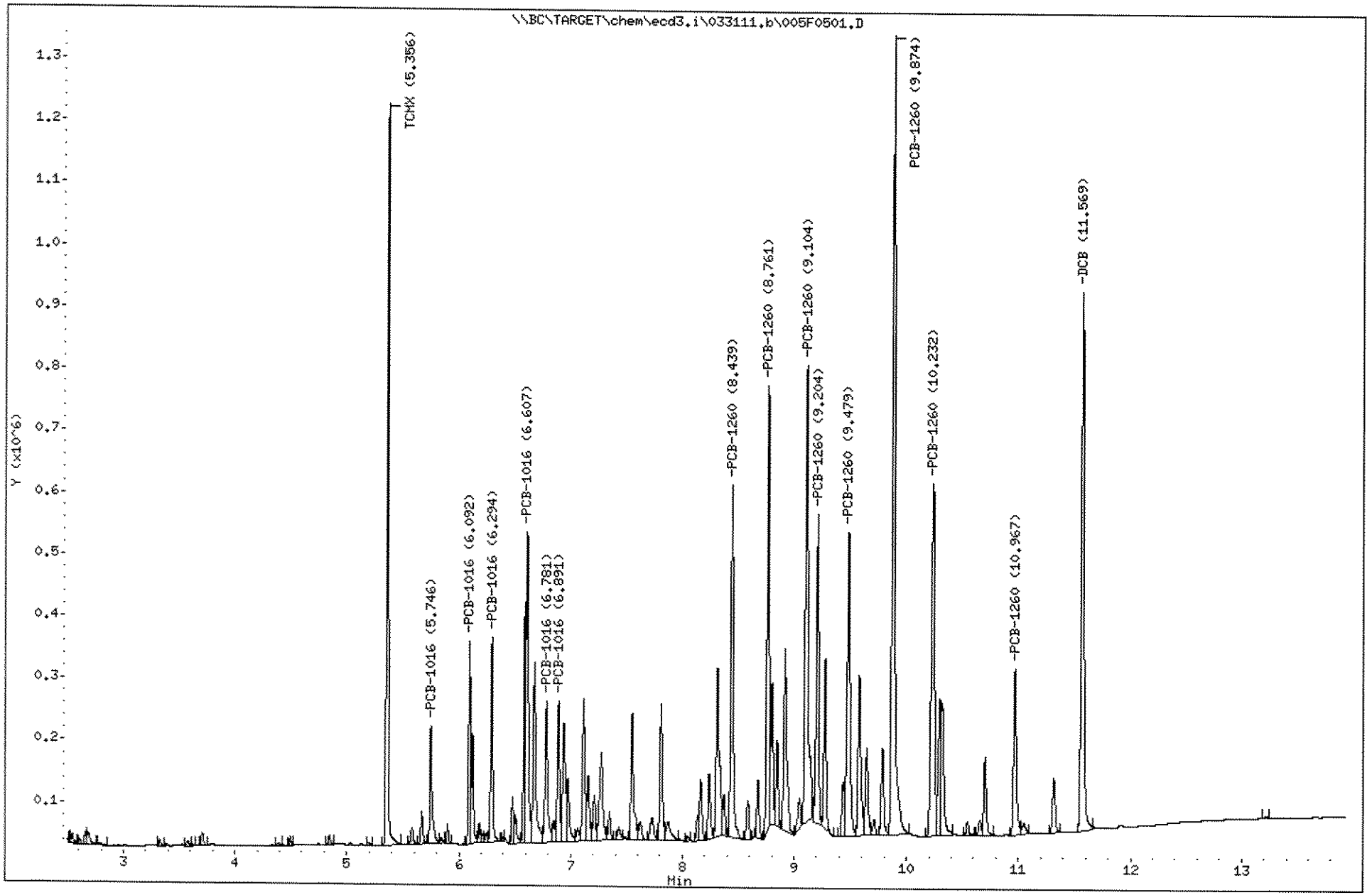
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\005F0501.D
Date : 31-MAR-2011 20:29
Client ID:
Sample Info: 1C28019-BS1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

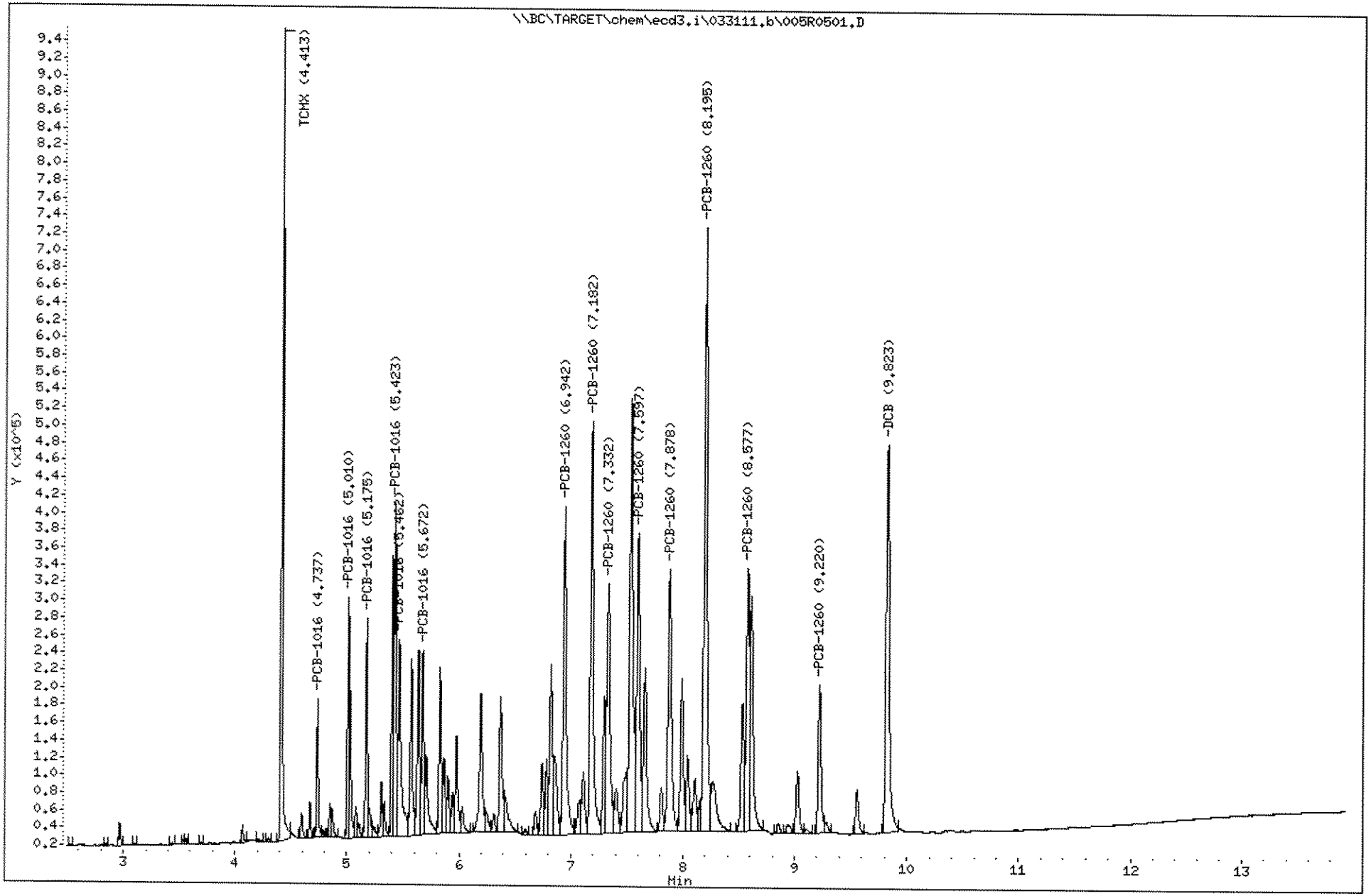


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\005R0501.D
Date : 31-MAR-2011 20:29
Client ID:
Sample Info: 1C28019-BS1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.14

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\006R0601.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\006F0601.D
Inj Date : 31-MAR-2011 20:47
Sample Info: 1C28019-BSD1
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1016 [2C]	5.423	6.607	523239	786090	691.0	645.8	80.00- 120.00	100.00
	4.738	5.747	171598	286648		672.6	28.06- 42.08	36.47
	5.009	6.092	308808	386885	595.6	611.4	47.03- 70.55	59.02
	5.174	6.293	317440	394496	636.1	636.0	51.97- 77.95	60.67
	5.463	6.782	383343	401835	668.0		67.92- 101.88	73.26
	5.673	6.890	280909	335703	711.5	727.8	45.92- 68.88	53.69
			Average of Peak Amounts =		660.4	658.7		
PCB-1260 [2C]	8.194	9.873	1391104	2328806	734.6	614.7	80.00- 120.00	100.00
	6.939	8.438	706912	930468	752.8		37.97- 56.96	50.82
	7.181	8.760	916939	1179000	819.4	741.6	44.99- 67.49	65.91
	7.331	9.103	596506	1361639	751.0	708.8	32.53- 48.80	42.88
	7.596	9.202	657186	800156		546.0	31.52- 47.28	34.36
	7.874	9.478	684329	982759	742.6		38.69- 58.04	49.19
	8.576	10.230	585023	1265105			40.92- 61.37	54.32
	9.218	10.968	333240	493563		540.7	18.56- 27.85	21.19
			Average of Peak Amounts =		760.1	630.4		
TCMX [2C]	4.413	5.355	962388	1317732	45.58	46.48		100.00(R)
DCB [2C]	9.823	11.568	947505	1492878	51.98	42.54		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

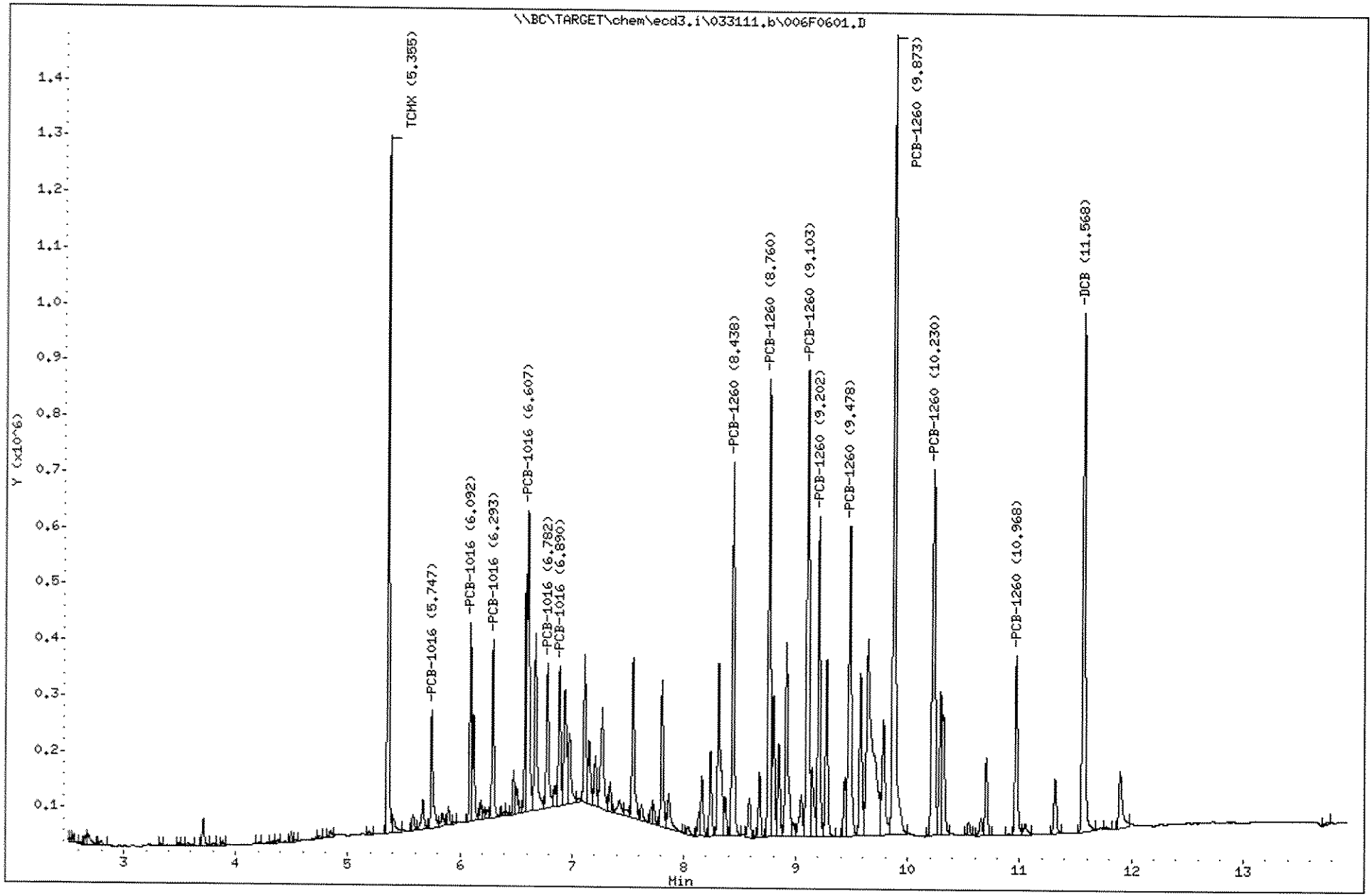
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\006F0601.D
Date : 31-MAR-2011 20:47
Client ID:
Sample Info: 1C28019-BSD1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

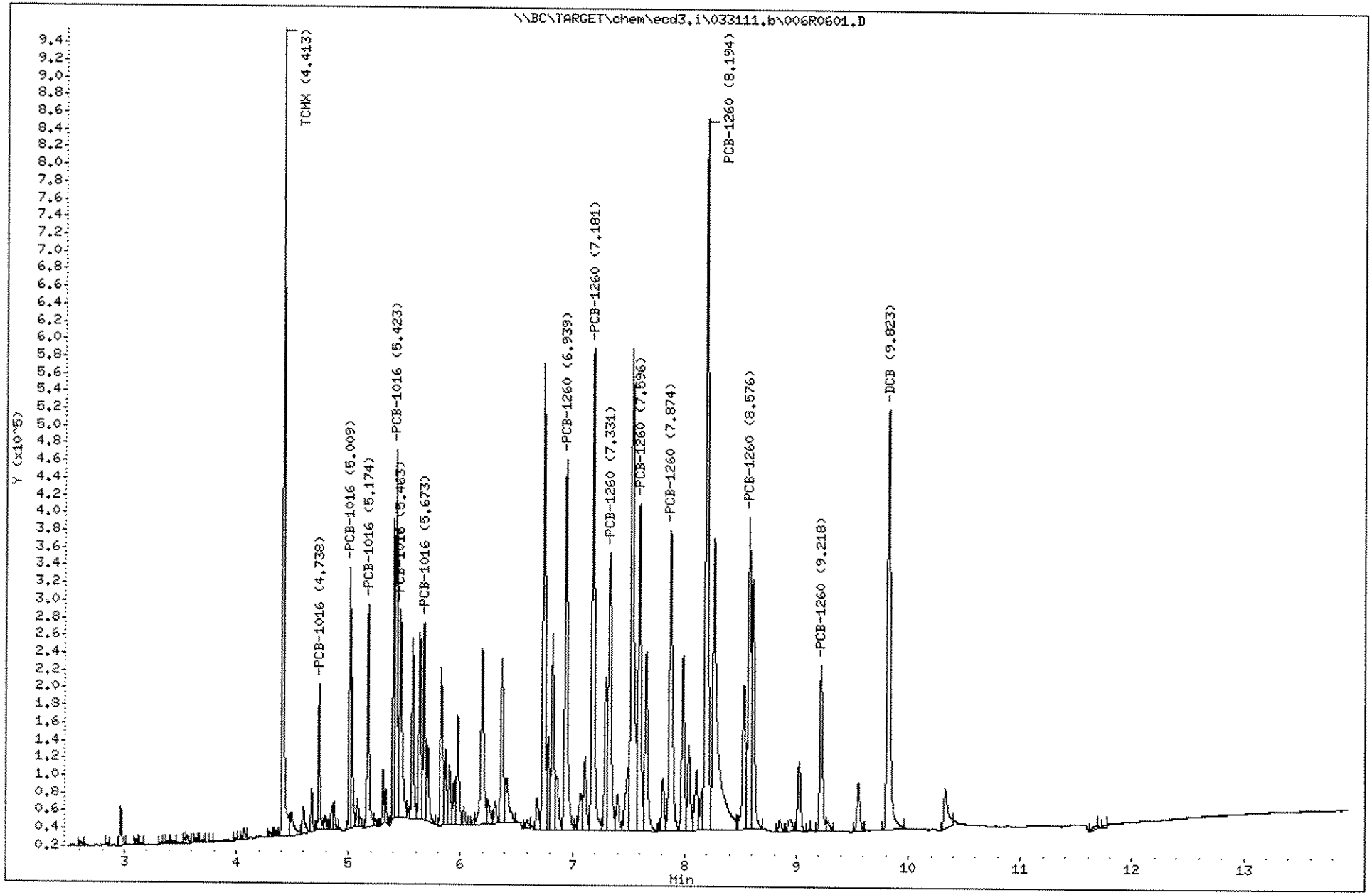


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\006R0601.D
Date : 31-MAR-2011 20:47
Client ID:
Sample Info: 1C28019-BSD1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.1.11

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\007R0701.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\007F0701.D
Inj Date : 31-MAR-2011 21:06
Sample Info: 1103223-24
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1254 [2C]	6.781	8.238	1847746	2718572	1380	1508	80.00- 120.00	100.00
	5.634	7.545	482395	1388229		1279	43.61- 65.41	51.06
	6.194	7.803	1434949	2358802	1276		57.64- 86.46	77.66
	6.369	8.133	1329784	1492409	1386	1365	49.94- 74.90	71.97
	6.684	8.587	919996	2143796	1280	1407	37.61- 56.42	49.79
	7.064	9.103	1639118	3968950	1755	2869	42.61- 63.92	88.71
			Average of Peak Amounts =		1771 1415	1626 1390		
TCMX [2C]	4.413	5.355	747174	1019050	35.39	35.94		100.00(R)
DCB [2C]	9.819	11.570	572328	1008900	31.40	28.75		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

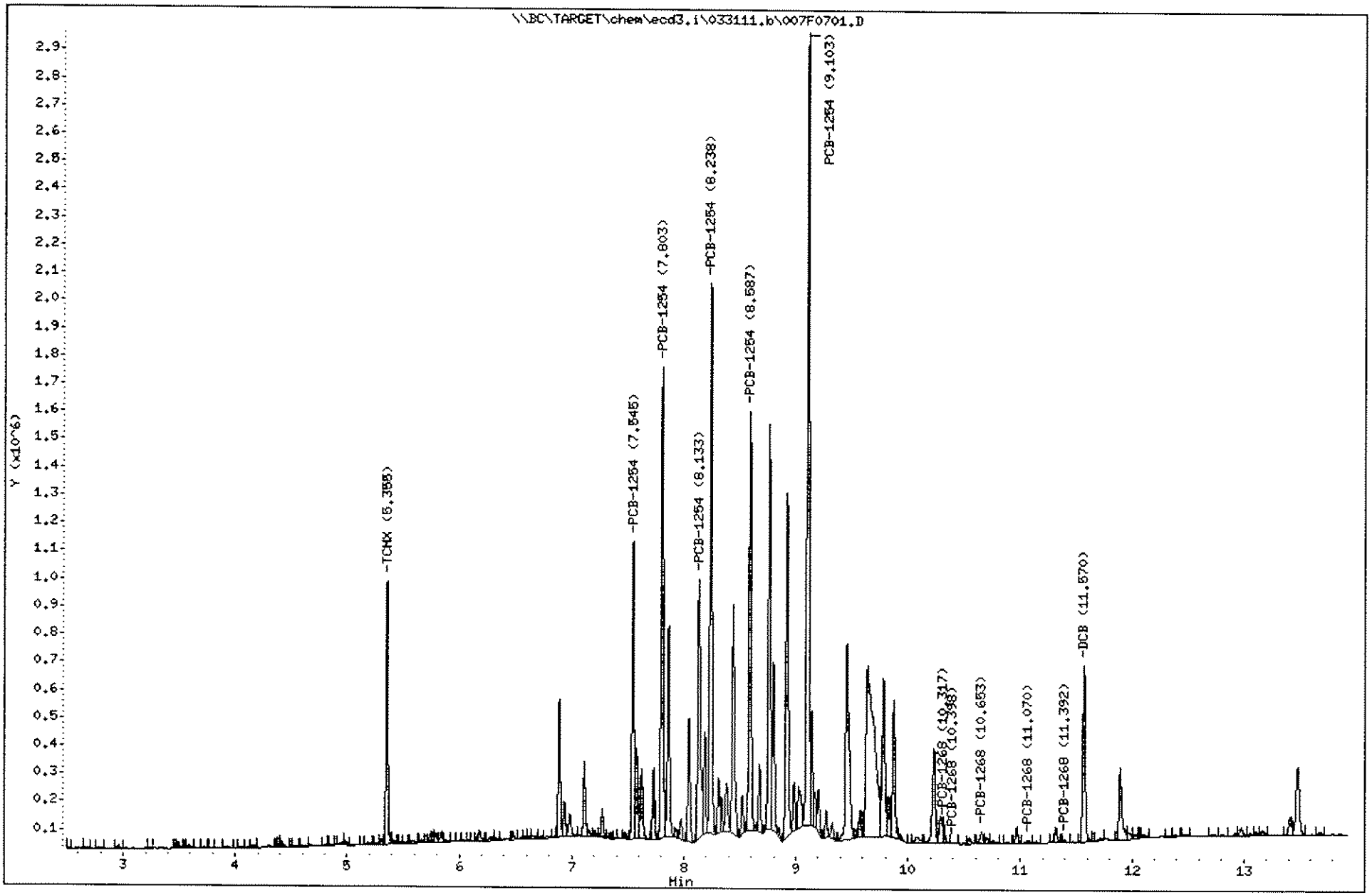
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\007F0701.D
Date : 31-MAR-2011 21:06
Client ID: 8101-1W (20110325)
Sample Info: 1103223-24

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



193

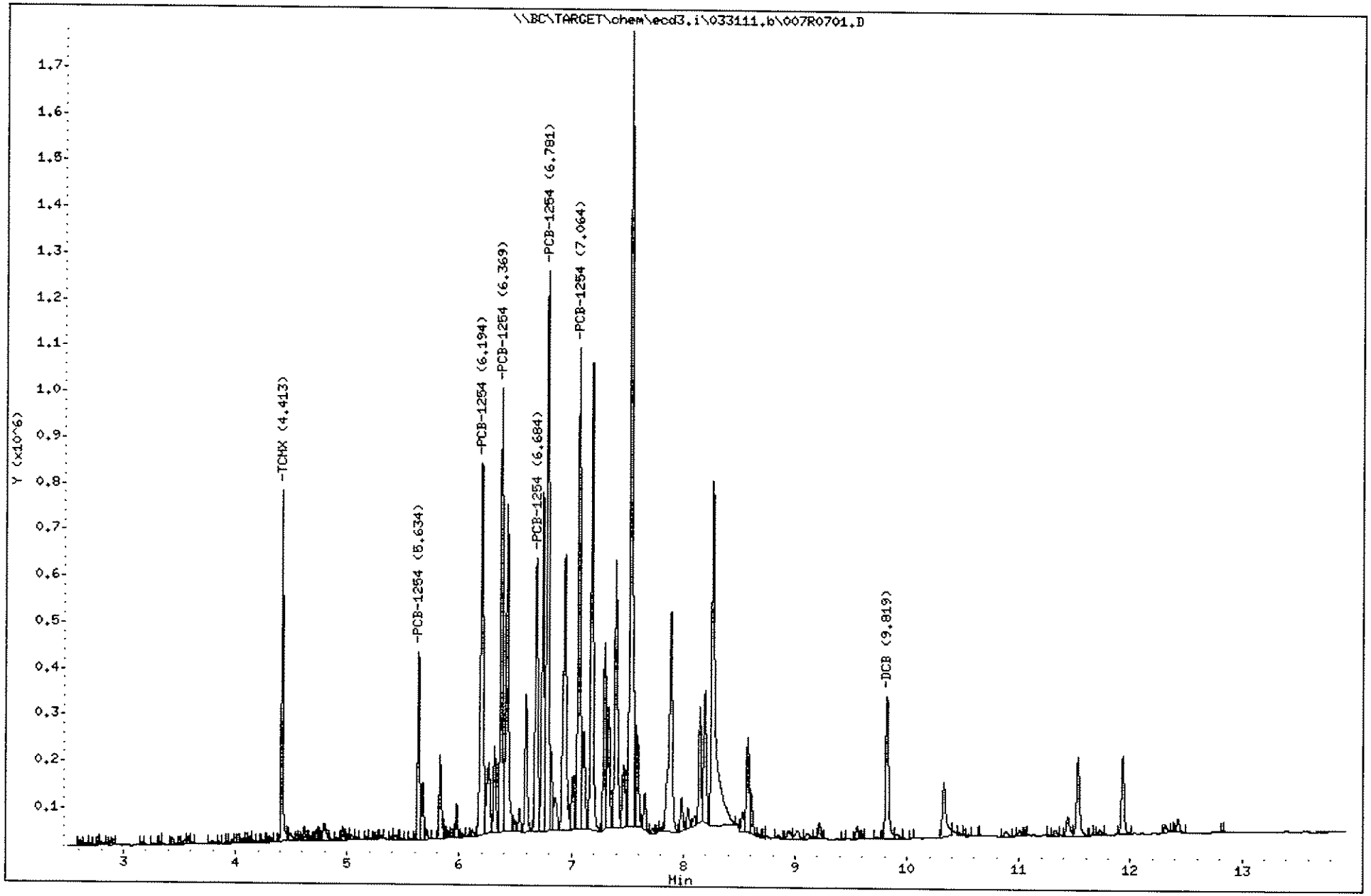
1103223

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\007R0701.D
Date : 31-MAR-2011 21:06
Client ID: 8101-1W (20110325)
Sample Info: 1103223-24

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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1103223

J.H. 4.1.11

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\009R0901.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\009F0901.D
Inj Date : 31-MAR-2011 21:43
Sample Info: 1103223-26
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1254 [2C]	6.781	8.238	160567	303981	119.9	168.6	80.00- 120.00	100.00
	5.632	7.545	47332	198734		183.1	43.61- 65.41	65.38
	6.192	7.805	163516	333931	145.5		57.64- 86.46	101.84
	6.369	8.133	142015	189563	148.1	173.4	49.94- 74.90	88.45
	6.682	8.586	91427	275935	127.2	181.2	37.61- 56.42	56.94
	7.064	9.105	197408	444112	211.4	287.5	42.61- 63.92	122.94
			Average of Peak Amounts =		150.4	198.8		
TCMX [2C]	4.412	5.353	798896	1128571	37.84	39.81		100.00(R)
DCB [2C]	9.822	11.568	512281	998546	28.10	28.45		100.00(R)

135.2 → 176.6

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

1254 (PEAK #1) ⇒ $\frac{160567}{1339} \times 5\,mL \div 15.0\,g \div 0.697$

$= 57.35\ \mu g/Kg$

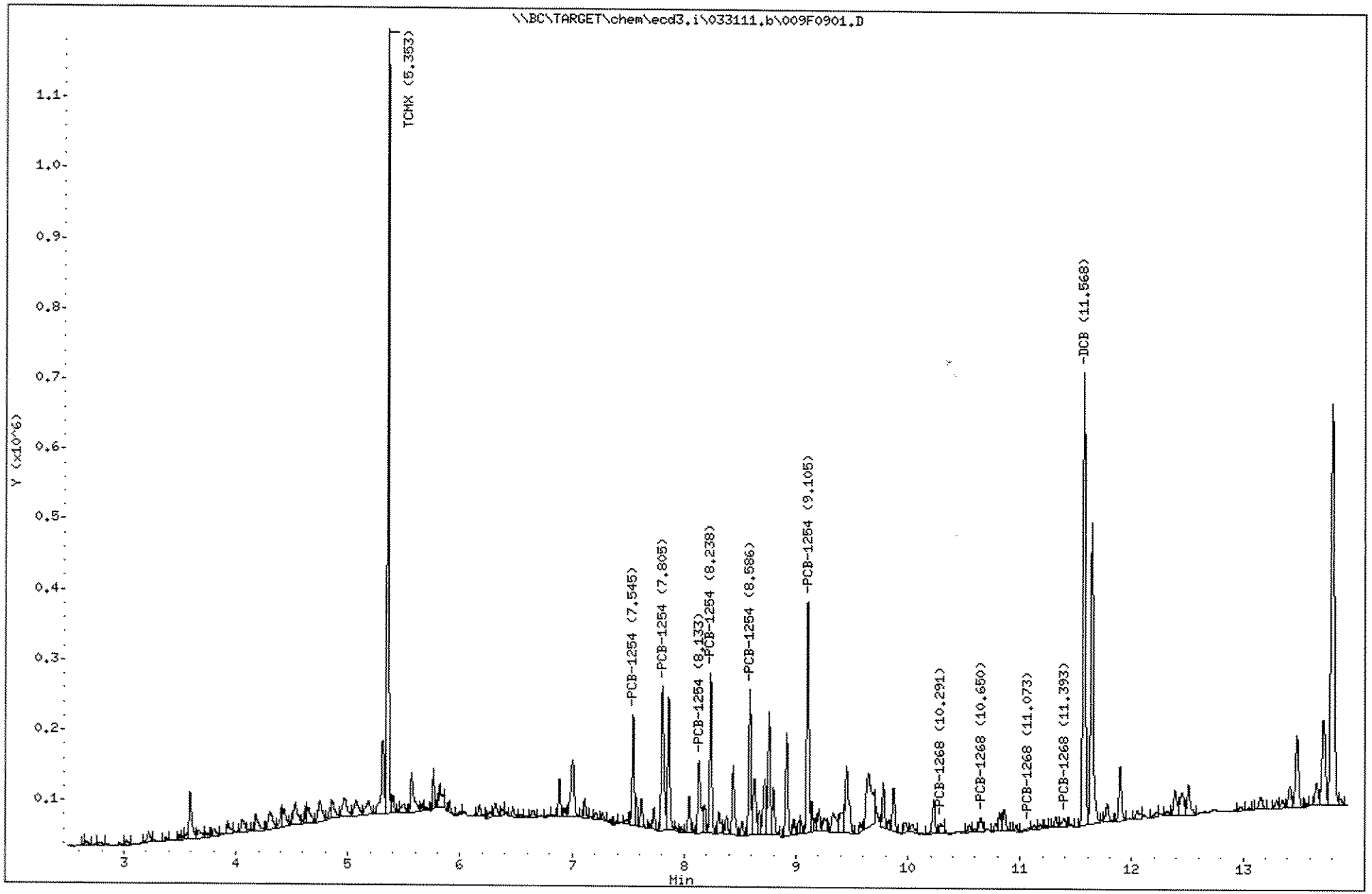
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\009F0901.D
Date : 31-MAR-2011 21:43
Client ID: 8101-3N (20110325)
Sample Info: 1103223-26

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



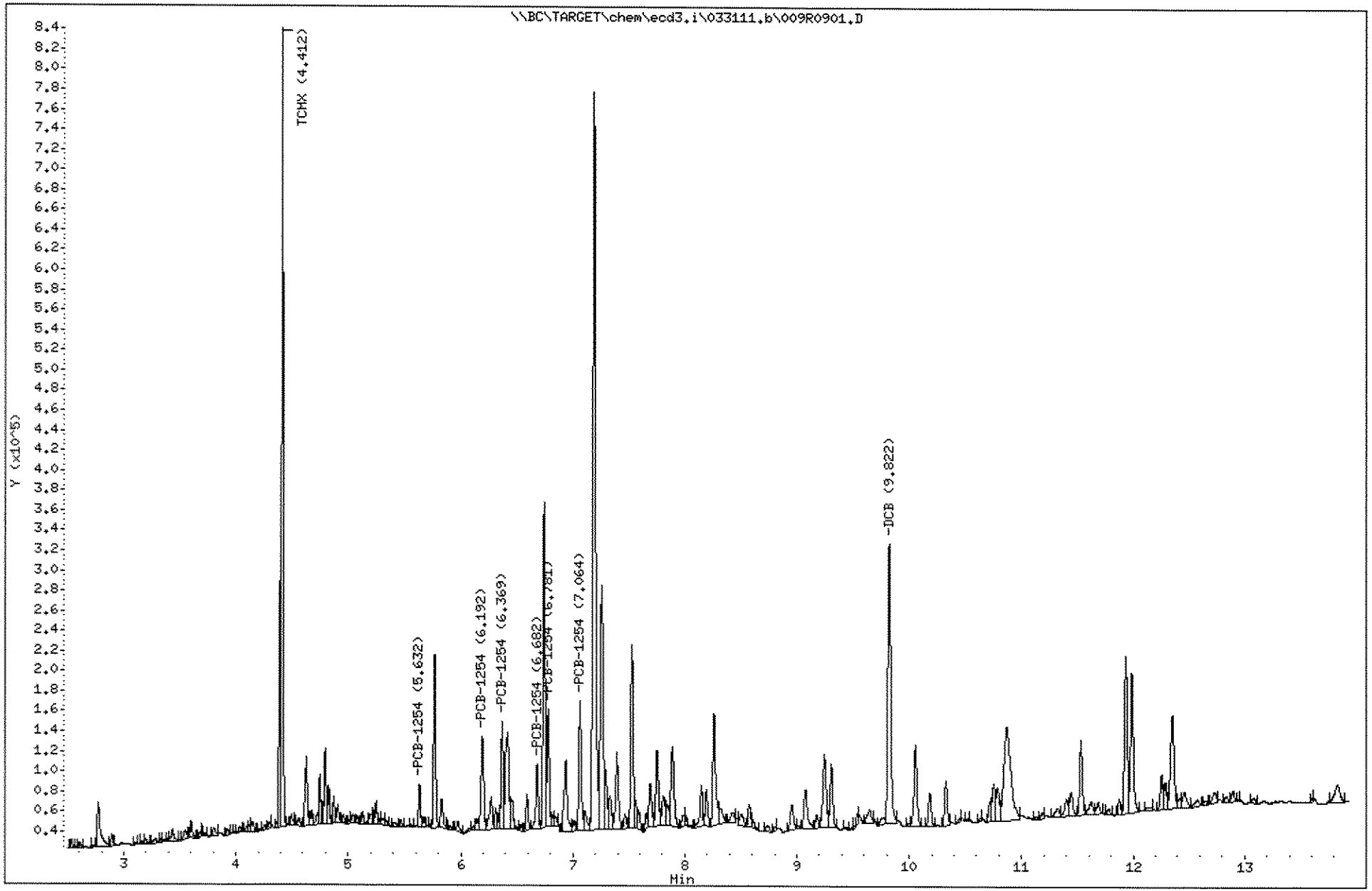
1103223

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\009R0901.D
Date : 31-MAR-2011 21:43
Client ID: 8101-3N (20110325)
Sample Info: 1103223-26

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



1103223

J.H. 4.1.11

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\010R1001.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\010F1001.D
Inj Date : 31-MAR-2011 22:03
Sample Info: 1103223-27
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
TCMX [2C]	4.413	5.356	865689	1206252	41.00	42.55		100.00(R)
DCB [2C]	9.822	11.571	558212	875991	30.62	24.96		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\010F1001.D

Date : 31-MAR-2011 22:03

Client ID: 8101-4B (20110325)

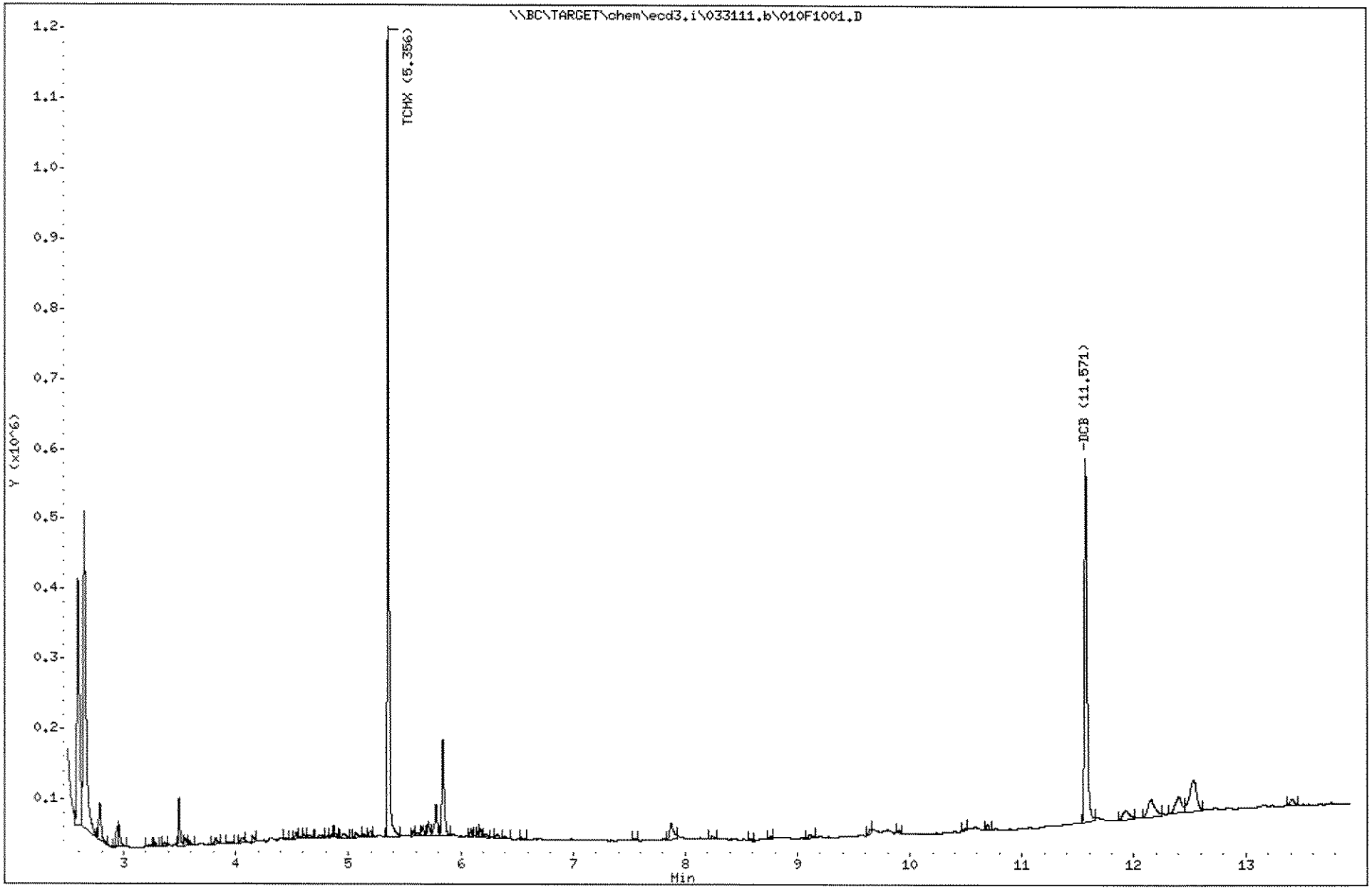
Sample Info: 1103223-27

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32

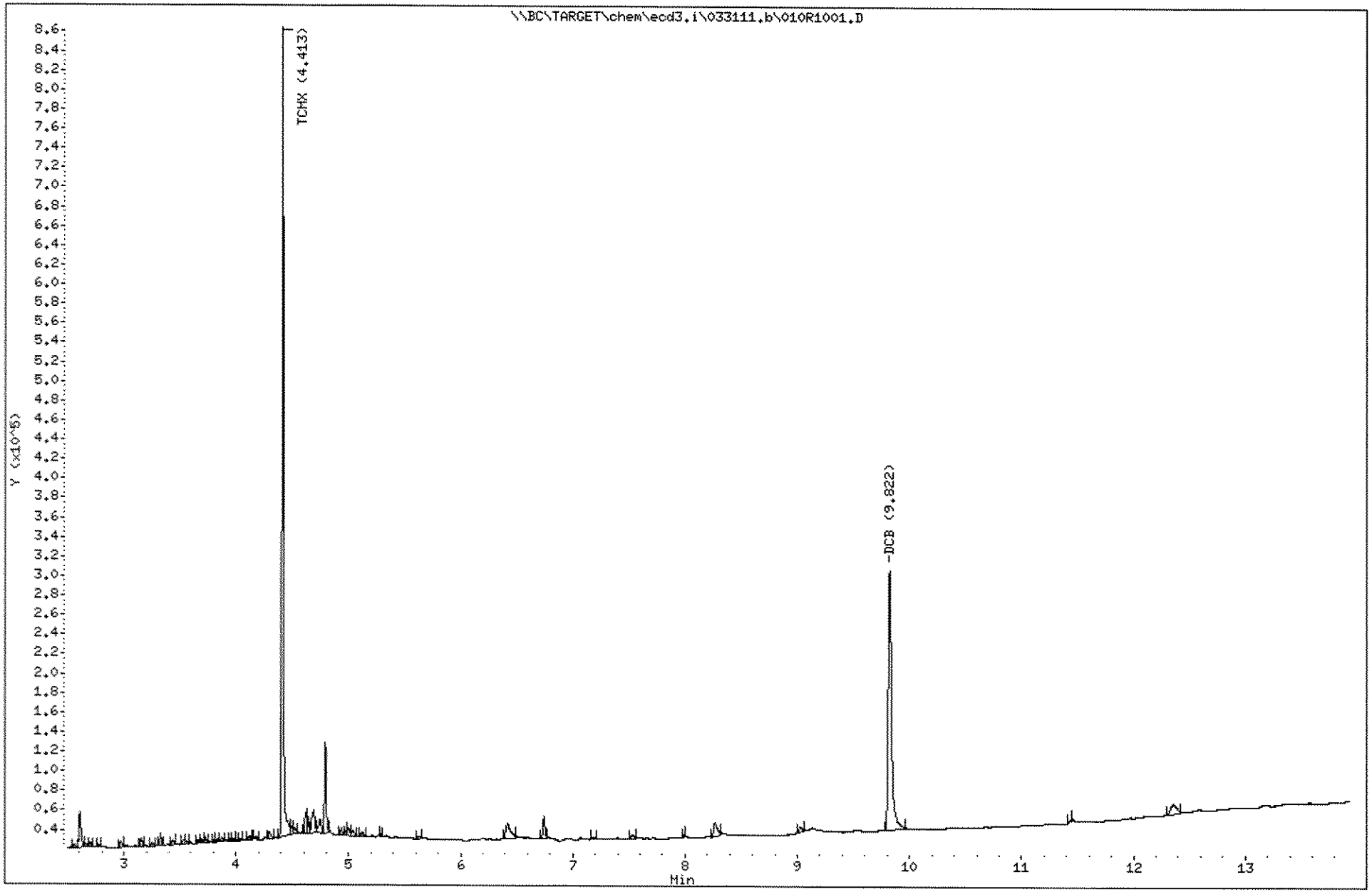


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\010R1001.D
Date : 31-MAR-2011 22:03
Client ID: 8101-4B (20110325)
Sample Info: 1103223-27

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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1103223

D.H. 4.1.11

Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 011F1101.D
Analysis Type:
Lab Sample ID: SEQ-CCV3
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m

Injection Date: 31-MAR-2011 22:21
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1217	1266	0.010	4.0	20.0	
(2)	426	447	0.010	4.9	20.0	
(3)	633	647	0.010	2.3	20.0	
(4)	620	653	0.010	5.3	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	461	518	0.010	12.3	20.0	
35 PCB-1260(1)	3788	X 4072	0.010	7.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1590	1648	0.010	3.7	20.0	
(4)	1921	1966	0.010	2.3	20.0	
(5)	1466	*1621	0.010	10.6	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	913	956	0.010	4.7	20.0	
$ 38 TCMX	28351	29401	0.010	3.7	20.0	
$ 39 DCB	35097	30790	0.010	-12.3	20.0	

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

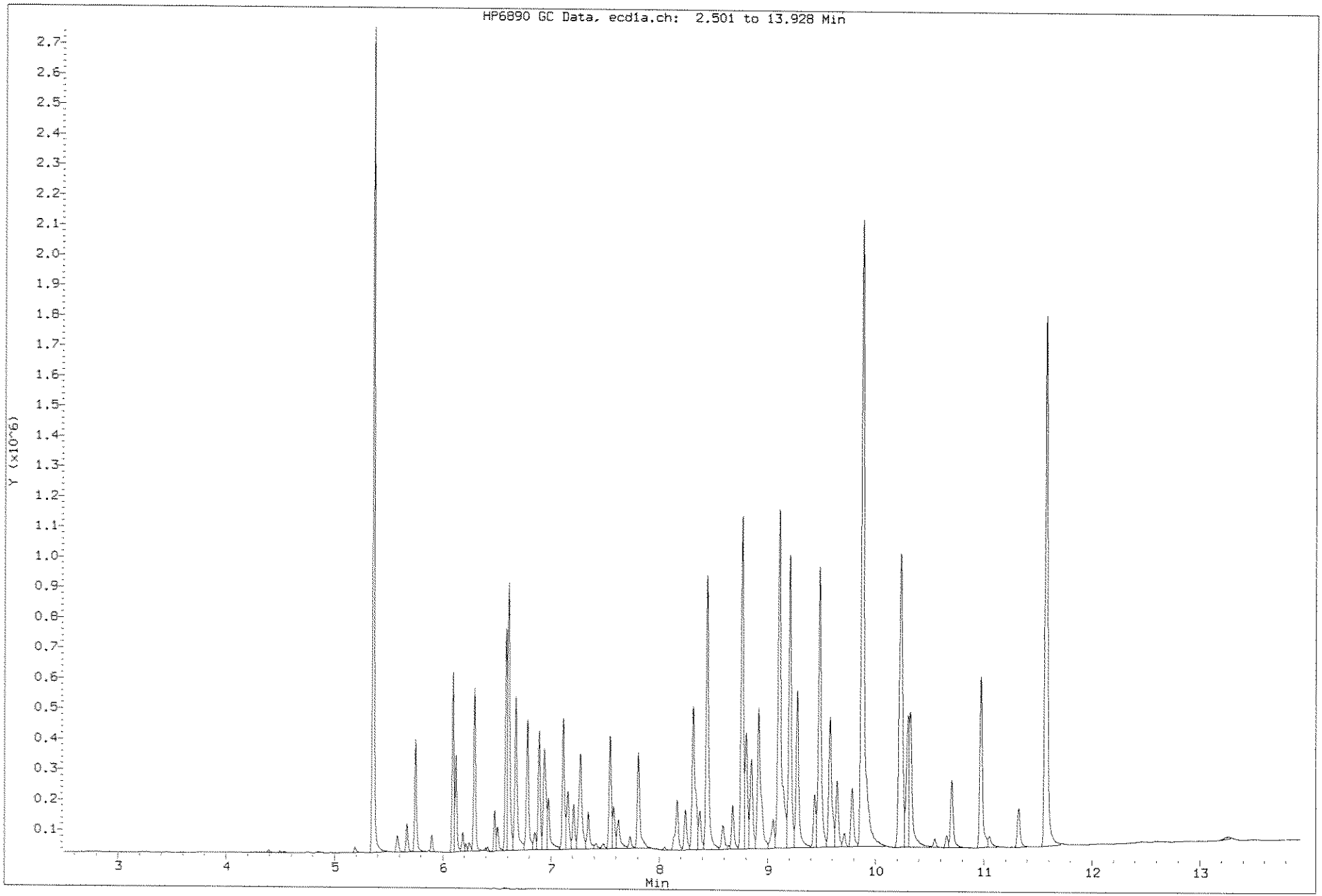
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\011F1101.D
Lab Smp Id: SEQ-CCV3
Inj Date : 31-MAR-2011 22:21
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;;1660d.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Meth Date : 01-Apr-2011 15:19 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.607	6.606	(0.001)	1266146	1000.00	1040	80.00- 120.00	100.00
5.745	5.746	(-0.001)	447214	1000.00	1049	28.26- 42.39	35.32
6.092	6.091	(0.001)	647025	1000.00	1022	40.88- 61.32	51.10
6.292	6.293	(-0.001)	652942	1000.00	1053	41.26- 61.88	51.57
6.780	6.781	(-0.001)	656590			41.49- 62.23	51.86
6.889	6.889	(0.000)	518078	1000.00	1123	32.73- 49.10	40.92
	Average of Peak Amounts =				1058		
35 PCB-1260					CAS #: 11096-82-5		
9.875	9.874	(0.001)	4072333	1000.00 X	1075	80.00- 120.00	100.00(M)
8.439	8.441	(-0.002)	1525133			29.96- 44.94	37.45
8.762	8.761	(0.001)	1647838	1000.00	1036	32.37- 48.56	40.46
9.105	9.106	(-0.001)	1966039	1000.00	1023	38.62- 57.93	48.28
9.202	9.203	(-0.001)	*1621085	1000.00	1106	31.85- 47.77	39.81
9.479	9.481	(-0.002)	1676608			32.94- 49.40	41.17
10.230	10.231	(-0.001)	2086617			40.99- 61.49	51.24
10.969	10.968	(0.001)	955797	1000.00	1047	18.78- 28.16	23.47
	Average of Peak Amounts =				1058		
$ 38 TCMX					CAS #: 877-09-8		
5.355	5.354	(0.001)	2940121	100.000	103.7		(A)
$ 39 DCB					CAS #: 2051-24-3		
11.570	11.571	(-0.001)	3079011	100.000	87.73		

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\011F1101.D
Injection Date: 31-MAR-2011 22:21
Instrument: ecd3.i
Client Sample ID:

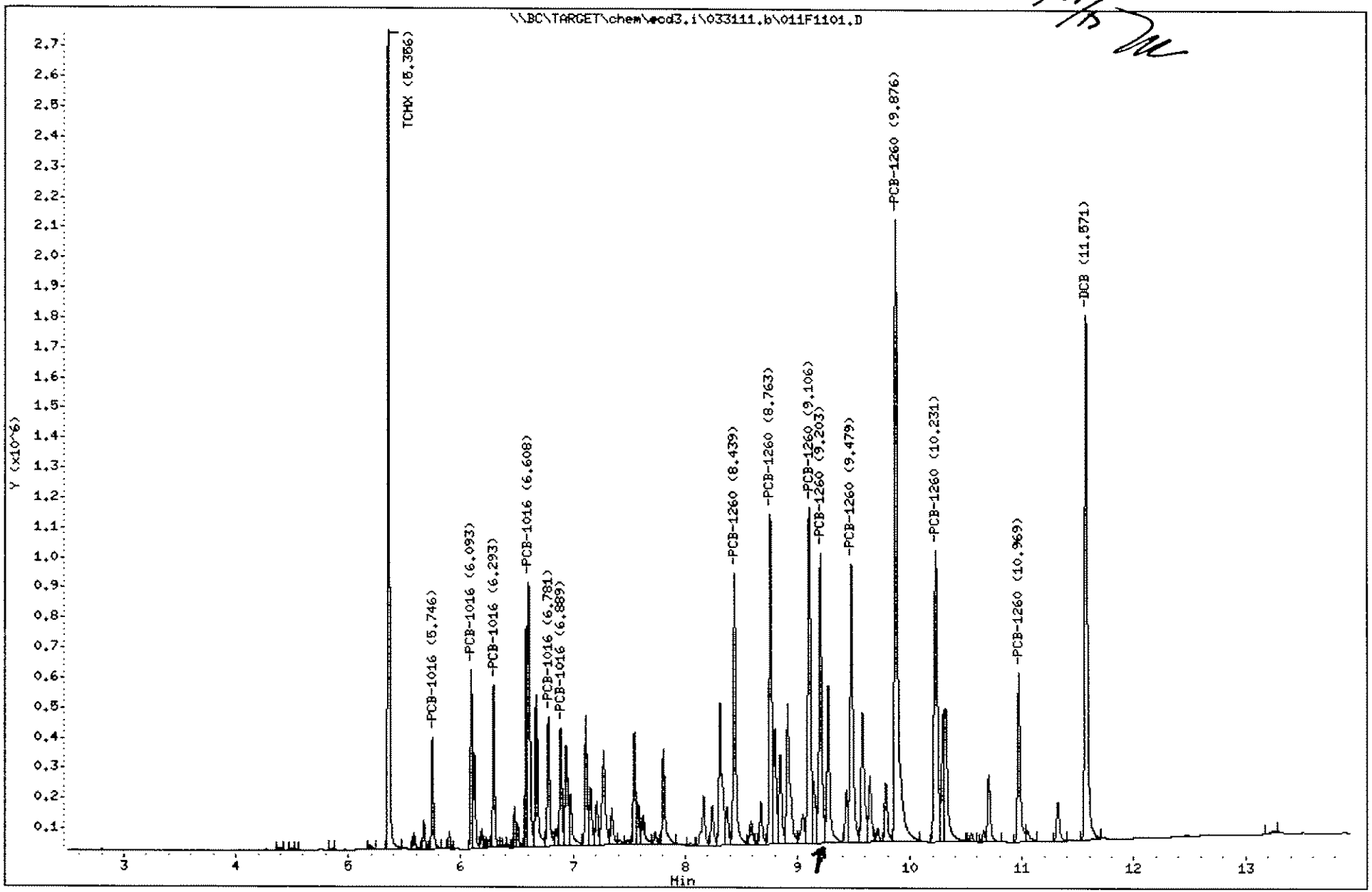


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\011F1101.D
Date : 31-MAR-2011 22:21
Client ID:
Sample Info: SEQ-CCV3

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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1103223

J.H. 4.1.11

Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 011R1101.D
Analysis Type:
Lab Sample ID: SEQ-CCV3
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m

Injection Date: 31-MAR-2011 22:21
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	757	880	0.010	16.2	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	518	✗ 531	0.010	2.4	20.0	
(4)	499	573	0.010	14.8	20.0	
(5)	574	762	0.010	32.9	20.0	<-
(6)	395	500	0.010	26.6	20.0	<-
35 PCB-1260(1)	1894	2461	0.010	29.9	20.0	<-
(2)	939	1218	0.010	29.7	20.0	<-
(3)	1119	1450	0.010	29.6	20.0	<-
(4)	794	* 1029	0.010	29.6	20.0	<-
(5)	++++	++++	0.010	++++	20.0	<-
(6)	922	1215	0.010	31.9	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21112	20997	0.010	-0.5	20.0	
$ 39 DCB	18230	19060	0.010	4.6	20.0	

18.6%D

30.1%D (HIGH)

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\011R1101.D
Lab Smp Id: SEQ-CCV3
Inj Date : 31-MAR-2011 22:21
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;;1660d.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Meth Date : 01-Apr-2011 15:19 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2			
5.423	5.422	(0.001)	879819	1000.00	1162	80.00-	120.00	100.00
4.736	4.735	(0.001)	331125			30.11-	45.16	37.64
5.010	5.007	(0.003)	530911	1000.00	1024	48.27-	72.41	60.34
5.173	5.172	(0.001)	573022	1000.00	1148	52.10-	78.16	65.13
5.463	5.460	(0.003)	762442	1000.00	1328	69.33-	103.99	86.66
5.673	5.670	(0.003)	499887	1000.00	1266	45.45-	68.18	56.82
		Average of Peak Amounts =			1186			
35 PCB-1260 [2C]					CAS #: 11096-82-5			
8.195	8.194	(0.001)	2460655	1000.00	1299	80.00-	120.00	100.00
6.940	6.937	(0.003)	1217773	1000.00	1297	39.59-	59.39	49.49
7.181	7.180	(0.001)	1450464	1000.00	1296	47.16-	70.74	58.95
7.331	7.330	(0.001)	*1029318	1000.00	1296	33.46-	50.20	41.83
7.596	7.595	(0.001)	1263252			41.07-	61.61	51.34
7.876	7.877	(-0.001)	1215200	1000.00	1318	39.51-	59.26	49.39
8.578	8.577	(0.001)	870971			28.32-	42.48	35.40
9.221	9.219	(0.002)	618116			20.10-	30.14	25.12
		Average of Peak Amounts =			1301			
$ 38 TCMX [2C]					CAS #: 877-09-8			
4.413	4.412	(0.001)	2099678	100.000	99.46			
$ 39 DCB [2C]					CAS #: 2051-24-3			
9.821	9.822	(-0.001)	1906021	100.000	104.6			(A)

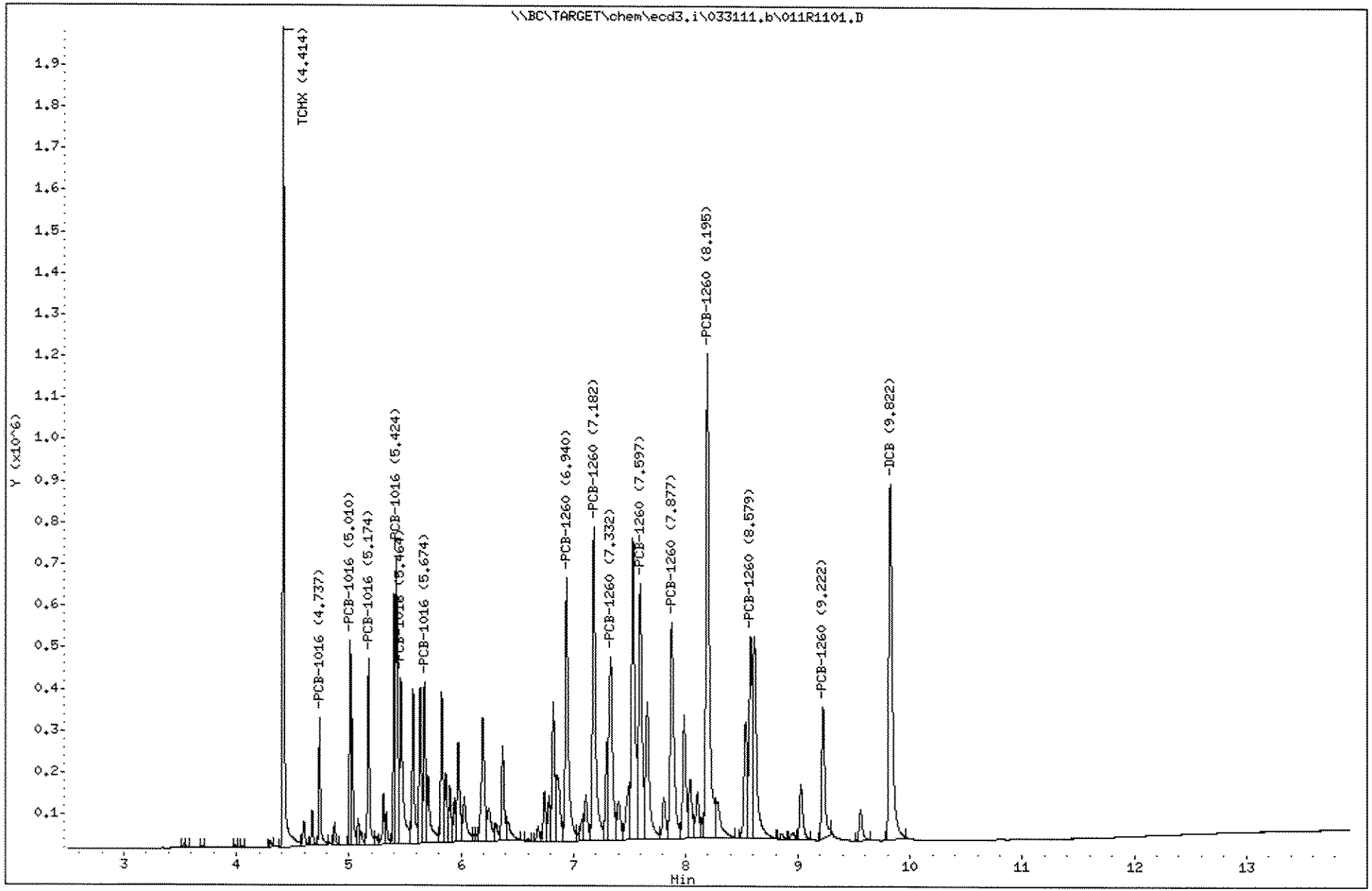
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\011R1101.D
Date : 31-MAR-2011 22:21
Client ID:
Sample Info: SEQ-CCV3

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB HR-2



Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 31-MAR-2011 22:40
Lab File ID: 012F1201.D Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Analysis Type: Init. Cal. Times: 08:58 18:11
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1764	0.010	-2.2	20.0	
(2)	1085	953	0.010	-12.2	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1039	0.010	-5.0	20.0	
(5)	1523	*1211	0.010	-20.5	20.0	<-
(6)	1545	✓ 1429	0.010	-7.5	20.0	

-9.5%D

04/05/11

D.H. 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\012F1201.D
Lab Smp Id: SEQ-CCV4
Inj Date : 31-MAR-2011 22:40
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Meth Date : 01-Apr-2011 12:24 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

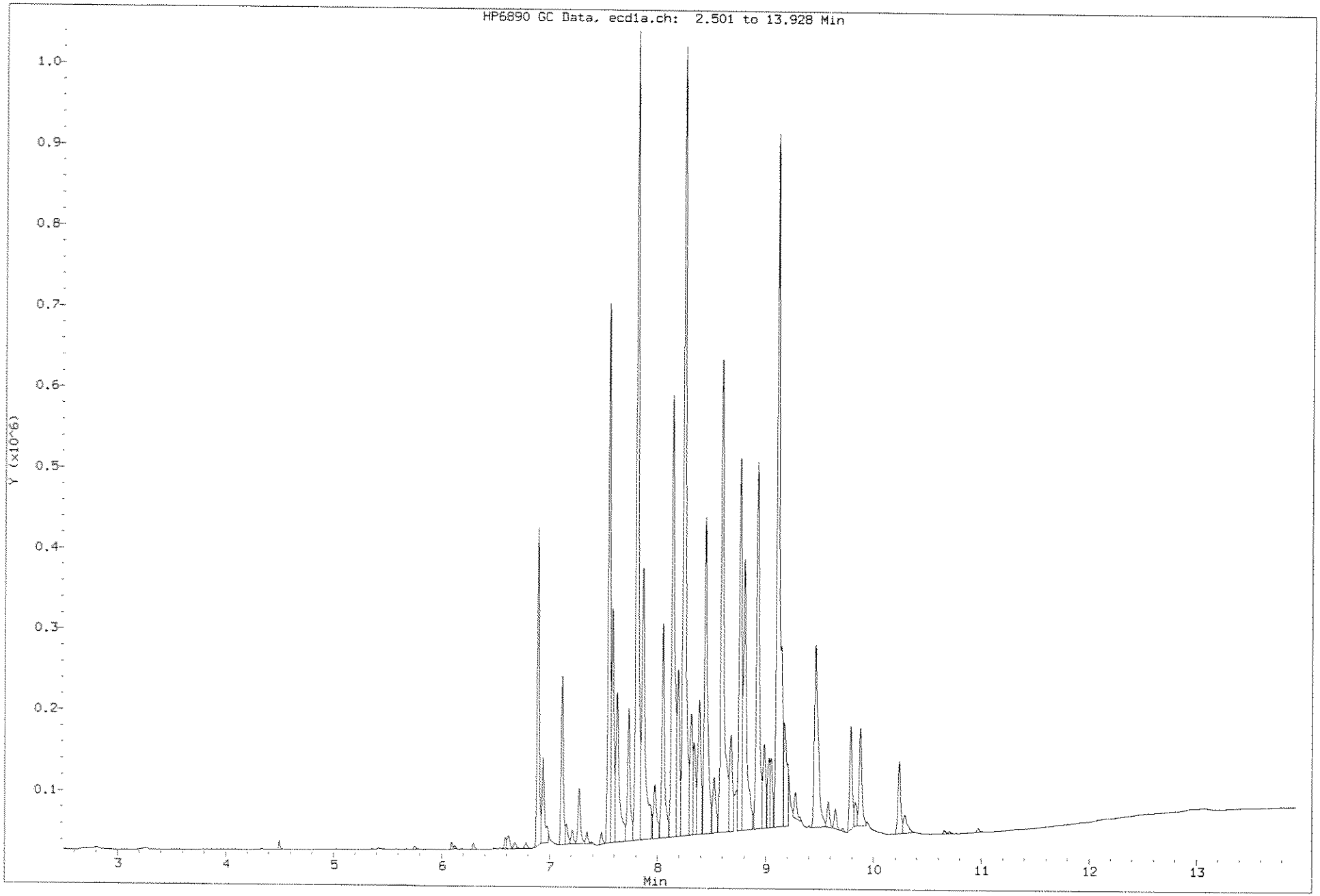
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.242	8.241	(0.001)	1764391	1000.00	978.4	80.00-	120.00	100.00(M)
7.547	7.546	(0.001)	952514	1000.00	877.5	43.19-	64.78	53.99
7.805	7.804	(0.001)	1601118			72.60-	108.90	90.75
8.135	8.136	(-0.001)	1038723	1000.00	950.0	47.10-	70.65	58.87
8.592	8.591	(0.001)	* 1210680	1000.00	794.8	54.89-	82.34	68.62
9.107	9.106	(0.001)	1429269	1000.00	925.3	64.81-	97.21	81.01
		Average of Peak Amounts =			905.2			

QC Flag Legend

M - Compound response manually integrated.

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\012F1201.D
Injection Date: 31-MAR-2011 22:40
Instrument: ecd3.i
Client Sample ID:

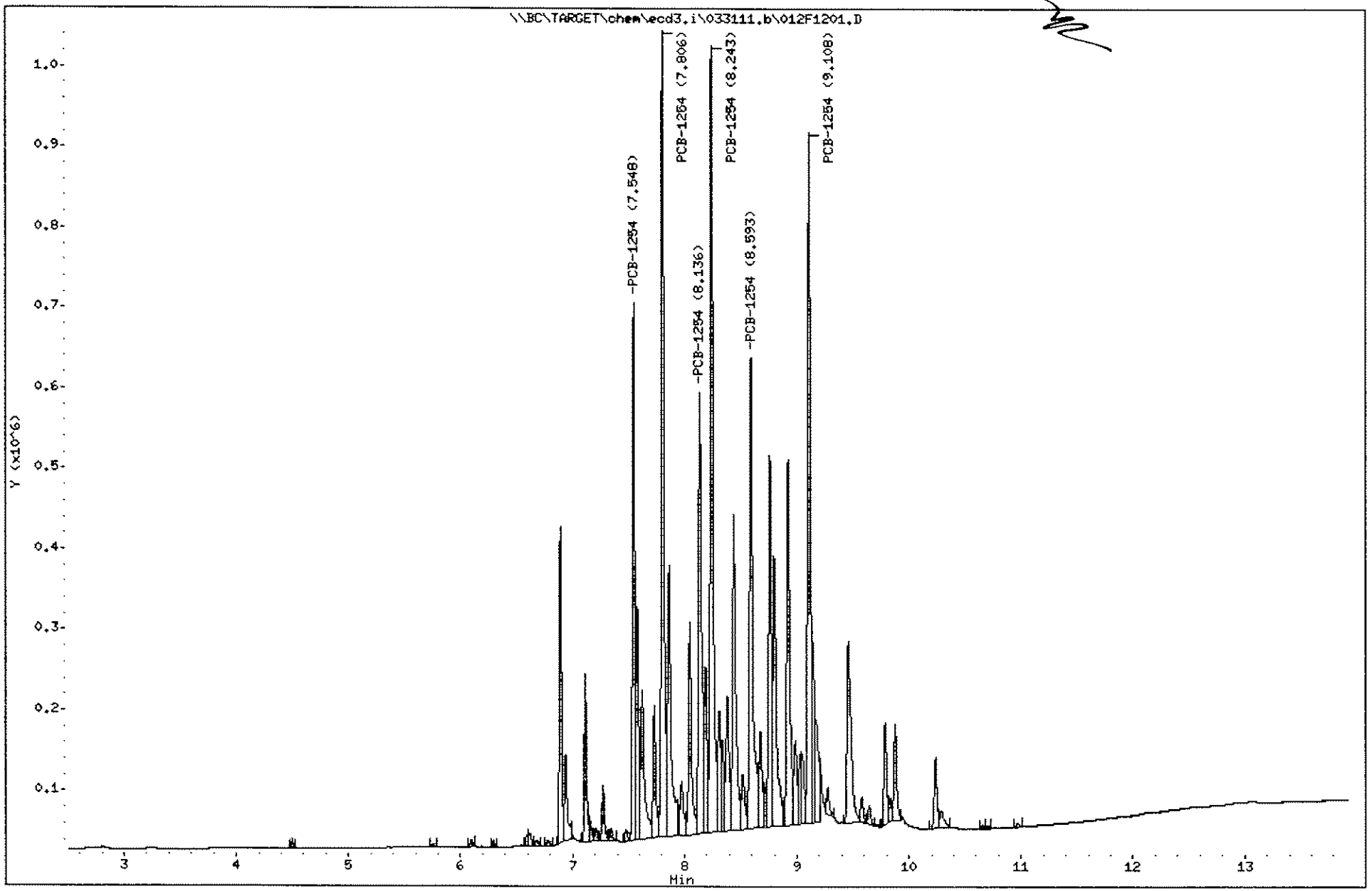


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\012F1201.D
Date : 31-MAR-2011 22:40
Client ID:
Sample Info: SEQ-CCV4

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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1103223

Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 31-MAR-2011 22:40
Lab File ID: 012R1201.D Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Analysis Type: Init. Cal. Times: 08:58 18:11
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1461	0.010	9.1	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1060	0.010	-5.7	20.0	
(4)	959	928	0.010	-3.3	20.0	
(5)	719	*708	0.010	-1.6	20.0	
(6)	934	784	0.010	-16.1	20.0	

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\012R1201.D
Lab Smp Id: SEQ-CCV4
Inj Date : 31-MAR-2011 22:40
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Meth Date : 01-Apr-2011 12:24 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.785	6.780	(0.005)	1461345	1000.00	1091	80.00- 120.00	100.00
5.635	5.632	(0.003)	412355			22.57- 33.86	28.22
6.195	6.193	(0.002)	1059688	1000.00	942.7	58.01- 87.02	72.51
6.370	6.368	(0.002)	927527	1000.00	967.1	50.78- 76.16	63.47
6.685	6.683	(0.002)	*707589	1000.00	984.3	38.74- 58.10	48.42
7.070	7.065	(0.005)	783610	1000.00	839.1	42.90- 64.35	53.62
		Average of Peak Amounts =			964.9		

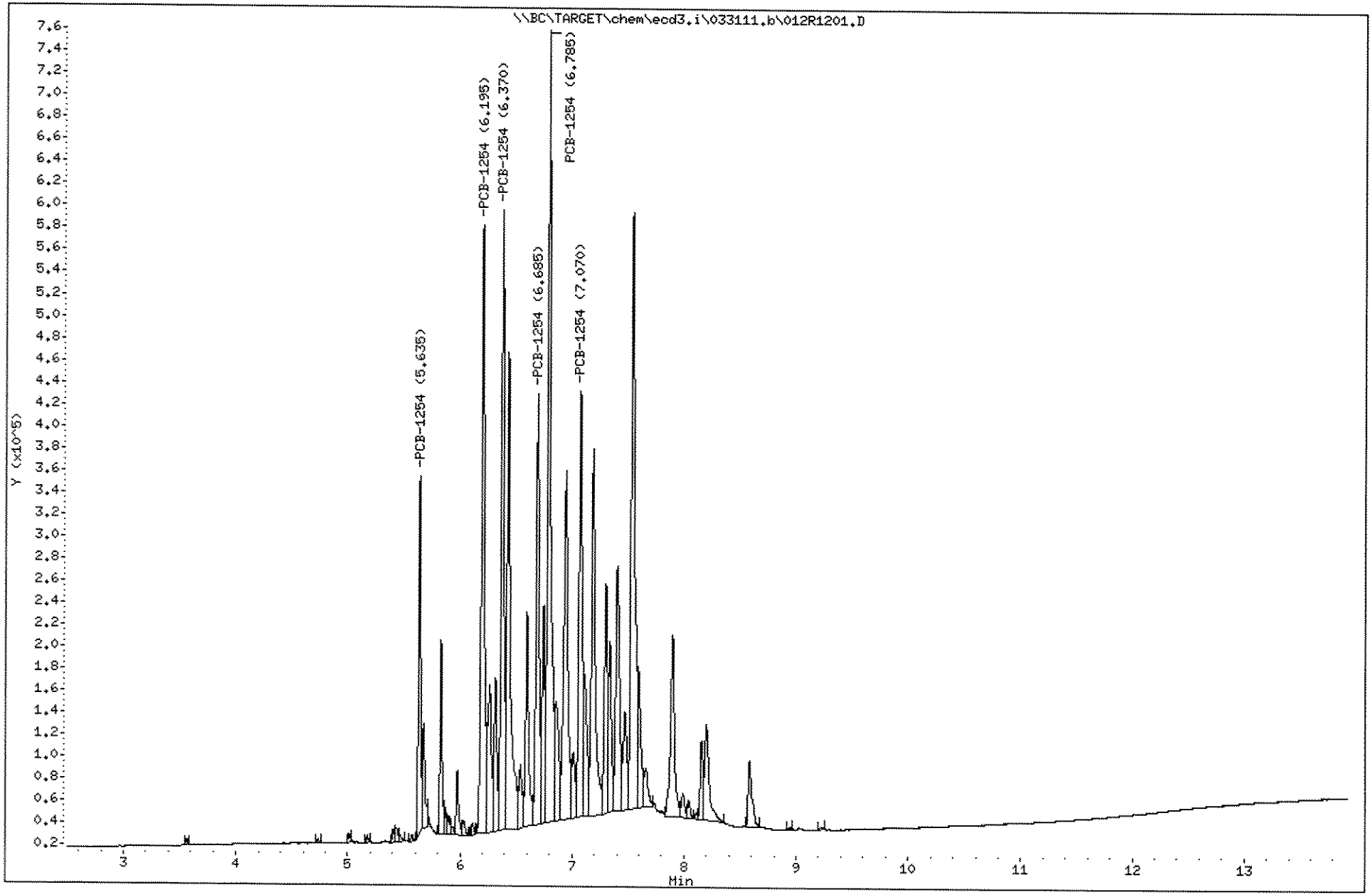
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\012R1201.D
Date : 31-MAR-2011 22:40
Client ID:
Sample Info: SEQ-CCV4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



J.H. 4.1.11

Empirical Laboratories, LLC

Sample #1 : \\BC\TARGET\chem\ecd3.i\033111.b\013R1301.D
Sample #2 : \\BC\TARGET\chem\ecd3.i\033111.b\013F1301.D
Inj Date : 01-APR-2011 09:17
Sample Info: 1103223-25@2X
Misc Info : ;;;;;;ALL3.sub
Cal Date : 01-APR-2011 14:46
Operator : JH
Inst ID : ecd3.i
Dil Factor : 2.000000

Method #1 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Method #2 : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Sub List #1 : ALL3.sub
Sub List #2 : ALL3.sub
Col #1 Phase : ZB MR-2
Col #2 Phase : ZB MR-1

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1254 [2C]	6.787	8.254	1945688	2508441	2906	2782	80.00- 120.00	100.00
	5.637	7.558	509814	1232046		2270	43.61- 65.41	49.12
	6.199	7.816	1393269	2137566	2479		57.64- 86.46	71.61
	6.374	8.148	1184070	1431711	2469	2619	49.94- 74.90	60.86
	6.689	8.603	917370	2031372	2552	2667	37.61- 56.42	47.15
	7.070	9.119	1356045	2668542	2904	~~3455~~	42.61- 63.92	69.69
			Average of Peak Amounts =		2662	~~2759~~ 2586		
TCMX [2C]	4.414	5.363	432386	525579	40.96	37.08		100.00(R)
DCB [2C]	9.825	11.583	357910	574866	39.27	32.76		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

04/05/11

1254 (PEAK #1) => $\frac{2508441}{1803} \times 2 \times 5mL \div 15.0g \div 0.79\%$

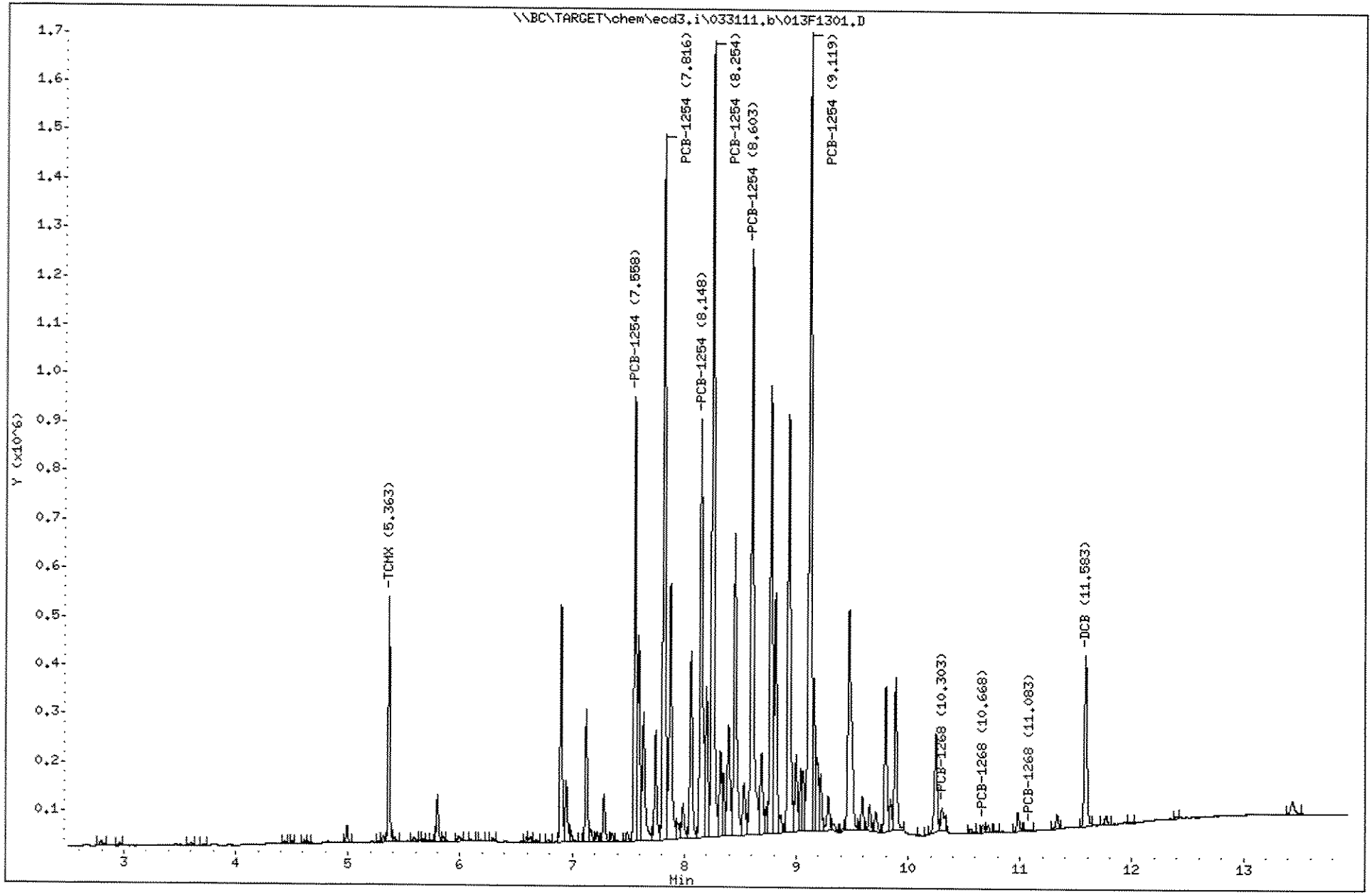
$= 1168.1$ mg/kg

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\013F1301.D
Date : 01-APR-2011 09:17
Client ID:
Sample Info: 1103223-2502X

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

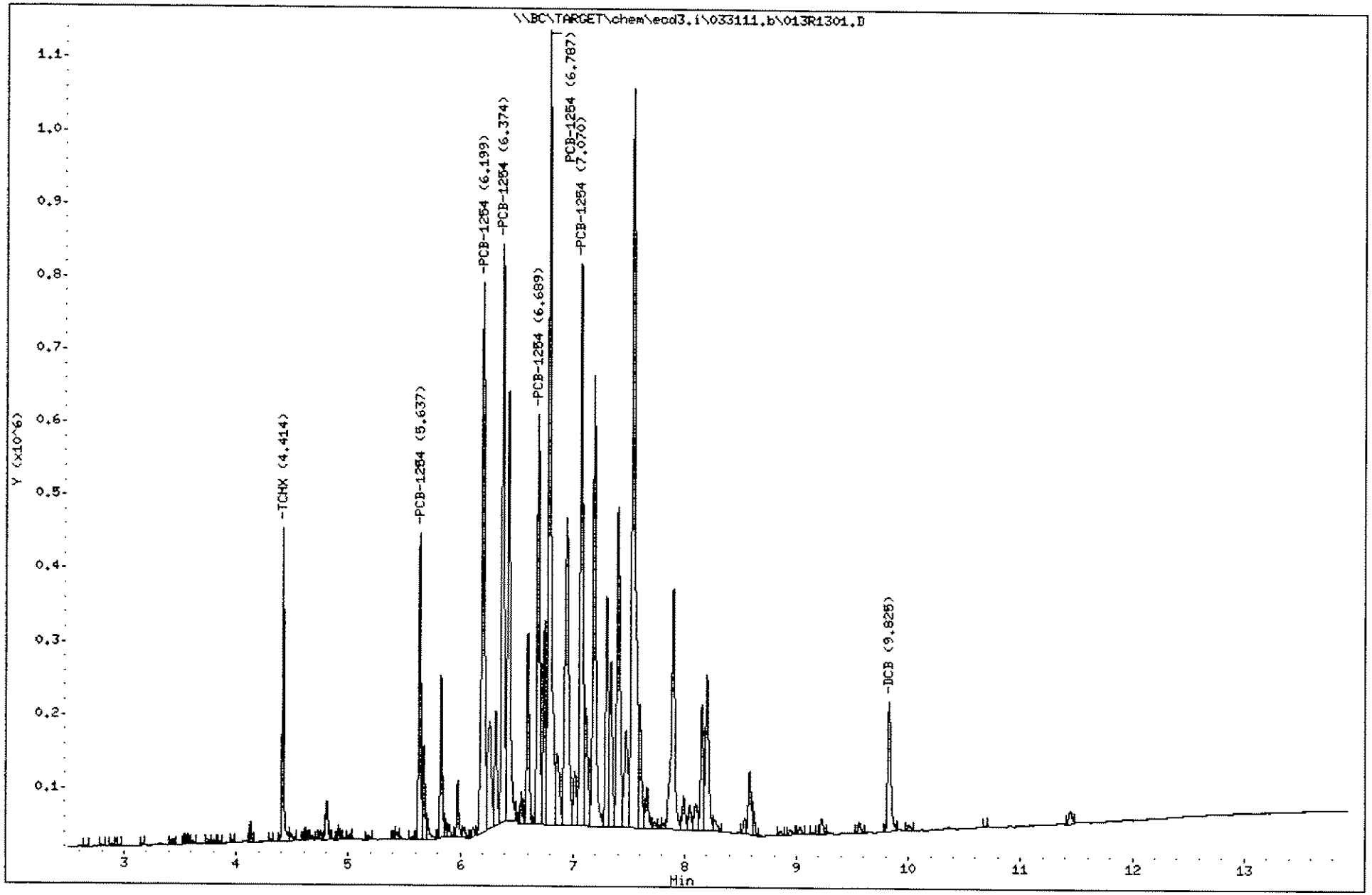


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\013R1301.D
Date : 01-APR-2011 09:17
Client ID:
Sample Info: 1103223-2502X

Column phase: ZB HR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



J.H. 4.1.11

Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 014F1401.D
Analysis Type:
Lab Sample ID: SEQ-CCV5
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m

Injection Date: 01-APR-2011 09:35
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1217	1346	0.010	10.6	20.0	
(2)	426	472	0.010	10.8	20.0	
(3)	633	688	0.010	8.8	20.0	
(4)	620	687	0.010	10.7	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	461	551	0.010	19.4	20.0	
35 PCB-1260(1)	3788	X 4441	0.010	17.2	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1590	1812	0.010	14.0	20.0	
(4)	1921	* 2135	0.010	11.2	20.0	
(5)	1466	1750	0.010	19.4	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	913	1031	0.010	12.9	20.0	
$ 38 TCMX	28351	31074	0.010	9.6	20.0	
$ 39 DCB	35097	33460	0.010	-4.7	20.0	

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

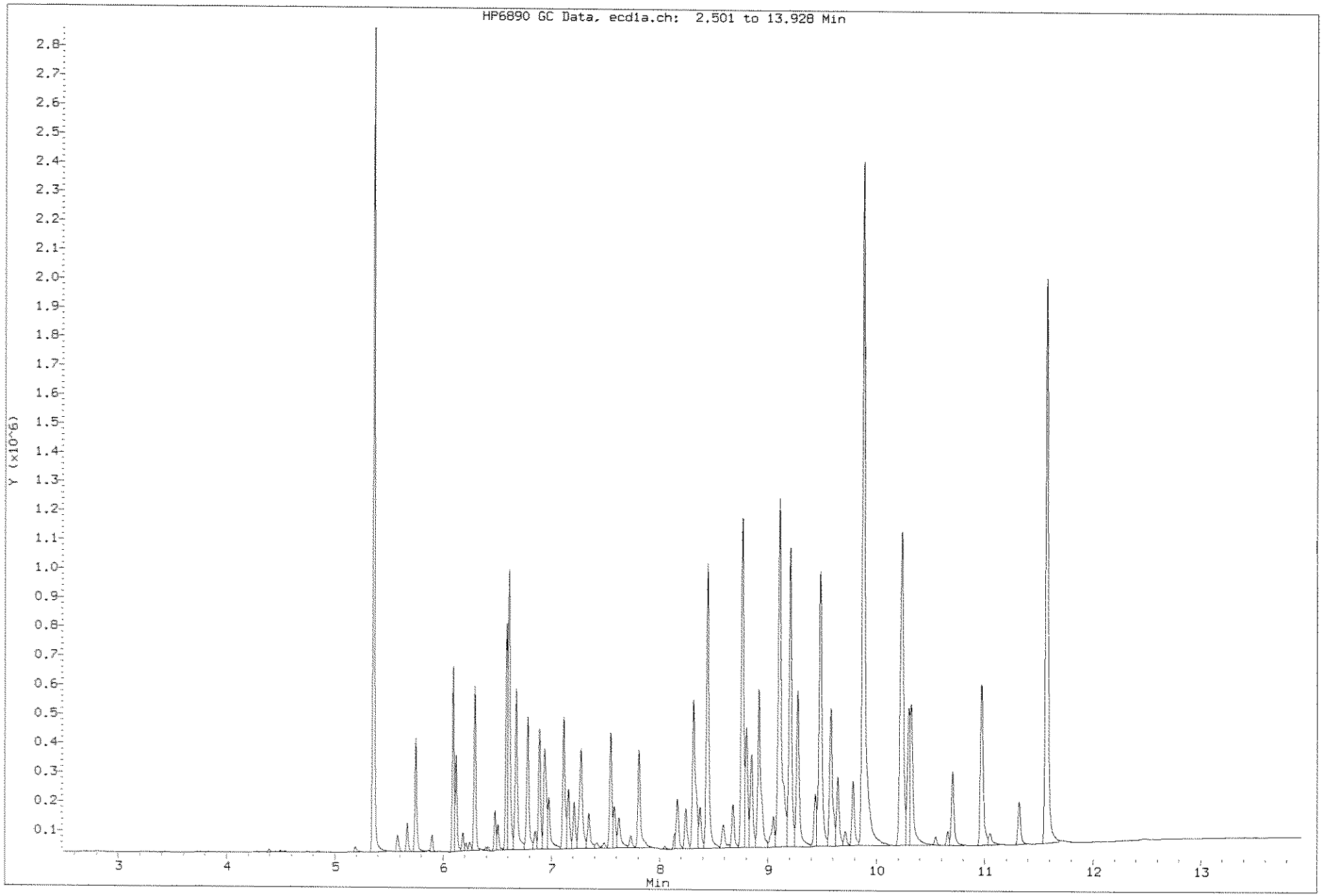
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\014F1401.D
Lab Smp Id: SEQ-CCV5
Inj Date : 01-APR-2011 09:35
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;1660d.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Meth Date : 01-Apr-2011 15:13 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016					CAS #: 12674-11-2		
6.605	6.606	(-0.001)	1346026	1000.00	1106	80.00- 120.00	100.00
5.745	5.746	(-0.001)	472039	1000.00	1108	28.06- 42.08	35.07
6.092	6.091	(0.001)	688302	1000.00	1088	40.91- 61.36	51.14
6.292	6.293	(-0.001)	686763	1000.00	1107	40.82- 61.23	51.02
6.780	6.781	(-0.001)	696670			41.41- 62.11	51.76
6.889	6.889	(0.000)	550693	1000.00	1194	32.73- 49.10	40.91
		Average of Peak Amounts =			1121		
35 PCB-1260					CAS #: 11096-82-5		
9.875	9.874	(0.001)	4441453	1000.00	1172	80.00- 120.00	100.00(M)
8.440	8.441	(-0.001)	1625558			29.28- 43.92	36.60
8.760	8.761	(-0.001)	1811781	1000.00	1140	32.63- 48.95	40.79
9.104	9.106	(-0.002)	* 2135358	1000.00	1112	38.46- 57.69	48.08
9.204	9.203	(0.001)	1750019	1000.00	1194	31.52- 47.28	39.40
9.479	9.481	(-0.002)	1829936			32.96- 49.44	41.20
10.232	10.231	(0.001)	2271540			40.92- 61.37	51.14
10.969	10.968	(0.001)	1030613	1000.00	1129	18.56- 27.85	23.20
		Average of Peak Amounts =			1149		
$ 38 TCMX					CAS #: 877-09-8		
5.355	5.354	(0.001)	3107423	100.000	109.6		(A)
$ 39 DCB					CAS #: 2051-24-3		
11.570	11.571	(-0.001)	3346003	100.000	95.34		

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\014F1401.D
Injection Date: 01-APR-2011 09:35
Instrument: ecd3.i
Client Sample ID:



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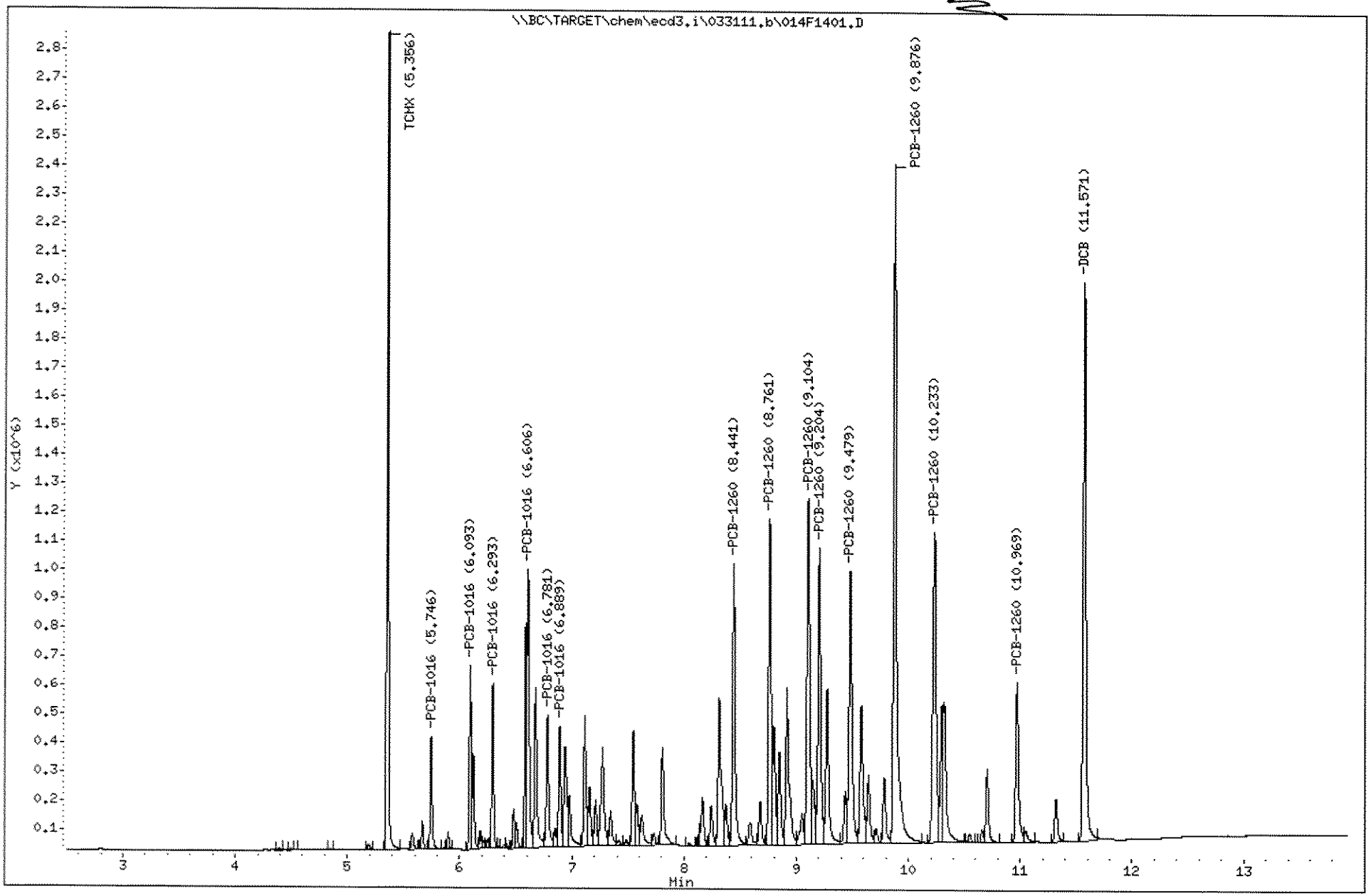
1103223

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\014F1401.D
Date : 01-APR-2011 09:35
Client ID:
Sample Info: SEQ-CCV5

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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1103223

J.H. 4.1.11

Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 014R1401.D
Analysis Type:
Lab Sample ID: SEQ-CCV5
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m

Injection Date: 01-APR-2011 09:35
Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Init. Cal. Times: 08:58 18:11
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	757	930	0.010	22.8	20.0	<-
(2)	++++	++++	0.010	++++	20.0	<-
(3)	518	547	0.010	5.4	20.0	
(4)	499	604	0.010	21.1	20.0	<-
(5)	574	790	0.010	37.6	20.0	<-
(6)	395	X 534	0.010	35.2	20.0	<-
35 PCB-1260(1)	1894	2569	0.010	35.7	20.0	<-
(2)	939	1219	0.010	29.8	20.0	<-
(3)	1119	*1445	0.010	29.1	20.0	<-
(4)	794	1045	0.010	31.5	20.0	<-
(5)	++++	++++	0.010	++++	20.0	<-
(6)	922	1242	0.010	34.8	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21112	22208	0.010	5.2	20.0	
$ 39 DCB	18230	20850	0.010	14.4	20.0	

24.4% (HIGH)

32.2% (HIGH)

04/05/11

D.H. 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\014R1401.D
Lab Smp Id: SEQ-CCV5
Inj Date : 01-APR-2011 09:35
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;1660d.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Meth Date : 01-Apr-2011 15:13 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660d.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.423	5.422	(0.001)	929963	1000.00	1228	80.00- 120.00	100.00
4.736	4.735	(0.001)	367669			31.63- 47.44	39.54
5.008	5.007	(0.001)	546710	1000.00	1054	47.03- 70.55	58.79
5.173	5.172	(0.001)	604120	1000.00	1211	51.97- 77.95	64.96
5.461	5.460	(0.001)	789528	1000.00	1376	67.92- 101.88	84.90
5.671	5.670	(0.001)	533799	1000.00	1352	45.92- 68.88	57.40
		Average of Peak Amounts =			1244		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.193	8.194	(-0.001)	2569016	1000.00	1356	80.00- 120.00	100.00
6.940	6.937	(0.003)	1219389	1000.00	1298	37.97- 56.96	47.47
7.180	7.180	(0.000)	1444772	1000.00	1291	44.99- 67.49	56.24
7.331	7.330	(0.001)	1044629	1000.00	1315	32.53- 48.80	40.66
7.595	7.595	(0.000)	1306807			40.69- 61.04	50.87
7.875	7.877	(-0.002)	1242462	1000.00	1348	38.69- 58.04	48.36
8.576	8.577	(-0.001)	931405			29.00- 43.51	36.26
9.220	9.219	(0.001)	686609			21.38- 32.07	26.73
		Average of Peak Amounts =			1322		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.411	4.412	(-0.001)	2220795	100.000	105.2		(A)
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.821	9.822	(-0.001)	2085031	100.000	114.4		(A)

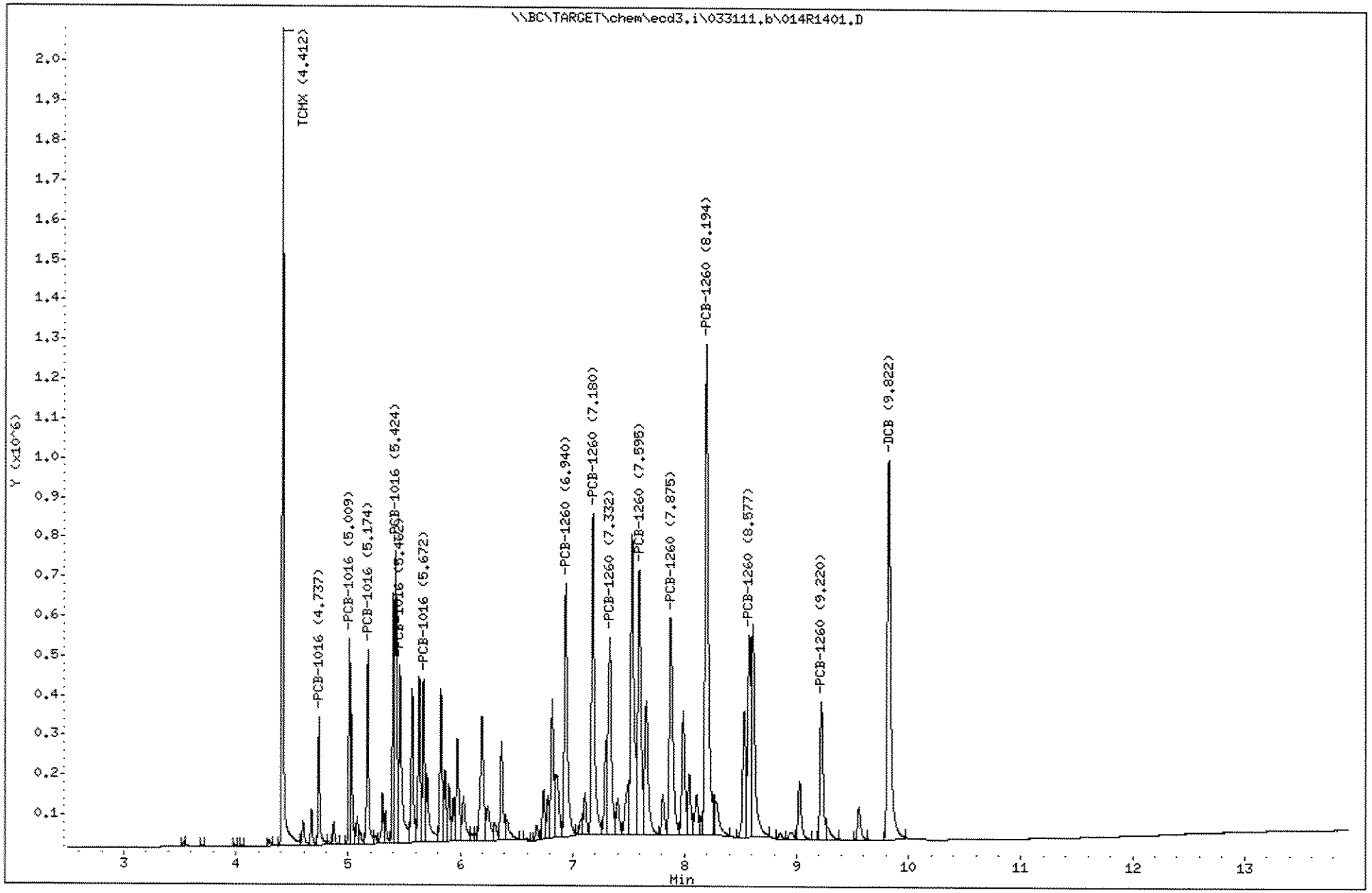
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\014R1401.D
Date : 01-APR-2011 09:35
Client ID:
Sample Info: SEQ-CCV5

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 01-APR-2011 09:54
Lab File ID: 015F1501.D Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Analysis Type: Init. Cal. Times: 08:58 18:11
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1733	0.010	-3.9	20.0	
(2)	1085	945	0.010	-13.0	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	*1023	0.010	-6.5	20.0	
(5)	1523	1157	0.010	-24.0	20.0	<-
(6)	1545	X 1379	0.010	-10.7	20.0	

-11.6%D

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\015F1501.D
Lab Smp Id: SEQ-CCV4
Inj Date : 01-APR-2011 09:54
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82F.m
Meth Date : 01-Apr-2011 12:25 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

				AMOUNTS CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.240	8.241	(-0.001)	1733358	1000.00	961.2	80.00-	120.00	100.00
7.545	7.546	(-0.001)	944876	1000.00	870.5	43.61-	65.41	54.51
7.804	7.804	(0.000)	1577731			72.82-	109.23	91.02
8.135	8.136	(-0.001)	*1022754	1000.00	935.4	47.20-	70.81	59.00
8.589	8.591	(-0.002)	1156926	1000.00	759.6	53.40-	80.09	66.74
9.105	9.106	(-0.001)	1378886	1000.00	892.7	63.64-	95.46	79.55
		Average of Peak Amounts =			883.9			

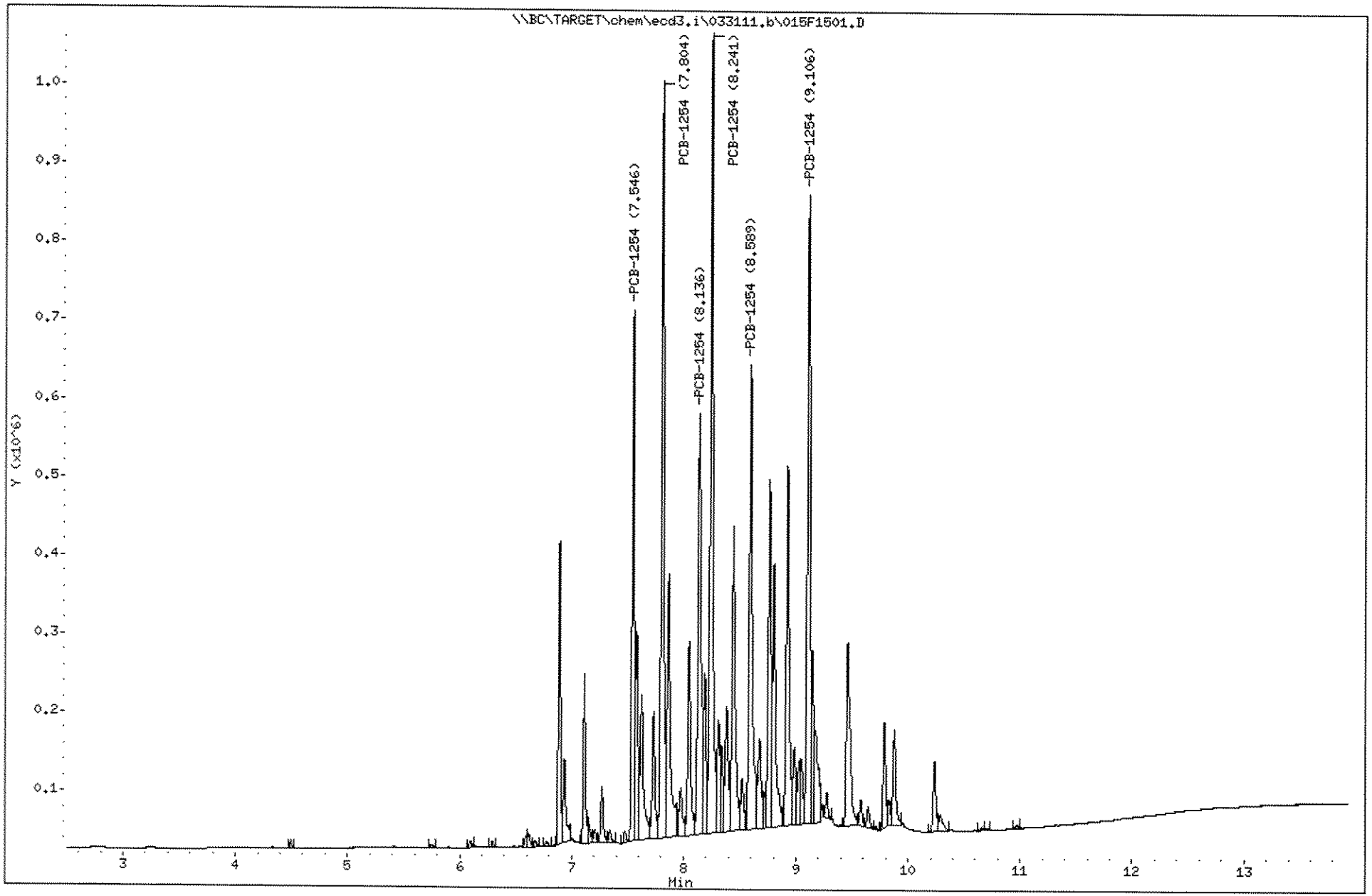
04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\015F1501.D
Date : 01-APR-2011 09:54
Client ID:
Sample Info: SEQ-CCV4

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Empirical Laboratories, LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 01-APR-2011 09:54
Lab File ID: 015R1501.D Init. Cal. Date(s): 01-JUL-2010 28-MAR-2011
Analysis Type: Init. Cal. Times: 08:58 18:11
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1471	0.010	9.8	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1060	0.010	-5.7	20.0	
(4)	959	*918	0.010	-4.3	20.0	
(5)	719	692	0.010	-3.8	20.0	
(6)	934	783	0.010	-16.1	20.0	

04/05/11

J.H. 4.1.11

Empirical Laboratories, LLC

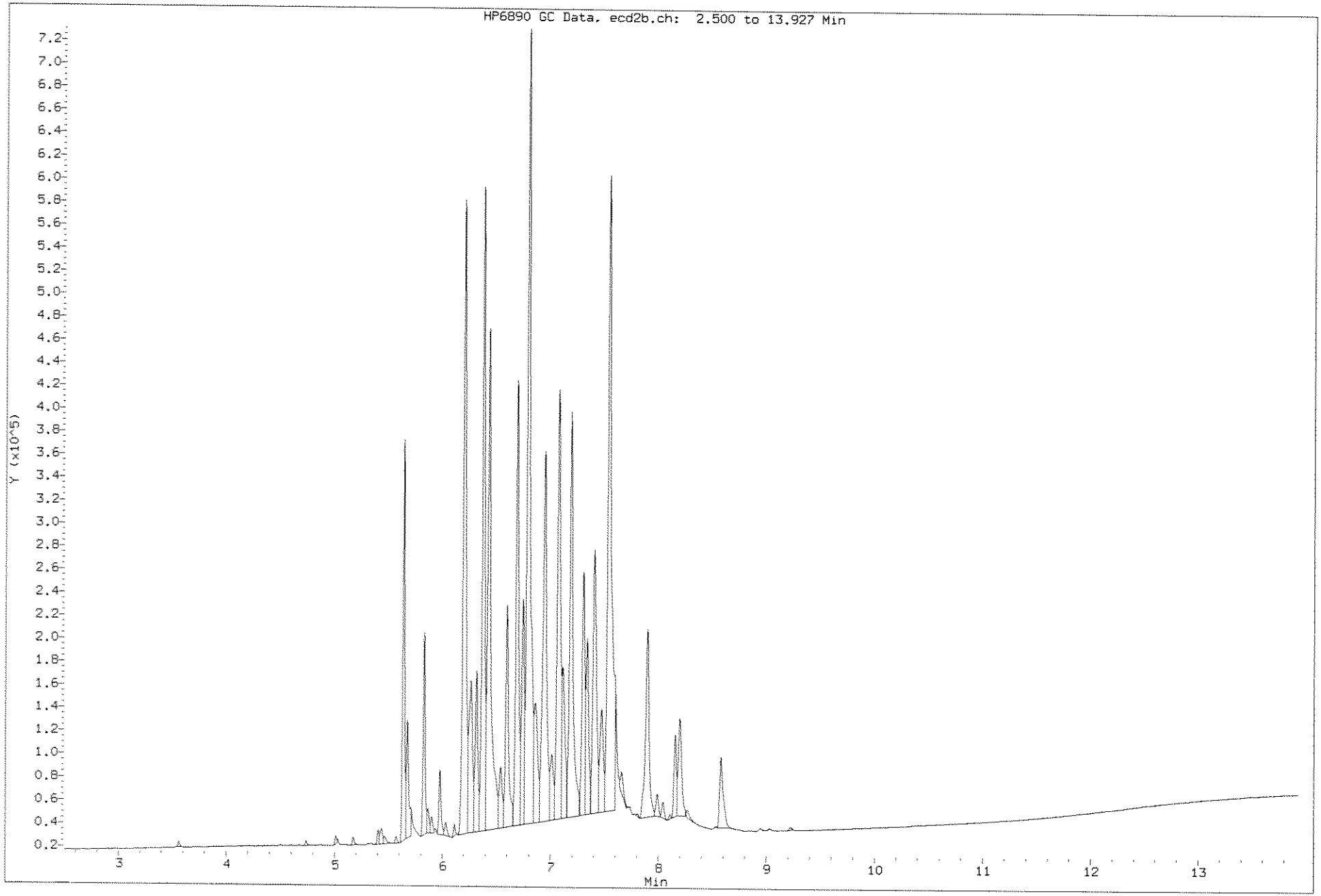
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\033111.b\015R1501.D
Lab Smp Id: SEQ-CCV4
Inj Date : 01-APR-2011 09:54
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\033111.b\8081_82R.m
Meth Date : 01-Apr-2011 12:25 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.783	6.780	(0.003)	1470830	1000.00	1098 X	80.00-	120.00	100.00
5.635	5.632	(0.003)	427798			23.27-	34.90	29.09
6.195	6.193	(0.002)	1059705	1000.00	942.8	57.64-	86.46	72.05
6.370	6.368	(0.002)	*918088	1000.00	957.3	49.94-	74.90	62.42
6.685	6.683	(0.002)	691517	1000.00	961.9	37.61-	56.42	47.02
7.066	7.065	(0.001)	783452	1000.00	839.0	42.61-	63.92	53.27
Average of Peak Amounts =					959.9			

04/05/11

Data File: \\BC\TARGET\chem\ecd3.i\033111.b\015R1501.D
Injection Date: 01-APR-2011 09:54
Instrument: ecd3.i
Client Sample ID:

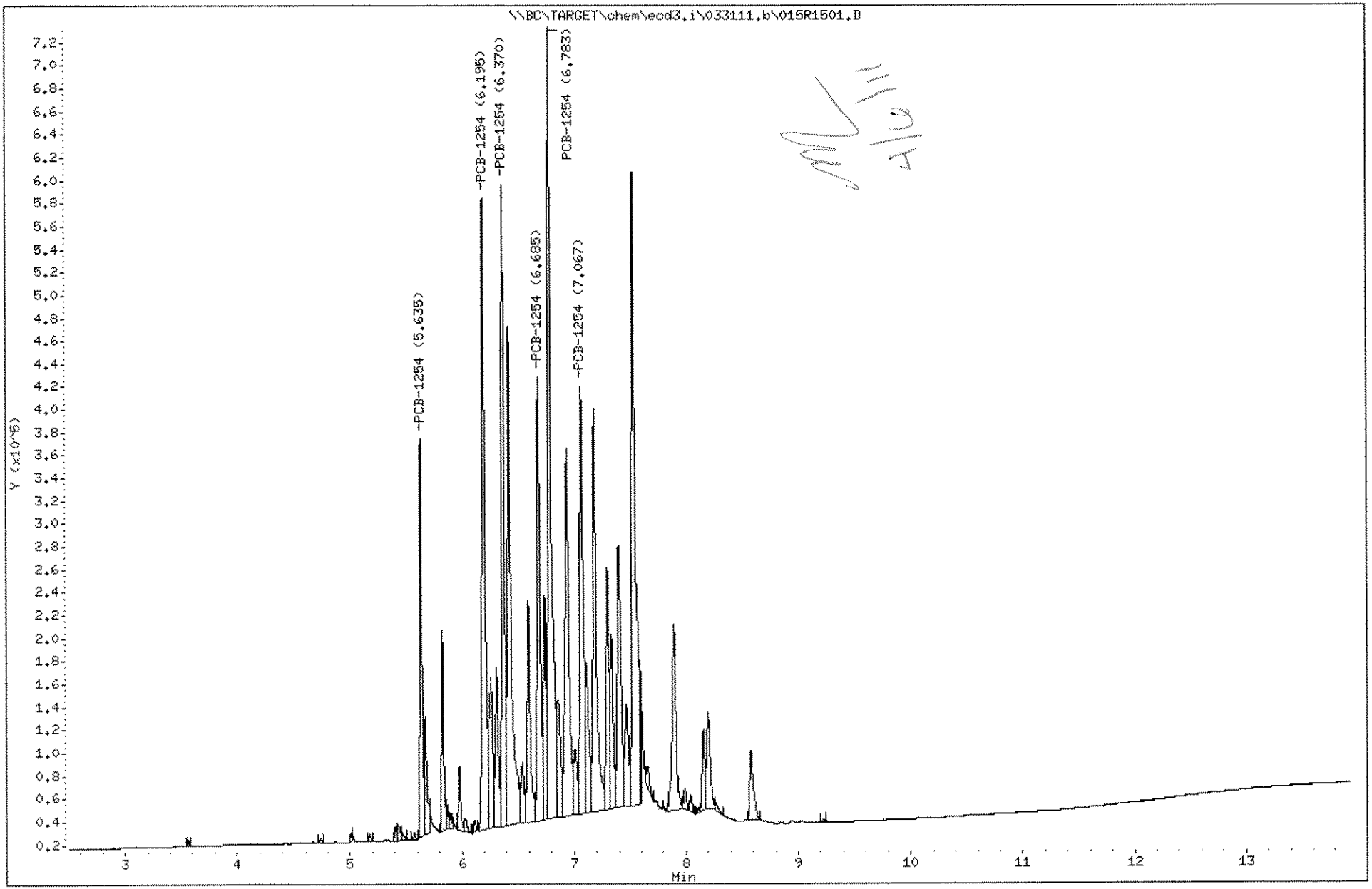


Data File: \\BC\TARGET\chem\ecd3.i\033111.b\015R1501.D
Date : 01-APR-2011 09:54
Client ID:
Sample Info: SEQ-CCV4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



PREPARATION BENCH SHEET

1C28019

Empirical Laboratories, LLC

Printed: 4/13/2011 12:14:10PM

Matrix: Solid **Prepared using: EXT - EXT_3546** **Surrogate used: 11B0080**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1103223-24	SGC_PCB8082A_3546	03/28/2011 16:30	15.5	5				500	
1103223-25	SGC_PCB8082A_3546	03/28/2011 16:30	15	5				500	
1103223-26	SGC_PCB8082A_3546	03/28/2011 16:30	15	5				500	
1103223-27	SGC_PCB8082A_3546	03/28/2011 16:30	15.3	5				500	
1C28019-BLK1	QC	03/28/2011 16:30	15	5				500	
1C28019-BS1	QC	03/28/2011 16:30	15	5	11A0653		500	500	
1C28019-BSD1	QC	03/28/2011 16:30	15	5	11A0653		500	500	

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

232

1103223

Data for SW6010B Forms

ANALYSIS DATA SHEET

405-IN (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 15:15
% Solids: 79.85

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-01
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	62.1	0.973	2.43	1	N	SW6010B	1C29002	03/30/11 14:11
7439-92-1	Lead	71.1	0.365	0.730	1	N	SW6010B	1C29002	03/30/11 14:11

ANALYSIS DATA SHEET

405-4N (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 15:30
% Solids: 80.82

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-02
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	56.0	1.00	2.50	1	N	SW6010B	1C29002	03/30/11 14:15
7439-92-1	Lead	29.6	0.375	0.750	1	N	SW6010B	1C29002	03/30/11 14:15

ANALYSIS DATA SHEET

405-9N (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 15:45
% Solids: 83.71

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-03
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	22.1	0.975	2.44	1	N	SW6010B	1C29002	03/30/11 14:20
7439-92-1	Lead	19.7	0.366	0.731	1	N	SW6010B	1C29002	03/30/11 14:20

ANALYSIS DATA SHEET

405-11E (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 15:50
% Solids: 74.56

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-04
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	82.0	1.11	2.77	1	N	SW6010B	1C29002	03/30/11 14:25
7439-92-1	Lead	40.6	0.415	0.830	1	N	SW6010B	1C29002	03/30/11 14:25

ANALYSIS DATA SHEET

405-16B (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 15:55
% Solids: 84.98

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-05
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	18.8	0.991	2.48	1	N	SW6010B	1C29002	03/30/11 14:29
7439-92-1	Lead	22.8	0.372	0.743	1	N	SW6010B	1C29002	03/30/11 14:29

ANALYSIS DATA SHEET

405-21W (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:05
% Solids: 72.88

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-06
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	55.1	1.12	2.80	1	N	SW6010B	1C29002	03/30/11 14:34
7439-92-1	Lead	220	0.420	0.840	1	N	SW6010B	1C29002	03/30/11 14:34

ANALYSIS DATA SHEET

405-24B (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:10
% Solids: 78.69

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-07
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	29.4	0.987	2.47	1	N	SW6010B	1C29002	03/30/11 14:38
7439-92-1	Lead	18.4	0.370	0.740	1	N	SW6010B	1C29002	03/30/11 14:38

ANALYSIS DATA SHEET

405-27W (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:15
% Solids: 75.15

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-08
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	101	1.04	2.61	1	N	SW6010B	1C29002	03/30/11 14:43
7439-92-1	Lead	123	0.391	0.783	1	N	SW6010B	1C29002	03/30/11 14:43

ANALYSIS DATA SHEET

405-31S (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:25
% Solids: 84.19

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-09
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	70.5	0.960	2.40	1	N	SW6010B	1C29002	03/30/11 14:47
7439-92-1	Lead	79.3	0.360	0.720	1	N	SW6010B	1C29002	03/30/11 14:47

ANALYSIS DATA SHEET

405-33B (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:30
% Solids: 83.06

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-10
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	204	0.917	2.29	1	N	SW6010B	1C29002	03/30/11 14:52
7439-92-1	Lead	54.3	0.344	0.688	1	N	SW6010B	1C29002	03/30/11 14:52

ANALYSIS DATA SHEET

404-2N (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:35
% Solids: 86.32

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-11
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	40.3	0.883	2.21	1	N	SW6010B	1C29002	03/30/11 15:16
7439-92-1	Lead	27.1	0.331	0.662	1	N	SW6010B	1C29002	03/30/11 15:16

ANALYSIS DATA SHEET

404-6N (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:40
% Solids: 83.27

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-12
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	95.3	0.951	2.38	1	N	SW6010B	1C29002	03/30/11 15:20
7439-92-1	Lead	41.2	0.357	0.713	1	N	SW6010B	1C29002	03/30/11 15:20

ANALYSIS DATA SHEET

404-6B (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:45
% Solids: 72.20

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-13
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	39.4	1.11	2.77	1	N	SW6010B	1C29002	03/30/11 15:25
7439-92-1	Lead	15.9	0.416	0.831	1	N	SW6010B	1C29002	03/30/11 15:25

ANALYSIS DATA SHEET

404-10W (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:50
% Solids: 77.55

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-14
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	47.1	1.03	2.58	1	N	SW6010B	1C29002	03/30/11 15:29
7439-92-1	Lead	153	0.387	0.774	1	N	SW6010B	1C29002	03/30/11 15:29

ANALYSIS DATA SHEET

404-14W (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 16:55
% Solids: 74.62

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-15
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	126	1.06	2.65	1	N	SW6010B	1C29002	03/30/11 15:34
7439-92-1	Lead	140	0.398	0.796	1	N	SW6010B	1C29002	03/30/11 15:34

ANALYSIS DATA SHEET

404-17E (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:00
% Solids: 71.92

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-16
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	77.2	1.17	2.93	1	N	SW6010B	1C29002	03/30/11 15:38
7439-92-1	Lead	58.6	0.439	0.878	1	N	SW6010B	1C29002	03/30/11 15:38

ANALYSIS DATA SHEET

404-22E (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:05
% Solids: 83.92

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-17
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	29.5	0.953	2.38	1	N	SW6010B	1C29002	03/30/11 15:43
7439-92-1	Lead	26.3	0.357	0.715	1	N	SW6010B	1C29002	03/30/11 15:43

ANALYSIS DATA SHEET

404-25B (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:10
% Solids: 82.44

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-18
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	72.1	0.990	2.48	1	N	SW6010B	1C29002	03/30/11 15:47
7439-92-1	Lead	55.0	0.371	0.743	1	N	SW6010B	1C29002	03/30/11 15:47

ANALYSIS DATA SHEET

404-29S (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:15
% Solids: 85.37

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-19
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	36.0	0.937	2.34	1	N	SW6010B	1C29002	03/30/11 15:52
7439-92-1	Lead	26.9	0.351	0.703	1	N	SW6010B	1C29002	03/30/11 15:52

ANALYSIS DATA SHEET

404-32S (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:20
% Solids: 84.07

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-20
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	83.0	0.971	2.43	1	N	SW6010B	1C29002	03/30/11 15:56
7439-92-1	Lead	60.3	0.364	0.728	1	N	SW6010B	1C29002	03/30/11 15:56

ANALYSIS DATA SHEET

8102(1)-INW- (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:25
% Solids: 77.34

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-21
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	286	0.985	2.46	1	N	SW6010B	1C29003	03/30/11 16:44
7439-92-1	Lead	131	0.369	0.739	1	N	SW6010B	1C29003	03/30/11 16:44

ANALYSIS DATA SHEET

8102(1)-3E- (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:30
% Solids: 79.78

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-22
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	14.8	1.00	2.51	1	N	SW6010B	1C29003	03/30/11 16:49
7439-92-1	Lead	18.3	0.376	0.752	1	N	SW6010B	1C29003	03/30/11 16:49

ANALYSIS DATA SHEET

8102(1)-10W- (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/24/11 17:35
% Solids: 82.26

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-23
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	386	0.953	2.38	1	N	SW6010B	1C29003	03/30/11 16:54
7439-92-1	Lead	74.9	0.358	0.715	1	N	SW6010B	1C29003	03/30/11 16:54

ANALYSIS DATA SHEET

8102(2)-2N (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:05
% Solids: 72.78

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-28
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	38.1	1.03	2.57	1	N	SW6010B	1C29003	03/30/11 16:58
7439-92-1	Lead	22.8	0.385	0.770	1	N	SW6010B	1C29003	03/30/11 16:58

ANALYSIS DATA SHEET

8102(2)-5E (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:10
% Solids: 76.21

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-29
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	351	1.04	2.60	1	N	SW6010B	1C29003	03/30/11 17:03
7439-92-1	Lead	96.2	0.390	0.780	1	N	SW6010B	1C29003	03/30/11 17:03

ANALYSIS DATA SHEET

8102(2)-9W (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:20
% Solids: 79.63

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-30
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	106	1.06	2.64	1	N	SW6010B	1C29003	03/30/11 17:07
7439-92-1	Lead	36.5	0.397	0.793	1	N	SW6010B	1C29003	03/30/11 17:07

ANALYSIS DATA SHEET

8102(2)-12W (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:25
% Solids: 76.37

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-31
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	114	1.07	2.67	1	N	SW6010B	1C29003	03/30/11 17:12
7439-92-1	Lead	59.5	0.401	0.802	1	N	SW6010B	1C29003	03/30/11 17:12

ANALYSIS DATA SHEET

8102(3)-3E (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:30
% Solids: 80.10

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-32
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	60.3	0.951	2.38	1	N	SW6010B	1C29003	03/30/11 17:16
7439-92-1	Lead	89.4	0.357	0.713	1	N	SW6010B	1C29003	03/30/11 17:16

ANALYSIS DATA SHEET

8102(3)-6E (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:40
% Solids: 81.37

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-33
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	188	1.01	2.53	1	N	SW6010B	1C29003	03/30/11 17:21
7439-92-1	Lead	104	0.380	0.760	1	N	SW6010B	1C29003	03/30/11 17:21

ANALYSIS DATA SHEET

8102(3)-10W (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 15:50
% Solids: 79.51

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-34
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	449	0.996	2.49	1	N	SW6010B	1C29003	03/30/11 17:25
7439-92-1	Lead	603	0.374	0.747	1	N	SW6010B	1C29003	03/30/11 17:25

ANALYSIS DATA SHEET

406-2E (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/25/11 16:05
% Solids: 78.46

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103223-35
Received: 03/26/11 11:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	51.9	0.962	2.40	1	N	SW6010B	1C29003	03/30/11 17:43
7439-92-1	Lead	221	0.361	0.721	1	N	SW6010B	1C29003	03/30/11 17:43

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP
SDG: 1103223
Project: Radford Army Ammunition Plant2010
Calibration: 1090002
Sequence: 1C09039

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1C09039-ICV1	Copper	1000	1016	102	ug/L	+/- 10.00%
	Lead	1000	975.3	97.5	ug/L	+/- 10.00%
1C09039-CCV1	Copper	1000	1016	102	ug/L	+/- 10.00%
	Lead	1000	989.3	98.9	ug/L	+/- 10.00%
1C09039-CCV2	Copper	1000	1022	102	ug/L	+/- 10.00%
	Lead	1000	995.7	99.6	ug/L	+/- 10.00%
1C09039-CCV3	Copper	1000	1012	101	ug/L	+/- 10.00%
	Lead	1000	975.0	97.5	ug/L	+/- 10.00%
1C09039-CCV4	Copper	1000	1009	101	ug/L	+/- 10.00%
	Lead	1000	991.2	99.1	ug/L	+/- 10.00%
1C09039-CCV5	Copper	1000	1007	101	ug/L	+/- 10.00%
	Lead	1000	980.8	98.1	ug/L	+/- 10.00%
1C09039-CCV6	Copper	1000	998.9	99.9	ug/L	+/- 10.00%
	Lead	1000	1037	104	ug/L	+/- 10.00%
1C09039-CCV7	Copper	1000	997.8	99.8	ug/L	+/- 10.00%
	Lead	1000	1038	104	ug/L	+/- 10.00%
1C09039-CCV8	Copper	1000	989.5	99.0	ug/L	+/- 10.00%
	Lead	1000	1045	104	ug/L	+/- 10.00%
1C09039-CCV9	Copper	1000	1001	100	ug/L	+/- 10.00%
	Lead	1000	951.0	95.1	ug/L	+/- 10.00%
1C09039-CCVA	Copper	1000	987.7	98.8	ug/L	+/- 10.00%
	Lead	1000	937.2	93.7	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1103223

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1090002

Sequence: 1C09039

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1C09039-CRL2	Copper	8.000	7.316	91.4	ug/L	80 - 120
	Lead	3.000	2.734	91.1	ug/L	80 - 120
1C09039-CRL3	Copper	8.000	8.904	111	ug/L	80 - 120
	Lead	3.000	3.318	111	ug/L	80 - 120
1C09039-CRL5	Copper	8.000	7.925	99.1	ug/L	80 - 120
	Lead	3.000	3.463	115	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1C09039
Calibration: 1090002

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1C09039-ICB1	Copper	0.06730	4.00	10.0	ug/L	U	SW6010B
	Lead	0.5430	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB1	Copper	0.598	4.00	10.0	ug/L	U	SW6010B
	Lead	0.743	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB2	Copper	0.486	4.00	10.0	ug/L	U	SW6010B
	Lead	0.470	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB3	Copper	0.611	4.00	10.0	ug/L	U	SW6010B
	Lead	0.903	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB4	Copper	0.732	4.00	10.0	ug/L	U	SW6010B
	Lead	0.509	1.50	3.00	ug/L	U	SW6010B
1C29002-BLK2	Copper	0.118	0.800	2.00	mg/Kg wet	U	SW6010B
	Lead	0.241	0.300	0.600	mg/Kg wet	U	SW6010B
1C09039-CCB5	Copper	0.523	4.00	10.0	ug/L	U	SW6010B
	Lead	1.01	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB6	Copper	1.19	4.00	10.0	ug/L	U	SW6010B
	Lead	1.37	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB7	Copper	1.05	4.00	10.0	ug/L	U	SW6010B
	Lead	0.993	1.50	3.00	ug/L	U	SW6010B
1C09039-CCB8	Copper	1.20	4.00	10.0	ug/L	U	SW6010B
	Lead	1.05	1.50	3.00	ug/L	U	SW6010B
1C29003-BLK2	Copper	0.0666	0.800	2.00	mg/Kg wet	U	SW6010B
	Lead	0.201	0.300	0.600	mg/Kg wet	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1103223

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1090002

Sequence: 1C09039

Lab Sample ID	Analyte	True	Found	%R	Units
1C09039-IFA1	Copper		-4.76		ug/L
	Lead		7.99		ug/L
1C09039-IFB1	Copper	500.0	501.55	100	ug/L
	Lead	50.00	57.11	114	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

404-32S (20110324)

Laboratory: Empirical Laboratories, LLC

SDG: 1103223

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Solid

Batch: 1C29002

% Solids: 84.07

Source Sample Name: **1103223-20**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Copper	56.10	82.96	141.6	104		80 - 120
Lead	56.10	60.28	143.0	147	N	80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Copper	56.10	159.0	136	11.6	N	20	80 - 120
Lead	56.10	143.3	148	0.230	N	20	80 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

406-2E (20110325)

Laboratory: Empirical Laboratories, LLC

SDG: 1103223

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Solid

Batch: 1C29003

% Solids: 78.46

Source Sample Name: **1103223-35**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Copper	60.69	51.94	96.16	72.9	N	80 - 120
Lead	60.69	221.3	137.2	-139	N	80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Copper	60.12	104.3	87.2	8.16		20	80 - 120
Lead	60.12	130.4	-151	5.11	N	20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

404-32S (20110324)

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Laboratory ID: 1C29002-PS1
Batch: 1C29002
Lab Source ID: 1103223-20
Preparation: MET_3050B
Initial/Final: 0.98 g / 200 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Copper	591.2	341.8	250.0	99.8	80 - 120
Lead	513.1	248.3	250.0	106	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

406-2E (20110325)

Laboratory: Empirical Laboratories, LLC

Client: Arcadis (A285)

Matrix: Solid

Batch: 1C29003

Preparation: MET_3050B

SDG: 1103223

Project: Radford Army Ammunition Plant2010

Laboratory ID: 1C29003-PS1

Lab Source ID: 1103223-35

Initial/Final: 1.06 g / 200 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Copper	472.4	216.0	250.0	103	80 - 120
Lead	1160	920.1	250.0	96.1	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C29002	Laboratory ID:	1C29002-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Copper	50.00	51.87	104	80 - 120
Lead	50.00	49.93	99.9	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103223
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C29003	Laboratory ID:	1C29003-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Copper	50.00	51.83	104	80 - 120
Lead	50.00	51.79	104	80 - 120

SERIAL DILUTION

SW6010B

404-32S (20110324)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sequence: 1C09039
Preparation: MET_3050B

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1C29002-DUP1
Lab Source ID: 1103223-20
Initial/Final: 0.98 / 200

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Copper	341.78	343.55	0.519		SW6010B	10.00
Lead	248.33	244.28	-1.63		SW6010B	10.00

SERIAL DILUTION

SW6010B

406-2E (20110325)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sequence: 1C09039
Preparation: MET_3050B

SDG: 1103223
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1C29003-DUP1
Lab Source ID: 1103223-35
Initial/Final: 1.06 / 200

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Copper	215.97	226.77	5		SW6010B	10.00
Lead	920.07	914.05	-0.654		SW6010B	10.00

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1103223

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Copper	0.800	2.00	mg/Kg	SW6010B
Lead	0.300	0.600	mg/Kg	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103223

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103223

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	B	Ba	Be	Cd
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103223

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Co	Cr	Cu	K	Mn
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103223

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Mo	Na	Ni	Pb	Sb
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103223

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103223

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Copper	224.7	0.0000000				
Lead	220.3	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1103223

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Copper	15	10000	P
Lead	15	10000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C29002 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
405-IN (20110324)	1103223-01	03/29/11 08:16	1.03	200.00
405-4N (20110324)	1103223-02	03/29/11 08:16	0.99	200.00
405-9N (20110324)	1103223-03	03/29/11 08:16	0.98	200.00
405-11E (20110324)	1103223-04	03/29/11 08:16	0.97	200.00
405-16B (20110324)	1103223-05	03/29/11 08:16	0.95	200.00
405-21W (20110324)	1103223-06	03/29/11 08:16	0.98	200.00
405-24B (20110324)	1103223-07	03/29/11 08:16	1.03	200.00
405-27W (20110324)	1103223-08	03/29/11 08:16	1.02	200.00
405-31S (20110324)	1103223-09	03/29/11 08:16	0.99	200.00
405-33B (20110324)	1103223-10	03/29/11 08:16	1.05	200.00
404-2N (20110324)	1103223-11	03/29/11 08:16	1.05	200.00
404-6N (20110324)	1103223-12	03/29/11 08:16	1.01	200.00
404-6B (20110324)	1103223-13	03/29/11 08:16	1.00	200.00
404-10W (20110324)	1103223-14	03/29/11 08:16	1.00	200.00
404-14W (20110324)	1103223-15	03/29/11 08:16	1.01	200.00
404-17E (20110324)	1103223-16	03/29/11 08:16	0.95	200.00
404-22E (20110324)	1103223-17	03/29/11 08:16	1.00	200.00
404-25B (20110324)	1103223-18	03/29/11 08:16	0.98	200.00
404-29S (20110324)	1103223-19	03/29/11 08:16	1.00	200.00
404-32S (20110324)	1103223-20	03/29/11 08:16	0.98	200.00
Blank	1C29002-BLK2	03/29/11 08:16	1.00	200.00
LCS	1C29002-BS1	03/29/11 08:16	1.00	200.00
404-32S (20110324)	1C29002-DUP1	03/29/11 08:16	0.98	200.00
404-32S (20110324)	1C29002-MS1	03/29/11 08:16	1.06	200.00
404-32S (20110324)	1C29002-MSD1	03/29/11 08:16	1.06	200.00
404-32S (20110324)	1C29002-PS1	03/29/11 08:16	0.98	200.00

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1103223

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C29003 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
8102(1)-INW- (20110324)	1103223-21	03/29/11 08:18	1.05	200.00
8102(1)-3E- (20110324)	1103223-22	03/29/11 08:18	1.00	200.00
8102(1)-10W- (20110324)	1103223-23	03/29/11 08:18	1.02	200.00
8102(2)-2N (20110325)	1103223-28	03/29/11 08:18	1.07	200.00
8102(2)-5E (20110325)	1103223-29	03/29/11 08:18	1.01	200.00
8102(2)-9W (20110325)	1103223-30	03/29/11 08:18	0.95	200.00
8102(2)-12W (20110325)	1103223-31	03/29/11 08:18	0.98	200.00
8102(3)-3E (20110325)	1103223-32	03/29/11 08:18	1.05	200.00
8102(3)-6E (20110325)	1103223-33	03/29/11 08:18	0.97	200.00
8102(3)-10W (20110325)	1103223-34	03/29/11 08:18	1.01	200.00
406-2E (20110325)	1103223-35	03/29/11 08:18	1.06	200.00
Blank	1C29003-BLK2	03/29/11 08:18	1.00	200.00
LCS	1C29003-BS1	03/29/11 08:18	1.00	200.00
406-2E (20110325)	1C29003-DUP1	03/29/11 08:18	1.06	200.00
406-2E (20110325)	1C29003-MS1	03/29/11 08:18	1.05	200.00
406-2E (20110325)	1C29003-MSD1	03/29/11 08:18	1.06	200.00
406-2E (20110325)	1C29003-PS1	03/29/11 08:18	1.06	200.00

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C09039
Instrument: ME-ICP
Calibration: 1090002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1C09039-CAL1	033011A-001	03/30/11 08:47
Cal Standard	1C09039-CAL2	033011A-002	03/30/11 08:52
Cal Standard	1C09039-CAL3	033011A-003	03/30/11 08:57
Cal Standard	1C09039-CAL4	033011A-004	03/30/11 09:01
Cal Standard	1C09039-CAL5	033011A-005	03/30/11 09:06
Cal Standard	1C09039-CAL6	033011A-006	03/30/11 09:16
Cal Standard	1C09039-CAL7	033011A-007	03/30/11 09:21
Cal Standard	1C09039-CAL8	033011A-008	03/30/11 09:27
Initial Cal Check	1C09039-ICV1	033011B-001	03/30/11 09:58
Initial Cal Blank	1C09039-ICB1	033011B-002	03/30/11 10:05
Instrument RL Check	1C09039-CRL2	033011B-009	03/30/11 10:42
Interference Check A	1C09039-IFA1	033011B-010	03/30/11 10:47
Interference Check B	1C09039-IFB1	033011B-011	03/30/11 10:53
Calibration Check	1C09039-CCV1	033011C-001	03/30/11 11:12
Calibration Blank	1C09039-CCB1	033011C-002	03/30/11 11:19
Calibration Check	1C09039-CCV2	033011C-012	03/30/11 12:13
Calibration Blank	1C09039-CCB2	033011C-013	03/30/11 12:26
Calibration Check	1C09039-CCV3	033011D-016	03/30/11 13:48
Calibration Blank	1C09039-CCB3	033011D-017	03/30/11 13:55
LCS	1C29002-BS1	033011D-019	03/30/11 14:04
405-IN (20110324)	1103223-01	033011D-020	03/30/11 14:11
405-4N (20110324)	1103223-02	033011D-021	03/30/11 14:15
405-9N (20110324)	1103223-03	033011D-022	03/30/11 14:20
405-11E (20110324)	1103223-04	033011D-023	03/30/11 14:25
405-16B (20110324)	1103223-05	033011D-024	03/30/11 14:29
405-21W (20110324)	1103223-06	033011D-025	03/30/11 14:34
405-24B (20110324)	1103223-07	033011D-026	03/30/11 14:38
405-27W (20110324)	1103223-08	033011D-027	03/30/11 14:43
405-31S (20110324)	1103223-09	033011D-028	03/30/11 14:47
405-33B (20110324)	1103223-10	033011D-029	03/30/11 14:52
Calibration Check	1C09039-CCV4	033011D-030	03/30/11 14:58
Calibration Blank	1C09039-CCB4	033011D-031	03/30/11 15:05

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C09039
Instrument: ME-ICP
Calibration: 1090002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	1C29002-BLK2	033011D-032	03/30/11 15:11
404-2N (20110324)	1103223-11	033011D-033	03/30/11 15:16
404-6N (20110324)	1103223-12	033011D-034	03/30/11 15:20
404-6B (20110324)	1103223-13	033011D-035	03/30/11 15:25
404-10W (20110324)	1103223-14	033011D-036	03/30/11 15:29
404-14W (20110324)	1103223-15	033011D-037	03/30/11 15:34
404-17E (20110324)	1103223-16	033011D-038	03/30/11 15:38
404-22E (20110324)	1103223-17	033011D-039	03/30/11 15:43
404-25B (20110324)	1103223-18	033011D-040	03/30/11 15:47
404-29S (20110324)	1103223-19	033011D-041	03/30/11 15:52
404-32S (20110324)	1103223-20	033011D-042	03/30/11 15:56
404-32S (20110324)	1C29002-MS1	033011D-043	03/30/11 16:01
404-32S (20110324)	1C29002-MSD1	033011D-044	03/30/11 16:06
404-32S (20110324)	1C29002-PS1	033011D-045	03/30/11 16:10
404-32S (20110324)	1C29002-DUP1	033011D-046	03/30/11 16:16
Calibration Check	1C09039-CCV5	033011D-047	03/30/11 16:21
Calibration Blank	1C09039-CCB5	033011D-048	03/30/11 16:29
LCS	1C29003-BS1	033011D-050	03/30/11 16:38
8102(1)-INW- (20110324)	1103223-21	033011D-051	03/30/11 16:44
8102(1)-3E- (20110324)	1103223-22	033011D-052	03/30/11 16:49
8102(1)-10W- (20110324)	1103223-23	033011D-053	03/30/11 16:54
8102(2)-2N (20110325)	1103223-28	033011D-054	03/30/11 16:58
8102(2)-5E (20110325)	1103223-29	033011D-055	03/30/11 17:03
8102(2)-9W (20110325)	1103223-30	033011D-056	03/30/11 17:07
8102(2)-12W (20110325)	1103223-31	033011D-057	03/30/11 17:12
8102(3)-3E (20110325)	1103223-32	033011D-058	03/30/11 17:16
8102(3)-6E (20110325)	1103223-33	033011D-059	03/30/11 17:21
8102(3)-10W (20110325)	1103223-34	033011D-060	03/30/11 17:25
Calibration Check	1C09039-CCV6	033011D-061	03/30/11 17:31
Calibration Blank	1C09039-CCB6	033011D-062	03/30/11 17:38
406-2E (20110325)	1103223-35	033011D-063	03/30/11 17:43
406-2E (20110325)	1C29003-MS1	033011D-064	03/30/11 17:48

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1C09039
Instrument: ME-ICP
Calibration: 1090002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
406-2E (20110325)	1C29003-MSD1	033011D-065	03/30/11 17:52
406-2E (20110325)	1C29003-PS1	033011D-066	03/30/11 17:57
406-2E (20110325)	1C29003-DUP1	033011D-067	03/30/11 18:02
Calibration Check	1C09039-CCV7	033011D-073	03/30/11 18:34
Calibration Blank	1C09039-CCB7	033011D-074	03/30/11 18:41
Instrument RL Check	1C09039-CRL3	033011D-076	03/30/11 18:50
Calibration Check	1C09039-CCV8	033011D-079	03/30/11 19:05
Calibration Blank	1C09039-CCB8	033011D-080	03/30/11 19:13
Calibration Check	1C09039-CCV9	033011E-001	03/31/11 08:00
Blank	1C29003-BLK2	033011E-003	03/31/11 08:12
Calibration Check	1C09039-CCVA	033011E-026	03/31/11 10:25
Instrument RL Check	1C09039-CRL5	033011E-028	03/31/11 10:37

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090002
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 3/30/11 8:47 3/30/11 9:27

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.8786E-05	10000	1.9318E-05			500000	1.93458E-05		
Antimony	0	0	100	0.0007694	1000	8.6728E-04					10000	8.3569E-04
Arsenic	0	0	100	0.0003056	1000	3.4431E-04					10000	3.1914E-04
Barium	0	0	50	0.010485	1000	0.010531	5000	0.0103238				
Beryllium	0	0	100	0.0022441	1000	0.0022991					10000	0.0021668
Boron	0	0	50	0.0000144	1000	0.0000136					5000	1.3062E-05
Cadmium	0	0	100	0.0093088	1000	9.483401E-03					10000	8.625399E-03
Calcium	0	0	1100	3.600909E-05	50000	3.6086E-05					10000	
Chromium	0	0	100	0.000026	1000	0.0000252					10000	2.6222E-05
Cobalt	0	0	100	0.0054384	1000	0.0056806					10000	0.0056664
Copper	0	0	100	0.0000897	1000	0.0000864					10000	8.3987E-05
Iron	0	0	5100	1.537255E-05	10000	1.4928E-05			500000	1.40934E-05	10000	
Lead	0	0	100	0.0011195	1000	0.0011574					10000	0.0011654
Magnesium	0	0	5100		50000	1.3518E-06			500000	1.41868E-06	10000	
Manganese	0	0	100	0.0001739	1000	1.6751E-04	10000	1.6137E-04			10000	
Molybdenum	0	0	100	0.0033969	1000	0.0037058					10000	0.0037106
Nickel	0	0	100	0.0031301	1000	0.0033004					10000	0.0032389
Potassium	0	0	1000	9.050001E-06	10000	1.014E-05						
Selenium	0	0	100	0.0003556	1000	3.8278E-04					10000	3.7624E-04
Silver	0	0	20	0.000046	500	4.362E-05	2000	4.495E-05				
Sodium	0	0	1000		50000	5.0288E-05						
Strontium	0	0	100	0.001533	1000	0.001554					10000	0.001526
Thallium	0	0	100	0.0008579	1000	8.7552E-04					10000	8.5421E-04
Tin	0	0	50	0.0009628	1000	0.001049					5000	1.05114E-03
Titanium	0	0	100	0.0001897	1000	0.00019					10000	1.9017E-04
Vanadium	0	0	100	0.0000332	1000	3.234E-05					10000	3.3391E-05
Zinc	0	0	100	0.0034212	1000	0.0036933					10000	0.0036814

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090002
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 3/30/11 8:47 3/30/11 9:27

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	3.5278E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.381E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.0292E-05										
Selenium												
Silver												
Sodium	100000	4.9296E-05	500000	4.9062E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103223
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1090002
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 3/30/11 8:47 3/30/11 9:27

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.436245E-05	66.69079	8.37864	190.6762	0.9999999		0.998	
Antimony	6.180925E-04	66.99247	3.558638	136.6317	0.9999813		0.998	
Arsenic	2.422625E-04	66.9946	11.16943	186.9736	0.9999326		0.998	
Barium	7.83495E-03	66.6763	4.59971	158.3272	0.9999833		0.998	
Beryllium	0.0016775	66.74511	46.80391	198.5402	0.9999643		0.998	
Boron	1.02655E-05	66.88139	2.978592	142.7369	0.9999392		0.998	
Cadmium	0.0068544	66.88513	0.7832725	35.59751	0.9999139		0.998	
Calcium	2.684327E-05	66.68047	1.8117	174.8816	0.9999949		0.998	
Chromium	1.93555E-05	66.70522	23.58515	192.6374	0.9999851		0.998	
Cobalt	4.19635E-03	66.7191	2.555777	137.1806	0.9999997		0.998	
Copper	6.502175E-05	66.76387	2.19366	118.8535	0.9999937		0.998	
Iron	1.109849E-05	66.83762	19.03282	196.9981	0.9999989		0.998	
Lead	8.60575E-04	66.70724	3.837605	153.7049	0.9999997		0.998	
Magnesium	1.03787E-06	66.71883	24.13082	198.5547	0.9999674		0.998	
Manganese	1.25695E-04	66.79078	3.91027	149.7157	0.9999876		0.998	
Molybdenum	2.703325E-03	66.88735	76.48849	197.4954	0.9999994		0.998	
Nickel	2.41735E-03	66.73027	4.048785	157.5193	0.9999956		0.998	
Potassium	7.3705E-06	67.08776	1.74349	133.0164	0.9999996		0.998	
Selenium	2.78655E-04	66.79613	2.179305	99.85464	0.999996		0.998	
Silver	3.36425E-05	66.72949	8.294915	176.1945	0.9999353		0.998	
Sodium	3.71615E-05	66.682	1.483718	131.3811	0.9999946		0.998	
Strontium	1.15325E-03	66.67465	5.883725	191.6771	0.9999967		0.998	
Thallium	6.469075E-04	66.68216	5.444917	169.6362	0.9999935		0.998	
Tin	7.65735E-04	66.8829	6.465215	170.8036	0.9999997		0.998	
Titanium	1.424675E-04	66.66681	8.313315	195.5178	1		0.998	
Vanadium	2.473275E-05	66.69228	4.95461	163.7868	0.9999899		0.998	
Zinc	2.698975E-03	66.82878	20.32762	191.6515	0.9999992		0.998	

Data for SW6010B
Supporting Raw Data / Logs

Sample Name: SEQ-CAL1 Acquired: 3/30/2011 8:47:45 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**-.00017**	**-.00067**	**.00141**	**-.00036**	**.00006**	**.00507**
Stddev	.00001	.00006	.00028	.00005	.00018	.00001	.00079
%RSD	30.212	32.341	42.490	3.6463	49.829	9.3284	15.514
#1	.00003	-.00015	-.00085	.00147	-.00044	.00007	.00589
#2	.00002	-.00013	-.00082	.00138	-.00048	.00006	.00500
#3	.00004	-.00024	-.00034	.00138	-.00015	.00006	.00432

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00002**	**.00026**	**-.00048**	**.06799**	**.00375**	**.00000**	**.0000**
Stddev	.00003	.00002	.00087	.00074	.00029	.0000	.000
%RSD	186.19	6.5639	180.80	1.0816	7.8103	91.734	48.62
#1	-.00005	.00025	.00050	.06736	.00363	-.00001	.0000
#2	-.00001	.00026	-.00116	.06782	.00353	.00000	.0000
#3	.00001	.00028	-.00079	.06880	.00408	.00000	.0000

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00018**	**.00002**	**-.00091**	**.00000**	**.00001**	**.00020**	**.00085**
Stddev	.00001	.00001	.00005	.0000	.00000	.00061	.00004
%RSD	6.0610	75.273	5.1875	96.000	12.685	303.08	4.3993
#1	.00016	.00001	-.00093	.00000	.00001	.00076	.00083
#2	.00018	.00003	-.00085	.00000	.00001	-.00044	.00089
#3	.00018	.00001	-.00094	-.00001	.00001	.00028	.00083

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00196**	**-.00047**	**-.00304**	**.00112**	**-.00109**	**-.0001**	**.00007**
Stddev	.00027	.00006	.00033	.00006	.00025	.0000	.00002
%RSD	13.614	12.683	10.826	5.4173	23.029	22.80	32.694
#1	-.00168	-.00046	-.00316	.00112	-.00087	-.0001	.00009
#2	-.00201	-.00041	-.00328	.00118	-.00137	-.0001	.00008
#3	-.00220	-.00053	-.00266	.00106	-.00103	-.0001	.00005

Sample Name: SEQ-CAL1 Acquired: 3/30/2011 8:47:45 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	TI1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	-.00108	.00004	-.00084
Stddev	.00021	.00001	.00066
%RSD	19.293	17.109	78.764
#1	-.00092	.00004	-.00013
#2	-.00101	.00004	-.00145
#3	-.00132	.00005	-.00095
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1155.4	543920.	85602.
Stddev	4.2	1093.	208.
%RSD	.36060	.20088	.24312
#1	1158.8	544220.	85754.
#2	1156.6	542710.	85365.
#3	1150.8	544840.	85686.

Sample Name: SEQ-CAL2 Acquired: 3/30/2011 8:52:36 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00092**	**.09393**	**.03056**	**.02985**	**.01058**	**.00072**	**.52425**	**.22441**
Stddev	.00001	.00062	.00009	.00065	.00020	.00001	.00283	.00048
%RSD	1.3231	.65779	.28748	2.1665	1.8784	.98985	.54004	.21237
#1	.00093	.09464	.03063	.03044	.01056	.00072	.52254	.22496
#2	.00091	.09350	.03046	.02916	.01040	.00071	.52752	.22411
#3	.00093	.09367	.03060	.02995	.01079	.00072	.52269	.22415

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.03961**	**1.1426**	**.93088**	**.54384**	**.00260**	**.0002**	**.00897**	**.07840**
Stddev	.00009	.0085	.00474	.00367	.00002	.0000	.00009	.00016
%RSD	.21863	.74484	.50941	.67570	.77172	.8871	.95252	.20909
#1	.03956	1.1434	.92948	.54453	.00262	.0002	.00906	.07849
#2	.03971	1.1506	.93616	.54712	.00258	.0001	.00890	.07850
#3	.03955	1.1337	.92699	.53987	.00262	.0002	.00894	.07822

Elem	K_7664	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00905**	**.01739**	**.33969**	**.31301**	**.11195**	**.07694**	**.03556**	**.04814**
Stddev	.00010	.00013	.00212	.00268	.00093	.00132	.00039	.00051
%RSD	1.0559	.75308	.62355	.85491	.83163	1.7131	1.1054	1.0510
#1	.00894	.01750	.33887	.31324	.11226	.07625	.03601	.04756
#2	.00913	.01725	.34209	.31556	.11268	.07846	.03530	.04846
#3	.00909	.01743	.33810	.31023	.11090	.07611	.03537	.04841

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1533**	**.01897**	**.08579**	**.00332**	**.34212**
Stddev	.0005	.00006	.00063	.00003	.00219
%RSD	.3261	.30643	.73230	.80951	.64073
#1	.1539	.01903	.08512	.00334	.34324
#2	.1530	.01893	.08636	.00329	.34352
#3	.1531	.01894	.08588	.00333	.33959

Sample Name: SEQ-CAL2 Acquired: 3/30/2011 8:52:36 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1111.4	545680.	87292.
Stddev	7.6	5163.	169.
%RSD	.68402	.94619	.19403
#1	1116.5	540350.	87193.
#2	1102.6	550650.	87195.
#3	1115.0	546050.	87487.

Sample Name: SEQ-CAL3 Acquired: 3/30/2011 8:57:20 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02181**	**.19318**	**.34431**	**.32799**	**.11922**	**.01360**	**10.531**	**2.2991**
Stddev	.00024	.00040	.00420	.00356	.00174	.00017	.115	.0011
%RSD	1.1099	.20623	1.2210	1.0842	1.4573	1.2684	1.0922	.04916
#1	.02200	.19311	.34417	.32675	.11794	.01376	10.473	2.2982
#2	.02154	.19282	.34858	.33201	.12120	.01342	10.663	2.3004
#3	.02190	.19361	.34018	.32523	.11853	.01363	10.455	2.2986

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.8043**	**12.143**	**9.4834**	**5.6806**	**.02520**	**.0015**	**.08640**	**.14928**
Stddev	.0050	.125	.0907	.0572	.00033	.0000	.00117	.00004
%RSD	.27470	1.0322	.95669	1.0075	1.3231	.9188	1.3538	.02710
#1	1.8082	12.113	9.4744	5.6641	.02540	.0015	.08744	.14927
#2	1.8061	12.281	9.5784	5.7442	.02481	.0014	.08513	.14925
#3	1.7988	12.036	9.3976	5.6334	.02538	.0015	.08663	.14933

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.10140**	**.06759**	**.16751**	**3.7058**	**2.5144**	**3.3004**	**1.1574**	**.86728**
Stddev	.00040	.00004	.00217	.0482	.0077	.0326	.0125	.00779
%RSD	.39805	.05707	1.2964	1.3015	.30571	.98738	1.0817	.89833
#1	.10150	.06755	.16901	3.6790	2.5130	3.2889	1.1521	.86522
#2	.10095	.06759	.16502	3.7615	2.5074	3.3371	1.1717	.87590
#3	.10174	.06763	.16851	3.6769	2.5226	3.2751	1.1484	.86073

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.38278**	**1.0490**	**1.554**	**.19000**	**.87552**	**.03234**	**3.6933**
Stddev	.00549	.0097	.002	.00022	.01068	.00048	.0425
%RSD	1.4343	.92644	.1489	.11593	1.2200	1.4858	1.1498
#1	.37927	1.0456	1.552	.18975	.87151	.03262	3.6769
#2	.38911	1.0599	1.553	.19014	.88763	.03178	3.7415
#3	.37996	1.0414	1.556	.19012	.86742	.03261	3.6615

Sample Name: SEQ-CAL3 Acquired: 3/30/2011 8:57:20 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	966.55	525700.	85228.
Stddev	10.71	5229.	133.
%RSD	1.1077	.99461	.15573
#1	973.12	521900.	85314.
#2	954.20	531660.	85075.
#3	972.34	523530.	85295.

Sample Name: SEQ-CAL4 Acquired: 3/30/2011 9:01:50 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Ba2335	Mn2576
Units	Cts/S	Cts/S	Cts/S
Avg	**.08990**	**51.619**	**1.6137**
Stddev	.00048	.647	.0146
%RSD	.53466	1.2526	.90660
#1	.09041	51.314	1.6189
#2	.08982	51.181	1.5972
#3	.08946	52.362	1.6251

Int. Std.	Sc1880	Sc3613
Units	Cts/S	Cts/S
Avg	1115.1	557260.
Stddev	11.3	273.
%RSD	1.0138	.04907
#1	1123.2	557500.
#2	1120.0	557300.
#3	1102.2	556960.

Sample Name: SEQ-CAL5 Acquired: 3/30/2011 9:06:54 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Fe2611	Mg2790
Units	Cts/S	Cts/S	Cts/S
Avg	**9.6729**	**7.0467**	**.70934**
Stddev	.0299	.0438	.00180
%RSD	.30954	.62207	.25437
#1	9.6481	7.0086	.70730
#2	9.7062	7.0946	.71072
#3	9.6645	7.0370	.71001

Int. Std.	Sc3613-2
Units	Cts/S
Avg	82588.
Stddev	238.
%RSD	.28809
#1	82851.
#2	82387.
#3	82525.

Sample Name: SEQ-CAL6 Acquired: 3/30/2011 9:16:52 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	As1972	As2003	B_2496	Be3130	Cd2144	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.1914**	**3.1491**	**1.1593**	**.06531**	**21.668**	**113.20**	**86.254**	**56.664**
Stddev	.0217	.0249	.0086	.00021	.166	.69	.505	.413
%RSD	.67923	.79212	.73746	.32772	.76409	.61314	.58539	.72961
#1	3.1987	3.1450	1.1579	.06545	21.529	113.26	86.196	56.645
#2	3.2084	3.1758	1.1684	.06506	21.851	113.86	86.785	57.086
#3	3.1670	3.1265	1.1515	.06540	21.626	112.47	85.781	56.260

Elem	Cr2677	Cu2199	Cu3247	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.26222**	**.0152**	**.83987**	**37.106**	**32.389**	**11.654**	**8.3569**	**3.7624**
Stddev	.00134	.0001	.00342	.352	.239	.088	.0666	.0286
%RSD	.51179	.3555	.40732	.94894	.73885	.75409	.79712	.76022
#1	.26229	.0152	.84240	37.040	32.385	11.637	8.3544	3.7590
#2	.26085	.0152	.83598	37.487	32.630	11.750	8.4248	3.7926
#3	.26353	.0151	.84123	36.792	32.151	11.577	8.2916	3.7357

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.2557**	**15.26**	**1.9017**	**8.5421**	**.33391**	**36.814**
Stddev	.0449	.04	.0026	.0457	.00138	.278
%RSD	.85442	.2599	.13690	.53437	.41413	.75597
#1	5.2524	15.30	1.9046	8.5408	.33459	36.816
#2	5.3022	15.25	1.9009	8.5884	.33232	37.091
#3	5.2126	15.23	1.8996	8.4971	.33483	36.534

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1007.8	545120.	88024.
Stddev	7.9	1638.	106.
%RSD	.78422	.30054	.12092
#1	1009.4	543280.	87903.
#2	999.19	546400.	88061.
#3	1014.8	545700.	88106.

Sample Name: SEQ-CAL7 Acquired: 3/30/2011 9:21:52 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**1.0292**	**4.9296**
Stddev	.0034	.0289
%RSD	.33251	.58580
#1	1.0253	4.9063
#2	1.0308	4.9619
#3	1.0316	4.9206

Int. Std.	Sc3613-2
Units	Cts/S
Avg	84423.
Stddev	12.
%RSD	.01365
#1	84436.
#2	84419.
#3	84414.

Sample Name: SEQ-CAL8 Acquired: 3/30/2011 9:27:03 Type: Cal
Method: DuoEnviroMethodNEW(v2042) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca3179	Mg2790	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**17.639**	**.13810**	**24.531**
Stddev	.033	.00029	.158
%RSD	.18957	.21182	.64406
#1	17.663	.13818	24.682
#2	17.601	.13778	24.367
#3	17.652	.13835	24.542

Int. Std.	Sc3613-2
Units	Cts/S
Avg	81134.
Stddev	239.
%RSD	.29430
#1	81125.
#2	81378.
#3	80900.

Sample Name: SEQ-ICV Acquired: 3/30/2011 9:58:26 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0814

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1008.9**	**975.27**	**1009.2**	**968.86**	**968.17**	**1019.**	**1013.9**
Stddev	.7	1.61	.2	2.32	1.39	.	2.5
%RSD	.07346	.16487	.01734	.23934	.14394	.0188	.24909
#1	1009.0	977.11	1009.0	968.16	966.64	1018.	1012.3
#2	1009.6	974.57	1009.2	966.97	968.53	1019.	1012.6
#3	1008.2	974.13	1009.3	971.44	969.35	1019.	1016.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**977.77**	**993.75**	**1005.4**
Stddev	1.44	3.17	.7
%RSD	.14735	.31874	.06754
#1	976.47	997.19	1005.7
#2	977.51	990.95	1005.8
#3	979.32	993.11	1004.6
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1013.4	525510.	84635.
Stddev	1.9	2246.	13.
%RSD	.18476	.42732	.01562
#1	1011.9	524070.	84622.
#2	1015.5	524360.	84649.
#3	1012.7	528090.	84635.

Sample Name: SEQ-ICV Acquired: 3/30/2011 9:58:26 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0814

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.20**	**9895.9**	F **1058.7**	**1003.1**	**1030.5**	F **1092.0**	**1010.0**
Stddev	3.03	42.3	.8	.6	7.5	4.2	.8
%RSD	.60130	.42728	.07902	.05485	.72657	.38340	.07479
#1	504.72	9847.2	1057.8	1003.0	1038.7	1095.8	1009.3
#2	505.16	9922.6	1058.9	1002.6	1024.0	1092.6	1009.8
#3	499.71	9918.0	1059.4	1003.6	1028.8	1087.5	1010.8
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value			1000.0			1000.0	
Range			±50.000			±50.000	

105.39c

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	F **1055.5**	F **52.640**	F **1086.2**	F **1090.2**	**991.95**	**973.39**	**979.0**
Stddev	1.7	.158	1.8	.8	.79	4.48	4.2
%RSD	.16508	.30108	.16565	.07544	.07956	.46013	.4263
#1	1054.7	52.543	1084.6	1089.6	992.72	978.23	976.9
#2	1054.3	52.554	1088.1	1091.2	992.00	969.39	983.8
#3	1057.5	52.823	1085.7	1089.9	991.14	972.56	976.2
Check ?	Chk Fail	Chk ~~Fail~~ Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	1000.0	50.000	1000.0	1000.0			
Range	±50.000	±2.5000	±50.000	±50.000			

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1015.5**	F **10710.**	F **9.3461**	**48.980**	F **1065.7**	**992.37**	**50.596**
Stddev	3.7	42.	.0512	.091	4.0	1.90	.223
%RSD	.36344	.39289	.54775	.18556	.37958	.19155	.44118
#1	1018.7	10662.	9.2870	48.875	1070.4	990.63	50.339
#2	1016.3	10728.	9.3763	49.028	1063.8	992.08	50.706
#3	1011.5	10740.	9.3751	49.037	1063.0	994.40	50.743
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value		10000.	10.000		1000.0		
Range		±500.00	±-.50000		±50.000		

Sample Name: SEQ-ICB Acquired: 3/30/2011 10:05:44 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.15402**	**3.2468**	**-.22016**	**.69749**	**.61041**	**.71279**	**.00807**	**.00978**
Stddev	.13261	2.8199	.23998	.80737	1.9846	.20644	.05736	.00252
%RSD	86.102	86.852	109.00	115.75	325.12	28.962	710.91	25.823
#1	-.30457	6.0416	-.36262	1.0510	1.0538	.49039	-.00787	.01269
#2	-.05455	.40248	.05691	-.22633	-1.5584	.74967	-.03964	.00851
#3	-.10292	3.2962	-.35477	1.2678	2.3358	.89830	.07172	.00814
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00012**	**.04681**	**-.17065**	**.04168**	**.08402**	**-.0815**	**.06730**	**1.6975**
Stddev	.00049	.05234	.05785	.05624	.05974	.2508	.15091	.9298
%RSD	419.49	111.82	33.901	134.93	71.098	307.6	224.22	54.773
#1	-.00044	.09907	-.23599	.07506	.04209	.0355	-.08710	1.9314
#2	.00031	-.00562	-.12594	-.02325	.05756	.0893	.07455	.67313
#3	.00048	.04697	-.15002	.07323	.15242	-.3695	.21446	2.4880
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**.00159**	**.00648**	**-.00336**	**.94796**	**.00381**	**.00959**	**.54302**	**.75279**
Stddev	.00705	.00884	.05412	.10176	.00288	.21408	.85868	.40159
%RSD	443.87	136.30	1609.4	10.734	75.661	2232.9	158.13	53.346
#1	-.00001	-.00308	-.05445	1.0626	.00584	.23206	1.2018	.70111
#2	-.00453	.00819	-.00898	.91287	.00051	-.00834	-.42813	.37955
#3	.00930	.01434	.05335	.86839	.00508	-.19496	.85541	1.1777
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-ICB Acquired: 3/30/2011 10:05:44 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.09688**	**.28557**	**-.0280**	**.21192**	**.63816**	**.13139**	**.05374**
Stddev	1.8536	.33243	.0399	.05628	.08817	.36476	.27511
%RSD	1913.3	116.41	142.7	26.558	13.816	277.61	511.90
#1	.99771	.09496	-.0658	.18931	.53664	-.28663	-.05524
#2	-2.0350	.66943	-.0318	.27599	.68220	.29579	.36665
#3	1.3279	.09234	.0137	.17046	.69563	.38502	-.15018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1202.2	557350.	87654.
Stddev	23.3	4609.	1504.
%RSD	1.9398	.82686	1.7159
#1	1186.9	562640.	86375.
#2	1229.0	554220.	87276.
#3	1190.5	555180.	89311.

Sample Name: SEQ-CRL Acquired: 3/30/2011 10:42:19 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.7652**	**90.332**	**4.9119**	**4.8359**	F **12.016**	**.04864**	**8.8233**
Stddev	.1997	1.227	.4861	2.1013	2.723	.27178	.0959
%RSD	11.312	1.3580	9.8959	43.452	22.662	558.80	1.0868
#1	1.7629	89.320	5.2518	7.1086	10.827	.33367	8.7248
#2	1.5667	91.696	5.1288	2.9635	15.131	-.01985	8.9163
#3	1.9660	89.980	4.3551	4.4357	10.089	-.20761	8.8287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
Value					6.0000		
Range					±1.2000		

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1.8569**	**1.8417**	**1.8124**	**1.7808**	**8.2476**	**3.5615**	**7.358**
Stddev	.0150	.0053	.0397	.0500	.0636	.0282	.554
%RSD	.80547	.28488	2.1885	2.8080	.77086	.79181	7.524
#1	1.8526	1.8390	1.8334	1.7972	8.2247	3.5901	7.260
#2	1.8446	1.8382	1.8372	1.8206	8.3194	3.5607	6.860
#3	1.8736	1.8477	1.7667	1.7247	8.1986	3.5337	7.954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**7.3160**	**58.712**	**2.6102**	**2.5583**	**5.8722**	**8.2235**	**2.6959**
Stddev	.0914	.887	.0242	.0078	.0623	.2556	.0140
%RSD	1.2487	1.5105	.92710	.30351	1.0605	3.1084	.51883
#1	7.2368	58.744	2.6099	2.5562	5.8343	7.9295	2.6803
#2	7.4159	59.583	2.6345	2.5518	5.9441	8.3930	2.7074
#3	7.2953	57.810	2.5861	2.5669	5.8383	8.3480	2.6999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/30/2011 10:42:19 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.8424**	**2.7339**	7.**2795**	**4.9910**	1**6.247**	**5.334**	**8.9390**
Stddev	.1038	.5209	.2968	1.2770	.158	.022	.3200
%RSD	2.1437	19.053	4.0772	25.586	.97051	.4053	3.5798
#1	4.7743	2.2022	7.2273	4.9766	16.428	5.349	8.5696
#2	4.9619	2.7564	7.5989	3.7212	16.179	5.309	9.1302
#3	4.7912	3.2432	7.0122	6.2751	16.135	5.342	9.1172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**3.8643**	**8.8554**	**8.**5513
Stddev	.2783	.2710	.0477
%RSD	7.2011	3.0603	.55813
#1	4.1707	8.5638	8.5543
#2	3.7952	9.0995	8.5974
#3	3.6271	8.9029	8.5021
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1164.6	556740.	87371.
Stddev	3.1	981.	92.
%RSD	.26234	.17626	.10554
#1	1161.4	557580.	87474.
#2	1167.4	555660.	87344.
#3	1164.9	556980.	87295.

Sample Name: SEQ-IFA Acquired: 3/30/2011 10:47:28 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.75764**	**516740.**	**-1.2824**	**2.6518**	**-.63242**	**19.847**	**.36878**
Stddev	.33809	4936.	5.8484	3.2273	10.153	.184	.07845
%RSD	44.624	.95511	456.04	121.70	1605.4	.92469	21.272
#1	-.44686	522360.	-4.5889	3.8943	1.8917	19.995	.28504
#2	-1.1176	514790.	-4.7287	5.0732	8.0205	19.641	.44057
#3	-.70841	513080.	5.4703	-1.0120	-11.809	19.903	.38072

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.03465**	**495.82**	**1.7465**	**-1.2669**	**-.08924**	**-1.7294**	**2.492**
Stddev	.01291	3.24	.1906	.1360	.43043	.0688	1.411
%RSD	37.243	.65253	10.913	10.734	482.34	3.9763	56.63
#1	.03652	497.01	1.8679	-1.3481	-.58189	-1.8086	4.083
#2	.02092	492.16	1.8448	-1.1099	.10016	-1.6853	2.004
#3	.04652	498.30	1.5268	-1.3427	.21402	-1.6942	1.390

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**-4.7576**	**208810.**	**-.07512**	**510.76**	**4.4242**	**.00935**	**.02721**
Stddev	.1007	1067.	.00692	2.00	.0799	.70847	.00309
%RSD	2.1164	.51092	9.2103	.39123	1.8054	7576.6	11.368
#1	-4.6810	209930.	-.07931	512.83	4.3900	.17718	.02571
#2	-4.7203	207800.	-.07892	508.84	4.5155	-.76797	.03076
#3	-4.8717	208710.	-.06714	510.61	4.3671	.61884	.02515

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-3.3396**	**7.9872**	**1.1281**	**5.7568**	**-5.3866**	**-5.719**	**-6.9819**
Stddev	.1666	1.5023	1.8939	.6875	.8514	.069	.3324
%RSD	4.9879	18.809	167.89	11.943	15.806	1.214	4.7604
#1	-3.5301	8.0542	.86600	6.1961	-6.1634	-5.723	-7.1655
#2	-3.2216	6.4525	-.62111	4.9645	-4.4764	-5.647	-6.5982
#3	-3.2670	9.4549	3.1394	6.1099	-5.5199	-5.786	-7.1820

Sample Name: SEQ-IFA Acquired: 3/30/2011 10:47:28 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	1.7058	2.0696	6.8796
Stddev	2.3342	.1601	.2260
%RSD	136.84	7.7371	3.2855
#1	-.34256	2.2258	7.0801
#2	4.2471	2.0774	6.6347
#3	1.2129	1.9058	6.9242
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	781.39	482620.	81077.
Stddev	1.49	1336.	367.
%RSD	.19037	.27674	.45295
#1	782.28	481430.	80711.
#2	782.21	484060.	81446.
#3	779.67	482350.	81074.

Sample Name: SEQ-IFB Acquired: 3/30/2011 10:53:06 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**198.92**	**477930.**	**115.02**	**108.93**	**105.72**	**6.9892**	**524.67**
Stddev	1.38	5201.	3.10	4.43	8.79	.8472	1.46
%RSD	.69278	1.0882	2.6985	4.0692	8.3141	12.122	.27870
#1	199.26	483160.	115.12	111.97	103.63	7.9464	524.52
#2	197.41	472760.	111.86	110.97	98.170	6.3355	523.29
#3	200.10	477860.	118.07	103.85	115.37	6.6856	526.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**485.30**	**470.47**	**1034.8**	**1171.1**	**470.28**	**441.77**	**445.7**
Stddev	2.23	4.30	4.2	4.5	1.92	1.73	3.3
%RSD	.45969	.91406	.40850	.38085	.40807	.39186	.7462
#1	484.98	469.57	1034.5	1174.5	471.23	440.11	443.8
#2	483.25	466.69	1030.7	1166.0	468.07	441.63	443.8
#3	487.68	475.15	1039.2	1172.8	471.55	443.57	449.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**501.55**	**191940.**	**-.06587**	**479.29**	**469.41**	**.93018**	**.03673**
Stddev	2.59	716.	.00525	1.81	.89	.30724	.00335
%RSD	.51631	.37312	7.9771	.37665	.18958	33.030	9.1201
#1	502.59	192110.	-.06284	479.01	469.44	.57560	.03360
#2	498.60	191160.	-.07194	477.64	468.51	1.0975	.03632
#3	503.46	192560.	-.06284	481.22	470.29	1.1174	.04026
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	None
Value							
Range							

Sample Name: SEQ-IFB Acquired: 3/30/2011 10:53:06 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**935.89**	**57.106**	**639.75**	**49.866**	**-5.0860**	**-5.363**	**-6.1668**
Stddev	4.56	1.457	4.07	3.929	.2923	.084	.1708
%RSD	.48764	2.5520	.63632	7.8785	5.7463	1.562	2.7696
#1	937.77	55.468	644.22	50.787	-4.7568	-5.354	-6.1965
#2	930.68	58.260	636.25	45.559	-5.3150	-5.285	-6.3208
#3	939.21	57.589	638.78	53.253	-5.1862	-5.452	-5.9831
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None
Value							
Range							

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**88.688**	**448.10**	**979.15**
Stddev	2.797	.23	4.55
%RSD	3.1534	.05077	.46439
#1	85.868	448.00	975.84
#2	91.461	448.36	977.27
#3	88.735	447.94	984.33
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	809.91	489800.	83766.
Stddev	**2**.93	2457.	322.
%RSD	.36133	.50164	.38444
#1	807.17	488600.	83861.
#2	812.99	492620.	84031.
#3	809.58	488170.	83408.

Sample Name: SEQ-CCV Acquired: 3/30/2011 11:12:15 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**498.91**	**9702.9**	**1040.3**	**1015.6**	**1018.0**	**1040.2**	**1015.4**	**1049.5**
Stddev	2.47	16.0	15.1	6.9	9.2	.7	7.7	.9
%RSD	.49570	.16464	1.4541	.68007	.90654	.06795	.76261	.08669
#1	501.63	9686.2	1024.9	1009.5	1007.3	1041.0	1008.1	1049.3
#2	498.29	9718.1	1040.9	1014.2	1023.1	1039.6	1014.5	1050.5
#3	496.80	9704.2	1055.1	1023.1	1023.6	1040.0	1023.5	1048.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.164**	**1070.3**	**1061.7**	**992.35**	**991.16**	**1008.**	**1015.5**	**10517.**
Stddev	.111	8.9	9.5	10.11	2.43	1.	2.8	23.
%RSD	.21631	.82977	.89615	1.0191	.24556	.1118	.27589	.22013
#1	51.228	1061.9	1051.6	982.23	988.44	1009.	1018.6	10509.
#2	51.036	1069.5	1062.9	992.36	991.94	1007.	1014.6	10499.
#3	51.229	1079.6	1070.5	1002.5	993.12	1008.	1013.2	10543.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.7820**	**48.384**	**1065.1**	**997.63**	**49.207**	**1003.2**	**989.29**	**1007.3**
Stddev	.0252	.093	.2	9.44	.055	8.3	9.58	5.8
%RSD	.25749	.19321	.01484	.94670	.11202	.82434	.96822	.57534
#1	9.8111	48.492	1064.9	988.39	49.270	995.46	978.84	1000.7
#2	9.7660	48.326	1065.2	997.25	49.183	1002.2	991.39	1009.5
#3	9.7690	48.335	1065.2	1007.3	49.168	1011.9	997.65	1011.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/30/2011 11:12:15 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1006.0**	**1002.2**	**991.2**	**992.00**	**1003.4**	**991.77**	**1034.9**
Stddev	8.5	7.9	3.2	1.35	8.8	1.76	7.7
%RSD	.84429	.78396	.3276	.13656	.87783	.17727	.74380
#1	996.27	996.13	988.7	991.17	994.35	989.74	1029.2
#2	1010.1	999.42	994.9	993.57	1003.9	992.75	1031.8
#3	1011.7	1011.1	990.1	991.28	1011.9	992.82	1043.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1026.4	539050.	87803.
Stddev	8.6	1190.	116.
%RSD	.84184	.22070	.13214
#1	1035.2	537670.	87674.
#2	1026.0	539810.	87899.
#3	1017.9	539650.	87836.

Sample Name: SEQ-CCB Acquired: 3/30/2011 11:19:34 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.14329**	**2.0461**	**.26510**	**.64357**	**-.40209**	**.75314**	**.15143**	**.12832**
Stddev	.09829	4.4352	.85892	.42114	3.1986	.50021	.06026	.07599
%RSD	68.598	216.76	324.00	65.438	795.49	66.417	39.797	59.221
#1	.12657	1.0551	.89833	.96849	-2.8187	1.1430	.22098	.05297
#2	.05443	-1.8097	-.71258	.79444	3.2251	.18913	.11860	.12704
#3	.24887	6.8929	.60955	.16777	-1.6127	.92730	.11471	.20494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00633**	**.23666**	**.26381**	**.22972**	**.26007**	**.3851**	**.59820**	**3.8088**
Stddev	.00479	.09804	.03561	.15649	.11379	.8115	.09177	1.2560
%RSD	75.742	41.426	13.497	68.124	43.755	210.7	15.341	32.977
#1	.00110	.34953	.30244	.38906	.18794	1.320	.68351	2.3608
#2	.00738	.18780	.25667	.22384	.20101	-.0220	.60997	4.4618
#3	.01051	.17266	.23231	.07624	.39125	-.1422	.50111	4.6039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.00334**	**.00484**	**.21448**	**.98462**	**.01554**	**-.23209**	**.74322**	**.74450**
Stddev	.00699	.00735	.04356	.32055	.00707	.09665	.50079	1.2887
%RSD	209.22	151.83	20.311	32.555	45.527	41.641	67.381	173.09
#1	-.01063	.00225	.19731	1.3497	.00826	-.13180	.20953	2.1078
#2	.00332	-.00086	.18212	.74949	.01596	-.32463	.81727	.57934
#3	-.00273	.01314	.26401	.85462	.02239	-.23985	1.2029	-.45361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 11:19:34 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.63146**	**.13923**	**.1254**	**.42740**	**.35082**	**.33894**	**.26447**
Stddev	.54973	.18572	.1081	.12592	.44105	.17150	.25697
%RSD	87.057	133.39	86.17	29.463	125.72	50.599	97.166
#1	1.0315	-.05318	.0141	.28253	.21414	.28392	.55896
#2	.00462	.15343	.1323	.51059	-.00572	.20170	.08568
#3	.85824	.31745	.2299	.48910	.84403	.53120	.14877
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1195.5	571040.	89522.
Stddev	**12.**1	2938.	863.
%RSD	1.0148	.51457	.96396
#1	1194.6	569730.	89425.
#2	1208.1	574400.	88711.
#3	1183.9	568980.	90429.

Sample Name: SEQ-CCV Acquired: 3/30/2011 12:13:23 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**504.16**	**9738.6**	**1013.7**	**1019.0**	**1016.2**	**1037.5**	**1029.8**	**1069.3**
Stddev	.98	26.3	2.4	8.1	6.4	4.0	6.4	1.0
%RSD	.19445	.26983	.23395	.79623	.62958	.38090	.62133	.09422
#1	504.58	9720.9	1011.5	1012.5	1009.7	1040.9	1027.3	1070.4
#2	503.04	9726.1	1013.3	1016.4	1022.5	1038.4	1025.0	1069.0
#3	504.87	9768.8	1016.2	1028.1	1016.4	1033.1	1037.0	1068.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.229**	**1057.1**	**1049.3**	**991.83**	**1016.5**	**1037.**	**1022.4**	**10361.**
Stddev	.068	5.1	6.1	5.11	3.2	2.	4.9	20.
%RSD	.13319	.48188	.57737	.51472	.31655	.2198	.48015	.19727
#1	51.290	1055.7	1045.4	989.13	1017.8	1039.	1027.3	10342.
#2	51.242	1052.8	1046.2	988.64	1012.9	1034.	1022.6	10359.
#3	51.155	1062.7	1056.3	997.71	1019.0	1038.	1017.5	10383.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.8230**	**48.806**	**1089.0**	**1020.6**	**49.260**	**987.79**	**995.71**	**1006.6**
Stddev	.0465	.064	3.9	7.3	.184	3.70	5.80	6.1
%RSD	.47322	.13103	.35691	.71202	.37311	.37476	.58220	.61031
#1	9.7762	48.737	1091.2	1015.9	49.112	985.50	992.48	1001.7
#2	9.8237	48.817	1084.5	1016.9	49.201	985.81	992.25	1004.6
#3	9.8692	48.864	1091.2	1029.0	49.466	992.06	1002.4	1013.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/30/2011 12:13:23 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1029.**1	**1021.0**	**1011.**	**1010.9**	**996.83**	**1019.9**	**1051.5**
Stddev	8.0	6.8	1.	1.4	5.87	4.0	6.8
%RSD	.77772	.66891	.0713	.13638	.58852	.39453	.64638
#1	1024.9	1016.9	1011.	1012.0	993.26	1023.6	1051.8
#2	1024.1	1017.3	1010.	1011.3	993.64	1015.6	1044.6
#3	1038.4	1028.9	1010.	1009.3	1003.6	1020.4	1058.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1036.3	543660.	87618.
Stddev	6.1	508.	152.
%RSD	.59206	.09349	.17303
#1	1040.3	543160.	87774.
#2	1039.3	544180.	87610.
#3	1029.2	543650.	87471.

Sample Name: SEQ-CCB Acquired: 3/30/2011 12:26:07 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06657**	**2.9783**	**-.04000**	**.58357**	**2.7225**	**.41436**	**.01149**	**.00150**
Stddev	.11850	2.8828	.38380	2.0764	.8388	.35073	.03612	.01494
%RSD	178.02	96.794	959.59	355.82	30.808	84.642	314.47	995.38
#1	.03132	3.2530	.33459	-1.5833	2.9153	.01407	-.02601	.01182
#2	-.03271	5.7139	-.02220	2.5559	1.8042	.56128	.01442	.00831
#3	-.19831	-.03204	-.43238	.77802	3.4481	.66774	.04605	-.01563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.00181**	**.00360**	**.20648**	**.02727**	**.01138**	**-.0622**	**.48647**	**-.21323**
Stddev	.00075	.01710	.15171	.08438	.11123	.4002	.12237	.23766
%RSD	41.620	474.51	73.476	309.36	977.34	643.2	25.155	111.46
#1	-.00256	.02209	.36299	.11787	-.09808	.1188	.50158	.02468
#2	-.00106	-.01163	.19637	-.04907	.00794	-.5209	.35724	-.45064
#3	-.00180	.00034	.06007	.01303	.12429	.2154	.60058	-.21373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.00661**	**.00082**	**-.01539**	**.39803**	**.00213**	**-.42153**	**.47010**	**.90753**
Stddev	.00466	.00432	.03065	.14546	.00235	.12706	.97737	.73949
%RSD	70.569	527.10	199.14	36.544	110.65	30.143	207.91	81.484
#1	-.00204	.00580	-.00211	.23307	.00123	-.28565	1.5919	1.6813
#2	-.01136	-.00141	.00638	.45313	.00035	-.44153	-.19805	.83350
#3	-.00642	-.00193	-.05044	.50789	.00479	-.53740	.01651	.20784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 12:26:07 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.6261**	**-.09003**	**-.0295**	**-.03751**	**.27739**	**-.01453**	**.14043**
Stddev	1.6428	.31765	.0135	.09972	.25534	.14096	.11017
%RSD	101.03	352.83	45.66	265.82	92.052	970.33	78.449
#1	1.6038	-.43050	-.0148	-.15255	.35150	.13109	.08129
#2	-.00543	.19837	-.0412	.01556	.48748	-.02437	.07247
#3	3.2800	-.03796	-.0326	.02444	-.00681	-.15030	.26754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1198.0	574050.	89629.
Stddev	24.1	1832.	77.
%RSD	2.0135	.31914	.08551
#1	1211.7	575620.	89542.
#2	1212.2	574490.	89656.
#3	1170.2	572040.	89688.

Sample Name: SEQ-CCV Acquired: 3/30/2011 13:48:03 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**495.05**	**9712.7**	**1020.8**	**998.17**	**998.49**	**1039.5**	**1001.2**	**1067.2**
Stddev	2.12	51.7	5.9	5.05	.76	5.4	6.3	2.1
%RSD	.42759	.53244	.58131	.50630	.07610	.51755	.62812	.19587
#1	496.18	9676.4	1027.7	1003.7	998.67	1039.2	1008.2	1064.8
#2	492.61	9689.7	1018.0	993.83	999.15	1034.3	996.09	1068.6
#3	496.37	9771.9	1016.9	996.94	997.66	1045.1	999.22	1068.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.897**	**1049.8**	**1043.3**	**974.72**	**1001.8**	**1005.**	**1011.5**	**10566.**
Stddev	.193	8.4	5.6	6.85	4.0	6.	4.8	44.
%RSD	.37211	.79611	.53992	.70251	.40099	.6320	.47741	.42066
#1	52.103	1059.2	1049.8	982.50	999.83	1005.	1012.8	10609.
#2	51.867	1043.4	1040.4	969.63	999.23	999.3	1006.2	10520.
#3	51.721	1046.6	1039.7	972.03	1006.5	1012.	1015.6	10569.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.7568**	**49.041**	**1066.8**	**984.93**	**49.407**	**981.68**	**974.96**	**989.69**
Stddev	.0858	.083	3.2	5.10	.515	5.25	4.76	5.50
%RSD	.87978	.16899	.30390	.51811	1.0422	.53500	.48862	.55617
#1	9.6785	49.094	1067.1	989.56	48.902	987.73	980.13	996.05
#2	9.7435	49.083	1063.5	979.46	49.389	978.28	974.00	986.66
#3	9.8486	48.945	1070.0	985.77	49.931	979.04	970.75	986.37
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/30/2011 13:48:03 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**991.53**	**990.06**	**1001.**	**1004.8**	**984.01**	**997.63**	**1017.3**
Stddev	1.39	6.01	5.	2.3	7.03	4.37	8.6
%RSD	.14060	.60734	.5368	.22811	.71477	.43831	.84305
#1	993.06	994.61	994.5	1002.2	992.04	999.41	1026.1
#2	991.19	983.24	1003.	1005.6	978.93	992.65	1009.0
#3	990.34	992.32	1005.	1006.6	981.06	1000.8	1016.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1058.6	548300.	87698.
Stddev	2.3	3023.	48.
%RSD	.22175	.55126	.05482
#1	1055.9	549740.	87695.
#2	1059.5	550330.	87747.
#3	1060.3	544820.	87651.

Sample Name: SEQ-CCB Acquired: 3/30/2011 13:55:25 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.02794**	**3.7898**	**.22293**	**.60571**	**1.9164**	**.65747**	**.14873**	**.13570**
Stddev	.08133	1.2786	.53626	1.1193	2.7230	.57355	.03166	.04741
%RSD	291.04	33.739	240.55	184.79	142.09	87.236	21.284	34.940
#1	.02283	4.7382	.78263	-.24398	2.1028	1.3043	.17707	.18756
#2	-.12174	2.3356	.17250	1.8739	4.5415	.21095	.15456	.12496
#3	.01509	4.2955	-.28633	.18717	-.89499	.45714	.11457	.09458
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00752**	**.15936**	**.19137**	**.16416**	**.17210**	**.6176**	**.61069**	**2.1386**
Stddev	.00294	.03159	.07036	.07165	.04285	.4360	.13058	1.5366
%RSD	39.068	19.821	36.765	43.649	24.900	70.59	21.382	71.849
#1	.01025	.17827	.26768	.20968	.20258	.8042	.75650	3.8369
#2	.00791	.17691	.12908	.08156	.12310	.9293	.57104	.84445
#3	.00441	.12289	.17735	.20124	.19061	.1194	.50453	1.7346
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.01744**	**.01104**	**.04000**	**.74272**	**.00991**	**-.19347**	**.90304**	**.27529**
Stddev	.00956	.00494	.01200	.05254	.00131	.09288	.80646	1.1388
%RSD	54.819	44.775	30.001	7.0736	13.219	48.007	89.304	413.69
#1	-.01386	.01664	.05346	.80252	.01143	-.11937	-.01382	.09833
#2	-.01019	.00914	.03611	.70400	.00913	-.16336	1.2204	1.4922
#3	-.02828	.00732	.03042	.72164	.00919	-.29766	1.5025	-.76471
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 13:55:25 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.11352**	**.38756**	**.0941**	**.17591**	**.22081**	**.16285**	**.24432**
Stddev	.39615	.27497	.0554	.05561	.55892	.08781	.05255
%RSD	348.98	70.949	58.89	31.614	253.13	53.919	21.508
#1	.33657	.60204	.1262	.23584	.08220	.07887	.19202
#2	-.40930	.48307	.1261	.12597	.83599	.15564	.29712
#3	-.26782	.07757	.0301	.16591	-.25578	.25405	.24383
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1213.6	578880.	90076.
Stddev	13.1	3793.	921.
%RSD	1.0800	.65517	1.0226
#1	1199.2	574630.	91140.
#2	1216.6	580090.	89569.
#3	1224.9	581920.	89520.

Sample Name: 1C29002-BS1 Acquired: 3/30/2011 14:04:58 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS032911A 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**255.85**	**2011.8**	**246.69**	**239.07**	**237.13**	**1001.3**	**2037.8**
Stddev	.83	6.9	2.04	.97	1.92	1.6	9.4
%RSD	.32585	.34067	.82710	.40483	.80837	.15853	.46066
#1	256.71	2019.4	245.94	240.09	237.23	999.76	2040.5
#2	255.04	2006.3	245.14	238.16	235.17	1002.9	2027.4
#3	255.79	2009.5	249.00	238.97	239.00	1001.3	2045.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**54.961**	**5.4129**	**133.99**	**129.79**	**499.50**	**217.09**	**237.5**
Stddev	.143	.0158	1.14	.88	2.78	.56	1.6
%RSD	.25946	.29225	.85214	.67981	.55679	.25787	.6666
#1	54.838	5.3968	133.89	129.75	498.69	216.45	238.7
#2	54.929	5.4134	132.90	128.93	497.21	217.46	235.7
#3	55.117	5.4284	135.17	130.69	502.60	217.36	238.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**259.34**	F **1158.6**	**4.9830**	**4.9694**	**572.78**	**972.02**	**5.1051**
Stddev	.99	5.3	.0275	.0236	.80	4.06	.0219
%RSD	.38048	.45410	.55144	.47523	.13996	.41784	.42808
#1	260.28	1152.7	5.0080	4.9449	572.79	973.12	5.1235
#2	258.31	1162.7	4.9874	4.9920	571.97	967.52	5.0810
#3	259.44	1160.6	4.9536	4.9714	573.58	975.41	5.1110
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		1000.0					
Range		±150.00					

Sample Name: 1C29002-BS1 Acquired: 3/30/2011 14:04:58 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS032911A 1g->200ml

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.48**	**249.63**	**242.05**	**222.93**	**993.17**	**1046.**	**1049.2**
Stddev	3.02	1.18	1.52	2.66	5.48	2.	1.2
%RSD	.58614	.47191	.62913	1.1924	.55160	.1595	.11902
#1	514.50	250.11	243.65	223.40	995.36	1046.	1049.3
#2	511.45	248.29	240.62	220.07	986.94	1045.	1047.8
#3	517.49	250.50	241.88	225.32	997.21	1048.	1050.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**244.82**	**526.23**	**507.82**
Stddev	.47	.34	4.54
%RSD	.19066	.06416	.89495
#1	244.90	526.04	508.74
#2	244.31	526.62	502.89
#3	245.23	526.03	511.84
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1138.6	569380.	88211.
Stddev	4.2	672.	237.
%RSD	.37254	.11804	.26912
#1	1140.0	568680.	88466.
#2	1142.0	570020.	88171.
#3	1133.8	569430.	87996.

Sample Name: 1103223-01 Acquired: 3/30/2011 14:11:20 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.72275**	**109340.**	**21.841**	**26.367**	**33.727**	**28.049**	**1435.4**
Stddev	.16864	257.	1.699	1.814	3.468	1.010	2.3
%RSD	23.334	.23541	7.7794	6.8789	10.283	3.5991	.16334
#1	-.52815	109300.	20.799	24.386	29.762	27.994	1433.3
#2	-.82622	109110.	20.922	26.769	36.195	29.085	1435.0
#3	-.81389	109620.	23.801	27.946	35.223	27.068	1438.0

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**6.6079**	**367.92**	**1.8317**	**2.1770**	**144.47**	**125.50**	**230.0**
Stddev	.0370	3.53	.0503	.1056	.27	.48	.7
%RSD	.55997	.95953	2.7482	4.8510	.18739	.38249	.2855
#1	6.5982	364.34	1.7959	2.2846	144.19	125.70	230.6
#2	6.5766	371.39	1.8100	2.1729	144.48	124.95	229.9
#3	6.6487	368.04	1.8893	2.0735	144.74	125.85	229.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**255.53**	**145290.**	**14.655**	**159.50**	**1885.7**	**3.6583**	**.36417**
Stddev	1.80	719.	.083	.30	6.3	.1011	.00082
%RSD	.70312	.49456	.56491	.18764	.33565	2.7627	.22602
#1	255.13	145760.	14.653	159.37	1890.0	3.7543	.36440
#2	253.97	145640.	14.573	159.84	1878.4	3.5528	.36326
#3	257.50	144460.	14.739	159.28	1888.6	3.6678	.36486

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**102.78**	**292.32**	**-.99719**	**-.82649**	**15.400**	**410.8**	**1142.6**
Stddev	.57	.60	.95264	1.3955	1.130	1.6	4.7
%RSD	.55935	.20385	95.533	168.84	7.3393	.4003	.40918
#1	102.53	292.75	-1.8956	-.68192	15.493	409.2	1138.0
#2	102.37	292.57	.00173	.49107	14.226	410.5	1142.4
#3	103.44	291.64	-1.0977	-2.2886	16.481	412.5	1147.3

Sample Name: 1103223-01 Acquired: 3/30/2011 14:11:20 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.34749**	**235.53**	**982.95**
Stddev	1.1767	.88	1.94
%RSD	338.63	.37364	.19738
#1	1.0050	234.52	982.60
#2	-.91129	235.98	981.21
#3	-1.1362	236.11	985.04

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	917.62	526130.	85677.
Stddev	3.33	3944.	201.
%RSD	.36256	.74962	.23471
#1	921.28	524130.	85801.
#2	916.78	530670.	85445.
#3	914.79	523580.	85785.

Sample Name: 1103223-02 Acquired: 3/30/2011 14:15:57 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.64005**	**61033.**	**32.657**	**31.859**	**45.318**	**11.779**	**597.42**
Stddev	.33405	82.	2.032	2.642	1.503	.381	3.45
%RSD	52.191	.13376	6.2226	8.2938	3.3158	3.2324	.57829
#1	-.76655	61090.	30.333	29.242	43.947	12.077	595.07
#2	-.26123	61070.	34.101	34.526	46.925	11.350	595.79
#3	-.89238	60940.	33.535	31.809	45.084	11.911	601.38

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**4.8055**	**5.0391**	**.00287**	**1.1117**	**102.01**	**130.40**	**208.5**
Stddev	.0055	.0141	.04837	.1442	1.06	1.12	.6
%RSD	.11481	.28033	1688.2	12.971	1.0364	.85990	.3087
#1	4.8063	5.0233	-.04396	.97321	101.63	129.91	209.0
#2	4.7997	5.0434	-.00009	1.1009	101.19	129.62	208.8
#3	4.8106	5.0505	.05265	1.2610	103.20	131.69	207.8

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**223.99**	**137610.**	**5.3669**	**11.132**	**3407.9**	**4.3376**	**.08135**
Stddev	1.24	300.	.0187	.011	20.8	.3372	.00181
%RSD	.55547	.21786	.34905	.09944	.60932	7.7735	2.2230
#1	222.66	137940.	5.3651	11.126	3386.8	4.4743	.08245
#2	224.20	137360.	5.3865	11.125	3408.6	3.9536	.07926
#3	225.13	137530.	5.3491	11.145	3428.3	4.5850	.08232

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.494**	**118.28**	**-.04964**	**.65315**	**18.228**	**29.21**	**977.84**
Stddev	.383	1.79	.90773	.94587	1.396	.12	2.78
%RSD	.75856	1.5161	1828.6	144.82	7.6596	.4232	.28467
#1	50.080	118.98	-1.0833	.84618	17.086	29.09	976.33
#2	50.568	116.25	.61743	-.37435	17.814	29.34	981.05
#3	50.835	119.63	.31700	1.4876	19.784	29.20	976.14

Sample Name: 1103223-02 Acquired: 3/30/2011 14:15:57 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.6418**	**236.92**	**260.46**
Stddev	.2522	1.95	1.59
%RSD	15.361	.82313	.61122
#1	-1.9216	236.72	259.26
#2	-1.5720	235.09	259.86
#3	-1.4319	238.97	262.27

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1061.9	559660.	87859.
Stddev	6.7	2259.	78.
%RSD	.63454	.40366	.08836
#1	1067.1	561480.	87829.
#2	1064.2	560370.	87801.
#3	1054.2	557130.	87947.

Sample Name: 1103223-03 Acquired: 3/30/2011 14:20:34 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.93966**	**81861.**	**34.120**	**36.251**	**45.979**	**13.484**	**274.97**
Stddev	.11433	204.	1.903	.955	4.079	.590	1.07
%RSD	12.167	.24931	5.5762	2.6347	8.8710	4.3768	.38901
#1	-.84935	81921.	32.713	37.316	43.207	14.029	274.93
#2	-.90142	82028.	36.285	35.471	44.068	12.857	276.06
#3	-1.0682	81633.	33.361	35.967	50.663	13.566	273.92

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**5.2052**	**5.1161**	**-.85394**	**.32364**	**149.47**	**164.96**	**81.64**
Stddev	.0455	.0083	.11678	.14681	.80	1.55	.58
%RSD	.87341	.16226	13.675	45.363	.53439	.93842	.7166
#1	5.1997	5.1251	-.91371	.35143	149.75	163.75	81.01
#2	5.2532	5.1088	-.71938	.16492	150.09	164.42	81.74
#3	5.1628	5.1142	-.92875	.45458	148.57	166.70	82.16

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**90.638**	**161380.**	**6.2821**	**9.8628**	**2888.0**	**4.0938**	**.08694**
Stddev	.543	510.	.0141	.0252	27.5	.1122	.00167
%RSD	.59934	.31575	.22479	.25594	.95196	2.7417	1.9225
#1	90.057	161860.	6.2679	9.8864	2870.6	4.0945	.08828
#2	91.133	161430.	6.2961	9.8659	2873.6	3.9812	.08507
#3	90.724	160840.	6.2821	9.8362	2919.7	4.2057	.08749

Elem	Ni2316	~~Pb2203~~	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.247**	**80.935**	**-.18146**	**.27393**	**11.873**	**31.31**	**1023.8**
Stddev	.398	.041	1.1890	1.8622	.025	.17	3.0
%RSD	.77626	.05005	655.22	679.82	.20817	.5455	.29665
#1	51.360	80.889	-.03958	1.2871	11.889	31.24	1026.7
#2	51.575	80.951	-1.4350	-1.8752	11.886	31.51	1024.1
#3	50.804	80.966	.93019	1.4099	11.845	31.19	1020.6

Sample Name: 1103223-03 Acquired: 3/30/2011 14:20:34 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.30800**	**242.23**	**107.58**
Stddev	.09129	1.87	.53
%RSD	29.638	.77079	.48941
#1	-.32880	240.48	107.91
#2	-.20811	242.02	107.87
#3	-.38709	244.19	106.98

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1054.3	560820.	88198.
Stddev	5.0	4000.	207.
%RSD	.46999	.71317	.23440
#1	1055.2	565430.	88037.
#2	1049.0	558240.	88127.
#3	1058.8	558800.	88431.

Sample Name: 1103223-04 Acquired: 3/30/2011 14:25:13 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.00492**	**112800.**	**75.885**	**79.648**	**80.338**	**6.7575**	**235.46**
Stddev	.24718	40.	4.473	1.809	3.652	1.9735	4.15
%RSD	5026.4	.03543	5.8947	2.2709	4.5455	29.205	1.7604
#1	.15104	112760.	70.793	80.411	84.509	9.0285	230.69
#2	.12411	112840.	79.179	80.950	77.719	5.7845	238.14
#3	-.28991	112790.	77.684	77.583	78.786	5.4594	237.55

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.8361**	**3.6314**	**-.40801**	**.38755**	**8.6296**	**215.62**	**280.6**
Stddev	.0094	.0126	.53475	.12703	.6438	4.98	6.4
%RSD	.33279	.34561	131.06	32.776	7.4601	2.3116	2.264
#1	2.8432	3.6241	-1.0172	.46608	7.9068	210.20	273.5
#2	2.8254	3.6242	-.01589	.24100	8.8407	216.63	282.4
#3	2.8397	3.6458	-.19099	.45558	9.1414	220.01	285.8

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**296.58**	**233140.**	**1.5360**	**2.9028**	**258.44**	**6.9939**	**.04007**
Stddev	5.51	1487.	.0089	.0096	4.75	.0886	.00146
%RSD	1.8586	.63797	.57616	.33167	1.8360	1.2669	3.6381
#1	290.98	234100.	1.5368	2.8978	253.33	6.8956	.04172
#2	296.76	231430.	1.5268	2.9139	259.30	7.0187	.03954
#3	302.00	233890.	1.5444	2.8967	262.70	7.0675	.03895

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.504**	**146.79**	**.93213**	**.74880**	**15.062**	**18.47**	**1035.2**
Stddev	.286	3.12	1.0751	2.1837	.621	.06	2.2
%RSD	.56570	2.1224	115.34	291.63	4.1237	.3478	.20859
#1	50.807	143.30	.92179	3.2701	14.630	18.41	1032.7
#2	50.463	149.30	2.0124	-.48102	14.783	18.53	1036.7
#3	50.240	147.77	-.13776	-.54267	15.774	18.48	1036.1

Sample Name: 1103223-04 Acquired: 3/30/2011 14:25:13 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.12192**	**345.87**	**320.01**
Stddev	1.1015	6.65	4.87
%RSD	903.48	1.9231	1.5229
#1	-1.1499	338.37	314.68
#2	.77115	348.19	324.24
#3	.74448	351.05	321.10
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1037.5	575530.	89259.
Stddev	17.2	10340.	215.
%RSD	1.6579	1.7967	.24048
#1	1057.3	586410.	89505.
#2	1026.2	574330.	89162.
#3	1029.0	565830.	89110.

Sample Name: 1103223-05 Acquired: 3/30/2011 14:29:46 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.97017**	**65803.**	**34.626**	**36.381**	**54.990**	**9.7345**	**401.77**
Stddev	.12981	272.	2.138	1.578	5.678	.4805	2.80
%RSD	13.380	.41309	6.1757	4.3365	10.325	4.9362	.69753
#1	-.87008	65796.	33.948	36.857	53.518	10.075	400.24
#2	-.92360	65534.	37.021	34.621	61.259	9.1849	400.06
#3	-1.1168	66078.	32.909	37.667	50.194	9.9437	405.00

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**5.9600**	**6.5034**	**.41454**	**1.1255**	**134.81**	**147.36**	**68.32**
Stddev	.0640	.0340	.13851	.1643	.48	1.46	.94
%RSD	1.0747	.52273	33.413	14.599	.35659	.98780	1.371
#1	5.9739	6.4945	.25541	1.0406	134.44	146.01	69.30
#2	5.8901	6.4747	.48020	1.0209	134.64	147.15	67.44
#3	6.0159	6.5409	.50801	1.3149	135.36	148.90	68.22

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**76.032**	**147470.**	**4.8812**	**9.2985**	**4846.5**	**4.0126**	**.07055**
Stddev	.302	783.	.0220	.0451	26.2	.2003	.00174
%RSD	.39767	.53071	.44997	.48480	.54110	4.9925	2.4645
#1	75.688	147690.	4.8938	9.3212	4852.2	4.0217	.07238
#2	76.151	146590.	4.8559	9.2466	4817.9	3.8078	.07035
#3	76.257	148110.	4.8940	9.3277	4869.4	4.2082	.06892

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**49.515**	**92.079**	**-.32764**	**1.1148**	**13.245**	**40.63**	**966.93**
Stddev	.135	1.663	1.2823	2.4702	.390	.21	6.29
%RSD	.27170	1.8064	391.36	221.59	2.9416	.5221	.65101
#1	49.371	90.167	-.14453	-1.6449	13.192	40.60	965.62
#2	49.637	92.878	.85322	1.8701	12.884	40.43	961.39
#3	49.539	93.192	-1.6916	3.1190	13.658	40.85	973.78

Sample Name: 1103223-05 Acquired: 3/30/2011 14:29:46 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.3807**	**235.91**	**157.74**
Stddev	.9690	1.70	.79
%RSD	40.701	.71849	.49964
#1	-1.7408	234.24	157.61
#2	-1.9058	235.85	157.02
#3	-3.4955	237.63	158.58
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1048.1	559910.	88419.
Stddev	3.6	1295.	393.
%RSD	.34153	.23125	.44405
#1	1050.7	561340.	88336.
#2	1049.6	559580.	88846.
#3	1044.0	558810.	88074.

Sample Name: 1103223-06 Acquired: 3/30/2011 14:34:26 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.86338**	**97038.**	**27.471**	**24.129**	**35.510**	**24.720**	**476.85**
Stddev	.13473	181.	1.256	3.346	5.769	.252	3.73
%RSD	15.605	.18664	4.5710	13.865	16.246	1.0186	.78189
#1	-.72344	96877.	26.023	20.332	30.128	24.550	474.76
#2	-.99222	97234.	28.266	26.642	41.600	24.600	474.65
#3	-.87448	97003.	28.124	25.414	34.801	25.009	481.16

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**8.2041**	**7.5370**	**29.121**	**29.024**	**91.908**	**155.67**	**185.4**
Stddev	.0329	.0274	.190	.129	.621	.31	.5
%RSD	.40049	.36322	.65180	.44507	.67588	.20178	.2663
#1	8.2415	7.5682	28.969	29.003	91.588	155.36	185.9
#2	8.1910	7.5170	29.060	28.907	91.511	155.99	184.9
#3	8.1798	7.5259	29.334	29.162	92.624	155.65	185.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**196.91**	**150120.**	**12.224**	**20.305**	**2539.4**	**3.2300**	**.08240**
Stddev	.60	129.	.046	.072	2.7	.0042	.00137
%RSD	.30235	.08562	.37551	.35414	.10754	.13103	1.6569
#1	197.17	150030.	12.192	20.253	2539.3	3.2266	.08392
#2	197.32	150050.	12.276	20.387	2542.2	3.2285	.08200
#3	196.22	150260.	12.203	20.275	2536.7	3.2347	.08128

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**93.662**	**785.40**	**.44997**	**-.18057**	**14.458**	**25.79**	**1128.3**
Stddev	.552	7.34	.29902	.92717	.694	.10	1.7
%RSD	.58925	.93420	66.453	513.46	4.8004	.3976	.15086
#1	93.368	782.63	.41639	-.37060	13.706	25.91	1130.0
#2	93.319	779.86	.16916	.82689	15.075	25.72	1128.3
#3	94.298	793.72	.76437	-.99801	14.593	25.74	1126.6

Sample Name: 1103223-06 Acquired: 3/30/2011 14:34:26 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.9914**	**245.90**	**1398.2**
Stddev	.3419	.31	6.7
%RSD	17.170	.12545	.47870
#1	-2.3662	245.54	1393.9
#2	-1.6964	246.10	1394.9
#3	-1.9117	246.05	1405.9

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1036.8	565370.	88920.
Stddev	8.2	527.	86.
%RSD	.79023	.09321	.09646
#1	1041.3	564860.	88821.
#2	1041.8	565350.	88969.
#3	1027.4	565910.	88971.

Sample Name: 1103223-07 Acquired: 3/30/2011 14:38:54 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.63477**	**130140.**	**30.730**	**35.249**	**35.663**	**21.929**	**283.17**
Stddev	.06429	1268.	3.037	.301	5.204	.845	1.66
%RSD	10.128	.97455	9.8837	.85426	14.593	3.8518	.58593
#1	-.69255	130660.	27.946	35.163	29.927	21.883	282.13
#2	-.56552	131070.	33.969	35.584	40.084	22.796	282.29
#3	-.64625	128690.	30.275	35.000	36.978	21.109	285.08

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**6.1534**	**4.1349**	**.60315**	**.71685**	**106.39**	**138.69**	**113.2**
Stddev	.0743	.0454	.14245	.08984	.95	1.55	1.6
%RSD	1.2081	1.0989	23.617	12.533	.88868	1.1190	1.451
#1	6.1734	4.1551	.44153	.62003	105.64	140.21	114.4
#2	6.2157	4.1667	.71044	.79752	106.08	138.75	113.9
#3	6.0711	4.0829	.65747	.73301	107.45	137.10	111.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**118.95**	**176470.**	**9.1813**	**11.377**	**2194.5**	**3.9533**	**.12544**
Stddev	1.02	1714.	.0851	.121	18.1	.1133	.00162
%RSD	.85808	.97108	.92729	1.0628	.82259	2.8668	1.2876
#1	119.74	177700.	9.1998	11.421	2213.7	3.8298	.12423
#2	119.32	177200.	9.2557	11.470	2191.8	4.0525	.12728
#3	117.80	174510.	9.0885	11.240	2177.9	3.9778	.12482

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**77.190**	**74.536**	**1.2086**	**4.7486**	**15.234**	**22.59**	**1164.5**
Stddev	.196	.367	.4830	.6959	.420	.23	11.7
%RSD	.25421	.49232	39.967	14.655	2.7584	.9968	1.0023
#1	77.095	74.930	.65082	4.1106	14.854	22.68	1168.6
#2	77.059	74.203	1.4854	5.4907	15.162	22.76	1173.7
#3	77.416	74.475	1.4895	4.6445	15.686	22.34	1151.4

Sample Name: 1103223-07 Acquired: 3/30/2011 14:38:54 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	.01522	287.38	146.79
Stddev	.01603	3.72	.72
%RSD	105.28	1.2935	.49241
#1	.02839	291.44	147.06
#2	.01991	286.55	145.98
#3	-.00262	284.14	147.35

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1028.4	572340.	90240.
Stddev	4.0	5669.	827.
%RSD	.39263	.99040	.91625
#1	1030.1	567100.	90071.
#2	1031.4	571560.	89511.
#3	1023.8	578360.	91139.

Sample Name: 1103223-08 Acquired: 3/30/2011 14:43:25 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.43829**	**110870.**	**36.429**	**38.670**	**34.125**	**10.362**	**477.61**
Stddev	.05093	652.	2.527	3.559	3.461	.808	1.91
%RSD	11.621	.58803	6.9382	9.2028	10.141	7.7970	.39957
#1	-.43867	110220.	38.760	37.713	34.007	9.4548	477.04
#2	-.48902	110880.	36.785	35.687	30.725	11.004	479.74
#3	-.38716	111520.	33.742	42.609	37.642	10.628	476.06

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.5942**	**30.678**	**3.7009**	**4.2004**	**13.051**	**146.42**	**370.9**
Stddev	.0191	.072	.1136	.0581	.272	.76	2.7
%RSD	.53213	.23329	3.0684	1.3840	2.0841	.52149	.7232
#1	3.5913	30.723	3.6298	4.1399	12.762	145.57	368.5
#2	3.5767	30.596	3.8319	4.2559	13.090	147.05	370.5
#3	3.6146	30.716	3.6410	4.2053	13.302	146.64	373.8

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	~~ppb~~	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**387.97**	**166250.**	**4.9702**	**25.967**	**519.36**	**4.4974**	**.09032**
Stddev	.06	541.	.0450	.076	2.58	.0514	.00135
%RSD	.01578	.32529	.90479	.29266	.49762	1.1421	1.4989
#1	388.04	165720.	4.9275	25.929	516.37	4.4427	.09028
#2	387.93	166220.	4.9660	25.917	520.86	4.5446	.09169
#3	387.94	166800.	5.0171	26.054	520.84	4.5050	.08899

Elem	Ni2316	~~Pb2203~~	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.967**	**472.57**	**-.09710**	**.22517**	**15.777**	**38.77**	**998.53**
Stddev	.203	2.41	1.8169	.38727	.739	.08	4.64
%RSD	.39907	.50962	1871.2	171.99	4.6815	.2070	.46506
#1	50.733	470.46	-2.1745	.60434	15.838	38.69	994.91
#2	51.074	475.19	.68708	-.16972	16.484	38.77	996.91
#3	51.095	472.05	1.1961	.24089	15.010	38.85	1003.8

Sample Name: 1103223-08 Acquired: 3/30/2011 14:43:25 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	.06536	289.83	501.69
Stddev	1.3434	2.34	2.08
%RSD	2055.3	.80905	.41437
#1	-.29782	287.25	501.12
#2	-1.0591	290.39	504.00
#3	1.5530	291.84	499.96

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1016.4	562430.	89912.
Stddev	3.6	1863.	267.
%RSD	.35185	.33133	.29685
#1	1018.4	563270.	90033.
#2	1012.2	563730.	90097.
#3	1018.4	560290.	89606.

Sample Name: 1103223-09 Acquired: 3/30/2011 14:47:56 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -1.1016	68613.	33.146	34.177	51.968	13.607	1200.5
Stddev	.0839	126.	.257	3.312	6.480	.459	4.5
%RSD	7.6141	.18308	.77525	9.6914	12.469	3.3730	.37423
#1	-1.1696	68740.	33.432	30.644	57.981	13.718	1205.7
#2	-1.1273	68489.	33.072	37.211	45.105	13.103	1197.4
#3	-1.0079	68611.	32.934	34.677	52.817	14.000	1198.5

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	5.9281	6.7693	3.5862	3.8860	113.32	132.93	282.3
Stddev	.0401	.0301	.0728	.0705	.37	.79	2.1
%RSD	.67700	.44446	2.0301	1.8132	.32582	.59120	.7383
#1	5.8849	6.7363	3.5083	3.8600	113.69	133.80	283.6
#2	5.9643	6.7951	3.6525	3.9658	113.32	132.27	279.9
#3	5.9351	6.7766	3.5978	3.8322	112.95	132.73	283.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	293.61	139260.	5.7770	12.982	5289.4	3.9153	.07656
Stddev	1.70	187.	.0474	.031	24.2	.1123	.00253
%RSD	.58064	.13400	.82104	.24172	.45765	2.8678	3.3111
#1	295.09	139090.	5.8164	12.970	5314.6	3.9847	.07821
#2	291.74	139220.	5.7244	12.958	5266.3	3.9754	.07364
#3	293.99	139460.	5.7902	13.018	5287.4	3.7857	.07783

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	56.787	330.36	.47683	2.3691	16.739	33.26	1003.0
Stddev	.496	.54	.82481	3.3697	.552	.06	3.1
%RSD	.87330	.16458	172.98	142.24	3.2977	.1659	.30428
#1	57.186	330.94	1.1948	.49056	17.267	33.20	1001.5
#2	56.943	329.87	-.42410	6.2593	16.165	33.27	1006.5
#3	56.232	330.27	.65977	.35734	16.784	33.31	1001.0

Sample Name: 1103223-09 Acquired: 3/30/2011 14:47:56 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.1130**	**239.74**	**402.86**
Stddev	1.1921	1.47	1.85
%RSD	56.419	.61366	.45884
#1	-1.3347	240.75	404.83
#2	-1.5188	238.05	401.16
#3	-3.4854	240.42	402.59
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1046.8	569370.	89868.
Stddev	4.5	2434.	183.
%RSD	.42788	.42753	.20386
#1	1041.8	566760.	90046.
#2	1048.3	571570.	89680.
#3	1050.4	569770.	89877.

Sample Name: 1103223-10 Acquired: 3/30/2011 14:52:35 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.84241**	**70955.**	**23.554**	**27.526**	**37.819**	**13.045**	**408.41**
Stddev	.21398	1921.	1.245	3.214	1.347	1.936	2.22
%RSD	25.401	2.7071	5.2867	11.675	3.5617	14.842	.54375
#1	-.90410	68918.	24.525	23.865	36.300	10.895	406.85
#2	-1.0188	72734.	22.150	29.879	38.291	14.651	407.43
#3	-.60436	71211.	23.986	28.836	38.867	13.588	410.95

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**6.2219**	**4.0234**	**1.5075**	**1.6306**	**119.53**	**160.79**	**865.7**
Stddev	.1709	.0926	.1865	.1023	1.00	.79	2.6
%RSD	2.7469	2.3011	12.374	6.2726	.83867	.49417	.2982
#1	6.0617	3.9308	1.6951	1.5856	119.98	161.56	868.0
#2	6.4018	4.1160	1.3221	1.7477	118.38	160.83	862.9
#3	6.2022	4.0233	1.5053	1.5585	120.23	159.97	866.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**889.15**	**133660.**	**5.5686**	**9.9309**	**5114.2**	**2.9445**	**.08127**
Stddev	2.73	3376.	.1445	.2369	40.0	.1364	.00441
%RSD	.30699	2.5259	2.5952	2.3859	.78116	4.6323	5.4309
#1	891.71	130240.	5.4073	9.6916	5156.5	2.8390	.07619
#2	886.27	136990.	5.6864	10.165	5077.1	3.0985	.08416
#3	889.45	133770.	5.6119	9.9356	5108.9	2.8961	.08345

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**57.608**	**236.87**	**.22101**	**2.5734**	**15.446**	**26.58**	**952.31**
Stddev	.510	.95	1.5184	1.1330	.511	.62	25.15
%RSD	.88479	.40196	687.03	44.028	3.3069	2.340	2.6409
#1	57.028	236.88	1.8729	1.9034	14.971	25.94	926.34
#2	57.814	235.92	-1.1139	1.9352	15.987	27.18	976.55
#3	57.983	237.82	-.09596	3.8815	15.381	26.61	954.03

Sample Name: 1103223-10 Acquired: 3/30/2011 14:52:35 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	-2.1185	213.91	286.70
Stddev	.4688	1.24	2.41
%RSD	22.129	.57875	.83894
#1	-2.5483	215.24	284.90
#2	-2.1886	213.68	285.78
#3	-1.6186	212.79	289.43

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1044.4	571310.	89687.
Stddev	4.8	1499.	1994.
%RSD	.45776	.26232	2.2233
#1	1048.6	569580.	91786.
#2	1045.4	572190.	87818.
#3	1039.2	572160.	89457.

Sample Name: SEQ-CCV Acquired: 3/30/2011 14:58:13 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**500.43**	**9775.9**	**1015.2**	**1015.2**	**1004.6**	**1025.4**	**1022.9**	**1064.7**
Stddev	1.38	29.2	15.0	15.9	18.7	2.7	14.5	3.5
%RSD	.27533	.29864	1.4746	1.5686	1.8660	.26732	1.4180	.33287
#1	500.58	9786.6	1025.8	1026.6	1019.0	1025.1	1030.1	1061.1
#2	498.99	9798.3	1021.6	1022.0	1011.3	1022.8	1032.4	1064.7
#3	501.73	9742.9	998.03	996.99	983.37	1028.2	1006.2	1068.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.253**	**1053.8**	**1042.5**	**986.07**	**1000.1**	**1017.**	**1009.1**	**10501.**
Stddev	.192	14.3	16.3	15.30	1.6	4.	1.7	28.
%RSD	.37498	1.3617	1.5646	1.5519	.15712	.3985	.16404	.26913
#1	51.197	1063.7	1053.6	996.12	999.15	1012.	1007.6	10533.
#2	51.095	1060.3	1050.1	993.64	999.28	1018.	1008.9	10488.
#3	51.467	1037.3	1023.8	968.46	1001.9	1020.	1010.9	10481.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.8383**	**48.842**	**1075.3**	**1006.5**	**49.140**	**983.99**	**991.19**	**998.82**
Stddev	.0439	.091	2.7	14.5	.143	13.37	13.80	13.53
%RSD	.44596	.18556	.24990	1.4444	.29153	1.3583	1.3920	1.3543
#1	9.8562	48.755	1073.5	1012.5	49.074	993.29	998.50	1006.8
#2	9.8704	48.834	1074.1	1017.1	49.304	990.01	999.80	1006.5
#3	9.7883	48.936	1078.4	989.92	49.042	968.67	975.28	983.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/30/2011 14:58:13 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1013.8**	**1012.4**	**1004.**	**1008.3**	**990.06**	**1003.3**	**1040.3**
Stddev	18.9	14.3	3.	3.2	15.95	3.1	14.6
%RSD	1.8619	1.4125	.3058	.31904	1.6109	.30630	1.4033
#1	1021.8	1022.6	1001.	1004.7	1001.2	1000.6	1048.6
#2	1027.3	1018.6	1007.	1009.6	997.21	1002.7	1048.9
#3	992.21	996.04	1005.	1010.7	971.79	1006.6	1023.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1044.5	548850.	87814.
Stddev	14.5	1065.	209.
%RSD	1.3910	.19395	.23840
#1	1034.7	549920.	88020.
#2	1037.6	548840.	87820.
#3	1061.2	547790.	87602.

Sample Name: SEQ-CCB Acquired: 3/30/2011 15:05:31 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06014**	**6.4708**	**.11672**	**.30193**	**2.4790**	**.49181**	**.21920**	**.05374**
Stddev	.13393	1.3364	1.2103	.91033	3.0732	.12784	.02945	.03571
%RSD	222.69	20.653	1036.9	301.51	123.97	25.994	13.434	66.463
#1	.08382	5.1051	1.3225	-.63387	3.2733	.63819	.22095	.01273
#2	-.18104	6.5315	.12568	1.1845	5.0771	.43507	.24773	.07807
#3	-.08321	7.7758	-1.0980	.35521	-.91338	.40216	.18892	.07040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00337**	**.14456**	**.36139**	**.20022**	**.17918**	**.5870**	**.73160**	**9.3683**
Stddev	.00075	.00922	.20124	.12213	.04960	.4420	.06178	2.1223
%RSD	22.150	6.3771	55.684	61.001	27.683	75.31	8.4443	22.654
#1	.00253	.14932	.22014	.28546	.12303	.4439	.79932	6.9583
#2	.00396	.15043	.59181	.25490	.19745	1.083	.71715	10.189
#3	.00361	.13393	.27224	.06029	.21705	.2342	.67832	10.958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.01148**	**.00549**	**.53022**	**.86914**	**.00537**	**-.33947**	**.50935**	**.56814**
Stddev	.00525	.00325	.06736	.09856	.00058	.14069	.71994	.27597
%RSD	45.774	59.095	12.704	11.340	10.841	41.444	141.35	48.574
#1	-.01258	.00670	.60452	.94116	.00604	-.33276	.72185	.75467
#2	-.01609	.00797	.47316	.75681	.00506	-.20225	1.0991	.69862
#3	-.00576	.00182	.51297	.90946	.00500	-.48339	-.29293	.25113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 15:05:31 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.53602**	**.30662**	**.0119**	**.13150**	**.08314**	**.09716**	**.17608**
Stddev	1.3743	.29483	.0190	.13943	.26193	.23308	.10197
%RSD	256.38	96.154	159.5	106.03	315.04	239.90	57.908
#1	-2.0493	-.02931	-.0073	.20819	.22696	.08823	.25680
#2	.63426	.42679	.0307	-.02944	-.21919	-.13133	.20997
#3	-.19301	.52238	.0122	.21575	.24166	.33457	.06149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1209.5	578810.	89895.
Stddev	1.4	2891.	349.
%RSD	.11297	.49947	.38805
#1	1209.3	581350.	90091.
#2	1208.3	575660.	89492.
#3	1211.0	579410.	90102.

Sample Name: 1C29002-BLK2 Acquired: 3/30/2011 15:11:14 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS032911A Pb

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.02167**	**5.4813**	**-.60900**	**1.6552**	F **-3.0601**	**-2.3133**	**.06908**
Stddev	.12031	.9641	1.1350	2.6926	.9142	.2235	.06698
%RSD	555.20	17.589	186.38	162.67	29.875	9.6632	96.965
#1	-.04890	6.1526	.70159	4.7617	-4.0394	-2.2384	.14060
#2	-.04668	5.9148	-1.2555	-.00899	-2.9118	-2.1368	.05879
#3	.16059	4.3765	-1.2731	.21296	-2.2291	-2.5647	.00783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					3.0000		
Low Limit					-3.0000		

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**-.00160**	**.00577**	**.05507**	**.57645**	**-.02127**	**1.1636**	**-.4685**
Stddev	.00497	.00089	.03661	.03832	.06871	.1652	.7772
%RSD	311.21	15.380	66.472	6.6474	322.97	14.195	165.9
#1	-.00733	.00668	.01634	.61084	.03529	1.3353	.1250
#2	.00158	.00491	.08910	.58337	-.09773	1.1498	-.1823
#3	.00096	.00573	.05977	.53515	-.00137	1.0058	-1.348
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**.58801**	**7.1345**	**-.00498**	**.00895**	**.12503**	**.39960**	**.00699**
Stddev	.13255	.6187	.01301	.00183	.01127	.10732	.00034
%RSD	22.543	8.6716	261.18	20.426	9.0136	26.856	4.9350
#1	.68178	7.7913	.00939	.01067	.11204	.46727	.00739
#2	.43636	7.0494	-.01597	.00914	.13214	.27586	.00678
#3	.64588	6.5627	-.00836	.00703	.13091	.45566	.00680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1C29002-BLK2 Acquired: 3/30/2011 15:11:14 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS032911A Pb

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.55183**	**1.2052**	**.74413**	**1.3848**	F **12.145**	**-.0315**	**.13507**
Stddev	.04900	.0985	.74342	.5644	.195	.0170	.04732
%RSD	8.8801	8.1721	99.905	40.759	1.6082	53.86	35.036
#1	-.53407	1.2878	.44463	.80257	11.932	-.0153	.08046
#2	-.51418	1.0962	.19717	1.9296	12.315	-.0301	.16088
#3	-.60724	1.2315	1.5906	1.4223	12.187	-.0492	.16388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					10.000		
Low Limit					-10.000		

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.78673**	**-.06562**	**.10213**
Stddev	.56385	.06532	.06548
%RSD	71.670	99.544	64.116
#1	-.13943	-.05860	.16192
#2	-1.1711	-.00410	.11231
#3	-1.0497	-.13417	.03215
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1163.4	584320.	89983.
Stddev	8.3	3184.	224.
%RSD	.71605	.54489	.24883
#1	1154.4	586280.	90201.
#2	1170.9	586040.	89994.
#3	1165.0	580650.	89754.

Sample Name: 1103223-11 Acquired: 3/30/2011 15:16:21 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.32929**	**39605.**	**20.972**	**22.005**	**20.067**	**3.2923**	**276.04**	**2.5265**
Stddev	.06754	76.	.254	.780	4.635	.1158	1.53	.0128
%RSD	20.510	.19192	1.2109	3.5429	23.096	3.5172	.55285	.50499
#1	-.26702	39541.	21.212	21.111	17.836	3.1586	277.13	2.5143
#2	-.40109	39689.	20.706	22.367	16.970	3.3586	274.30	2.5398
#3	-.31976	39585.	20.997	22.539	25.395	3.3597	276.69	2.5254

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.3028**	**2.3639**	**2.9742**	**22.917**	**75.343**	**181.2**	**182.78**	**66430.**
Stddev	.0533	.1026	.0972	.088	1.514	3.5	2.97	375.
%RSD	.73011	4.3402	3.2665	.38469	2.0089	1.932	1.6275	.56444
#1	7.3433	2.4809	2.8742	22.945	74.063	179.8	181.72	66439.
#2	7.2424	2.3209	2.9801	22.818	74.953	178.6	180.49	66051.
#3	7.3226	2.2897	3.0682	22.988	77.013	185.2	186.15	66800.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**1.7714**	**2.8722**	**545.50**	**2.9102**	**.06178**	**23.203**	**122.79**	**.64473**
Stddev	.0168	.0033	7.54	.0209	.00201	.056	1.54	.46524
%RSD	.94931	.11439	1.3825	.71876	3.2494	.23966	1.2528	72.160
#1	1.7589	2.8692	541.64	2.9233	.06379	23.149	121.21	1.0153
#2	1.7905	2.8717	540.67	2.9212	.06176	23.199	124.28	.12261
#3	1.7646	2.8757	554.19	2.8860	.05978	23.260	122.89	.79628

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.48946**	**11.420**	**27.05**	**504.99**	**-.36658**	**130.68**	**156.34**
Stddev	.92751	.409	.06	1.60	.37441	2.01	1.03
%RSD	189.50	3.5848	.2093	.31616	102.14	1.5390	.66152
#1	1.4878	11.532	27.01	505.38	-.09410	129.35	156.91
#2	.32602	10.966	27.12	503.23	-.79350	129.69	155.15
#3	-.34547	11.761	27.04	506.35	-.21213	132.99	156.97

Sample Name: 1103223-11 Acquired: 3/30/2011 15:16:21 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1108.3	571800.	89953.
Stddev	4.7	7739.	239.
%RSD	.42336	1.3534	.26591
#1	1107.6	574200.	90017.
#2	1113.3	578060.	90153.
#3	1104.0	563150.	89688.

Sample Name: 1103223-12 Acquired: 3/30/2011 15:20:51 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.55896**	**94562.**	**31.080**	**30.710**	**42.764**	**19.400**	**696.10**
Stddev	.28802	271.	1.211	2.653	5.126	.255	5.27
%RSD	51.528	.28611	3.8966	8.6403	11.987	1.3153	.75681
#1	-.29708	94801.	29.755	31.371	44.624	19.298	693.61
#2	-.51237	94268.	32.129	32.970	46.700	19.211	692.54
#3	-.86744	94616.	31.356	27.788	36.967	19.690	702.15

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**7.0822**	**4.3694**	**.85536**	**1.7127**	**88.428**	**157.63**	**381.0**
Stddev	.0160	.0121	.06552	.2020	.526	1.31	2.5
%RSD	.22583	.27786	7.6602	11.796	.59451	.83318	.6629
#1	7.0781	4.3638	.79408	1.6171	88.006	156.33	379.5
#2	7.0687	4.3833	.84758	1.5763	88.260	157.60	379.6
#3	7.0999	4.3610	.92443	1.9448	89.017	158.95	383.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**400.97**	**179720.**	**9.9068**	**16.810**	**2578.1**	**3.8993**	**.09521**
Stddev	1.47	178.	.0661	.043	14.5	.2261	.00031
%RSD	.36583	.09917	.66739	.25792	.56327	5.7977	.32785
#1	399.75	179520.	9.9506	16.810	2561.9	4.1174	.09500
#2	400.55	179850.	9.8307	16.854	2582.6	3.9146	.09506
#3	402.60	179800.	9.9389	16.767	2589.9	3.6660	.09557

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**73.515**	**173.36**	**1.1224**	**2.0226**	**17.482**	**28.06**	**1266.3**
Stddev	.517	2.15	.8020	1.1485	.712	.03	1.3
%RSD	.70277	1.2405	71.453	56.786	4.0739	.1129	.10532
#1	73.605	172.70	1.0882	3.0427	18.280	28.07	1266.8
#2	72.959	171.62	.33803	.77859	17.254	28.02	1264.8
#3	73.981	175.77	1.9409	2.2463	16.912	28.08	1267.4

Sample Name: 1103223-12 Acquired: 3/30/2011 15:20:51 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.8330**	**283.03**	**236.95**
Stddev	1.4097	2.01	.94
%RSD	76.907	.70971	.39701
#1	-.34838	280.83	236.73
#2	-1.9972	283.49	236.13
#3	-3.1534	284.77	237.98

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1052.4	566530.	88899.
Stddev	8.1	2855.	72.
%RSD	.77364	.50399	.08106
#1	1056.4	569060.	88821.
#2	1057.7	567100.	88913.
#3	1043.0	563430.	88963.

Sample Name: 1103223-13 Acquired: 3/30/2011 15:25:18 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -1.1143	136700.	30.699	28.259	38.407	22.895	252.90
Stddev	.0432	101.	.049	2.681	3.606	.408	.54
%RSD	3.8768	.07385	.15807	9.4875	9.3878	1.7804	.21184
#1	-1.0918	136750.	30.754	31.284	39.687	23.244	252.49
#2	-1.0870	136590.	30.662	27.315	34.336	22.993	252.70
#3	-1.1641	136770.	30.682	26.177	41.198	22.447	253.50

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	11.808	4.7290	-.60469	.34203	66.836	167.55	131.7
Stddev	.068	.0097	.14894	.10915	.734	1.88	1.3
%RSD	.57862	.20459	24.631	31.912	1.0983	1.1214	.9752
#1	11.783	4.7214	-.76627	.33610	66.400	166.86	132.8
#2	11.756	4.7257	-.47288	.45402	66.424	166.12	130.3
#3	11.885	4.7399	-.57493	.23596	67.683	169.68	131.8

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	142.35	202190.	13.018	19.532	1099.0	4.0896	.09874
Stddev	1.34	470.	.064	.058	13.6	.2575	.00228
%RSD	.94472	.23245	.49004	.29478	1.2406	6.2953	2.3104
#1	141.79	201670.	13.082	19.489	1094.8	3.8792	.10078
#2	141.37	202300.	12.954	19.510	1088.0	4.0129	.09628
#3	143.88	202590.	13.019	19.598	1114.2	4.3767	.09915

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	161.53	57.324	-1.0366	-1.8778	14.649	23.70	1127.1
Stddev	.91	.462	.5087	2.4013	.386	.16	4.3
%RSD	.56385	.80667	49.070	127.88	2.6342	.6889	.38207
#1	160.76	57.773	-1.6024	-3.3504	15.013	23.67	1126.5
#2	161.29	57.350	-.61718	-3.1760	14.245	23.56	1123.1
#3	162.53	56.849	-.89027	.89318	14.690	23.88	1131.7

Sample Name: 1103223-13 Acquired: 3/30/2011 15:25:18 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.4320**	**320.95**	**141.72**
Stddev	.4729	4.10	.81
%RSD	19.445	1.2763	.56928
#1	-2.6309	319.35	142.25
#2	-1.8922	317.89	140.79
#3	-2.7731	325.60	142.11
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1050.7	575490.	90301.
Stddev	6.5	6364.	265.
%RSD	.62156	1.1059	.29386
#1	1055.0	576280.	90440.
#2	1054.0	581430.	90469.
#3	1043.2	568770.	89996.

Sample Name: 1103223-14 Acquired: 3/30/2011 15:29:45 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.39163**	**123640.**	**52.809**	**49.126**	**52.890**	**5.9199**	**696.94**
Stddev	.15614	128.	3.078	2.556	6.677	.4084	3.11
%RSD	39.870	.10350	5.8289	5.2040	12.625	6.8991	.44688
#1	-.22690	123630.	56.296	50.482	48.578	5.7450	693.88
#2	-.41052	123770.	51.661	46.177	49.510	5.6281	696.83
#3	-.53747	123520.	50.469	50.719	60.582	6.3866	700.11

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.5833**	**15.288**	**2.2232**	**2.9398**	**14.553**	**179.27**	**171.6**
Stddev	.0094	.045	.0794	.1242	.027	1.73	.2
%RSD	.26132	.29635	3.5697	4.2240	.18687	.96672	.1082
#1	3.5910	15.309	2.1317	2.9401	14.531	180.39	171.7
#2	3.5859	15.236	2.2732	2.8155	14.584	180.13	171.7
#3	3.5729	15.319	2.2646	3.0638	14.545	177.27	171.4

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**182.44**	**208680.**	**2.6071**	**9.3419**	**494.29**	**5.8874**	**.06679**
Stddev	.65	672.	.0183	.0181	2.64	.1606	.00133
%RSD	.35617	.32186	.70239	.19401	.53310	2.7270	1.9972
#1	183.16	208020.	2.6266	9.3581	496.20	5.9227	.06585
#2	182.26	208670.	2.6044	9.3223	495.37	6.0273	.06620
#3	181.90	209360.	2.5902	9.3453	491.28	5.7121	.06831

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**57.120**	**592.98**	**1.0935**	**.63279**	**19.392**	**27.46**	**1102.7**
Stddev	.591	2.83	1.4435	1.3212	.724	.14	3.0
%RSD	1.0344	.47748	132.01	208.79	3.7342	.4969	.27334
#1	57.087	591.64	.61843	-.02813	19.409	27.60	1105.8
#2	56.546	591.07	2.7146	-.22755	20.107	27.44	1102.4
#3	57.726	596.23	-.05265	2.1540	18.659	27.33	1099.8

Sample Name: 1103223-14 Acquired: 3/30/2011 15:29:45 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.00453**	**345.55**	**346.37**
Stddev	.85566	1.53	1.29
%RSD	18881.	.44157	.37201
#1	.77742	347.08	344.97
#2	-.91854	345.52	346.61
#3	.12753	344.03	347.52

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1037.7	562860.	88888.
Stddev	5.5	2483.	295.
%RSD	.52699	.44116	.33186
#1	1042.5	561170.	88742.
#2	1038.8	561700.	89228.
#3	1031.8	565710.	88696.

Sample Name: 1103223-15 Acquired: 3/30/2011 15:34:15 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.89459**	**121240.**	**38.758**	**33.953**	**41.917**	**34.281**	**374.66**
Stddev	.33785	1085.	.807	.974	2.261	.796	2.73
%RSD	37.766	.89526	2.0815	2.8693	5.3931	2.3218	.72989
#1	-.53447	120830.	38.460	33.455	41.574	34.508	371.62
#2	-.94474	120430.	39.671	33.328	39.848	33.396	375.42
#3	-1.2046	122470.	38.142	35.075	44.330	34.938	376.93

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**8.7025**	**50.441**	**2.1482**	**2.7043**	**95.149**	**135.54**	**444.9**
Stddev	.0642	.296	.1291	.2144	1.109	2.48	7.4
%RSD	.73798	.58593	6.0093	7.9291	1.1659	1.8317	1.663
#1	8.7004	50.520	2.0429	2.9129	93.923	136.60	448.4
#2	8.6394	50.114	2.2922	2.4845	95.439	137.31	449.9
#3	8.7678	50.688	2.1094	2.7157	96.084	132.70	436.4

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**474.80**	**168230.**	**17.090**	**37.122**	**1099.7**	**3.2408**	**.11035**
Stddev	8.24	1462.	.125	.285	22.7	.2604	.00143
%RSD	1.7346	.86911	.73426	.76703	2.0641	8.0344	1.2957
#1	476.87	167610.	17.034	37.118	1110.5	2.9783	.11085
#2	481.80	167190.	17.002	36.839	1115.1	3.2450	.10874
#3	465.73	169900.	17.233	37.408	1073.7	3.4990	.11147

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**128.85**	**527.12**	**-.22125**	**-1.8761**	**16.387**	**56.95**	**1279.3**
Stddev	1.22	2.44	1.7829	2.8918	.495	.41	8.7
%RSD	.94653	.46281	805.83	154.14	3.0220	.7188	.68103
#1	127.48	524.40	1.5645	-5.1800	16.943	57.03	1280.3
#2	129.23	529.10	-2.0014	.19517	16.224	56.51	1270.1
#3	129.83	527.86	-.22684	-.64349	15.994	57.32	1287.5

Sample Name: 1103223-15 Acquired: 3/30/2011 15:34:15 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.6868**	**271.76**	**582.45**
Stddev	.1747	5.81	4.66
%RSD	10.357	2.1395	.80040
#1	-1.5709	273.34	577.24
#2	-1.8878	276.62	583.88
#3	-1.6019	265.32	586.23

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1022.7	563250.	89552.
Stddev	8.4	8652.	626.
%RSD	.82585	1.5360	.69929
#1	1031.9	559690.	89720.
#2	1020.7	556950.	90077.
#3	1015.4	573110.	88859.

Sample Name: 1103223-16 Acquired: 3/30/2011 15:38:41 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.84005**	**109940.**	**29.481**	**30.659**	**30.785**	**31.542**	**265.54**
Stddev	.10760	105.	3.185	4.079	5.634	1.006	2.34
%RSD	12.809	.09558	10.804	13.303	18.300	3.1886	.88179
#1	-.94116	109920.	26.492	34.878	24.435	31.635	268.23
#2	-.72696	110050.	29.120	30.362	35.184	30.493	263.96
#3	-.85201	109840.	32.831	26.738	32.735	32.498	264.43

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**10.903**	**18.791**	**.77827**	**1.4362**	**101.70**	**166.09**	**249.3**
Stddev	.039	.044	.09295	.0669	.73	.30	1.0
%RSD	.36079	.23336	11.943	4.6608	.71966	.18036	.3941
#1	10.890	18.817	.83697	1.4815	102.54	165.89	248.4
#2	10.947	18.815	.67110	1.4678	101.21	166.43	249.0
#3	10.872	18.740	.82673	1.3593	101.35	165.95	250.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**263.65**	**175290.**	**17.204**	**28.704**	**1363.2**	**3.1169**	**.09813**
Stddev	.50	433.	.044	.057	1.0	.2816	.00112
%RSD	.19061	.24677	.25600	.19759	.07231	9.0344	1.1391
#1	264.16	175760.	17.247	28.682	1363.0	3.1972	.09700
#2	263.63	175190.	17.205	28.768	1364.3	2.8038	.09923
#3	263.15	174910.	17.159	28.661	1362.4	3.3495	.09816

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**141.82**	**200.24**	**-.07157**	**.55562**	**15.456**	**30.21**	**1225.8**
Stddev	1.21	1.21	.92754	1.3434	.173	.15	1.6
%RSD	.85276	.60235	1296.1	241.78	1.1211	.5008	.13046
#1	143.22	200.42	-.62100	.96462	15.649	30.13	1225.3
#2	141.23	198.95	-.59304	-.94471	15.313	30.39	1227.6
#3	141.02	201.34	.99935	1.6469	15.408	30.12	1224.5

Sample Name: 1103223-16 Acquired: 3/30/2011 15:38:41 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.3687**	**284.57**	**313.82**
Stddev	.2756	.39	3.01
%RSD	11.635	.13790	.95934
#1	-2.6596	284.89	317.23
#2	-2.3350	284.69	311.52
#3	-2.1116	284.13	312.72

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1031.8	563950.	90017.
Stddev	6.1	2165.	134.
%RSD	.59486	.38381	.14846
#1	1024.7	562830.	90058.
#2	1035.4	562570.	89868.
#3	1035.2	566440.	90125.

Sample Name: 1103223-17 Acquired: 3/30/2011 15:43:09 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.87524**	**58179.**	**35.003**	**36.014**	**47.543**	**8.0386**	**276.95**
Stddev	.13064	64.	1.948	2.756	4.955	.0175	1.65
%RSD	14.927	.10927	5.5638	7.6530	10.422	.21804	.59448
#1	-.75834	58124.	35.988	36.317	53.264	8.0184	277.39
#2	-.85111	58163.	36.262	33.119	44.592	8.0494	275.13
#3	-1.0163	58249.	32.760	38.607	44.774	8.0480	278.34

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**5.0136**	**4.3043**	**.07669**	**.65315**	**123.55**	**144.39**	**118.0**
Stddev	.0254	.0069	.01639	.09314	.40	.48	1.4
%RSD	.50645	.15951	21.372	14.260	.32474	.32990	1.205
#1	5.0049	4.3018	.05804	.69323	123.49	144.64	118.1
#2	5.0423	4.3121	.08319	.71952	123.18	143.84	116.5
#3	4.9938	4.2990	.08883	.54668	123.97	144.68	119.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**123.64**	**152240.**	**3.5213**	**6.8352**	**3653.6**	**3.9023**	**.05750**
Stddev	.51	369.	.0114	.0068	16.3	.2980	.00145
%RSD	.40911	.24240	.32241	.09931	.44590	7.6358	2.5281
#1	123.99	151830.	3.5167	6.8307	3664.5	3.7583	.05916
#2	123.06	152540.	3.5129	6.8319	3634.9	3.7038	.05690
#3	123.87	152360.	3.5342	6.8430	3661.5	4.2450	.05644

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**40.863**	**110.39**	**.28374**	**.27560**	**10.252**	**28.99**	**830.23**
Stddev	.376	.86	.19708	.52962	.658	.07	.42
%RSD	.92112	.77685	69.460	192.17	6.4163	.2360	.05094
#1	40.854	111.28	.45944	-.33596	9.5577	28.92	829.76
#2	40.491	109.57	.07063	.58022	10.334	29.03	830.34
#3	41.244	110.31	.32113	.58253	10.866	29.04	830.59

Sample Name: 1103223-17 Acquired: 3/30/2011 15:43:09 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.8636**	**236.12**	**110.69**
Stddev	1.0190	.40	.48
%RSD	35.585	.16787	.43045
#1	-1.7622	236.17	110.38
#2	-3.0557	235.70	110.44
#3	-3.7728	236.49	111.24

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1058.0	568950.	89614.
Stddev	3.4	1652.	145.
%RSD	.31855	.29031	.16209
#1	1061.0	569310.	89640.
#2	1058.7	570390.	89745.
#3	1054.4	567140.	89458.

Sample Name: 1103223-18 Acquired: 3/30/2011 15:47:49 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.86273**	**102160.**	**35.462**	**35.872**	**47.447**	**15.546**	**400.17**
Stddev	.29746	338.	1.751	3.073	3.507	.395	3.71
%RSD	34.478	.33063	4.9369	8.5671	7.3912	2.5379	.92746
#1	-.64086	101810.	34.139	39.259	51.332	15.923	397.56
#2	-1.2007	102480.	34.800	35.094	46.494	15.579	398.53
#3	-.74660	102180.	37.447	33.262	44.516	15.136	404.42

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**7.8151**	**10.320**	**11.768**	**11.431**	**116.05**	**162.97**	**279.9**
Stddev	.0228	.057	.121	.163	1.37	1.72	1.9
%RSD	.29122	.55150	1.0300	1.4229	1.1790	1.0572	.6876
#1	7.8310	10.382	11.717	11.619	114.72	163.74	281.2
#2	7.7891	10.271	11.680	11.343	115.97	161.00	277.7
#3	7.8253	10.306	11.906	11.332	117.45	164.18	280.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**291.13**	**186830.**	**7.8858**	**13.991**	**2890.2**	**4.3813**	**.06899**
Stddev	1.21	483.	.0734	.073	21.7	.1739	.00257
%RSD	.41692	.25854	.93027	.52254	.75247	3.9695	3.7255
#1	291.76	186900.	7.8200	14.074	2888.4	4.1943	.06963
#2	289.73	186320.	7.9649	13.938	2869.5	4.4114	.06616
#3	291.89	187270.	7.8726	13.959	2912.8	4.5382	.07117

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**102.33**	**222.10**	**.12733**	**1.0563**	**34.771**	**38.03**	**1180.5**
Stddev	.73	1.25	.86525	.4087	.915	.17	1.8
%RSD	.70961	.56349	679.52	38.693	2.6307	.4576	.14902
#1	101.96	221.27	.53578	1.0578	33.844	38.04	1182.0
#2	101.87	221.49	-.86653	1.4643	35.673	38.20	1180.9
#3	103.17	223.54	.71275	.64685	34.797	37.86	1178.6

Sample Name: 1103223-18 Acquired: 3/30/2011 15:47:49 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.9485**	**284.65**	**466.78**
Stddev	1.5366	2.45	3.94
%RSD	78.858	.86078	.84436
#1	-2.0379	285.09	464.37
#2	-.36923	282.02	464.64
#3	-3.4385	286.86	471.32
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1031.6	572220.	90649.
Stddev	7.3	2830.	137.
%RSD	.70980	.49459	.15104
#1	1037.4	572090.	90494.
#2	1034.0	575120.	90751.
#3	1023.4	569460.	90703.

Sample Name: 1103223-19 Acquired: 3/30/2011 15:52:27 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.81988**	**82174.**	**33.812**	**33.769**	**38.945**	**13.849**	**500.54**
Stddev	.13046	243.	2.043	1.360	5.196	.458	1.39
%RSD	15.912	.29533	6.0431	4.0278	13.342	3.3098	.27776
#1	-.79050	81998.	34.867	32.212	37.015	14.305	500.48
#2	-.70663	82072.	31.457	34.724	44.830	13.854	499.19
#3	-.96253	82451.	35.113	34.372	34.991	13.389	501.96

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**6.2509**	**13.765**	**.98262**	**1.2701**	**134.44**	**147.31**	**149.1**
Stddev	.0399	.049	.05476	.1534	.50	.37	1.2
%RSD	.63861	.35668	5.5732	12.080	.37330	.24906	.7966
#1	6.2188	13.768	1.0057	1.1654	134.39	147.73	149.5
#2	6.2956	13.812	.92010	1.4462	133.97	147.06	147.7
#3	6.2383	13.714	1.0221	1.1987	134.97	147.13	150.0

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**153.79**	**157720.**	**6.8570**	**16.739**	**2768.2**	**4.4643**	**.09664**
Stddev	.62	476.	.0382	.034	6.9	.3373	.00132
%RSD	.40611	.30206	.55681	.20542	.25016	7.5552	1.3617
#1	154.03	157900.	6.8215	16.702	2765.7	4.7437	.09637
#2	153.08	158080.	6.8520	16.771	2776.0	4.5595	.09547
#3	154.26	157180.	6.8974	16.743	2762.9	4.0896	.09807

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**66.702**	**114.94**	**1.1023**	**2.2752**	**14.105**	**34.18**	**1060.7**
Stddev	.213	.95	.3816	2.1324	.557	.22	2.5
%RSD	.31938	.82776	34.616	93.722	3.9486	.6559	.24001
#1	66.509	115.99	1.2821	-.07481	13.614	33.95	1058.2
#2	66.665	114.13	1.3607	4.0867	14.710	34.20	1063.3
#3	66.931	114.70	.66403	2.8138	13.990	34.40	1060.5

Sample Name: 1103223-19 Acquired: 3/30/2011 15:52:27 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.1742**	**256.56**	**273.88**
Stddev	.2678	.64	1.53
%RSD	22.806	.25109	.55953
#1	-.88907	255.82	274.65
#2	-1.4204	256.83	272.12
#3	-1.2133	257.02	274.88

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1028.1	569490.	90213.
Stddev	2.3	2028.	166.
%RSD	.22765	.35607	.18405
#1	1030.2	567550.	90393.
#2	1028.4	571600.	90065.
#3	1025.6	569330.	90180.

Sample Name: 1103223-20 Acquired: 3/30/2011 15:56:58 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.47096**	**66334.**	**40.424**	**42.214**	**59.625**	**8.3712**	**799.16**
Stddev	.28725	192.	.531	3.150	3.111	.3599	9.18
%RSD	60.993	.28905	1.3133	7.4620	5.2171	4.2995	1.1483
#1	.15910	66386.	40.370	43.738	59.842	8.6641	788.84
#2	.72473	66494.	39.922	38.592	62.622	7.9694	802.25
#3	.52905	66122.	40.979	44.312	56.412	8.4801	806.39

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**5.9740**	**4.7418**	**2.2116**	**2.1645**	**212.09**	**218.76**	**332.8**
Stddev	.0315	.0188	.1775	.1738	2.33	1.94	2.3
%RSD	.52801	.39655	8.0276	8.0309	1.0965	.88491	.6921
#1	5.9437	4.7256	2.0068	2.3174	209.41	216.53	330.5
#2	5.9716	4.7373	2.3233	2.2006	213.24	219.78	335.1
#3	6.0066	4.7624	2.3045	1.9755	213.60	219.97	332.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**341.78**	**166310.**	**3.6919**	**8.2279**	**6996.5**	**4.5533**	**.06730**
Stddev	3.38	158.	.0267	.0252	57.3	.0782	.00139
%RSD	.98810	.09519	.72461	.30613	.81964	1.7168	2.0625
#1	337.89	166160.	3.7129	8.1997	6933.7	4.4647	.06790
#2	343.97	166470.	3.7010	8.2361	7046.0	4.6124	.06828
#3	343.47	166300.	3.6617	8.2480	7009.7	4.5829	.06571

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**47.177**	**248.33**	**1.7050**	**1.1815**	**18.122**	**32.39**	**883.67**
Stddev	.581	2.34	.6496	3.2391	.193	.02	2.29
%RSD	1.2316	.94108	38.099	274.15	1.0664	.0492	.25875
#1	46.507	246.64	1.6689	4.8648	17.901	32.37	881.04
#2	47.485	247.36	2.3719	-1.2229	18.258	32.41	884.82
#3	47.540	251.00	1.0742	-.09731	18.207	32.39	885.16

Sample Name: 1103223-20 Acquired: 3/30/2011 15:56:58 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **-3.8716**	**281.22**	**334.39**
Stddev	1.0966	2.38	4.11
%RSD	28.324	.84677	1.2287
#1	-5.1059	278.50	329.66
#2	-3.0099	282.24	336.43
#3	-3.4989	282.93	337.08
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1047.2	567110.	90285.
Stddev	9.8	4113.	143.
%RSD	.93553	.72517	.15892
#1	1058.4	571560.	90449.
#2	1043.2	563450.	90225.
#3	1040.1	566330.	90181.

Sample Name: 1C29002-MS1 Acquired: 3/30/2011 16:01:37 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**262.43**	**91711.**	**301.90**	**305.40**	**315.35**	**961.50**	**3409.5**
Stddev	1.33	305.	7.79	3.75	11.25	4.44	40.4
%RSD	.50670	.33282	2.5814	1.2280	3.5671	.46201	1.1850
#1	261.05	91525.	295.52	305.64	315.94	957.11	3383.7
#2	262.53	92063.	299.60	301.54	303.81	961.39	3388.8
#3	263.70	91544.	310.59	309.03	326.29	965.99	3456.1

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**63.854**	**10.896**	**145.08**	**141.43**	**776.88**	**381.71**	**608.6**
Stddev	.171	.041	1.85	1.91	9.70	1.35	3.2
%RSD	.26853	.37236	1.2758	1.3529	1.2484	.35245	.5315
#1	63.696	10.940	143.84	140.32	770.16	380.16	607.1
#2	64.037	10.887	144.19	140.34	772.47	382.35	606.3
#3	63.829	10.860	147.21	143.64	787.99	382.61	612.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**630.74**	**216000.**	**10.758**	**17.995**	**7810.8**	**1069.0**	**5.2184**
Stddev	2.50	1200.	.025	.059	68.4	13.2	.0116
%RSD	.39659	.55537	.23005	.32678	.87529	1.2358	.22190
#1	628.03	214610.	10.753	17.957	7800.1	1059.9	5.2082
#2	631.24	216770.	10.784	18.063	7748.4	1063.0	5.2310
#3	632.96	216610.	10.735	17.965	7883.8	1084.2	5.2160

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**614.10**	**637.10**	**90.275**	**246.22**	**1042.3**	**1090.**	**2048.0**
Stddev	8.12	7.43	.992	2.23	11.8	4.	5.7
%RSD	1.3216	1.1657	1.0993	.90743	1.1298	.4038	.28070
#1	608.10	631.42	89.677	244.91	1032.5	1086.	2043.8
#2	610.87	634.37	89.728	244.96	1039.0	1095.	2054.6
#3	623.33	645.50	91.421	248.80	1055.4	1090.	2045.7

Sample Name: 1C29002-MS1 Acquired: 3/30/2011 16:01:37 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**238.36**	**846.70**	**1028.0**
Stddev	2.46	4.97	12.0
%RSD	1.0335	.58666	1.1649
#1	236.80	841.16	1019.3
#2	237.09	848.20	1023.1
#3	241.20	850.75	1041.7

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1011.2	567420.	89929.
Stddev	10.7	1865.	49.
%RSD	1.0619	.32873	.05462
#1	1017.6	568400.	89924.
#2	1017.1	568590.	89981.
#3	998.78	565270.	89883.

Sample Name: 1C29002-MSD1 Acquired: 3/30/2011 16:06:15 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**266.86**	**87113.**	**304.13**	**309.39**	**308.92**	**991.98**	**3338.9**
Stddev	1.70	729.	1.15	.59	6.99	5.72	18.8
%RSD	.63542	.83662	.37970	.19144	2.2616	.57698	.56374
#1	265.69	87708.	303.54	309.57	301.13	990.98	3322.1
#2	266.08	87332.	303.39	309.87	314.63	986.82	3335.4
#3	268.80	86300.	305.46	308.73	310.99	998.13	3359.3

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**61.564**	**39.917**	**147.23**	**145.39**	**690.98**	**404.21**	**686.5**
Stddev	.644	.573	.53	.14	3.37	4.26	4.1
%RSD	1.0459	1.4354	.36144	.09869	.48743	1.0546	.5941
#1	61.611	39.821	146.79	145.25	688.94	404.67	682.4
#2	62.184	40.531	147.08	145.54	689.14	399.74	686.7
#3	60.898	39.398	147.82	145.39	694.87	408.23	690.5

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**708.69**	**181090.**	**10.983**	**32.200**	**5147.6**	**1078.7**	**5.2860**
Stddev	2.93	1673.	.120	.314	44.0	7.9	.0544
%RSD	.41359	.92370	1.0922	.97641	.85572	.73266	1.0287
#1	708.92	181500.	11.121	32.243	5156.2	1071.6	5.3436
#2	705.65	182530.	10.922	32.492	5099.9	1077.2	5.2787
#3	711.50	179260.	10.906	31.867	5186.7	1087.2	5.2356

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**597.42**	**638.57**	**85.079**	**257.89**	**1041.8**	**1121.**	**2015.4**
Stddev	2.40	2.69	.677	2.47	5.7	11.	21.4
%RSD	.40150	.42098	.79610	.95671	.54237	.9609	1.0594
#1	596.52	635.48	84.702	255.12	1036.4	1127.	2020.9
#2	595.59	640.38	84.675	258.71	1041.2	1129.	2033.5
#3	600.13	639.84	85.861	259.85	1047.7	1109.	1991.9

Sample Name: 1C29002-MSD1 Acquired: 3/30/2011 16:06:15 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**243.26**	**850.69**	**1133.5**
Stddev	1.67	6.41	5.9
%RSD	.68515	.75405	.51783
#1	241.34	852.68	1129.1
#2	244.35	843.52	1131.2
#3	244.08	855.87	1140.2

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1005.4	561840.	90094.
Stddev	4.9	2491.	663.
%RSD	.48305	.44331	.73543
#1	1009.2	562790.	90012.
#2	1007.1	563720.	89476.
#3	999.92	559010.	90794.

Sample Name: 1C29002-PS1 Acquired: 3/30/2011 16:10:45 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**255.63**	**68644.**	**301.44**	**307.76**	**334.81**	**11.264**	**3056.8**
Stddev	6.35	399.	4.74	7.99	8.04	.692	64.6
%RSD	2.4854	.58178	1.5740	2.5962	2.4012	6.1480	2.1142
#1	257.70	69104.	305.87	314.09	343.53	11.205	3112.1
#2	248.50	68443.	296.43	298.78	333.18	11.983	2985.8
#3	260.69	68385.	302.02	310.39	327.70	10.602	3072.6

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**59.639**	**10.002**	**145.28**	**141.52**	**745.12**	**420.30**	**580.0**
Stddev	.435	.087	3.33	2.71	16.35	10.20	16.9
%RSD	.72999	.87400	2.2909	1.9142	2.1939	2.4274	2.912
#1	60.062	10.083	148.13	143.66	759.91	423.81	587.9
#2	59.192	9.9097	141.62	138.48	727.57	408.80	560.7
#3	59.665	10.014	146.08	142.43	747.89	428.28	591.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**591.17**	**168140.**	**8.8372**	**13.254**	**7372.9**	**7.2023**	**5.1418**
Stddev	13.43	1004.	.0638	.088	144.3	.5184	.0327
%RSD	2.2709	.59706	.72171	.66137	1.9577	7.1977	.63656
#1	595.73	169260.	8.8984	13.349	7396.8	7.7709	5.1794
#2	576.06	167320.	8.8420	13.176	7218.2	7.0801	5.1193
#3	601.73	167830.	8.7712	13.237	7503.9	6.7559	5.1268

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**584.13**	**513.13**	**264.30**	**256.90**	**19.291**	**32.21**	**884.32**
Stddev	12.17	11.33	5.31	6.34	.880	.28	6.02
%RSD	**2**.0830	2.2077	2.0090	2.4676	4.5610	.8566	.68094
#1	594.37	522.87	268.18	258.81	19.752	32.51	891.01
#2	570.68	500.70	258.25	249.82	18.277	31.96	879.33
#3	587.35	515.82	266.47	262.06	19.845	32.17	882.62

Sample Name: 1C29002-PS1 Acquired: 3/30/2011 16:10:45 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**245.95**	**788.57**	**901.56**
Stddev	4.03	21.68	19.27
%RSD	1.6370	2.7499	2.1378
#1	248.84	797.63	918.41
#2	241.35	763.82	880.54
#3	247.67	804.24	905.73

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1035.6	579020.	89939.
Stddev	19.3	12984.	455.
%RSD	1.8626	2.2424	.50576
#1	1019.8	573740.	89441.
#2	1057.1	593820.	90332.
#3	1030.0	569520.	90046.

9 2 1 BLL 3/31/11

Sample Name: 1C28001-DUP2@5X Acquired: 3/30/2011 16:16:17 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.08327	13138.	8.1201	7.7518	14.733	2.4551	149.48	1.2421
Stddev	.21334	39.	1.6751	1.2629	2.965	.1696	.40	.0212
%RSD	256.20	.29908	20.629	16.292	20.128	6.9095	.26464	1.7067
#1	-.07510	13115.	7.0327	8.2906	18.079	2.2951	149.18	1.2236
#2	.32587	13116.	10.049	8.6559	12.432	2.4374	149.32	1.2652
#3	-.00096	13184.	7.2786	6.3088	13.687	2.6330	149.93	1.2374

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.99683	.24619	.48393	40.082	44.635	69.43	68.711	34191.
Stddev	.00378	.05606	.25454	.150	.390	1.80	.182	35.
%RSD	.37949	22.770	52.598	.37301	.87360	2.596	.26528	.10302
#1	.99293	.18198	.21920	39.917	45.004	68.38	68.903	34165.
#2	1.0005	.28537	.72689	40.210	44.676	71.52	68.690	34177.
#3	.99709	.27122	.50570	40.119	44.227	68.41	68.541	34231.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	.71217	1.6744	1481.9	1.6159	.01458	8.9595	48.856	.60902
Stddev	.00563	.0089	6.3	.0498	.00202	.1001	.812	.44476
%RSD	.79103	.53100	.42481	3.0804	13.865	1.1173	1.6612	73.029
#1	.70567	1.6662	1487.1	1.6729	.01505	8.8549	48.925	.95517
#2	.71569	1.6838	1483.7	1.5938	.01632	9.0544	48.012	.76449
#3	.71514	1.6732	1474.9	1.5810	.01236	8.9692	49.631	.10740

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.44050	3.7700	6.535	179.58	.11805	56.914	67.358
Stddev	.48076	.3396	.073	.20	.16776	.205	.176
%RSD	109.14	9.0075	1.117	.11067	142.11	.35994	.26080
#1	.17683	3.7227	6.501	179.67	.19809	56.695	67.208
#2	.99541	3.4565	6.484	179.72	.23079	57.101	67.314
#3	.14926	4.1307	6.618	179.36	-.07474	56.948	67.551

29002-DUP1 BL 3/31/11

Sample Name: 1C~~28002-DUP~~2@5X Acquired: 3/30/2011 16:16:17 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1170.2	573780.	89363.
Stddev	4.7	1627.	159.
%RSD	.39739	.28352	.17836
#1	1174.8	572260.	89513.
#2	1170.3	573580.	89195.
#3	1165.5	575500.	89380.

Sample Name: SEQ-CCV Acquired: 3/30/2011 16:21:51 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.88**	**9612.9**	**1032.1**	**1011.2**	**1004.0**	**1039.8**	**1011.0**	**1073.4**
Stddev	1.59	97.0	10.0	10.9	15.2	2.4	13.2	10.9
%RSD	.32141	1.0087	.97358	1.0821	1.5172	.23255	1.3028	1.0144
#1	493.08	9668.9	1024.4	1001.1	988.61	1042.2	1000.5	1079.5
#2	495.44	9501.0	1028.3	1009.8	1004.3	1037.4	1006.7	1060.8
#3	496.11	9669.0	1043.4	1022.8	1019.1	1039.7	1025.7	1079.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.958**	**1059.3**	**1047.8**	**983.73**	**1001.3**	**1007.**	**1006.8**	**10393.**
Stddev	.452	10.7	11.4	10.82	4.1	2.	2.5	78.
%RSD	.86971	1.0094	1.0882	1.0999	.41340	.1831	.24505	.74753
#1	52.365	1051.3	1039.7	974.69	1005.7	1005.	1008.6	10467.
#2	51.472	1055.1	1042.8	980.79	1000.8	1008.	1007.8	10312.
#3	52.038	1071.4	1060.8	995.72	997.49	1008.	1003.9	10399.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.6331**	**48.621**	**1070.6**	**995.86**	**49.203**	**990.83**	**980.80**	**1001.2**
Stddev	.1029	.488	3.0	14.89	.598	9.81	12.86	12.1
%RSD	1.0682	1.0033	.28241	1.4952	1.2157	.98966	1.3109	1.2099
#1	9.6913	48.953	1073.2	982.56	49.352	983.31	969.16	991.79
#2	9.5143	48.061	1071.3	993.07	48.545	987.27	978.65	997.02
#3	9.6937	48.849	1067.3	1011.9	49.713	1001.9	994.60	1014.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/30/2011 16:21:51 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	998.64	1002.0	1003.	1004.0	994.30	997.38	1031.1
Stddev	13.88	13.8	11.	10.2	11.68	5.96	13.9
%RSD	1.3895	1.3804	1.109	1.0130	1.1744	.59720	1.3463
#1	986.67	990.47	1008.	1009.8	985.74	1003.0	1019.5
#2	995.41	998.20	990.7	992.24	989.55	998.08	1027.2
#3	1013.9	1017.3	1012.	1009.9	1007.6	991.11	1046.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1048.2	546310.	87638.
Stddev	10.8	1352.	576.
%RSD	1.0295	.24748	.65772
#1	1057.4	544750.	87206.
#2	1050.8	547070.	88293.
#3	1036.3	547100.	87417.

Sample Name: SEQ-CCB Acquired: 3/30/2011 16:29:11 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.10365	7.2693	.00366	1.1371	-1.3211	.71480	.26560	.12846
Stddev	.17037	7.7883	1.8083	.9426	2.0902	.23677	.04003	.07331
%RSD	164.37	107.14	49397.	82.893	158.21	33.124	15.070	57.068
#1	.29986	-.52127	.71742	2.2210	-3.4390	.70364	.23723	.04455
#2	.01781	15.055	1.3461	.68069	.74021	.48381	.31138	.18007
#3	-.00673	7.2741	-2.0526	.50960	-1.2645	.95696	.24820	.16076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00813	.20926	.25944	.24533	.31936	.8203	.52291	16.318
Stddev	.00440	.02019	.17433	.09293	.16461	.4544	.02680	7.304
%RSD	54.191	9.6495	67.195	37.880	51.543	55.40	5.1244	44.763
#1	.00317	.19491	.41235	.18613	.50481	1.342	.49922	8.0661
#2	.01160	.23235	.29637	.19742	.19054	.6118	.51751	21.956
#3	.00960	.20053	.06960	.35244	.26274	.5076	.55199	18.931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	-.00355	.01304	.46597	.97572	.01069	-.39955	1.0144	.95440
Stddev	.00211	.00550	.07363	.13316	.00886	.17493	.5437	.31466
%RSD	59.347	42.223	15.802	13.648	82.849	43.782	53.599	32.970
#1	-.00245	.00669	.55095	1.1272	.00048	-.57225	1.6202	1.3144
#2	-.00222	.01591	.42570	.87713	.01531	-.40394	.56884	.81718
#3	-.00598	.01651	.42125	.92282	.01629	-.22247	.85410	.73165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 16:29:11 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.92307	.18930	.0901	.51428	.22509	.23220	.29931
Stddev	.94327	.29562	.0840	.27705	.57832	.11579	.17165
%RSD	102.19	156.16	93.23	53.871	256.93	49.867	57.348
#1	1.9486	.10760	-.0041	.30398	.46411	.14119	.11036
#2	.09251	-.05688	.1572	.82820	.64559	.19287	.44562
#3	.72813	.51718	.1171	.41066	-.43443	.36253	.34196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1215.7	579880.	89403.
Stddev	4.3	1718.	339.
%RSD	.35048	.29629	.37964
#1	1216.7	578350.	89578.
#2	1219.4	579550.	89012.
#3	1211.1	581740.	89620.

Sample Name: 1C29003-BS1 Acquired: 3/30/2011 16:38:33 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS032911B 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**258.55**	**2021.1**	**241.24**	**246.69**	**241.70**	**977.31**	**2146.4**
Stddev	5.60	23.6	2.08	1.82	4.21	19.65	15.7
%RSD	2.1676	1.1685	.86190	.73888	1.7411	2.0101	.73186
#1	252.66	2047.9	242.41	245.85	244.98	956.31	2151.2
#2	263.81	2012.4	238.84	245.45	243.16	995.24	2128.8
#3	259.18	2003.1	242.47	248.79	236.95	980.37	2159.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**54.110**	**5.1812**	**132.86**	**128.19**	**510.91**	**215.68**	**254.6**
Stddev	.920	.0845	.96	1.44	4.51	3.73	3.8
%RSD	1.6999	1.6313	.72577	1.1235	.88237	1.7314	1.487
#1	55.063	5.2547	133.53	129.08	513.43	211.41	250.4
#2	54.040	5.2000	131.75	126.53	505.71	217.27	257.6
#3	53.228	5.0888	133.29	128.97	513.60	218.35	255.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

116.19.

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**259.13**	**1118.7**	**5.1003**	**4.9057**	F **580.30**	**1037.5**	**5.1043**
Stddev	5.51	11.3	.0539	.0802	11.35	8.5	.0679
%RSD	2.1259	1.0132	1.0565	1.6357	1.9556	.82066	1.3302
#1	253.31	1129.4	5.1602	4.9850	567.33	1036.9	5.1825
#2	264.27	1119.9	5.0556	4.9076	588.39	1029.3	5.0608
#3	259.81	1106.8	5.0852	4.8245	585.17	1046.3	5.0695
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value					500.00		
Range					±75.000		

Sample Name: 1C29003-BS1 Acquired: 3/30/2011 16:38:33 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS032911B 1g->200ml

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.83**	**258.94**	**246.59**	**240.54**	**1047.7**	**1045.**	**1038.1**
Stddev	4.66	2.51	2.51	1.51	10.0	17.	16.3
%RSD	.90610	.97009	1.0161	.62606	.95676	1.626	1.5654
#1	517.88	259.93	248.52	240.96	1048.6	1064.	1054.1
#2	509.46	256.08	243.76	238.86	1037.2	1042.	1038.7
#3	517.16	260.80	247.50	241.78	1057.2	1030.	1021.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**246.95**	**534.26**	**533.84**
Stddev	2.44	11.28	3.95
%RSD	.98727	2.1108	.73954
#1	248.48	521.24	533.38
#2	244.14	541.02	530.14
#3	248.24	540.52	537.99
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1109.7	577940.	90532.
Stddev	11.1	11940.	1049.
%RSD	1.0046	2.0659	1.1582
#1	1103.8	591230.	89503.
#2	1122.5	568120.	90494.
#3	1102.7	574470.	91599.

Sample Name: 1103223-21 Acquired: 3/30/2011 16:44:57 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.45161**	**61755.**	**36.194**	**38.538**	**35.852**	**7.3885**	**659.62**
Stddev	.32266	201.	.627	2.601	4.181	.0557	9.75
%RSD	71.446	.32488	1.7313	6.7492	11.663	.75347	1.4782
#1	.41092	61609.	36.912	41.537	31.467	7.4328	669.10
#2	.79269	61984.	35.757	37.186	36.293	7.3260	660.14
#3	.15123	61673.	35.913	36.892	39.795	7.4068	649.62

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.3048**	**105.05**	**2.2768**	**2.7097**	**16.394**	**132.00**	**1153.**
Stddev	.0231	.49	.0753	.0866	.363	1.37	7.
%RSD	1.0006	.46448	3.3072	3.1961	2.2152	1.0359	.6129
#1	2.2795	104.55	2.2194	2.6366	16.698	130.60	1145.
#2	2.3102	105.53	2.3620	2.6872	16.493	132.08	1157.
#3	2.3247	105.06	2.2488	2.8053	15.992	133.33	1158.

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1162.1**	**108700.**	**1.7119**	**59.195**	**798.16**	**5.4360**	**.12429**
Stddev	14.8	73.	.0222	.150	8.74	.2797	.00041
%RSD	1.2733	.06753	1.2999	.25399	1.0948	5.1458	.32877
#1	1148.0	108770.	1.7010	59.062	789.84	5.6774	.12431
#2	1160.8	108700.	1.7375	59.164	797.38	5.5011	.12387
#3	1177.5	108620.	1.6973	59.358	807.27	5.1294	.12469

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**35.511**	**531.34**	**3.1497**	**1.6686**	**247.95**	**52.48**	**764.88**
Stddev	.522	9.33	.9567	1.5281	3.33	.26	2.80
%RSD	1.4699	1.7568	30.374	91.582	1.3415	.4905	.36549
#1	35.953	538.75	2.4674	3.4324	250.00	52.18	761.68
#2	35.646	534.42	4.2432	.82877	249.74	52.64	766.83
#3	34.935	520.86	2.7384	.74453	244.11	52.61	766.14

Sample Name: 1103223-21 Acquired: 3/30/2011 16:44:57 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.03525**	**218.92**	**1406.4**
Stddev	.52155	2.71	19.1
%RSD	1479.6	1.2396	1.3595
#1	-.56464	216.16	1423.8
#2	.28925	219.01	1409.6
#3	.38114	221.59	1385.9

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	975.11	556530.	89904.
Stddev	11.45	5461.	291.
%RSD	1.1744	.98129	.32326
#1	963.87	561440.	90196.
#2	974.71	557490.	89900.
#3	986.76	550650.	89615.

Sample Name: 1103223-22 Acquired: 3/30/2011 16:49:38 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.56315**	**67735.**	**20.895**	**25.060**	**21.957**	**5.2640**	**224.66**	**5.1140**
Stddev	.02746	674.	1.359	2.771	1.946	.1100	1.88	.0374
%RSD	4.8753	.99488	6.5028	11.057	8.8624	2.0901	.83644	.73117
#1	-.56547	68111.	21.649	22.663	21.860	5.3754	225.06	5.1315
#2	-.53461	68137.	21.710	28.094	23.950	5.2613	222.62	5.1395
#3	-.58937	66957.	19.327	24.424	20.062	5.1554	226.31	5.0711

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.7558**	**.92832**	**1.2000**	**18.339**	**79.719**	**61.12**	**59.191**	**83878.**
Stddev	.0502	.11679	.1043	.147	.341	.44	.136	755.
%RSD	.74329	12.581	8.6914	.80117	.42773	.7223	.23037	.89959
#1	6.7546	.95655	1.0822	18.491	79.776	60.99	59.256	84289.
#2	6.8066	.80000	1.2374	18.327	80.029	60.75	59.035	84338.
#3	6.7062	1.0284	1.2805	18.198	79.354	61.61	59.284	83007.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**2.8722**	**4.7103**	**730.44**	**3.0116**	**.05125**	**55.040**	**72.842**	**1.3691**
Stddev	.0419	.0286	.76	.2030	.00072	.275	1.918	1.0835
%RSD	1.4598	.60820	.10338	6.7401	1.4144	.49992	2.6325	79.139
#1	2.8938	4.7244	731.21	3.1398	.05051	55.082	71.843	.87192
#2	2.8989	4.7291	729.70	2.7775	.05196	54.746	71.630	.62341
#3	2.8239	4.6773	730.40	3.1173	.05129	55.291	75.053	2.6119

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.72553**	**14.084**	**59.09**	**553.91**	**-.10127**	**174.19**	**107.48**
Stddev	1.1763	.440	.49	4.85	1.1011	.77	1.20
%RSD	162.12	3.1235	.8285	.87585	1087.3	.44126	1.1148
#1	-.61372	13.607	59.23	554.14	-1.1474	175.06	107.89
#2	1.5911	14.171	59.50	558.64	-.20398	173.61	106.13
#3	1.1993	14.474	58.55	548.94	1.0475	173.91	108.42

Sample Name: 1103223-22 Acquired: 3/30/2011 16:49:38 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1077.0	592920.	93625.
Stddev	7.3	808.	576.
%RSD	.67355	.13630	.61495
#1	1076.6	593190.	93528.
#2	1084.5	593550.	93104.
#3	1070.0	592010.	94243.

Sample Name: 1103223-23 Acquired: 3/30/2011 16:54:09 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.19794**	**73680.**	**35.523**	**39.965**	**38.391**	**7.8660**	**749.03**
Stddev	.17956	283.	.621	1.331	3.295	1.1648	5.21
%RSD	90.712	.38466	1.7468	3.3305	8.5826	14.808	.69538
#1	-.00205	73358.	34.905	41.174	42.094	8.2146	749.11
#2	.34529	73792.	36.146	38.539	35.782	6.5667	754.20
#3	.25058	73890.	35.519	40.183	37.296	8.8167	743.79

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.3306**	**8.0888**	**2.3530**	**2.5103**	**21.912**	**155.46**	**1635.**
Stddev	.0159	.0373	.1110	.1160	.214	1.70	18.
%RSD	.68332	.46064	4.7162	4.6226	.97875	1.0949	1.074
#1	2.3459	8.1155	2.4355	2.5402	22.143	155.55	1623.
#2	2.3142	8.0462	2.3968	2.3823	21.873	157.12	1655.
#3	2.3317	8.1046	2.2269	2.6085	21.719	153.72	1628.

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1618.4**	**137430.**	**1.7613**	**8.2320**	**1455.4**	**5.4929**	**.03470**
Stddev	16.0	224.	.0084	.0263	15.8	.1061	.00093
%RSD	.98688	.16314	.47642	.31913	1.0845	1.9308	2.6713
#1	1614.8	137640.	1.7516	8.2094	1451.9	5.5008	.03382
#2	1635.9	137190.	1.7665	8.2258	1472.7	5.5948	.03567
#3	1604.5	137470.	1.7658	8.2608	1441.7	5.3831	.03463

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**38.942**	**314.17**	**1.0917**	**2.9451**	**21.235**	**31.49**	**804.14**
Stddev	.276	2.74	.5886	2.9002	.112	.15	1.28
%RSD	.70925	.87221	53.913	98.474	.52628	.4795	.15953
#1	39.174	314.61	.41221	1.7545	21.356	31.43	804.31
#2	39.015	316.66	1.4430	.82975	21.216	31.38	802.78
#3	38.637	311.24	1.4199	6.2511	21.135	31.66	805.33

Sample Name: 1103223-23 Acquired: 3/30/2011 16:54:09 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.72531**	**264.76**	**1726.2**
Stddev	.28095	3.04	13.3
%RSD	38.735	1.1495	.77242
#1	-.99771	263.86	1721.6
#2	-.43653	268.16	1741.2
#3	-.74168	262.28	1715.8
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1045.7	582330.	91922.
Stddev	5.7	5301.	145.
%RSD	.54522	.91025	.15814
#1	1041.7	584470.	91906.
#2	1043.1	576290.	92074.
#3	1052.2	586230.	91785.

Sample Name: 1103223-28 Acquired: 3/30/2011 16:58:41 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.56175**	**101680.**	**39.897**	**42.012**	**26.959**	**13.247**	**287.82**
Stddev	.07252	420.	1.526	1.014	8.134	.551	2.08
%RSD	12.909	.41332	3.8241	2.4145	30.172	4.1620	.72132
#1	-.63282	101340.	38.544	41.459	33.661	13.178	285.77
#2	-.48786	101550.	39.596	41.394	17.909	12.733	287.78
#3	-.56458	102150.	41.551	43.183	29.306	13.829	289.92

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**4.0469**	**8.2171**	**4.2506**	**.65869**	**183.10**	**226.72**	**152.4**
Stddev	.0201	.0149	.1744	.17717	1.34	.78	.4
%RSD	.49714	.18069	4.1030	26.898	.72985	.34199	.2790
#1	4.0288	8.2094	4.0523	.84414	181.61	226.22	152.5
#2	4.0435	8.2076	4.3196	.64079	183.49	227.61	152.8
#3	4.0686	8.2342	4.3800	.49115	184.20	226.33	152.0

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**148.30**	**299610.**	**1.4548**	**6.7054**	**474.32**	**4.6500**	**.04780**
Stddev	.90	1740.	.0199	.0139	1.23	.1161	.00203
%RSD	.60809	.58070	1.3695	.20774	.25890	2.4965	4.2378
#1	149.30	299260.	1.4328	6.6920	475.05	4.5196	.04682
#2	147.56	298070.	1.4603	6.7044	475.01	4.6882	.04645
#3	148.03	301490.	1.4715	6.7198	472.90	4.7422	.05013

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**88.354**	**88.635**	**1.5711**	**1.6253**	**17.013**	**20.01**	**981.60**
Stddev	.495	.136	.6466	2.6239	.238	.16	4.77
%RSD	.55982	.15297	41.155	161.44	1.3965	.7908	.48554
#1	88.129	88.742	2.2729	2.9983	17.275	19.83	976.28
#2	88.013	88.483	.99953	3.2778	16.955	20.08	983.04
#3	88.921	88.682	1.4409	-1.4002	16.811	20.13	985.47

Sample Name: 1103223-28 Acquired: 3/30/2011 16:58:41 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.29706**	**366.79**	**235.88**
Stddev	.65262	1.98	1.75
%RSD	219.70	.53975	.74282
#1	.25943	367.62	235.20
#2	.96767	368.21	234.57
#3	-.33594	364.53	237.87

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1016.8	592790.	93862.
Stddev	5.5	1716.	271.
%RSD	.54536	.28942	.28836
#1	1021.6	591080.	94061.
#2	1018.1	592780.	93970.
#3	1010.7	594520.	93553.

Sample Name: 1103223-29 Acquired: 3/30/2011 17:03:18 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.34331**	**63245.**	**32.203**	**35.836**	**28.995**	**8.1087**	**582.48**
Stddev	.14059	63.	.668	1.583	4.929	.7086	1.23
%RSD	40.952	.09973	2.0739	4.4179	16.999	8.7382	.21093
#1	-.43860	63201.	31.438	34.011	26.408	7.3675	583.35
#2	-.18184	63216.	32.505	36.655	25.898	8.1791	581.07
#3	-.40950	63317.	32.667	36.842	34.678	8.7793	583.01

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.4375**	**8.0951**	**2.1316**	**1.7585**	**20.189**	**136.26**	**1379.**
Stddev	.0149	.0368	.0833	.1086	.182	.07	1.
%RSD	.61004	.45419	3.9104	6.1768	.90360	.05186	.0583
#1	2.4533	8.0536	2.2236	1.6427	20.341	136.22	1378.
#2	2.4351	8.1239	2.0610	1.7745	19.986	136.34	1378.
#3	2.4239	8.1077	2.1102	1.8581	20.239	136.21	1379.

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1349.5**	**136030.**	**1.2279**	**5.4994**	**1427.8**	**4.3059**	**.03604**
Stddev	4.6	858.	.0198	.0014	3.3	.1609	.00031
%RSD	.33774	.63080	1.6125	.02587	.23215	3.7363	.86755
#1	1351.9	135060.	1.2467	5.5004	1431.4	4.4784	.03572
#2	1344.3	136340.	1.2072	5.4978	1424.8	4.2793	.03634
#3	1352.4	136690.	1.2299	5.5000	1427.3	4.1599	.03605

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**32.040**	**370.19**	**.68872**	**3.9309**	**16.002**	**20.30**	**666.82**
Stddev	.327	.31	.63457	.9128	.731	.08	1.07
%RSD	1.0203	.08240	92.138	23.221	4.5689	.3809	.16101
#1	31.890	370.39	-.02792	4.0639	16.025	20.37	666.87
#2	31.815	369.84	.91473	4.7699	15.260	20.32	667.87
#3	32.415	370.33	1.1793	2.9589	16.721	20.22	665.72

Sample Name: 1103223-29 Acquired: 3/30/2011 17:03:18 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.74569**	**245.09**	**1284.8**
Stddev	.39484	.19	2.6
%RSD	52.950	.07780	.20028
#1	-.65893	244.95	1286.4
#2	-.40145	245.01	1281.8
#3	-1.1767	245.31	1286.2

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1036.0	583100.	92544.
Stddev	2.4	1485.	206.
%RSD	.22830	.25471	.22303
#1	1033.4	583140.	92780.
#2	1038.0	584570.	92401.
#3	1036.6	581600.	92449.

Sample Name: 1103223-30 Acquired: 3/30/2011 17:07:48 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.22462**	**72636.**	**28.627**	**37.834**	**26.151**	**7.7037**	**362.17**
Stddev	.11150	322.	2.023	1.035	2.049	.1404	5.80
%RSD	49.638	.44389	7.0670	2.7361	7.8360	1.8221	1.6027
#1	-.27971	72584.	29.264	38.692	24.793	7.5439	361.55
#2	-.09630	72982.	30.255	38.125	28.508	7.7601	368.25
#3	-.29786	72343.	26.362	36.684	25.151	7.8071	356.69

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.2185**	**4.2355**	**2.0859**	**1.9600**	**8.4741**	**145.45**	**412.9**
Stddev	.0239	.0150	.1796	.0859	.3688	.60	1.1
%RSD	1.0797	.35416	8.6119	4.3841	4.3519	.41190	.2725
#1	2.2061	4.2204	2.0828	1.9910	8.4442	144.93	414.1
#2	2.2461	4.2358	2.2671	1.8629	8.8570	146.10	412.7
#3	2.2032	4.2504	1.9079	2.0262	8.1212	145.31	411.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**402.56**	**130680.**	**1.4691**	**3.4271**	**548.03**	**4.6571**	**.03909**
Stddev	1.21	246.	.0136	.0068	.74	.0834	.00111
%RSD	.29952	.18790	.92505	.19839	.13566	1.7918	2.8369
#1	403.42	130410.	1.4801	3.4240	547.24	4.6265	.03809
#2	403.08	130760.	1.4734	3.4349	548.12	4.5932	.03889
#3	401.18	130880.	1.4539	3.4224	548.72	4.7515	.04028

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**27.293**	**138.06**	**1.1672**	**1.8538**	**16.219**	**19.12**	**787.72**
Stddev	.268	2.82	.7911	.9418	.591	.08	4.50
%RSD	.98126	2.0452	67.777	50.802	3.6459	.4337	.57081
#1	27.373	138.08	.56007	1.1505	16.486	19.12	782.53
#2	27.512	140.88	2.0618	1.4872	16.629	19.20	790.41
#3	26.995	135.23	.87967	2.9238	15.541	19.04	790.22

Sample Name: 1103223-30 Acquired: 3/30/2011 17:07:48 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.35686**	**254.84**	**576.89**
Stddev	.33582	.84	9.39
%RSD	94.104	.33002	1.6283
#1	-.00182	253.91	577.46
#2	-.39934	255.07	585.99
#3	-.66941	255.54	567.23

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1035.4	588940.	91992.
Stddev	14.3	686.	214.
%RSD	1.3857	.11656	.23271
#1	1039.2	588160.	92221.
#2	1019.6	589440.	91797.
#3	1047.6	589220.	91956.

Sample Name: 1103223-31 Acquired: 3/30/2011 17:12:19 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.31406**	**91369.**	**36.203**	**40.581**	**27.832**	**9.1329**	**347.20**
Stddev	.10343	646.	.611	1.720	4.478	.6440	3.38
%RSD	32.934	.70672	1.6880	4.2384	16.090	7.0511	.97401
#1	-.40854	91646.	36.888	41.740	22.725	9.4060	344.65
#2	-.33007	91831.	35.715	38.605	31.087	9.5953	351.04
#3	-.20355	90632.	36.005	41.398	29.683	8.3974	345.91

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.6497**	**7.4288**	**2.6679**	**1.6534**	**14.603**	**169.64**	**435.1**
Stddev	.0138	.0410	.2475	.1738	.180	.96	1.9
%RSD	.52247	.55119	9.2778	10.514	1.2333	.56661	.4448
#1	2.6585	7.4618	2.3840	1.7808	14.436	170.75	433.8
#2	2.6569	7.4418	2.8388	1.7240	14.794	169.00	437.3
#3	2.6338	7.3830	2.7808	1.4554	14.579	169.17	434.1

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**425.33**	**159900.**	**1.9584**	**6.0044**	**695.55**	**5.0419**	**.04956**
Stddev	1.67	1253.	.0224	.0346	1.94	.1575	.00169
%RSD	.39290	.78384	1.1441	.57698	.27898	3.1238	3.4062
#1	427.17	160810.	1.9669	6.0091	697.46	4.9835	.05094
#2	423.89	160430.	1.9754	6.0365	695.61	4.9220	.05006
#3	424.94	158470.	1.9330	5.9676	693.58	5.2203	.04768

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**36.002**	**222.83**	**1.7062**	**3.3427**	**17.247**	**22.68**	**921.60**
Stddev	.478	1.77	1.3762	.8059	.326	.10	3.85
%RSD	1.3284	.79541	80.659	24.108	1.8892	.4615	.41810
#1	35.660	222.06	3.2857	4.2017	16.920	22.69	921.82
#2	35.798	224.85	1.0671	3.2232	17.571	22.78	925.34
#3	36.549	221.56	.76570	2.6033	17.249	22.58	917.64

Sample Name: 1103223-31 Acquired: 3/30/2011 17:12:19 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.27333**	**299.57**	**729.57**
Stddev	1.1186	.49	8.42
%RSD	409.26	.16412	1.1534
#1	-.41511	300.04	721.82
#2	.90942	299.60	738.52
#3	-1.3143	299.06	728.36

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1014.7	585460.	92876.
Stddev	7.9	1492.	396.
%RSD	.78212	.25482	.42600
#1	1020.9	583740.	92762.
#2	1005.7	586450.	92550.
#3	1017.5	586170.	93316.

Sample Name: 1103223-32 Acquired: 3/30/2011 17:16:50 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.01371**	**69339.**	**24.003**	**30.400**	**20.201**	**5.9785**	**232.31**
Stddev	.33704	79.	1.378	2.761	3.314	.3182	7.08
%RSD	2458.7	.11330	5.7417	9.0834	16.404	5.3222	3.0456
#1	-.17557	69385.	23.014	31.688	18.054	5.8366	226.28
#2	-.18615	69384.	23.417	27.230	18.533	6.3430	230.57
#3	.40284	69248.	25.577	32.283	24.018	5.7560	240.10

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1.5982**	**1.6903**	**1.6757**	**1.1870**	**5.1080**	**128.57**	**264.8**
Stddev	.0140	.0036	.2053	.0933	.7381	.51	.4
%RSD	.87827	.21470	12.254	7.8619	14.451	.39780	.1520
#1	1.5981	1.6862	1.5288	1.2408	4.3254	128.36	264.4
#2	1.5842	1.6931	1.5879	1.2410	5.2069	129.16	265.0
#3	1.6122	1.6917	1.9103	1.0793	5.7917	128.20	265.1

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**253.71**	**129690.**	**1.1177**	**1.8818**	**396.62**	**4.5132**	**.04142**
Stddev	.76	386.	.0047	.0100	1.86	.2246	.00168
%RSD	.29839	.29730	.41686	.52910	.46928	4.9770	4.0644
#1	253.60	130020.	1.1230	1.8710	396.86	4.3738	.04336
#2	254.52	129790.	1.1160	1.8835	398.35	4.3934	.04048
#3	253.02	129270.	1.1141	1.8907	394.65	4.7723	.04041

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**18.376**	**376.08**	**1.2672**	**3.7773**	**15.183**	**11.54**	**713.08**
Stddev	.697	12.74	.8744	1.5380	.964	.03	2.91
%RSD	3.7954	3.3875	69.005	40.716	6.3492	.2627	.40878
#1	17.957	367.93	.74295	5.1309	14.436	11.55	709.74
#2	17.990	369.55	2.2767	2.1049	14.842	11.57	715.07
#3	19.181	390.76	.78201	4.0962	16.271	11.51	714.43

Sample Name: 1103223-32 Acquired: 3/30/2011 17:16:50 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.63407**	**262.15**	**263.71**
Stddev	.63556	.50	7.98
%RSD	100.23	.19147	3.0256
#1	.07129	262.68	257.24
#2	1.3234	262.09	261.26
#3	.50755	261.69	272.62

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1042.1	587670.	92760.
Stddev	28.1	1657.	123.
%RSD	2.6970	.28191	.13297
#1	1065.1	587740.	92858.
#2	1050.4	585980.	92802.
#3	1010.8	589290.	92622.

Sample Name: 1103223-33 Acquired: 3/30/2011 17:21:22 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.19718**	**78255.**	**37.495**	**40.113**	**32.240**	**8.9115**	**763.53**
Stddev	.09541	33.	2.663	.489	5.376	.2407	5.81
%RSD	48.389	.04267	7.1015	1.2197	16.676	2.7006	.76037
#1	-.30705	78219.	40.554	40.386	34.345	8.9946	762.05
#2	-.13519	78260.	35.696	39.548	36.246	9.0997	758.61
#3	-.14930	78285.	36.236	40.404	26.130	8.6403	769.93

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.2725**	**6.0557**	**2.2639**	**1.7748**	**12.092**	**147.09**	**763.2**
Stddev	.0075	.0279	.1847	.0754	.448	1.38	6.4
%RSD	.32856	.46154	8.1568	4.2477	3.7017	.93747	.8383
#1	2.2659	6.0488	2.2267	1.8228	11.893	145.51	765.5
#2	2.2710	6.0864	2.1006	1.6879	11.778	147.70	756.0
#3	2.2806	6.0318	2.4643	1.8136	12.605	148.06	768.1

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**741.22**	**138820.**	**1.3369**	**4.0809**	**978.18**	**5.4622**	**.04964**
Stddev	4.87	642.	.0104	.0103	2.94	.1460	.00008
%RSD	.65769	.46224	.77441	.25234	.30093	2.6734	.16059
#1	740.10	139380.	1.3473	4.0876	975.29	5.3591	.04972
#2	736.99	138950.	1.3266	4.0860	978.08	5.6293	.04956
#3	746.55	138120.	1.3368	4.0690	981.18	5.3982	.04965

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**37.949**	**412.15**	**.90398**	**4.8913**	**126.35**	**32.88**	**802.83**
Stddev	.170	2.89	1.2588	.7602	.94	.16	2.13
%RSD	.44907	.70033	139.25	15.541	.74570	.4779	.26474
#1	37.912	411.29	2.0622	5.5247	126.48	32.78	801.64
#2	38.134	409.78	-.43572	4.0483	125.36	33.06	805.28
#3	37.800	415.36	1.0855	5.1010	127.23	32.80	801.56

Sample Name: 1103223-33 Acquired: 3/30/2011 17:21:22 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.50104**	**266.68**	**1398.2**
Stddev	.69150	2.29	6.7
%RSD	138.01	.86009	.47730
#1	.29219	264.92	1398.8
#2	-.81850	265.85	1391.2
#3	-.97681	269.27	1404.5

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1028.1	588410.	92608.
Stddev	7.6	2750.	248.
%RSD	.73963	.46729	.26769
#1	1031.9	590270.	92737.
#2	1033.1	589720.	92322.
#3	1019.4	585250.	92765.

Sample Name: 1103223-34 Acquired: 3/30/2011 17:25:53 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.42855**	**79926.**	**31.901**	**29.758**	**31.654**	**28.666**	F **5885.4**
Stddev	.26972	187.	2.019	1.688	2.706	.540	47.5
%RSD	62.938	.23433	6.3276	5.6709	8.5471	1.8821	.80716
#1	-.65162	80087.	30.388	28.636	31.370	29.091	5840.6
#2	-.50523	79970.	34.193	31.699	29.102	28.059	5880.4
#3	-.12879	79721.	31.121	28.940	34.491	28.848	5935.2

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**6.1668**	**58.960**	**24.857**	**24.188**	**92.379**	**242.95**	**1826.**
Stddev	.0367	.059	.316	.207	.953	.33	4.
%RSD	.59518	.10015	1.2727	.85452	1.0315	.13706	.2144
#1	6.2048	58.981	24.529	24.108	91.311	242.80	1830.
#2	6.1316	59.006	24.881	24.033	92.683	243.33	1827.
#3	6.1641	58.893	25.161	24.422	93.142	242.72	1822.

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1802.3**	**150780.**	**9.6566**	**34.780**	**3140.8**	**3.0295**	**.14712**
Stddev	8.3	113.	.0389	.047	12.4	.1550	.00221
%RSD	.46245	.07515	.40289	.13544	.39606	5.1153	1.5005
#1	1798.6	150660.	9.6996	34.808	3126.4	2.9007	.14815
#2	1811.8	150880.	9.6238	34.726	3148.1	3.2015	.14459
#3	1796.4	150790.	9.6465	34.806	3147.8	2.9863	.14863

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**77.417**	**2421.2**	**2.7766**	**1.6845**	**23.330**	**183.0**	**1014.4**
Stddev	.325	15.7	.7439	3.7877	1.156	.5	2.4
%RSD	.41968	.64846	26.790	224.86	4.9531	.2903	.23284
#1	77.069	2404.3	3.5313	-1.6680	22.466	183.2	1015.0
#2	77.470	2423.9	2.0441	5.7933	24.643	183.4	1016.4
#3	77.712	2435.4	2.7545	.92814	22.882	182.4	1011.8

Sample Name: 1103223-34 Acquired: 3/30/2011 17:25:53 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.4807**	**237.48**	**8474.6**
Stddev	.9546	.37	63.6
%RSD	64.471	.15471	.75106
#1	-.57757	237.24	8429.0
#2	-1.3849	237.90	8447.3
#3	-2.4795	237.31	8547.3

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	984.79	568930.	90906.
Stddev	7.73	2072.	54.
%RSD	.78471	.36416	.05965
#1	993.70	570050.	90849.
#2	980.76	566540.	90912.
#3	979.92	570200.	90957.

Sample Name: SEQ-CCV Acquired: 3/30/2011 17:31:28 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.02**	**9715.6**	**971.95**	**1042.5**	**1012.0**	**991.38**	**1083.3**
Stddev	3.53	8.6	8.92	3.8	1.8	3.40	3.1
%RSD	.69413	.08810	.91806	.36369	.18026	.34302	.28332
#1	505.72	9705.8	964.14	1042.3	1012.9	991.25	1080.8
#2	512.08	9719.7	970.02	1038.7	1013.1	994.84	1082.4
#3	506.27	9721.3	981.68	1046.3	1009.9	988.04	1086.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1051.2**	**49.159**	**1053.2**	**1039.3**	**1011.7**	**1008.1**	**1071.**
Stddev	5.4	.346	1.9	2.0	2.4	1.4	6.
%RSD	.51461	.70394	.18502	.19140	.23842	.14037	.5233
#1	1057.4	49.549	1053.2	1039.5	1010.7	1009.0	1066.
#2	1047.5	48.890	1051.2	1037.2	1009.9	1008.9	1077.
#3	1048.8	49.037	1055.1	1041.2	1014.4	1006.5	1069.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**998.88**	**9913.9**	**9.9287**	**48.327**	**1098.2**	**1082.5**	**48.133**
Stddev	3.02	19.4	.0434	.178	2.9	2.8	.134
%RSD	.30191	.19529	.43684	.36745	.26663	.26245	.27803
#1	997.62	9932.5	9.8800	48.532	1096.2	1080.2	48.032
#2	1002.3	9915.2	9.9632	48.235	1101.6	1081.6	48.285
#3	996.70	9893.8	9.9429	48.215	1096.8	1085.7	48.082
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 3/30/2011 17:31:28 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**984.10**	**1037.1**	**1021.1**	**1080.2**	**1074.2**	**1009.**	**1007.8**
Stddev	1.02	3.0	5.4	1.2	2.3	3.	2.7
%RSD	.10329	.29277	.53018	.10997	.21470	.2485	.27111
#1	983.81	1038.0	1018.5	1078.8	1071.6	1012.	1010.9
#2	983.26	1033.7	1017.5	1080.9	1075.2	1008.	1006.1
#3	985.23	1039.6	1027.3	1080.9	1075.9	1008.	1006.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**992.73**	**1028.0**	F **1105.4**
Stddev	4.31	1.8	3.9
%RSD	.43411	.17933	.35657
#1	988.23	1029.3	1102.2
#2	993.15	1028.9	1104.2
#3	996.81	1025.9	1109.8
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1000.0
Range			±100.00

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1019.6	559660.	89912.
Stddev	1.9	2322.	407.
%RSD	.18341	.41485	.45289
#1	1020.0	560370.	89485.
#2	1021.3	557070.	89956.
#3	1017.6	561550.	90296.

Sample Name: SEQ-CCB Acquired: 3/30/2011 17:38:48 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.06708**	**9.1081**	**-.32602**	**-.93863**	F **6.0781**	**.44911**	**.47759**
Stddev	.21314	.4813	.46293	.22424	4.7956	.15062	.11162
%RSD	317.74	5.2837	142.00	23.891	78.900	33.539	23.371
#1	-.28778	9.3958	-.39719	-.92305	1.9433	.61409	.34909
#2	-.05108	9.3760	-.74925	-.72258	11.335	.41429	.55045
#3	.13761	8.5525	.16838	-1.1703	4.9556	.31894	.53323
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					3.0000		
Low Limit					-3.0000		

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.15141**	**.00902**	**.26095**	**.76652**	**.35029**	**.28719**	**1.290**
Stddev	.02387	.00237	.05612	.04910	.05051	.07696	.417
%RSD	15.767	26.293	21.506	6.4051	14.419	26.797	32.30
#1	.12667	.00665	.19710	.72568	.34118	.30090	1.054
#2	.17431	.01139	.28330	.82099	.40473	.35638	1.772
#3	.15326	.00902	.30246	.75289	.30496	.20430	1.046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1.1876**	**15.840**	**-.00027**	**.01415**	**.20993**	**1.0425**	**.00845**
Stddev	.0664	2.263	.00605	.00431	.02001	.0114	.00178
%RSD	5.5946	14.289	2234.7	30.453	9.5329	1.0945	21.115
#1	1.1473	13.339	.00474	.01628	.22790	1.0299	.00676
#2	1.2642	17.747	.00145	.00919	.21354	1.0452	.01032
#3	1.1512	16.433	-.00700	.01699	.18836	1.0522	.00828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-CCB Acquired: 3/30/2011 17:38:48 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.51104**	**1.3700**	**1.3992**	**2.4501**	**.06662**	**.0776**	**.37520**
Stddev	.30278	1.4314	.3312	.4937	.36952	.0328	.19583
%RSD	59.247	104.48	23.671	20.151	554.67	42.20	52.192
#1	-.83166	.01034	1.4219	2.4705	-.02537	.1064	.16892
#2	-.23000	2.8637	1.0572	2.9334	.47344	.0420	.55855
#3	-.47146	1.2360	1.7184	1.9466	-.24821	.0845	.39813
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.59311**	**.13088**	**.65782**
Stddev	.49032	.14131	.18141
%RSD	82.670	107.97	27.578
#1	.21255	.26298	.45329
#2	1.1464	.14775	.72090
#3	.42034	-.01811	.79928
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1181.3	593770.	92174.
Stddev	3.3	1477.	232.
%RSD	.28038	.24879	.25173
#1	1178.1	594330.	91907.
#2	1184.7	592090.	92298.
#3	1181.2	594880.	92318.

Sample Name: 1103223-35 Acquired: 3/30/2011 17:43:31 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.4042**	**109090.**	**32.669**	**32.922**	**37.415**	**40.811**	**302.88**
Stddev	.2127	2392.	3.270	.525	9.410	1.784	3.94
%RSD	15.150	2.1928	10.010	1.5960	25.149	4.3710	1.2992
#1	-1.1621	106820.	30.925	33.349	33.355	38.788	307.41
#2	-1.4890	111590.	36.441	32.336	48.173	42.156	300.37
#3	-1.5614	108870.	30.640	33.082	30.718	41.491	300.85

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**8.4375**	**5.5453**	**4.9478**	**3.4589**	**304.87**	**169.88**	**222.5**
Stddev	.2177	.1140	.3082	.3435	3.70	.97	.9
%RSD	2.5796	2.0559	6.2293	9.9315	1.2144	.57076	.4065
#1	8.2585	5.4631	5.2776	3.3881	309.06	170.50	223.4
#2	8.6798	5.6754	4.6671	3.8322	302.06	168.77	221.6
#3	8.3741	5.4972	4.8987	3.1562	303.48	170.38	222.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**215.97**	**175560.**	**19.813**	**30.433**	**3391.4**	**4.8314**	**.09682**
Stddev	1.65	3453.	.345	.652	25.9	.2942	.00323
%RSD	.76576	1.9670	1.7395	2.1415	.76325	6.0892	3.3406
#1	217.54	172710.	19.478	29.925	3416.4	5.0990	.09427
#2	214.24	179410.	20.166	31.168	3364.7	4.8788	.10046
#3	216.12	174580.	19.795	30.207	3393.0	4.5164	.09573

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**102.04**	**920.07**	**.63855**	**3.5104**	**13.756**	**26.92**	**1423.7**
Stddev	1.19	11.80	1.8808	.5910	.306	.59	32.4
%RSD	1.1706	1.2824	294.54	16.835	2.2228	2.188	2.2786
#1	103.40	933.66	-1.4897	3.0844	13.815	26.38	1393.0
#2	101.17	912.42	2.0772	3.2618	13.425	27.55	1457.6
#3	101.55	914.14	1.3282	4.1851	14.029	26.85	1420.6

Sample Name: 1103223-35 Acquired: 3/30/2011 17:43:31 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **-5.2415**	**337.88**	**537.89**
Stddev	1.0196	3.03	5.83
%RSD	19.452	.89574	1.0839
#1	-6.3864	339.99	544.59
#2	-4.9066	334.42	533.97
#3	-4.4315	339.24	535.12
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	995.45	587400.	92114.
Stddev	9.03	4602.	1693.
%RSD	.90702	.78339	1.8383
#1	985.04	583210.	93577.
#2	1001.2	592320.	90259.
#3	1000.1	586670.	92506.

Sample Name: 1C29003-MS1 Acquired: 3/30/2011 17:48:07 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**253.37**	**131490.**	**278.05**	**297.52**	**285.05**	**944.48**	**2616.0**
Stddev	1.12	140.	2.12	5.78	2.71	4.56	21.2
%RSD	.44252	.10663	.76183	1.9441	.94944	.48295	.81173
#1	252.70	131620.	275.62	294.85	284.09	946.30	2602.6
#2	252.75	131340.	279.07	304.15	288.11	939.29	2604.9
#3	254.66	131520.	279.47	293.55	282.96	947.84	2640.5

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**61.480**	**9.4976**	**140.81**	**136.99**	**671.96**	**395.64**	**392.0**
Stddev	.065	.0302	.82	.86	5.12	2.91	3.0
%RSD	.10653	.31817	.58349	.62703	.76131	.73428	.7599
#1	61.543	9.5142	140.43	136.98	668.38	397.98	390.9
#2	61.412	9.4628	140.24	136.13	669.67	392.39	389.6
#3	61.483	9.5160	141.75	137.85	677.82	396.55	395.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**396.10**	**175620.**	**26.615**	**35.716**	**4069.2**	**1079.8**	**4.9505**
Stddev	1.63	414.	.069	.041	3.0	8.9	.0117
%RSD	.41031	.23562	.25875	.11522	.07335	.82662	.23551
#1	397.09	175940.	26.694	35.756	4072.3	1073.4	4.9639
#2	394.23	175150.	26.575	35.673	4068.8	1076.0	4.9427
#3	396.99	175760.	26.575	35.719	4066.4	1090.0	4.9450

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**662.45**	**565.10**	**80.713**	**260.04**	**1031.3**	**1048.**	**2376.9**
Stddev	3.72	6.58	1.855	1.45	9.2	1.	1.9
%RSD	.56096	1.1640	2.2982	.55780	.89667	.1188	.07839
#1	660.66	561.76	79.102	259.86	1025.5	1050.	2376.1
#2	659.98	560.86	82.741	258.69	1026.4	1047.	2375.7
#3	666.73	572.67	80.295	261.57	1042.0	1048.	2379.1

Sample Name: 1C29003-MS1 Acquired: 3/30/2011 17:48:07 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**226.02**	**857.86**	**903.12**
Stddev	.60	6.28	7.87
%RSD	.26605	.73202	.87162
#1	226.55	863.08	898.57
#2	225.36	850.89	898.59
#3	226.14	859.61	912.21

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	985.98	580450.	92564.
Stddev	6.94	3397.	102.
%RSD	.70431	.58526	.11021
#1	991.07	580970.	92569.
#2	988.82	583560.	92663.
#3	978.07	576830.	92459.

Sample Name: 1C29003-MSD1 Acquired: 3/30/2011 17:52:39 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**256.83**	**129370.**	**273.99**	**293.89**	**271.52**	**932.38**	**2636.0**
Stddev	.97	679.	2.35	1.03	3.81	1.55	9.4
%RSD	.37850	.52511	.85835	.35116	1.4018	.16600	.35505
#1	255.95	129400.	275.97	295.08	267.73	930.79	2627.9
#2	256.66	128680.	271.39	293.34	275.34	932.47	2646.2
#3	257.88	130030.	274.60	293.25	271.49	933.88	2633.8

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**60.362**	**9.5570**	**140.18**	**136.71**	**615.66**	**357.61**	**431.9**
Stddev	.092	.0136	.54	.36	1.68	1.98	1.9
%RSD	.15310	.14250	.38474	.26554	.27270	.55372	.4475
#1	60.397	9.5531	139.78	136.68	614.70	355.33	429.8
#2	60.257	9.5721	140.79	137.09	617.60	358.90	433.5
#3	60.431	9.5458	139.96	136.36	614.67	358.60	432.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**433.91**	**152820.**	**22.477**	**29.102**	**2776.8**	**1090.8**	**5.0115**
Stddev	1.29	445.	.155	.049	12.7	3.8	.0262
%RSD	.29749	.29087	.68946	.16825	.45908	.34734	.52268
#1	432.48	152570.	22.532	29.076	2762.1	1086.4	5.0199
#2	434.24	152550.	22.303	29.071	2783.7	1093.3	4.9822
#3	434.99	153330.	22.598	29.158	2784.6	1092.5	5.0325

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**626.20**	**542.06**	**79.753**	**262.30**	**1026.4**	**1049.**	**2301.7**
Stddev	1.13	2.16	.605	1.19	3.1	2.	5.8
%RSD	.18001	.39825	.75886	.45185	.30416	.2325	.25312
#1	625.46	541.27	80.440	263.45	1022.9	1050.	2303.2
#2	627.50	544.50	79.297	262.37	1028.9	1047.	2295.2
#3	625.65	540.40	79.524	261.08	1027.4	1052.	2306.6

Sample Name: 1C29003-MSD1 Acquired: 3/30/2011 17:52:39 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**234.79**	**809.62**	**994.78**
Stddev	1.24	4.71	4.44
%RSD	.52685	.58191	.44637
#1	234.94	804.26	992.23
#2	235.94	811.46	999.91
#3	233.48	813.13	992.21

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	989.54	583460.	92799.
Stddev	2.72	2315.	195.
%RSD	.27470	.39679	.21031
#1	992.56	586080.	92817.
#2	987.30	582630.	92984.
#3	988.76	581690.	92595.

Sample Name: 1C29003-PS1 Acquired: 3/30/2011 17:57:01 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**254.66**	**109440.**	**287.94**	**305.82**	**293.03**	**40.252**	**2631.3**
Stddev	1.11	116.	1.06	3.74	12.01	.172	7.0
%RSD	.43715	.10615	.36823	1.2228	4.0990	.42818	.26468
#1	255.91	109340.	286.89	303.78	301.80	40.053	2624.5
#2	253.78	109570.	289.01	303.55	279.34	40.358	2630.8
#3	254.30	109430.	287.94	310.14	297.95	40.346	2638.4

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**59.942**	**10.384**	**145.07**	**141.42**	**832.04**	**373.69**	**481.3**
Stddev	.091	.015	.70	.79	3.70	1.31	1.8
%RSD	.15122	.14418	.48570	.55648	.44459	.35114	.3704
#1	59.849	10.372	144.36	140.57	828.26	374.85	483.4
#2	59.949	10.401	145.09	141.60	832.22	373.95	480.2
#3	60.030	10.380	145.77	142.11	835.65	372.27	480.4

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**472.42**	**174160.**	**24.582**	**35.022**	**3924.0**	**7.0647**	**5.0076**
Stddev	1.79	459.	.035	.122	23.0	.2881	.0097
%RSD	.37826	.26379	.14198	.34952	.58632	4.0778	.19406
#1	473.73	174180.	24.552	35.009	3948.8	7.3973	4.9964
#2	470.38	174600.	24.620	35.150	3903.3	6.9058	5.0138
#3	473.13	173690.	24.575	34.907	3920.0	6.8911	5.0126

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**624.85**	**1160.4**	**270.03**	**272.69**	**13.799**	**26.55**	**1401.2**
Stddev	2.66	6.6	1.44	3.11	.475	.10	3.4
%RSD	.42641	.56592	.53273	1.1419	3.4444	.3628	.24575
#1	621.77	1154.1	268.48	274.38	13.390	26.45	1397.3
#2	626.46	1159.9	270.28	269.10	13.687	26.56	1403.8
#3	626.31	1167.2	271.33	274.61	14.320	26.64	1402.5

Sample Name: 1C29003-PS1 Acquired: 3/30/2011 17:57:01 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**208.05**	**855.57**	**1106.0**
Stddev	1.74	3.56	2.6
%RSD	.83784	.41650	.23669
#1	207.19	859.68	1104.2
#2	206.90	853.38	1104.8
#3	210.05	853.65	1109.1

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	989.91	580940.	92628.
Stddev	3.79	1744.	290.
%RSD	.38251	.30026	.31281
#1	993.43	579660.	92767.
#2	990.40	582930.	92295.
#3	985.91	580220.	92823.

Sample Name: 1C29003-DUP1@5X Acquired: 3/30/2011 18:02:34 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.43769**	**21848.**	**6.4228**	**8.6496**	**11.383**	**9.3982**	**57.802**	**1.7551**
Stddev	.10754	190.	1.1043	1.3358	3.613	.4878	.390	.0206
%RSD	24.570	.87150	17.194	15.443	31.739	5.1907	.67544	1.1747
#1	-.43251	21845.	7.3264	10.043	7.2188	9.4767	57.405	1.7349
#2	-.33283	22040.	5.1918	7.3804	13.246	9.8421	58.185	1.7761
#3	-.54773	21659.	6.7503	8.5251	13.684	8.8759	57.818	1.7542

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.1785**	**.78801**	**1.2159**	**58.892**	**35.742**	**48.83**	**45.354**	**36568.**
Stddev	.0144	.02143	.0577	.236	.418	.74	.305	427.
%RSD	1.2190	2.7194	4.7454	.40052	1.1688	1.513	.67296	1.1686
#1	1.1747	.79427	1.1953	58.717	36.107	49.69	45.512	36376.
#2	1.1944	.76415	1.2811	59.160	35.286	48.40	45.003	37057.
#3	1.1664	.80561	1.1714	58.798	35.831	48.41	45.549	36270.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**3.9306**	**6.2151**	**727.68**	**1.6425**	**.02279**	**19.289**	**182.81**	**.94214**
Stddev	.0294	.0646	5.44	.1789	.00060	.232	.20	.35195
%RSD	.74909	1.0389	.74807	10.892	2.6483	1.2031	.10834	37.356
#1	3.9447	6.2069	729.95	1.7402	.02227	19.359	182.89	1.2124
#2	3.9504	6.2834	721.47	1.7513	.02266	19.478	182.96	1.0699
#3	3.8968	6.1551	731.62	1.4360	.02345	19.030	182.59	.54415

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.08912**	**2.8840**	**5.483**	**292.72**	**.09547**	**70.486**	**103.45**
Stddev	.44732	.5516	.065	4.19	.54513	.606	.82
%RSD	501.95	19.127	1.188	1.4327	571.02	.85960	.79174
#1	-.17804	3.1571	5.476	292.18	.66937	70.800	103.14
#2	-.48529	3.2458	5.551	297.16	.03244	69.787	104.38
#3	.39598	2.2491	5.421	288.82	-.41542	70.870	102.84

Sample Name: 1C29003-DUP1@5X Acquired: 3/30/2011 18:02:34 Type: Unk
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1115.1	587920.	91641.
Stddev	5.9	3070.	859.
%RSD	.53245	.52216	.93686
#1	1118.5	587040.	91734.
#2	1108.2	591340.	90740.
#3	1118.5	585390.	92450.

Sample Name: SEQ-CCV Acquired: 3/30/2011 18:34:10 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**506.24**	**9726.9**	**975.19**	**1047.5**	**1009.0**	**990.29**	**1081.8**
Stddev	1.28	4.0	2.40	5.8	8.0	3.92	6.6
%RSD	.25381	.04145	.24572	.55697	.79637	.39553	.61082
#1	506.50	9723.0	972.60	1047.8	1000.7	989.88	1075.5
#2	504.84	9726.5	975.65	1041.5	1009.6	986.60	1081.1
#3	507.37	9731.1	977.33	1053.1	1016.7	994.40	1088.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1038.3**	**48.456**	**1055.7**	**1041.3**	**1014.7**	**1007.3**	**1068.**
Stddev	3.0	.097	2.5	4.7	5.5	7.1	6.
%RSD	.28640	.20068	.23448	.45415	.54249	.70425	.5449
#1	1035.1	48.344	1055.1	1037.0	1009.1	1002.9	1063.
#2	1038.9	48.501	1053.5	1040.5	1014.9	1003.5	1067.
#3	1040.9	48.522	1058.4	1046.4	1020.1	1015.5	1074.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**997.84**	**9900.6**	**9.9677**	**47.926**	**1096.3**	**1082.5**	**48.001**
Stddev	3.44	5.9	.0159	.073	6.0	8.7	.078
%RSD	.34497	.06010	.15985	.15215	.54793	.80268	.16241
#1	999.82	9907.5	9.9861	47.860	1093.2	1073.5	47.943
#2	993.87	9896.8	9.9571	47.914	1092.5	1083.1	47.971
#3	999.84	9897.7	9.9601	48.005	1103.2	1090.8	48.090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 3/30/2011 18:34:10 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**987.05**	**1038.3**	**1019.0**	**1086.1**	**1071.8**	**1000.**	**1000.1**
Stddev	3.57	7.2	3.4	11.4	6.9	3.	2.3
%RSD	.36131	.69678	.33729	1.0526	.64544	.2805	.23274
#1	984.43	1030.1	1016.6	1075.3	1066.3	997.4	997.42
#2	985.60	1040.9	1017.5	1084.9	1069.5	1000.	1000.9
#3	991.11	1043.8	1023.0	1098.0	1079.6	1003.	1001.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**995.00**	1027.1	F 1104.3
Stddev	6.81	6.6	3.2
%RSD	.68437	.64138	.29107
#1	988.77	1024.0	1101.8
#2	993.97	1022.6	1103.1
#3	1002.3	1034.6	1107.9
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1000.0
Range			±100.00

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1017.9	562130.	90809.
Stddev	7.3	2359.	188.
%RSD	.72140	.41967	.20757
#1	1025.9	563240.	90823.
#2	1016.1	563730.	90989.
#3	1011.6	559420.	90613.

Sample Name: SEQ-CCB Acquired: 3/30/2011 18:41:30 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.12983**	**4.7603**	**.94048**	**.76919**	**.68805**	**.69249**	**.36868**	**.01087**
Stddev	.05607	1.9456	.04626	1.8353	5.4998	.35331	.06685	.02820
%RSD	43.186	40.872	4.9193	238.60	799.33	51.021	18.131	259.50
#1	.19195	2.9664	.95028	2.8471	-2.9411	.46862	.34945	-.01727
#2	.11458	6.8285	.98105	.09070	-2.0106	.50905	.44303	.01074
#3	.08297	4.4859	.89009	-.63026	7.0159	1.0998	.31356	.03913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00048**	**.43455**	**.91077**	**.44677**	**.22928**	**.9652**	**1.0488**	**.15083**
Stddev	.00154	.05834	.15099	.02574	.19373	.3979	.1635	.43887
%RSD	319.95	13.426	16.578	5.7618	84.494	41.22	15.590	290.97
#1	-.00037	.38748	.86300	.42131	.26264	1.043	1.1577	.59084
#2	-.00045	.49982	1.0799	.47279	.40416	1.319	.86077	.14855
#3	.00226	.41635	.78946	.44621	.02104	.5342	1.1278	-.28689
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.00379**	**.00837**	**.09729**	**1.2039**	**.00173**	**-.57223**	**.99335**	**1.7043**
Stddev	.00811	.00360	.08719	.1080	.00100	.13883	.21248	1.0227
%RSD	213.88	43.037	89.623	8.9691	57.599	24.262	21.390	60.011
#1	-.00500	.00672	.02375	1.1913	.00066	-.41510	.93402	2.6073
#2	-.01123	.01251	.07451	1.3177	.00190	-.67830	1.2292	1.9118
#3	.00486	.00589	.19361	1.1028	.00264	-.62329	.81685	.59366
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 18:41:30 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.3415**	**.19758**	**-.0405**	**.02794**	**.05668**	**.01423**	**.44439**
Stddev	.9464	.39552	.0425	.12387	.18908	.07198	.06096
%RSD	40.417	200.19	105.1	443.41	333.61	505.89	13.717
#1	1.3887	-.24473	-.0877	-.00974	.00471	-.02999	.45478
#2	2.3545	.32019	-.0051	-.07272	-.10099	.09728	.49948
#3	3.2813	.51727	-.0287	.16626	.26631	-.02460	.37891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1183.9	593810.	92617.
Stddev	12.1	564.	104.
%RSD	1.0235	.09504	.11194
#1	1194.2	593170.	92685.
#2	1170.6	594010.	92668.
#3	1186.9	594240.	92498.

Sample Name: SEQ-CRL Acquired: 3/30/2011 18:50:49 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD A

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.1919**	**102.78**	**5.4219**	**5.0008**	F **10.770**	**1.0014**	**10.761**
Stddev	.0672	.24	1.0535	.5490	5.703	.2425	.023
%RSD	3.0648	.22978	19.429	10.977	52.949	24.221	.21332
#1	2.1160	102.56	6.4975	4.5208	15.463	1.2813	10.739
#2	2.2162	102.75	5.3761	5.5993	12.424	.86958	10.784
#3	2.2436	103.03	4.3921	4.8823	4.4234	.85324	10.760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
Value					6.0000		
Range					±1.2000		

133.690

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.0586**	**1.9435**	**2.0538**	F **2.6715**	**9.6733**	**4.1401**	F **9.699**
Stddev	.0211	.0109	.0582	.0577	.0904	.1268	.746
%RSD	1.0272	.56236	2.8326	2.1608	.93478	3.0618	7.694
#1	2.0358	1.9376	2.0658	2.6050	9.6369	4.0153	9.754
#2	2.0624	1.9369	2.1051	2.7089	9.7763	4.2688	10.42
#3	2.0776	1.9561	1.9906	2.7006	9.6067	4.1361	8.926
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value				2.0000			8.000
Range				±.40000			±1.600

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**8.9044**	**60.558**	**2.9294**	**2.8364**	**6.8622**	**10.231**	**2.8646**
Stddev	.1306	1.314	.0192	.0132	.0516	.176	.0260
%RSD	1.4671	2.1693	.65522	.46533	.75242	1.7156	.90602
#1	8.7584	59.229	2.9107	2.8268	6.8766	10.153	2.8412
#2	8.9442	60.590	2.9284	2.8309	6.8048	10.432	2.8602
#3	9.0104	61.855	2.9490	2.8514	6.9050	10.109	2.8925
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/30/2011 18:50:49 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD A

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**4.8388**	**3.3175**	**8.9435**	**6.6154**	**19.336**	**5.987**	**10.085**
Stddev	.2323	.4250	.3056	1.1018	.591	.094	.207
%RSD	4.8003	12.812	3.4169	16.655	3.0587	1.572	2.0542
#1	4.9817	3.0586	9.2957	5.7690	19.855	5.905	10.230
#2	4.5708	3.8081	8.7492	6.2160	18.692	5.966	9.8474
#3	4.9639	3.0859	8.7856	7.8612	19.461	6.090	10.176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**3.2888**	**10.251**	**10.540**
Stddev	.4811	.139	.265
%RSD	14.629	1.3585	2.5181
#1	3.8352	10.106	10.643
#2	3.1027	10.265	10.739
#3	2.9285	10.383	10.239
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1172.6	587380.	91889.
Stddev	3.7	3682.	809.
%RSD	.31884	.62676	.88035
#1	1175.4	590960.	92527.
#2	1168.4	587580.	92161.
#3	1174.1	583610.	90980.

Sample Name: SEQ-CCV Acquired: 3/30/2011 19:05:41 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**505.06**	**9627.6**	**970.09**	**1053.5**	**1019.1**	**980.23**	**1089.5**
Stddev	1.77	11.6	9.14	12.4	10.1	.95	12.0
%RSD	.34997	.12031	.94219	1.1796	.99294	.09693	1.0974
#1	507.10	9634.9	960.49	1039.8	1008.5	980.78	1076.6
#2	504.02	9633.7	971.09	1056.6	1020.3	979.14	1091.6
#3	504.05	9614.2	978.69	1064.0	1028.6	980.78	1100.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1029.4**	**47.945**	**1054.0**	**1039.4**	**1017.3**	**1009.4**	**1073.**
Stddev	2.6	.043	9.8	10.1	10.7	6.3	1.
%RSD	.25682	.09043	.92558	.97334	1.0495	.62456	.0761
#1	1030.1	47.897	1043.0	1028.3	1005.8	1009.4	1073.
#2	1026.5	47.957	1057.3	1041.5	1019.4	1003.1	1072.
#3	1031.7	47.981	1061.6	1048.2	1026.8	1015.7	1073.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**989.53**	**9751.1**	**9.8544**	**47.654**	**1099.5**	**1093.0**	**47.171**
Stddev	2.97	31.0	.0160	.014	4.0	12.7	.106
%RSD	.29984	.31824	.16219	.02950	.36579	1.1581	.22470
#1	992.95	9720.3	9.8701	47.662	1101.9	1079.2	47.293
#2	987.70	9782.4	9.8551	47.638	1094.8	1095.6	47.098
#3	987.93	9750.5	9.8381	47.662	1101.7	1104.1	47.123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 3/30/2011 19:05:41 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**984.87**	**1044.6**	**1022.0**	**1094.5**	**1083.4**	**992.6**	**992.39**
Stddev	9.12	7.5	11.5	10.3	10.9	3.5	1.67
%RSD	.92646	.71767	1.1275	.93835	1.0059	.3521	.16837
#1	975.21	1036.0	1010.2	1083.9	1072.0	994.5	991.92
#2	986.05	1048.1	1022.4	1095.1	1084.4	988.6	991.01
#3	993.34	1049.7	1033.3	1104.4	1093.7	994.7	994.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**999.21**	**1031.4**	F **1113.2**
Stddev	9.75	5.2	10.5
%RSD	.97547	.50865	.94575
#1	989.68	1030.8	1101.6
#2	998.81	1026.6	1115.9
#3	1009.2	1037.0	1122.1
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1000.0
Range			±100.00

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1017.7	564830.	91620.
Stddev	9.6	1456.	73.
%RSD	.94355	.25781	.07946
#1	1028.2	563350.	91571.
#2	1015.4	566260.	91587.
#3	1009.4	564900.	91704.

Sample Name: SEQ-CCB Acquired: 3/30/2011 19:13:01 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.14571**	**2.0830**	**.42797**	**1.4451**	**2.7822**	**.45053**	**.26930**	**.01390**
Stddev	.14549	2.7948	1.5589	1.5744	3.5440	.08449	.03820	.01807
%RSD	99.849	134.17	364.24	108.95	127.38	18.754	14.185	130.01
#1	-.24679	2.7960	-1.3508	1.7797	-.51357	.54631	.31028	-.00474
#2	.02104	-.99923	1.0788	2.8253	2.3291	.38654	.23468	.03134
#3	-.21136	4.4523	1.5560	-.26970	6.5309	.41875	.26295	.01509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00077**	**.23124**	**.87740**	**.36335**	**.32126**	**.9080**	**1.2024**	**.13680**
Stddev	.00059	.01947	.09785	.02731	.15048	.6571	.0433	1.7807
%RSD	76.845	8.4196	11.153	7.5173	46.841	72.37	3.5979	1301.7
#1	.00049	.24632	.97413	.38875	.47474	.6306	1.1760	1.1648
#2	.00037	.20926	.87961	.36684	.17397	1.658	1.2523	-1.9193
#3	.00144	.23815	.77846	.33445	.31506	.4351	1.1789	1.1649
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.00683**	**-.00136**	**.12699**	**.99673**	**.00111**	**-.71017**	**1.0468**	**1.5507**
Stddev	.00409	.00406	.04251	.16553	.00265	.14137	.5171	.5725
%RSD	59.906	298.23	33.472	16.607	238.71	19.907	49.399	36.922
#1	-.00227	-.00373	.07979	1.1710	.00043	-.70752	.51229	1.7747
#2	-.01020	.00333	.16225	.97762	.00404	-.57014	1.0836	1.9774
#3	-.00803	-.00369	.13894	.84159	-.00113	-.85285	1.5446	.90002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 3/30/2011 19:13:01 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.79604**	**-.03542**	**.0044**	**-.01594**	**.73205**	**.19987**	**.34551**
Stddev	1.1569	.22353	.0489	.13211	1.1776	.16593	.03335
%RSD	145.34	631.12	1100.	828.96	160.86	83.017	9.6527
#1	1.9500	.17024	.0142	-.08117	.72604	.00953	.38226
#2	.80195	-.27332	-.0486	-.10274	-.44250	.27609	.33707
#3	-.36383	-.00318	.0477	.13610	1.9126	.31398	.31719
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1175.0	596860.	94122.
Stddev	17.9	4841.	1863.
%RSD	1.5197	.81103	1.9788
#1	1187.6	594540.	96249.
#2	1182.8	593610.	92785.
#3	1154.6	602420.	93331.

Sample Name: SEQ-CCV Acquired: 3/31/2011 8:00:35 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**497.76**	**9447.9**	**1011.9**	**988.48**	**994.44**	**1007.9**	**969.97**	**1005.1**
Stddev	7.08	24.3	11.6	13.79	11.81	9.6	12.38	3.6
%RSD	1.4223	.25682	1.1507	1.3950	1.1878	.94943	1.2768	.35892
#1	498.07	9475.8	1022.7	1004.2	1007.3	1006.2	983.74	1008.6
#2	490.53	9432.0	1013.4	982.76	984.14	999.29	966.44	1005.2
#3	504.68	9435.9	999.54	978.47	991.85	1018.2	959.74	1001.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**47.849**	**1007.0**	**1033.0**	**956.11**	**939.00**	**949.4**	**1001.4**	**9929.9**
Stddev	.216	11.8	11.8	12.07	7.19	8.5	9.5	49.7
%RSD	.45204	1.1748	1.1437	1.2623	.76543	.9005	.94583	.50034
#1	48.063	1020.0	1046.2	969.70	935.31	950.2	999.17	9977.8
#2	47.853	1004.1	1029.4	951.97	934.41	940.4	993.22	9933.4
#3	47.630	996.91	1023.4	946.65	947.28	957.5	1011.8	9878.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.5914**	**45.784**	**1053.7**	**1087.0**	**48.970**	**968.65**	**951.02**	**991.46**
Stddev	.0182	.124	11.7	12.9	.045	12.24	11.94	11.40
%RSD	.18987	.27006	1.1071	1.1900	.09239	1.2635	1.2556	1.1495
#1	9.5939	45.862	1054.1	1101.0	49.008	981.96	964.53	1004.6
#2	9.6083	45.848	1041.8	1084.3	48.982	966.11	946.66	985.41
#3	9.5721	45.641	1065.2	1075.6	48.920	957.88	941.88	984.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/31/2011 8:00:35 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**972.65**	**953.10**	**974.7**	**954.86**	**975.19**	**950.11**	**939.78**
Stddev	11.67	10.07	2.5	4.07	10.61	6.72	12.35
%RSD	1.2001	1.0560	.2583	.42632	1.0876	.70686	1.3138
#1	986.11	963.95	977.5	959.31	987.05	948.16	953.60
#2	966.41	951.29	973.6	953.93	971.89	944.58	935.89
#3	965.42	944.07	972.9	951.33	966.63	957.59	929.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	987.37	531830.	87217.
Stddev	10.60	5193.	163.
%RSD	1.0735	.97643	.18689
#1	975.49	532550.	87073.
#2	990.77	536620.	87184.
#3	995.86	526310.	87394.

Sample Name: 1C29003-BLK2 Acquired: 3/31/2011 8:12:50 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS032911B 1g->200ml Pb

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.10931**	**6.8095**	**-.11057**	**1.1340**	**.90095**	**-2.3272**	**.15031**
Stddev	.20801	2.3397	1.6877	2.4118	.62128	.1888	.04967
%RSD	190.30	34.359	1526.3	212.68	68.958	8.1135	33.045
#1	-.17497	5.0511	.69962	1.8505	1.5862	-2.5177	.09593
#2	-.27656	5.9125	-2.0506	-1.5549	.37449	-2.3238	.16169
#3	.12361	9.4650	1.0192	3.1064	.74213	-2.1401	.19329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.00695**	**.00101**	**.09618**	**.71590**	**-.03200**	**1.0201**	**-.0965**
Stddev	.00965	.00140	.06926	.11766	.06478	.2202	.9875
%RSD	138.99	139.34	72.013	16.436	202.43	21.588	1023.
#1	.00046	.00086	.07990	.58264	-.10038	1.2223	-1.212
#2	.01804	.00248	.03651	.75962	-.02406	1.0526	.2557
#3	.00233	-.00032	.17213	.80545	.02844	.78544	.6667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**.33284**	**10.199**	**.01124**	**.00037**	**.30062**	**.52792**	**-.00161**
Stddev	.12176	1.386	.01136	.00613	.00477	.07037	.00111
%RSD	36.581	13.594	101.04	1647.8	1.5877	13.329	69.162
#1	.31093	11.789	.00083	.00318	.30547	.48387	-.00221
#2	.46406	9.5650	.02336	-.00666	.29593	.49082	-.00229
#3	.22352	9.2427	.00955	.00460	.30047	.60908	-.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1C29003-BLK2 Acquired: 3/31/2011 8:12:50 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS032911B 1g->200ml Pb

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.40031**	**1.0041**	**.63833**	**1.2709**	F **10.389**	**-.0103**	**-.00798**
Stddev	.13618	.3113	.79644	1.3780	.322	.0216	.15430
%RSD	34.018	31.002	124.77	108.43	3.0976	210.1	1932.6
#1	-.55755	.83551	.26939	2.7659	10.759	.0075	-.01997
#2	-.32267	.81342	1.5523	.99547	10.233	-.0344	-.15595
#3	-.32071	1.3633	.09326	.05146	10.175	-.0040	.15196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					10.000		
Low Limit					-10.000		

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.82679**	**.16422**	**.33427**
Stddev	.13536	.07112	.14856
%RSD	16.372	43.305	44.442
#1	-.79577	.24593	.16669
#2	-.97497	.13049	.38633
#3	-.70962	.11625	.44978
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1114.0	572520.	89743.
Stddev	6.2	2653.	60.
%RSD	.55946	.46342	.06686
#1	1108.2	569460.	89749.
#2	1120.6	573800.	89800.
#3	1113.1	574280.	89680.

Sample Name: SEQ-CCV Acquired: 3/31/2011 10:25:06 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**507.02**	**9541.7**	**1015.1**	**967.20**	**979.37**	**1014.7**	**956.71**	**1021.7**
Stddev	2.01	18.5	3.6	9.75	7.97	6.4	5.05	1.4
%RSD	.39700	.19388	.35219	1.0083	.81354	.63237	.52792	.13315
#1	504.87	9537.3	1011.1	969.63	975.26	1007.6	954.45	1022.9
#2	508.86	9561.9	1016.0	956.46	974.30	1016.5	953.19	1022.0
#3	507.33	9525.7	1018.1	975.51	988.55	1020.0	962.50	1020.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**49.480**	**1017.7**	**1034.6**	**947.33**	**942.83**	**944.0**	**987.68**	**10175.**
Stddev	.096	2.6	6.6	4.49	6.10	6.7	4.53	37.
%RSD	.19423	.25931	.63335	.47386	.64708	.7053	.45885	.35898
#1	49.454	1015.4	1031.1	944.90	936.88	936.3	982.67	10140.
#2	49.399	1017.2	1030.5	944.58	942.55	947.2	991.48	10171.
#3	49.586	1020.6	1042.1	952.51	949.07	948.4	988.90	10213.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.7154**	**46.825**	**1072.2**	**1086.9**	**49.749**	**965.73**	**937.16**	**969.97**
Stddev	.0392	.046	6.3	5.8	.222	4.52	4.78	8.05
%RSD	.40309	.09773	.58400	.53361	.44640	.46834	.50969	.82958
#1	9.7304	46.795	1065.3	1081.5	49.792	963.08	936.90	968.93
#2	9.7448	46.802	1073.9	1086.1	49.946	963.15	932.52	962.49
#3	9.6710	46.878	1077.5	1093.1	49.508	970.95	942.06	978.48
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 3/31/2011 10:25:06 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11C0815

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**940.69**	**958.65**	**976.8**	**967.82**	**972.00**	**943.94**	**955.01**
Stddev	9.85	4.31	3.1	2.59	8.35	4.45	3.37
%RSD	1.0472	.44932	.3124	.26713	.85949	.47128	.35318
#1	943.21	953.75	978.5	969.25	965.91	939.01	951.16
#2	929.83	960.38	978.5	969.37	968.57	945.18	957.42
#3	949.04	961.83	973.2	964.83	981.52	947.64	956.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1026.9	540070.	86386.
Stddev	6.3	2279.	46.
%RSD	.61105	.42205	.05306
#1	1030.2	542670.	86395.
#2	1030.9	538420.	86426.
#3	1019.7	539110.	86336.

Sample Name: SEQ-CRL Acquired: 3/31/2011 10:37:07 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD A

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.2382**	**100.07**	**5.9771**	F **4.0996**	**5.0972**	**3.6945**	**9.5001**
Stddev	.1681	.73	1.6062	.5476	1.1642	.1856	.1442
%RSD	7.5092	.73445	26.873	13.357	22.839	5.0239	1.5176
#1	2.2748	99.250	4.6415	3.4704	3.7714	3.8445	9.4936
#2	2.3850	100.28	5.5304	4.4684	5.9522	3.4869	9.6474
#3	2.0549	100.67	7.7594	4.3600	5.5680	3.7519	9.3593
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass
Value				6.0000			
Range				±-1.2000			

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.0299**	**1.9764**	**2.0119**	**2.0386**	**9.0181**	**3.9477**	**7.679**
Stddev	.0178	.0166	.0806	.0497	.0677	.1631	.902
%RSD	.87830	.83977	4.0062	2.4354	.75059	4.1303	11.75
#1	2.0498	1.9951	1.9570	2.0728	8.9447	3.7982	8.655
#2	2.0152	1.9634	2.1044	1.9816	9.0781	3.9234	7.507
#3	2.0249	1.9707	1.9742	2.0612	9.0316	4.1216	6.876
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**7.9246**	**64.476**	**2.8509**	**2.7424**	**6.9605**	**10.435**	**3.0166**
Stddev	.0696	2.401	.0130	.0159	.0541	.094	.0161
%RSD	.87873	3.7237	.45565	.57951	.77789	.90341	.53246
#1	7.9995	64.631	2.8475	2.7602	7.0037	10.327	3.0217
#2	7.9124	62.002	2.8652	2.7376	6.9782	10.496	3.0295
#3	7.8619	66.797	2.8399	2.7295	6.8998	10.484	2.9986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 3/31/2011 10:37:07 Type: QC
Method: DuoEnviroMethodNEW(v2045) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTD A

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.5354**	**3.4634**	**7.4873**	F **4.7617**	**17.777**	**5.804**	**9.7259**
Stddev	.1020	.2357	.1863	.3109	.155	.045	.1024
%RSD	1.8419	6.8050	2.4885	6.5290	.87337	.7757	1.0525
#1	5.6440	3.7070	7.6614	5.1098	17.795	5.806	9.8076
#2	5.4418	3.4467	7.2908	4.5117	17.613	5.848	9.6110
#3	5.5203	3.2366	7.5095	4.6637	17.922	5.758	9.7589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				6.0000			
Range				±-1.2000			

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**3.9765**	**9.6961**	**9.3001**
Stddev	.3087	.1083	.1273
%RSD	7.7630	1.1168	1.3687
#1	4.2101	9.7238	9.2122
#2	3.6265	9.7879	9.4461
#3	4.0927	9.5767	9.2420
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1165.9	553410.	87792.
Stddev	9.5	406.	308.
%RSD	.81435	.07329	.35118
#1	1163.9	553360.	87437.
#2	1157.5	553030.	87988.
#3	1176.2	553840.	87952.

PREPARATION BENCH SHEET

1C29002

Empirical Laboratories, LLC

Printed: 4/13/2011 11:38:12AM

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Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1103223-01	MET_ICP_6010B_FULL	03/29/2011 08:16	1.03	200					Pb & Cu
1103223-02	MET_ICP_6010B_FULL	03/29/2011 08:16	0.99	200					Pb & Cu
1103223-03	MET_ICP_6010B_FULL	03/29/2011 08:16	0.98	200					Pb & Cu
1103223-04	MET_ICP_6010B_FULL	03/29/2011 08:16	0.97	200					Pb & Cu
1103223-05	MET_ICP_6010B_FULL	03/29/2011 08:16	0.95	200					Pb & Cu
1103223-06	MET_ICP_6010B_FULL	03/29/2011 08:16	0.98	200					Pb & Cu
1103223-07	MET_ICP_6010B_FULL	03/29/2011 08:16	1.03	200					Pb & Cu
1103223-08	MET_ICP_6010B_FULL	03/29/2011 08:16	1.02	200					Pb & Cu
1103223-09	MET_ICP_6010B_FULL	03/29/2011 08:16	0.99	200					Pb & Cu
1103223-10	MET_ICP_6010B_FULL	03/29/2011 08:16	1.05	200					Pb & Cu
1103223-11	MET_ICP_6010B_FULL	03/29/2011 08:16	1.05	200					Pb & Cu
1103223-12	MET_ICP_6010B_FULL	03/29/2011 08:16	1.01	200					Pb & Cu
1103223-13	MET_ICP_6010B_FULL	03/29/2011 08:16	1	200					Pb & Cu
1103223-14	MET_ICP_6010B_FULL	03/29/2011 08:16	1	200					Pb & Cu
1103223-15	MET_ICP_6010B_FULL	03/29/2011 08:16	1.01	200					Pb & Cu
1103223-16	MET_ICP_6010B_FULL	03/29/2011 08:16	0.95	200					Pb & Cu
1103223-17	MET_ICP_6010B_FULL	03/29/2011 08:16	1	200					Pb & Cu
1103223-18	MET_ICP_6010B_FULL	03/29/2011 08:16	0.98	200					Pb & Cu
1103223-19	MET_ICP_6010B_FULL	03/29/2011 08:16	1	200					Pb & Cu
1103223-20	MET_ICP_6010B_FULL	03/29/2011 08:16	0.98	200					Pb & Cu
1C29002-BLK1	QC	03/29/2011 08:16	1	200					
1C29002-BLK2	QC	03/29/2011 08:16	1	200					Added 3/31/2011 by BLQ
1C29002-BS1	QC	03/29/2011 08:16	1	200	11C0110		200		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1103223

PREPARATION BENCH SHEET

1C29002

Empirical Laboratories, LLC

Printed: 4/13/2011 11:38:12AM

442

Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1C29002-DUP1	QC	03/29/2011 08:16	0.98	200		1103223-20			
1C29002-MS1	QC	03/29/2011 08:16	1.06	200	11C0110	1103223-20	200		
1C29002-MSD1	QC	03/29/2011 08:16	1.06	200	11C0110	1103223-20	200		
1C29002-PS1	QC	03/29/2011 08:16	0.98	200	11C0110	1103223-20	200		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1103223

PREPARATION BENCH SHEET

1C29003

Empirical Laboratories, LLC

Printed: 4/13/2011 11:38:36AM

443

Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1103223-21	MET_ICP_6010B_FULL	03/29/2011 08:18	1.05	200					Pb & Cu
1103223-22	MET_ICP_6010B_FULL	03/29/2011 08:18	1	200					Pb & Cu
1103223-23	MET_ICP_6010B_FULL	03/29/2011 08:18	1.02	200					Pb & Cu
1103223-28	MET_ICP_6010B_FULL	03/29/2011 08:18	1.07	200					Pb & Cu
1103223-29	MET_ICP_6010B_FULL	03/29/2011 08:18	1.01	200					Pb & Cu
1103223-30	MET_ICP_6010B_FULL	03/29/2011 08:18	0.95	200					Pb & Cu
1103223-31	MET_ICP_6010B_FULL	03/29/2011 08:18	0.98	200					Pb & Cu
1103223-32	MET_ICP_6010B_FULL	03/29/2011 08:18	1.05	200					Pb & Cu
1103223-33	MET_ICP_6010B_FULL	03/29/2011 08:18	0.97	200					Pb & Cu
1103223-34	MET_ICP_6010B_FULL	03/29/2011 08:18	1.01	200					Pb & Cu
1103223-35	MET_ICP_6010B_FULL	03/29/2011 08:18	1.06	200					Pb & Cu
1C29003-BLK1	QC	03/29/2011 08:18	1	200					
1C29003-BLK2	QC	03/29/2011 08:18	1	200					
1C29003-BS1	QC	03/29/2011 08:18	1	200	11C0110		200		
1C29003-DUP1	QC	03/29/2011 08:18	1.06	200		1103223-35			
1C29003-MS1	QC	03/29/2011 08:18	1.05	200	11C0110	1103223-35	200		
1C29003-MSD1	QC	03/29/2011 08:18	1.06	200	11C0110	1103223-35	200		
1C29003-PS1	QC	03/29/2011 08:18	1.06	200	11C0110	1103223-35	200		

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1103223

Subcontractor Data Package

EMLab P&K

Report for:

Ms. Sonya Gordon
Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: 1103223
EML ID: 767876

Approved by:

Lab Director
Eric Ciotti

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 04-04-2011 to 04-04-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	31
Total Samples Analysed:	31
Total Samples with Layer Asbestos Content > 1%:	0

Location: 404-IN (20110324) Lab ID-Version‡: 3396582-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-4N (20110324) Lab ID-Version‡: 3396583-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-9N (20110324) Lab ID-Version‡: 3396584-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-11E (20110324) Lab ID-Version‡: 3396585-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-16B (20110324) Lab ID-Version‡: 3396586-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 405-21W (20110324) Lab ID-Version‡: 3396587-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-24B (20110324) Lab ID-Version‡: 3396588-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-27W (20110324) Lab ID-Version‡: 3396589-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-31S (20110324) Lab ID-Version‡: 3396590-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 405-33B (20110324) Lab ID-Version‡: 3396591-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 404-2N (20110324) Lab ID-Version‡: 3396592-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-6N (20110324) Lab ID-Version‡: 3396593-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-6B (20110324) Lab ID-Version‡: 3396594-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-10W (20110324) Lab ID-Version‡: 3396595-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-14W (20110324) Lab ID-Version‡: 3396596-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 404-17E (20110324) Lab ID-Version‡: 3396597-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-22E (20110324) Lab ID-Version‡: 3396598-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-25B (20110324) Lab ID-Version‡: 3396599-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-29S (20110324) Lab ID-Version‡: 3396600-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 404-32S (20110324) Lab ID-Version‡: 3396601-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 8102(1)-INW- (20110324) Lab ID-Version‡: 3396602-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(1)-3E- (20110324) Lab ID-Version‡: 3396603-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(1)-10W- (20110324) Lab ID-Version‡: 3396604-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(2)-2N- (20110325) Lab ID-Version‡: 3396605-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(2)-5E- (20110325 Lab ID-Version‡: 3396606-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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Client: Empirical Laboratories, LLC
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Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 8102(2)-9W- (20110325) Lab ID-Version‡: 3396607-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose < 1% Synthetic Fibers
Sample Composite Homogeneity:	Moderate

Location: 8102(2)-12W- (20110325) Lab ID-Version‡: 3396608-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(3)-3E- (20110325) Lab ID-Version‡: 3396609-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(3)-6E- (20110325) Lab ID-Version‡: 3396610-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(3)-10W- (20110325) Lab ID-Version‡: 3396611-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103223

Date of Sampling: 03-24-2011
Date of Receipt: 03-30-2011
Date of Report: 04-04-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 406-2E- (20110325)

Lab ID-Version‡: 3396612-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

000767876

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon SGordon@Empirlabs.com

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

P.O. # 11-0359

Project: Radford Army Ammunition

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 405-1N (20110324)				
Reference No: 1103223-01	**Solid**	**Sampled:03/24/2011 15:15**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 14:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-4N (20110324)				
Reference No: 1103223-02	**Solid**	**Sampled:03/24/2011 15:30**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-9N (20110324)				
Reference No: 1103223-03	**Solid**	**Sampled:03/24/2011 15:45**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 14:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-11E (20110324)				
Reference No: 1103223-04	**Solid**	**Sampled:03/24/2011 15:50**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 14:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-16B (20110324)				
Reference No: 1103223-05	**Solid**	**Sampled:03/24/2011 15:55**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 14:55		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-21W (20110324)				
Reference No: 1103223-06	**Solid**	**Sampled:03/24/2011 16:05**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:05		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
		[illegible]	5/30/11 9:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

000767876

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 405-24B (20110324)				
Reference No: 1103223-07	**Solid**	**Sampled:03/24/2011 16:10**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-27W (20110324)				
Reference No: 1103223-08	**Solid**	**Sampled:03/24/2011 16:15**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-31S (20110324)				
Reference No: 1103223-09	**Solid**	**Sampled:03/24/2011 16:25**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:25		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 405-33B (20110324)				
Reference No: 1103223-10	**Solid**	**Sampled:03/24/2011 16:30**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-2N (20110324)				
Reference No: 1103223-11	**Solid**	**Sampled:03/24/2011 16:35**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:35		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-6N (20110324)				
Reference No: 1103223-12	**Solid**	**Sampled:03/24/2011 16:40**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-6B (20110324)				
Reference No: 1103223-13	**Solid**	**Sampled:03/24/2011 16:45**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:45		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-10W (20110324)				
Reference No: 1103223-14	**Solid**	**Sampled:03/24/2011 16:50**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:50		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
		Daniel G. Deane	3/30/11 9:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

000767876

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 404-14W (20110324)				
Reference No: 1103223-15	**Solid**	**Sampled:03/24/2011 16:55**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 15:55		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-17E (20110324)				
Reference No: 1103223-16	**Solid**	**Sampled:03/24/2011 17:00**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-22E (20110324)				
Reference No: 1103223-17	**Solid**	**Sampled:03/24/2011 17:05**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:05		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-25B (20110324)				
Reference No: 1103223-18	**Solid**	**Sampled:03/24/2011 17:10**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-29S (20110324)				
Reference No: 1103223-19	**Solid**	**Sampled:03/24/2011 17:15**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:15		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 404-32S (20110324)				
Reference No: 1103223-20	**Solid**	**Sampled:03/24/2011 17:20**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(1)-INW- (20110324)				
Reference No: 1103223-21	**Solid**	**Sampled:03/24/2011 17:25**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:25		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(1)-3E- (20110324)				
Reference No: 1103223-22	**Solid**	**Sampled:03/24/2011 17:30**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:30		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
		Daniel M Deane	3/30/11 9:45a
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

000767876

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102(1)-10W- (20110324)				
Reference No: 1103223-23	**Solid**	**Sampled:03/24/2011 17:35**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/26/2011 16:35		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-2N- (20110325)				
Reference No: 1103223-28	**Solid**	**Sampled:03/25/2011 15:05**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:05		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-5E-(20110325)				
Reference No: 1103223-29	**Solid**	**Sampled:03/25/2011 15:10**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-9W-(20110325)				
Reference No: 1103223-30	**Solid**	**Sampled:03/25/2011 15:20**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(2)-12W-(20110325)				
Reference No: 1103223-31	**Solid**	**Sampled:03/25/2011 15:25**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:25		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-3E-(20110325)				
Reference No: 1103223-32	**Solid**	**Sampled:03/25/2011 15:30**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-6E-(20110325)				
Reference No: 1103223-33	**Solid**	**Sampled:03/25/2011 15:40**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-10W-(20110325)				
Reference No: 1103223-34	**Solid**	**Sampled:03/25/2011 15:50**		
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 14:50		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
		Daniel Gm Rivera	3/30/11 9:45
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103223

000767876

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 406-2E-(20110325)				
Reference No: 1103223-35	**Solid**	**Sampled:03/25/2011 16:05**	[redacted]	
SUB_Asbestos Lab SOP	04/06/2011 14:00	03/27/2011 15:05		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
		Hamid on Devine	3/30/11 9:45am
Released By	Date	Received By	Date

ANALYTICAL DATA PACKAGE
SDG # 1103249

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
Fax (866)417-0548
Email: sgordon@empirlabs.com

Original Report Date: April 19, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 153

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. Samples were subcontracted to EMLab P&K for Asbestos by EPA 600/R-93/116.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW6010B:
No anomalies or deviations are noted.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

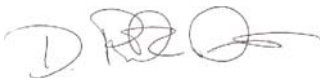
BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.



Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 2

Project Number/Name: GPOBRAAP_4BLA_KGBLA
Project Location: NRU Dublin, Va (RAAP)
Laboratory: Empirical Laboratories
Project Manager: Chris Kalinowski
Sampler(s)/Affiliation: W. Keith Carr/ARCADIS

1105249

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Lead/Copper (USEPA 6010)	8 Asbestos TEM USEPA 600/R-93/116 CARB					Remarks	Total
-01	411-2N (20110329)	SO	03.29.11 0820		1	1					2-Day Turn Around	2
-02	411-4B (20110329)		03.29.11 0830		1	1						
-03	411-7SW (20110329)		03.29.11 0840		1	1						
-04	8102(4)-2E (20110329)		03.29.11 0850		1	1						
-05	8102(4)-6E (20110329)		03.29.11 0900		1	1						
-06	8102(4)-10W (20110329)		03.29.11 0910		1	1						
-07	522A-2NE (20110329)		03.29.11 0920		1	1						
-08	522A-4E (20110329)		03.29.11 0930		1	1						
-09	522A-6B (20110329)		03.29.11 0940		1	1						
-10	522A-10W (20110329)		03.29.11 0950		1	1						
-11	412-1B (20110329)		03.29.11 1000		1	1						
-12	413-3E (20110329)		03.29.11 1010		1	1						
-13	413-7W (20110329)		03.29.11 1020		1	1						
-14	522-12E (20110329)		03.29.11 1030		1	1						
-15	502-15B (20110329)		03.29.11 1040		1	1						

Total No. of Bottles/ Containers: 30

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 03/29/11	Time 1130	Seal Intact?		
Received by: FED EX 8741 9770 2468	Organization:	Date / /	Time	Yes	No	N/A
Relinquished by:	Organization:	Date / /	Time	Seal Intact?		
Received by:	Organization:	Date / /	Time	Yes	No	N/A

Special Instructions/Remarks: Please Contact Chris Kalinowski with any Questions. 919.656.7731

3.4°C 7-8pm 08:30

Delivery Method: ☐ In Person ☒ Common Carrier FEDEX SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

8

1103249

ARCADIS

Laboratory Task Order No./P.O. No. _____

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Number/Name GP08RAAP.4BLAKGBLA

Project Location NRU Dublin, Va. (RAAP)

Laboratory Empirical Laboratories

Project Manager Chris Kalinowski

Sampler(s)/Affiliation W. K. Carr / ARCADIS

1103249

-160

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Lead/Copper USEPA (6010)	ANALYSIS / METHOD / SIZE: %Asbestos TEM USEPA 600/R-93/116 CARB 435	ANALYSIS / METHOD / SIZE	ANALYSIS / METHOD / SIZE	ANALYSIS / METHOD / SIZE	ANALYSIS / METHOD / SIZE	Remarks	Total
502-19W(20110329)	SO	03-29-11 1050		1	1					2-Day Turn Around	2

EM

Total No. of Bottles/ Containers: 2

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

					Seal Intact?
Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 03/29/11	Time 1130		
Received by: FED EX 8741 9770 2468	Organization:	Date / /	Time		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by:	Organization:	Date / /	Time		Yes No N/A

Special Instructions/Remarks: Please Contact Chris Kalinowski with any Questions 919.656.7731

3.4°C 3-30-11 08:30

Delivery Method: ☐ In Person ☑ Common Carrier Fed EX (SPECIFY) ☑ Lab Courier ☐ Other (SPECIFY)

AG 05-12/01

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1103249

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1103249 Number of Coolers: 1 of 1

Client: ARCADIS Project: NRU Dublin VH

Date/Time Received: 3.30.11 0830 Date cooler(s) opened: 3.30.11

Opened By (print): Reginald Talley (signature): Reginald Talley

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered

EL Courier Other: _____

If applicable, enter airbill number here: 2468

2. Were custody seals on outside of cooler(s)? ..... Yes (No)

How many: — Seal date: — Seal Initials: —

3. Were custody seals unbroken and intact at the date and time of arrival?	Yes	No	(N/A)
4. Were custody papers sealed in a plastic bag included in the sample cooler?	(Yes)	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	(Yes)	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	(Yes)	No	N/A
7. Was project identifiable from custody papers?	(Yes)	No	N/A
8. If required, was enough ice present in the cooler(s)?	(Yes)	No	N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 3.7 °C Correction Factor: -0.3 °C Final Value: 3.4 °C

Dates samples were logged-in: 3-30-11

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____

10. Were all bottle lids intact and sealed tightly?	(Yes)	No	N/A
11. Did all bottles arrive unbroken?	(Yes)	No	N/A
12. Was all required bottle label information complete?	(Yes)	No	N/A
13. Did all bottle labels agree with custody papers?	(Yes)	No	N/A
14. Were correct containers used for the analyses indicated?	(Yes)	No	N/A
15. Were preservative levels correct in all applicable sample containers?	Yes	No	(N/A)
16. Was residual chlorine present in any applicable sample containers?	Yes	No	(N/A)
17. Was sufficient amount of sample sent for the analyses required?	(Yes)	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	(N/A)

If Non-Conformance issues were present, list by sample ID: _____

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

email sgordon@empirlabs.com

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

P.O.#11-0366
Project: Radford Army Ammunition Plant 2011C

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 411-2N (20110329)				
Reference No: 1103249-01	**Solid**	**Sampled:03/29/2011 08:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:20		% Asbestos EPA 600
Containers Supplied				
Sample ID: 411-4B (20110329)				
Reference No: 1103249-02	**Solid**	**Sampled:03/29/2011 08:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:30		% Asbestos EPA 600
Containers Supplied				
Sample ID: 411-7SW (20110329)				
Reference No: 1103249-03	**Solid**	**Sampled:03/29/2011 08:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:40		% Asbestos EPA 600
Containers Supplied				
Sample ID: 8102(4)-2E (20110329)				
Reference No: 1103249-04	**Solid**	**Sampled:03/29/2011 08:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:50		% Asbestos EPA 600
Containers Supplied				
Sample ID: 8102(4)-6E (20110329)				
Reference No: 1103249-05	**Solid**	**Sampled:03/29/2011 09:00**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:00		% Asbestos EPA 600
Containers Supplied				
Sample ID: 8102(4)-10W (20110329)				
Reference No: 1103249-06	**Solid**	**Sampled:03/29/2011 09:10**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:10		% Asbestos EPA 600
Containers Supplied				

3-30-11

Relinquished By | Date | Received By | Date

Ref:
Dep:

Date: 30Mar11
Wgt: 33.2 LBS
DV: 0.00

SHIPPING: 73.37
SPECIAL: 8.07
HANDLING: 0.00
TOTAL: 81.44

By | Date

Svcs: PRIORITY OVERNIGHT
TRCK: 9754 9580 3792

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 522A-2NE (20110329)				
Reference No: 1103249-07	**Solid**	**Sampled:03/29/2011 09:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-4E (20110329)				
Reference No: 1103249-08	**Solid**	**Sampled:03/29/2011 09:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-6B (20110329)				
Reference No: 1103249-09	**Solid**	**Sampled:03/29/2011 09:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-10W (20110329)				
Reference No: 1103249-10	**Solid**	**Sampled:03/29/2011 09:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 412-1B (20110329)				
Reference No: 1103249-11	**Solid**	**Sampled:03/29/2011 10:00**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 413-3E (20110329)				
Reference No: 1103249-12	**Solid**	**Sampled:03/29/2011 10:10**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 413-7W (20110329)				
Reference No: 1103249-13	**Solid**	**Sampled:03/29/2011 10:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522-12E (20110329)				
Reference No: 1103249-14	**Solid**	**Sampled:03/29/2011 10:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:30		% Asbestos EPA 600
Containers Supplied:				

3-30-11

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 502-15B (20110329)				
Reference No: 1103249-15	**Solid**	**Sampled:03/29/2011 10:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 502-19W (20110329)				
Reference No: 1103249-16	**Solid**	**Sampled:03/29/2011 10:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:50		% Asbestos EPA 600
Containers Supplied:				

3-30-11

Released By	Date	Received By	Date
Released By	Date	Received By	Date

Sonya Gordon

From: customerservice@emlabpk.com
Sent: Thursday, March 31, 2011 2:04 PM
To: sgordon@empirlabs.com
Subject: Project confirmation: 1103249

EMLab P&K

Project confirmation notice

This email is a confirmation that we have received the following project:

Account		**Contact(s)**	
Empirical Laboratories, LLC		Ms. Sonya Gordon	
EMLab ID	**Project ID**	**Project Description**	**PO Number**
768454	1103249	Radford Army Ammunition Plant 2010	11-0366

Shipping Address	**Billing Address**
621 Mainstream Drive, Suite 270 Nashville, TN 37228 USA	621 Mainstream Drive, Suite 270 Nashville, TN 37228 USA

Sample Details -- total of 16 sample(s) received

Sample ID	Requested Service	Turnaround	Data Available On
411-2N (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
411-4B (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
411-7SW (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
8102(4)-2E (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
8102(4)-6E (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
8102(4)-10W (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
522A-2NE (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
522A-4E (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
522A-6B (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
522A-10W (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
412-1B (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
413-3E (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*

413-7W (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
522-12E (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
502-15B (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*
502-19W (20110329)	Asbestos-EPA Method 600/R-93/116	Standard	04/05/2011*

* An asterisk by the "Data Available On" date indicates that the date listed is our best estimate of when you will receive your results. Please contact us if you have specific requirements regarding the timing of your lab results. Furthermore, please contact us right away if you notice any inaccuracies associated with your project information.

Below is a link to the EMLab Quality and Customer Care Evaluation survey. Because we value your opinions, we would be very appreciative if you would take the time to complete the survey. Thank you very much for your time and consideration.

Customer Care Evaluation Survey

Did you know that EMLab offers analytical asbestos services? Click here for details.

Please feel free to contact us if you have any questions. You may also check the status of this project online using LabServe, our online laboratory information system: Project status.

EMLab P&K
Phone: (866) 871-1984
Web: www.emlab.com
EMLab P&K drop-off locations: Drop-off location listing
Check your project status online: LabServe
Fungal information: EMLab Fungi List

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Please consider the environment before printing this e-mail.

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 411-2N (20110329)				
Reference No: 1103249-01 **Solid**		**Sampled:03/29/2011 08:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 411-4B (20110329)				
Reference No: 1103249-02 **Solid**		**Sampled:03/29/2011 08:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 411-7SW (20110329)				
Reference No: 1103249-03 **Solid**		**Sampled:03/29/2011 08:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(4)-2E (20110329)				
Reference No: 1103249-04 **Solid**		**Sampled:03/29/2011 08:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(4)-6E (20110329)				
Reference No: 1103249-05 **Solid**		**Sampled:03/29/2011 09:00**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(4)-10W (20110329)				
Reference No: 1103249-06 **Solid**		**Sampled:03/29/2011 09:10**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:10		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 522A-2NE (20110329)				
Reference No: 1103249-07	**Solid**	**Sampled:03/29/2011 09:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-4E (20110329)				
Reference No: 1103249-08	**Solid**	**Sampled:03/29/2011 09:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-6B (20110329)				
Reference No: 1103249-09	**Solid**	**Sampled:03/29/2011 09:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-10W (20110329)				
Reference No: 1103249-10	**Solid**	**Sampled:03/29/2011 09:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 412-1B (20110329)				
Reference No: 1103249-11	**Solid**	**Sampled:03/29/2011 10:00**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 413-3E (20110329)				
Reference No: 1103249-12	**Solid**	**Sampled:03/29/2011 10:10**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 413-7W (20110329)				
Reference No: 1103249-13	**Solid**	**Sampled:03/29/2011 10:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522-12E (20110329)				
Reference No: 1103249-14	**Solid**	**Sampled:03/29/2011 10:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:30		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 502-15B (20110329)				
Reference No: 1103249-15	**Solid**	**Sampled: 03/29/2011 10:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 502-19W (20110329)				
Reference No: 1103249-16	**Solid**	**Sampled: 03/29/2011 10:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:50		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

WORK ORDER

1103249

Printed: 4/19/2011 1:49:07PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 04/04/2011 16:00 (3 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 03/30/2011 08:30
Date Logged In 03/30/2011 13:06

Samples Received at: **3.4°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	Yes		

Analysis	Due	TAT	Expires	Version	Comments
1103249-01 411-2N (20110329) [Solid] Sampled 03/29/2011 08:20 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 07:20		
SW6010B	04/04/2011 14:00	3	09/25/2011 07:20		Pb & Cu
1103249-02 411-4B (20110329) [Solid] Sampled 03/29/2011 08:30 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 07:30		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 07:30		
1103249-03 411-7SW (20110329) [Solid] Sampled 03/29/2011 08:40 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 07:40		
SW6010B	04/04/2011 14:00	3	09/25/2011 07:40		Pb & Cu

1103249

WORK ORDER

1103249

Printed: 4/19/2011 1:49:07PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103249-04 8102(4)-2E (20110329) [Solid] Sampled 03/29/2011 08:50 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 07:50		
SW6010B	04/04/2011 14:00	3	09/25/2011 07:50		Pb & Cu
1103249-05 8102(4)-6E (20110329) [Solid] Sampled 03/29/2011 09:00 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 08:00		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 08:00		
1103249-06 8102(4)-10W (20110329) [Solid] Sampled 03/29/2011 09:10 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 08:10		
SW6010B	04/04/2011 14:00	3	09/25/2011 08:10		Pb & Cu
1103249-07 522A-2NE (20110329) [Solid] Sampled 03/29/2011 09:20 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 08:20		
SW6010B	04/04/2011 14:00	3	09/25/2011 08:20		Pb & Cu
1103249-08 522A-4E (20110329) [Solid] Sampled 03/29/2011 09:30 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 08:30		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 08:30		
1103249-09 522A-6B (20110329) [Solid] Sampled 03/29/2011 09:40 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 08:40		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 08:40		
1103249-10 522A-10W (20110329) [Solid] Sampled 03/29/2011 09:50 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 08:50		
SW6010B	04/04/2011 14:00	3	09/25/2011 08:50		Pb & Cu

1103249

WORK ORDER

1103249

Printed: 4/19/2011 1:49:07PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1103249-11 412-1B (20110329) [Solid] Sampled 03/29/2011 10:00 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 09:00		
SW6010B	04/04/2011 14:00	3	09/25/2011 09:00		Pb & Cu
1103249-12 413-3E (20110329) [Solid] Sampled 03/29/2011 10:10 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 09:10		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 09:10		
1103249-13 413-7W (20110329) [Solid] Sampled 03/29/2011 10:20 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 09:20		
SW6010B	04/04/2011 14:00	3	09/25/2011 09:20		Pb & Cu
1103249-14 522-12E (20110329) [Solid] Sampled 03/29/2011 10:30 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 09:30		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 09:30		
1103249-15 502-15B (20110329) [Solid] Sampled 03/29/2011 10:40 Eastern					
SW6010B	04/04/2011 14:00	3	09/25/2011 09:40		Pb & Cu
SM2540B	04/04/2011 14:00	3	04/05/2011 09:40		
1103249-16 502-19W (20110329) [Solid] Sampled 03/29/2011 10:50 Eastern					
SM2540B	04/04/2011 14:00	3	04/05/2011 09:50		
SW6010B	04/04/2011 14:00	3	09/25/2011 09:50		Pb & Cu
EMLab P&K (SUB)					
1103249-01 411-2N (20110329) [Solid] Sampled 03/29/2011 08:20 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 07:20		% Asbestos EPA 600

1103249

WORK ORDER

1103249

Printed: 4/19/2011 1:49:07PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103249-02 411-4B (20110329) [Solid] Sampled 03/29/2011 08:30 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 07:30		% Asbestos EPA 600
1103249-03 411-7SW (20110329) [Solid] Sampled 03/29/2011 08:40 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 07:40		% Asbestos EPA 600
1103249-04 8102(4)-2E (20110329) [Solid] Sampled 03/29/2011 08:50 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 07:50		% Asbestos EPA 600
1103249-05 8102(4)-6E (20110329) [Solid] Sampled 03/29/2011 09:00 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 08:00		% Asbestos EPA 600
1103249-06 8102(4)-10W (20110329) [Solid] Sampled 03/29/2011 09:10 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 08:10		% Asbestos EPA 600
1103249-07 522A-2NE (20110329) [Solid] Sampled 03/29/2011 09:20 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 08:20		% Asbestos EPA 600
1103249-08 522A-4E (20110329) [Solid] Sampled 03/29/2011 09:30 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 08:30		% Asbestos EPA 600
1103249-09 522A-6B (20110329) [Solid] Sampled 03/29/2011 09:40 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 08:40		% Asbestos EPA 600
1103249-10 522A-10W (20110329) [Solid] Sampled 03/29/2011 09:50 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 08:50		% Asbestos EPA 600

1103249

WORK ORDER

1103249

Printed: 4/19/2011 1:49:07PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1103249-11 412-1B (20110329) [Solid] Sampled 03/29/2011 10:00 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 09:00		% Asbestos EPA 600
1103249-12 413-3E (20110329) [Solid] Sampled 03/29/2011 10:10 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 09:10		% Asbestos EPA 600
1103249-13 413-7W (20110329) [Solid] Sampled 03/29/2011 10:20 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 09:20		% Asbestos EPA 600
1103249-14 522-12E (20110329) [Solid] Sampled 03/29/2011 10:30 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 09:30		% Asbestos EPA 600
1103249-15 502-15B (20110329) [Solid] Sampled 03/29/2011 10:40 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 09:40		% Asbestos EPA 600
1103249-16 502-19W (20110329) [Solid] Sampled 03/29/2011 10:50 Eastern					
bAsbestos Lab SOP-S	04/04/2011 14:00	3	03/31/2011 09:50		% Asbestos EPA 600

1103249

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1103249
MATRIX: Soil

QC LEVEL: Level IV
Report Due: 4/4/2011
Client Sample Count: 16

Sample Type	Sampled	Received	Lab ID	Client ID	bAsbestos Lab SOP-S	SM2540B	SW6010B
Client Sample	3/29/2011	3/30/2011	1103249-01	411-2N (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-02	411-4B (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-03	411-7SW (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-04	8102(4)-2E (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-05	8102(4)-6E (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-06	8102(4)-10W (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-07	522A-2NE (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-08	522A-4E (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-09	522A-6B (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-10	522A-10W (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-11	412-1B (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-12	413-3E (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-13	413-7W (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-14	522-12E (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-15	502-15B (20110329)	X	X	X
Client Sample	3/29/2011	3/30/2011	1103249-16	502-19W (20110329)	X	X	X

Data for SW6010B Forms

ANALYSIS DATA SHEET

411-2N (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 08:20
% Solids: 74.96

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-01
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	53.1	1.01	2.52	1		SW6010B	1C31006	04/04/11 13:31
7439-92-1	Lead	42.3	0.378	0.755	1		SW6010B	1C31006	04/04/11 13:31

ANALYSIS DATA SHEET

411-4B (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 08:30
% Solids: 77.85

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-02
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	30.3	0.979	2.45	1		SW6010B	1C31006	04/04/11 13:36
7439-92-1	Lead	10.7	0.367	0.734	1		SW6010B	1C31006	04/04/11 13:36

ANALYSIS DATA SHEET

411-7SW (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 08:40
% Solids: 77.59

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-03
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	32.0	1.04	2.60	1		SW6010B	1C31006	04/04/11 13:40
7439-92-1	Lead	15.1	0.391	0.781	1		SW6010B	1C31006	04/04/11 13:40

ANALYSIS DATA SHEET

8102(4)-2E (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 08:50
% Solids: 76.48

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-04
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	111	1.04	2.59	1		SW6010B	1C31006	04/04/11 13:45
7439-92-1	Lead	35.7	0.388	0.777	1		SW6010B	1C31006	04/04/11 13:45

ANALYSIS DATA SHEET

8102(4)-6E (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 09:00
% Solids: 77.32

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-05
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	232	0.958	2.40	1		SW6010B	1C31006	04/04/11 13:49
7439-92-1	Lead	56.0	0.359	0.719	1		SW6010B	1C31006	04/04/11 13:49

ANALYSIS DATA SHEET

8102(4)-10W (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 09:10
% Solids: 75.64

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-06
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	262	1.05	2.62	1		SW6010B	1C31006	04/04/11 13:54
7439-92-1	Lead	116	0.393	0.785	1		SW6010B	1C31006	04/04/11 13:54

ANALYSIS DATA SHEET

522A-2NE (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 09:20
% Solids: 79.38

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-07
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	17.5	0.925	2.31	1		SW6010B	1C31006	04/04/11 13:59
7439-92-1	Lead	233	0.347	0.693	1		SW6010B	1C31006	04/04/11 13:59

ANALYSIS DATA SHEET

522A-4E (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 09:30
% Solids: 81.83

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-08
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	55.1	0.940	2.35	1		SW6010B	1C31006	04/04/11 14:03
7439-92-1	Lead	33.8	0.353	0.705	1		SW6010B	1C31006	04/04/11 14:03

ANALYSIS DATA SHEET

522A-6B (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 09:40
% Solids: 82.18

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-09
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	18.9	0.945	2.36	1		SW6010B	1C31006	04/04/11 14:08
7439-92-1	Lead	26.4	0.354	0.709	1		SW6010B	1C31006	04/04/11 14:08

ANALYSIS DATA SHEET

522A-10W (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 09:50
% Solids: 83.89

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-10
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	47.5	0.963	2.41	1		SW6010B	1C31006	04/04/11 14:12
7439-92-1	Lead	1540	0.361	0.722	1		SW6010B	1C31006	04/04/11 14:12

ANALYSIS DATA SHEET

412-1B (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 10:00
% Solids: 77.74

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-11
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	99.7	1.04	2.60	1		SW6010B	1C31006	04/04/11 14:29
7439-92-1	Lead	28.5	0.390	0.780	1		SW6010B	1C31006	04/04/11 14:29

ANALYSIS DATA SHEET

413-3E (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 10:10
% Solids: 78.88

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-12
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	31.2	0.975	2.44	1		SW6010B	1C31006	04/04/11 14:34
7439-92-1	Lead	12.2	0.366	0.731	1		SW6010B	1C31006	04/04/11 14:34

ANALYSIS DATA SHEET

413-7W (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 10:20
% Solids: 77.00

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-13
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	126	0.980	2.45	1		SW6010B	1C31006	04/04/11 14:39
7439-92-1	Lead	90.1	0.368	0.735	1		SW6010B	1C31006	04/04/11 14:39

ANALYSIS DATA SHEET

522-12E (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 10:30
% Solids: 79.41

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-14
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	22.1	0.969	2.42	1		SW6010B	1C31006	04/04/11 14:44
7439-92-1	Lead	22.0	0.363	0.726	1		SW6010B	1C31006	04/04/11 14:44

ANALYSIS DATA SHEET

502-15B (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 10:40
% Solids: 73.85

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-15
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	114	0.985	2.46	1		SW6010B	1C31006	04/04/11 14:48
7439-92-1	Lead	158	0.369	0.739	1		SW6010B	1C31006	04/04/11 14:48

ANALYSIS DATA SHEET

502-19W (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 03/29/11 10:50
% Solids: 74.17

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1103249-16
Received: 03/30/11 08:30

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	19.4	1.11	2.78	1		SW6010B	1C31006	04/04/11 14:53
7439-92-1	Lead	20.1	0.417	0.834	1		SW6010B	1C31006	04/04/11 14:53

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP
SDG: 1103249
Project: Radford Army Ammunition Plant2010
Calibration: 1094004
Sequence: 1D09416

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1D09416-ICV1	Copper	1000	993.9	99.4	ug/L	+/- 10.00%
	Lead	1000	923.1	92.3	ug/L	+/- 10.00%
1D09416-CCV1	Copper	1000	1010	101	ug/L	+/- 10.00%
	Lead	1000	942.5	94.2	ug/L	+/- 10.00%
1D09416-CCV2	Copper	1000	980.0	98.0	ug/L	+/- 10.00%
	Lead	1000	947.6	94.8	ug/L	+/- 10.00%
1D09416-CCV3	Copper	1000	961.5	96.2	ug/L	+/- 10.00%
	Lead	1000	943.2	94.3	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1103249

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1094004

Sequence: 1D09416

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1D09416-CRL2	Copper	8.000	7.428	92.9	ug/L	80 - 120
	Lead	3.000	2.467	82.2	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1D09416
Calibration: 1094004

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1D09416-ICB1	Copper	-0.2593	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.4942	1.50	3.00	ug/L	U	SW6010B
1D09416-CCB1	Copper	0.240	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.403	1.50	3.00	ug/L	U	SW6010B
1C31006-BLK1	Copper	0.0502	0.800	2.00	mg/Kg wet	U	SW6010B
	Lead	-0.0741	0.300	0.600	mg/Kg wet	U	SW6010B
1D09416-CCB2	Copper	0.201	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.0219	1.50	3.00	ug/L	U	SW6010B
1D09416-CCB3	Copper	-0.0994	4.00	10.0	ug/L	U	SW6010B
	Lead	0.149	1.50	3.00	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1094004
Sequence: 1D09416

Lab Sample ID	Analyte	True	Found	%R	Units
1D09416-IFA1	Aluminum	500000	494,570.00	98.9	ug/L
	Antimony		-0.99		ug/L
	Arsenic		-4.20		ug/L
	Barium		-0.84		ug/L
	Beryllium		0.02		ug/L
	Boron		36.84		ug/L
	Cadmium		-0.45		ug/L
	Calcium	500000	538,550.00	108	ug/L
	Chromium		-1.65		ug/L
	Cobalt		-1.57		ug/L
	Copper		-5.90		ug/L
	Iron	200000	211,690.00	106	ug/L
	Lead		9.87		ug/L
	Magnesium	500000	533,010.00	107	ug/L
	Manganese		4.34		ug/L
	Molybdenum		-0.18		ug/L
	Nickel		-1.25		ug/L
	Potassium		-0.33		ug/L
	Selenium		-3.63		ug/L
	Silver		-0.09		ug/L
	Sodium		88.49		ug/L
	Strontium		-6.42		ug/L
	Thallium		-0.05		ug/L
	Tin		-3.27		ug/L
	Titanium		-7.60		ug/L
	Vanadium		0.85		ug/L
	Zinc		5.79		ug/L
1D09416-IFB1	Aluminum	500000	474,970.00	95.0	ug/L
	Antimony	600.0	603.51	101	ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1094004
Sequence: 1D09416

Lab Sample ID	Analyte	True	Found	%R	Units
1D09416-IFB1	Arsenic	100.0	114.76	115	ug/L
	Barium	500.0	494.87	99.0	ug/L
	Beryllium	500.0	503.45	101	ug/L
	Boron		10.76		ug/L
	Cadmium	1000	1,039.70	104	ug/L
	Calcium	500000	498,260.00	99.7	ug/L
	Chromium	500.0	459.57	91.9	ug/L
	Cobalt	500.0	456.41	91.3	ug/L
	Copper	500.0	490.30	98.1	ug/L
	Iron	200000	199,000.00	99.5	ug/L
	Lead	50.00	54.27	109	ug/L
	Magnesium	500000	495,700.00	99.1	ug/L
	Manganese	500.0	473.54	94.7	ug/L
	Molybdenum		0.81		ug/L
	Nickel	1000	927.79	92.8	ug/L
	Potassium		8.35		ug/L
	Selenium	50.00	47.59	95.2	ug/L
	Silver	200.0	195.19	97.6	ug/L
	Sodium		61.47		ug/L
	Strontium		-5.92		ug/L
	Thallium	100.0	84.51	84.5	ug/L
	Tin		-3.30		ug/L
	Titanium		-6.46		ug/L
	Vanadium	500.0	451.93	90.4	ug/L
	Zinc	1000	958.06	95.8	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

502-19W (20110329)

Laboratory: Empirical Laboratories, LLC

Client: Arcadis (A285)

Matrix: Solid

Batch: 1C31006

% Solids: 74.17

SDG: 1103249

Project: Radford Army Ammunition Plant2010

Source Sample Name: **1103249-16**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Copper	68.79	19.39	87.95	99.7		80 - 120
Lead	68.79	20.11	83.48	92.1		80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Copper	68.09	96.41	113	9.18		20	80 - 120
Lead	68.09	85.46	96.0	2.34		20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

502-19W (20110329)

Laboratory: Empirical Laboratories, LLC

Client: Arcadis (A285)

Matrix: Solid

Batch: 1C31006

Preparation: MET_3050B

SDG: 1103249

Project: Radford Army Ammunition Plant2010

Laboratory ID: 1C31006-PS1

Lab Source ID: 1103249-16

Initial/Final: 0.97 g / 200 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Copper	323.5	69.77	250.0	102	80 - 120
Lead	314.9	72.35	250.0	97.0	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103249
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1C31006	Laboratory ID:	1C31006-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Copper	50.00	53.53	107	80 - 120
Lead	50.00	49.98	100	80 - 120

SERIAL DILUTION

SW6010B

502-19W (20110329)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sequence: 1D09416
Preparation: MET_3050B

SDG: 1103249
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1C31006-DUP1
Lab Source ID: 1103249-16
Initial/Final: 0.97 / 200

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Copper	69.765	71.55	2.56		SW6010B	10.00
Lead	72.354	73.3	1.31		SW6010B	10.00

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1103249

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Copper	0.800	2.00	mg/Kg	SW6010B
Lead	0.300	0.600	mg/Kg	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103249

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103249

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	B	Ba	Be	Cd
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103249

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Co	Cr	Cu	K	Mn
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103249

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Mo	Na	Ni	Pb	Sb
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103249

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1103249

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Copper	224.7	0.0000000				
Lead	220.3	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1103249

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Copper	15	10000	P
Lead	15	10000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1103249

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1C31006 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
411-2N (20110329)	1103249-01	03/31/11 08:06	1.06	200.00
411-4B (20110329)	1103249-02	03/31/11 08:06	1.05	200.00
411-7SW (20110329)	1103249-03	03/31/11 08:06	0.99	200.00
8102(4)-2E (20110329)	1103249-04	03/31/11 08:06	1.01	200.00
8102(4)-6E (20110329)	1103249-05	03/31/11 08:06	1.08	200.00
8102(4)-10W (20110329)	1103249-06	03/31/11 08:06	1.01	200.00
522A-2NE (20110329)	1103249-07	03/31/11 08:06	1.09	200.00
522A-4E (20110329)	1103249-08	03/31/11 08:06	1.04	200.00
522A-6B (20110329)	1103249-09	03/31/11 08:06	1.03	200.00
522A-10W (20110329)	1103249-10	03/31/11 08:06	0.99	200.00
412-1B (20110329)	1103249-11	03/31/11 08:06	0.99	200.00
413-3E (20110329)	1103249-12	03/31/11 08:06	1.04	200.00
413-7W (20110329)	1103249-13	03/31/11 08:06	1.06	200.00
522-12E (20110329)	1103249-14	03/31/11 08:06	1.04	200.00
502-15B (20110329)	1103249-15	03/31/11 08:06	1.10	200.00
502-19W (20110329)	1103249-16	03/31/11 08:06	0.97	200.00
Blank	1C31006-BLK1	03/31/11 08:06	1.00	200.00
LCS	1C31006-BS1	03/31/11 08:06	1.00	200.00
502-19W (20110329)	1C31006-DUP1	03/31/11 08:06	0.97	200.00
502-19W (20110329)	1C31006-MS1	03/31/11 08:06	0.98	200.00
502-19W (20110329)	1C31006-MSD1	03/31/11 08:06	0.99	200.00
502-19W (20110329)	1C31006-PS1	03/31/11 08:06	0.97	200.00

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D09416
Instrument: ME-ICP
Calibration: 1094004

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D09416-CAL1	040411A-011	04/04/11 11:03
Cal Standard	1D09416-CAL2	040411A-012	04/04/11 11:08
Cal Standard	1D09416-CAL3	040411A-013	04/04/11 11:13
Cal Standard	1D09416-CAL4	040411A-014	04/04/11 11:18
Cal Standard	1D09416-CAL5	040411A-015	04/04/11 11:24
Cal Standard	1D09416-CAL6	040411A-016	04/04/11 11:28
Cal Standard	1D09416-CAL7	040411A-017	04/04/11 11:34
Cal Standard	1D09416-CAL8	040411A-018	04/04/11 11:39
Initial Cal Check	1D09416-ICV1	040411B-001	04/04/11 12:10
Initial Cal Blank	1D09416-ICB1	040411B-002	04/04/11 12:18
Instrument RL Check	1D09416-CRL2	040411B-005	04/04/11 12:34
Interference Check A	1D09416-IFA1	040411B-008	04/04/11 12:51
Interference Check B	1D09416-IFB1	040411B-009	04/04/11 12:57
Calibration Check	1D09416-CCV1	040411C-001	04/04/11 13:08
Calibration Blank	1D09416-CCB1	040411C-002	04/04/11 13:16
Blank	1C31006-BLK1	040411C-003	04/04/11 13:21
LCS	1C31006-BS1	040411C-004	04/04/11 13:26
411-2N (20110329)	1103249-01	040411C-005	04/04/11 13:31
411-4B (20110329)	1103249-02	040411C-006	04/04/11 13:36
411-7SW (20110329)	1103249-03	040411C-007	04/04/11 13:40
8102(4)-2E (20110329)	1103249-04	040411C-008	04/04/11 13:45
8102(4)-6E (20110329)	1103249-05	040411C-009	04/04/11 13:49
8102(4)-10W (20110329)	1103249-06	040411C-010	04/04/11 13:54
522A-2NE (20110329)	1103249-07	040411C-011	04/04/11 13:59
522A-4E (20110329)	1103249-08	040411C-012	04/04/11 14:03
522A-6B (20110329)	1103249-09	040411C-013	04/04/11 14:08
522A-10W (20110329)	1103249-10	040411C-014	04/04/11 14:12
Calibration Check	1D09416-CCV2	040411C-015	04/04/11 14:17
Calibration Blank	1D09416-CCB2	040411C-016	04/04/11 14:25
412-1B (20110329)	1103249-11	040411C-017	04/04/11 14:29
413-3E (20110329)	1103249-12	040411C-018	04/04/11 14:34
413-7W (20110329)	1103249-13	040411C-019	04/04/11 14:39

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1103249
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D09416	Instrument:	ME-ICP
Calibration:	1094004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
522-12E (20110329)	1103249-14	040411C-020	04/04/11 14:44
502-15B (20110329)	1103249-15	040411C-021	04/04/11 14:48
502-19W (20110329)	1103249-16	040411C-022	04/04/11 14:53
502-19W (20110329)	1C31006-MS1	040411C-023	04/04/11 14:57
502-19W (20110329)	1C31006-MSD1	040411C-024	04/04/11 15:02
502-19W (20110329)	1C31006-PS1	040411C-025	04/04/11 15:06
502-19W (20110329)	1C31006-DUP1	040411C-026	04/04/11 15:12
Calibration Check	1D09416-CCV3	040411C-027	04/04/11 15:17
Calibration Blank	1D09416-CCB3	040411C-028	04/04/11 15:25

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1094004
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/4/11 11:03 4/4/11 11:39

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.8204E-05	10000	1.8697E-05			500000	1.85868E-05		
Antimony	0	0	100	0.0007383	1000	8.0052E-04					10000	8.0268E-04
Arsenic	0	0	100	0.0002776	1000	3.0446E-04					10000	2.9149E-04
Barium	0	0	50	0.0113832	1000	0.01108	5000	0.0111102				
Beryllium	0	0	100	0.0025008	1000	0.0024919					10000	0.0024355
Boron	0	0	50	0.0000144	1000	1.355E-05					5000	1.3128E-05
Cadmium	0	0	100	0.012361	1000	0.012771					10000	0.012191
Calcium	0	0	1100	3.858182E-05	50000	3.799E-05					10000	
Chromium	0	0	100	0.0000309	1000	2.966E-05					10000	3.0211E-05
Cobalt	0	0	100	0.0056049	1000	0.0057019					10000	0.0058578
Copper	0	0	100	0.0000836	1000	8.041001E-05					10000	7.8554E-05
Iron	0	0	5100	1.438628E-05	10000	1.4125E-05			500000	1.35618E-05	10000	
Lead	0	0	100	0.0012096	1000	0.0012157					10000	0.0012658
Magnesium	0	0	5100		50000	1.4454E-06			500000	1.56968E-06	10000	
Manganese	0	0	100	0.000203	1000	1.9576E-04	10000	1.8974E-04			10000	
Molybdenum	0	0	100	0.0037308	1000	0.0039006					10000	0.0040338
Nickel	0	0	100	0.0030836	1000	0.0031664					10000	0.0032019
Potassium	0	0	1000	8.22E-06	10000	9.765E-06						
Selenium	0	0	100	0.0003986	1000	4.1045E-04					10000	4.1698E-04
Silver	0	0	20	0.000048	500	0.0000455	2000	4.757E-05				
Sodium	0	0	1000		50000	4.5498E-05						
Strontium	0	0	100	0.001588	1000	0.001537					10000	0.001527
Thallium	0	0	100	0.0008184	1000	8.2105E-04					10000	8.2316E-04
Tin	0	0	50	0.001071	1000	0.001134					5000	0.001183
Titanium	0	0	100	0.0002011	1000	1.9585E-04					10000	2.0053E-04
Vanadium	0	0	100	0.0000384	1000	3.715E-05					10000	3.7813E-05
Zinc	0	0	100	0.0043065	1000	0.0045467					10000	0.0046715

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1094004
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/4/11 11:03 4/4/11 11:39

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	3.7976E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.51E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	9.9547E-06										
Selenium												
Silver												
Sodium	100000	4.3316E-05	500000	4.348E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1103249
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1094004
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/4/11 11:03 4/4/11 11:39

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.387195E-05	66.68406	5.967393	187.949	0.9999999		0.998	
Antimony	5.85375E-04	66.86144	4.455058	159.1701	0.9999998		0.998	
Arsenic	2.183875E-04	66.85556	14.80416	187.646	0.9999773		0.998	
Barium	8.39335E-03	66.68646	1.596395	164.8024	0.9999995		0.998	
Beryllium	1.85705E-03	66.68484	24.29094	198.8017	0.9999951		0.998	
Boron	1.02695E-05	66.86538	0.9290025	90.22716	0.9999681		0.998	
Cadmium	9.33075E-03	66.7177	51.48087	197.2258	0.9999778		0.998	
Calcium	2.863696E-05	66.67395	2.521785	160.0017	1		0.998	
Chromium	2.269275E-05	66.70413	12.86476	190.3809	0.9999962		0.998	
Cobalt	4.29115E-03	66.71086	1.302835	113.5219	0.9999935		0.998	
Copper	6.0641E-05	66.75518	0.83228	56.09206	0.9999963		0.998	
Iron	1.051827E-05	66.74685	8.007412	189.0189	0.9999995		0.998	
Lead	9.22775E-04	66.72248	5.99515	164.4198	0.9999853		0.998	
Magnesium	1.13127E-06	66.81744	29.89188	197.4414	0.9999236		0.998	
Manganese	1.47125E-04	66.76841	5.69566	181.0076	0.9999915		0.998	
Molybdenum	0.0029163	66.80212	1.451865	135.0529	0.9999904		0.998	
Nickel	2.362975E-03	66.69966	1.82511	128.3042	0.9999992		0.998	
Potassium	6.984925E-06	67.58813	1.197712	73.27703	0.9999997		0.998	
Selenium	3.065075E-04	66.71285	14.3199	191.0529	0.9999974		0.998	
Silver	3.52675E-05	66.73845	10.46907	185.213	0.9998643		0.998	
Sodium	3.30735E-05	66.73414	2.666173	107.3282	0.9999733		0.998	
Strontium	0.001163	66.70622	6.91215	186.6283	0.9999996		0.998	
Thallium	6.156525E-04	66.66742	10.99654	186.4828	1		0.998	
Tin	0.000847	66.88601	7.840965	181.6854	0.9999333		0.998	
Titanium	1.4937E-04	66.68526	3.717907	193.8387	0.9999943		0.998	
Vanadium	2.834075E-05	66.69101	1.28808	109.7987	0.9999964		0.998	
Zinc	3.381175E-03	66.81702	20.23642	193.6892	0.9999942		0.998	

Data for SW6010B
Supporting Raw Data / Logs

Sample Name: SEQ-CAL1 Acquired: 4/4/2011 11:03:20 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**-.00016**	**-.00053**	**.00149**	**-.00021**	**.00011**	**.00551**
Stddev	.00001	.00004	.00030	.00031	.00046	.00000	.00031
%RSD	39.535	22.787	56.466	20.512	215.33	2.0524	5.5417
#1	.00002	-.00014	-.00087	.00182	.00028	.00011	.00529
#2	.00003	-.00014	-.00032	.00121	-.00029	.00012	.00586
#3	.00004	-.00021	-.00040	.00145	-.00062	.00011	.00538

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**.00030**	**-.00008**	**.06850**	**.00461**	**.00001**	**.0000**
Stddev	.00003	.00003	.00017	.00054	.00016	.00000	.000
%RSD	96.727	8.5706	203.78	.79306	3.3949	49.601	53.01
#1	.00007	.00032	-.00005	.06878	.00474	.00000	.0000
#2	.00002	.00027	.00007	.06885	.00466	.00001	.0000
#3	.00001	.00030	-.00026	.06788	.00443	.00001	.0000

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00029**	**.00005**	**-.00141**	**.00000**	**.00002**	**.00455**	**.00134**
Stddev	.00000	.00002	.00003	.00000	.00000	.00020	.00009
%RSD	1.3970	30.710	2.3033	118.42	21.159	4.2908	6.9119
#1	.00029	.00006	-.00139	.00000	.00002	.00470	.00138
#2	.00029	.00003	-.00139	.00000	.00001	.00463	.00124
#3	.00028	.00006	-.00144	.00001	.00002	.00433	.00141

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00504**	**.00137**	**-.00224**	**.00114**	**-.00130**	**-.0002**	**.00013**
Stddev	.00027	.00028	.00034	.00063	.00038	.0001	.00002
%RSD	5.2699	20.767	15.076	55.353	29.201	26.26	14.528
#1	-.00500	.00168	-.00185	.00184	-.00101	-.0002	.00015
#2	-.00532	.00129	-.00245	.00098	-.00173	-.0003	.00011
#3	-.00479	.00113	-.00241	.00061	-.00116	-.0002	.00012

Sample Name: SEQ-CAL1 Acquired: 4/4/2011 11:03:20 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	-.00091	.00005	.00026
Stddev	.00038	.00000	.00020
%RSD	41.748	3.3436	79.028
#1	-.00086	.00005	.00002
#2	-.00131	.00005	.00034
#3	-.00056	.00005	.00040

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1426.2	652480.	96467.
Stddev	1.9	798.	319.
%RSD	.13338	.12228	.33061
#1	1425.7	652510.	96763.
#2	1428.3	651670.	96509.
#3	1424.6	653260.	96130.

Sample Name: SEQ-CAL2 Acquired: 4/4/2011 11:08:30 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00096**	**.09102**	.02776	**.03132**	**.01056**	**.00072**	**.56916**	**.25008**
Stddev	.00002	.00006	.00007	.00078	.00063	.00001	.00112	.00050
%RSD	1.7361	.06982	.24832	2.4856	5.9521	1.0743	.19621	.19855
#1	.00098	.09110	.02777	.03122	.01065	.00073	.56964	.25019
#2	.00095	.09098	.02783	.03059	.00989	.00072	.56996	.24954
#3	.00095	.09099	.02769	.03214	.01114	.00071	.56789	.25052

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04244**	**1.2361**	**.89106**	**.56049**	**.00309**	**.0002**	**.00836**	**.07337**
Stddev	.00013	.0039	.00306	.00092	.00003	.0000	.00008	.00034
%RSD	.31054	.31596	.34389	.16334	.95474	.7287	1.0034	.46625
#1	.04256	1.2406	.89458	.56151	.00312	.0002	.00845	.07375
#2	.04230	1.2333	.88900	.55975	.00308	.0002	.00835	.07308
#3	.04246	1.2345	.88961	.56021	.00307	.0002	.00828	.07329

Elem	K_7664	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00822**	**.02030**	**.37308**	**.30836**	**.12096**	**.07383**	**.03986**	**.05355**
Stddev	.00012	.00014	.00032	.00066	.00178	.00071	.00021	.00029
%RSD	1.4256	.68254	.08466	.21518	1.4707	.95765	.53787	.54969
#1	.00823	.02046	.37338	.30898	.12112	.07348	.03990	.05385
#2	.00809	.02026	.37275	.30843	.11910	.07464	.03963	.05326
#3	.00832	.02019	.37310	.30766	.12265	.07337	.04005	.05353

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1588**	**.02011**	**.08184**	**.00384**	**.43065**
Stddev	.0004	.00002	.00020	.00004	.00152
%RSD	.2291	.10804	.24934	1.0799	.35375
#1	.1588	.02010	.08171	.00388	.43240
#2	.1584	.02009	.08175	.00385	.42957
#3	.1591	.02013	.08208	.00380	.43000

Sample Name: SEQ-CAL2 Acquired: 4/4/2011 11:08:30 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1415.1	661370.	97317.
Stddev	2.3	5425.	242.
%RSD	.16320	.82025	.24881
#1	1412.4	656130.	97100.
#2	1416.1	661010.	97578.
#3	1416.7	666960.	97271.

Sample Name: SEQ-CAL3 Acquired: 4/4/2011 11:13:20 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02275	.18697	.30446	.32444	.11730	.01355	11.080	2.4919
Stddev	.00012	.00066	.00301	.00142	.00040	.00005	.035	.0004
%RSD	.54485	.35319	.98741	.43739	.33871	.39434	.31680	.01777
#1	.02289	.18626	.30669	.32442	.11772	.01360	11.096	2.4915
#2	.02272	.18706	.30104	.32303	.11694	.01353	11.040	2.4919
#3	.02264	.18757	.30564	.32586	.11723	.01350	11.104	2.4924

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8995	12.771	8.7753	5.7019	.02966	.0017	.08041	.14125
Stddev	.0115	.072	.0383	.0206	.00015	.0000	.00027	.00080
%RSD	.60473	.56761	.43620	.36100	.52140	.3592	.33225	.56947
#1	1.9128	12.805	8.7997	5.7092	.02973	.0017	.08067	.14215
#2	1.8933	12.688	8.7312	5.6787	.02977	.0017	.08041	.14061
#3	1.8925	12.821	8.7950	5.7179	.02948	.0017	.08014	.14098

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.09765	.07227	.19576	3.9006	2.2749	3.1664	1.2157	.80052
Stddev	.00078	.00016	.00077	.0080	.0181	.0163	.0058	.00338
%RSD	.80251	.22755	.39248	.20500	.79479	.51476	.47690	.42248
#1	.09674	.07245	.19626	3.9044	2.2541	3.1709	1.2196	.80374
#2	.09813	.07213	.19613	3.8915	2.2856	3.1484	1.2090	.79700
#3	.09807	.07222	.19487	3.9060	2.2851	3.1801	1.2185	.80081

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.41045	1.1340	1.537	.19585	.82105	.03715	4.5467
Stddev	.00078	.0037	.007	.00026	.00484	.00018	.0212
%RSD	.19093	.32847	.4553	.13359	.58912	.47811	.46553
#1	.41016	1.1373	1.529	.19555	.82368	.03723	4.5566
#2	.40986	1.1300	1.540	.19599	.81547	.03728	4.5224
#3	.41134	1.1348	1.542	.19602	.82400	.03695	4.5611

Sample Name: SEQ-CAL3 Acquired: 4/4/2011 11:13:20 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1281.4	642740.	97167.
Stddev	2.8	2581.	115.
%RSD	.22111	.40151	.11843
#1	1281.1	640510.	97101.
#2	1284.3	642140.	97300.
#3	1278.7	645570.	97101.

Sample Name: SEQ-CAL4 Acquired: 4/4/2011 11:18:29 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Ba2335	Mn2576
Units	Cts/S	Cts/S	Cts/S
Avg	.09514	55.551	1.8974
Stddev	.00006	.184	.0104
%RSD	.06033	.33087	.54862
#1	.09507	55.364	1.9090
#2	.09516	55.556	1.8940
#3	.09518	55.732	1.8890

Int. Std.	Sc1880	Sc3613
Units	Cts/S	Cts/S
Avg	1450.8	674500.
Stddev	3.6	879.
%RSD	.24638	.13028
#1	1454.9	673910.
#2	1449.2	674080.
#3	1448.4	675510.

Sample Name: SEQ-CAL5 Acquired: 4/4/2011 11:24:04 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Fe2611	Mg2790
Units	Cts/S	Cts/S	Cts/S
Avg	9.2934	6.7809	.78484
Stddev	.0613	.0193	.00257
%RSD	.65956	.28393	.32758
#1	9.2232	6.7671	.78287
#2	9.3363	6.7727	.78775
#3	9.3208	6.8029	.78389

Int. Std.	Sc3613-2
Units	Cts/S
Avg	93326.
Stddev	259.
%RSD	.27784
#1	93522.
#2	93032.
#3	93424.

Sample Name: SEQ-CAL6 Acquired: 4/4/2011 11:28:57 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	As1972	As2003	B_2496	Be3130	Cd2144	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.9149**	**3.2403**	1.1706	**.06564**	**24.355**	**121.91**	**81.869**	**58.578**
Stddev	.0442	.0423	.0156	.00013	.054	1.54	1.115	.757
%RSD	1.5149	1.3065	1.3287	.19497	.22043	1.2599	1.3619	1.2921
#1	2.9657	3.2884	1.1885	.06567	24.309	123.68	83.156	59.450
#2	2.8930	3.2089	1.1605	.06575	24.414	121.00	81.189	58.095
#3	2.8859	3.2234	1.1628	.06550	24.341	121.04	81.263	58.189

Elem	Cr2677	Cu2199	Cu3247	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.30211**	**.0173**	**.78554**	**40.338**	**32.019**	**12.658**	**8.0268**	**4.1698**
Stddev	.00115	.0000	.00469	.495	.416	.160	.1095	.0500
%RSD	.38188	.1947	.59647	1.2270	1.3006	1.2660	1.3641	1.1978
#1	.30329	.0173	.79004	40.900	32.499	12.842	8.1526	4.2263
#2	.30203	.0173	.78590	39.969	31.765	12.545	7.9530	4.1315
#3	.30099	.0173	.78069	40.144	31.792	12.588	7.9748	4.1515

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.9150**	**15.27**	**2.0053**	**8.2316**	**.37813**	**46.715**
Stddev	.0760	.11	.0021	.1152	.00095	.513
%RSD	1.2847	.7042	.10200	1.3997	.25071	1.0984
#1	6.0019	15.26	2.0064	8.3645	.37923	47.305
#2	5.8610	15.38	2.0030	8.1590	.37765	46.372
#3	5.8821	15.16	2.0066	8.1714	.37753	46.469

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1305.8	665180.	98812.
Stddev	16.9	435.	90.
%RSD	1.2942	.06536	.09097
#1	1286.5	664780	98764.
#2	1317.9	665640.	98916.
#3	1313.1	665110.	98756.

Sample Name: SEQ-CAL7 Acquired: 4/4/2011 11:34:16 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	.99547	4.3316
Stddev	.00258	.0498
%RSD	.25944	1.1485
#1	.99258	4.2882
#2	.99756	4.3859
#3	.99627	4.3208

Int. Std.	Sc3613-2
Units	Cts/S
Avg	98506.
Stddev	694.
%RSD	.70464
#1	99209.
#2	98488.
#3	97821.

Sample Name: SEQ-CAL8 Acquired: 4/4/2011 11:39:22 Type: Cal
Method: DuoEnviroMethodNEW(v2047) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca3179	Mg2790	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	18.988	.15100	21.740
Stddev	.114	.00089	.393
%RSD	.60127	.59241	1.8095
#1	19.105	.15156	21.993
#2	18.877	.14997	21.287
#3	18.982	.15147	21.940

Int. Std.	Sc3613-2
Units	Cts/S
Avg	91891.
Stddev	538.
%RSD	.58493
#1	91290.
#2	92325.
#3	92058.

Sample Name: SEQ-ICV Acquired: 4/4/2011 12:10:15 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0035

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.41**	**9581.4**	**1046.5**	**953.87**	**986.99**	F **1087.3**	**963.27**
Stddev	2.48	23.8	6.1	5.28	4.91	4.8	4.05
%RSD	.50073	.24799	.58100	.55359	.49758	.44075	.42047
#1	493.58	9578.5	1041.1	947.78	983.65	1085.1	959.34
#2	497.19	9606.4	1045.2	957.07	984.70	1092.8	963.05
#3	492.45	9559.2	1053.1	956.76	992.63	1084.0	967.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						1000.0	
Range						±50.000	

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1023.1**	F **52.943**	F **1059.6**	**1038.6**	F **943.72**	**983.78**	**967.3**
Stddev	2.6	.132	5.8	5.8	4.61	2.57	3.4
%RSD	.25331	.24890	.54463	.55469	.48814	.26165	.3540
#1	1020.1	52.865	1056.5	1034.1	940.96	982.28	965.0
#2	1024.1	52.869	1056.0	1036.6	941.16	986.75	971.2
#3	1025.0	53.095	1066.2	1045.1	949.04	982.30	965.6
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value		50.000	1000.0		1000.0		
Range		±2.5000	±50.000		±-50.000		

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**993.89**	F **10723.**	F **9.1576**	**48.314**	F **1050.2**	F **927.47**	**50.300**
Stddev	4.43	5.	.0214	.044	3.4	3.49	.224
%RSD	.44565	.04605	.23346	.09130	.32600	.37662	.44611
#1	992.90	10719.	9.1592	48.335	1048.6	924.21	50.086
#2	998.74	10721.	9.1781	48.264	1054.2	927.05	50.533
#3	990.05	10728.	9.1355	48.344	1048.0	931.16	50.280
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value		10000.	10.000		1000.0	1000.0	
Range		±500.00	±-.50000		±50.000	±-50.000	

Sample Name: SEQ-ICV Acquired: 4/4/2011 12:10:15 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0035

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**968.76**	F **923.13**	F **937.89**	F **915.19**	F **917.53**	**972.3**	**969.61**
Stddev	3.63	6.22	4.75	6.50	3.66	2.4	2.02
%RSD	.37484	.67331	.50682	.70997	.39853	.2460	.20842
#1	965.42	918.23	933.20	910.75	914.73	969.7	967.36
#2	968.23	921.04	937.75	912.17	916.20	974.4	970.17
#3	972.63	930.12	942.71	922.64	921.67	972.7	971.28
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value		1000.0	1000.0	1000.0	1000.0		
Range		±-50.000	±-50.000	±-50.000	±-50.000		

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **934.52**	**988.35**	**968.78**
Stddev	4.22	2.87	5.72
%RSD	.45201	.29025	.59015
#1	930.02	987.87	965.99
#2	938.41	991.43	965.00
#3	935.13	985.75	975.36
Check ?	Chk Fail	Chk Pass	Chk Pass
Value	1000.0		
Range	±-50.000		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1440.6	667090.	100450.
Stddev	4.4	3737.	98.
%RSD	.30333	.56013	.09766
#1	1445.2	668330.	100550.
#2	1440.0	662890.	100450.
#3	1436.5	670050.	100350.

Sample Name: SEQ-ICB Acquired: 4/4/2011 12:18:48 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.03844**	**-3.9935**	**.19152**	**-.07130**	**.83161**	**-1.3970**	**.12539**	**.03282**
Stddev	.12617	3.3040	.60187	1.3716	1.4807	.2111	.01913	.04680
%RSD	328.22	82.735	314.26	1923.8	178.05	15.109	15.256	142.58
#1	.18369	-4.9454	-.20734	-.85127	1.5894	-1.1687	.13899	.00015
#2	-.04388	-6.7169	.88383	1.5124	1.7800	-1.4372	.13368	.01188
#3	-.02449	-.31799	-.10194	-.87507	-.87460	-1.5850	.10352	.08643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00296**	**.13930**	**-.46744**	**.09602**	**-.24735**	**.3943**	**-.25928**	**-.67354**
Stddev	.00310	.10276	.06964	.03231	.03733	.8364	.08219	.39867
%RSD	104.40	73.767	14.897	33.647	15.091	212.2	31.699	59.191
#1	.00076	.20913	-.41727	.13161	-.20428	-.2875	-.30791	-1.0156
#2	.00163	.18746	-.54694	.06854	-.27026	.1427	-.16438	-.76925
#3	.00650	.02131	-.43811	.08790	-.26752	1.328	-.30554	-.23572
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**.03965**	**.00504**	**.04598**	**-.35969**	**.01409**	**.39140**	**-.49418**	**1.0125**
Stddev	.00402	.00420	.02755	.15049	.00225	.16901	.46704	.2471
%RSD	10.127	83.338	59.906	41.839	15.974	43.180	94.508	24.405
#1	.03553	.00020	.02827	-.22728	.01193	.50536	-.18037	.76322
#2	.03988	.00727	.03196	-.32843	.01390	.19722	-1.0309	1.2573
#3	.04355	.00767	.07772	-.52335	.01642	.47162	-.27126	1.0168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-ICB Acquired: 4/4/2011 12:18:48 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.93036**	**.52010**	**-.0208**	**.11440**	**-.12839**	**.10076**	**.19755**
Stddev	1.8702	.13073	.0550	.08846	.51469	.27153	.06719
%RSD	201.01	25.136	263.6	77.326	400.88	269.47	34.011
#1	2.2302	.67099	-.0784	.08754	-.64975	.33847	.23013
#2	-1.2130	.44081	-.0153	.21319	-.11477	.15896	.24223
#3	1.7739	.44849	.0311	.04249	.37936	-.19514	.12028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1643.8	694790.	101090.
Stddev	3.5	2857.	291.
%RSD	.21046	.41117	.28777
#1	1644.3	697010.	100890.
#2	1647.0	691570.	101420.
#3	1640.1	695790.	100950.

Sample Name: SEQ-CRL Acquired: 4/4/2011 12:34:05 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.1253**	**100.61**	**5.2866**	F **4.7100**	**5.4885**	**-4.9898**	**9.3007**
Stddev	.2116	2.88	1.4351	.6461	3.5160	.2379	.0620
%RSD	9.9565	2.8594	27.146	13.717	64.061	4.7667	.66694
#1	2.3564	100.12	4.8080	3.9839	4.9015	-4.9508	9.3320
#2	1.9411	103.69	4.1519	4.9248	9.2609	-4.7739	9.2292
#3	2.0786	98.003	6.8999	5.2213	2.3029	-5.2447	9.3407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass
Value				6.0000			
Range				±-1.2000			

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.2020**	**2.2480**	**2.0744**	F **1.2668**	**8.8686**	**4.3160**	**8.133**
Stddev	.0167	.0064	.0284	.0747	.1100	.1476	.459
%RSD	.75754	.28578	1.3684	5.8953	1.2406	3.4205	5.646
#1	2.2201	2.2516	2.0754	1.3153	8.8619	4.3417	8.358
#2	2.1988	2.2406	2.0455	1.1808	8.7621	4.4490	7.605
#3	2.1872	2.2519	2.1022	1.3043	8.9818	4.1572	8.437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				2.0000			
Range				±-.40000			

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**7.4284**	**65.477**	**2.8247**	**2.9293**	**6.6998**	F **7.2568**	**3.0364**
Stddev	.0583	1.742	.0108	.0108	.0542	.1042	.0069
%RSD	.78552	2.6602	.38385	.36818	.80835	1.4356	.22761
#1	7.3988	67.455	2.8163	2.9413	6.6794	7.1393	3.0326
#2	7.3908	64.171	2.8370	2.9262	6.7612	7.2932	3.0444
#3	7.4956	64.805	2.8210	2.9204	6.6589	7.3379	3.0322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						10.000	
Range						±-2.0000	

Sample Name: SEQ-CRL Acquired: 4/4/2011 12:34:05 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.0413**	**2.4672**	**6.7275**	F **4.7840**	**17.461**	**6.057**	**10.282**
Stddev	.1054	.7463	.8283	.8523	.123	.008	.309
%RSD	1.7446	30.249	12.312	17.816	.70624	.1390	3.0005
#1	5.9206	1.8059	6.3387	5.4466	17.508	6.063	10.629
#2	6.1152	2.3193	7.6787	3.8225	17.554	6.061	10.182
#3	6.0880	3.2764	6.1650	5.0830	17.321	6.048	10.037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				6.0000			
Range				±-1.2000			

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**3.8579**	**10.310**	**9.1992**
Stddev	.3570	.114	.1000
%RSD	9.2537	1.1025	1.0869
#1	3.5862	10.298	9.1324
#2	3.7253	10.202	9.3142
#3	4.2623	10.429	9.1511
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1661.2	685980.	99780.
Stddev	4.1	1667.	141.
%RSD	.24926	.24307	.14101
#1	1664.7	685270.	99886.
#2	1656.6	684780.	99835.
#3	1662.2	687880.	99621.

Sample Name: SEQ-IFA Acquired: 4/4/2011 12:51:49 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.08968**	**494570.**	**-4.2031**	**1.7147**	**17.904**	**36.838**	**-.84025**
Stddev	.19047	1639.	4.2112	6.6259	6.388	.958	.12652
%RSD	212.40	.33136	100.19	386.42	35.678	2.5993	15.058
#1	.11836	492740.	-6.1390	.20122	24.676	35.897	-.90206
#2	-.13188	495890.	-7.0983	-4.0235	17.047	36.805	-.92398
#3	-.25550	495090.	.62790	8.9663	11.987	37.811	-.69470

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.02140**	**538.55**	**-.45468**	**-1.6901**	**-1.5687**	**-1.6522**	**-8.012**
Stddev	.01778	.61	.09524	.0994	.0536	.1384	.474
%RSD	83.082	.11338	20.947	5.8827	3.4153	8.3788	5.921
#1	.04114	539.03	-.44449	-1.6431	-1.6263	-1.5795	-8.310
#2	.00665	538.75	-.36494	-1.8043	-1.5595	-1.8119	-7.465
#3	.01641	537.86	-.55461	-1.6229	-1.5203	-1.5653	-8.261

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**-5.8954**	**211690.**	**-.00033**	**533.01**	**4.3447**	**-.17813**	**.08849**
Stddev	.1262	1075.	.01804	.31	.0534	.17603	.01148
%RSD	2.1398	.50796	5471.2	.05866	1.2299	98.821	12.968
#1	-6.0327	211180.	-.01970	532.72	4.3911	-.24559	.10015
#2	-5.7847	210960.	.01599	532.97	4.3567	.02165	.07721
#3	-5.8687	212920.	.00272	533.34	4.2863	-.31045	.08810

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-1.2516**	**9.8659**	**-.98630**	**-3.6251**	**-3.2650**	**-6.424**	**-7.6011**
Stddev	.2905	.7853	.87879	2.7862	1.5488	.053	.3123
%RSD	23.208	7.9596	89.099	76.858	47.437	.8231	4.1086
#1	-.92908	10.209	-1.0643	-.41271	-4.6308	-6.450	-7.3187
#2	-1.4926	10.421	-1.8235	-5.3836	-3.5821	-6.460	-7.9365
#3	-1.3330	8.9674	-.07110	-5.0790	-1.5822	-6.364	-7.5481

Sample Name: SEQ-IFA Acquired: 4/4/2011 12:51:49 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.05064**	**.85381**	**5.7926**
Stddev	1.2805	.16661	.1355
%RSD	2528.6	19.514	2.3388
#1	1.3632	.90186	5.7107
#2	-.38307	.66845	5.7182
#3	-1.1321	.99112	5.9490

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1196.8	602990.	92291.
Stddev	6.1	1501.	160.
%RSD	.50717	.24893	.17335
#1	1203.5	601310.	92397.
#2	1195.4	604180.	92369.
#3	1191.6	603490.	92107.

Sample Name: SEQ-IFB Acquired: 4/4/2011 12:57:41 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**195.19**	**474970.**	**114.76**	**98.516**	**104.03**	**10.761**	**494.87**
Stddev	.52	6640.	3.43	3.942	4.72	.525	6.56
%RSD	.26682	1.3981	2.9875	4.0011	4.5391	4.8762	1.3251
#1	195.54	467340.	110.80	100.19	108.79	10.243	487.93
#2	195.43	479390.	116.92	101.35	99.351	10.749	495.73
#3	194.59	478190.	116.55	94.014	103.94	11.292	500.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**503.45**	**498.26**	**1039.7**	**1115.2**	**456.41**	**459.57**	**442.9**
Stddev	.17	3.22	10.3	10.4	4.82	1.27	.6
%RSD	.03350	.64721	.99213	.92953	1.0558	.27647	.1297
#1	503.31	495.50	1028.1	1103.4	451.06	460.86	443.3
#2	503.41	497.49	1043.3	1119.4	457.75	459.52	442.2
#3	503.64	501.81	1047.8	1122.9	460.41	458.32	443.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**490.30**	**199000.**	**.00835**	**495.70**	**473.54**	**.81191**	**.06147**
Stddev	1.54	1763.	.01615	1.60	.69	.21500	.00431
%RSD	.31440	.88586	193.48	.32222	.14626	26.481	7.0118
#1	491.71	196960.	-.00711	494.33	474.33	.75715	.05870
#2	490.53	200050.	.02512	495.32	473.05	.62959	.06644
#3	488.65	199980.	.00704	497.45	473.23	1.0490	.05929
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	None
Value							
Range							

Sample Name: SEQ-IFB Acquired: 4/4/2011 12:57:41 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**927.79**	**54.268**	**603.51**	**47.586**	**-3.3011**	**-5.919**	**-6.4601**
Stddev	8.61	2.287	7.75	.641	.3532	.028	.2812
%RSD	.92795	4.2150	1.2844	1.3476	10.699	.4741	4.3529
#1	917.93	54.204	596.83	48.018	-3.6691	-5.898	-6.1579
#2	931.61	52.013	601.69	47.890	-3.2693	-5.908	-6.7141
#3	933.83	56.587	612.01	46.849	-2.9648	-5.951	-6.5084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**84.510**	**451.93**	**958.06**
Stddev	1.323	.59	11.42
%RSD	1.5654	.13108	1.1916
#1	84.153	452.42	945.71
#2	85.974	451.27	960.25
#3	83.401	452.10	968.23
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1206.8	629850.	97193.
Stddev	13.0	2228.	218.
%RSD	1.0756	.35374	.22400
#1	1221.5	627440.	97384.
#2	1201.8	630250.	97240.
#3	1196.9	631840.	96956.

Sample Name: SEQ-CCV Acquired: 4/4/2011 13:08:59 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0036

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**481.54**	**9456.3**	**1028.5**	**962.21**	**1001.4**	**1079.1**	**955.81**
Stddev	1.51	4.4	1.0	3.42	4.2	3.9	4.73
%RSD	.31269	.04681	.10202	.35579	.42429	.36444	.49513
#1	483.14	9452.2	1028.6	963.97	998.62	1081.9	953.77
#2	481.32	9455.5	1027.4	958.27	999.37	1080.9	952.44
#3	480.15	9461.0	1029.5	964.40	1006.3	1074.6	961.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	F **1111.4**	F **55.099**	**1071.8**	**1032.0**	**954.92**	**1095.4**	**1030.**
Stddev	4.0	.121	3.8	4.5	3.44	4.1	2.
%RSD	.35613	.21872	.35780	.43741	.36005	.37378	.2244
#1	1108.0	55.021	1068.1	1028.9	952.45	1099.8	1031.
#2	1115.8	55.238	1071.6	1030.0	953.46	1094.9	1027.
#3	1110.5	55.039	1075.8	1037.2	958.84	1091.7	1031.
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	1000.0	50.000					
Range	±100.00	±5.0000					

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1009.8**	**10400.**	**9.4945**	**50.391**	**1096.2**	**916.82**	**50.195**
Stddev	4.3	27.	.0238	.178	3.8	5.59	.027
%RSD	.42977	.25672	.25066	.35325	.34589	.60969	.05463
#1	1013.5	10430.	9.4835	50.257	1100.3	914.00	50.213
#2	1010.9	10394.	9.4782	50.593	1095.4	913.20	50.163
#3	1005.0	10378.	9.5218	50.322	1092.8	923.25	50.208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 4/4/2011 13:08:59 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0036

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**977.07**	**942.47**	**937.39**	**955.46**	**942.13**	**1016.**	**1008.7**
Stddev	2.37	5.43	4.29	3.29	4.56	2.	3.3
%RSD	.24257	.57654	.45803	.34402	.48430	.2456	.32470
#1	975.31	940.32	934.02	953.94	940.80	1013.	1006.3
#2	976.14	938.45	935.94	953.22	938.39	1018.	1012.4
#3	979.77	948.65	942.23	959.24	947.22	1016.	1007.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**964.70**	**1054.6**	**1002.8**
Stddev	5.61	3.0	6.3
%RSD	.58156	.28175	.63199
#1	960.30	1058.0	996.82
#2	962.79	1053.3	1002.1
#3	971.02	1052.5	1009.4
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1483.2	667550.	99450.
Stddev	5.4	1766.	297.
%RSD	.36646	.26452	.29851
#1	1486.0	665700.	99657.
#2	1486.6	667740.	99110.
#3	1476.9	669220.	99583.

Sample Name: SEQ-CCB Acquired: 4/4/2011 13:16:56 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.14311	-4.2926	-.64507	-1.4704	-.94482	-1.6120	.06863	.01359
Stddev	.39382	2.1144	.29015	.3311	1.2061	.1522	.03618	.02153
%RSD	275.18	49.257	44.980	22.517	127.65	9.4438	52.717	158.35
#1	.54681	-1.8804	-.34181	-1.5793	-2.1269	-1.4998	.03185	-.01009
#2	-.24002	-5.1724	-.92003	-1.7333	-.99137	-1.5510	.06986	.01889
#3	.12254	-5.8251	-.67338	-1.0986	.28387	-1.7853	.10418	.03198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.00341	.04050	-.40594	.00270	.00383	.5550	.23950	-.71053
Stddev	.00059	.05991	.08048	.09380	.15422	.3144	.09407	.87552
%RSD	17.363	147.94	19.825	3476.6	4028.4	56.66	39.278	123.22
#1	.00274	.09890	-.49501	.03513	-.17419	.5461	.19244	-1.5191
#2	.00365	.04340	-.33844	-.10301	.09673	.8737	.34782	.21927
#3	.00385	-.02081	-.38438	.07597	.08895	.2451	.17825	-.83171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	.07054	.00532	.00714	-.56324	.03952	-.08553	-.40277	.87720
Stddev	.00823	.00266	.02330	.02062	.02008	.11326	.36271	.35944
%RSD	11.674	50.052	326.31	3.6602	50.817	132.42	90.056	40.976
#1	.07852	.00597	-.01425	-.58254	.02349	-.02936	-.73783	1.1558
#2	.07103	.00759	.03198	-.54152	.06205	-.01133	-.01761	1.0043
#3	.06207	.00239	.00370	-.56564	.03302	-.21590	-.45286	.47148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/4/2011 13:16:56 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.0932**	**.47157**	**-.0381**	**.07795**	**.09518**	**.00953**	**.09591**
Stddev	.7585	.22078	.0280	.14654	.29480	.10247	.09512
%RSD	69.382	46.819	73.39	188.00	309.73	1075.6	99.170
#1	1.0837	.71132	-.0549	.23478	-.24512	-.07593	.00376
#2	1.8565	.27663	-.0536	-.05548	.25781	-.01861	.09025
#3	.33955	.42676	-.0058	.05454	.27284	.12312	.19374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1661.8	714460.	102660.
Stddev	6.7	1683.	54.
%RSD	.40467	.23550	.05277
#1	1667.9	715990.	102610.
#2	1663.0	712660.	102710.
#3	1654.6	714750.	102650.

Sample Name: 1C31006-BLK1 Acquired: 4/4/2011 13:21:38 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS033111A 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.09000**	**-1.3146**	**.02931**	**.80939**	**-.13440**	**-5.0667**	**.22678**
Stddev	.08870	1.8688	.62227	.79025	.15318	.2976	.03492
%RSD	98.557	142.16	2122.9	97.635	113.97	5.8731	15.397
#1	-.00378	.76376	-.36728	.45744	-.29873	-4.9603	.22366
#2	.10123	-2.8564	.74651	1.7145	.00441	-4.8369	.19353
#3	.17254	-1.8511	-.29129	.25625	-.10887	-5.4028	.26316
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**-.00383**	**.00557**	**.07242**	**-.15901**	**-.03384**	**1.0157**	**.5439**
Stddev	.01683	.00043	.01771	.05239	.11144	.1712	.2044
%RSD	439.37	**7.7926**	24.452	32.947	329.28	16.856	37.59
#1	-.02236	.00514	.05656	-.21439	.06898	1.0127	.6792
#2	.00035	.00601	.09152	-.15241	-.15225	1.1884	.3088
#3	.01051	.00557	.06918	-.11024	-.01826	.84604	.6439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**.25125**	**5.3407**	**.07328**	**.00418**	**.21072**	**-.56664**	**.03902**
Stddev	.08838	2.3905	.01172	.00671	.02287	.08105	.00686
%RSD	35.175	44.760	15.989	160.36	10.853	14.303	17.587
#1	.31900	7.2811	.08370	.00725	.19428	-.51843	.04681
#2	.15128	6.0706	.07555	.00881	.20106	-.52127	.03384
#3	.28345	2.6703	.06059	-.00351	.23684	-.66021	.03643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1C31006-BLK1 Acquired: 4/4/2011 13:21:38 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS033111A 1g->200ml

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.01439**	**-.37051**	**.22687**	**.64728**	F **12.889**	**.0294**	**.16004**
Stddev	.10358	.38351	1.3844	.79942	.392	.0253	.05312
%RSD	719.93	103.51	610.22	123.51	3.0415	86.00	33.194
#1	.02664	-.28563	.68603	1.5407	12.449	.0495	.12472
#2	-.13220	-.03655	1.3234	.40171	13.019	.0010	.13428
#3	.06240	-.78934	-1.3288	-.00056	13.200	.0375	.22114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					10.000		
Low Limit					-10.000		

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.12080**	**.00094**	**.55047**
Stddev	.55892	.13578	.10737
%RSD	462.69	14482.	19.506
#1	-.75406	.11081	.47262
#2	.08801	-.15087	.50583
#3	.30366	.04287	.67296
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1608.9	721310.	103900.
Stddev	10.7	3506.	234.
%RSD	.66647	.48605	.22553
#1	1613.3	717350.	104060.
#2	1616.7	722590.	104000.
#3	1596.7	724000.	103630.

Sample Name: 1C31006-BS1 Acquired: 4/4/2011 13:26:19 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS033111A 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**250.74**	**1993.5**	**250.82**	**240.76**	**244.71**	**1005.4**	**2030.1**
Stddev	3.47	27.0	2.89	3.17	1.08	12.1	23.2
%RSD	1.3826	1.3547	1.1519	1.3178	.44006	1.2004	1.1409
#1	254.52	1967.7	252.85	241.94	244.75	1019.0	2053.6
#2	249.98	1991.1	247.51	237.16	243.61	1001.3	2007.2
#3	247.71	2021.6	252.09	243.17	245.77	995.99	2029.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**55.405**	**5.5071**	**137.60**	**128.80**	**493.01**	**220.62**	**265.9**
Stddev	.829	.0721	1.55	1.64	5.56	2.07	4.5
%RSD	1.4966	1.3085	1.1262	1.2747	1.1274	.93632	1.696
#1	54.508	5.4281	139.09	130.35	498.24	222.94	271.1
#2	55.566	5.5240	136.00	127.08	487.17	218.96	262.8
#3	56.142	5.5693	137.70	128.95	493.62	219.97	263.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**267.66**	F **1167.1**	**5.0187**	**4.9672**	**571.22**	**957.44**	**5.1234**
Stddev	3.31	15.3	.0727	.0644	6.28	11.34	.0716
%RSD	1.2367	1.3102	1.4496	1.2965	1.0986	1.1839	1.3968
#1	271.32	1151.8	4.9509	4.8970	578.46	968.99	5.0503
#2	266.76	1167.2	5.0095	4.9813	567.82	946.33	5.1266
#3	264.89	1182.4	5.0956	5.0234	567.37	956.99	5.1933
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		1000.0					
Range		±150.00					

Sample Name: 1C31006-BS1 Acquired: 4/4/2011 13:26:19 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS033111A 1g->200ml

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.45**	**249.91**	**236.75**	**230.96**	**992.31**	**1038.**	**1035.7**
Stddev	5.04	2.91	2.81	2.57	12.79	18.	17.4
%RSD	.99214	1.1664	1.1863	1.1149	1.2886	1.701	1.6794
#1	513.00	252.31	239.28	233.49	1005.2	1020.	1017.2
#2	503.03	246.67	233.73	228.35	979.61	1040.	1038.1
#3	509.33	250.76	237.24	231.05	992.14	1055.	1051.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**244.27**	**530.06**	**518.39**
Stddev	2.72	5.63	5.96
%RSD	1.1122	1.0628	1.1506
#1	246.50	536.51	524.57
#2	241.24	526.13	512.67
#3	245.06	527.53	517.93
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1554.8	714830.	102880.
Stddev	17.6	8976.	1524.
%RSD	1.1289	1.2557	1.4817
#1	1537.9	704650.	104500.
#2	1573.0	718250.	102670.
#3	1553.5	721600.	101480.

Sample Name: 1103249-01 Acquired: 4/4/2011 13:31:43 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-2.2961**	**130960.**	**38.951**	**32.240**	**68.051**	**19.798**	**216.25**
Stddev	.2236	570.	2.278	1.446	2.076	.888	1.11
%RSD	9.7383	.43522	5.8483	4.4858	3.0500	4.4870	.51235
#1	-2.4373	130300.	37.051	33.838	65.984	18.781	214.98
#2	-2.4127	131280.	38.326	31.858	68.036	20.193	217.00
#3	-2.0383	131300.	41.476	31.022	70.135	20.420	216.77

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**10.483**	**2.7613**	**.34707**	**.02271**	**582.33**	**219.64**	**203.1**
Stddev	.007	.0086	.07433	.10674	4.25	.75	1.4
%RSD	.06948	.31209	21.417	470.05	.72952	.34112	.6938
#1	10.480	2.7581	.34566	-.05799	577.60	219.17	204.6
#2	10.491	2.7710	.42210	.14374	583.60	219.25	202.8
#3	10.478	2.7547	.27346	-.01762	585.81	220.50	201.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**211.10**	**202670.**	**14.875**	**24.026**	F **10244.**	**3.7228**	**.09651**
Stddev	.54	1269.	.109	.023	36.	.0525	.00487
%RSD	.25447	.62598	.73469	.09624	.35048	1.4109	5.0491
#1	210.99	201220.	14.749	24.003	10221.	3.7199	.10170
#2	210.62	203560.	14.947	24.049	10285.	3.7767	.09203
#3	211.68	203230.	14.930	24.025	10225.	3.6718	.09579

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**293.25**	**168.20**	**-.37542**	**2.2184**	**13.705**	**19.91**	**1426.6**
Stddev	1.78	1.05	.56710	.6852	.475	.09	3.7
%RSD	.60795	.62491	151.06	30.889	3.4678	.4330	.25641
#1	291.20	167.05	.20719	2.5221	13.354	19.81	1423.0
#2	294.16	169.11	-.40784	1.4338	13.515	19.98	1430.3
#3	294.40	168.45	-.92562	2.6993	14.246	19.93	1426.5

Sample Name: 1103249-01 Acquired: 4/4/2011 13:31:43 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **-7.0575**	**339.41**	**327.40**
Stddev	1.3856	.81	2.15
%RSD	19.632	.23864	.65638
#1	-7.9796	340.29	324.93
#2	-7.7289	339.24	328.42
#3	-5.4642	338.69	328.84
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1459.5	719780.	105310.
Stddev	6.5	1048.	127.
%RSD	.44661	.14562	.12043
#1	1467.1	718820.	105450.
#2	1455.6	719610.	105200.
#3	1456.0	720900.	105280.

Sample Name: 1103249-02 Acquired: 4/4/2011 13:36:25 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.84362**	**120490.**	**33.496**	**32.560**	**34.749**	**26.650**	**221.78**
Stddev	.04051	2462.	1.662	2.252	2.971	.829	1.56
%RSD	4.8017	2.0433	4.9605	6.9167	8.5493	3.1107	.70223
#1	-.84071	120590.	33.961	31.350	31.339	25.786	223.45
#2	-.88551	122900.	31.652	31.172	36.125	27.438	220.36
#3	-.80465	117980.	34.876	35.159	36.781	26.727	221.53

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**9.2878**	**3.2915**	**-.61697**	**.07755**	**74.724**	**194.45**	**123.3**
Stddev	.1983	.0690	.23011	.11957	.744	1.08	1.5
%RSD	2.1345	2.0950	37.297	154.19	.99570	.55353	1.240
#1	9.3105	3.2958	-.47393	.00503	75.308	194.15	123.8
#2	9.4738	3.3583	-.88241	.21556	73.887	195.64	124.5
#3	9.0792	3.2205	-.49456	.01205	74.979	193.55	121.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**123.95**	**181380.**	**16.656**	**26.415**	**1109.5**	**3.0655**	**.10904**
Stddev	.99	2583.	.312	.541	6.5	.1812	.01044
%RSD	.80022	1.4238	1.8724	2.0488	.58295	5.9103	9.5714
#1	123.82	181110.	16.622	26.411	1105.5	3.2383	.12080
#2	124.99	184090.	16.983	26.958	1117.0	3.0812	.10087
#3	123.02	178950.	16.362	25.876	1106.1	2.8769	.10545

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**121.78**	**43.887**	**-.44449**	**1.0360**	**12.183**	**16.89**	**1454.4**
Stddev	.33	1.551	.62135	1.1404	1.013	.35	29.7
%RSD	.27411	3.5337	139.79	110.08	8.3142	2.073	2.0417
#1	121.60	44.778	-.37754	1.7622	12.507	16.98	1456.6
#2	121.56	42.096	.14068	1.6242	11.048	17.19	1483.0
#3	122.16	44.786	-1.0966	-.27840	12.995	16.51	1423.7

Sample Name: 1103249-02 Acquired: 4/4/2011 13:36:25 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.9434**	**306.18**	**149.17**
Stddev	1.0630	2.36	1.09
%RSD	54.699	.76950	.73109
#1	-.79609	304.74	150.16
#2	-2.8950	308.90	148.00
#3	-2.1393	304.90	149.33
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1490.8	714230.	103910.
Stddev	8.4	4920.	1932.
%RSD	.56344	.68890	1.8593
#1	1481.9	716130.	103970.
#2	1498.6	708650.	101940.
#3	1491.9	717920.	105800.

Sample Name: 1103249-03 Acquired: 4/4/2011 13:40:58 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.68336**	**120650.**	**126.03**	**116.58**	**125.38**	**30.171**	**209.27**
Stddev	.13116	565.	2.13	3.02	2.76	.668	1.46
%RSD	19.194	.46822	1.6917	2.5905	2.2047	2.2152	.69653
#1	-.61275	120490.	123.57	113.10	128.37	30.823	208.24
#2	-.83470	121280.	127.24	118.47	124.85	29.487	208.62
#3	-.60262	120190.	127.29	118.17	122.91	30.202	210.93

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**8.4103**	**7.7642**	**-.83217**	**1.0427**	**84.817**	**272.03**	**119.7**
Stddev	.0223	.0446	.01494	.0711	.922	2.19	.3
%RSD	.26530	.57477	1.7953	6.8189	1.0874	.80349	.2890
#1	8.4155	7.8131	-.84260	1.0916	83.836	270.30	119.4
#2	8.4295	7.7258	-.83885	.96115	84.948	271.30	119.6
#3	8.3858	7.7538	-.81505	1.0754	85.666	274.48	120.1

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**122.86**	**166640.**	**16.481**	**25.798**	**1333.4**	**2.9199**	**.14365**
Stddev	1.03	759.	.103	.140	10.3	.1060	.00468
%RSD	.83948	.45543	.62526	.54339	.77015	3.6313	3.2574
#1	121.69	167410.	16.461	25.954	1322.8	3.0381	.14494
#2	123.25	165890.	16.593	25.682	1334.0	2.8885	.14754
#3	123.63	166630.	16.390	25.759	1343.3	2.8332	.13846

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**110.68**	**57.911**	**-.57915**	**2.0081**	**12.805**	**27.53**	**1339.8**
Stddev	.56	1.135	.85779	.8282	.610	.18	4.5
%RSD	.50510	1.9591	148.11	41.243	4.7602	.6537	.33559
#1	110.15	58.230	-.70678	2.2070	13.178	27.42	1341.0
#2	110.62	56.651	.33530	1.0986	12.102	27.74	1343.6
#3	111.26	58.851	-1.3660	2.7188	13.136	27.44	1334.8

Sample Name: 1103249-03 Acquired: 4/4/2011 13:40:58 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	-1.8176	287.83	177.18
Stddev	.7052	2.07	1.22
%RSD	38.799	.72050	.68724
#1	-2.5304	286.00	175.99
#2	-1.8022	287.40	177.12
#3	-1.1202	290.08	178.42
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1508.6	708180.	104240.
Stddev	8.7	5215.	234.
%RSD	.57355	.73641	.22469
#1	1515.5	712820.	103990.
#2	1511.3	709180.	104270.
#3	1498.9	702530.	104450.

Sample Name: 1103249-04 Acquired: 4/4/2011 13:45:25 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.32461**	**99578.**	**38.422**	**41.544**	**47.959**	**-1.1349**	**402.05**
Stddev	.05338	358.	1.739	2.465	5.340	.4020	2.26
%RSD	16.444	.35908	4.5259	5.9340	11.135	35.423	.56275
#1	.27328	99881.	40.258	42.597	41.796	-1.3941	399.77
#2	.32072	99670.	38.209	43.308	50.862	-.67180	402.08
#3	.37982	99184.	36.799	38.727	51.218	-1.3389	404.30

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.0865**	**10.690**	**-.50133**	**1.1810**	**9.8216**	**261.49**	**413.1**
Stddev	.0069	.028	.09147	.1171	.1578	4.48	5.3
%RSD	.22248	.25847	18.246	9.9178	1.6067	1.7116	1.287
#1	3.0826	10.659	-.58164	1.0950	9.9410	260.91	410.1
#2	3.0945	10.696	-.40176	1.1335	9.8811	257.34	410.0
#3	3.0826	10.713	-.52058	1.3144	9.6427	266.24	419.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**430.39**	**217390.**	**1.6611**	**3.7143**	**524.91**	**3.4232**	**.06878**
Stddev	6.82	1640.	.0287	.0136	8.79	.0454	.00392
%RSD	1.5851	.75426	1.7298	.36705	1.6742	1.3265	5.6960
#1	427.66	216770.	1.6909	3.7013	521.91	3.3716	.07109
#2	425.36	216140.	1.6590	3.7285	518.03	3.4411	.07099
#3	438.16	219240.	1.6335	3.7131	534.81	3.4570	.06425

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**50.162**	**137.77**	**.87669**	**1.3680**	**14.909**	**23.95**	**1261.1**
Stddev	.789	1.17	1.0334	1.8004	.265	.12	2.7
%RSD	1.5728	.84668	117.88	131.61	1.7801	.5003	.21570
#1	49.526	136.43	.32160	3.4298	14.747	24.04	1259.6
#2	49.915	138.57	2.0691	.10648	15.215	24.01	1264.2
#3	51.045	138.32	.23941	.56773	14.765	23.82	1259.4

Sample Name: 1103249-04 Acquired: 4/4/2011 13:45:25 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.60682**	**387.84**	**563.75**
Stddev	.81106	6.26	2.35
%RSD	133.66	1.6148	.41627
#1	1.2753	385.64	562.39
#2	-.29547	382.98	562.40
#3	.84065	394.91	566.46

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1503.8	694120.	102550.
Stddev	9.7	10280.	259.
%RSD	.64375	1.4811	.25303
#1	1514.1	697400.	102620.
#2	1502.6	702370.	102270.
#3	1494.8	682600.	102770.

Sample Name: 1103249-05 Acquired: 4/4/2011 13:49:58 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.60293**	**109330.**	**47.214**	**45.165**	**53.786**	**1.0509**	**537.97**
Stddev	.17478	391.	1.180	1.253	7.699	.3216	3.21
%RSD	28.989	.35764	2.5001	2.7753	14.314	30.599	.59726
#1	-.71673	108910.	46.040	45.561	48.647	1.2257	540.68
#2	-.69037	109410.	48.401	43.761	50.073	1.2472	534.42
#3	-.40168	109680.	47.201	46.172	62.637	.67981	538.79

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**4.1607**	**6.5960**	**-.94927**	**.60459**	**20.109**	**184.10**	**916.5**
Stddev	.0379	.0386	.09630	.17363	.339	1.72	4.4
%RSD	.91152	.58493	10.145	28.718	1.6833	.93189	.4806
#1	4.1703	6.6310	-.90252	.46291	20.492	184.53	921.5
#2	4.1928	6.6023	-1.0600	.79828	19.990	185.56	913.4
#3	4.1188	6.5546	-.88526	.55258	19.847	182.21	914.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**967.95**	**192180.**	**1.5427**	**5.1756**	**621.82**	**3.6832**	**.06465**
Stddev	2.33	520.	.0134	.0176	2.69	.1910	.00484
%RSD	.24058	.27060	.86856	.34020	.43263	5.1863	7.4859
#1	969.73	192640.	1.5279	5.1871	623.54	3.9032	.06549
#2	968.81	192290.	1.5540	5.1843	623.20	3.5601	.06902
#3	965.31	191610.	1.5461	5.1553	618.72	3.5863	.05945

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**69.178**	**233.95**	**.13872**	**.24226**	**13.783**	**28.70**	**988.08**
Stddev	.788	1.98	.94856	.15977	.380	.08	2.51
%RSD	1.1389	.84461	683.79	65.951	2.7594	.2715	.25403
#1	70.088	234.51	-.22958	.42529	13.447	28.66	989.12
#2	68.729	231.75	-.57045	.13066	13.707	28.79	989.90
#3	68.717	235.59	1.2162	.17084	14.196	28.65	985.21

Sample Name: 1103249-05 Acquired: 4/4/2011 13:49:58 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	-2.4685	329.63	826.96
Stddev	.3275	2.12	3.83
%RSD	13.266	.64370	.46366
#1	-2.0988	329.78	830.22
#2	-2.5845	331.68	822.73
#3	-2.7222	327.44	827.93
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1508.6	715560.	103680.
Stddev	4.8	2213.	237.
%RSD	.31772	.30921	.22885
#1	1504.8	713790.	103410.
#2	1514.0	714860.	103760.
#3	1507.0	718040.	103870.

Sample Name: 1103249-06 Acquired: 4/4/2011 13:54:34 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.23585**	**80376.**	**41.161**	**38.914**	**52.027**	**.70774**	**284.45**
Stddev	.21455	262.	2.331	.500	2.456	.52458	2.19
%RSD	90.969	.32605	5.6626	1.2844	4.7211	74.121	.76817
#1	-.34046	80124.	41.680	39.152	50.601	1.0290	283.05
#2	.01094	80647.	38.614	39.250	54.863	.99187	283.33
#3	-.37804	80358.	43.188	38.339	50.616	.10238	286.97

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**4.1430**	**19.810**	**-.21187**	**1.1501**	**25.860**	**151.67**	**970.5**
Stddev	.0319	.026	.10788	.0159	.215	.62	3.6
%RSD	.76958	.13103	50.920	1.3859	.83062	.40550	.3668
#1	4.1419	19.793	-.22402	1.1359	25.612	151.81	970.9
#2	4.1116	19.797	-.31316	1.1673	25.997	150.99	966.8
#3	4.1754	19.840	-.09842	1.1470	25.971	152.19	973.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1000.1**	**151030.**	**1.8688**	**13.114**	**1116.3**	**3.2496**	**.07122**
Stddev	1.4	338.	.0043	.029	3.1	.0296	.00435
%RSD	.13784	.22390	.23203	.22367	.27768	.91090	6.1125
#1	1001.4	151020.	1.8641	13.082	1117.7	3.2520	.06811
#2	1000.4	151370.	1.8726	13.140	1112.8	3.2189	.06935
#3	998.68	150690.	1.8697	13.119	1118.5	3.2780	.07619

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**64.506**	**443.28**	**-1.1281**	**.69990**	**30.761**	**29.59**	**752.81**
Stddev	.220	4.25	1.1723	2.5272	.467	.19	1.66
%RSD	.34084	.95912	103.91	361.08	1.5172	.6548	.22067
#1	64.338	440.04	.20421	2.6670	30.293	29.37	750.94
#2	64.423	441.72	-1.5873	-2.1503	31.226	29.74	753.38
#3	64.755	448.10	-2.0013	1.5830	30.764	29.66	754.12

Sample Name: 1103249-06 Acquired: 4/4/2011 13:54:34 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.6743**	**247.69**	**730.34**
Stddev	.2947	.85	7.12
%RSD	11.018	.34360	.97515
#1	-2.9626	247.77	724.15
#2	-2.3736	246.80	728.76
#3	-2.6866	248.50	738.12
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1505.9	698450.	102630.
Stddev	8.9	1801.	259.
%RSD	.59100	.25788	.25222
#1	1512.4	697400.	102890.
#2	1509.6	700530.	102610.
#3	1495.8	697410.	102380.

Sample Name: 1103249-07 Acquired: 4/4/2011 13:59:00 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.83532**	**52100.**	**20.945**	**18.659**	**26.964**	**.14288**	**518.74**
Stddev	.05688	50.	1.752	1.105	1.601	.18090	1.93
%RSD	6.8096	.09522	8.3671	5.9195	5.9385	126.61	.37138
#1	-.88048	52145.	19.529	19.702	26.399	.07885	516.63
#2	-.77143	52108.	20.401	18.773	28.771	.00269	519.19
#3	-.85403	52046.	22.905	17.501	25.722	.34708	520.40

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.0271**	**5.6879**	**5.3896**	**5.5007**	**25.092**	**86.162**	**75.77**
Stddev	.0072	.0173	.0588	.0682	.147	.393	.40
%RSD	.23645	.30442	1.0915	1.2401	.58691	.45614	.5340
#1	3.0292	5.6865	5.3434	5.4925	24.965	86.614	75.31
#2	3.0191	5.6713	5.3696	5.4370	25.058	85.965	76.07
#3	3.0329	5.7059	5.4558	5.5727	25.253	85.905	75.92

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**75.606**	**89851.**	**1.3807**	**2.6063**	**1922.5**	**1.8007**	**.07738**
Stddev	.148	434.	.0122	.0196	2.2	.1031	.01518
%RSD	.19622	.48300	.88200	.75191	.11642	5.7237	19.622
#1	75.509	89842.	1.3934	2.5856	1921.1	1.7043	.07285
#2	75.777	89422.	1.3793	2.6246	1925.1	1.7885	.06498
#3	75.532	90290.	1.3692	2.6088	1921.3	1.9093	.09431

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**33.259**	**1008.5**	**-1.1781**	**.19963**	**128.38**	**20.93**	**574.23**
Stddev	.137	2.7	.8426	1.1126	.87	.03	.73
%RSD	.41098	.27016	71.522	557.35	.67464	.1540	.12630
#1	33.194	1005.5	-1.6698	-1.0584	127.39	20.94	573.43
#2	33.167	1009.1	-.20516	.60266	128.76	20.95	574.84
#3	33.416	1010.8	-1.6594	1.0546	129.00	20.89	574.42

Sample Name: 1103249-07 Acquired: 4/4/2011 13:59:00 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **-3.7148**	**161.95**	**559.34**
Stddev	.5382	.42	2.37
%RSD	14.488	.25755	.42329
#1	-3.9771	161.48	556.62
#2	-4.0717	162.28	560.45
#3	-3.0958	162.10	560.96
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1532.9	711530.	102480.
Stddev	5.1	3412.	222.
%RSD	.33318	.47952	.21674
#1	1536.2	709900.	102710.
#2	1535.5	709240.	102450.
#3	1527.0	715450.	102270.

Sample Name: 1103249-08 Acquired: 4/4/2011 14:03:30 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.54861**	**45562.**	**19.458**	**21.215**	**22.296**	**.65518**	**429.29**	**2.2119**
Stddev	.22887	219.	2.075	.635	2.566	.23182	2.33	.0180
%RSD	41.718	.48084	10.661	2.9913	11.510	35.382	.54335	.81154
#1	-.79656	45649.	21.702	21.944	21.128	.82718	426.66	2.2226
#2	-.34543	45725.	17.609	20.913	25.239	.39155	430.10	2.2219
#3	-.50385	45313.	19.063	20.787	20.522	.74681	431.10	2.1912

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.6634**	**1.0353**	**1.1846**	**22.464**	**74.828**	**253.3**	**234.59**	**76017.**
Stddev	.0324	.0609	.0531	.239	.564	.5	1.87	710.
%RSD	.88384	5.8858	4.4805	1.0618	.75325	.1839	.79594	.93374
#1	3.6801	.98522	1.1690	22.540	75.446	253.5	236.60	76515.
#2	3.6840	1.0176	1.1410	22.197	74.341	252.7	232.90	76331.
#3	3.6261	1.1032	1.2437	22.655	74.698	253.5	234.29	75204.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**1.1991**	**3.0712**	**1716.2**	**2.1277**	**.06865**	**26.154**	**143.80**	**.65794**
Stddev	.0139	.0170	6.2	.0776	.00513	.223	1.45	.80363
%RSD	1.1562	.55243	.36297	3.6497	7.4701	.85343	1.0118	122.14
#1	1.2070	3.0762	1722.7	2.2066	.07406	26.410	142.54	1.5410
#2	1.1831	3.0851	1710.3	2.1250	.06802	26.051	143.47	.46322
#3	1.2072	3.0523	1715.6	2.0514	.06386	26.000	145.39	-.03044

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.3220**	**13.442**	**53.35**	**487.66**	**-2.0779**	**148.34**	**148.37**
Stddev	.1312	.079	.17	1.09	.7932	.90	.88
%RSD	9.9237	.58509	.3092	.22412	38.174	.60685	.59265
#1	1.2585	13.529	53.38	487.61	-2.9705	149.02	147.37
#2	1.4729	13.376	53.50	488.78	-1.8097	147.32	148.72
#3	1.2347	13.421	53.18	486.59	-1.4536	148.68	149.02

Sample Name: 1103249-08 Acquired: 4/4/2011 14:03:30 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1510.7	733190.	106200.
Stddev	6.2	4753.	396.
%RSD	.40715	.64830	.37323
#1	1516.6	728130.	105940.
#2	1511.1	737560.	106000.
#3	1504.3	733890.	106660.

Sample Name: 1103249-09 Acquired: 4/4/2011 14:08:01 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.69748**	**50096.**	**22.208**	**24.555**	**25.654**	**1.8193**	**275.35**	**2.3625**
Stddev	.35988	100.	.833	.550	4.460	.3861	.59	.0174
%RSD	51.597	.19984	3.7520	2.2406	17.383	21.222	.21454	.73659
#1	-1.0119	50015.	22.693	24.373	23.795	2.0048	275.85	2.3485
#2	-.77560	50208.	22.684	24.119	22.426	2.0777	274.70	2.3820
#3	-.30496	50065.	21.245	25.173	30.743	1.3755	275.51	2.3570

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.5372**	**.37197**	**.76972**	**19.630**	**86.476**	**86.88**	**79.811**	**87800.**
Stddev	.0176	.05411	.11760	.084	1.008	.37	.227	287.
%RSD	.49665	14.547	15.279	.42900	1.1654	.4207	.28406	.32728
#1	3.5434	.32252	.88911	19.556	85.963	86.94	79.700	87636.
#2	3.5508	.36360	.65398	19.613	85.827	87.20	79.662	88132.
#3	3.5174	.42977	.76606	19.722	87.637	86.48	80.072	87632.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**1.4399**	**2.7222**	**1114.8**	**2.8255**	**.07941**	**26.028**	111.71	**-.38902**
Stddev	.0131	.0129	6.2	.0907	.01573	.086	1.29	1.1576
%RSD	.90979	.47542	.55961	3.2104	19.805	.33135	1.1571	297.56
#1	1.4248	2.7320	1111.2	2.8768	.06810	26.030	113.08	-1.6400
#2	1.4469	2.7271	1111.3	2.8789	.07276	25.942	110.51	.64434
#3	1.4480	2.7075	1122.0	2.7207	.09737	26.114	111.55	-.17145

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.9504**	**11.022**	**37.89**	**536.60**	**-1.6828**	**174.76**	**76.350**
Stddev	.6364	.372	.13	1.83	.3591	1.57	.473
%RSD	21.570	3.3756	.3490	.34107	21.340	.89943	.61948
#1	2.6814	10.594	37.93	537.16	-1.5677	173.88	76.813
#2	2.4926	11.269	37.99	538.09	-2.0853	173.82	75.868
#3	3.6771	11.203	37.74	534.56	-1.3953	176.57	76.369

Sample Name: 1103249-09 Acquired: 4/4/2011 14:08:01 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1537.6	738460.	106890.
Stddev	2.7	3429.	190.
%RSD	.17500	.46436	.17744
#1	1537.2	740910.	107020.
#2	1540.4	739930.	106670.
#3	1535.1	734540.	106990.

Sample Name: 1103249-10 Acquired: 4/4/2011 14:12:30 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.6677**	**43494.**	**10.008**	**-.11717**	**15.282**	**.85038**	**403.72**	**2.4701**
Stddev	.0444	73.	1.208	.98704	3.726	.18191	.76	.0351
%RSD	.78343	.16763	12.067	842.43	24.382	21.392	.18833	1.4225
#1	5.6487	43418.	8.7695	-.94101	15.844	.73158	403.08	2.4305
#2	5.6359	43503.	11.182	-.38730	11.307	.75977	403.52	2.4821
#3	5.7184	43563.	10.072	.97681	18.695	1.0598	404.56	2.4976

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.8357**	**1.1072**	**1.3023**	**24.283**	**81.802**	**179.1**	**197.38**	**75754.**
Stddev	.0399	.0394	.0483	.032	.670	1.5	1.50	425.
%RSD	.50928	3.5617	3.7078	.12994	.81883	.8541	.75752	.56058
#1	7.8044	1.0913	1.2522	24.292	81.565	178.2	196.30	75337.
#2	7.8220	1.1521	1.3485	24.248	82.558	180.9	199.09	75740.
#3	7.8806	1.0782	1.3061	24.309	81.282	178.4	196.76	76186.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**1.5117**	**4.7138**	**1800.3**	**.76233**	**.06647**	**28.163**	**6404.2**	**.75322**
Stddev	.0161	.0120	12.8	.06080	.00645	.243	6.3	1.4668
%RSD	1.0642	.25506	.70845	7.9755	9.7093	.86354	.09854	194.74
#1	1.5176	4.7000	1793.0	.83017	.07303	27.918	6399.8	.82594
#2	1.5240	4.7214	1815.0	.74405	.06013	28.405	6401.4	2.1823
#3	1.4935	4.7202	1792.8	.71277	.06624	28.165	6411.4	-.74863

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.4645**	**3383.2**	**39.15**	**488.75**	**-2.4023**	**150.00**	**269.94**
Stddev	.7021	6.7	.02	1.84	.4061	1.03	.64
%RSD	47.941	.19731	.0555	.37564	16.905	.68890	.23675
#1	.66405	3377.0	39.18	487.32	-2.8147	149.20	269.29
#2	1.9761	3382.2	39.13	488.12	-2.3893	151.17	270.57
#3	1.7535	3390.2	39.15	490.82	-2.0028	149.64	269.96

Sample Name: 1103249-10 Acquired: 4/4/2011 14:12:30 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1552.7	731590.	105850.
Stddev	4.2	7055.	257.
%RSD	.26946	.96439	.24253
#1	1557.4	736250.	106100.
#2	1551.1	723470.	105860.
#3	1549.5	735050.	105580.

Sample Name: SEQ-CCV Acquired: 4/4/2011 14:17:59 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0036

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**485.56**	**9390.3**	**993.17**	**952.89**	**987.06**	**1044.6**	**970.88**	**1088.4**
Stddev	.53	19.6	7.75	6.00	4.02	5.8	2.75	3.2
%RSD	.10893	.20899	.78083	.62968	.40753	.55633	.28298	.29323
#1	485.34	9413.0	985.22	946.53	990.28	1041.7	968.61	1085.3
#2	485.18	9380.2	993.56	953.67	982.55	1040.7	970.09	1088.2
#3	486.16	9377.8	1000.7	958.46	988.36	1051.3	973.94	1091.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**54.600**	**1065.4**	**1014.2**	**952.43**	**1069.2**	**1023.**	**979.97**	**10431.**
Stddev	.229	4.1	3.8	2.65	3.5	3.	4.13	37.
%RSD	.41951	.38270	.37809	.27800	.33002	.3284	.42177	.35861
#1	54.342	1061.9	1011.9	949.96	1066.2	1026.	977.28	10395.
#2	54.679	1064.4	1012.1	952.11	1068.3	1020.	977.89	10470.
#3	54.779	1069.9	1018.7	955.22	1073.1	1025.	984.72	10427.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.4240**	**50.544**	**1090.8**	**931.67**	**48.398**	**962.92**	**947.56**	**929.92**
Stddev	.0351	.156	2.2	3.83	.167	3.71	4.29	4.10
%RSD	.37217	.30784	.20578	.41118	.34533	.38518	.45251	.44128
#1	9.4614	50.372	1089.8	928.83	48.575	958.97	945.15	925.68
#2	9.4186	50.674	1089.3	930.15	48.244	963.46	945.02	930.20
#3	9.3919	50.587	1093.4	936.03	48.375	966.33	952.51	933.87
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 4/4/2011 14:17:59 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0036

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**951.44**	**962.03**	**986.2**	**995.80**	**946.13**	**1034.6**	**1034.0**
Stddev	5.27	.95	1.2	1.58	4.82	3.0	1.1
%RSD	.55442	.09916	.1205	.15838	.50922	.28866	.10538
#1	949.27	961.39	986.2	995.06	941.78	1033.2	1033.0
#2	947.59	961.57	985.1	994.73	945.30	1032.6	1033.8
#3	957.45	963.13	987.5	997.61	951.31	1038.1	1035.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1514.9	694430.	101260.
Stddev	5.0	2072.	274.
%RSD	.32763	.29834	.27105
#1	1519.7	695500.	101560.
#2	1515.2	695750.	101030.
#3	1509.8	692040.	101210.

Sample Name: SEQ-CCB Acquired: 4/4/2011 14:25:16 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.33753**	**11.870**	**.22589**	**-.90069**	**.77006**	**-1.7031**	**.10556**	**.15822**
Stddev	.05557	7.491	1.6035	2.0159	3.1170	.2266	.07878	.04180
%RSD	16.463	63.109	709.84	223.81	404.78	13.307	74.627	26.418
#1	.27870	18.588	1.4041	-2.3782	-1.8443	-1.9396	.19563	.19505
#2	.38913	13.231	.87380	-1.7197	4.2196	-1.4878	.07150	.16683
#3	.34475	3.7921	-1.6002	1.3958	-.06520	-1.6819	.04955	.11279
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00951**	**.11903**	**-.36503**	**.19004**	**-.01074**	**.6140**	**.20132**	**24.053**
Stddev	.00249	.04214	.02466	.18601	.11095	.6820	.13601	4.553
%RSD	26.228	35.402	6.7547	97.879	1033.3	111.1	67.558	18.930
#1	.01238	.16757	-.34264	.33947	.08858	.4666	.33551	28.947
#2	.00825	.09175	-.36099	.24895	.00969	.0178	.06356	23.271
#3	.00789	.09778	-.39146	-.01829	-.13048	1.358	.20488	19.942
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**.06205**	**.01303**	**.29691**	**-.44136**	**.01637**	**-.03323**	**-.02192**	**.68240**
Stddev	.02238	.00740	.04394	.06241	.00285	.05585	.30232	1.1324
%RSD	36.070	56.779	14.798	14.140	17.422	168.06	1379.0	165.94
#1	.06964	.02087	.34534	-.38068	.01912	-.05176	.27530	-.06990
#2	.03686	.00618	.28581	-.43804	.01342	-.07745	-.01197	.13234
#3	.07964	.01203	.25960	-.50536	.01657	.02953	-.32910	1.9848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/4/2011 14:25:16 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.42339**	**.59220**	**.1171**	**.42555**	**-.07559**	**.21666**	**.14497**
Stddev	.30892	.23650	.0257	.13219	.26534	.19003	.03308
%RSD	72.963	39.936	21.95	31.063	351.02	87.708	22.821
#1	.50748	.69439	.1465	.57754	.00184	.11471	.18317
#2	.08113	.76043	.1055	.33739	.14242	.09936	.12621
#3	.68154	.32179	.0992	.36172	-.37104	.43591	.12552
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1671.6	706680.	103220.
Stddev	12.6	1120.	377.
%RSD	.75348	.15844	.36548
#1	1682.1	706430.	103620.
#2	1675.1	707900.	102870.
#3	1657.7	705700.	103180.

Sample Name: 1103249-11 Acquired: 4/4/2011 14:29:56 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADSI

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -1.1613	**105790.**	**58.628**	**56.533**	**65.769**	**10.286**	**218.48**
Stddev	.0761	1519.	1.912	1.781	5.702	.994	1.83
%RSD	6.5525	1.4356	3.2610	3.1511	8.6698	9.6621	.83906
#1	-1.1219	105930.	60.042	58.507	65.791	11.364	217.94
#2	-1.1129	107230.	56.453	56.046	71.460	9.4059	216.97
#3	-1.2490	104200.	59.388	55.045	60.056	10.088	220.52

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**7.5910**	**3.0584**	**1.1702**	**1.0483**	**397.39**	**248.18**	**392.5**
Stddev	.1121	.0464	.2786	.1485	3.27	6.09	9.7
%RSD	1.4766	1.5177	23.808	14.170	.82209	2.4554	2.459
#1	7.5999	3.0719	1.1637	1.1147	396.90	245.19	385.7
#2	7.6984	3.0966	.89482	1.1521	394.40	255.19	403.6
#3	7.4747	3.0068	1.4519	.87814	400.88	244.15	388.3

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**383.64**	**200290.**	**11.204**	**17.978**	**5195.3**	**3.5517**	**.10305**
Stddev	11.24	3343.	.133	.301	125.8	.0902	.00532
%RSD	2.9312	1.6691	1.1901	1.6744	2.4222	2.5402	5.1594
#1	377.41	199730.	11.223	18.033	5130.1	3.4890	.10736
#2	396.62	203880.	11.328	18.248	5340.3	3.6551	.10468
#3	376.88	197270.	11.063	17.653	5115.4	3.5109	.09711

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**94.215**	**109.59**	**.12198**	**1.5002**	**15.353**	**29.20**	**1385.2**
Stddev	.310	1.94	1.0127	1.1260	.365	.45	22.2
%RSD	.32929	1.7739	830.21	75.057	2.3773	1.536	1.5993
#1	94.375	108.99	-.11902	2.4748	15.544	29.30	1388.4
#2	93.858	108.01	1.2334	.26757	15.582	29.59	1405.5
#3	94.413	111.76	-.74845	1.7582	14.932	28.71	1361.6

Sample Name: 1103249-11 Acquired: 4/4/2011 14:29:56 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADSI

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **-4.2579**	**378.89**	**262.36**
Stddev	.9153	8.82	1.66
%RSD	21.496	2.3288	.63158
#1	-4.2308	374.70	261.40
#2	-5.1865	389.03	261.40
#3	-3.3565	372.95	264.27
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1458.0	706040.	104980.
Stddev	8.8	17932.	1421.
%RSD	.60343	2.5398	1.3534
#1	1457.1	717470.	104730.
#2	1467.2	685370.	103710.
#3	1449.7	715270.	106510.

Sample Name: 1103249-12 Acquired: 4/4/2011 14:34:40 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.88076**	**143020.**	**29.194**	**27.500**	**25.382**	**32.395**	**206.75**
Stddev	.06466	1783.	2.183	.979	2.283	.924	4.64
%RSD	7.3415	1.2464	7.4786	3.5595	8.9956	2.8520	2.2458
#1	-.91068	145030.	28.385	28.476	27.635	31.650	208.23
#2	-.92505	142420.	31.666	27.508	23.070	33.429	201.55
#3	-.80656	141620.	27.530	26.518	25.443	32.106	210.48

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**9.2157**	**2.6047**	**.82524**	**.71171**	**73.106**	**185.98**	**135.2**
Stddev	.0282	.0076	.40985	.08225	1.977	4.26	3.1
%RSD	.30616	.29082	49.665	11.557	2.7040	2.2922	2.280
#1	9.1925	2.5974	1.1555	.64332	73.869	185.21	135.9
#2	9.2471	2.6125	.36655	.80298	70.862	182.16	131.9
#3	9.2075	2.6042	.95366	.68883	74.588	190.58	137.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**128.14**	**181660.**	**18.660**	**27.588**	**1073.5**	**2.8245**	**.12365**
Stddev	2.86	2230.	.170	.137	24.2	.1476	.00190
%RSD	2.2342	1.2274	.91266	.49617	2.2553	5.2262	1.5365
#1	126.71	179210.	18.691	27.492	1067.4	2.8124	.12534
#2	126.27	183580.	18.813	27.744	1052.9	2.6833	.12159
#3	131.43	182180.	18.477	27.526	1100.1	2.9777	.12401

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**116.97**	**50.042**	**.54114**	**1.4767**	**13.918**	**19.00**	**1422.6**
Stddev	2.00	1.589	.72716	.2620	.471	.12	7.5
%RSD	1.7132	3.1760	134.38	17.742	3.3824	.6107	.53061
#1	116.91	49.375	-.22925	1.3729	13.437	18.92	1419.3
#2	115.00	48.895	1.2155	1.2825	14.378	19.13	1431.2
#3	119.00	51.857	.63712	1.7747	13.940	18.94	1417.3

Sample Name: 1103249-12 Acquired: 4/4/2011 14:34:40 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	-1.9162	334.71	166.94
Stddev	.4844	7.65	4.12
%RSD	25.282	2.2863	2.4690
#1	-2.4028	332.54	167.29
#2	-1.9118	328.37	162.66
#3	-1.4339	343.21	170.88
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1464.9	729670.	105190.
Stddev	27.9	16860.	478.
%RSD	1.9040	2.3106	.45465
#1	1454.8	734640.	105610.
#2	1496.4	743490.	104670.
#3	1443.5	710890.	105280.

Sample Name: 1103249-13 Acquired: 4/4/2011 14:39:48 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.97470**	**133550.**	**28.100**	**27.928**	**29.079**	**28.701**	**393.96**
Stddev	.13559	1539.	2.733	1.588	.923	1.336	4.37
%RSD	13.911	1.1527	9.7262	5.6877	3.1755	4.6559	1.1084
#1	-1.1296	131810.	31.061	28.578	28.863	27.241	393.65
#2	-.91707	134150.	25.673	29.088	28.283	28.997	389.75
#3	-.87744	134710.	27.568	26.117	30.091	29.864	398.47

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**10.372**	**12.405**	**13.129**	**12.203**	**95.049**	**192.99**	**526.9**
Stddev	.165	.145	.277	.102	1.029	1.16	2.5
%RSD	1.5932	1.1717	2.1063	.83309	1.0829	.60206	.4832
#1	10.189	12.247	13.371	12.244	95.310	191.66	524.4
#2	10.416	12.438	12.828	12.088	93.914	193.45	529.5
#3	10.510	12.532	13.189	12.279	95.922	193.84	526.7

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**516.17**	**185900.**	**15.930**	**31.527**	**1779.2**	**2.6396**	**.12925**
Stddev	4.66	4898.	.166	.331	11.3	.0839	.00596
%RSD	.90287	2.6346	1.0397	1.0486	.63613	3.1774	4.6129
#1	510.86	180540.	15.739	31.176	1767.4	2.6637	.12326
#2	519.60	187030.	16.024	31.574	1790.0	2.7088	.12930
#3	518.03	190140.	16.027	31.832	1780.2	2.5463	.13519

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**134.92**	**367.54**	**.41698**	**2.3951**	**39.252**	**44.17**	**1355.0**
Stddev	1.83	2.26	1.1001	.9374	1.006	.59	16.9
%RSD	1.3580	.61600	263.83	39.137	2.5627	1.328	1.2440
#1	133.69	368.31	-.72140	1.9382	38.330	43.53	1336.6
#2	134.04	364.99	1.4743	3.4733	39.101	44.30	1358.8
#3	137.02	369.32	.49803	1.7738	40.325	44.68	1369.6

Sample Name: 1103249-13 Acquired: 4/4/2011 14:39:48 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.5074**	**326.48**	**4983.6**
Stddev	1.0095	2.11	47.4
%RSD	40.261	.64758	.95069
#1	-2.4222	324.30	4982.9
#2	-1.5433	328.52	4936.6
#3	-3.5569	326.62	5031.3

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1455.6	733980.	107230.
Stddev	16.2	5687.	1141.
%RSD	1.1131	.77478	1.0644
#1	1458.5	740040.	108440.
#2	1470.1	728760.	107090.
#3	1438.1	733130.	106170.

Sample Name: 1103249-14 Acquired: 4/4/2011 14:44:22 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.78426**	**69754.**	**29.561**	**32.434**	**39.020**	**2.6804**	**327.82**
Stddev	.05424	161.	1.205	2.636	5.197	.5865	1.03
%RSD	6.9166	.23140	4.0769	8.1262	13.319	21.881	.31327
#1	-.84538	69781.	28.553	35.214	37.534	2.3996	327.48
#2	-.74185	69900.	30.896	29.972	44.798	3.3544	327.01
#3	-.76554	69581.	29.233	32.116	34.727	2.2870	328.97

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.5444**	**4.9125**	**-.16941**	**.58826**	**12.803**	**101.13**	**91.99**
Stddev	.0083	.0173	.06122	.03714	.215	.15	1.63
%RSD	.32788	.35217	36.137	6.3143	1.6819	.15103	1.773
#1	2.5532	4.8943	-.10494	.59702	12.598	101.08	92.50
#2	2.5433	4.9144	-.17654	.62025	12.784	101.30	93.29
#3	2.5367	4.9287	-.22675	.54752	13.027	101.00	90.16

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**91.294**	**126630.**	**1.4242**	**2.4280**	**2083.4**	**2.4806**	**.06146**
Stddev	.719	357.	.0216	.0218	13.8	.0296	.00505
%RSD	.78757	.28198	1.5138	.89826	.66283	1.1939	8.2170
#1	91.615	126230.	1.4476	2.4066	2090.6	2.5134	.05604
#2	91.797	126910.	1.4052	2.4273	2092.1	2.4724	.06230
#3	90.471	126750.	1.4199	2.4502	2067.5	2.4559	.06603

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**29.722**	**90.762**	**.50891**	**2.0364**	**11.361**	**40.06**	**641.74**
Stddev	.540	.787	.36090	1.0141	.156	.03	.70
%RSD	1.8174	.86750	70.917	49.799	1.3702	.0624	.10908
#1	29.706	89.973	.09250	1.3786	11.497	40.08	642.36
#2	29.190	91.548	.70277	3.2043	11.192	40.05	640.98
#3	30.270	90.766	.73144	1.5264	11.395	40.03	641.88

Sample Name: 1103249-14 Acquired: 4/4/2011 14:44:22 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.4056**	**233.23**	**158.22**
Stddev	.6007	.92	.18
%RSD	24.972	.39546	.11594
#1	-2.3122	233.85	158.42
#2	-1.8571	233.66	158.15
#3	-3.0476	232.17	158.08
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1529.1	723270.	104700.
Stddev	3.7	3249.	360.
%RSD	.24283	.44921	.34346
#1	1532.1	723390.	105090.
#2	1530.3	719960.	104640.
#3	1524.9	726450.	104380.

Sample Name: 1103249-15 Acquired: 4/4/2011 14:48:50 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.85970	104420.	51.883	48.575	56.860	4.0045	363.73
Stddev	.17545	224.	2.173	.730	2.309	.7339	3.47
%RSD	20.408	.21433	4.1892	1.5038	4.0610	18.326	.95378
#1	-1.0109	104550.	52.417	48.131	54.283	3.1854	365.92
#2	-.66731	104160.	49.492	49.418	58.740	4.2263	359.73
#3	-.90091	104550.	53.739	48.177	57.558	4.6019	365.53

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	4.7786	7.2462	.86709	2.0548	25.628	269.13	453.1
Stddev	.0255	.0452	.13405	.1016	.741	.14	3.1
%RSD	.53308	.62423	15.460	4.9426	2.8895	.05184	.6839
#1	4.7493	7.1940	1.0218	2.1179	25.997	269.10	455.2
#2	4.7958	7.2694	.78518	2.1089	24.776	269.01	454.5
#3	4.7906	7.2751	.79431	1.9377	26.113	269.28	449.5

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	462.90	186670.	2.9342	5.1172	749.16	5.4102	.08075
Stddev	2.20	1884.	.0112	.0230	2.99	.1418	.00290
%RSD	.47472	1.0091	.38194	.44917	.39888	2.6208	3.5973
#1	465.08	184530.	2.9441	5.0909	752.57	5.2721	.07754
#2	462.93	188080.	2.9363	5.1334	747.92	5.4030	.08153
#3	460.68	187400.	2.9220	5.1273	747.00	5.5554	.08319

Elem	Ni2316	~~Pb2203~~	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	91.032	643.17	-.70588	-.76336	14.593	31.41	947.58
Stddev	.778	5.14	.54862	.73863	.368	.07	2.63
%RSD	.85414	.79877	77.721	96.760	2.5217	.2185	.27758
#1	91.319	645.88	-.07383	-1.5939	14.798	31.33	944.54
#2	90.152	637.25	-1.0589	-.18011	14.812	31.46	949.17
#3	91.626	646.39	-.98490	-.51607	14.168	31.43	949.02

Sample Name: 1103249-15 Acquired: 4/4/2011 14:48:50 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **-3.3242**	**358.13**	**643.59**
Stddev	.6526	.34	7.19
%RSD	19.633	.09612	1.1174
#1	-2.9566	358.07	648.18
#2	-2.9382	357.81	635.31
#3	-4.0777	358.49	647.30
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1535.4	729480.	105830.
Stddev	14.3	2188.	334.
%RSD	.93279	.29994	.31575
#1	1528.6	727420.	106210.
#2	1551.8	729250.	105710.
#3	1525.7	731770.	105580.

Sample Name: 1103249-16 Acquired: 4/4/2011 14:53:22 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.71951**	**98887.**	**33.415**	**34.708**	**38.584**	**.98290**	**86.539**
Stddev	.16641	370.	2.244	1.478	4.104	.72170	.699
%RSD	23.128	.37446	6.7153	4.2591	10.637	73.425	.80797
#1	-.91116	98924.	31.933	33.106	38.984	.22128	85.792
#2	-.63565	99238.	32.315	34.998	34.295	1.6566	86.647
#3	-.61171	98500.	35.997	36.020	42.474	1.0708	87.178

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.0152**	**5.4505**	F **-1.5982**	**-.12409**	**11.780**	**163.46**	**67.00**
Stddev	.0117	.0181	.0516	.04399	.098	1.73	.47
%RSD	.38794	.33282	3.2279	35.449	.83597	1.0567	.7002
#1	3.0169	5.4639	-1.5668	-.08940	11.666	164.89	67.48
#2	3.0027	5.4298	-1.5700	-.10929	11.843	161.54	66.54
#3	3.0259	5.4577	-1.6578	-.17356	11.831	163.96	67.00

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**69.765**	**182440.**	**1.8425**	**3.4016**	**320.65**	**3.2860**	**.09186**
Stddev	.721	192.	.0150	.0109	3.37	.0371	.00439
%RSD	1.0339	.10510	.81161	.31922	1.0513	1.1295	4.7795
#1	69.965	182410.	1.8354	3.4141	322.52	3.2579	.09633
#2	68.965	182260.	1.8597	3.3962	316.76	3.2720	.09170
#3	70.365	182640.	1.8325	3.3946	322.68	3.3281	.08755

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**47.380**	**72.354**	**-.43433**	**.78773**	**12.048**	**44.39**	**942.72**
Stddev	.257	1.466	.95559	1.7036	.446	.22	3.08
%RSD	.54199	2.0259	220.01	216.26	3.6983	.4945	.32703
#1	47.086	71.653	-.96185	1.5839	12.137	44.22	942.37
#2	47.494	71.371	.66873	-1.1681	11.564	44.63	945.97
#3	47.560	74.039	-1.0099	1.9475	12.442	44.31	939.84

Sample Name: 1103249-16 Acquired: 4/4/2011 14:53:22 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.97523**	**336.77**	**84.423**
Stddev	.42701	3.53	.639
%RSD	43.785	1.0479	.75718
#1	-1.4547	339.15	83.696
#2	-.63590	332.72	84.672
#3	-.83509	338.44	84.900
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1539.2	720790.	104650.
Stddev	5.6	6455.	116.
%RSD	.36699	.89547	.11100
#1	1545.6	716730.	104750.
#2	1535.1	728230.	104670.
#3	1536.7	717410.	104520.

Sample Name: 1C31006-MS1 Acquired: 4/4/2011 14:57:59 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**234.28**	**133360.**	**287.88**	**261.50**	**280.69**	**894.76**	**2074.0**
Stddev	13.63	94.	3.03	3.82	3.69	45.81	28.7
%RSD	5.8197	.07066	1.0516	1.4611	1.3149	5.1201	1.3842
#1	237.92	133280.	291.09	265.33	284.86	907.36	2102.8
#2	245.72	133340.	285.07	257.69	277.86	932.96	2045.4
#3	219.19	133460.	287.49	261.47	279.34	843.97	2073.7

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**57.327**	**10.450**	**138.39**	**133.40**	**498.86**	**367.33**	**296.3**
Stddev	.148	.033	2.05	1.94	7.18	20.14	14.5
%RSD	.25792	.31176	1.4836	1.4566	1.4394	5.4837	4.896
#1	57.213	10.437	140.37	135.46	506.04	372.01	303.3
#2	57.494	10.487	136.27	131.59	491.67	384.72	305.9
#3	57.274	10.426	138.54	133.15	498.86	345.26	279.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**319.64**	**165190.**	**6.7121**	**8.6354**	**1107.7**	**798.30**	**5.1391**
Stddev	17.67	373.	.0392	.0419	63.9	10.62	.0158
%RSD	5.5276	.22578	.58366	.48472	5.7658	1.3303	.30736
#1	325.47	165310.	6.6999	8.6134	1125.1	809.12	5.1384
#2	333.66	165480.	6.6805	8.6837	1161.1	787.89	5.1236
#3	299.79	164770.	6.7559	8.6092	1037.0	797.91	5.1552

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**568.10**	**303.40**	**30.127**	**208.96**	**798.21**	**1036.**	**1589.5**
Stddev	6.77	4.96	2.352	1.90	11.59	2.	3.6
%RSD	1.1910	1.6354	7.8059	.90846	1.4516	.2348	.22371
#1	574.15	308.14	31.141	211.07	810.15	1033.	1586.0
#2	560.79	298.25	27.438	208.43	787.01	1038.	1593.1
#3	569.36	303.81	31.800	207.39	797.48	1036.	1589.3

Sample Name: 1C31006-MS1 Acquired: 4/4/2011 14:57:59 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**228.99**	**804.50**	**599.14**
Stddev	2.45	45.30	9.56
%RSD	1.0699	5.6303	1.5948
#1	230.95	816.32	607.80
#2	226.24	842.72	588.89
#3	229.78	754.47	600.73
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1493.8	732740.	103800.
Stddev	16.0	39576.	180.
%RSD	1.0738	5.4011	.17319
#1	1479.2	716230.	103970.
#2	1511.0	704090.	103610.
#3	1491.3	777900.	103820.

Sample Name: 1C31006-MSD1 Acquired: 4/4/2011 15:02:21 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**251.29**	**132430.**	**288.18**	**270.37**	**283.68**	**951.09**	**2142.9**
Stddev	7.80	279.	4.81	4.14	12.08	27.63	51.7
%RSD	3.1029	.21041	1.6680	1.5327	4.2572	2.9055	2.4148
#1	244.53	132640.	285.17	266.72	283.94	925.90	2111.9
#2	249.53	132530.	285.65	269.51	271.48	946.71	2114.1
#3	259.82	132110.	293.73	274.87	295.63	980.65	2202.6

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**59.042**	**10.781**	**141.57**	**136.37**	**512.67**	**422.93**	**329.4**
Stddev	.348	.085	3.14	3.04	11.44	12.46	11.2
%RSD	.58928	.78912	2.2163	2.2271	2.2312	2.9467	3.394
#1	58.956	10.779	139.77	134.86	506.44	411.35	320.1
#2	59.425	10.866	139.75	134.38	505.70	421.32	326.2
#3	58.745	10.696	145.19	139.86	525.87	436.12	341.8

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**353.96**	**174190.**	**6.7895**	**8.9026**	**892.28**	**829.71**	**5.2133**
Stddev	10.61	626.	.0188	.0451	27.23	21.15	.0049
%RSD	2.9971	.35962	.27685	.50611	3.0520	2.5484	.09362
#1	344.39	173530.	6.8051	8.9033	868.20	816.22	5.2154
#2	352.12	174280.	6.7686	8.9473	886.79	818.84	5.2167
#3	365.37	174770.	6.7949	8.8572	921.83	854.08	5.2077

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**586.00**	**313.74**	**28.390**	**210.28**	**863.06**	**1060.**	**1752.0**
Stddev	11.66	7.85	.519	3.85	20.21	5.	9.5
%RSD	1.9901	2.5023	1.8283	1.8306	2.3420	.4319	.54178
#1	578.74	308.51	28.447	208.56	851.85	1059.	1749.6
#2	579.80	309.93	27.845	207.60	850.94	1065.	1762.4
#3	599.45	322.76	28.878	214.69	886.40	1057.	1743.9

Sample Name: 1C31006-MSD1 Acquired: 4/4/2011 15:02:21 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**235.51**	**897.37**	**624.47**
Stddev	4.39	26.06	15.82
%RSD	1.8649	2.9045	2.5327
#1	232.44	873.58	614.66
#2	233.55	893.30	616.03
#3	240.54	925.23	642.71
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1468.3	685000.	104290.
Stddev	30.2	21644.	515.
%RSD	2.0565	3.1597	.49365
#1	1485.5	704210.	104310.
#2	1485.9	689250.	103760.
#3	1433.4	661550.	104790.

Sample Name: 1C31006-PS1 Acquired: 4/4/2011 15:06:50 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**243.25**	**101440.**	**285.53**	**282.80**	**283.77**	**3.1607**	**2113.2**
Stddev	1.69	130.	5.68	6.69	1.35	.7690	41.2
%RSD	.69663	.12837	1.9890	2.3640	.47423	24.329	1.9508
#1	245.18	101350.	280.97	276.11	284.45	2.8352	2083.2
#2	242.00	101590.	283.72	282.83	282.22	4.0389	2096.2
#3	242.57	101370.	291.89	289.48	284.64	2.6081	2160.2

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**56.571**	**10.694**	**137.46**	**131.90**	**499.16**	**380.50**	**321.6**
Stddev	.257	.058	2.80	2.28	8.80	3.03	.7
%RSD	.45446	.53963	2.0353	1.7285	1.7628	.79582	.2176
#1	56.514	10.672	135.51	130.12	493.07	383.96	322.2
#2	56.851	10.759	136.20	131.11	495.16	379.25	320.8
#3	56.347	10.650	140.67	134.47	509.25	378.31	321.9

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**323.52**	**177180.**	**6.6060**	**8.2448**	**876.98**	**5.0762**	**5.0473**
Stddev	2.70	1180.	.0140	.0355	5.99	.2161	.0190
%RSD	.83341	.66619	.21136	.43028	.68253	4.2573	.37711
#1	326.61	177420.	6.6209	8.2289	883.88	5.0919	5.0690
#2	322.34	178230.	6.5933	8.2854	873.25	5.2840	5.0331
#3	321.62	175900.	6.6038	8.2201	873.79	4.8527	5.0399

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**545.40**	**314.87**	**240.73**	**235.88**	**12.486**	**45.55**	**957.35**
Stddev	9.03	5.60	4.70	5.34	.251	.13	4.52
%RSD	1.6562	1.7788	1.9508	2.2629	2.0096	.2847	.47210
#1	539.25	310.57	238.00	232.15	12.286	45.56	956.17
#2	541.18	312.85	238.03	233.49	12.403	45.68	962.35
#3	555.77	321.21	246.15	241.99	12.768	45.42	953.54

Sample Name: 1C31006-PS1 Acquired: 4/4/2011 15:06:50 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**230.66**	**863.39**	**605.83**
Stddev	3.35	6.17	11.75
%RSD	1.4522	.71508	1.9399
#1	229.17	870.48	597.31
#2	228.31	860.50	600.95
#3	234.50	859.19	619.24

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1481.4	706720.	103860.
Stddev	21.1	4416.	432.
%RSD	1.4255	.62488	.41633
#1	1496.5	701670.	104000.
#2	1490.5	708610.	103370.
#3	1457.3	709870.	104200.

Sample Name: 1C31006-DUP1@5X Acquired: 4/4/2011 15:12:23 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.21394	19984.	6.8974	8.2591	7.1966	-3.4677	18.390	.61571
Stddev	.21704	56.	.7531	.5043	4.9557	.4619	.198	.01533
%RSD	101.45	.27885	10.918	6.1065	68.861	13.320	1.0752	2.4906
#1	.36437	20036.	7.2932	8.5088	12.821	-2.9549	18.608	.63299
#2	-.03487	19925.	7.3700	8.5898	5.2961	-3.8511	18.338	.61039
#3	.31232	19990.	6.0289	7.6786	3.4725	-3.5971	18.223	.60374

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.1018	-.07701	-.02426	2.4571	33.478	16.44	14.310	36888.
Stddev	.0082	.02294	.05457	.0285	.197	.25	.066	126.
%RSD	.74155	29.786	224.96	1.1588	.58763	1.522	.45975	.34114
#1	1.1112	-.05201	-.07701	2.4900	33.698	16.16	14.374	37025.
#2	1.0972	-.09708	.03197	2.4404	33.318	16.52	14.243	36777.
#3	1.0969	-.08195	-.02774	2.4409	33.419	16.64	14.313	36863.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	.41956	.70885	68.231	.42915	.02993	9.0499	14.660	.48563
Stddev	.01395	.00505	.230	.12601	.00254	.0948	.217	.93816
%RSD	3.3249	.71217	.33732	29.362	8.4759	1.0471	1.4774	193.19
#1	.41122	.71456	68.475	.57234	.02987	9.1592	14.511	1.1108
#2	.41180	.70698	68.200	.33519	.03249	8.9909	14.908	.93925
#3	.43567	.70500	68.017	.37991	.02742	8.9996	14.560	-.59313

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1.7087	2.9021	9.281	194.00	-.07947	70.313	17.772
Stddev	.6983	.2970	.059	.95	.05050	.193	.091
%RSD	40.865	10.233	.6310	.49117	63.553	.27412	.51078
#1	.95397	3.2430	9.336	195.10	-.03265	70.244	17.724
#2	2.3318	2.7640	9.220	193.38	-.07277	70.531	17.877
#3	1.8405	2.6994	9.288	193.53	-.13299	70.164	17.715

Sample Name: 1C31006-DUP1@5X Acquired: 4/4/2011 15:12:23 Type: Unk
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1603.2	729570.	104450.
Stddev	3.2	950.	553.
%RSD	.19806	.13021	.52961
#1	1604.3	728510.	103810.
#2	1605.6	729850.	104770.
#3	1599.6	730340.	104770.

Sample Name: SEQ-CCV Acquired: 4/4/2011 15:17:59 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0036

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**478.16**	**9450.3**	**990.47**	**948.91**	**980.10**	**1018.1**	**972.11**	**1061.6**
Stddev	2.93	31.7	17.75	23.67	24.01	10.7	27.69	3.9
%RSD	.61218	.33515	1.7918	2.4942	2.4499	1.0511	2.8486	.36944
#1	474.88	9472.4	1008.2	972.28	1004.6	1005.8	998.17	1062.3
#2	480.50	9464.5	990.46	949.51	979.08	1024.6	975.12	1065.2
#3	479.10	9414.0	972.73	924.95	956.62	1024.0	943.03	1057.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**53.409**	**1054.5**	**1013.8**	**949.96**	**1028.7**	**992.8**	**961.50**	**10404.**
Stddev	.220	24.8	25.7	25.47	13.9	5.5	7.37	26.
%RSD	.41206	2.3558	2.5358	2.6810	1.3491	.5555	.76614	.24670
#1	53.552	1078.9	1039.6	974.11	1013.2	989.6	953.45	10431.
#2	53.520	1055.2	1013.7	952.43	1033.0	999.2	967.91	10402.
#3	53.155	1029.2	988.16	923.35	1040.0	989.6	963.13	10380.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**9.5616**	**49.474**	**1058.0**	**933.67**	**48.575**	**958.94**	**943.25**	**934.40**
Stddev	.0335	.187	10.5	28.00	.172	22.89	25.94	25.25
%RSD	.35004	.37884	.98963	2.9993	.35365	2.3875	2.7501	2.7024
#1	9.6002	49.597	1046.3	959.68	48.682	981.40	967.89	960.09
#2	9.5415	49.566	1061.2	937.29	48.665	959.78	945.70	933.49
#3	9.5430	49.258	1066.4	904.03	48.376	935.64	916.18	909.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 4/4/2011 15:17:59 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0036

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	950.00	956.80	975.3	982.85	947.89	1000.1	1017.9
Stddev	26.93	27.96	4.0	4.00	22.81	10.5	29.7
%RSD	2.8348	2.9225	.4084	.40713	2.4069	1.0521	2.9186
#1	977.01	982.94	975.0	982.76	970.88	988.33	1045.8
#2	949.85	960.14	979.5	986.90	947.55	1003.2	1021.3
#3	923.15	927.31	971.5	978.90	925.25	1008.6	986.65
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1481.8	700420.	101500.
Stddev	37.5	6050.	334.
%RSD	2.5336	.86383	.32909
#1	1445.0	707380.	101250.
#2	1480.3	696370.	101370.
#3	1520.0	697520.	101880.

Sample Name: SEQ-CCB Acquired: 4/4/2011 15:25:16 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.19181**	**3.7144**	**.67461**	**.42136**	**.99831**	**-1.3824**	**.27282**	**.09157**
Stddev	.13676	6.2928	1.5975	.54769	4.4875	.2483	.06324	.04554
%RSD	71.298	169.41	236.80	129.98	449.51	17.962	23.180	49.733
#1	.29008	-1.1441	-1.1700	.80922	-2.8060	-1.4213	.19985	.03900
#2	.03562	1.4644	1.5903	.66003	5.9472	-1.6090	.31159	.11669
#3	.24973	10.823	1.6035	-.20517	-.14627	-1.1169	.30703	.11901
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00624**	**.16365**	**-.44519**	**.09610**	**.00698**	**.0895**	**-.09942**	**11.480**
Stddev	.00187	.03593	.02328	.06092	.05170	.4871	.01827	6.488
%RSD	29.935	21.958	5.2286	63.397	740.53	544.2	18.372	56.519
#1	.00434	.14958	-.42592	.03339	.05926	-.2647	-.12008	4.0600
#2	.00807	.20448	-.47105	.15507	-.04412	.6449	-.08542	14.291
#3	.00633	.13688	-.43860	.09984	.00581	-.1117	-.09275	16.088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**.05346**	**.01198**	**.09607**	**-.21883**	**.00885**	**.33082**	**.14866**	**.43213**
Stddev	.00575	.00658	.05478	.04485	.00169	.10202	.43061	.80115
%RSD	10.761	54.945	57.020	20.495	19.062	30.839	289.66	185.40
#1	.06010	.01861	.15305	-.24855	.00696	.28791	.59115	.06178
#2	.04994	.01190	.09137	-.16724	.01021	.25727	-.26899	1.3514
#3	.05034	.00544	.04379	-.24069	.00938	.44729	.12383	-.11685
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/4/2011 15:25:16 Type: QC
Method: DuoEnviroMethodNEW(v2050) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.13321	.34644	.0776	.21689	.62576	.19434	.17060
Stddev	.75855	.24251	.0831	.15170	.27271	.10908	.04351
%RSD	569.43	70.003	107.0	69.942	43.580	56.127	25.503
#1	.82330	.17036	-.0177	.04811	.55675	.12162	.14210
#2	.25533	.62305	.1349	.34187	.92635	.14165	.14901
#3	-.67899	.24590	.1156	.26069	.39420	.31976	.22068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1666.7	713360.	103320.
Stddev	3.1	182.	194.
%RSD	.18891	.02549	.18756
#1	1668.3	713180.	103540.
#2	1668.8	713360.	103160.
#3	1663.1	713550.	103270.

PREPARATION BENCH SHEET

1C31006

Empirical Laboratories, LLC

Printed: 4/19/2011 10:13:31AM

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Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Cont ID	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1103249-01	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.06	200					Pb & Cu
1103249-02	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.05	200					Pb & Cu
1103249-03	B	MET_ICP_6010B_FULL	03/31/2011 08:06	0.99	200					Pb & Cu
1103249-04	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.01	200					Pb & Cu
1103249-05	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.08	200					Pb & Cu
1103249-06	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.01	200					Pb & Cu
1103249-07	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.09	200					Pb & Cu
1103249-08	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.04	200					Pb & Cu
1103249-09	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.03	200					Pb & Cu
1103249-10	B	MET_ICP_6010B_FULL	03/31/2011 08:06	0.99	200					Pb & Cu
1103249-11	B	MET_ICP_6010B_FULL	03/31/2011 08:06	0.99	200					Pb & Cu
1103249-12	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.04	200					Pb & Cu
1103249-13	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.06	200					Pb & Cu
1103249-14	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.04	200					Pb & Cu
1103249-15	B	MET_ICP_6010B_FULL	03/31/2011 08:06	1.1	200					Pb & Cu
1103249-16	B	MET_ICP_6010B_FULL	03/31/2011 08:06	0.97	200					Pb & Cu
1C31006-BLK1		QC	03/31/2011 08:06	1	200					
1C31006-BS1		QC	03/31/2011 08:06	1	200	11C0110		200		
1C31006-DUP1		QC	03/31/2011 08:06	0.97	200		1103249-16			
1C31006-MS1		QC	03/31/2011 08:06	0.98	200	11C0110	1103249-16	200		
1C31006-MSD1		QC	03/31/2011 08:06	0.99	200	11C0110	1103249-16	200		
1C31006-PS1		QC	03/31/2011 08:06	0.97	200	11C0110	1103249-16	200		

1103249

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

PREPARATION BENCH SHEET

1C31006

Empirical Laboratories, LLC

Printed: 4/19/2011 10:13:31AM

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Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Cont ID	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

1103249

Subcontractor Data Package

EMLab P&K

Report for:

Ms. Sonya Gordon
Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: 1103249; Radford Army Ammunition Plant 2010
EML ID: 768454

Approved by:

Lab Director
Eric Ciotti

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 04-05-2011 and 04-05-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103249; Radford Army Ammunition Plant 2010

Date of Sampling: 03-29-2011
Date of Receipt: 03-31-2011
Date of Report: 04-05-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	16
Total Samples Analysed:	16
Total Samples with Layer Asbestos Content > 1%:	0

Location: 411-2N (20110329) Lab ID-Version‡: 3399281-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 411-4B (20110329) Lab ID-Version‡: 3399282-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 411-7SW (20110329) Lab ID-Version‡: 3399283-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 8102(4)-2E (20110329) Lab ID-Version‡: 3399284-1

Sample Layers	Asbestos Content
Multicolored Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 8102(4)-6E (20110329) Lab ID-Version‡: 3399285-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	2% Cellulose
Sample Composite Homogeneity:	Poor

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103249; Radford Army Ammunition Plant 2010

Date of Sampling: 03-29-2011
Date of Receipt: 03-31-2011
Date of Report: 04-05-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 8102(4)-10W (20110329) Lab ID-Version‡: 3399286-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 522A-2NE (20110329) Lab ID-Version‡: 3399287-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 522A-4E (20110329) Lab ID-Version‡: 3399288-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 522A-6B (20110329) Lab ID-Version‡: 3399289-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 522A-10W (20110329) Lab ID-Version‡: 3399290-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103249; Radford Army Ammunition Plant 2010

Date of Sampling: 03-29-2011
Date of Receipt: 03-31-2011
Date of Report: 04-05-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 412-1B (20110329) Lab ID-Version‡: 3399291-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 413-3E (20110329) Lab ID-Version‡: 3399292-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 413-7W (20110329) Lab ID-Version‡: 3399293-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile < 1% Crocidolite
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 522-12E (20110329) Lab ID-Version‡: 3399294-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

Location: 502-15B (20110329) Lab ID-Version‡: 3399295-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

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1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1103249; Radford Army Ammunition Plant 2010

Date of Sampling: 03-29-2011
Date of Receipt: 03-31-2011
Date of Report: 04-05-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 502-19W (20110329)

Lab ID-Version‡: 3399296-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Poor

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

000768454

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

email SGordon@empirlabs.com

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

P.O.#11-03616
Project: Radford Army Ammunition Plant 2010

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 411-2N (20110329)				
Reference No: 1103249-01	**Solid**	**Sampled:03/29/2011 08:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 411-4B (20110329)				
Reference No: 1103249-02	**Solid**	**Sampled:03/29/2011 08:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 411-7SW (20110329)				
Reference No: 1103249-03	**Solid**	**Sampled:03/29/2011 08:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(4)-2E (20110329)				
Reference No: 1103249-04	**Solid**	**Sampled:03/29/2011 08:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 07:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(4)-6E (20110329)				
Reference No: 1103249-05	**Solid**	**Sampled:03/29/2011 09:00**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(4)-10W (20110329)				
Reference No: 1103249-06	**Solid**	**Sampled:03/29/2011 09:10**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:10		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
	3-30-11	Brandon Perra	3/31/11 10:15am
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

000768454

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 522A-2NE (20110329)				
Reference No: 1103249-07	**Solid**	**Sampled:03/29/2011 09:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-4E (20110329)				
Reference No: 1103249-08	**Solid**	**Sampled:03/29/2011 09:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-6B (20110329)				
Reference No: 1103249-09	**Solid**	**Sampled:03/29/2011 09:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522A-10W (20110329)				
Reference No: 1103249-10	**Solid**	**Sampled:03/29/2011 09:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 08:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 412-1B (20110329)				
Reference No: 1103249-11	**Solid**	**Sampled:03/29/2011 10:00**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 413-3E (20110329)				
Reference No: 1103249-12	**Solid**	**Sampled:03/29/2011 10:10**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 413-7W (20110329)				
Reference No: 1103249-13	**Solid**	**Sampled:03/29/2011 10:20**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 522-12E (20110329)				
Reference No: 1103249-14	**Solid**	**Sampled:03/29/2011 10:30**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:30		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
	5-30-11	Daniel M Perez	3/31/11 10:15 am
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1103249

000768454

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 502-15B (20110329)				
Reference No: 1103249-15	**Solid**	**Sampled:03/29/2011 10:40**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:40		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 502-19W (20110329)				
Reference No: 1103249-16	**Solid**	**Sampled:03/29/2011 10:50**		
SUB_Asbestos Lab SOP	04/04/2011 14:00	03/31/2011 09:50		% Asbestos EPA 600
Containers Supplied:				

3-30-11

Released By | Date | Received By | Date

3/31/11 10:10am

Released By | Date | Received By | Date

ANALYTICAL DATA PACKAGE
SDG # 1104087

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
Fax (866)417-0548
Email: sgordon@empirlabs.com

Original Report Date: April 20, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 322

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. Samples were subcontracted to EMLab P&K for Asbestos by EPA 600/R-93/116.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW8082A:
No anomalies or deviations are noted.

SW6010B:
The matrix spike associated to sample 1104087-10 exceeded criteria with a negative bias for Copper.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

_____
Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name GP08RAAP.4IAA.KGIAA
Project Location NRU Dublin, Va (RAAP)
Laboratory Empirical Laboratories
Project Manager Chris Kalinowski
Sampler(s)/Affiliation W.K. Call / ARCADIS

#104087

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Lead/Copper (USEPA 6010)	% Asbestos TEM (USEPA 600/R-93/116)	Aroclor - 1254 CARB 335 (USEPA 8082B)				Remarks	Total
-01	8102(5)-3E(20110406)	SO	04.06.11 1650		1	1					2-Day Turn Around	2
-02	8102(5)-11W(20110406)		04.06.11 1700		1	1						2
-03	8102(6)-3E(20110406)		04.06.11 1710		1	1						2
-04	8102(6)-6E(20110406)		04.06.11 1720		1	1						2
-05	8102(6)-8W(20110406)		04.06.11 1730		1	1						2
-06	8102(7)-3E(20110406)		04.06.11 1740		1	1						2
-07	8102(7)-11W(20110406)		04.06.11 1750		1	1						2
-08	8102(8)-2E(20110406)		04.06.11 1800		1	1						2
-09	8102(8)-5E(20110406)		04.06.11 1810		1	1						2
-10	8102(8)-13W(20110406)		04.06.11 1820		1	1						2
-11	8101-5W(20110407)		04.07.11 1620				1					1
-12	8101-6N(20110407)		04.07.11 1630				1					
												22 (WKC)

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Total No. of Bottles/ Containers ~~22~~

Relinquished by: W. Kelly Call	Organization: ARCADIS	Date 04/07/11	Time _____	Seal Intact?		
Received by: FED EX 8757 0206 7057	Organization: _____	Date / /	Time _____	Yes	No	N/A
Relinquished by: _____	Organization: _____	Date 4/8/11	Time _____	Seal Intact?		
Received by: _____	Organization: Edgewood Lab	Date 4/8/11	Time 08:45	Yes	No	N/A

Special Instructions/Remarks: Please contact Chris Kalinowski w/ any Questions 919.656.7731

Delivery Method: ☐ In Person ☒ Common Carrier FED EX SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

8

1104087

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1104087 Number of Coolers: 1 of 1

Client: ARCADIS Project: GPOSRAAP.4IAA.KGIAA

Date/Time Received: 4.8.11 0845 Date cooler(s) opened: 4.8.11

Opened By (print): Reggie Talley (signature): Reggie Talley

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered
EL Courier Other: _____

If applicable, enter airbill number here: 7057

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 1 Seal date: 4.7.11 Seal Initials: ?

3. Were custody seals unbroken and intact at the date and time of arrival?	(Yes)	No	N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler?	(Yes)	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	(Yes)	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	(Yes)	No	N/A
7. Was project identifiable from custody papers?	(Yes)	No	N/A
8. If required, was enough ice present in the cooler(s)?	(Yes)	No	N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 4.0 °C Correction Factor: -0.3 °C Final Value: 3.7 °C

Dates samples were logged-in: 4-8-11

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____

10. Were all bottle lids intact and sealed tightly?	(Yes)	No	N/A
11. Did all bottles arrive unbroken?	(Yes)	No	N/A
12. Was all required bottle label information complete?	(Yes)	No	N/A
13. Did all bottle labels agree with custody papers?	(Yes)	No	N/A
14. Were correct containers used for the analyses indicated?	(Yes)	No	N/A
15. Were preservative levels correct in all applicable sample containers?	Yes	No	(N/A)
16. Was residual chlorine present in any applicable sample containers?	Yes	No	(N/A)
17. Was sufficient amount of sample sent for the analyses required?	(Yes)	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	(N/A)

If Non-Conformance issues were present, list by sample ID: _____

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104087

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102 (5)-3E (20110406)				
Reference No: 1104087-01 **Solid**	**Sampled:04/06/2011 16:50**			
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 15:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (5)-11W (20110406)				
Reference No: 1104087-02 **Solid**	**Sampled:04/06/2011 17:00**			
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-3E (20110406)				
Reference No: 1104087-03 **Solid**	**Sampled:04/06/2011 17:10**			
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-6E (20110406)				
Reference No: 1104087-04 **Solid**	**Sampled:04/06/2011 17:20**			
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-8W (20110406)				
Reference No: 1104087-05 **Solid**	**Sampled:04/06/2011 17:30**			
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (7)-3E (20110406)				
Reference No: 1104087-06 **Solid**	**Sampled:04/06/2011 17:40**			
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:40		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104087

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102 (7)-11W (20110406)				
Reference No: 1104087-07	**Solid**	**Sampled: 04/06/2011 17:50**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (8)-2E (20110406)				
Reference No: 1104087-08	**Solid**	**Sampled: 04/06/2011 18:00**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 17:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (8)-5E (20110406)				
Reference No: 1104087-09	**Solid**	**Sampled: 04/06/2011 18:10**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 17:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (8)-13W (20110406)				
Reference No: 1104087-10	**Solid**	**Sampled: 04/06/2011 18:20**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 17:20		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

WORK ORDER

1104087

Printed: 4/20/2011 1:04:21PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 04/15/2011 16:00 (5 day TAT)
Received By: William Schwab
Logged In By: William Schwab

Date Received: 04/08/2011 08:45
Date Logged In 04/08/2011 14:44

Samples Received at: **3.7°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	Yes		

Analysis	Due	TAT	Expires	Version	Comments
1104087-01 8102 (5)-3E (20110406) [Solid] Sampled 04/06/2011 16:50 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 15:50		
SW6010B	04/14/2011 14:00	5	10/03/2011 15:50		Pb & Cu
1104087-02 8102 (5)-11W (20110406) [Solid] Sampled 04/06/2011 17:00 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 16:00		
SW6010B	04/14/2011 14:00	5	10/03/2011 16:00		Pb & Cu
1104087-03 8102 (6)-3E (20110406) [Solid] Sampled 04/06/2011 17:10 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 16:10		
SW6010B	04/14/2011 14:00	5	10/03/2011 16:10		Pb & Cu

1104087

WORK ORDER

1104087

Printed: 4/20/2011 1:04:21PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1104087-04 8102 (6)-6E (20110406) [Solid] Sampled 04/06/2011 17:20 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 16:20		
SW6010B	04/14/2011 14:00	5	10/03/2011 16:20		Pb & Cu
1104087-05 8102 (6)-8W (20110406) [Solid] Sampled 04/06/2011 17:30 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 16:30		
SW6010B	04/14/2011 14:00	5	10/03/2011 16:30		Pb & Cu
1104087-06 8102 (7)-3E (20110406) [Solid] Sampled 04/06/2011 17:40 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 16:40		
SW6010B	04/14/2011 14:00	5	10/03/2011 16:40		Pb & Cu
1104087-07 8102 (7)-11W (20110406) [Solid] Sampled 04/06/2011 17:50 Eastern					
SW6010B	04/14/2011 14:00	5	10/03/2011 16:50		Pb & Cu
SM2540B	04/14/2011 14:00	5	04/13/2011 16:50		
1104087-08 8102 (8)-2E (20110406) [Solid] Sampled 04/06/2011 18:00 Eastern					
SM2540B	04/14/2011 14:00	5	04/13/2011 17:00		
SW6010B	04/14/2011 14:00	5	10/03/2011 17:00		Pb & Cu
1104087-09 8102 (8)-5E (20110406) [Solid] Sampled 04/06/2011 18:10 Eastern					
SW6010B	04/14/2011 14:00	5	10/03/2011 17:10		Pb & Cu
SM2540B	04/14/2011 14:00	5	04/13/2011 17:10		
1104087-10 8102 (8)-13W (20110406) [Solid] Sampled 04/06/2011 18:20 Eastern					
SW6010B	04/14/2011 14:00	5	10/03/2011 17:20		Pb & Cu
SM2540B	04/14/2011 14:00	5	04/13/2011 17:20		

1104087

WORK ORDER

1104087

Printed: 4/20/2011 1:04:21PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1104087-11 8101-5W (20110407) [Solid] Sampled 04/07/2011 16:20 Eastern					
SM2540B	04/14/2011 14:00	5	04/14/2011 15:20		
SW8082A	04/14/2011 14:00	5	04/21/2011 15:20	Aroclor-1254	see version
1104087-12 8101-6N (20110407) [Solid] Sampled 04/07/2011 16:30 Eastern					
SM2540B	04/14/2011 14:00	5	04/14/2011 15:30		
SW8082A	04/14/2011 14:00	5	04/21/2011 15:30	Aroclor-1254	see version
EMLab P&K (SUB)					
1104087-01 8102 (5)-3E (20110406) [Solid] Sampled 04/06/2011 16:50 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 15:50		% Asbestos EPA 600
1104087-02 8102 (5)-11W (20110406) [Solid] Sampled 04/06/2011 17:00 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 16:00		% Asbestos EPA 600
1104087-03 8102 (6)-3E (20110406) [Solid] Sampled 04/06/2011 17:10 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 16:10		% Asbestos EPA 600
1104087-04 8102 (6)-6E (20110406) [Solid] Sampled 04/06/2011 17:20 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 16:20		% Asbestos EPA 600
1104087-05 8102 (6)-8W (20110406) [Solid] Sampled 04/06/2011 17:30 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 16:30		% Asbestos EPA 600
1104087-06 8102 (7)-3E (20110406) [Solid] Sampled 04/06/2011 17:40 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 16:40		% Asbestos EPA 600

1104087

WORK ORDER

1104087

Printed: 4/20/2011 1:04:21PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1104087-07 8102 (7)-11W (20110406) [Solid] Sampled 04/06/2011 17:50 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 16:50		% Asbestos EPA 600
1104087-08 8102 (8)-2E (20110406) [Solid] Sampled 04/06/2011 18:00 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 17:00		% Asbestos EPA 600
1104087-09 8102 (8)-5E (20110406) [Solid] Sampled 04/06/2011 18:10 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 17:10		% Asbestos EPA 600
1104087-10 8102 (8)-13W (20110406) [Solid] Sampled 04/06/2011 18:20 Eastern					
bAsbestos Lab SOP-S (SubContracted)	04/14/2011 14:00	5	04/08/2011 17:20		% Asbestos EPA 600

1104087

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1104087
MATRIX: Solid

QC LEVEL: Level IV
Report Due: 4/15/2011
Client Sample Count: 12

Sample Type	Sampled	Received	Lab ID	Client ID	bAsbestos Lab SOP-S	SM2540B	SW6010B	SW8082A
Client Sample	4/6/2011	4/8/2011	1104087-01	8102 (5)-3E (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-02	8102 (5)-11W (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-03	8102 (6)-3E (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-04	8102 (6)-6E (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-05	8102 (6)-8W (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-06	8102 (7)-3E (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-07	8102 (7)-11W (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-08	8102 (8)-2E (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-09	8102 (8)-5E (20110406)	X	X	X	
Client Sample	4/6/2011	4/8/2011	1104087-10	8102 (8)-13W (20110406)	X	X	X	
Client Sample	4/7/2011	4/8/2011	1104087-11	8101-5W (20110407)		X		X
Client Sample	4/7/2011	4/8/2011	1104087-12	8101-6N (20110407)		X		X

Data for SW8082A
Forms

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	0K33419	Instrument:	GL-ECD3
Calibration:	1104004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	0K33419-CAL1	001R0101.D	11/24/10 17:39
Cal Standard	0K33419-CAL1	001F0101.D	11/24/10 17:39
Cal Standard	0K33419-CAL2	002R0201.D	11/24/10 17:58
Cal Standard	0K33419-CAL2	002F0201.D	11/24/10 17:58
Cal Standard	0K33419-CAL3	003R0301.D	11/24/10 18:16
Cal Standard	0K33419-CAL3	003F0301.D	11/24/10 18:16
Cal Standard	0K33419-CAL4	004R0401.D	11/24/10 18:35
Cal Standard	0K33419-CAL4	004F0401.D	11/24/10 18:35
Cal Standard	0K33419-CAL5	005R0601.D	11/24/10 19:12
Cal Standard	0K33419-CAL5	005F0601.D	11/24/10 19:12
Cal Standard	0K33419-CAL6	006R0701.D	11/24/10 19:31
Cal Standard	0K33419-CAL6	006F0701.D	11/24/10 19:31
Initial Cal Check	0K33419-ICV1	007R0801.D	11/24/10 19:49
Initial Cal Check	0K33419-ICV1	007F0801.D	11/24/10 19:49

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D09605	Instrument:	GL-ECD3
Calibration:	1104004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D09605-CAL1	003R0301.D	04/04/11 16:51
Cal Standard	1D09605-CAL1	003F0301.D	04/04/11 16:51
Cal Standard	1D09605-CAL2	004R0401.D	04/04/11 17:10
Cal Standard	1D09605-CAL2	004F0401.D	04/04/11 17:10
Cal Standard	1D09605-CAL3	005R0501.D	04/04/11 17:29
Cal Standard	1D09605-CAL3	005F0501.D	04/04/11 17:29
Cal Standard	1D09605-CAL4	006R0601.D	04/04/11 17:47
Cal Standard	1D09605-CAL4	006F0601.D	04/04/11 17:47
Cal Standard	1D09605-CAL5	007R0701.D	04/04/11 18:06
Cal Standard	1D09605-CAL5	007F0701.D	04/04/11 18:06
Cal Standard	1D09605-CAL6	008R0801.D	04/04/11 18:24
Cal Standard	1D09605-CAL6	008F0801.D	04/04/11 18:24
Initial Cal Check	1D09605-ICV1	009R0901.D	04/04/11 18:43
Initial Cal Check	1D09605-ICV1	009F0901.D	04/04/11 18:43

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D10406
Instrument: GL-ECD3
Calibration: 1104004

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D10406-CAL1	011R1101.D	04/08/11 15:23
Cal Standard	1D10406-CAL1	011F1101.D	04/08/11 15:23
Cal Standard	1D10406-CAL2	012R1201.D	04/08/11 15:42
Cal Standard	1D10406-CAL2	012F1201.D	04/08/11 15:42
Cal Standard	1D10406-CAL3	013R1301.D	04/08/11 16:01
Cal Standard	1D10406-CAL3	013F1301.D	04/08/11 16:01
Cal Standard	1D10406-CAL4	014R1401.D	04/08/11 16:19
Cal Standard	1D10406-CAL4	014F1401.D	04/08/11 16:19
Cal Standard	1D10406-CAL5	015R1501.D	04/08/11 16:38
Cal Standard	1D10406-CAL5	015F1501.D	04/08/11 16:38
Cal Standard	1D10406-CAL6	016R1601.D	04/08/11 16:57
Cal Standard	1D10406-CAL6	016F1601.D	04/08/11 16:57
Cal Standard	1D10406-CAL7	017R1701.D	04/08/11 17:15
Cal Standard	1D10406-CAL7	017F1701.D	04/08/11 17:15

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D10505
Instrument: GL-ECD3
Calibration: 1104004

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1D10505-CCV1	002R0201.D	04/14/11 13:38
Calibration Check	1D10505-CCV1	002F0201.D	04/14/11 13:38
Blank	1D09814-BLK1	003F0301.D	04/14/11 14:19
Blank	1D09814-BLK1	003R0301.D	04/14/11 14:19
LCS	1D09814-BS1	004F0401.D	04/14/11 14:38
LCS	1D09814-BS1	004R0401.D	04/14/11 14:38
Calibration Check	1D10505-CCV2	017R1701.D	04/14/11 19:17
Calibration Check	1D10505-CCV2	017F1701.D	04/14/11 19:17
Calibration Check	1D10505-CCV3	018R1801.D	04/14/11 19:35
Calibration Check	1D10505-CCV3	018F1801.D	04/14/11 19:35
8101-5W (20110407)	1104087-11	019R1901.D	04/14/11 19:54
8101-5W (20110407)	1104087-11	019F1901.D	04/14/11 19:54
8101-6N (20110407)	1104087-12	020R2001.D	04/14/11 20:13
8101-6N (20110407)	1104087-12	020F2001.D	04/14/11 20:13
Calibration Check	1D10505-CCV4	024R2401.D	04/14/11 21:27
Calibration Check	1D10505-CCV4	024F2401.D	04/14/11 21:27
Calibration Check	1D10505-CCV5	025R2501.D	04/14/11 21:46
Calibration Check	1D10505-CCV5	025F2501.D	04/14/11 21:46

ANALYSIS DATA SHEET

8101-5W (20110407)

Laboratory:	Empirical Laboratories, LLC			SDG:	1104087
Client:	Arcadis (A285)			Project:	Radford Army Ammunition Plant2010
Matrix:	Solid	Laboratory ID:	1104087-11	File ID:	019F1901.D
Sampled:	04/07/11 16:20	Prepared:	04/12/11 16:11	Analyzed:	04/14/11 19:54
Solids:	75.40	Preparation:	EXT_3546	Dilution:	1
Batch:	1D09814	Sequence:	1D10505	Calibration:	1104004
Instrument:	GL-ECD3				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254	53.0	5.32	21.5	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	21.12	18.91	89.5	70 - 125	
Tetrachloro-m-xylene [2C]	21.12	18.71	88.6	70 - 125	
Decachlorobiphenyl	21.12	17.92	84.8	60 - 125	
Decachlorobiphenyl [2C]	21.12	17.32	82.0	60 - 125	

* Values outside of QC limits

ANALYSIS DATA SHEET

8101-6N (20110407)

Laboratory:	Empirical Laboratories, LLC			SDG:	1104087
Client:	Arcadis (A285)			Project:	Radford Army Ammunition Plant201(
Matrix:	Solid	Laboratory ID:	1104087-12	File ID:	020F2001.D
Sampled:	04/07/11 16:30	Prepared:	04/12/11 16:11	Analyzed:	04/14/11 20:13
Solids:	73.06	Preparation:	EXT_3546	Dilution:	1
Batch:	1D09814	Sequence:	1D10505	Calibration:	1104004
Instrument:	GL-ECD3				

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254	160	5.67	23.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	22.51	19.60	87.1	70 - 125	
Tetrachloro-m-xylene [2C]	22.51	20.89	92.8	70 - 125	
Decachlorobiphenyl	22.51	16.68	74.1	60 - 125	
Decachlorobiphenyl [2C]	22.51	15.27	67.8	60 - 125	

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1D09814	Laboratory ID:	1D09814-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
Aroclor-1016	166.7	163.4	98.1	40 - 140
Aroclor-1016 [2C]	166.7	179.9	108	40 - 140
Aroclor-1260	166.7	158.2	94.9	60 - 130
Aroclor-1260 [2C]	166.7	176.1	106	60 - 130

PREPARATION BATCH SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1104087

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1D09814 Batch Matrix: Solid Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
8101-5W (20110407)	1104087-11	04/12/11 16:11	15.70	5.00
8101-6N (20110407)	1104087-12	04/12/11 16:11	15.20	5.00
Blank	1D09814-BLK1	04/12/11 16:11	15.00	5.00
LCS	1D09814-BS1	04/12/11 16:11	15.00	5.00

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1104087

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1D09814-BLK1 File ID: 003F0301.D

Sampled: Prepared: 04/12/11 16:11 Analyzed: 04/14/11 14:19

Solids: Preparation: EXT_3546 Dilution:

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
11097-69-1	Aroclor-1254		4.20	17.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.22	91.3	70 - 125	
Tetrachloro-m-xylene [2C]	16.67	15.56	93.3	70 - 125	
Decachlorobiphenyl	16.67	14.50	87.0	60 - 125	
Decachlorobiphenyl [2C]	16.67	15.42	92.5	60 - 125	

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	0K33419	Instrument:	GL-ECD3
Calibration:	1104004		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10I0240	Aroclor-1254 CAL1@2500ppb	0K33419-CAL1	001R0101.D	11/24/10 17:39
10I0240	Aroclor-1254 CAL1@2500ppb	0K33419-CAL1	001F0101.D	11/24/10 17:39
10I0241	Aroclor-1254 CAL2@1000ppb	0K33419-CAL2	002F0201.D	11/24/10 17:58
10I0241	Aroclor-1254 CAL2@1000ppb	0K33419-CAL2	002R0201.D	11/24/10 17:58
10I0242	Aroclor-1254 CAL3@750ppb	0K33419-CAL3	003F0301.D	11/24/10 18:16
10I0242	Aroclor-1254 CAL3@750ppb	0K33419-CAL3	003R0301.D	11/24/10 18:16
10I0243	Aroclor-1254 CAL4@500ppb	0K33419-CAL4	004F0401.D	11/24/10 18:35
10I0243	Aroclor-1254 CAL4@500ppb	0K33419-CAL4	004R0401.D	11/24/10 18:35
10I0244	Aroclor-1254 CAL5@100ppb	0K33419-CAL5	005F0601.D	11/24/10 19:12
10I0244	Aroclor-1254 CAL5@100ppb	0K33419-CAL5	005R0601.D	11/24/10 19:12
10I0245	Aroclor-1254 CAL6@50ppb	0K33419-CAL6	006R0701.D	11/24/10 19:31
10I0245	Aroclor-1254 CAL6@50ppb	0K33419-CAL6	006F0701.D	11/24/10 19:31

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D09605	Instrument:	GL-ECD3
Calibration:	1104004		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
11A0220	Aro-1660 Cal1@2500/125	1D09605-CAL1	003F0301.D	04/04/11 16:51
11A0220	Aro-1660 Cal1@2500/125	1D09605-CAL1	003R0301.D	04/04/11 16:51
11C0777	Aro-1660 Cal2@1000/50 (CCV)	1D09605-CAL2	004F0401.D	04/04/11 17:10
11C0777	Aro-1660 Cal2@1000/50 (CCV)	1D09605-CAL2	004R0401.D	04/04/11 17:10
11A0221	Aro-1660 Cal3@750/37.5	1D09605-CAL3	005F0501.D	04/04/11 17:29
11A0221	Aro-1660 Cal3@750/37.5	1D09605-CAL3	005R0501.D	04/04/11 17:29
11A0222	Aro-1660 Cal4@500/25	1D09605-CAL4	006R0601.D	04/04/11 17:47
11A0222	Aro-1660 Cal4@500/25	1D09605-CAL4	006F0601.D	04/04/11 17:47
11A0223	Aro-1660 Cal5@100/5	1D09605-CAL5	007F0701.D	04/04/11 18:06
11A0223	Aro-1660 Cal5@100/5	1D09605-CAL5	007R0701.D	04/04/11 18:06
11A0224	Aro-1660 Cal6@50/2.5	1D09605-CAL6	008F0801.D	04/04/11 18:24
11A0224	Aro-1660 Cal6@50/2.5	1D09605-CAL6	008R0801.D	04/04/11 18:24

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D10406	Instrument:	GL-ECD3
Calibration:	1104004		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
11C0272	Pest_ICAL1@200ppb	1D10406-CAL1	011F1101.D	04/08/11 15:23
11C0272	Pest_ICAL1@200ppb	1D10406-CAL1	011R1101.D	04/08/11 15:23
11C0273	Pest. AB/Sur CCV @ 100ppb	1D10406-CAL2	012R1201.D	04/08/11 15:42
11C0273	Pest. AB/Sur CCV @ 100ppb	1D10406-CAL2	012F1201.D	04/08/11 15:42
11C0274	Pest_ICAL3@50ppb	1D10406-CAL3	013F1301.D	04/08/11 16:01
11C0274	Pest_ICAL3@50ppb	1D10406-CAL3	013R1301.D	04/08/11 16:01
11C0275	Pest_ICAL4@25ppb	1D10406-CAL4	014F1401.D	04/08/11 16:19
11C0275	Pest_ICAL4@25ppb	1D10406-CAL4	014R1401.D	04/08/11 16:19
11C0276	Pest_ICAL5@10ppb	1D10406-CAL5	015F1501.D	04/08/11 16:38
11C0276	Pest_ICAL5@10ppb	1D10406-CAL5	015R1501.D	04/08/11 16:38
11C0277	Pest_ICAL6@5ppb	1D10406-CAL6	016F1601.D	04/08/11 16:57
11C0277	Pest_ICAL6@5ppb	1D10406-CAL6	016R1601.D	04/08/11 16:57
11C0278	Pest_ICAL7@1ppb	1D10406-CAL7	017R1701.D	04/08/11 17:15
11C0278	Pest_ICAL7@1ppb	1D10406-CAL7	017F1701.D	04/08/11 17:15

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene	200	29210.96	100	29940.19	50	29511.66	25	30252.16	10	28086.1	5	28435.4
Tetrachloro-m-xylene [2C]	200	19000.99	100	20341.25	50	20384.36	25	21980	10	22183.9	5	22846.4
Decachlorobiphenyl	200	32018.2	100	32856.69	50	33542.94	25	35775.72	10	34898.2	5	37035.6
Decachlorobiphenyl [2C]	200	19285.74	100	20998.4	50	21682.2	25	23344.48	10	22317.1	5	23557.4

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016			2500	676.9136	1000	691.2852	750	669.0416	500	680.4464	100	754.796
Aroclor-1016 (1)			2500	1217.65	1000	1229.998	750	1189.257	500	1204.4	100	1323.44
Aroclor-1016 (2)			2500	411.5284	1000	436.264	750	422.1533	500	462.214	100	506.67
Aroclor-1016 (3)			2500	610.4732	1000	632.399	750	615.948	500	626.556	100	719.66
Aroclor-1016 (4)			2500	639.2368	1000	641.394	750	639.332	500	622.906	100	695.67
Aroclor-1016 (5)			2500	505.6792	1000	516.371	750	478.5173	500	486.156	100	528.54
Aroclor-1016 [2C]			2500	549.3244	1000	612.5476	750	588.8837	500	511.1124	100	631.294
Aroclor-1016 (1) [2C]			2500	797.3272	1000	888.022	750	843.7173	500	754.838	100	966.08
Aroclor-1016 (2) [2C]			2500	503.6404	1000	539.048	750	528.4133	500	497.748	100	604.53
Aroclor-1016 (3) [2C]			2500	515.6812	1000	580.522	750	560.304	500	482.538	100	611.31
Aroclor-1016 (4) [2C]			2500	473.6256	1000	536.257	750	517.692	500	415.94	100	464.93
Aroclor-1016 (5) [2C]			2500	456.3472	1000	518.889	750	494.292	500	404.498	100	509.62
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260			2500	2114.394	1000	2030.354	750	1933.505	500	2091.174	100	2157.532
Aroclor-1260 (1)			2500	4189.412	1000	4002.488	750	3818.928	500	3998.878	100	4225.21
Aroclor-1260 (2)			2500	1777.734	1000	1626.658	750	1567.005	500	1861.922	100	1697.79
Aroclor-1260 (3)			2500	2053.269	1000	1977.965	750	1828.556	500	2073.638	100	2048.58
Aroclor-1260 (4)			2500	1579.668	1000	1606.553	750	1554.785	500	1501.482	100	1804.94
Aroclor-1260 (5)			2500	971.8872	1000	938.104	750	898.2546	500	1019.948	100	1011.14
Aroclor-1260 [2C]			2500	1396.039	1000	1499.182	750	1401.309	500	1260.416	100	1632.432
Aroclor-1260 (1) [2C]			2500	2351.586	1000	2495.946	750	2396.393	500	2183.458	100	2563.14
Aroclor-1260 (2) [2C]			2500	1124.384	1000	1245.201	750	1150.013	500	1033.16	100	1479.67

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]			2500	1388.438	1000	1480.025	750	1337.512	500	1250.004	100	1604.36
Aroclor-1260 (4) [2C]			2500	967.1232	1000	1052.987	750	966.2333	500	821.176	100	1191.68
Aroclor-1260 (5) [2C]			2500	1148.663	1000	1221.751	750	1156.393	500	1014.282	100	1323.31
Tetrachloro-m-xylene	1	28010	250		100		75		50		10	
Tetrachloro-m-xylene [2C]	1	22595	250		100		75		50		10	
Decachlorobiphenyl	1	36985	250		100		75		50		10	
Decachlorobiphenyl [2C]	1	20209	250		100		75		50		10	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016	50	730.808										
Aroclor-1016 (1)	50	1263.14										
Aroclor-1016 (2)	50	492.48										
Aroclor-1016 (3)	50	728.28										
Aroclor-1016 (4)	50	699.28										
Aroclor-1016 (5)	50	470.86										
Aroclor-1016 [2C]	50	638.524										
Aroclor-1016 (1) [2C]	50	946.38										
Aroclor-1016 (2) [2C]	50	737.22										
Aroclor-1016 (3) [2C]	50	582.5										
Aroclor-1016 (4) [2C]	50	428.58										
Aroclor-1016 (5) [2C]	50	497.94										
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260	50	2045.3										
Aroclor-1260 (1)	50	3999.26										
Aroclor-1260 (2)	50	1655.98										
Aroclor-1260 (3)	50	1887.28										
Aroclor-1260 (4)	50	1720.26										
Aroclor-1260 (5)	50	963.72										
Aroclor-1260 [2C]	50	1527.296										
Aroclor-1260 (1) [2C]	50	2409.66										
Aroclor-1260 (2) [2C]	50	1369.82										

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]	50	1486.22										
Aroclor-1260 (4) [2C]	50	1067.26										
Aroclor-1260 (5) [2C]	50	1303.52										
Tetrachloro-m-xylene	5											
Tetrachloro-m-xylene [2C]	5											
Decachlorobiphenyl	5											
Decachlorobiphenyl [2C]	5											

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)			2500	1816.263	1000	1800.472	750	1761.127	500	1853.234	100	1754.93
Aroclor-1254 (2)			2500	1061.708	1000	1065.415	750	1042.129	500	1090.35	100	1097.12
Aroclor-1254 (3)			2500	1081.426	1000	1086.616	750	1072.105	500	1129.022	100	1064.89
Aroclor-1254 (4)			2500	1504.907	1000	1496.942	750	1467.855	500	1547.658	100	1529.54
Aroclor-1254 (5)			2500	1548.73	1000	1558.402	750	1501.871	500	1605.23	100	1504.21
Aroclor-1254 (1) [2C]			2500	1211.378	1000	1259.03	750	1287.229	500	1346.022	100	1382.74
Aroclor-1254 (2) [2C]			2500	940.7952	1000	998.081	750	1019.987	500	1086.73	100	1255.29
Aroclor-1254 (3) [2C]			2500	820.3788	1000	867.261	750	876.9533	500	913.634	100	1068.46
Aroclor-1254 (4) [2C]			2500	648.5668	1000	671.711	750	683.1773	500	719.072	100	750.24
Aroclor-1254 (5) [2C]			2500	806.4816	1000	809.888	750	806.7466	500	1004.288	100	1007.23
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

~~SW8082A~~

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 31		Level 32		Level 33		Level 34		Level 35		Level 36	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)	50	1833800										
Aroclor-1254 (2)	50	1156000										
Aroclor-1254 (3)	50	1126500										
Aroclor-1254 (4)	50	1591980										
Aroclor-1254 (5)	50	1549600										
Aroclor-1254 (1) [2C]	50	1548680										
Aroclor-1254 (2) [2C]	50	1443460										
Aroclor-1254 (3) [2C]	50	1207540										
Aroclor-1254 (4) [2C]	50	840580										
Aroclor-1254 (5) [2C]	50	1168280										
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA (Continued)

~~SW8082A~~

Laboratory: Empirical Laboratories, LLC

SDG: 1104087

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Calibration: 1104004

Instrument: GL-ECD3

Matrix: Water

Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 31		Level 32		Level 33		Level 34		Level 35		Level 36	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor-1016	700.5485	4.903307	6.890167	5.371017E-02			20	
Aroclor-1016 (1)	1237.981	3.943186	6.608	4.985535E-02			20	
Aroclor-1016 (2)	455.2183	8.477295	5.747833	5.179216E-02			20	
Aroclor-1016 (3)	655.5527	8.179665	6.093167	4.178403E-02			20	
Aroclor-1016 (4)	656.3031	4.967166	6.2935	4.164898E-02			20	
Aroclor-1016 (5)	497.6873	4.568661	6.890167	5.371017E-02			20	
Aroclor-1016 [2C]	588.6144	8.472632	5.672333	1.252804E-02			20	
Aroclor-1016 (1) [2C]	866.0608	9.595629	5.423667	2.909411E-02			20	
Aroclor-1016 (2) [2C]	568.4333	16.01791	5.0095	3.165443E-02			20	
Aroclor-1016 (3) [2C]	555.4759	8.596839	5.1735	0.0193099			20	
Aroclor-1016 (4) [2C]	472.8374	10.05104	5.570667	2.262423E-02			20	
Aroclor-1016 (5) [2C]	480.2644	8.919631	5.672333	1.252804E-02			20	
Aroclor-1254 (1)	1803.304	2.178697	8.235666	0.0355389			20	
Aroclor-1254 (2)	1085.454	3.680311	7.543	0.0399491			20	
Aroclor-1254 (3)	1093.427	2.527954	8.131333	4.376735E-02			20	
Aroclor-1254 (4)	1523.147	2.855178	8.584667	4.521186E-02			20	
Aroclor-1254 (5)	1544.674	2.484758	9.099166	3.591379E-02			20	
Aroclor-1254 (1) [2C]	1339.18	8.916472	6.924167	0.0325885			20	
Aroclor-1254 (2) [2C]	1124.057	16.92267	6.330667	1.678979E-02			20	
Aroclor-1254 (3) [2C]	959.0379	15.47823	6.4945	2.867968E-02			20	
Aroclor-1254 (4) [2C]	718.8912	9.684997	6.824833	3.501469E-02			20	
Aroclor-1254 (5) [2C]	933.819	16.10215	7.189167	4.059321E-02			20	
Aroclor-1260	2062.043	3.788487	10.9705	3.398021E-02			20	
Aroclor-1260 (1)	4039.029	3.676468	9.877167	4.205502E-02			20	
Aroclor-1260 (2)	1697.848	6.301978	8.762667	0.0462441			20	
Aroclor-1260 (3)	1978.215	5.073072	9.106	0.0380858			20	
Aroclor-1260 (4)	1627.948	6.948739	9.2045	3.409496E-02			20	
Aroclor-1260 (5)	967.1756	4.703497	10.9705	3.398021E-02			20	
Aroclor-1260 [2C]	1452.779	8.860746	8.1965	3.050126E-02			20	
Aroclor-1260 (1) [2C]	2400.031	5.437739	8.1965	3.050126E-02			20	
Aroclor-1260 (2) [2C]	1233.708	13.48229	6.940333	4.342536E-02			20	
Aroclor-1260 (3) [2C]	1424.427	8.799753	7.182333	4.460125E-02			20	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor-1260 (4) [2C]	1011.077	12.31634	7.3335	3.882021E-02			20	
Aroclor-1260 (5) [2C]	1194.653	9.562436	7.877333	2.200048E-02			20	
Tetrachloro-m-xylene	29063.78	3.097839	5.319429	2.203025E-02			20	
Tetrachloro-m-xylene [2C]	21333.13	6.724467	4.386286	1.354911E-02			20	
Decachlorobiphenyl	34730.34	5.733994	11.513	1.125907E-02			20	
Decachlorobiphenyl [2C]	21627.76	7.321114	9.773714	2.006134E-02			20	

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	007F0801.D	Calibration Date:	04/08/11 00:00
Sequence:	0K33419	Injection Date:	11/24/10
Lab Sample ID:	0K33419-ICV1	Injection Time:	19:49

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1254 (1)	A	1000	973.1	1803.304	1754.749		-2.7	20
Aroclor-1254 (2)	A	1000	953.1	1085.454	1034.595		-4.7	20
Aroclor-1254 (3)	A	1000	978.3	1093.427	1069.689		-2.2	20
Aroclor-1254 (4)	A	1000	956.1	1523.147	1456.336		-4.4	20
Aroclor-1254 (5)	A	1000	971.9	1544.674	1501.287		-2.8	20
Aroclor-1254 (1) [2C]	A	1000	945.5	1339.18	1266.188		-5.5	20
Aroclor-1254 (2) [2C]	A	1000	878.8	1124.057	987.794		-12.1	20
Aroclor-1254 (3) [2C]	A	1000	890.6	959.0379	854.17		-10.9	20
Aroclor-1254 (4) [2C]	A	1000	931.2	718.8912	669.47		-6.9	20
Aroclor-1254 (5) [2C]	A	1000	887.5	933.819	828.766		-11.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	009F0901.D	Calibration Date:	04/08/11 00:00
Sequence:	1D09605	Injection Date:	04/04/11
Lab Sample ID:	1D09605-ICV1	Injection Time:	18:43

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1016	A	1000	933.8	700.5485	659.6606		-5.8	20
Aroclor-1016 (1)	A	1000	963.8	1237.981	1193.216		-3.6	20
Aroclor-1016 (2)	A	1000	913.5	455.2183	415.83		-8.7	20
Aroclor-1016 (3)	A	1000	960.7	655.5527	629.822		-3.9	20
Aroclor-1016 (4)	A	1000	933.6	656.3031	612.75		-6.6	20
Aroclor-1016 (5)	A	1000	897.5	497.6873	446.685		-10.2	20
Aroclor-1016 [2C]	A	1000	1022	588.6144	596.4024		1.3	20
Aroclor-1016 (1) [2C]	A	1000	970.4	866.0608	840.388		-3.0	20
Aroclor-1016 (2) [2C]	A	1000	953.5	568.4333	542.021		-4.6	20
Aroclor-1016 (3) [2C]	A	1000	1025	555.4759	569.378		2.5	20
Aroclor-1016 (4) [2C]	A	1000	1118	472.8374	528.704		11.8	20
Aroclor-1016 (5) [2C]	A	1000	1044	480.2644	501.521		4.4	20
Aroclor-1260	A	1000	913.9	2062.043	1888.745		-8.4	20
Aroclor-1260 (1)	A	1000	913.8	4039.029	3690.785		-8.6	20
Aroclor-1260 (2)	A	1000	921.1	1697.848	1563.968		-7.9	20
Aroclor-1260 (3)	A	1000	923.0	1978.215	1825.928		-7.7	20
Aroclor-1260 (4)	A	1000	925.0	1627.948	1505.782		-7.5	20
Aroclor-1260 (5)	A	1000	886.4	967.1756	857.262		-11.4	20
Aroclor-1260 [2C]	A	1000	947.2	1452.779	1382.39		-4.8	20
Aroclor-1260 (1) [2C]	A	1000	977.9	2400.031	2346.937		-2.2	20
Aroclor-1260 (2) [2C]	A	1000	933.0	1233.708	1151.034		-6.7	20
Aroclor-1260 (3) [2C]	A	1000	933.0	1424.427	1328.929		-6.7	20
Aroclor-1260 (4) [2C]	A	1000	955.7	1011.077	966.304		-4.4	20
Aroclor-1260 (5) [2C]	A	1000	936.5	1194.653	1118.746		-6.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	002F0201.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV1	Injection Time:	13:38

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016	A	1000	973.0	700.5485	685.2936		-2.2	20
Aroclor-1016 (1)	A	1000	996.6	1237.981	1233.815		-0.3	20
Aroclor-1016 (2)	A	1000	943.9	455.2183	429.675		-5.6	20
Aroclor-1016 (3)	A	1000	955.3	655.5527	626.248		-4.5	20
Aroclor-1016 (4)	A	1000	987.4	656.3031	648.023		-1.3	20
Aroclor-1016 (5)	A	1000	982.0	497.6873	488.707		-1.8	20
Aroclor-1016 [2C]	A	1000	1051	588.6144	615.5948		4.6	20
Aroclor-1016 (1) [2C]	A	1000	1040	866.0608	900.533		4.0	20
Aroclor-1016 (2) [2C]	A	1000	938.8	568.4333	533.641		-6.1	20
Aroclor-1016 (3) [2C]	A	1000	1047	555.4759	581.505		4.7	20
Aroclor-1016 (4) [2C]	A	1000	1153	472.8374	545.196		15.3	20
Aroclor-1016 (5) [2C]	A	1000	1077	480.2644	517.099		7.7	20
Aroclor-1260	A	1000	994.5	2062.043	2054.937		-0.3	20
Aroclor-1260 (1)	A	1000	970.7	4039.029	3920.612		-2.9	20
Aroclor-1260 (2)	A	1000	950.6	1697.848	1613.965		-4.9	20
Aroclor-1260 (3)	A	1000	1136	1978.215	2247.591		13.6	20
Aroclor-1260 (4)	A	1000	969.2	1627.948	1577.764		-3.1	20
Aroclor-1260 (5)	A	1000	945.8	967.1756	914.752		-5.4	20
Aroclor-1260 [2C]	A	1000	1036	1452.779	1503.276		3.5	20
Aroclor-1260 (1) [2C]	A	1000	1025	2400.031	2459.786		2.5	20
Aroclor-1260 (2) [2C]	A	1000	1037	1233.708	1279.875		3.7	20
Aroclor-1260 (3) [2C]	A	1000	1050	1424.427	1495.967		5.0	20
Aroclor-1260 (4) [2C]	A	1000	1035	1011.077	1046.157		3.5	20
Aroclor-1260 (5) [2C]	A	1000	1033	1194.653	1234.594		3.3	20
Tetrachloro-m-xylene	A	100.0	97.63	29063.78	28374.86		-2.4	20
Tetrachloro-m-xylene [2C]	A	100.0	98.51	21333.13	21015.88		-1.5	20
Decachlorobiphenyl	A	100.0	86.94	34730.34	30194.25		-13.1	20
Decachlorobiphenyl [2C]	A	100.0	90.80	21627.76	19637.2		-9.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	017F1701.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV2	Injection Time:	19:17

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016	A	1000	1011	700.5485	712.5188		1.7	20
Aroclor-1016 (1)	A	1000	1049	1237.981	1299.02		4.9	20
Aroclor-1016 (2)	A	1000	968.5	455.2183	440.874		-3.2	20
Aroclor-1016 (3)	A	1000	984.8	655.5527	645.589		-1.5	20
Aroclor-1016 (4)	A	1000	986.9	656.3031	647.718		-1.3	20
Aroclor-1016 (5)	A	1000	1064	497.6873	529.393		6.4	20
Aroclor-1016 [2C]	A	1000	1073	588.6144	628.0324		6.7	20
Aroclor-1016 (1) [2C]	A	1000	1046	866.0608	906.347		4.7	20
Aroclor-1016 (2) [2C]	A	1000	992.8	568.4333	564.328		-0.7	20
Aroclor-1016 (3) [2C]	A	1000	1068	555.4759	593.454		6.8	20
Aroclor-1016 (4) [2C]	A	1000	1176	472.8374	555.827		17.6	20
Aroclor-1016 (5) [2C]	A	1000	1083	480.2644	520.206		8.3	20
Aroclor-1260	A	1000	1021	2062.043	2109.194		2.3	20
Aroclor-1260 (1)	A	1000	992.2	4039.029	4007.434		-0.8	20
Aroclor-1260 (2)	A	1000	987.1	1697.848	1675.932		-1.3	20
Aroclor-1260 (3)	A	1000	1178	1978.215	2331.383		17.9	20
Aroclor-1260 (4)	A	1000	981.6	1627.948	1598.066		-1.8	20
Aroclor-1260 (5)	A	1000	964.8	967.1756	933.154		-3.5	20
Aroclor-1260 [2C]	A	1000	1003	1452.779	1469.103		1.1	20
Aroclor-1260 (1) [2C]	A	1000	1053	2400.031	2528.324		5.3	20
Aroclor-1260 (2) [2C]	A	1000	965.8	1233.708	1191.532		-3.4	20
Aroclor-1260 (3) [2C]	A	1000	994.0	1424.427	1415.875		-0.6	20
Aroclor-1260 (4) [2C]	A	1000	993.9	1011.077	1004.919		-0.6	20
Aroclor-1260 (5) [2C]	A	1000	1008	1194.653	1204.864		0.9	20
Tetrachloro-m-xylene	A	100.0	99.78	29063.78	29000.61		-0.2	20
Tetrachloro-m-xylene [2C]	A	100.0	100.0	21333.13	21343.26		0.05	20
Decachlorobiphenyl	A	100.0	86.74	34730.34	30124.7		-13.3	20
Decachlorobiphenyl [2C]	A	100.0	89.11	21627.76	19271.83		-10.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	018F1801.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV3	Injection Time:	19:35

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	966.6	1803.304	1743.039		-3.3	20	
Aroclor-1254 (2)	A	1000	882.8	1085.454	958.27		-11.7	20	
Aroclor-1254 (3)	A	1000	937.7	1093.427	1025.295		-6.2	20	
Aroclor-1254 (4)	A	1000	770.4	1523.147	1173.437		-23.0	20	*
Aroclor-1254 (5)	A	1000	1074	1544.674	1659.258		7.4	20	
Aroclor-1254 (1) [2C]	A	1000	1132	1339.18	1516.111		13.2	20	
Aroclor-1254 (2) [2C]	A	1000	982.8	1124.057	1104.769		-1.7	20	
Aroclor-1254 (3) [2C]	A	1000	985.8	959.0379	945.455		-1.4	20	
Aroclor-1254 (4) [2C]	A	1000	1020	718.8912	733.417		2.0	20	
Aroclor-1254 (5) [2C]	A	1000	890.4	933.819	831.443		-11.0	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	024F2401.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV4	Injection Time:	21:27

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016	A	1000	1006	700.5485	708.1598		1.1	20
Aroclor-1016 (1)	A	1000	1027	1237.981	1271.923		2.7	20
Aroclor-1016 (2)	A	1000	962.0	455.2183	437.917		-3.8	20
Aroclor-1016 (3)	A	1000	980.2	655.5527	642.583		-2.0	20
Aroclor-1016 (4)	A	1000	1019	656.3031	669.053		1.9	20
Aroclor-1016 (5)	A	1000	1043	497.6873	519.323		4.3	20
Aroclor-1016 [2C]	A	1000	1059	588.6144	619.2114		5.2	20
Aroclor-1016 (1) [2C]	A	1000	1035	866.0608	896.557		3.5	20
Aroclor-1016 (2) [2C]	A	1000	936.5	568.4333	532.365		-6.3	20
Aroclor-1016 (3) [2C]	A	1000	1064	555.4759	590.782		6.4	20
Aroclor-1016 (4) [2C]	A	1000	1166	472.8374	551.261		16.6	20
Aroclor-1016 (5) [2C]	A	1000	1093	480.2644	525.092		9.3	20
Aroclor-1260	A	1000	1019	2062.043	2101.635		1.9	20
Aroclor-1260 (1)	A	1000	986.0	4039.029	3982.558		-1.4	20
Aroclor-1260 (2)	A	1000	992.4	1697.848	1684.946		-0.8	20
Aroclor-1260 (3)	A	1000	1168	1978.215	2310.142		16.8	20
Aroclor-1260 (4)	A	1000	979.4	1627.948	1594.334		-2.1	20
Aroclor-1260 (5)	A	1000	968.0	967.1756	936.194		-3.2	20
Aroclor-1260 [2C]	A	1000	995.3	1452.779	1455.403		0.2	20
Aroclor-1260 (1) [2C]	A	1000	1036	2400.031	2485.468		3.6	20
Aroclor-1260 (2) [2C]	A	1000	969.1	1233.708	1195.562		-3.1	20
Aroclor-1260 (3) [2C]	A	1000	989.6	1424.427	1409.679		-1.0	20
Aroclor-1260 (4) [2C]	A	1000	986.2	1011.077	997.091		-1.4	20
Aroclor-1260 (5) [2C]	A	1000	995.4	1194.653	1189.214		-0.5	20
Tetrachloro-m-xylene	A	100.0	99.66	29063.78	28965.65		-0.3	20
Tetrachloro-m-xylene [2C]	A	100.0	100.8	21333.13	21498.45		0.8	20
Decachlorobiphenyl	A	100.0	88.04	34730.34	30576.75		-12.0	20
Decachlorobiphenyl [2C]	A	100.0	91.43	21627.76	19773.92		-8.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	025F2501.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV5	Injection Time:	21:46

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	1049	1803.304	1891.658		4.9	20	
Aroclor-1254 (2)	A	1000	990.4	1085.454	1075.084		-1.0	20	
Aroclor-1254 (3)	A	1000	1014	1093.427	1109.093		1.4	20	
Aroclor-1254 (4)	A	1000	817.9	1523.147	1245.854		-18.2	20	
Aroclor-1254 (5)	A	1000	927.9	1544.674	1433.344		-7.2	20	
Aroclor-1254 (1) [2C]	A	1000	1214	1339.18	1626.32		21.4	20	*
Aroclor-1254 (2) [2C]	A	1000	1069	1124.057	1201.936		6.9	20	
Aroclor-1254 (3) [2C]	A	1000	1071	959.0379	1027.529		7.1	20	
Aroclor-1254 (4) [2C]	A	1000	1075	718.8912	773.071		7.5	20	
Aroclor-1254 (5) [2C]	A	1000	946.7	933.819	884.076		-5.3	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D10505
Instrument: GL-ECD3
Calibration: 1104004

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1D10505-CCV1) ug/L				Lab File ID: 002F0201.D		Analyzed: 04/14/11 13:38		
Tetrachloro-m-xylene	100.0	97.6	80 - 120	5.318	5.318	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	98.5	80 - 120	4.386	4.386	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	86.9	80 - 120	11.513	11.513	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	90.8	80 - 120	9.773	9.773	0.0000	+/-0.030	
Blank (1D09814-BLK1) ug/Kg wet				Lab File ID: 003F0301.D		Analyzed: 04/14/11 14:19		
Tetrachloro-m-xylene	16.67	91.3	70 - 125	5.328	5.318	0.0100	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	93.3	70 - 125	4.385	4.386	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	87.0	60 - 125	11.524	11.513	0.0110	+/-0.030	
Decachlorobiphenyl [2C]	16.67	92.5	60 - 125	9.777	9.773	0.0040	+/-0.030	
LCS (1D09814-BS1) ug/Kg wet				Lab File ID: 004F0401.D		Analyzed: 04/14/11 14:38		
Tetrachloro-m-xylene	16.67	93.2	70 - 125	5.319	5.318	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	98.6	70 - 125	4.386	4.386	0.0000	+/-0.030	
Decachlorobiphenyl	16.67	91.6	60 - 125	11.514	11.513	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	16.67	95.0	60 - 125	9.773	9.773	0.0000	+/-0.030	
Calibration Check (1D10505-CCV2) ug/L				Lab File ID: 017F1701.D		Analyzed: 04/14/11 19:17		
Tetrachloro-m-xylene	100.0	99.8	80 - 120	5.32	5.318	0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	100	80 - 120	4.387	4.386	0.0010	+/-0.030	
Decachlorobiphenyl	100.0	86.7	80 - 120	11.515	11.513	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	100.0	89.1	80 - 120	9.776	9.773	0.0030	+/-0.030	
8101-5W (20110407) (1104087-11) ug/Kg dry				Lab File ID: 019F1901.D		Analyzed: 04/14/11 19:54		
Tetrachloro-m-xylene	21.12	89.5	70 - 125	5.319	5.318	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	21.12	88.6	70 - 125	4.387	4.386	0.0010	+/-0.030	
Decachlorobiphenyl	21.12	84.8	60 - 125	11.514	11.513	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	21.12	82.0	60 - 125	9.773	9.773	0.0000	+/-0.030	
8101-6N (20110407) (1104087-12) ug/Kg dry				Lab File ID: 020F2001.D		Analyzed: 04/14/11 20:13		
Tetrachloro-m-xylene	22.51	87.1	70 - 125	5.319	5.318	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	22.51	92.8	70 - 125	4.386	4.386	0.0000	+/-0.030	
Decachlorobiphenyl	22.51	74.1	60 - 125	11.515	11.513	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	22.51	67.8	60 - 125	9.775	9.773	0.0020	+/-0.030	
Calibration Check (1D10505-CCV4) ug/L				Lab File ID: 024F2401.D		Analyzed: 04/14/11 21:27		
Tetrachloro-m-xylene	100.0	99.7	80 - 120	5.32	5.318	0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	101	80 - 120	4.387	4.386	0.0010	+/-0.030	
Decachlorobiphenyl	100.0	88.0	80 - 120	11.515	11.513	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	100.0	91.4	80 - 120	9.776	9.773	0.0030	+/-0.030	

HOLDING TIME SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1104087

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
8101-5W (20110407)	04/07/11 16:20	04/08/11 08:45	04/12/11 16:11	5.04	14.00	04/14/11 19:54	2.15	40.00	
8101-6N (20110407)	04/07/11 16:30	04/08/11 08:45	04/12/11 16:11	5.03	14.00	04/14/11 20:13	2.17	40.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1104087

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1D09814-BS1 File ID: 004F0401.D

Sampled: Prepared: Analyzed: 04/14/11 14:38

Solids: Preparation: EXT_3546 Dilution:

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016	163.4	4.20	17.0	
11097-69-1	Aroclor-1254		4.20	17.0	U
11096-82-5	Aroclor-1260	158.2	4.20	17.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.53	93.2	70 - 125	
Decachlorobiphenyl	16.67	15.27	91.6	60 - 125	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant201(
Matrix:
Laboratory ID: 1D09814-BS1
File ID: 004R0401.D
Sampled:
Prepared:
Analyzed: 04/14/11 14:38
Solids:
Preparation: EXT_3546
Dilution:
Batch: 1D09814
Sequence: 1D10505
Calibration: 1104004
Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016 [2C]	179.9	4.20	17.0	
11097-69-1	Aroclor-1254 [2C]		4.20	17.0	U
11096-82-5	Aroclor-1260 [2C]	176.1	4.20	17.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	16.44	98.6	70 - 125	
Decachlorobiphenyl [2C]	16.67	15.83	95.0	60 - 125	

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

8101-5W (20110407)

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1104087-11 Date(s) Analyzed: 04/14/2011 04/14/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1254	1	8.54	-0.03	0.03	53.0	
	2	7.02	-0.03	0.03	51.7	3

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

8101-6N (20110407)

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1104087-12 Date(s) Analyzed: 04/14/2011 04/14/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1254	1	9.05	-0.03	0.03	160	
	2	7.02	-0.03	0.03	138	15

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1D09814-BS1 Date(s) Analyzed: 04/14/2011 04/14/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	6.85	6.86	6.92	163.4	
	2	5.64	5.64	5.70	179.9	10
Aroclor-1260	1	10.91	10.94	11.00	158.2	
	2	8.15	8.17	8.23	176.1	11

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1104087

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** GL-ECD3

Analyte	MDL	MRL	Units	Method
Aroclor-1254	4.20	17.0	ug/Kg	SW8082A

Data for SW8082A
Supporting Raw Data / Logs

Sequence Table (Front Injector): Back

p 296

Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	SEQ-CAL1 10J0240	8081_82	1	Sample		
2	Vial 2	SEQ-CAL2 10J0241	8081_82	1	Sample		
3	Vial 3	SEQ-CAL3 10J0242	8081_82	1	Sample		
4	Vial 4	SEQ-CAL4 10J0243	8081_82	1	Sample		
~~5~~	~~Vial 25~~	~~0K22021-BS1,R&D~~	~~8081_82~~	~~1~~	~~Sample~~		
6	Vial 5	SEQ-CAL5 11J0244	8081_82	1	Sample		
7	Vial 6	SEQ-CAL6 10J0245	8081_82	1	Sample		
8	Vial 7	SEQ-ICV1 10J0248	8081_82	1	Sample		
9	Vial 8	SEQ-CAL7 10K0734	8081_82	1	Sample		
10	Vial 9	SEQ-CAL8 10K0735	8081_82	1	Sample		
11	Vial 10	SEQ-CAL9 10K0736	8081_82	1	Sample		
12	Vial 11	SEQ-CALA 10K0737	8081_82	1	Sample		
13	Vial 12	SEQ-CALB 10K0738	8081_82	1	Sample		
14	Vial 13	SEQ-CALC 10K0739	8081_82	1	Sample		
15	Vial 14	SEQ-ICV2 10K0742	8081_82	1	Sample		
16	Vial 15	SEQ-CCV1 10J0157 AB	8081_82	1	Sample		
17	Vial 16	SEQ-CCV2 1060159 1660	8081_82	1	Sample		
18	Vial 17	SEQ-CCV3 10J0241 1254	8081_82	1	Sample		
19	Vial 18	SEQ-CCV4 10K0735 1268	8081_82	1	Sample		
20	Vial 19	1011193-01 IX	8081_82	1	Sample		
21	Vial 20	1011193-03 IX	8081_82	1	Sample		
22	Vial 21	SEQ-CCV5 10J0157 AO	8081_82	1	Sample		
23	Vial 22	SEQ-CCV6 1060159 1660	8081_82	1	Sample		
24	Vial 23	SEQ-CCV7 10J0241 1254	8081_82	1	Sample		
25	Vial 24	SEQ-CCV8 10K0735	8081_82	1	Sample		
~~26~~	~~Vial 25~~	~~0K22021-BS1~~	~~8081_82~~	~~1~~	~~Sample~~		

1254 curve

1254 curve

1268 curve

11/30/10

not used

~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

JCG 12-1-10

Laboratory Name:

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001F0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 24-NOV-2010 17:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.242	8.235	(0.007)	4540658	2500.00	2518	80.00- 120.00	100.00
7.549	7.542	(0.007)	2654271	2500.00	2445	46.76- 70.15	58.46
7.809	7.802	(0.007)	4346663			76.58- 114.87	95.73
8.139	8.128	(0.011)	2703565	2500.00	2472	47.63- 71.45	59.54
8.592	8.582	(0.010)	3762268	2500.00	2470	66.29- 99.43	82.86
9.105	9.098	(0.007)	3871825	2500.00	2506	68.22- 102.32	85.27
		Average of Peak Amounts =			2482		

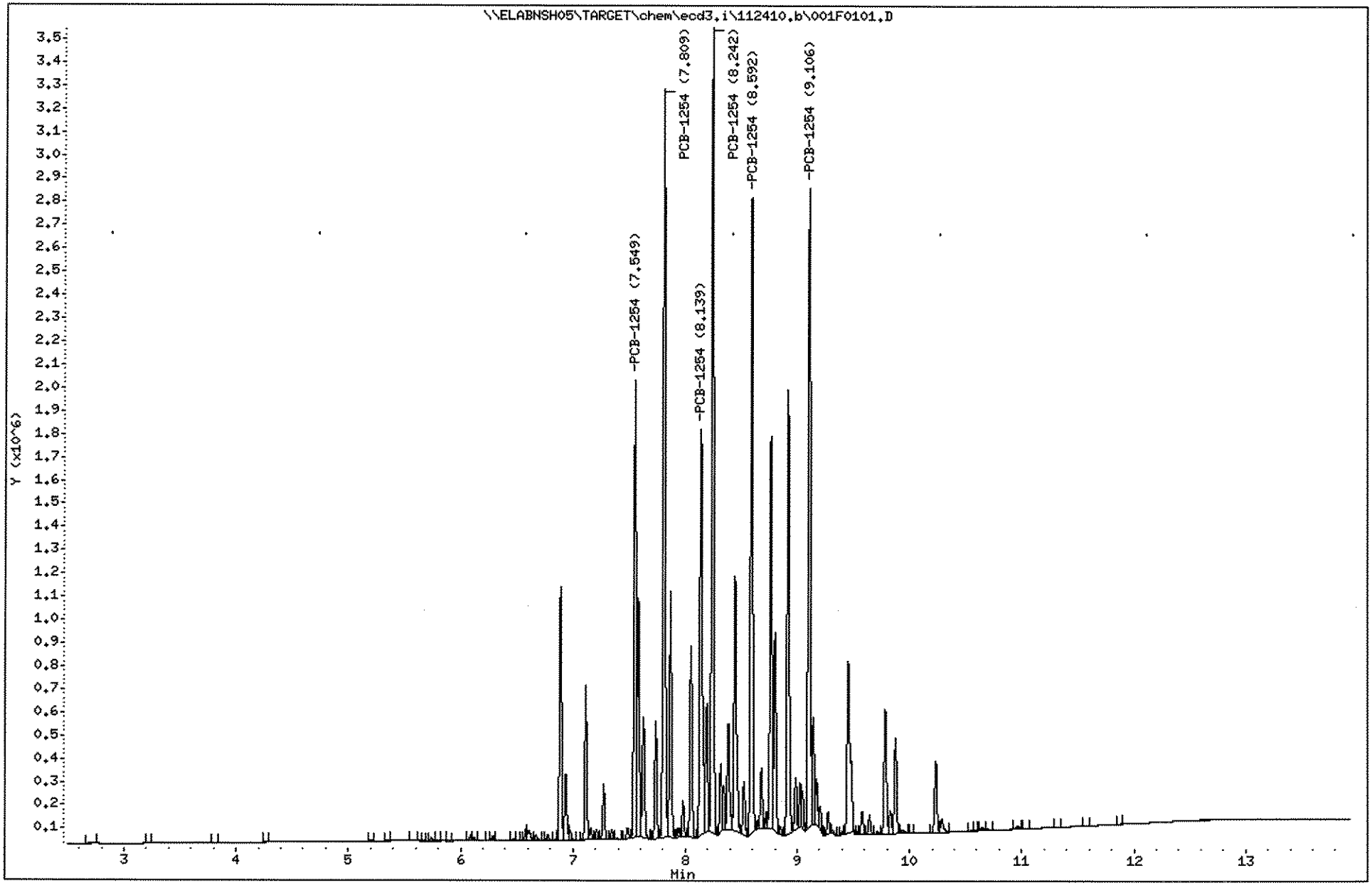
WL
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001F0101.D
Date : 24-NOV-2010 17:39
Client ID:
Sample Info: SEQ-CAL1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



12.1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002F0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 24-NOV-2010 17:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			-
8.235	8.235	(0.000)	1800472	1000.00	998.4	80.00-	120.00	100.00
7.542	7.542	(0.000)	1065415	1000.00	981.5	47.34-	71.01	59.17
7.802	7.802	(0.000)	1718086			76.34-	114.51	95.42
8.128	8.128	(0.000)	1086616	1000.00	993.8	48.28-	72.42	60.35
8.582	8.582	(0.000)	1496942	1000.00	982.8	66.51-	99.77	83.14
9.098	9.098	(0.000)	1558402	1000.00	1009	69.24-	103.87	86.56
		Average of Peak Amounts =			993.1			

11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002F0201.D

Date : 24-NOV-2010 17:58

Client ID:

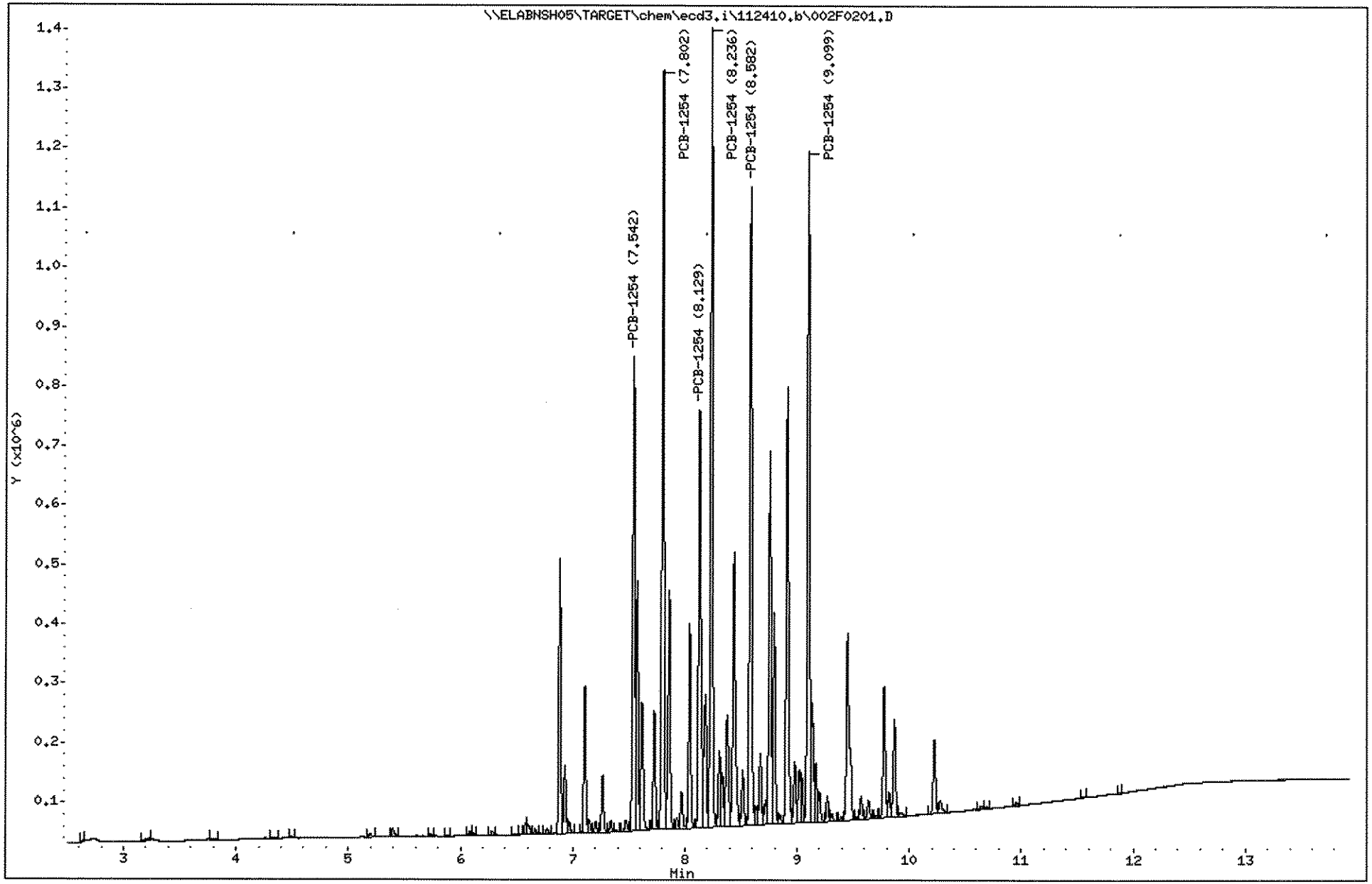
Sample Info: SEQ-CAL2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL

Column diameter: 0.32



JLG 12-1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003F0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 24-NOV-2010 18:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

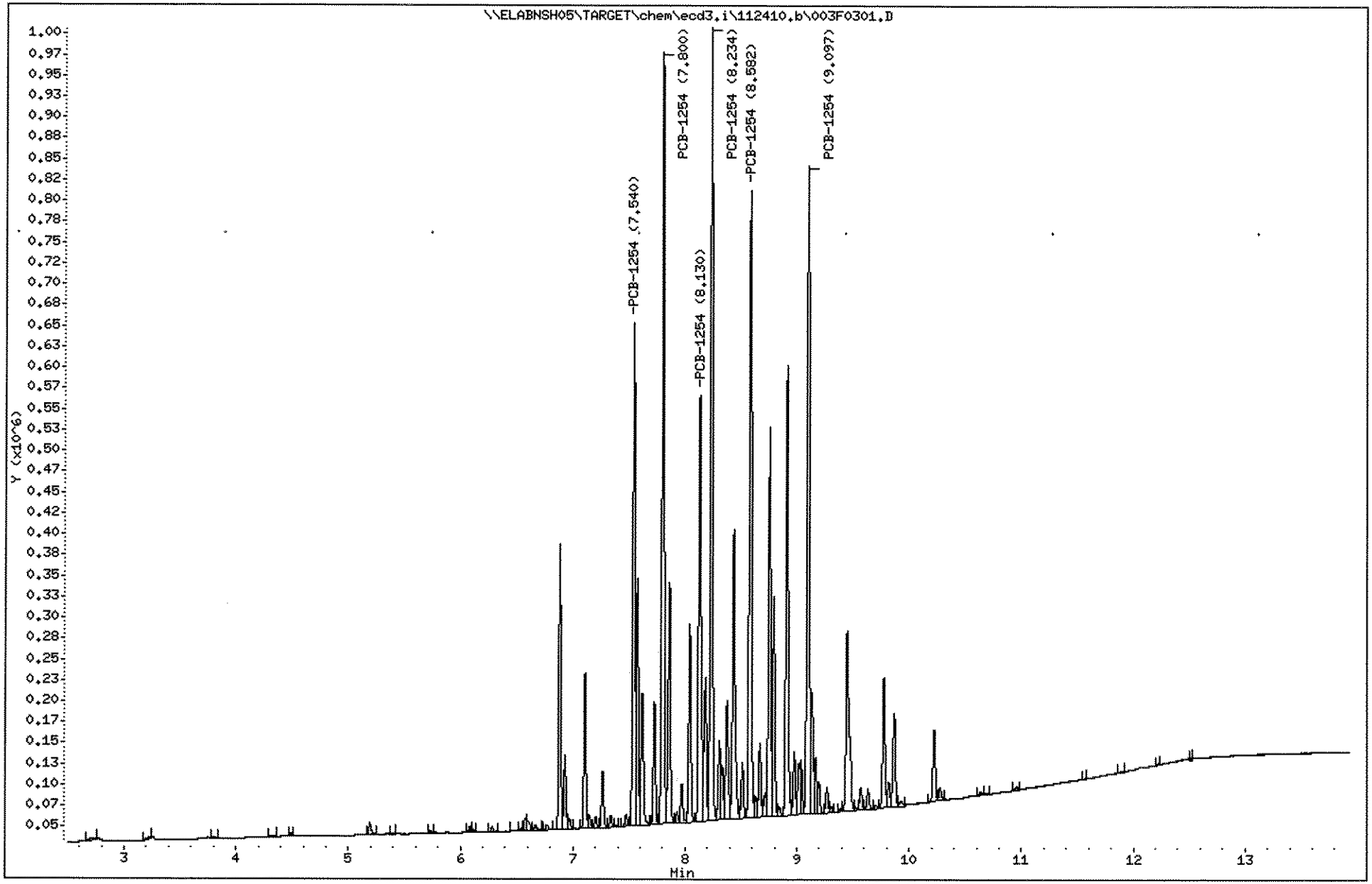
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.233	8.235	(-0.002)	1320845	750.000	732.4	80.00-	120.00	100.00
7.540	7.542	(-0.002)	781597	750.000	720.1	47.34-	71.01	59.17
7.800	7.802	(-0.002)	1268132			76.81-	115.21	96.01
8.130	8.128	(0.002)	804079	750.000	735.4	48.70-	73.05	60.88
8.581	8.582	(-0.001)	1100891	750.000	722.8	66.68-	100.02	83.35
9.096	9.098	(-0.002)	1126403	750.000	729.2	68.22-	102.33	85.28
Average of Peak Amounts =					728			

11/30 lb

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003F0301.D
Date : 24-NOV-2010 18:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

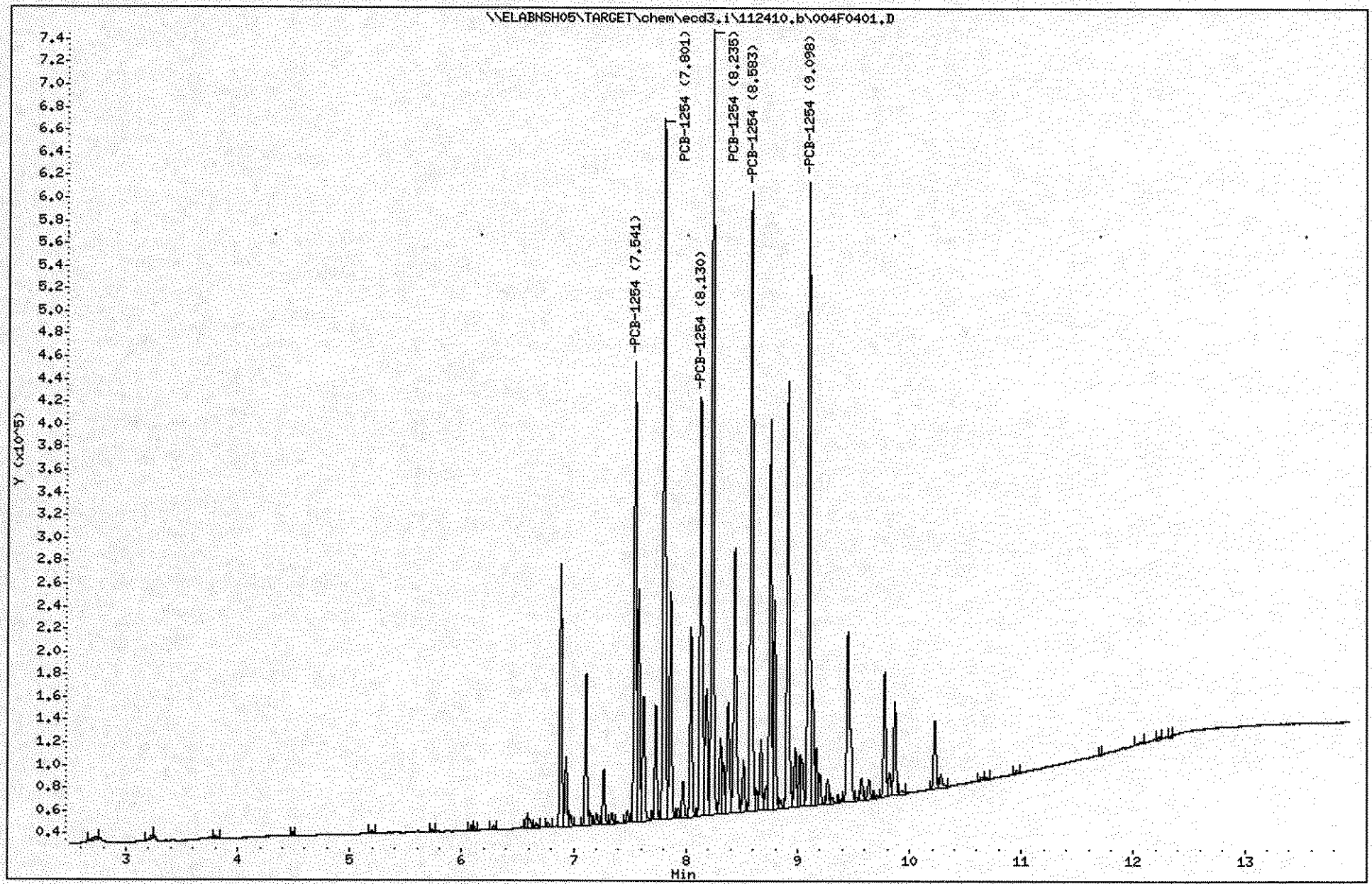
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004F0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 24-NOV-2010 18:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
					CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE		(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34	PCB-1254					CAS #: 11097-69-1		
8.234	8.235	(-0.001)	926617	500.000		513.8	80.00- 120.00	100.00
7.541	7.542	(-0.001)	545175	500.000		502.2	47.07- 70.60	58.83
7.801	7.802	(-0.001)	888930				76.75- 115.12	95.93
8.129	8.128	(0.001)	564511	500.000		516.3	48.74- 73.11	60.92
8.583	8.582	(0.001)	773829	500.000		508.0	66.81- 100.21	83.51
9.098	9.098	(0.000)	802615	500.000		519.6	69.29- 103.94	86.62
		Average of Peak Amounts =				512		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004F0401.D
Date : 24-NOV-2010 18:35
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



JLG 12-1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005F0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 24-NOV-2010 19:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.235	8.235	(0.000)	175493	100.000	97.32	80.00- 120.00	100.00
7.543	7.542	(0.001)	109712	100.000	101.1	50.01- 75.02	62.52
7.800	7.802	(-0.002)	172231			78.51- 117.77	98.14
8.131	8.128	(0.003)	106489	100.000	97.39	48.54- 72.82	60.68
8.585	8.582	(0.003)	152954	100.000	100.4	69.73- 104.59	87.16
9.100	9.098	(0.002)	150421	100.000	97.38	68.57- 102.86	85.71
		Average of Peak Amounts =			98.72		

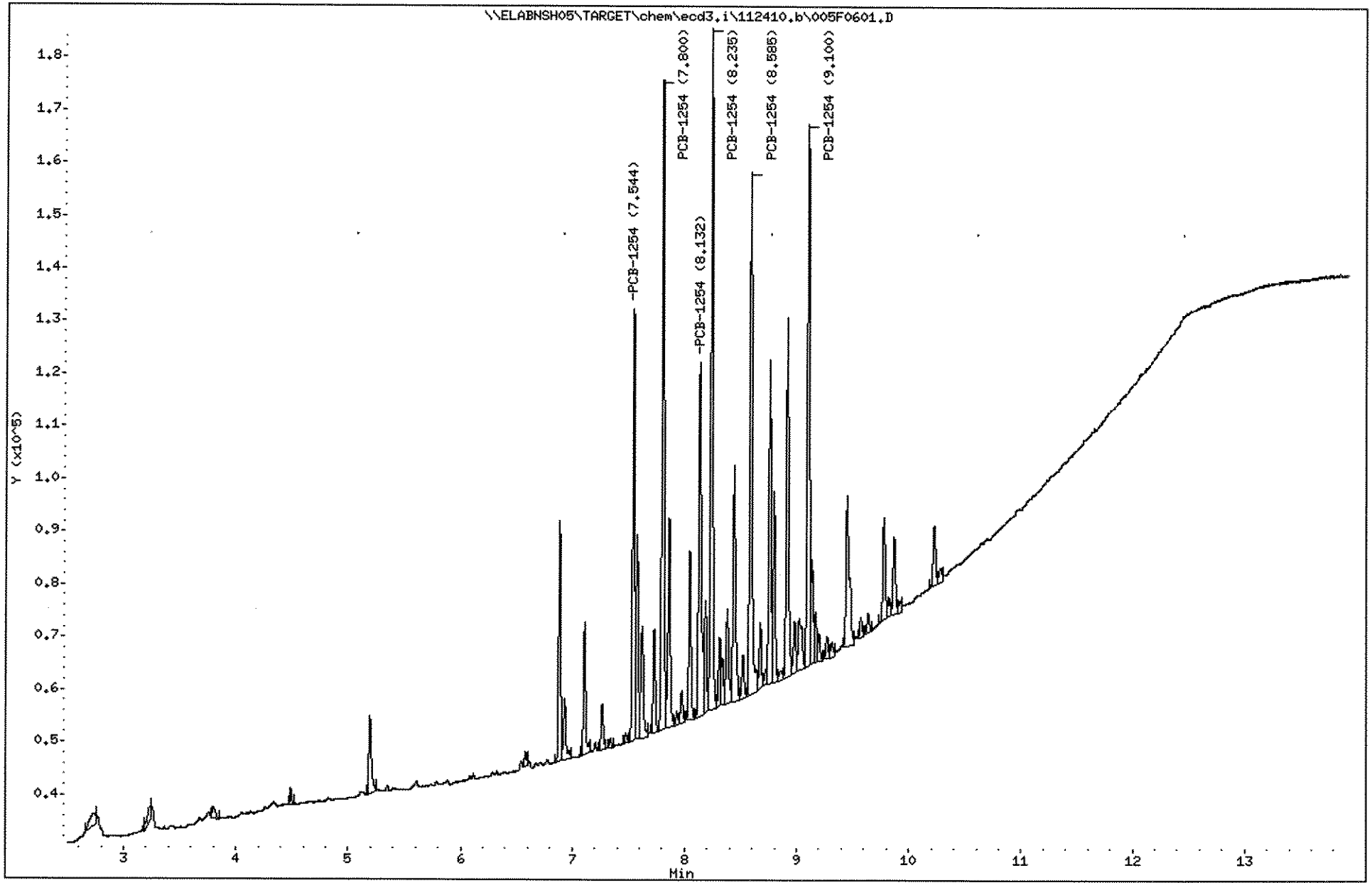
WL 11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005F0601.D
Date : 24-NOV-2010 19:12
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



70
1104087

12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006F0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 24-NOV-2010 19:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.235	8.235	(0.000)	91690	50.0000	50.84	80.00-	120.00	100.00
7.543	7.542	(0.001)	57800	50.0000	53.25	50.43-	75.65	63.04
7.801	7.802	(-0.001)	91309			79.67-	119.50	99.58
8.131	8.128	(0.003)	56325	50.0000	51.51	49.14-	73.72	61.43
8.585	8.582	(0.003)	79599	50.0000	52.26	69.45-	104.18	86.81
9.098	9.098	(0.000)	77480	50.0000	50.16	67.60-	101.40	84.50
Average of Peak Amounts =					51.61			

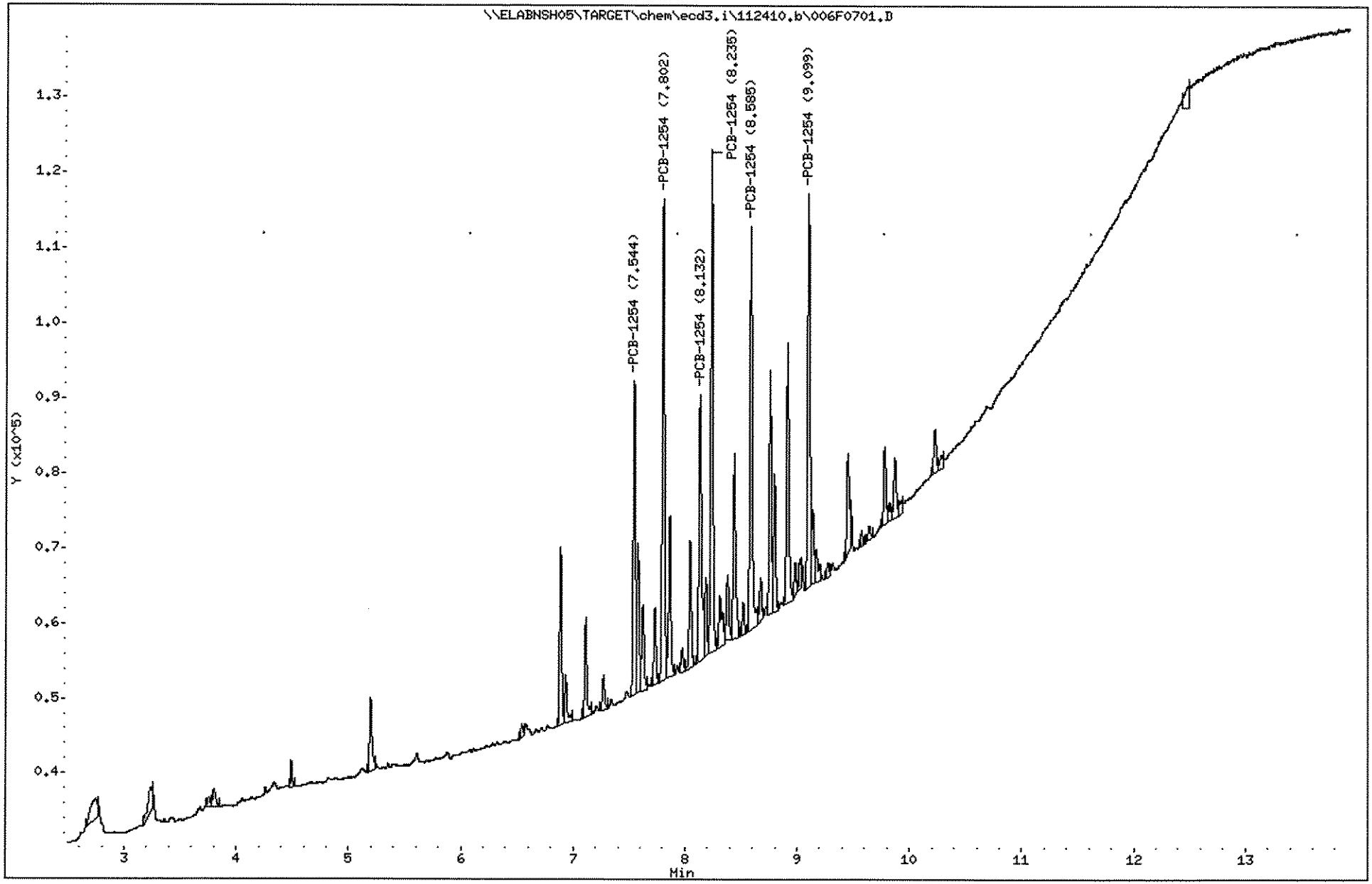
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006F0701.D
Date : 24-NOV-2010 19:31
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

JLG 12-1-10

Instrument ID: ecd3.i Injection Date: 24-NOV-2010 19:49
Lab File ID: 007F0801.D Init. Cal. Date(s): 01-JUL-2010 24-NOV-2010
Analysis Type: Init. Cal. Times: 08:58 21:41
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1755	0.010	-2.7	20.0	
(2)	1085	1035	0.010	-4.7	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1070	0.010	-2.2	20.0	
(5)	1523	1456	0.010	-4.4	20.0	
(6)	1545	1501	0.010	-2.8	20.0	

11/30/10

JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007F0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 24-NOV-2010 19:49
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
RT	EXP RT	DLT RT	RESPONSE				
34 PCB-1254					CAS #: 11097-69-1		
8.236	8.235	(0.001)	1754749	1000.00	973.1	80.00- 120.00	100.00
7.543	7.542	(0.001)	1034595	1000.00	953.1	47.17- 70.75	58.96
7.803	7.802	(0.001)	1680755			76.63- 114.94	95.78
8.131	8.128	(0.003)	1069689	1000.00	978.3	48.77- 73.15	60.96
8.585	8.582	(0.003)	1456336	1000.00	956.1	66.40- 99.59	82.99
9.100	9.098	(0.002)	1501287	1000.00	971.9	68.44- 102.67	85.56
		Average of Peak Amounts =			966.5		

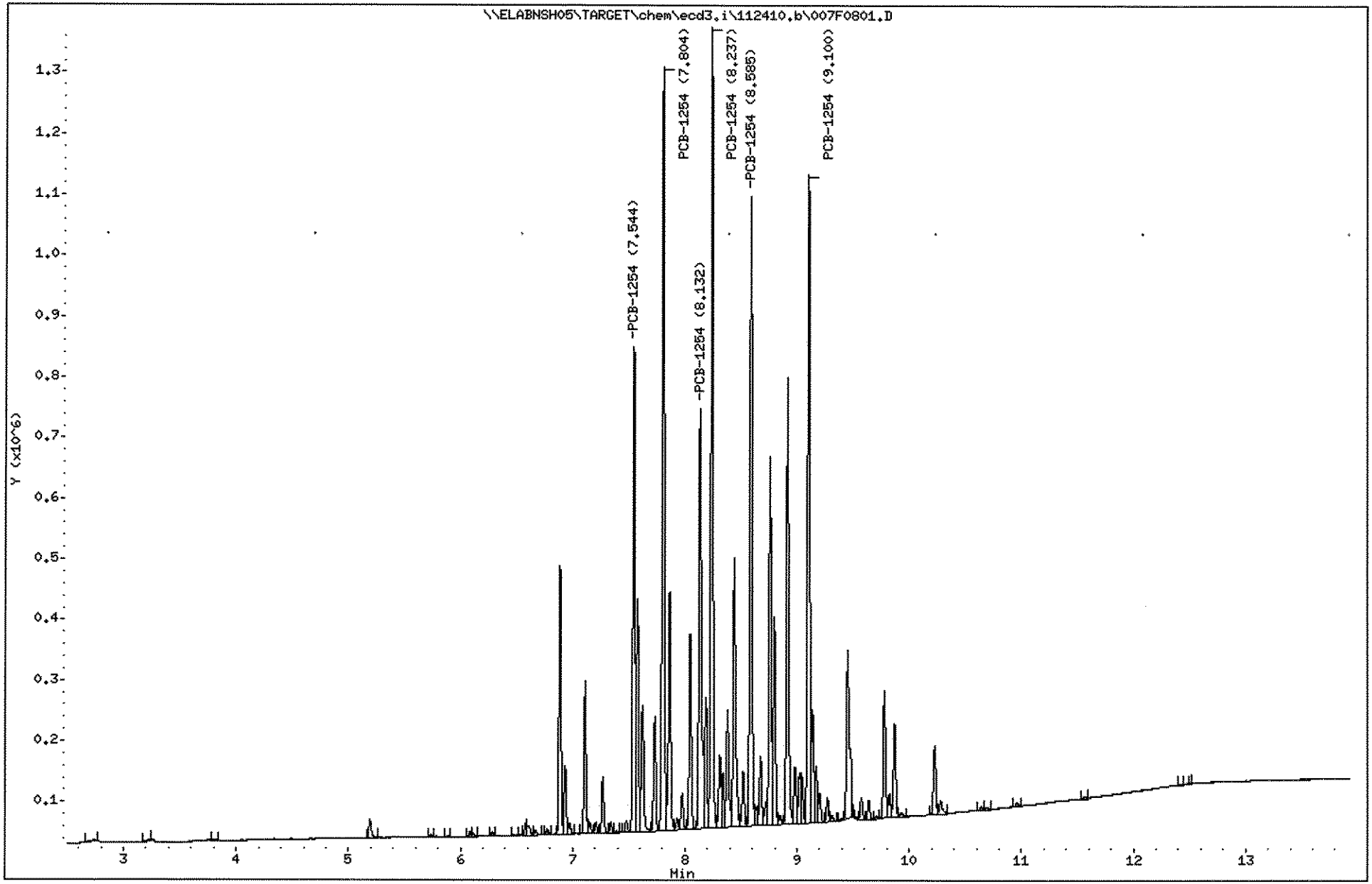
WL 11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007F0801.D
Date : 24-NOV-2010 19:49
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



JLG 12-1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001R0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 24-NOV-2010 17:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

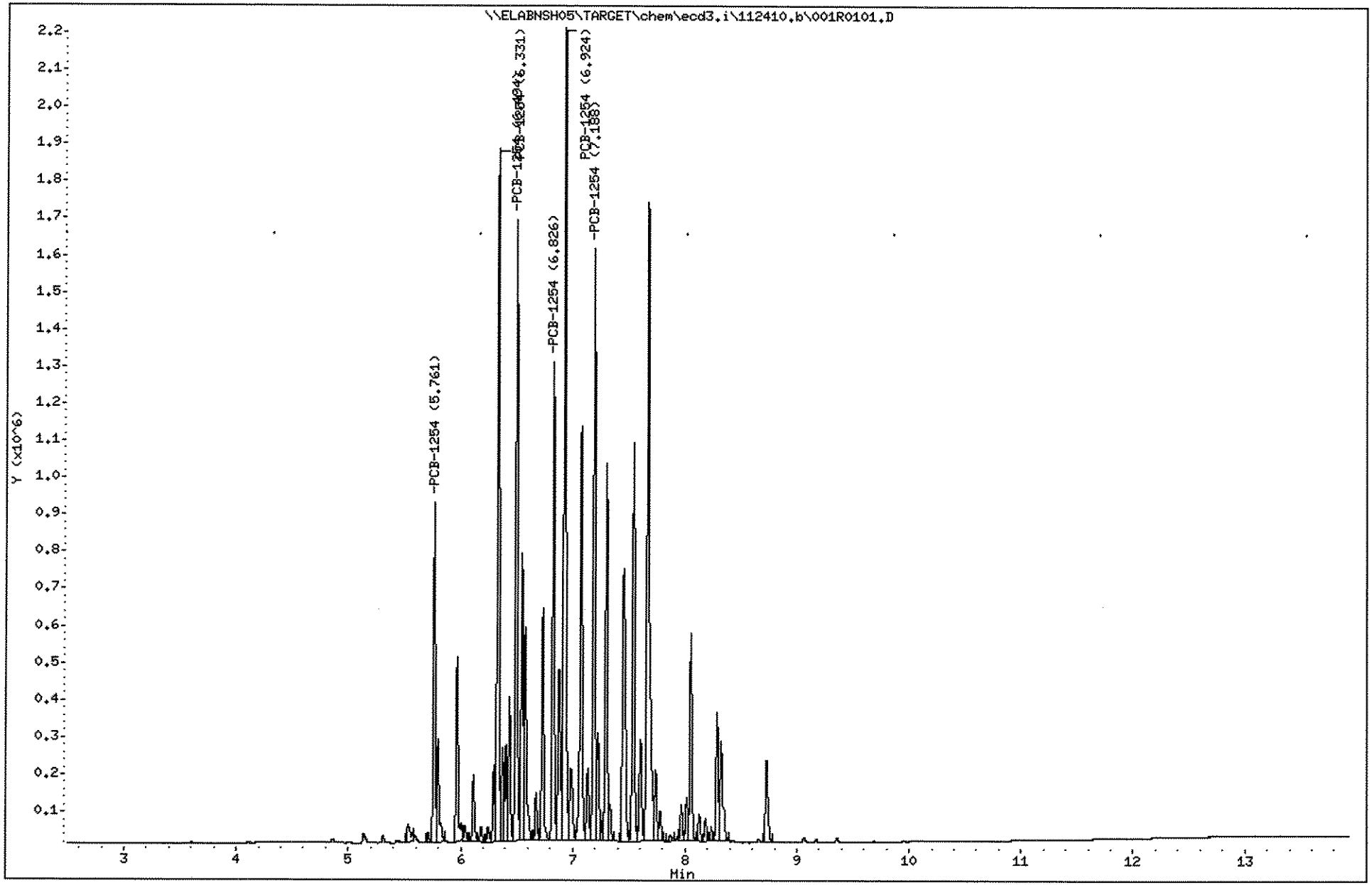
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.924	6.922	(0.002)	3028444	2500.00	2261	80.00- 120.00	100.00
5.760	5.760	(0.000)	1008424			26.64- 39.96	33.30
6.330	6.329	(0.001)	2351988	2500.00	2092	62.13- 93.20	77.66
6.494	6.492	(0.002)	2050947	2500.00	2138	54.18- 81.27	67.72
6.825	6.822	(0.003)	1621417	2500.00	2255	42.83- 64.25	53.54
7.187	7.187	(0.000)	2016204	2500.00	2159	53.26- 79.89	66.58
		Average of Peak Amounts =			2181		

WL 11/24/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001R0101.D
Date : 24-NOV-2010 17:39
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLS 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002R0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 24-NOV-2010 17:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.922	6.922	(0.000)	1259030	1000.00	940.2	80.00-	120.00	100.00
5.760	5.760	(0.000)	426725			27.11-	40.67	33.89
6.329	6.329	(0.000)	998081	1000.00	887.9	63.42-	95.13	79.27
6.492	6.492	(0.000)	867261	1000.00	904.3	55.11-	82.66	68.88
6.822	6.822	(0.000)	671711	1000.00	934.4	42.68-	64.02	53.35
7.187	7.187	(0.000)	809888	1000.00	867.3	51.46-	77.19	64.33
Average of Peak Amounts =					906.8			

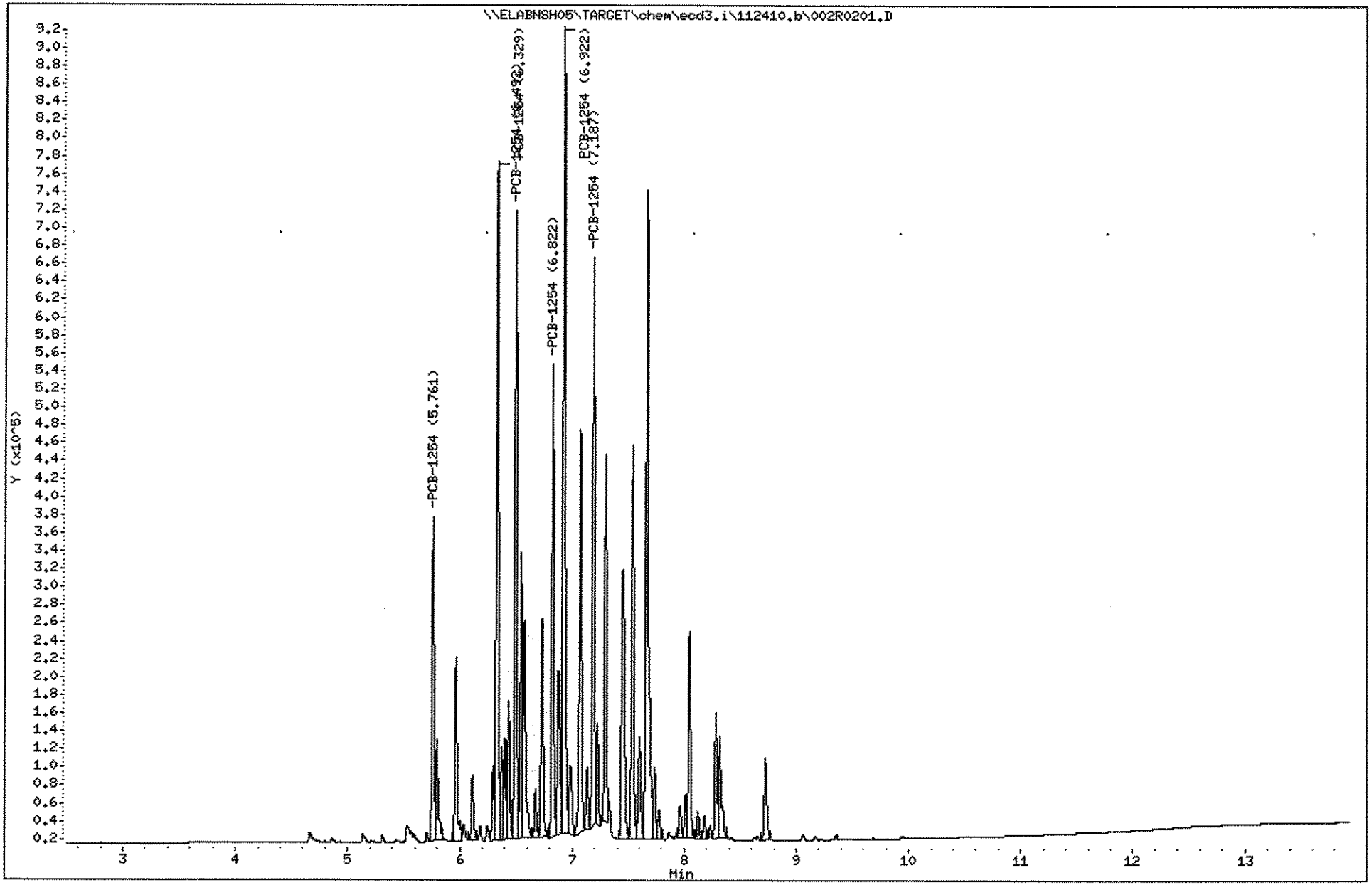
WL
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002R0201.D
Date : 24-NOV-2010 17:58
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003R0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 24-NOV-2010 18:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.922	6.922	(0.000)	965422	750.000	720.9	80.00-	120.00	100.00
5.760	5.760	(0.000)	314051			26.02-	39.04	32.53
6.330	6.329	(0.001)	764990	750.000	680.6	63.39-	95.09	79.24
6.493	6.492	(0.001)	657715	750.000	685.8	54.50-	81.75	68.13
6.823	6.822	(0.001)	512383	750.000	712.7	42.46-	63.69	53.07
7.187	7.187	(0.000)	605060	750.000	647.9	50.14-	75.21	62.67
Average of Peak Amounts =					689.6			

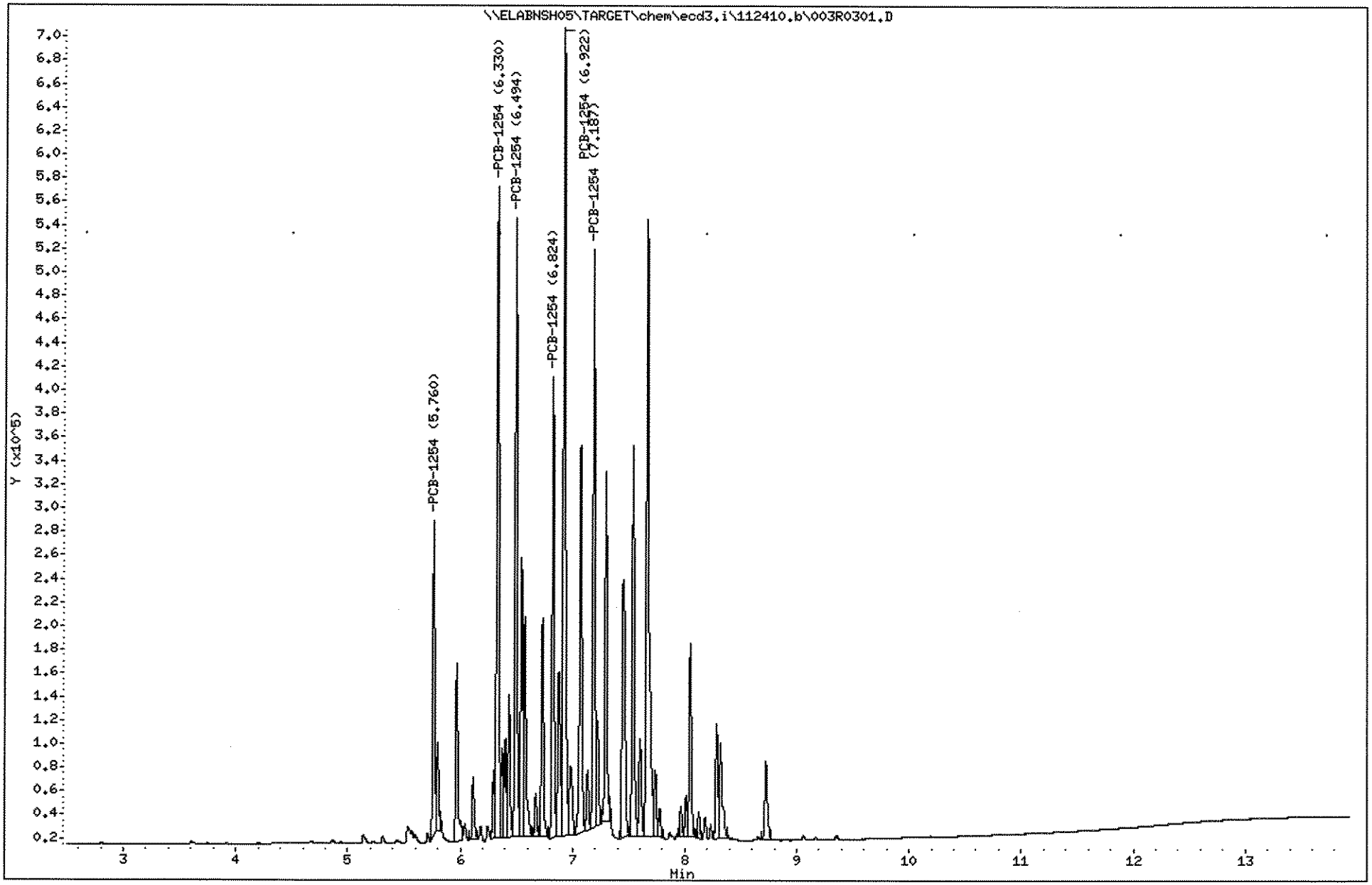
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003R0301.D
Date : 24-NOV-2010 18:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004R0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 24-NOV-2010 18:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
**	======	========	========	=======	=======	==========		=====
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.923	6.922	(0.001)	673011	500.000	502.6	80.00-	120.00	100.00
5.761	5.760	(0.001)	223775			26.60-	39.90	33.25
6.331	6.329	(0.002)	543365	500.000	483.4	64.59-	96.88	80.74
6.494	6.492	(0.002)	456817	500.000	476.3	54.30-	81.45	67.88
6.824	6.822	(0.002)	359536	500.000	500.1	42.74-	64.11	53.42
7.188	7.187	(0.001)	502144	500.000	537.7	59.69-	89.53	74.61
Average of Peak Amounts =					500			

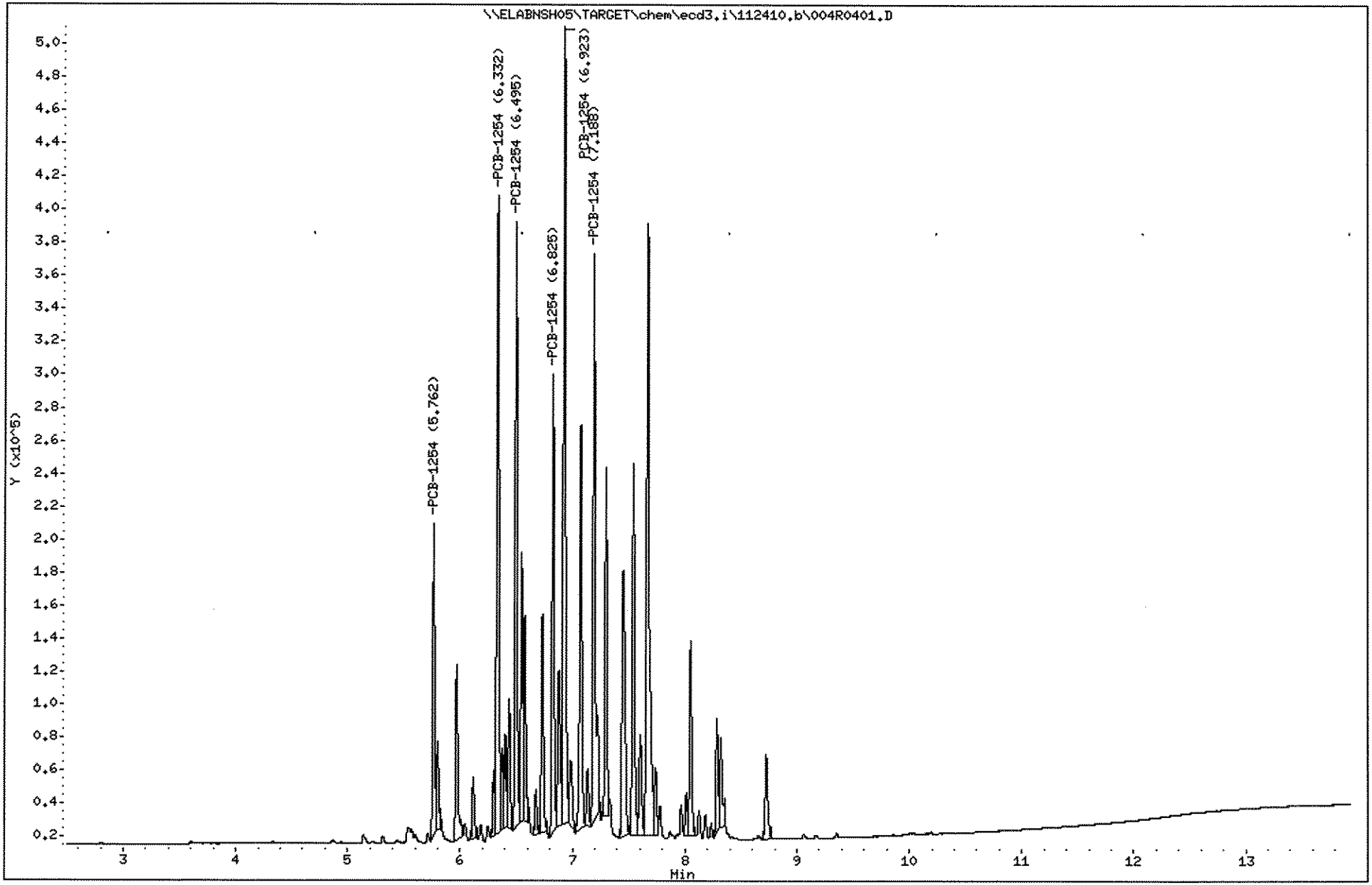
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004R0401.D
Date : 24-NOV-2010 18:35
Client ID:
Sample Info: SEQ-CAL4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



JLG 12.1.10

Laboratory Name:

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005R0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 24-NOV-2010 19:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)		
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.927	6.922	(0.005)	138274	100.000	103.2	80.00- 120.00	100.00
5.765	5.760	(0.005)	54356			31.45- 47.17	39.31
6.332	6.329	(0.003)	125529	100.000	111.7	72.63- 108.94	90.78
6.497	6.492	(0.005)	106846	100.000	111.4	61.82- 92.73	77.27
6.827	6.822	(0.005)	75024	100.000	104.4	43.41- 65.11	54.26
7.193	7.187	(0.006)	100723	p100.000	107.9	58.27- 87.41	72.84
		Average of Peak Amounts =			107.7		

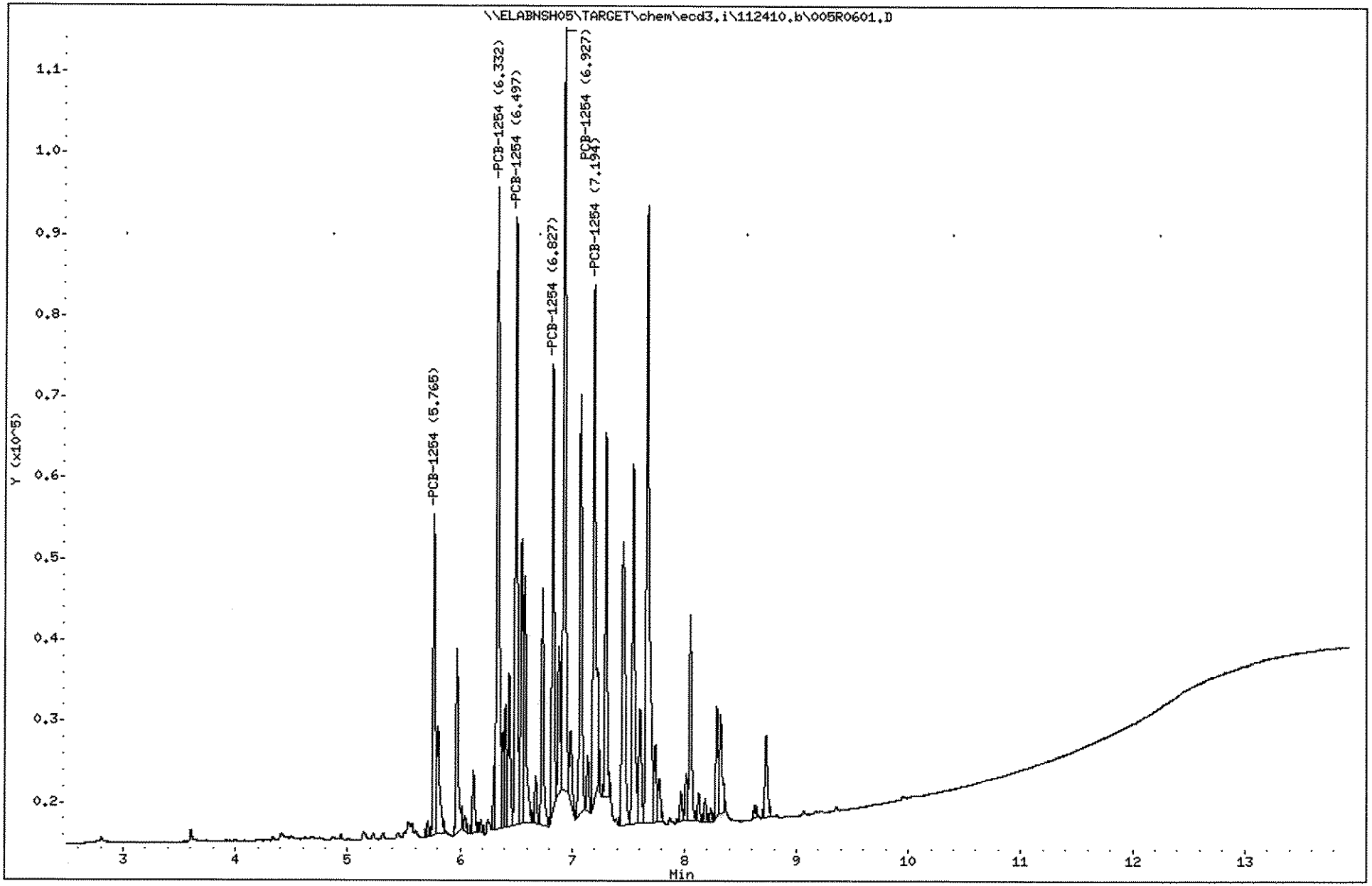
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005R0601.D
Date : 24-NOV-2010 19:12
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006R0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 24-NOV-2010 19:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

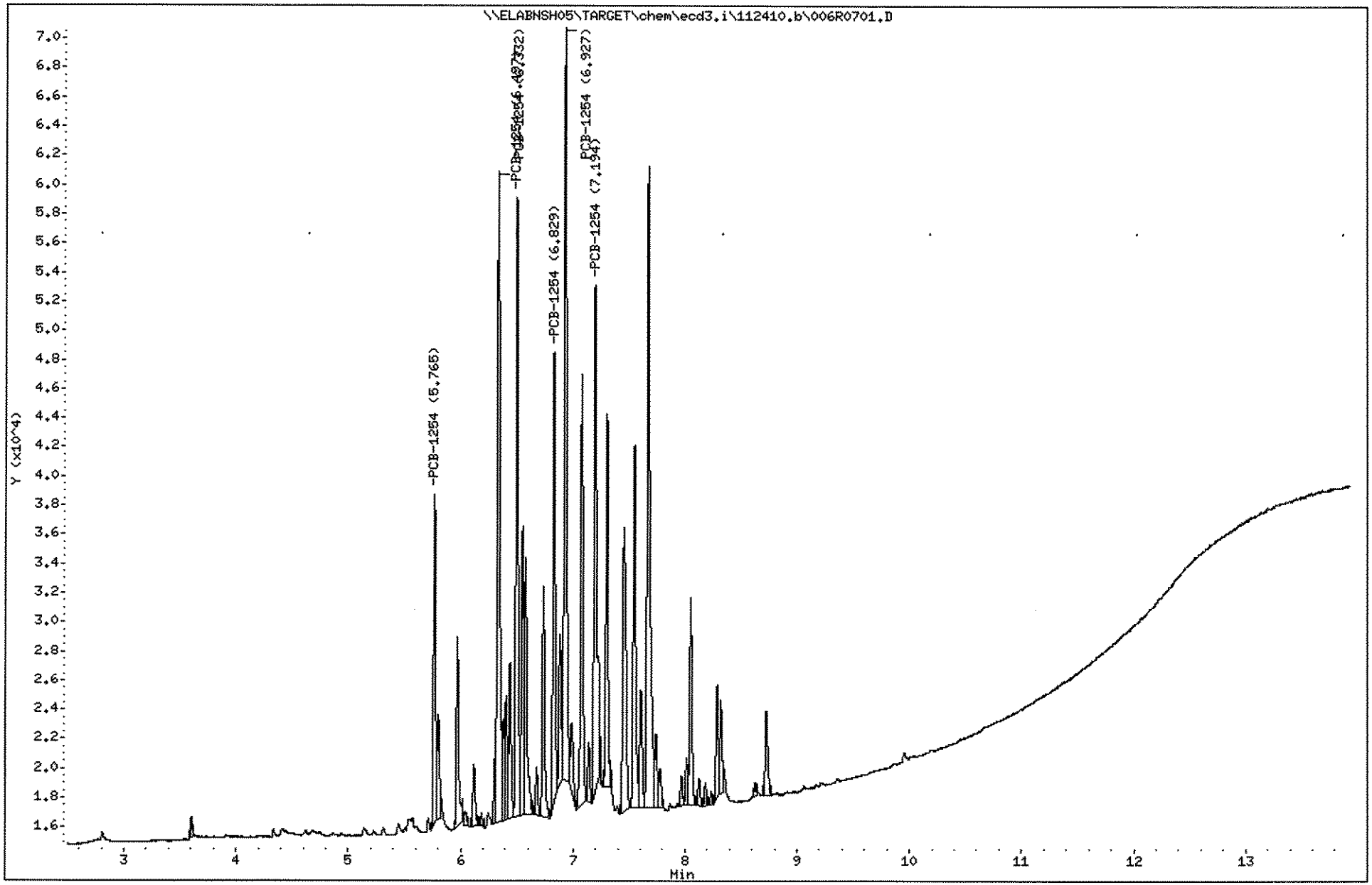
				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.927	6.922	(0.005)	77434	50.0000	57.82	80.00- 120.00	100.00
5.765	5.760	(0.005)	29750			30.74- 46.10	38.42
6.332	6.329	(0.003)	72173	50.0000	64.21	74.56- 111.85	93.21
6.497	6.492	(0.005)	60377	50.0000	62.96	62.38- 93.57	77.97
6.828	6.822	(0.006)	42029	50.0000	58.46	43.42- 65.13	54.28
7.193	7.187	(0.006)	58414	50.0000	62.55	60.35- 90.52	75.44
		Average of Peak Amounts =			61.2		

11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006R0701.D
Date : 24-NOV-2010 19:31
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

12-1-10

Instrument ID: ecd3.i Injection Date: 24-NOV-2010 19:49
Lab File ID: 007R0801.D Init. Cal. Date(s): 01-JUL-2010 24-NOV-2010
Analysis Type: Init. Cal. Times: 08:58 21:41
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1266	0.010	-5.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	988	0.010	-12.1	20.0	
(4)	959	854	0.010	-10.9	20.0	
(5)	719	669	0.010	-6.9	20.0	
(6)	934	829	0.010	-11.2	20.0	

12/30/10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007R0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 24-NOV-2010 19:49
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.925	6.922	(0.003)	1266188	1000.00	945.5	80.00-	120.00	100.00
5.763	5.760	(0.003)	412426			26.06-	39.09	32.57
6.333	6.329	(0.004)	987794	1000.00	878.8	62.41-	93.62	78.01
6.495	6.492	(0.003)	854170	1000.00	890.6	53.97-	80.95	67.46
6.827	6.822	(0.005)	669470	1000.00	931.2	42.30-	63.45	52.87
7.192	7.187	(0.005)	828766	1000.00	887.5	52.36-	78.54	65.45
		Average of Peak Amounts =			906.7			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007R0801.D

Date : 24-NOV-2010 19:49

Client ID:

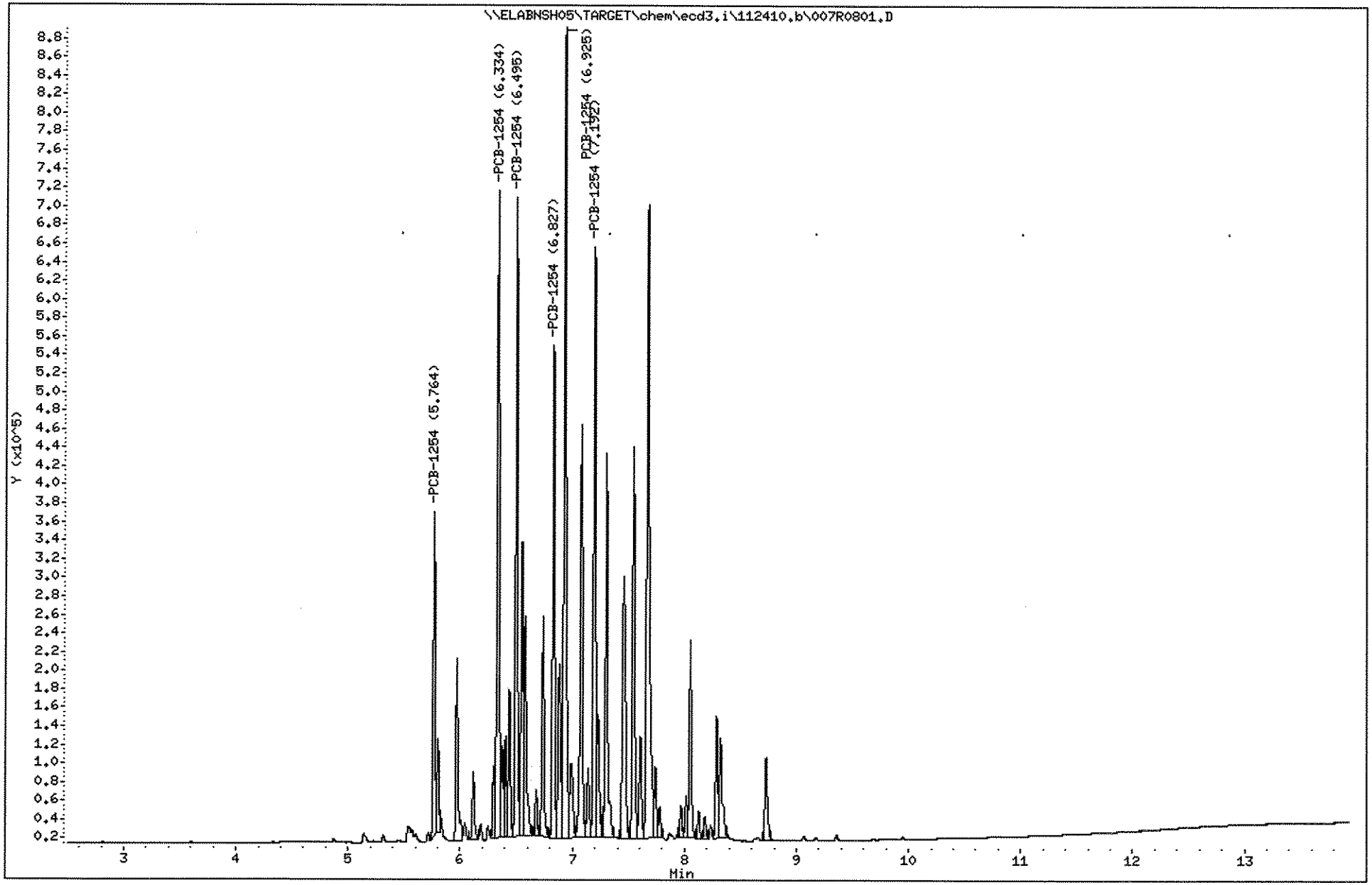
Sample Info: SEQ-ICV1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL

Column diameter: 0.32



90

1104087

Sequence: C:\HPCHEM\ECD3\SEQUENCE\040411.S \ ECD·5 \ HP.E/F \ 8082

PG. 344

Sequence Table (Front/BACK Injector):

4.5.11

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PCB PRIMER				
2	Vial 2	SEQ-CCV1	I.D.# 11C0777			
3	Vial 3	SEQ-CAL1	11A0220 (2500ppb)			
4	Vial 4	SEQ-CAL2	11C0777 (1000ppb)			
5	Vial 5	SEQ-CAL3	11A0221 (750ppb)			
6	Vial 6	SEQ-CAL4	11A0222 (500ppb)			
7	Vial 7	SEQ-CAL5	11A0223 (100ppb)			
8	Vial 8	SEQ-CAL6	11A0224 (50ppb)			
9	Vial 9	SEQ-ICV1	11A00600 (1000ppb)			
10	Vial 10	SEQ-CCV1	11C0777			

~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

J.H. 4.6.11
ajk 04Ok.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040411.b\003F0301.D
Lab Smp Id: SEQ-CAL1
Inj Date : 04-APR-2011 16:51
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:53 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.613	6.606	(0.007)	3044126	2500.00	2459	80.00- 120.00	100.00
5.752	5.746	(0.006)	1028821	2500.00	2260	27.04- 40.56	33.80
6.098	6.091	(0.007)	1526183	2500.00	2328	40.11- 60.16	50.14
6.298	6.291	(0.007)	1598092	2500.00	2435	42.00- 63.00	52.50
6.788	6.780	(0.008)	1612949			42.39- 63.58	52.99
6.897	6.888	(0.009)	1264198	2500.00	2540	33.22- 49.83	41.53
		Average of Peak Amounts =			2404		
35 PCB-1260					CAS #: 11096-82-5		
9.885	9.876	(0.009)	10473528	2500.00	2593	80.00- 120.00	100.00(A)
8.448	8.441	(0.007)	3701540			28.27- 42.41	35.34
8.770	8.761	(0.009)	4444336	2500.00	2618	33.95- 50.92	42.43
9.112	9.106	(0.006)	5133172	2500.00	2595	39.21- 58.81	49.01
9.210	9.205	(0.005)	3949171	2500.00	2426	30.16- 45.25	37.71
9.488	9.481	(0.007)	4168274			31.84- 47.76	39.80
10.238	10.233	(0.005)	5460542			41.71- 62.56	52.14
10.977	10.970	(0.007)	2429718	2500.00	2512	18.56- 27.84	23.20
		Average of Peak Amounts =			2549		

QC Flag Legend

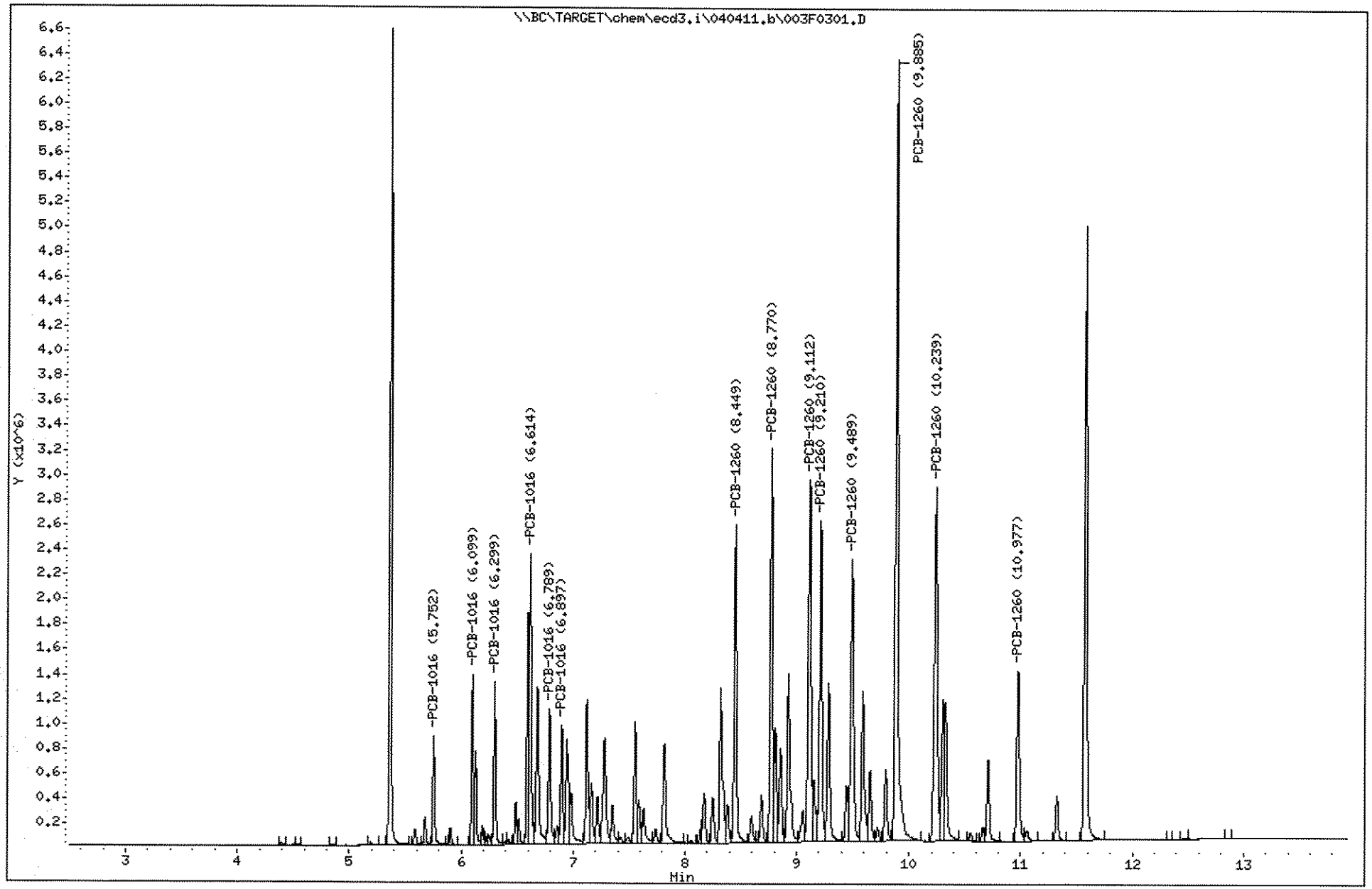
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\003F0301.D
Date : 04-APR-2011 16:51
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.6.11
cis/trans

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

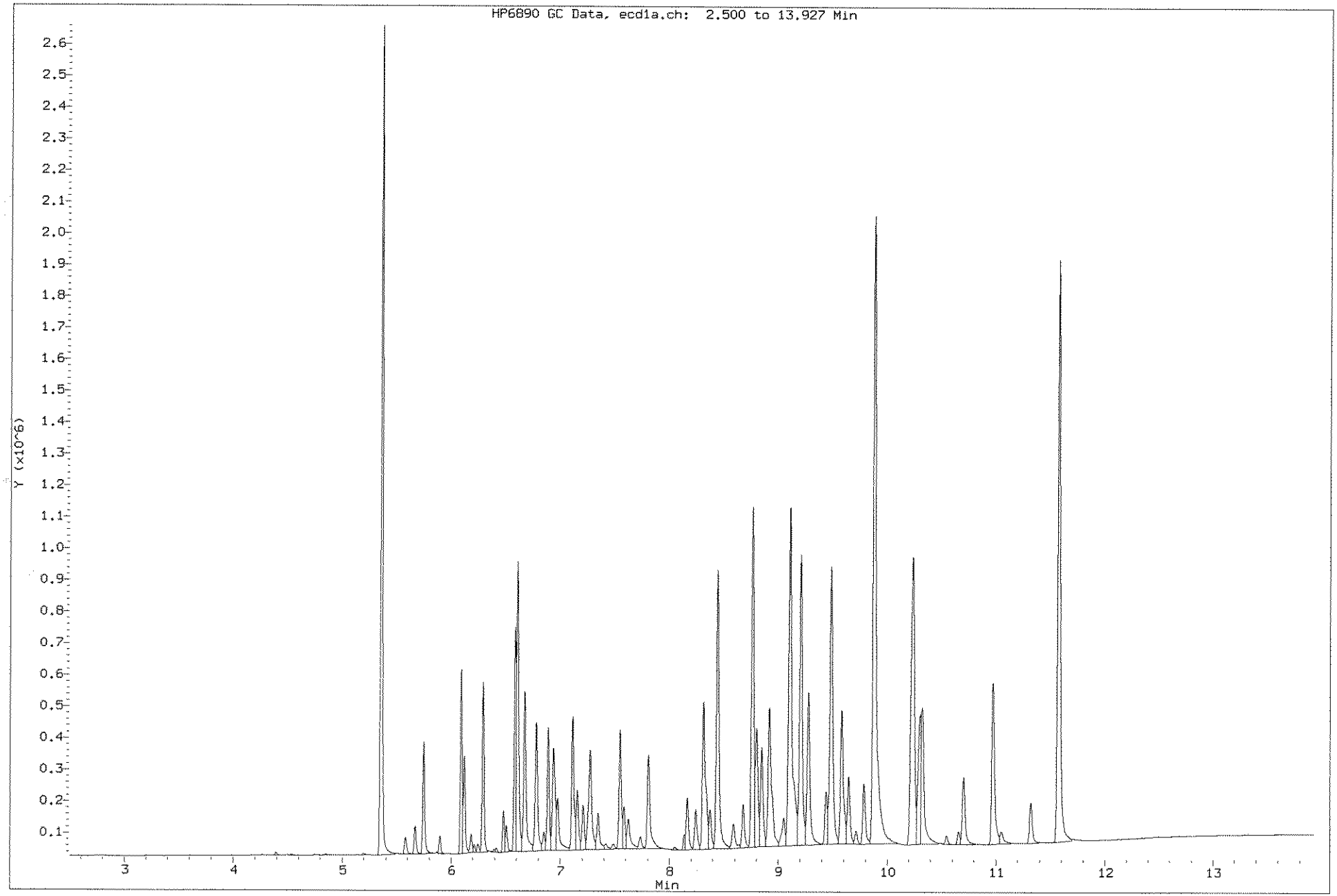
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\004F0401.D
Lab Smp Id: SEQ-CAL2
Inj Date : 04-APR-2011 17:10
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

				AMOUNTS					
					CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE		(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
==	======	========	========		=======	=======	============		=====
29 PCB-1016						CAS #:	12674-11-2		
6.606	6.606	(0.000)	1229998	1000.00		993.6	80.00-	120.00	100.00
5.746	5.746	(0.000)	436264	1000.00		958.4	28.37-	42.56	35.47
6.091	6.091	(0.000)	632399	1000.00		964.7	41.13-	61.70	51.41
6.291	6.291	(0.000)	641394	1000.00		977.3	41.72-	62.58	52.15
6.780	6.780	(0.000)	652172				42.42-	63.63	53.02
6.888	6.888	(0.000)	516371	1000.00		1038	33.59-	50.38	41.98
		Average of Peak Amounts =				986.3			
35 PCB-1260						CAS #:	11096-82-5		
9.876	9.876	(0.000)	4002488	1000.00		991.0	80.00-	120.00	100.00(M)
8.441	8.441	(0.000)	1515826				30.30-	45.45	37.87
8.761	8.761	(0.000)	1626658	1000.00		958.1	32.51-	48.77	40.64
9.106	9.106	(0.000)	1977965	1000.00		999.9	39.53-	59.30	49.42
9.205	9.205	(0.000)	1606553	1000.00		986.8	32.11-	48.17	40.14
9.481	9.481	(0.000)	1650922				33.00-	49.50	41.25
10.233	10.233	(0.000)	2053207				41.04-	61.56	51.30
10.970	10.970	(0.000)	938104	1000.00		969.9	18.75-	28.13	23.44
		Average of Peak Amounts =				981.1			

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\004F0401.D
Injection Date: 04-APR-2011 17:10
Instrument: ecd3.i
Client Sample ID:

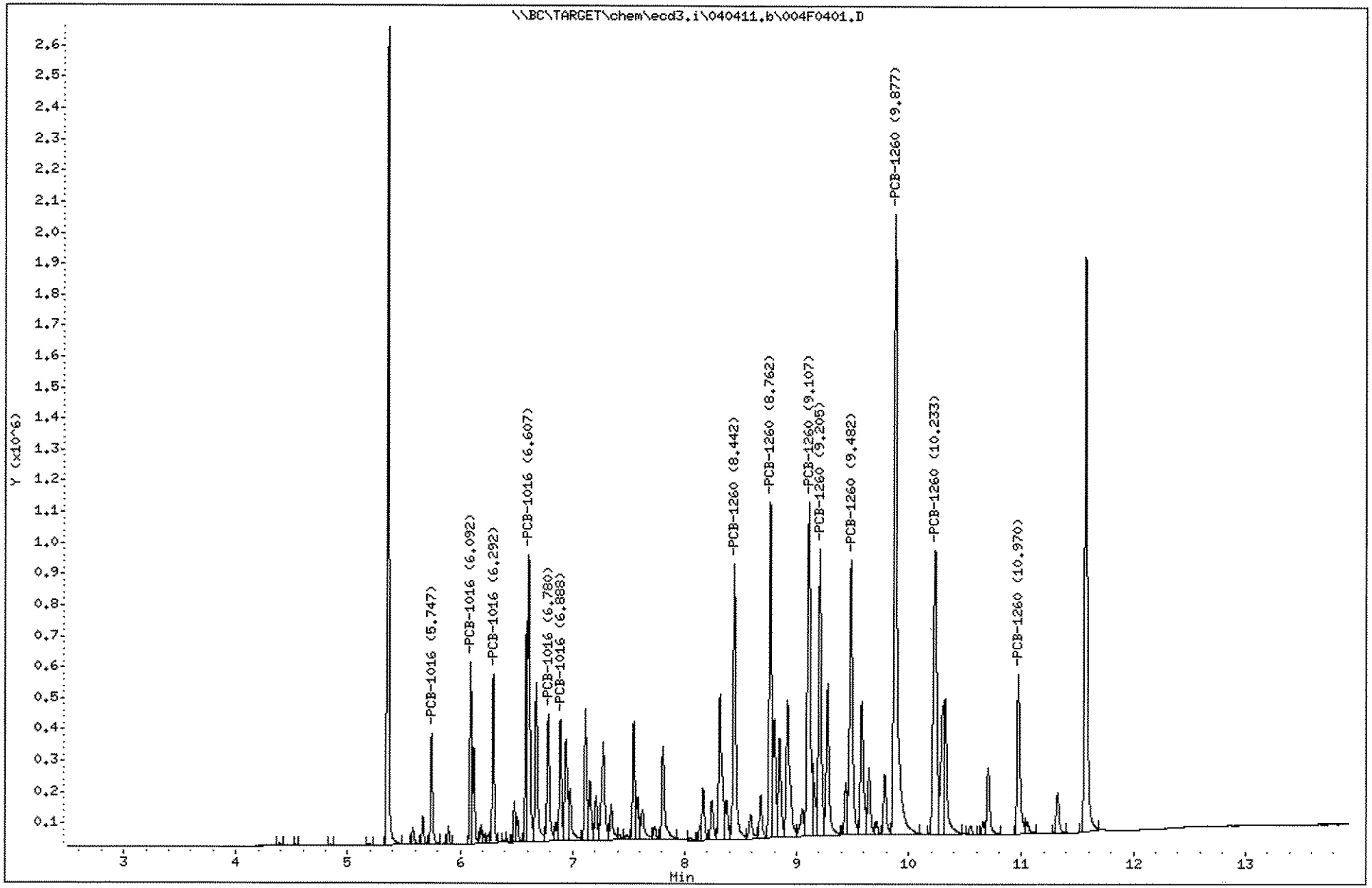


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\004F0401.D
Date : 04-APR-2011 17:10
Client ID:
Sample Info: SEQ-CAL2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

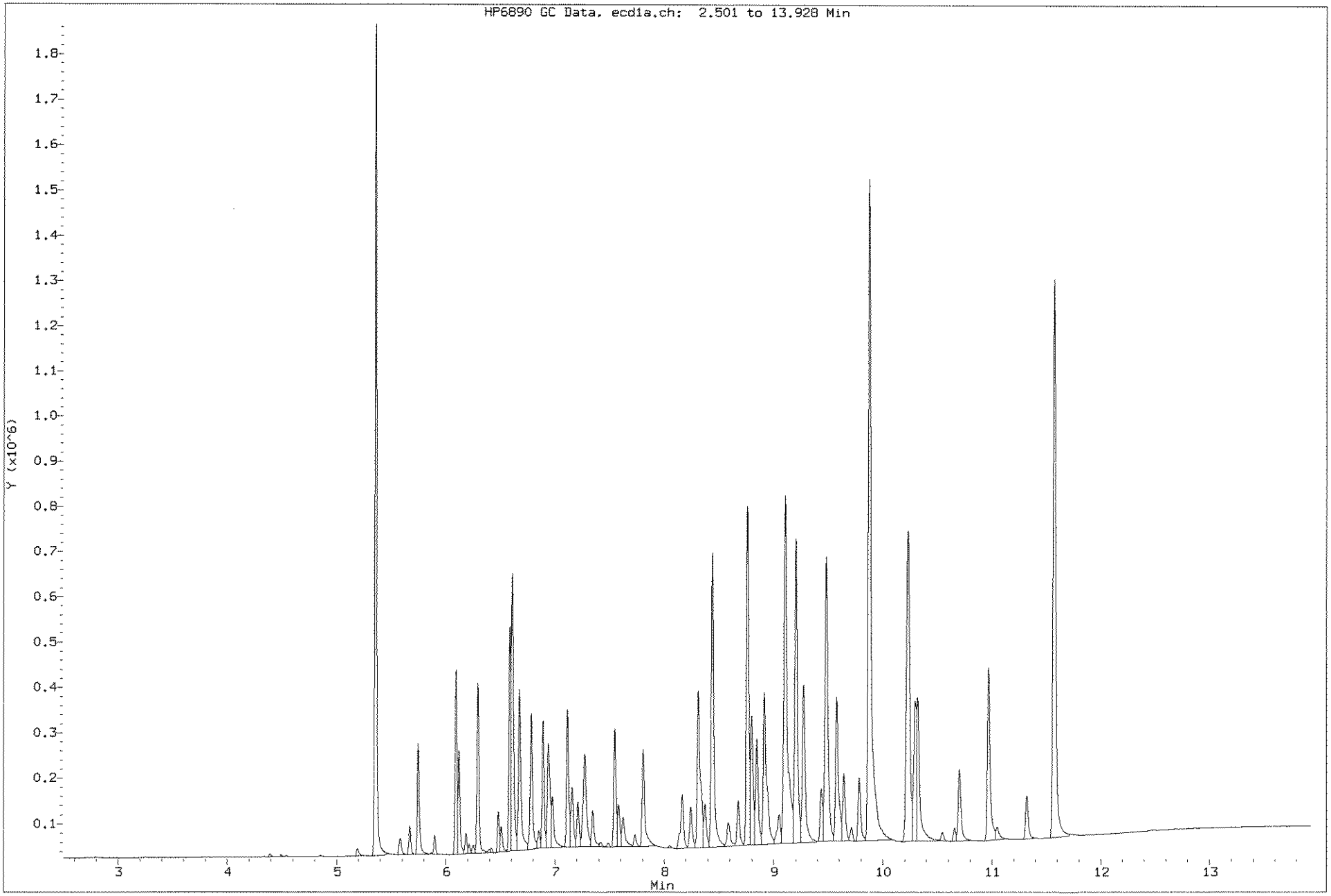
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\005F0501.D
Lab Smp Id: SEQ-CAL3
Inj Date : 04-APR-2011 17:29
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.606	6.606	(0.000)	891943	750.000	720.5	80.00- 120.00	100.00
5.746	5.746	(0.000)	316615	750.000	695.5	28.40- 42.60	35.50
6.092	6.091	(0.001)	461961	750.000	704.7	41.43- 62.15	51.79
6.292	6.291	(0.001)	479499	750.000	730.6	43.01- 64.51	53.76
6.781	6.780	(0.001)	456241			40.92- 61.38	51.15
6.889	6.888	(0.001)	358888	750.000	721.1	32.19- 48.28	40.24
		Average of Peak Amounts =			714.5		
35 PCB-1260					CAS #: 11096-82-5		
9.877	9.876	(0.001)	2864196	750.000	709.1	80.00- 120.00	100.00(M)
8.439	8.441	(-0.002)	1104376			30.85- 46.27	38.56
8.759	8.761	(-0.002)	1175254	750.000	692.2	32.83- 49.24	41.03
9.104	9.106	(-0.002)	1371417	750.000	693.2	38.31- 57.46	47.88
9.202	9.205	(-0.003)	1166089	750.000	716.3	32.57- 48.86	40.71
9.481	9.481	(0.000)	1182029			33.02- 49.52	41.27
10.231	10.233	(-0.002)	1480421			41.35- 62.02	51.69
10.969	10.970	(-0.001)	673691	750.000	696.6	18.82- 28.23	23.52
		Average of Peak Amounts =			701.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\005F0501.D
Injection Date: 04-APR-2011 17:29
Instrument: ecd3.i
Client Sample ID:

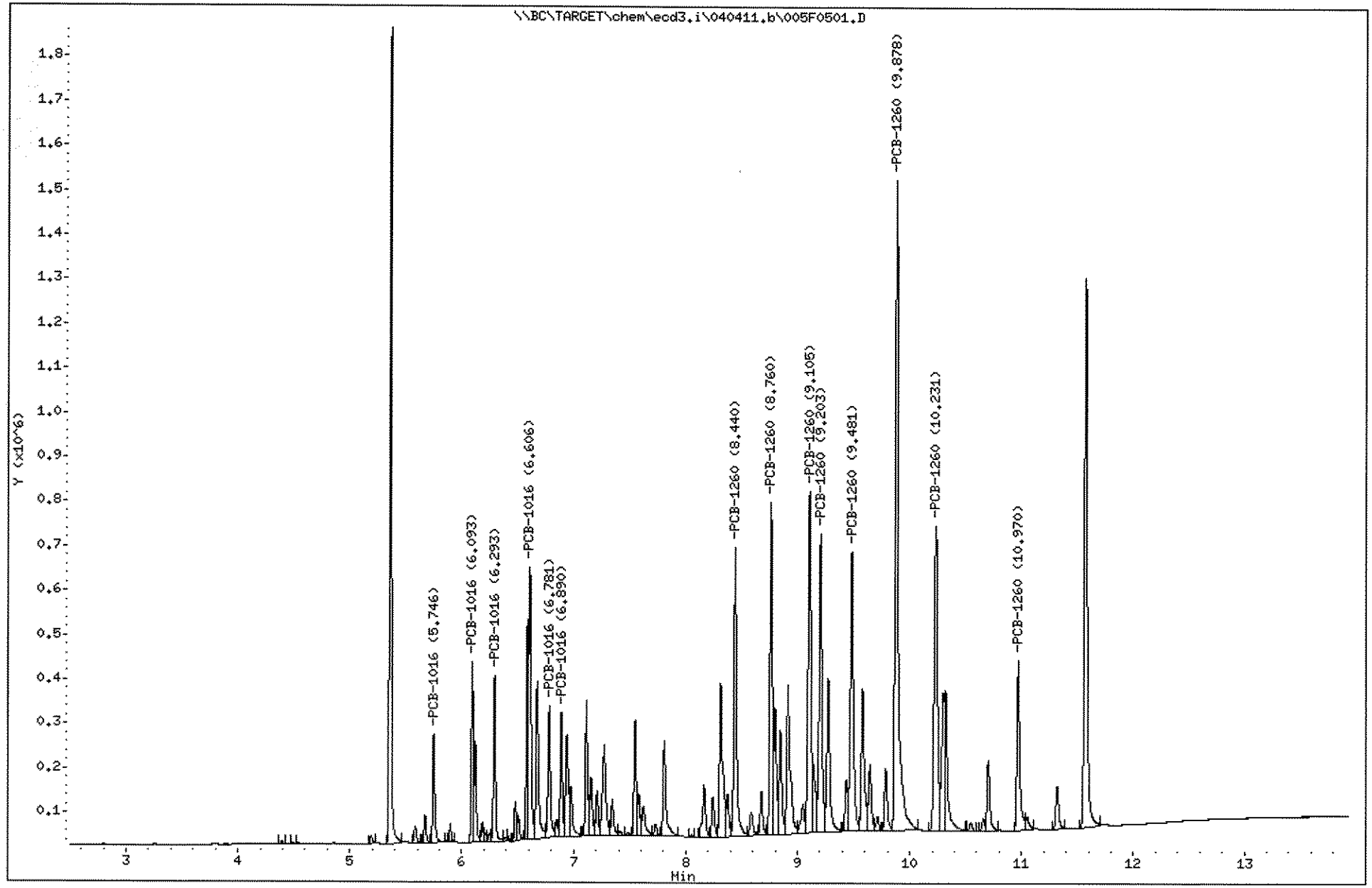


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\005F0501.D
Date : 04-APR-2011 17:29
Client ID:
Sample Info: SEQ-CAL3

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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JH. 4.6.11
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Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040411.b\006F0601.D
Lab Smp Id: SEQ-CAL4
Inj Date : 04-APR-2011 17:47
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

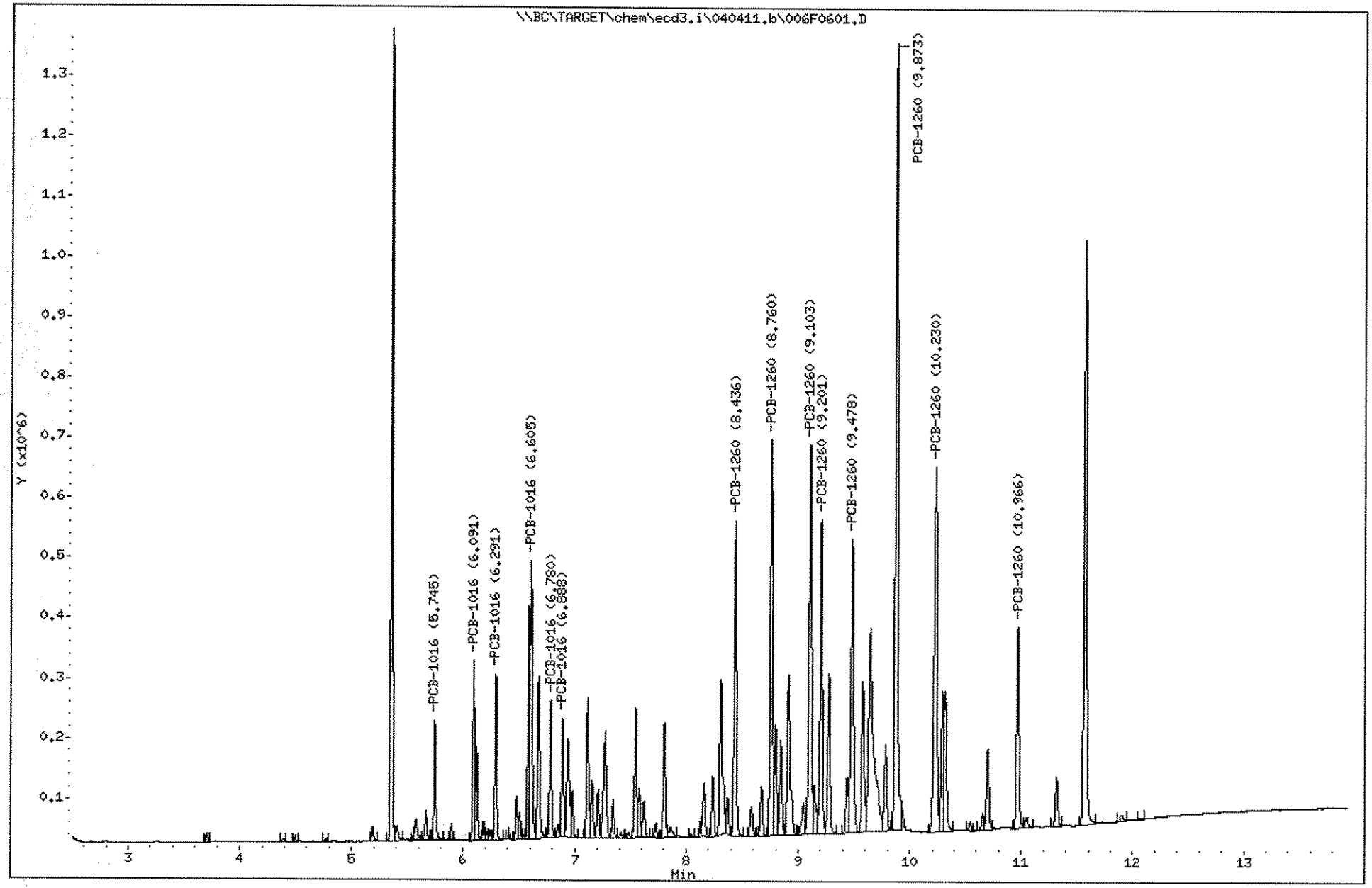
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.604	6.606	(-0.002)	602200	500.000	486.4	80.00- 120.00	100.00
5.744	5.746	(-0.002)	231107	500.000	507.7	30.70- 46.05	38.38
6.091	6.091	(0.000)	313278	500.000	477.9	41.62- 62.43	52.02
6.291	6.291	(0.000)	311453	500.000	474.6	41.38- 62.06	51.72
6.779	6.780	(-0.001)	290286			38.56- 57.85	48.20
6.887	6.888	(-0.001)	243078	500.000	488.4	32.29- 48.44	40.36
		Average of Peak Amounts =			487		
35 PCB-1260					CAS #: 11096-82-5		
9.872	9.876	(-0.004)	1999439	500.000	495.0	80.00- 120.00	100.00
8.436	8.441	(-0.005)	720009			28.81- 43.21	36.01
8.759	8.761	(-0.002)	930961	500.000	548.3	37.25- 55.87	46.56
9.102	9.106	(-0.004)	1036819	500.000	524.1	41.48- 62.23	51.86
9.201	9.205	(-0.004)	750741	500.000	461.2	30.04- 45.06	37.55
9.477	9.481	(-0.004)	831734			33.28- 49.92	41.60
10.229	10.233	(-0.004)	1139441			45.59- 68.39	56.99
10.966	10.970	(-0.004)	509974	500.000	527.3	20.40- 30.61	25.51
		Average of Peak Amounts =			511.2		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\006F0601.D
Date : 04-APR-2011 17:47
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



JH 4.6.11
ajk 040611

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

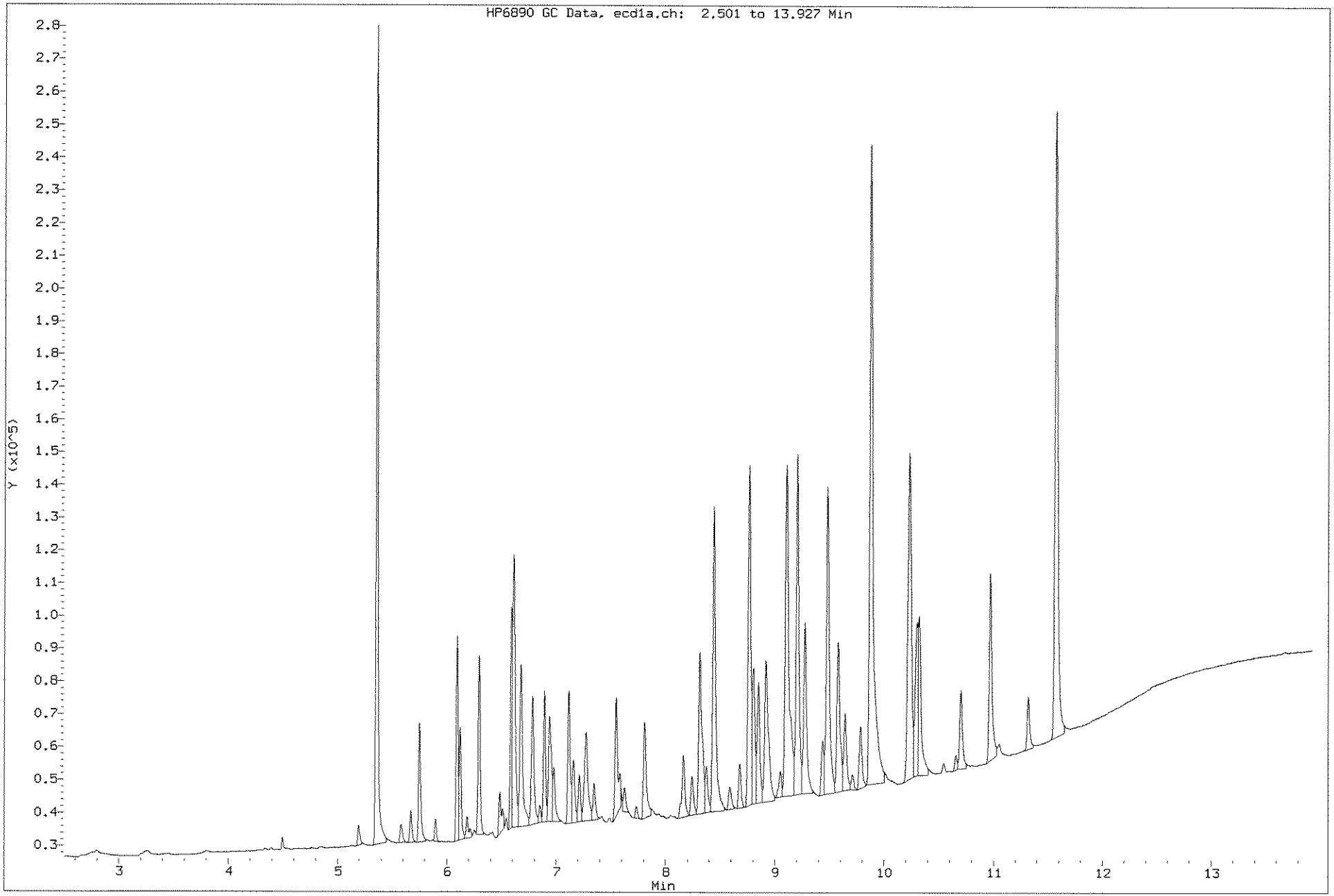
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\007F0701.D
Lab Smp Id: SEQ-CAL5
Inj Date : 04-APR-2011 18:06
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.609	6.606	(0.003)	132344	100.000	106.9	80.00- 120.00	100.00
5.749	5.746	(0.003)	50667	100.000	111.3	30.63- 45.94	38.28
6.094	6.091	(0.003)	71966	100.000	109.8	43.50- 65.25	54.38
6.294	6.291	(0.003)	69567	100.000	106.0	42.05- 63.08	52.57
6.782	6.780	(0.002)	66160			39.99- 59.99	49.99
6.890	6.888	(0.002)	52854	100.000	106.2	31.95- 47.92	39.94
		Average of Peak Amounts =			108		
35 PCB-1260					CAS #: 11096-82-5		
9.875	9.876	(-0.001)	422521	100.000	104.6	80.00- 120.00	100.00(M)
8.442	8.441	(0.001)	173537			32.86- 49.29	41.07
8.764	8.761	(0.003)	169779	100.000	100.0	32.15- 48.22	40.18
9.104	9.106	(-0.002)	204858	100.000	103.6	38.79- 58.18	48.48
9.204	9.205	(-0.001)	180494	100.000	110.9	34.17- 51.26	42.72
9.480	9.481	(-0.001)	185587			35.14- 52.71	43.92
10.230	10.233	(-0.003)	222559			42.14- 63.21	52.67
10.969	10.970	(-0.001)	101114	100.000	104.5	19.14- 28.72	23.93
		Average of Peak Amounts =			104.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\007F0701.D
Injection Date: 04-APR-2011 18:06
Instrument: ecd3.i
Client Sample ID:

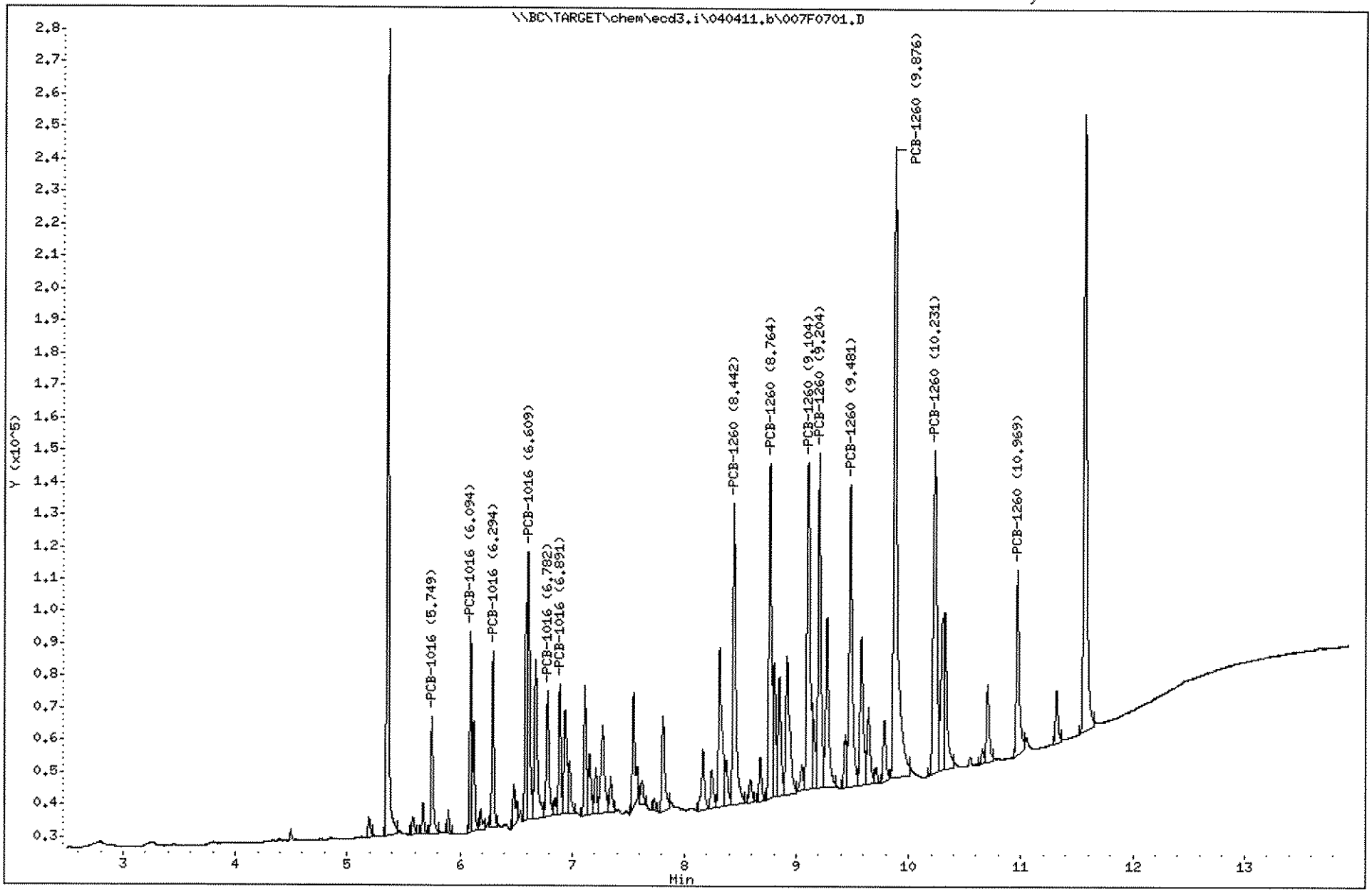


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\007F0701.D
Date : 04-APR-2011 18:06
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



J.H. 4.6.11
ajk 040611

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SW-846 METHODS 8081A/8082

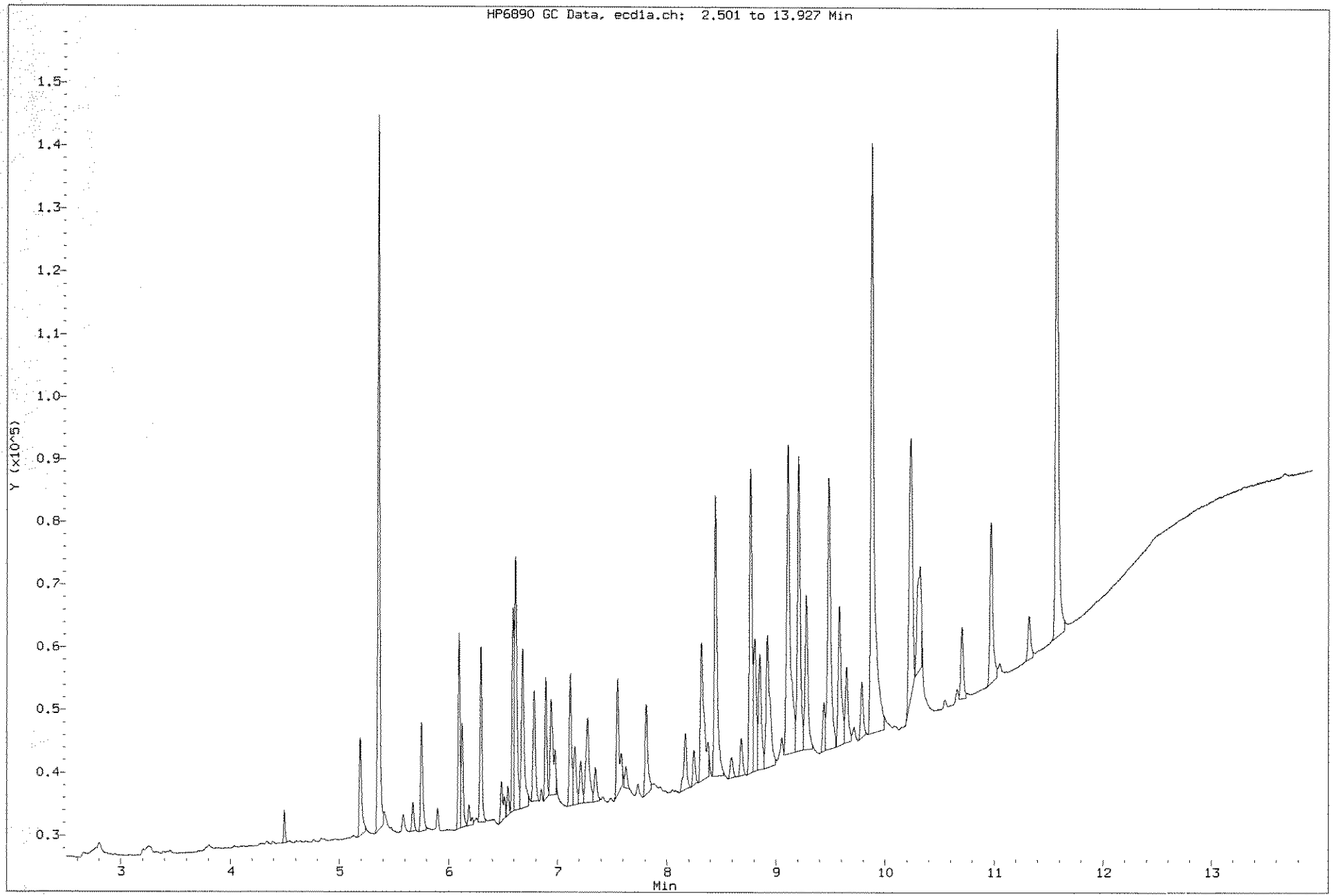
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\008F0801.D
Lab Smp Id: SEQ-CAL6
Inj Date : 04-APR-2011 18:24
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.610	6.606	(0.004)	63157	50.0000	51.02	80.00- 120.00	100.00
5.750	5.746	(0.004)	24624	50.0000	54.09	31.19- 46.79	38.99
6.093	6.091	(0.002)	36414	50.0000	55.55	46.13- 69.19	57.66
6.295	6.291	(0.004)	34964	50.0000	53.27	44.29- 66.43	55.36
6.783	6.780	(0.003)	27508			34.84- 52.27	43.55
6.890	6.888	(0.002)	23543	50.0000	47.30	29.82- 44.73	37.28
		Average of Peak Amounts =			52.25		
35 PCB-1260					CAS #: 11096-82-5		
9.878	9.876	(0.002)	199963	50.0000	49.51	80.00- 120.00	100.00(M)
8.442	8.441	(0.001)	79546			31.82- 47.74	39.78
8.763	8.761	(0.002)	82799	50.0000	48.77	33.13- 49.69	41.41
9.108	9.106	(0.002)	94364	50.0000	47.70	37.75- 56.63	47.19
9.205	9.205	(0.000)	86013	50.0000	52.84	34.41- 51.62	43.01
9.482	9.481	(0.001)	89697			35.89- 53.83	44.86
10.235	10.233	(0.002)	89765			35.91- 53.87	44.89
10.972	10.970	(0.002)	48186	50.0000	49.82	19.28- 28.92	24.10
		Average of Peak Amounts =			49.73		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\008F0801.D
Injection Date: 04-APR-2011 18:24
Instrument: ecd3.i
Client Sample ID:

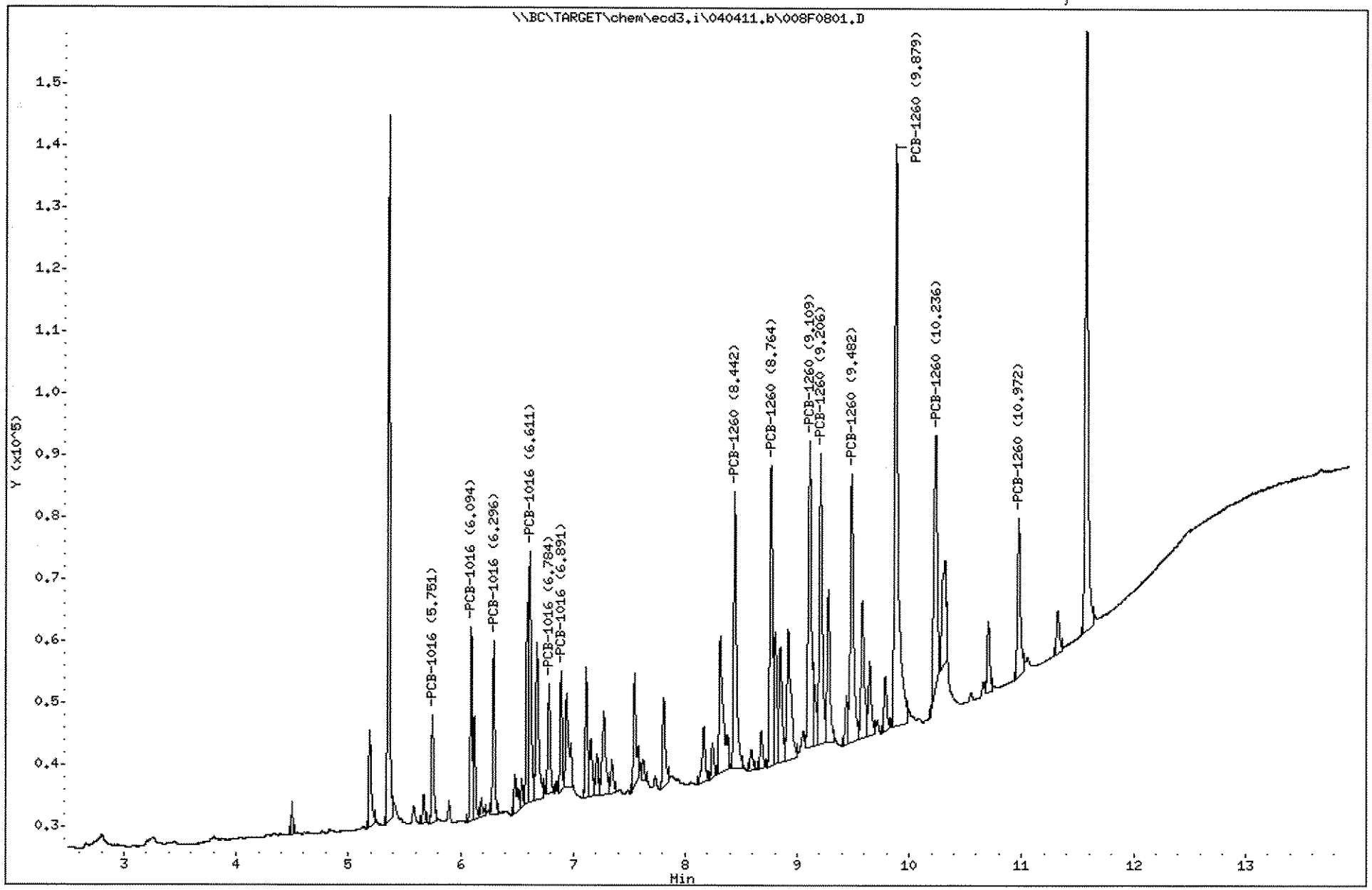


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\008F0801.D
Date : 04-APR-2011 18:24
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



J.H. 4.6.11
ajk 040411

Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i Injection Date: 04-APR-2011 18:43
Lab File ID: 009F0901.D Init. Cal. Date(s): 01-JUL-2010 04-APR-2011
Analysis Type: Init. Cal. Times: 08:58 18:24
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1238	1193	0.010	-3.6	20.0	
(2)	455	416	0.010	-8.7	20.0	
(3)	656	630	0.010	-3.9	20.0	
(4)	656	613	0.010	-6.6	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	447	0.010	-10.2	20.0	
35 PCB-1260(1)	4039	3691	0.010	-8.6	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1564	0.010	-7.9	20.0	
(4)	1978	1826	0.010	-7.7	20.0	
(5)	1628	1506	0.010	-7.5	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	857	0.010	-11.4	20.0	

D.H. 4.6.11
QC 04201

Laboratory Name

SW-846 METHODS 8081A/8082

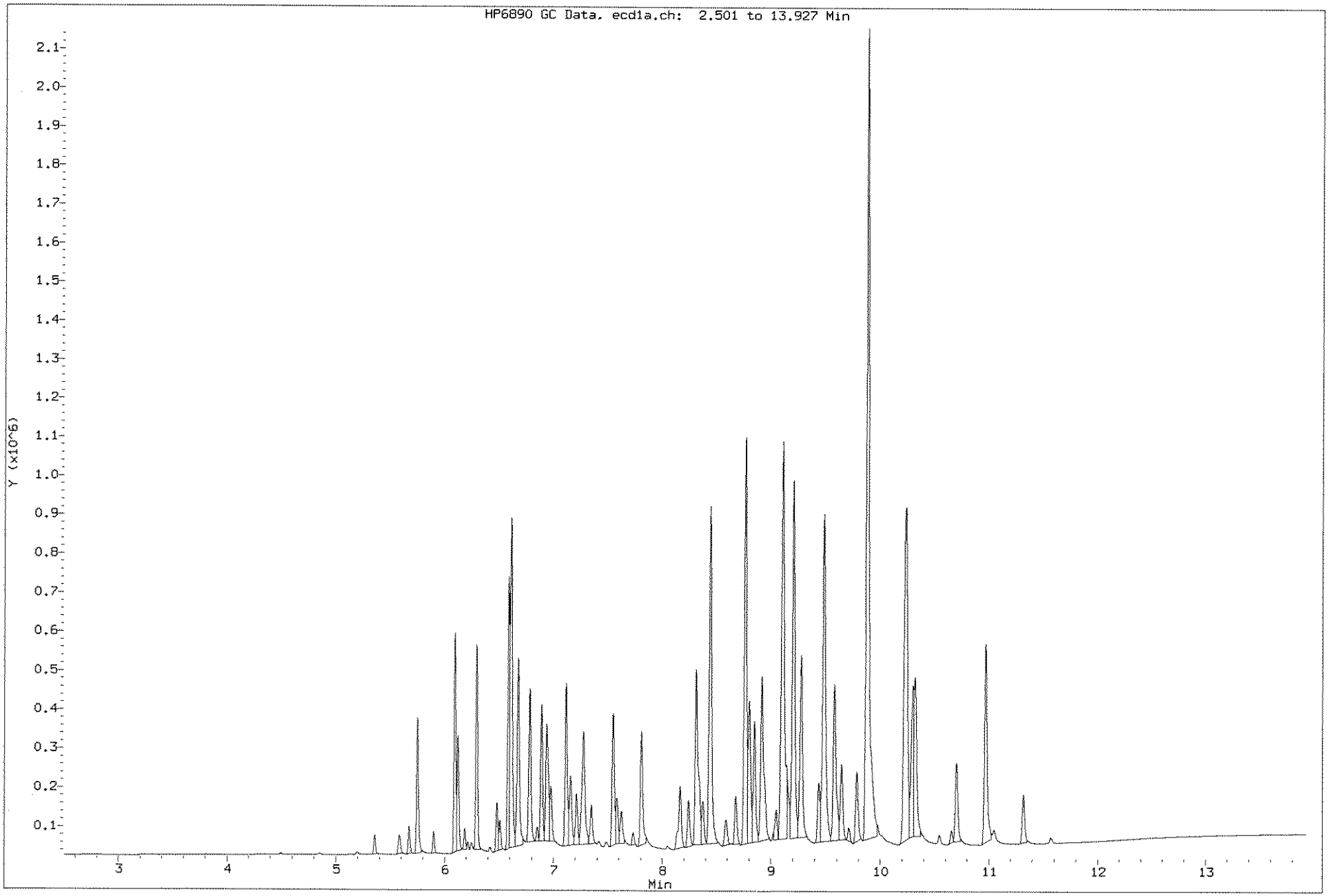
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009F0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 04-APR-2011 18:43
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 11:02 jsales Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET07_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016					CAS #: 12674-11-2		
6.607	6.607	(0.000)	1193216	1000.00	963.8	80.00- 120.00	100.00
5.747	5.747	(0.000)	415830	1000.00	913.5	27.88- 41.82	34.85
6.092	6.092	(0.000)	629822	1000.00	960.7	42.23- 63.34	52.78
6.293	6.293	(0.000)	612750	1000.00	933.6	41.08- 61.62	51.35
6.782	6.782	(0.000)	542055			36.34- 54.51	45.43
6.890	6.890	(0.000)	446685	1000.00	897.5	29.95- 44.92	37.44
		Average of Peak Amounts =			933.8		
35 PCB-1260					CAS #: 11096-82-5		
9.875	9.875	(0.000)	3690785	1000.00	913.8	80.00- 120.00	100.00(M)
8.440	8.440	(0.000)	1382165			29.96- 44.94	37.45
8.762	8.762	(0.000)	1563968	1000.00	921.1	33.90- 50.85	42.37
9.103	9.103	(0.000)	1825928	1000.00	923.0	39.58- 59.37	49.47
9.203	9.203	(0.000)	1505782	1000.00	925.0	32.64- 48.96	40.80
9.480	9.480	(0.000)	1577231			34.19- 51.28	42.73
10.233	10.233	(0.000)	1939795			42.05- 63.07	52.56
10.968	10.968	(0.000)	857262	1000.00	886.4	18.58- 27.87	23.23
		Average of Peak Amounts =			913.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\040411.b\009F0901.D
Injection Date: 04-APR-2011 18:43
Instrument: ecd3.i
Client Sample ID:



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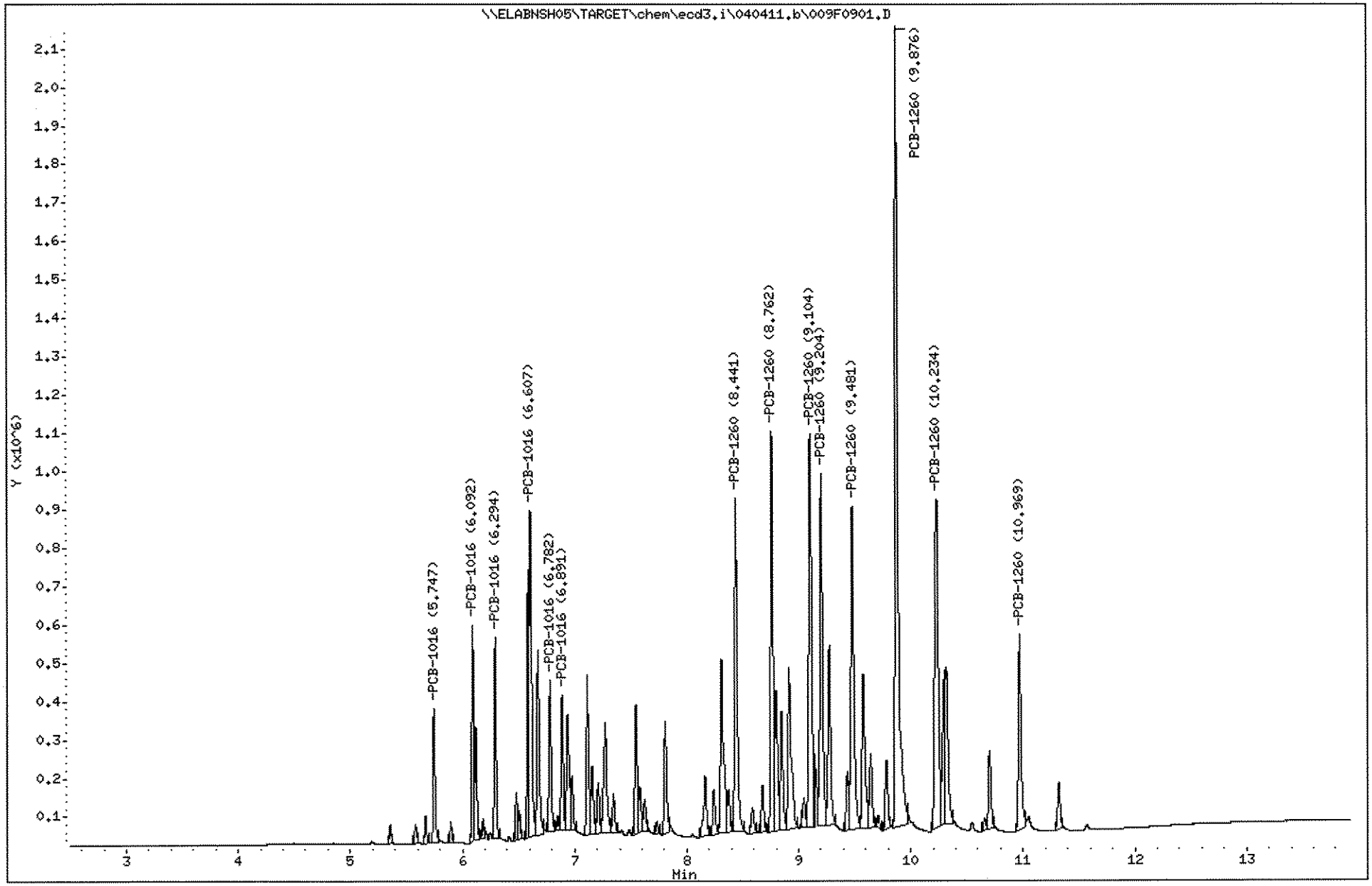
1104087

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009F0901.D
Date : 04-APR-2011 18:43
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.6.11

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SW-846 METHODS 8081A/8082

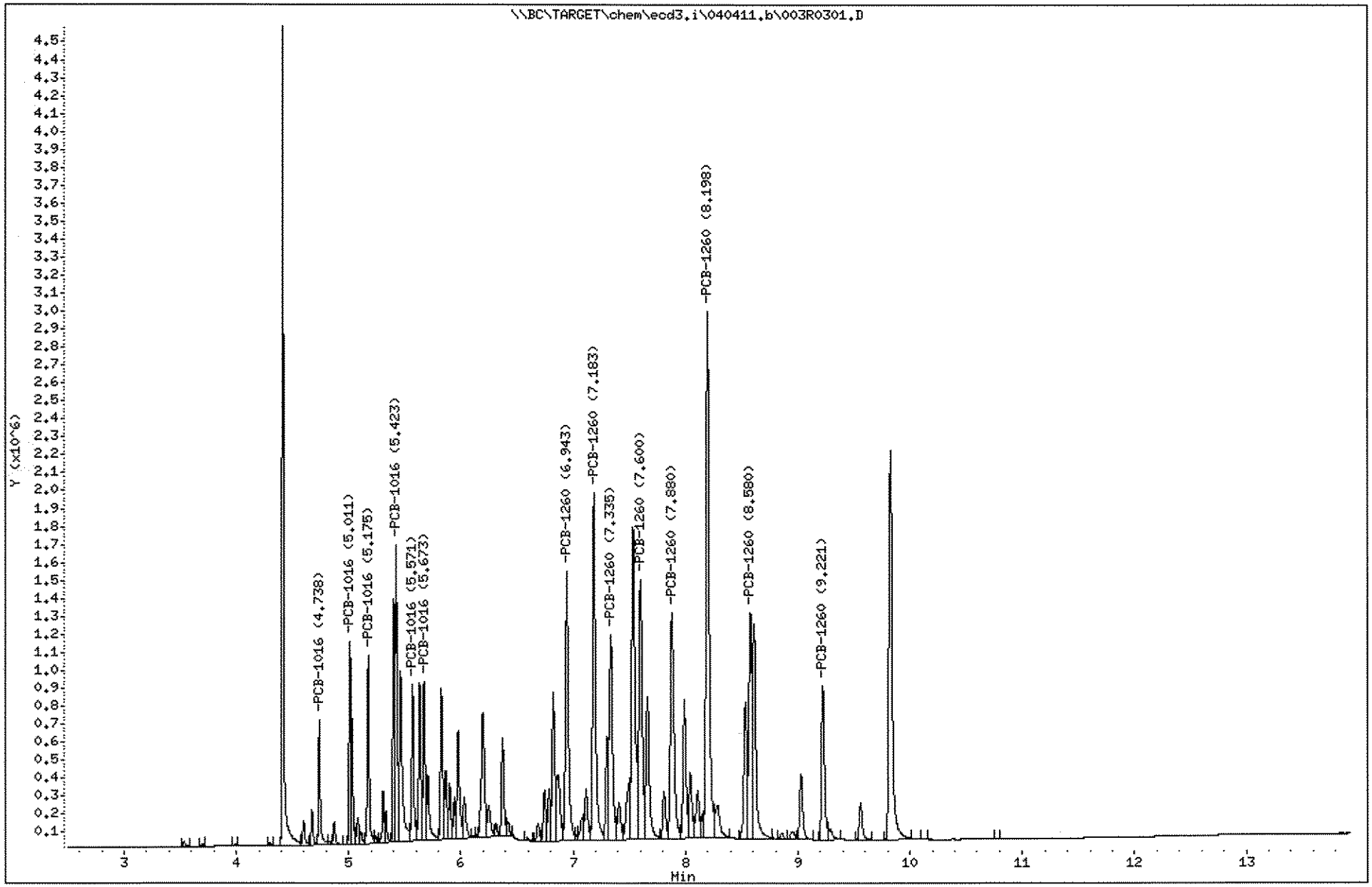
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\003R0301.D
Lab Smp Id: SEQ-CAL1
Inj Date : 04-APR-2011 16:51
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:53 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2			
5.423	5.422	(0.001)	1993318	2500.00	2302	80.00-	120.00	100.00
4.738	4.736	(0.002)	803374			32.24-	48.36	40.30
5.011	5.007	(0.004)	1259101	2500.00	2215	50.53-	75.80	63.17
5.174	5.172	(0.002)	1289203	2500.00	2321	51.74-	77.61	64.68
5.571	5.569	(0.002)	1184064	2500.00	2504	47.52-	71.28	59.40
5.673	5.671	(0.002)	1140868	2500.00	2375	45.79-	68.68	57.23
		Average of Peak Amounts =			2343			
35 PCB-1260 [2C]					CAS #: 11096-82-5			
8.198	8.196	(0.002)	5878966	2500.00	2450	80.00-	120.00	100.00
6.943	6.937	(0.006)	2810960	2500.00	2278	38.25-	57.38	47.81
7.183	7.182	(0.001)	3471096	2500.00	2437	47.23-	70.85	59.04
7.334	7.332	(0.002)	2417808	2500.00	2391	32.90-	49.35	41.13
7.599	7.597	(0.002)	2946760			40.10-	60.15	50.12
7.879	7.876	(0.003)	2871658	2500.00	2404	39.08-	58.62	48.85
8.579	8.579	(0.000)	2128979			28.97-	43.46	36.21
9.221	9.222	(-0.001)	1611415			21.93-	32.89	27.41
		Average of Peak Amounts =			2392			

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\003R0301.D
Date : 04-APR-2011 16:51
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.6.11
gjk 04Apr11

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SW-846 METHODS 8081A/8082

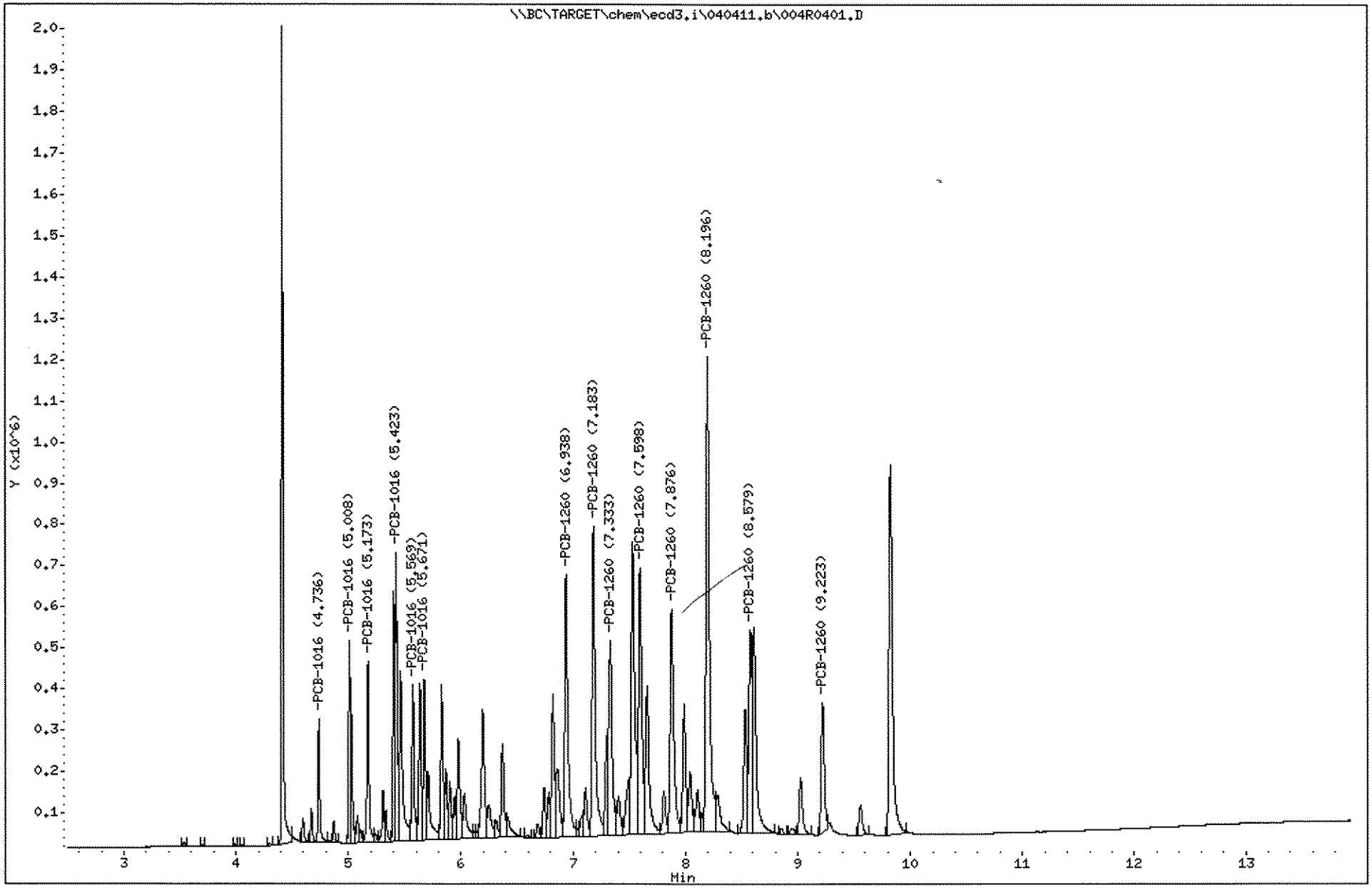
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\004R0401.D
Lab Smp Id: SEQ-CAL2
Inj Date : 04-APR-2011 17:10
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.422	5.422	(0.000)	888022	1000.00	1025	80.00- 120.00	100.00
4.736	4.736	(0.000)	332061			29.91- 44.87	37.39
5.007	5.007	(0.000)	539048	1000.00	948.3	48.56- 72.84	60.70
5.172	5.172	(0.000)	580522	1000.00	1045	52.30- 78.45	65.37
5.569	5.569	(0.000)	536257	1000.00	1134	48.31- 72.47	60.39
5.671	5.671	(0.000)	518889	1000.00	1080	46.75- 70.12	58.43
	Average of Peak Amounts =				1047		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.196	8.196	(0.000)	2495946	1000.00	1040	80.00- 120.00	100.00
6.937	6.937	(0.000)	1245201	1000.00	1009	39.91- 59.87	49.89
7.182	7.182	(0.000)	1480025	1000.00	1039	47.44- 71.16	59.30
7.332	7.332	(0.000)	1052987	1000.00	1041	33.75- 50.63	42.19
7.597	7.597	(0.000)	1296335			41.55- 62.33	51.94
7.876	7.876	(0.000)	1221751	1000.00	1023	39.16- 58.74	48.95
8.579	8.579	(0.000)	862158			27.63- 41.45	34.54
9.222	9.222	(0.000)	603767			19.35- 29.03	24.19
	Average of Peak Amounts =				1030		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\004R0401.D
Date : 04-APR-2011 17:10
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



JH 4.6.11
arje 040611

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SW-846 METHODS 8081A/8082

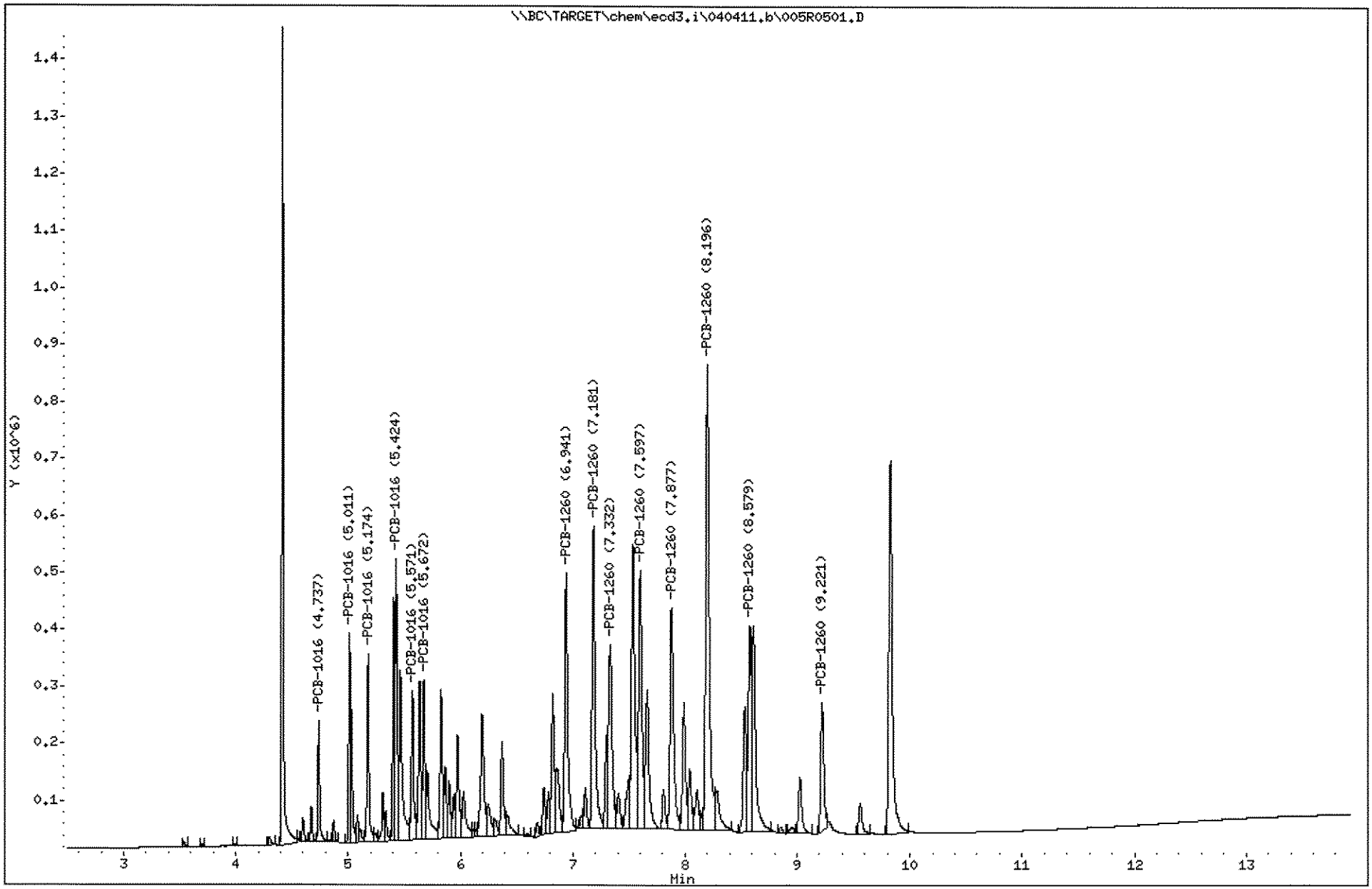
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\005R0501.D
Lab Smp Id: SEQ-CAL3
Inj Date : 04-APR-2011 17:29
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.423	5.422	(0.001)	632788	750.000	730.6	80.00- 120.00	100.00
4.737	4.736	(0.001)	242494			30.66- 45.99	38.32
5.010	5.007	(0.003)	396310	750.000	697.2	50.10- 75.16	62.63
5.173	5.172	(0.001)	420228	750.000	756.5	53.13- 79.69	66.41
5.570	5.569	(0.001)	388269	750.000	821.1	49.09- 73.63	61.36
5.672	5.671	(0.001)	370719	750.000	771.9	46.87- 70.30	58.59
		Average of Peak Amounts =			755.5		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.195	8.196	(-0.001)	1797295	750.000	748.9	80.00- 120.00	100.00
6.940	6.937	(0.003)	862510	750.000	699.1	38.39- 57.59	47.99
7.180	7.182	(-0.002)	1003134	750.000	704.2	44.65- 66.98	55.81
7.332	7.332	(0.000)	724675	750.000	716.7	32.26- 48.38	40.32
7.597	7.597	(0.000)	938796			41.79- 62.68	52.23
7.877	7.876	(0.001)	867295	750.000	726.0	38.60- 57.91	48.26
8.578	8.579	(-0.001)	614257			27.34- 41.01	34.18
9.220	9.222	(-0.002)	435405			19.38- 29.07	24.23
		Average of Peak Amounts =			719		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\005R0501.D
Date : 04-APR-2011 17:29
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



JH. 4.4.11
ajk 040611

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SW-846 METHODS 8081A/8082

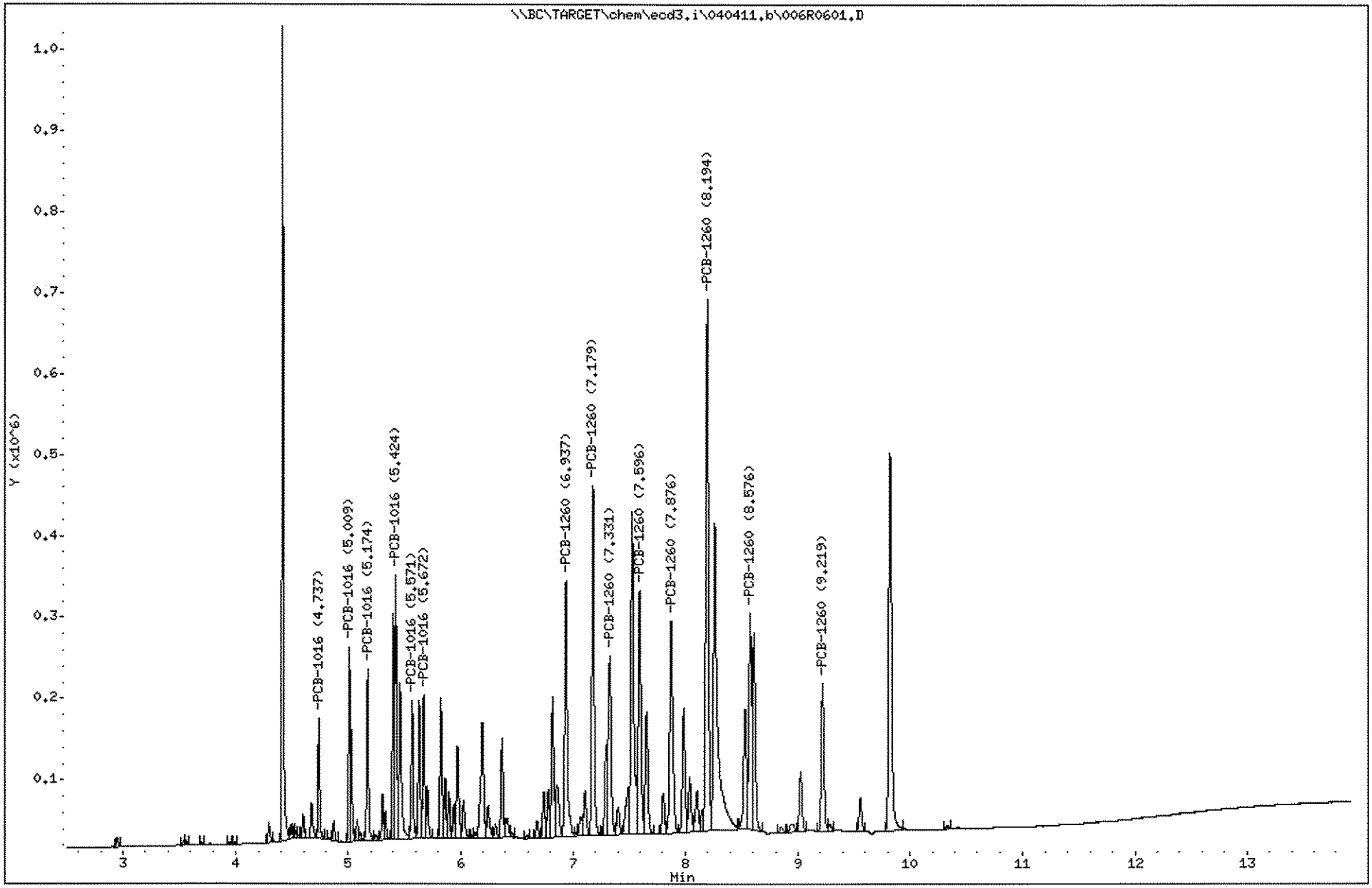
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\006R0601.D
Lab Smp Id: SEQ-CAL4
Inj Date : 04-APR-2011 17:47
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.423	5.422	(0.001)	377419	500.000	435.8	80.00- 120.00	100.00
4.737	4.736	(0.001)	150614			31.93- 47.89	39.91
5.008	5.007	(0.001)	248874	500.000	437.8	52.75- 79.13	65.94
5.173	5.172	(0.001)	241269	500.000	434.3	51.14- 76.71	63.93
5.570	5.569	(0.001)	207970	500.000	439.8	44.08- 66.12	55.10
5.672	5.671	(0.001)	202249	500.000	421.1	42.87- 64.30	53.59
		Average of Peak Amounts =			433.8		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.193	8.196	(-0.003)	1091729	500.000	454.9	80.00- 120.00	100.00
6.937	6.937	(0.000)	516580	500.000	418.7	37.85- 56.78	47.32
7.178	7.182	(-0.004)	625002	500.000	438.8	45.80- 68.70	57.25
7.330	7.332	(-0.002)	410588	500.000	406.1	30.09- 45.13	37.61
7.595	7.597	(-0.002)	514515			37.70- 56.55	47.13
7.875	7.876	(-0.001)	507141	500.000	424.5	37.16- 55.74	46.45
8.575	8.579	(-0.004)	412795			30.25- 45.37	37.81
9.218	9.222	(-0.004)	301917			22.12- 33.19	27.65
		Average of Peak Amounts =			428.6		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\006R0601.D
Date : 04-APR-2011 17:47
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.6.11
agk 4/6/11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

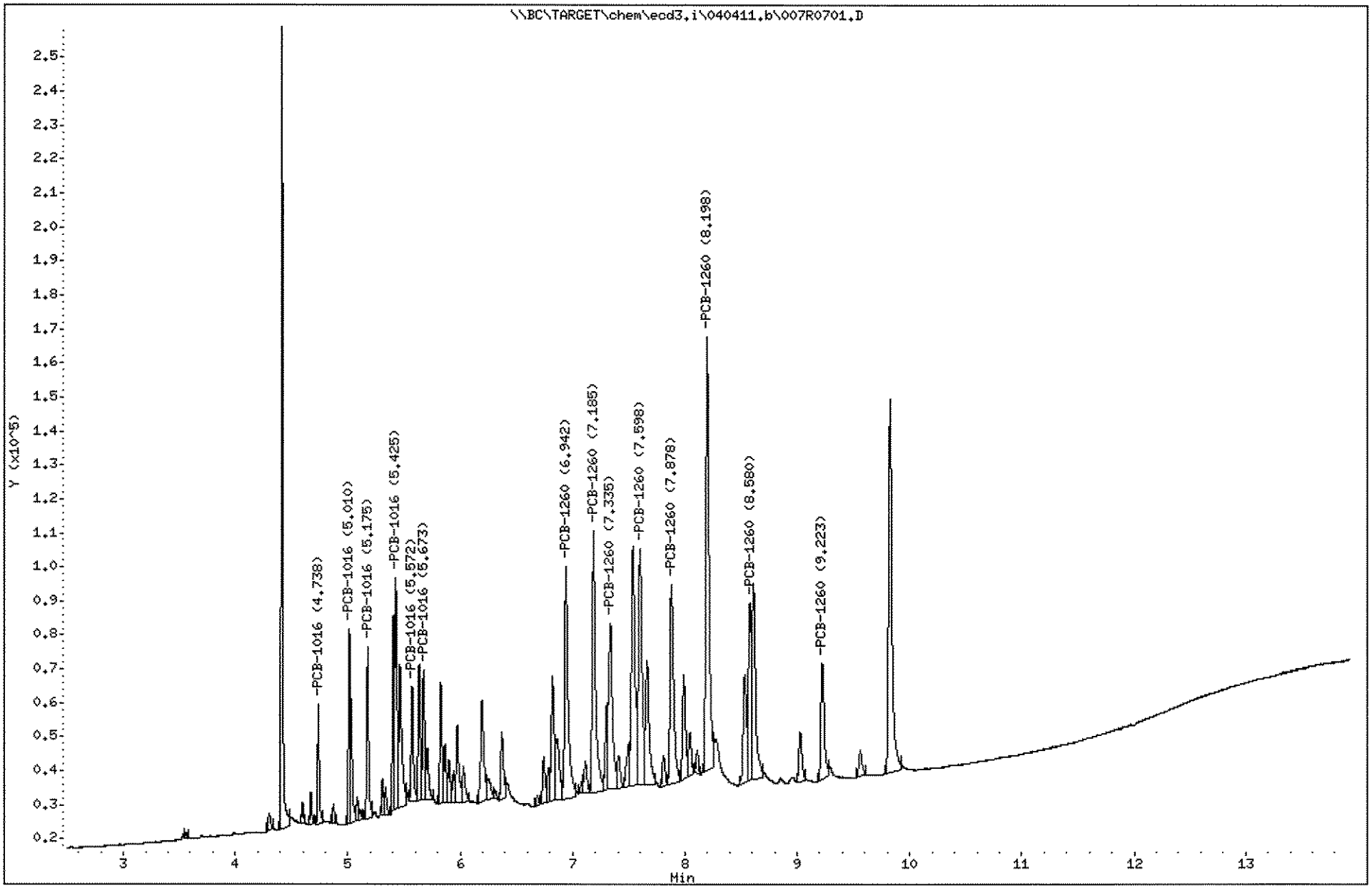
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\007R0701.D
Lab Smp Id: SEQ-CAL5
Inj Date : 04-APR-2011 18:06
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.425	5.422	(0.003)	96608	100.000	111.5	80.00- 120.00	100.00
4.738	4.736	(0.002)	37527			31.08- 46.61	38.84
5.010	5.007	(0.003)	60453	100.000	106.4	50.06- 75.09	62.58
5.175	5.172	(0.003)	61131	100.000	110.0	50.62- 75.93	63.28
5.571	5.569	(0.002)	46493	100.000	98.33	38.50- 57.75	48.13
5.673	5.671	(0.002)	50962	100.000	106.1	42.20- 63.30	52.75
		Average of Peak Amounts =			106.5		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.198	8.196	(0.002)	256314	100.000	106.8	80.00- 120.00	100.00
6.941	6.937	(0.004)	147967	100.000	119.9	46.18- 69.27	57.73
7.185	7.182	(0.003)	160436	100.000	112.6	50.07- 75.11	62.59
7.335	7.332	(0.003)	119168	100.000	117.9	37.19- 55.79	46.49
7.598	7.597	(0.001)	150097			46.85- 70.27	58.56
7.878	7.876	(0.002)	132331	100.000	110.8	41.30- 61.95	51.63
8.580	8.579	(0.001)	87612			27.35- 41.02	34.18
9.223	9.222	(0.001)	68796			21.47- 32.21	26.84
		Average of Peak Amounts =			113.6		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\007R0701.D
Date : 04-APR-2011 18:06
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.6.11
ajh 040611

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SW-846 METHODS 8081A/8082

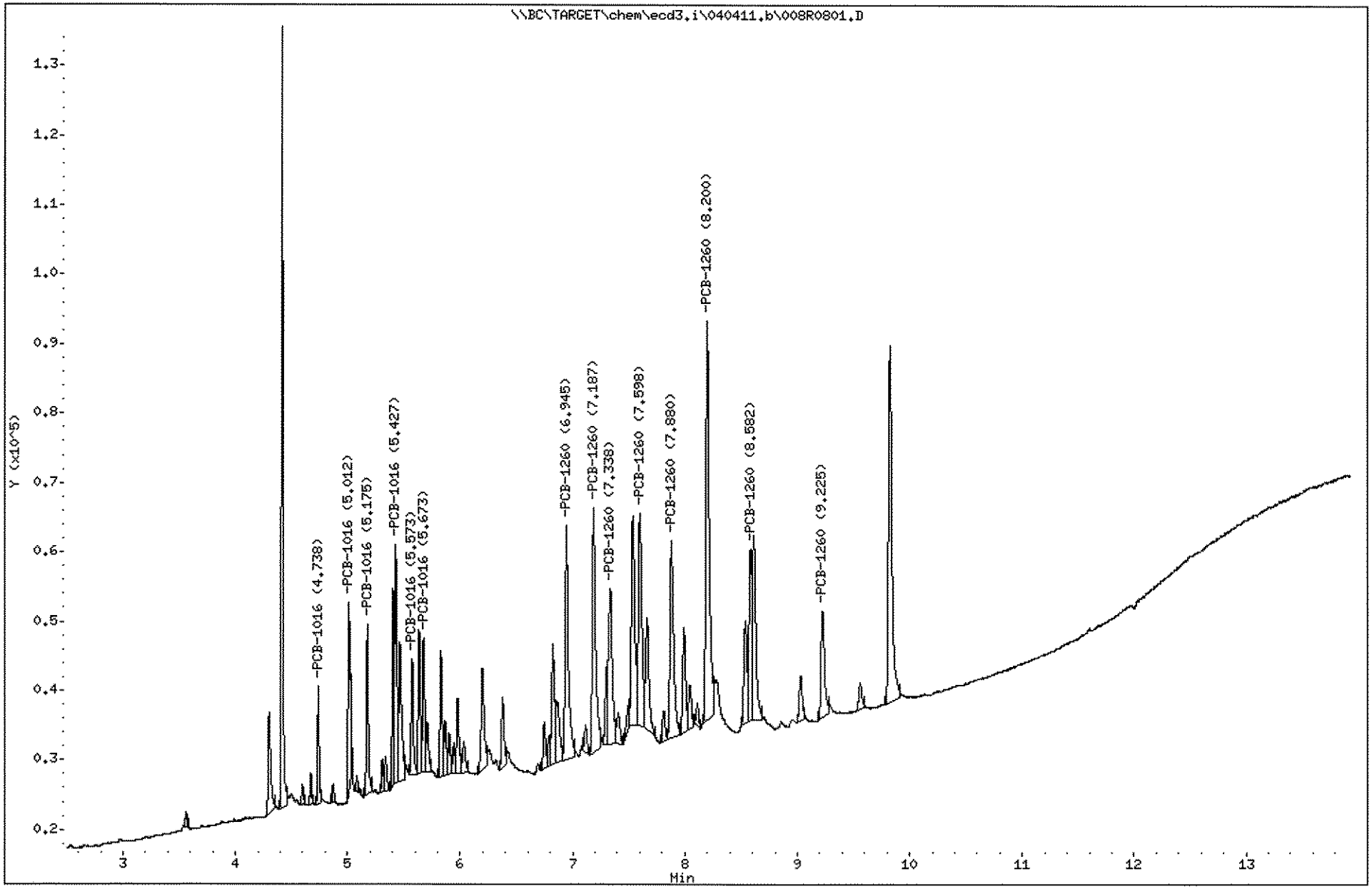
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\008R0801.D
Lab Smp Id: SEQ-CAL6
Inj Date : 04-APR-2011 18:24
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.426	5.422	(0.004)	47319	50.0000	54.64	80.00- 120.00	100.00
4.738	4.736	(0.002)	18276			30.90- 46.35	38.62
5.011	5.007	(0.004)	36861	50.0000	64.85	62.32- 93.48	77.90
5.174	5.172	(0.002)	29125	50.0000	52.43	49.24- 73.86	61.55
5.573	5.569	(0.004)	21429	50.0000	45.32	36.23- 54.34	45.29
5.673	5.671	(0.002)	24897	50.0000	51.84	42.09- 63.14	52.62
		Average of Peak Amounts =			53.82		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.199	8.196	(0.003)	120483	50.0000	50.20	80.00- 120.00	100.00
6.944	6.937	(0.007)	68491	50.0000	55.52	45.48- 68.22	56.85
7.186	7.182	(0.004)	74311	50.0000	52.17	49.34- 74.01	61.68
7.338	7.332	(0.006)	53363	50.0000	52.78	35.43- 53.15	44.29
7.598	7.597	(0.001)	64741			42.99- 64.48	53.73
7.879	7.876	(0.003)	65176	50.0000	54.56	43.28- 64.91	54.10
8.581	8.579	(0.002)	42144			27.98- 41.98	34.98
9.224	9.222	(0.002)	32534			21.60- 32.40	27.00
		Average of Peak Amounts =			53.04		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\008R0801.D
Date : 04-APR-2011 18:24
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.6.11
ajh 04dell

Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i Injection Date: 04-APR-2011 18:43
Lab File ID: 009R0901.D Init. Cal. Date(s): 01-JUL-2010 04-APR-2011
Analysis Type: Init. Cal. Times: 08:58 18:24
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	840	0.010	-3.0	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	542	0.010	-4.6	20.0	
(4)	555	569	0.010	2.5	20.0	
(5)	473	529	0.010	11.8	20.0	
(6)	480	502	0.010	4.4	20.0	
35 PCB-1260(1)	2400	2347	0.010	-2.2	20.0	
(2)	1234	1151	0.010	-6.7	20.0	
(3)	1424	1329	0.010	-6.7	20.0	
(4)	1011	966	0.010	-4.4	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1119	0.010	-6.4	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-

J.H. 4.6.11
gjc 04a11

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009R0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 04-APR-2011 18:43
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 11:02 jsales Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET07_VM

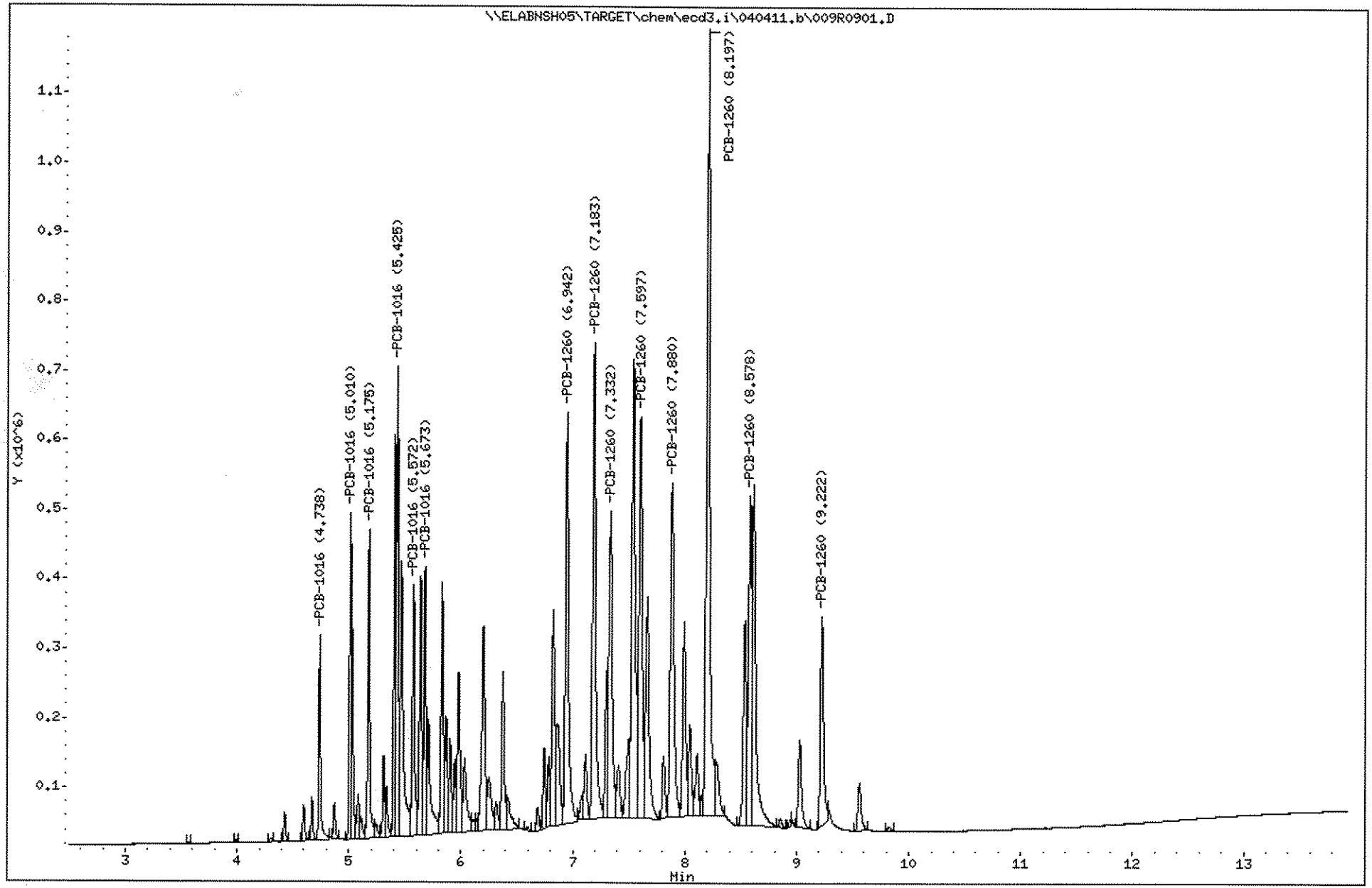
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	==========	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.424	5.424	(0.000)	840388	1000.00	970.4	80.00- 120.00	100.00
4.738	4.738	(0.000)	338676			32.24- 48.36	40.30
5.009	5.009	(0.000)	542021	1000.00	953.5	51.60- 77.40	64.50
5.174	5.174	(0.000)	569378	1000.00	1025	54.20- 81.30	67.75
5.571	5.571	(0.000)	528704	1000.00	1118	50.33- 75.49	62.91
5.673	5.673	(0.000)	501521	1000.00	1044	47.74- 71.61	59.68
		Average of Peak Amounts =			1022		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.196	8.196	(0.000)	2346937	1000.00	977.9	80.00- 120.00	100.00
6.941	6.941	(0.000)	1151034	1000.00	933.0	39.24- 58.85	49.04
7.183	7.183	(0.000)	1328929	1000.00	933.0	45.30- 67.95	56.62
7.331	7.331	(0.000)	966304	1000.00	955.7	32.94- 49.41	41.17
7.596	7.596	(0.000)	1234840			42.09- 63.14	52.61
7.879	7.879	(0.000)	1118746	1000.00	936.5	38.13- 57.20	47.67
8.578	8.578	(0.000)	797586			27.19- 40.78	33.98
9.221	9.221	(0.000)	585328			19.95- 29.93	24.94
		Average of Peak Amounts =			947.2		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009R0901.D
Date : 04-APR-2011 18:43
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.14.11
agk 04/14/11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\011F1101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 08-APR-2011 15:23
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:34 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.318	5.320	-0.002	5842191	200.000	201.0(A)
3 Alpha-BHC	5.758	5.758	0.000	9359332	200.000	218.2(A)
23 Gamma-BHC	6.085	6.085	0.000	8212977	200.000	216.0(A)
5 Beta-BHC	6.298	6.298	0.000	3149846	200.000	200.3(A)
15 Delta-BHC	6.552	6.553	-0.001	7716405	200.000	200.0(A)
25 Heptachlor	6.667	6.666	0.001	8306307	200.000	210.0(A)
2 Aldrin	7.030	7.030	0.000	8342512	200.000	211.2(A)
26 Heptachlor Epoxide	7.505	7.503	0.002	7574416	200.000	205.6(A)
24 Gamma-Chlordane	7.793	7.793	0.000	7647908	200.000	211.3(A)
4 Alpha-Chlordane	7.880	7.881	-0.001	7283505	200.000	205.2(A)
17 Endosulfan I	7.943	7.943	0.000	7017527	200.000	203.5(A)
13 4,4'-DDE	8.083	8.085	-0.002	7088000	200.000	201.2(A)
16 Dieldrin	8.265	8.268	-0.003	7850271	200.000	212.7(A)
20 Endrin	8.542	8.541	0.001	6685277	200.000	216.8(A)
12 4,4'-DDD	8.710	8.711	-0.001	5944055	200.000	202.1(A)
18 Endosulfan II	8.818	8.820	-0.002	6579833	200.000	197.2
21 Endrin Aldehyde	8.978	8.981	-0.003	5427858	200.000	201.8(A)
14 4,4'-DDT	9.087	9.088	-0.001	6513781	200.000	232.8(A)
19 Endosulfan Sulfate	9.270	9.270	0.000	5920713	200.000	206.8(A)
27 Methoxychlor	9.690	9.695	-0.005	3102647	200.000	221.5(A)
22 Endrin Ketone	9.873	9.875	-0.002	7788718	200.000	210.4(A)
$ 39 DCB	11.512	11.513	-0.001	6403640	200.000	184.4

QC Flag Legend

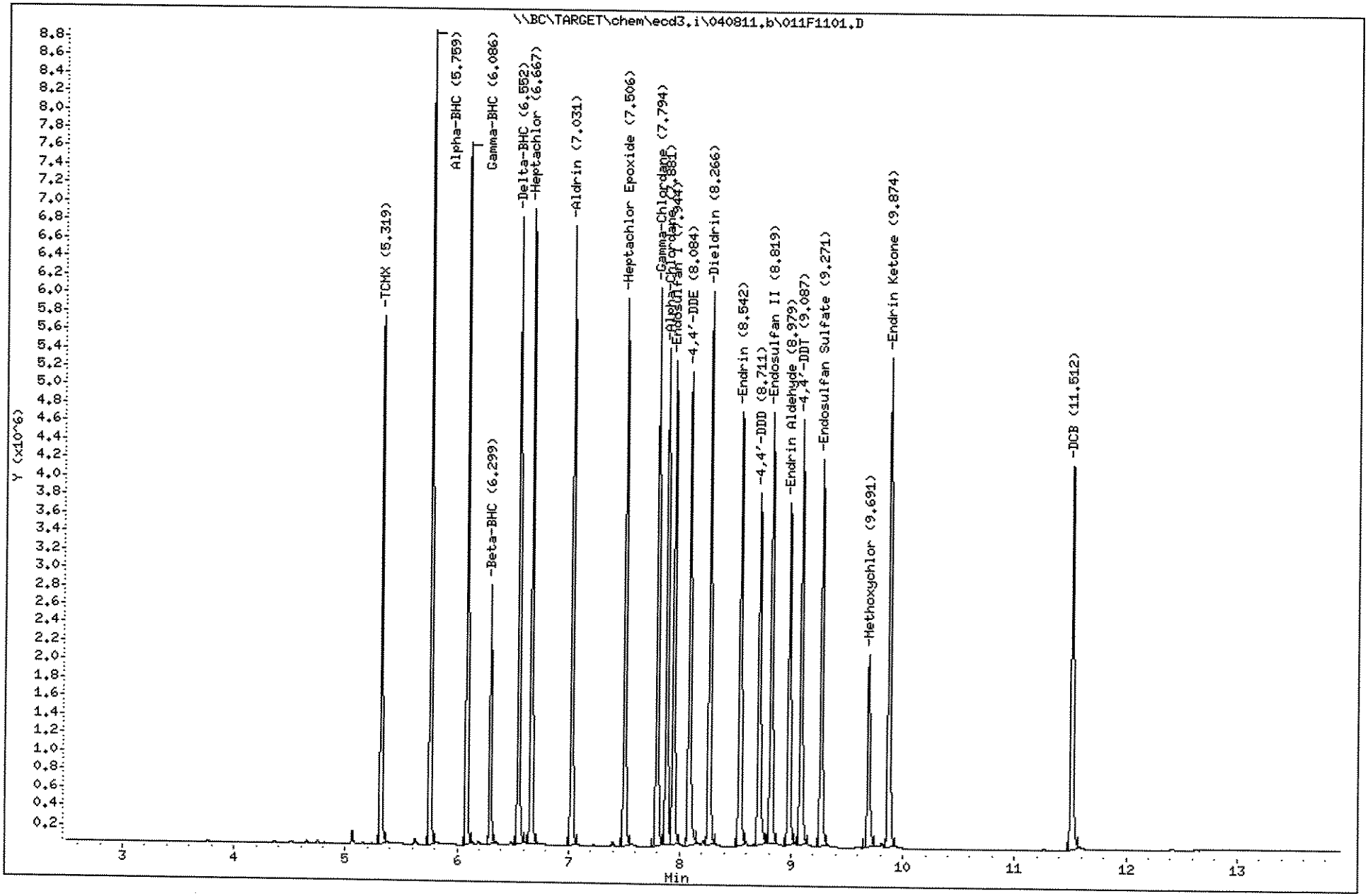
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\011F1101.D
Date : 08-APR-2011 15:23
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



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1104087

J.H. 4.14.11

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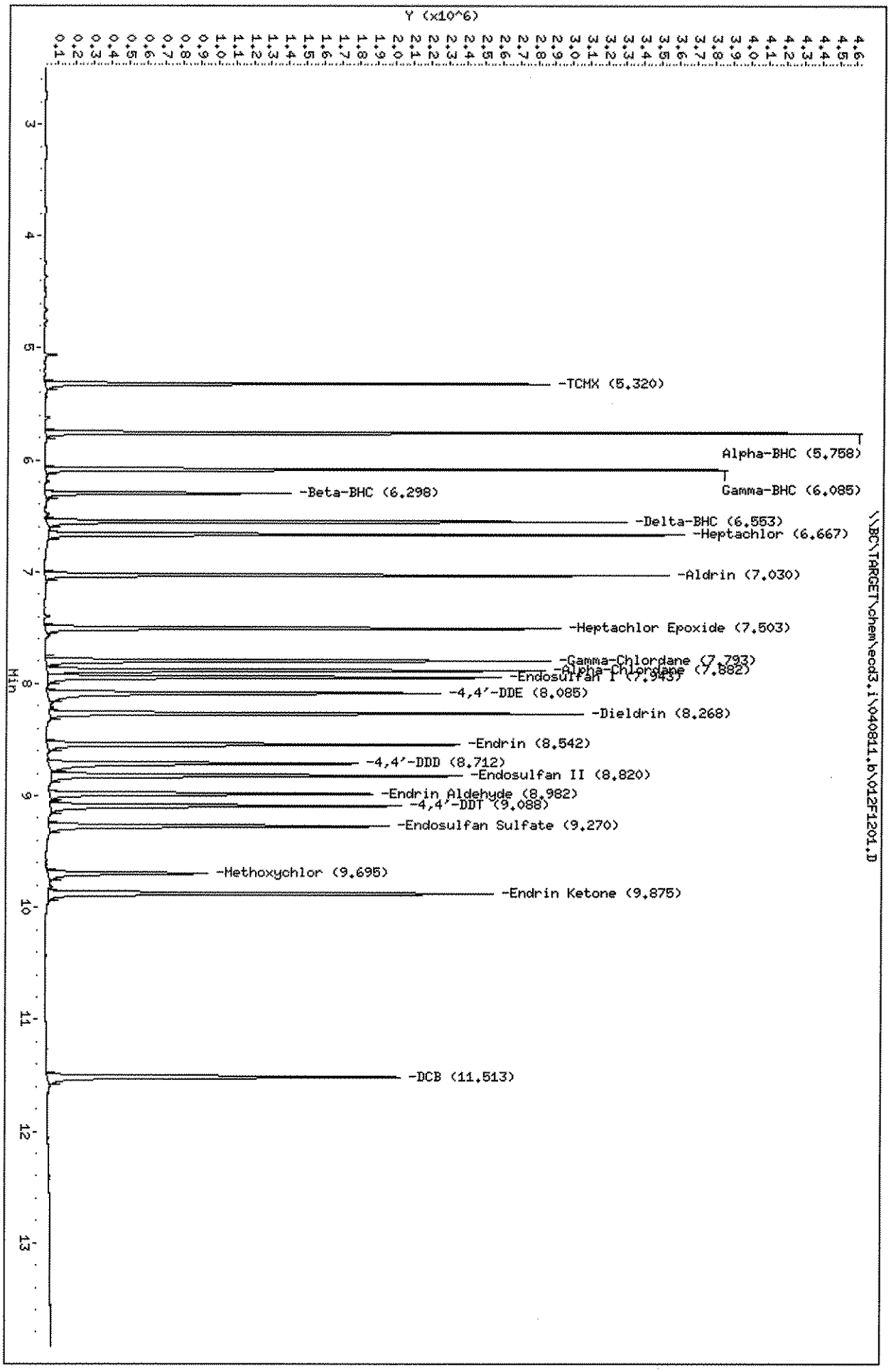
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\012F1201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 08-APR-2011 15:42
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.320	5.320	0.000	2994019	100.000	103.0
3 Alpha-BHC	5.758	5.758	0.000	4751139	100.000	110.7
23 Gamma-BHC	6.085	6.085	0.000	4161425	100.000	109.5
5 Beta-BHC	6.298	6.298	0.000	1621968	100.000	103.1
15 Delta-BHC	6.553	6.553	0.000	3861067	100.000	100.8
25 Heptachlor	6.666	6.666	0.000	4206947	100.000	106.4
2 Aldrin	7.030	7.030	0.000	4265986	100.000	108.0
26 Heptachlor Epoxide	7.503	7.503	0.000	3865870	100.000	104.9
24 Gamma-Chlordane	7.793	7.793	0.000	3895723	100.000	107.6
4 Alpha-Chlordane	7.881	7.881	0.000	3737302	100.000	105.3
17 Endosulfan I	7.943	7.943	0.000	3602189	100.000	104.5
13 4,4'-DDE	8.085	8.085	0.000	3436631	100.000	98.62
16 Dieldrin	8.268	8.268	0.000	3978162	100.000	107.8
20 Endrin	8.541	8.541	0.000	3369315	100.000	109.3
12 4,4'-DDD	8.711	8.711	0.000	2809299	100.000	97.02
18 Endosulfan II	8.820	8.820	0.000	3347236	100.000	100.3
21 Endrin Aldehyde	8.981	8.981	0.000	2713586	100.000	100.9
14 4,4'-DDT	9.088	9.088	0.000	3117319	100.000	111.4
19 Endosulfan Sulfate	9.270	9.270	0.000	2954739	100.000	103.2
27 Methoxychlor	9.695	9.695	0.000	1474921	100.000	105.3
22 Endrin Ketone	9.875	9.875	0.000	3846360	100.000	103.9
$ 39 DCB	11.513	11.513	0.000	3285669	100.000	94.60



Data File: \\BC\TARGET\chem\ecd3.i\040811.b\012F1201.D
Date : 08-APR-2011 15:42
Client ID:
Sample Info: SEQ-CAL2
Column phase: ZB MR-1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

J.H. 4.14.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\013F1301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 08-APR-2011 16:01
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

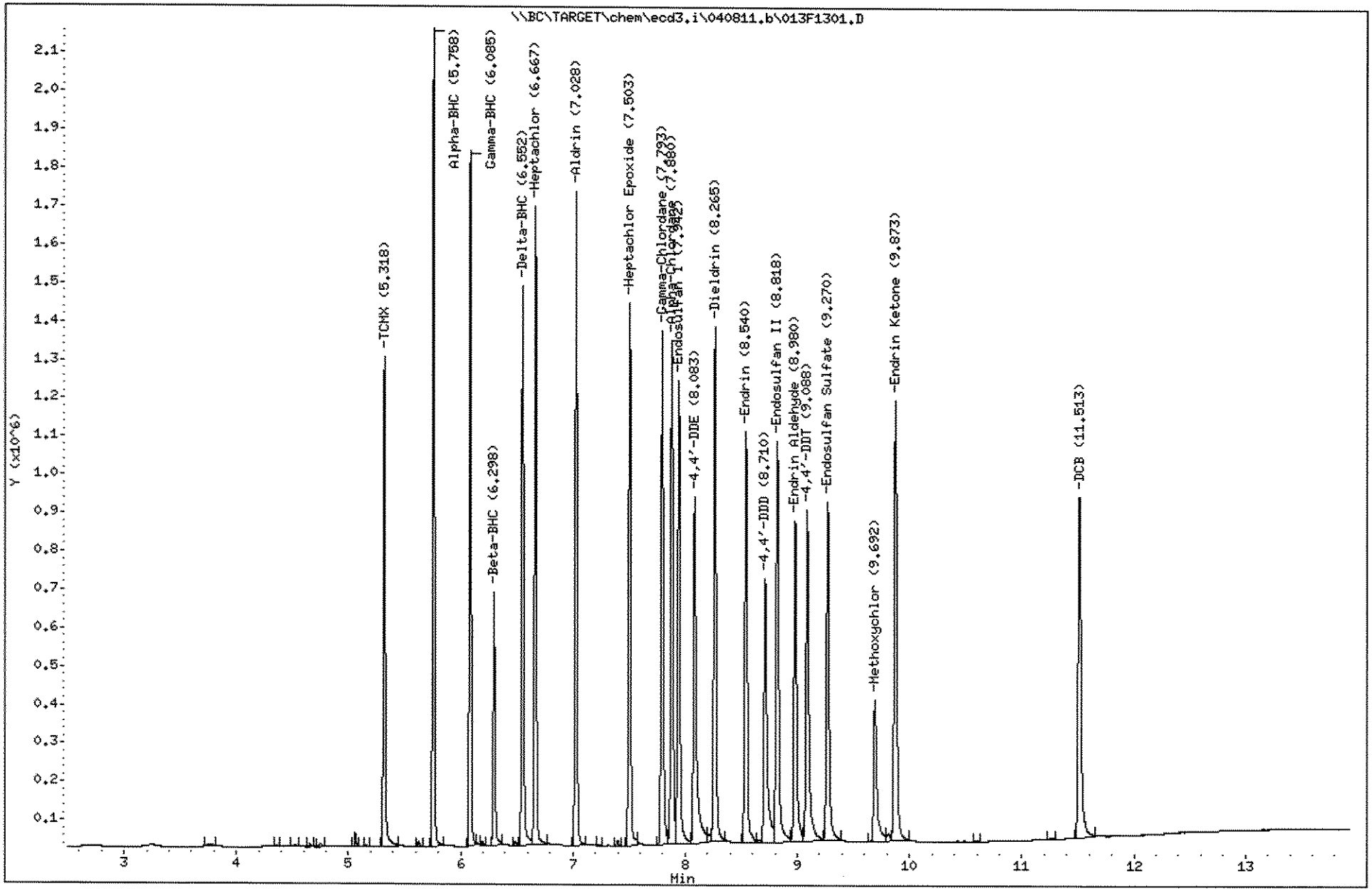
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.318	5.320	-0.002	1475583	50.0000	50.77
3 Alpha-BHC	5.758	5.758	0.000	2247132	50.0000	52.38
23 Gamma-BHC	6.085	6.085	0.000	1966834	50.0000	51.73
5 Beta-BHC	6.298	6.298	0.000	786096	50.0000	49.98
15 Delta-BHC	6.551	6.553	-0.002	1821859	50.0000	48.30
25 Heptachlor	6.666	6.666	0.000	2043943	50.0000	51.67
2 Aldrin	7.028	7.030	-0.002	2058983	50.0000	52.12
26 Heptachlor Epoxide	7.503	7.503	0.000	1880503	50.0000	51.04
24 Gamma-Chlordane	7.793	7.793	0.000	1871475	50.0000	51.70
4 Alpha-Chlordane	7.880	7.881	-0.001	1820317	50.0000	51.29
17 Endosulfan I	7.941	7.943	-0.002	1803631	50.0000	52.31
13 4,4'-DDE	8.083	8.085	-0.002	1627812	50.0000	47.83
16 Dieldrin	8.265	8.268	-0.003	1963690	50.0000	53.20
20 Endrin	8.540	8.541	-0.001	1628655	50.0000	52.83
12 4,4'-DDD	8.710	8.711	-0.001	1313591	50.0000	46.90
18 Endosulfan II	8.818	8.820	-0.002	1791872	50.0000	53.70
21 Endrin Aldehyde	8.980	8.981	-0.001	1384948	50.0000	51.49
14 4,4'-DDT	9.088	9.088	0.000	1538324	50.0000	54.98
19 Endosulfan Sulfate	9.270	9.270	0.000	1474712	50.0000	51.52
27 Methoxychlor	9.691	9.695	-0.004	743085	50.0000	53.05
22 Endrin Ketone	9.873	9.875	-0.002	1913818	50.0000	51.70
$ 39 DCB	11.513	11.513	0.000	1677147	50.0000	48.29

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\013F1301.D
Date : 08-APR-2011 16:01
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



133
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J.H. 4.14.11
Angie 04.14.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\014F1401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 08-APR-2011 16:19
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

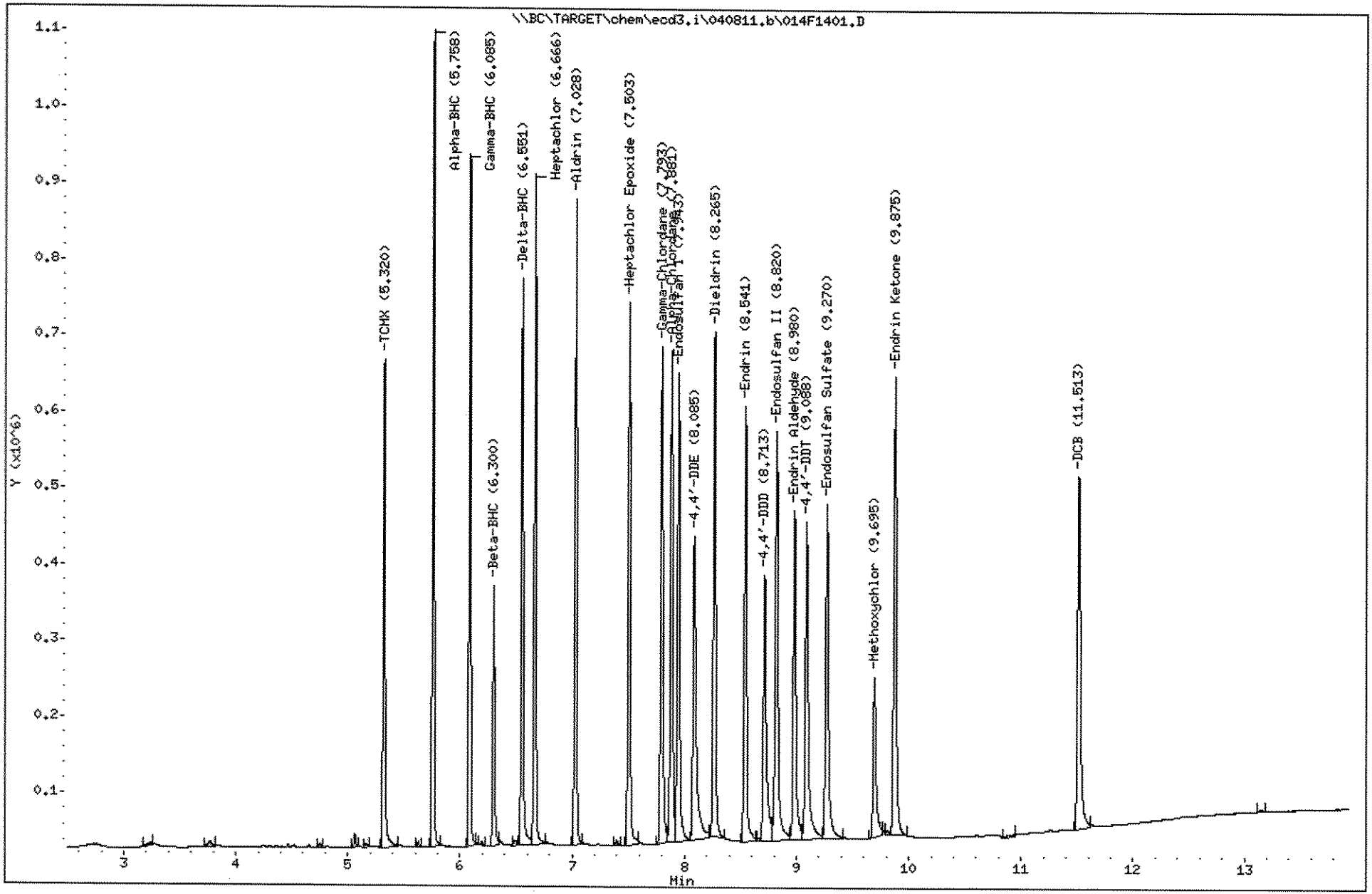
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.319	5.320	-0.001	756304	25.0000	26.02
3 Alpha-BHC	5.758	5.758	0.000	1131790	25.0000	26.38
23 Gamma-BHC	6.084	6.085	-0.001	994800	25.0000	26.17
5 Beta-BHC	6.299	6.298	0.001	399753	25.0000	25.42
15 Delta-BHC	6.551	6.553	-0.002	910381	25.0000	24.84
25 Heptachlor	6.666	6.666	0.000	1041436	25.0000	26.33
2 Aldrin	7.028	7.030	-0.002	1036468	25.0000	26.24
26 Heptachlor Epoxide	7.503	7.503	0.000	962439	25.0000	26.12
24 Gamma-Chlordane	7.793	7.793	0.000	943490	25.0000	26.07
4 Alpha-Chlordane	7.881	7.881	0.000	918600	25.0000	25.88
17 Endosulfan I	7.943	7.943	0.000	912308	25.0000	26.46
13 4,4'-DDE	8.084	8.085	-0.001	808055	25.0000	24.81
16 Dieldrin	8.264	8.268	-0.004	972150	25.0000	26.34
20 Endrin	8.541	8.541	0.000	834084	25.0000	27.06
12 4,4'-DDD	8.713	8.711	0.002	653317	25.0000	24.77
18 Endosulfan II	8.819	8.820	-0.001	927303	25.0000	27.79
21 Endrin Aldehyde	8.979	8.981	-0.002	711866	25.0000	26.46
14 4,4'-DDT	9.088	9.088	0.000	791109	25.0000	28.27
19 Endosulfan Sulfate	9.269	9.270	-0.001	771202	25.0000	26.94
27 Methoxychlor	9.694	9.695	-0.001	370684	25.0000	26.46
22 Endrin Ketone	9.874	9.875	-0.001	958289	25.0000	25.89
$ 39 DCB	11.513	11.513	0.000	894393	25.0000	25.75

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\014F1401.D
Date : 08-APR-2011 16:19
Client ID:
Sample Info: SEQ-CAL4

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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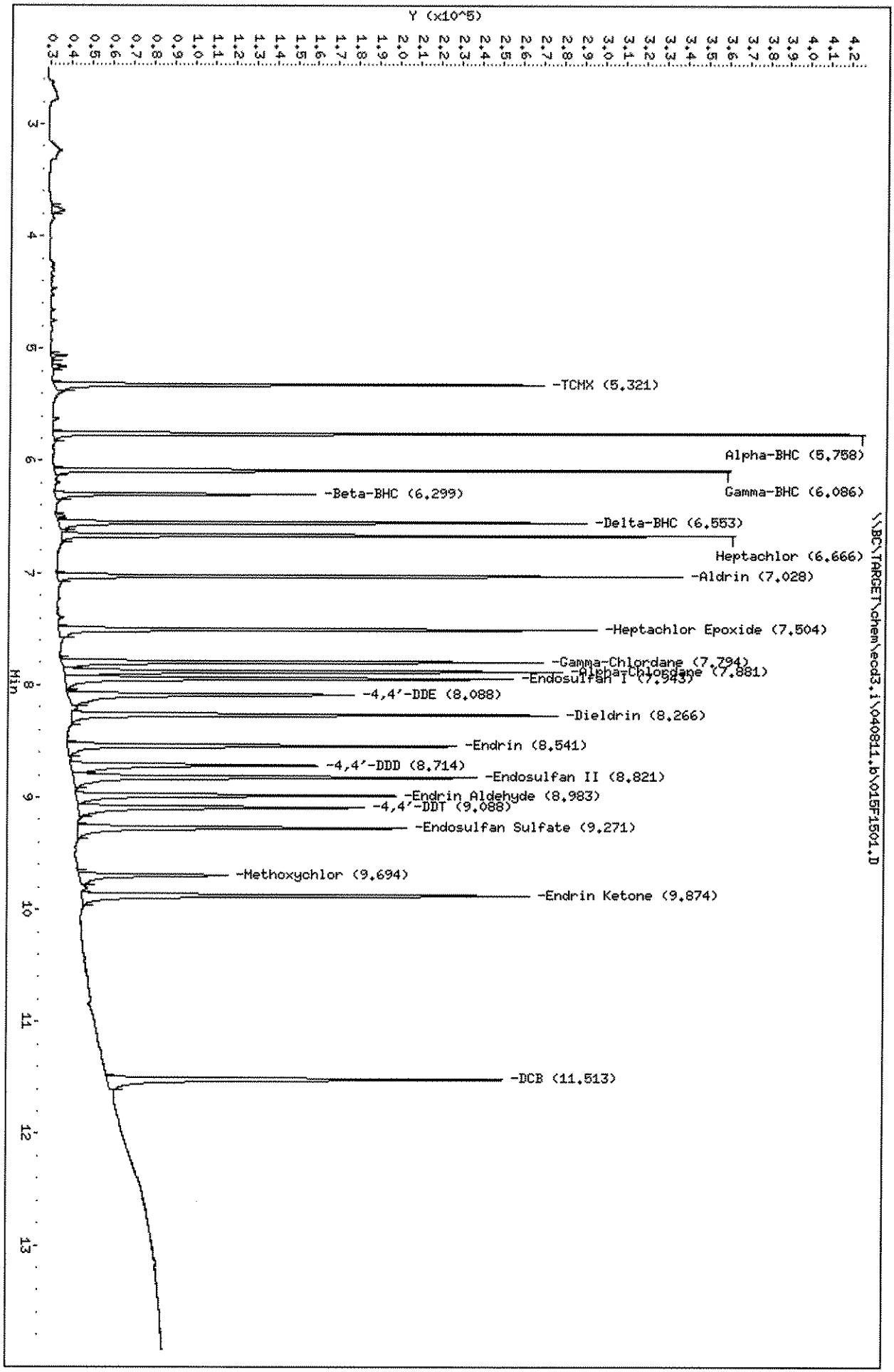
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\015F1501.D
Lab Smp Id: SEQ-CAL5
Inj Date : 08-APR-2011 16:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.321	5.320	0.001	280861	10.0000	9.664
3 Alpha-BHC	5.757	5.758	-0.001	416060	10.0000	9.698
23 Gamma-BHC	6.086	6.085	0.001	366738	10.0000	9.646
5 Beta-BHC	6.299	6.298	0.001	153129	10.0000	9.736
15 Delta-BHC	6.552	6.553	-0.001	315933	10.0000	9.539
25 Heptachlor	6.666	6.666	0.000	374795	10.0000	9.475
2 Aldrin	7.027	7.030	-0.003	381585	10.0000	9.659
26 Heptachlor Epoxide	7.504	7.503	0.001	360403	10.0000	9.782
24 Gamma-Chlordane	7.794	7.793	0.001	348578	10.0000	9.630
4 Alpha-Chlordane	7.881	7.881	0.000	345183	10.0000	9.726
17 Endosulfan I	7.942	7.943	-0.001	341602	10.0000	9.907
13 4,4'-DDE	8.087	8.085	0.002	277354	10.0000	9.903
16 Dieldrin	8.266	8.268	-0.002	353026	10.0000	9.564
20 Endrin	8.541	8.541	0.000	290306	10.0000	9.417
12 4,4'-DDD	8.714	8.711	0.003	220011	10.0000	10.25
18 Endosulfan II	8.821	8.820	0.001	333524	10.0000	9.996
21 Endrin Aldehyde	8.982	8.981	0.001	259044	10.0000	9.631
14 4,4'-DDT	9.087	9.088	-0.001	249712	10.0000	8.924
19 Endosulfan Sulfate	9.271	9.270	0.001	272156	10.0000	9.508
27 Methoxychlor	9.694	9.695	-0.001	135960	10.0000	9.706
22 Endrin Ketone	9.874	9.875	-0.001	358450	10.0000	9.684
$ 39 DCB	11.512	11.513	-0.001	348982	10.0000	10.05



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Date : 08-APR-2011 16:38
Client ID:
Sample Info: SEQ-CAL5
Column phase: ZB MR-1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

J.H. 4.14.11

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SW-846 METHODS 8081A/8082

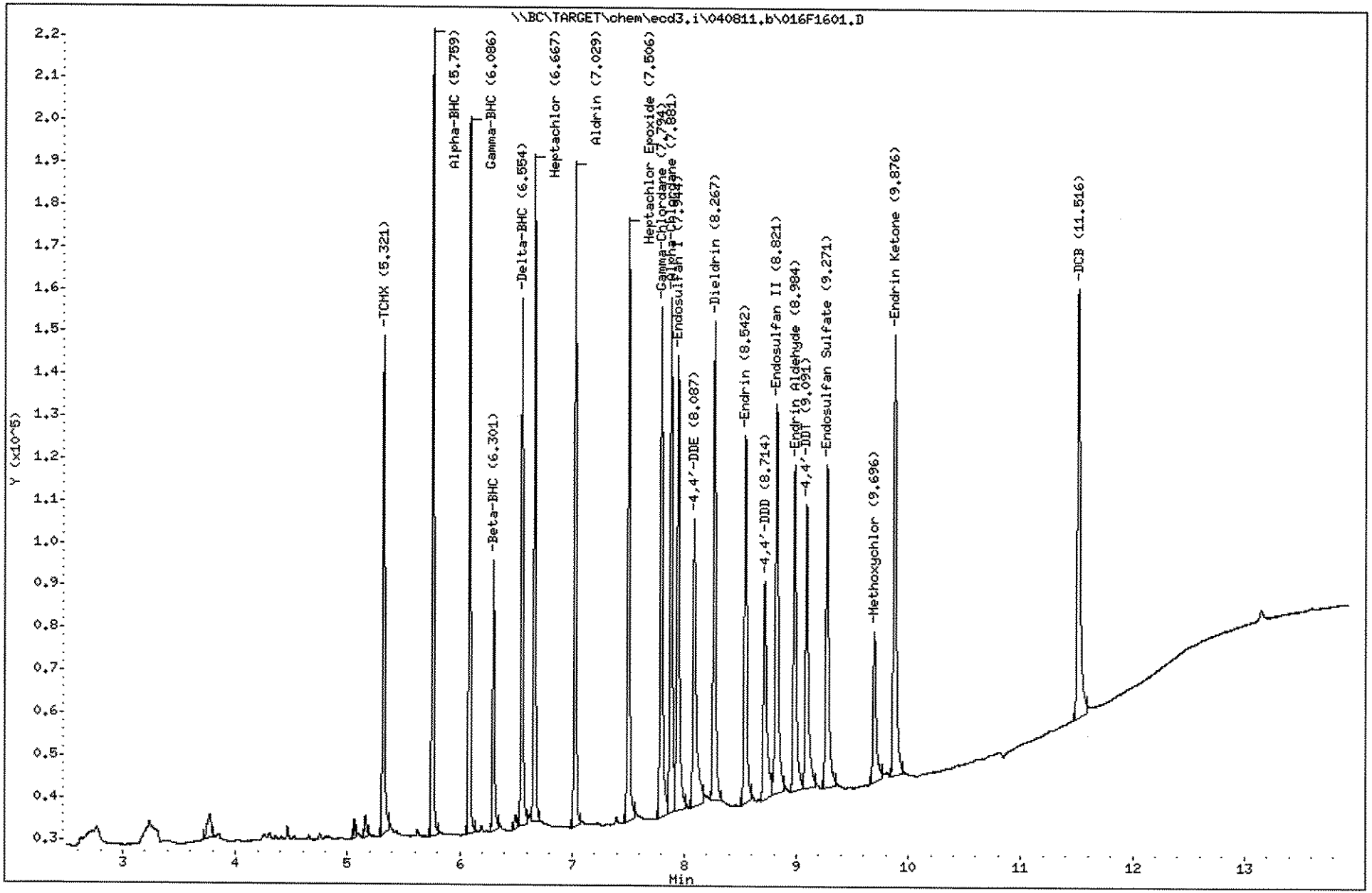
Data file : \\BC\TARGET\chem\ecd3.i\040811.b\016F1601.D
Lab Smp Id: SEQ-CAL6
Inj Date : 08-APR-2011 16:57
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.320	5.320	0.000	142177	5.00000	4.892
3 Alpha-BHC	5.758	5.758	0.000	201042	5.00000	4.686
23 Gamma-BHC	6.085	6.085	0.000	180498	5.00000	4.748
5 Beta-BHC	6.300	6.298	0.002	77860	5.00000	4.950
15 Delta-BHC	6.553	6.553	0.000	152753	5.00000	5.339
25 Heptachlor	6.667	6.666	0.001	184387	5.00000	4.661
2 Aldrin	7.028	7.030	-0.002	188065	5.00000	4.761
26 Heptachlor Epoxide	7.505	7.503	0.002	178252	5.00000	4.838
24 Gamma-Chlordane	7.793	7.793	0.000	174418	5.00000	4.819
4 Alpha-Chlordane	7.880	7.881	-0.001	174106	5.00000	4.906
17 Endosulfan I	7.943	7.943	0.000	169659	5.00000	4.921
13 4,4'-DDE	8.087	8.085	0.002	134623	5.00000	5.894
16 Dieldrin	8.267	8.268	-0.001	172655	5.00000	4.678
20 Endrin	8.542	8.541	0.001	138124	5.00000	4.480
12 4,4'-DDD	8.713	8.711	0.002	107902	5.00000	6.495
18 Endosulfan II	8.820	8.820	0.000	163808	5.00000	4.910
21 Endrin Aldehyde	8.983	8.981	0.002	133204	5.00000	4.952
14 4,4'-DDT	9.090	9.088	0.002	121735	5.00000	4.350
19 Endosulfan Sulfate	9.270	9.270	0.000	138235	5.00000	4.829
27 Methoxychlor	9.695	9.695	0.000	67077	5.00000	4.789
22 Endrin Ketone	9.875	9.875	0.000	182170	5.00000	4.921
$ 39 DCB	11.515	11.513	0.002	185178	5.00000	5.332

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\016F1601.D
Date : 08-APR-2011 16:57
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: JH
Column phase: ZB MR-1
Column diameter: 0.32



J.H. 4.14.11
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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\017F1701.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-APR-2011 17:15
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

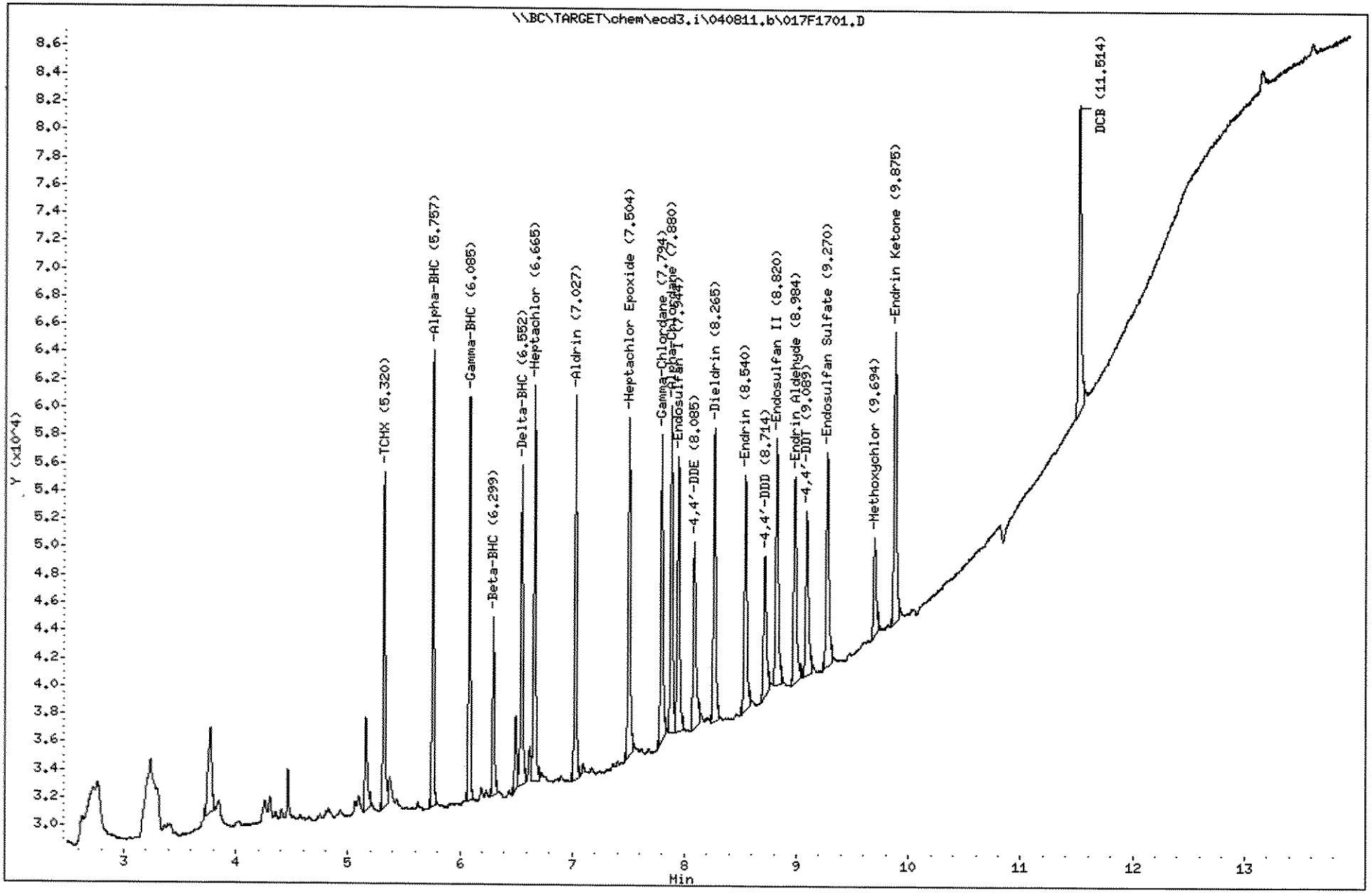
	Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38	TCMX	5.320	5.320	0.000	28010	1.00000	0.9637
3	Alpha-BHC	5.756	5.758	-0.002	33984	1.00000	0.7921
23	Gamma-BHC	6.085	6.085	0.000	31542	1.00000	0.8297
5	Beta-BHC	6.298	6.298	0.000	15528	1.00000	0.9873
15	Delta-BHC	6.551	6.553	-0.002	29055	1.00000	2.155
25	Heptachlor	6.665	6.666	-0.001	36395	1.00000	0.9201
2	Aldrin	7.026	7.030	-0.004	33746	1.00000	0.8542
26	Heptachlor Epoxide	7.503	7.503	0.000	33569	1.00000	0.9111
24	Gamma-Chlordane	7.793	7.793	0.000	31257	1.00000	0.8636
4	Alpha-Chlordane	7.880	7.881	-0.001	32163	1.00000	0.9062
17	Endosulfan I	7.943	7.943	0.000	29588	1.00000	0.8581
13	4,4'-DDE	8.085	8.085	0.000	23495	1.00000	2.774
16	Dieldrin	8.265	8.268	-0.003	31354	1.00000	0.8494
20	Endrin	8.540	8.541	-0.001	26089	1.00000	0.8462
12	4,4'-DDD	8.713	8.711	0.002	18108	1.00000	3.486
18	Endosulfan II	8.820	8.820	0.000	28141	1.00000	0.8434
21	Endrin Aldehyde	8.983	8.981	0.002	25288	1.00000	0.9402
14	4,4'-DDT	9.088	9.088	0.000	20401	1.00000	0.7291
19	Endosulfan Sulfate	9.270	9.270	0.000	26018	1.00000	0.9089
27	Methoxychlor	9.693	9.695	-0.002	11090	1.00000	0.7917
22	Endrin Ketone	9.875	9.875	0.000	32813	1.00000	0.8865
$ 39	DCB	11.513	11.513	0.000	36985	1.00000	1.065

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\017F1701.D
Date : 08-APR-2011 17:15
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.14.11
cjk 04/14/11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\011R1101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 08-APR-2011 15:23
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:34 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	3800198	200.000	178.1
3 Alpha-BHC [2C]	4.781	4.781	0.000	4988604	200.000	179.4
23 Gamma-BHC [2C]	5.051	5.051	0.000	4517971	200.000	178.0
5 Beta-BHC [2C]	5.318	5.319	-0.001	2024812	200.000	165.9
25 Heptachlor [2C]	5.388	5.387	0.001	4355751	200.000	168.3
15 Delta-BHC [2C]	5.514	5.516	-0.002	4176117	200.000	187.2
2 Aldrin [2C]	5.643	5.642	0.001	4519139	200.000	168.5
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	4262565	200.000	166.5
24 Gamma-Chlordane [2C]	6.363	6.364	-0.001	4171499	200.000	174.6
4 Alpha-Chlordane [2C]	6.418	6.419	-0.001	4051122	200.000	164.3
17 Endosulfan I [2C]	6.466	6.466	0.000	4217454	200.000	159.8
13 4,4'-DDE [2C]	6.609	6.611	-0.002	4235769	200.000	197.2
16 Dieldrin [2C]	6.734	6.736	-0.002	4638254	200.000	169.3
20 Endrin [2C]	7.006	7.007	-0.001	3876063	200.000	176.2
12 4,4'-DDD [2C]	7.193	7.196	-0.003	3686473	200.000	202.7(A)
18 Endosulfan II [2C]	7.333	7.334	-0.001	3777460	200.000	169.0
14 4,4'-DDT [2C]	7.481	7.482	-0.001	3257758	200.000	221.3(A)
21 Endrin Aldehyde [2C]	7.513	7.512	0.001	3909269	200.000	161.8
19 Endosulfan Sulfate [2C]	7.788	7.787	0.001	3686596	200.000	183.4
27 Methoxychlor [2C]	8.106	8.107	-0.001	1840175	200.000	193.7
22 Endrin Ketone [2C]	8.331	8.332	-0.001	4394884	200.000	168.0
$ 39 DCB [2C]	9.773	9.774	-0.001	3857149	200.000	178.3

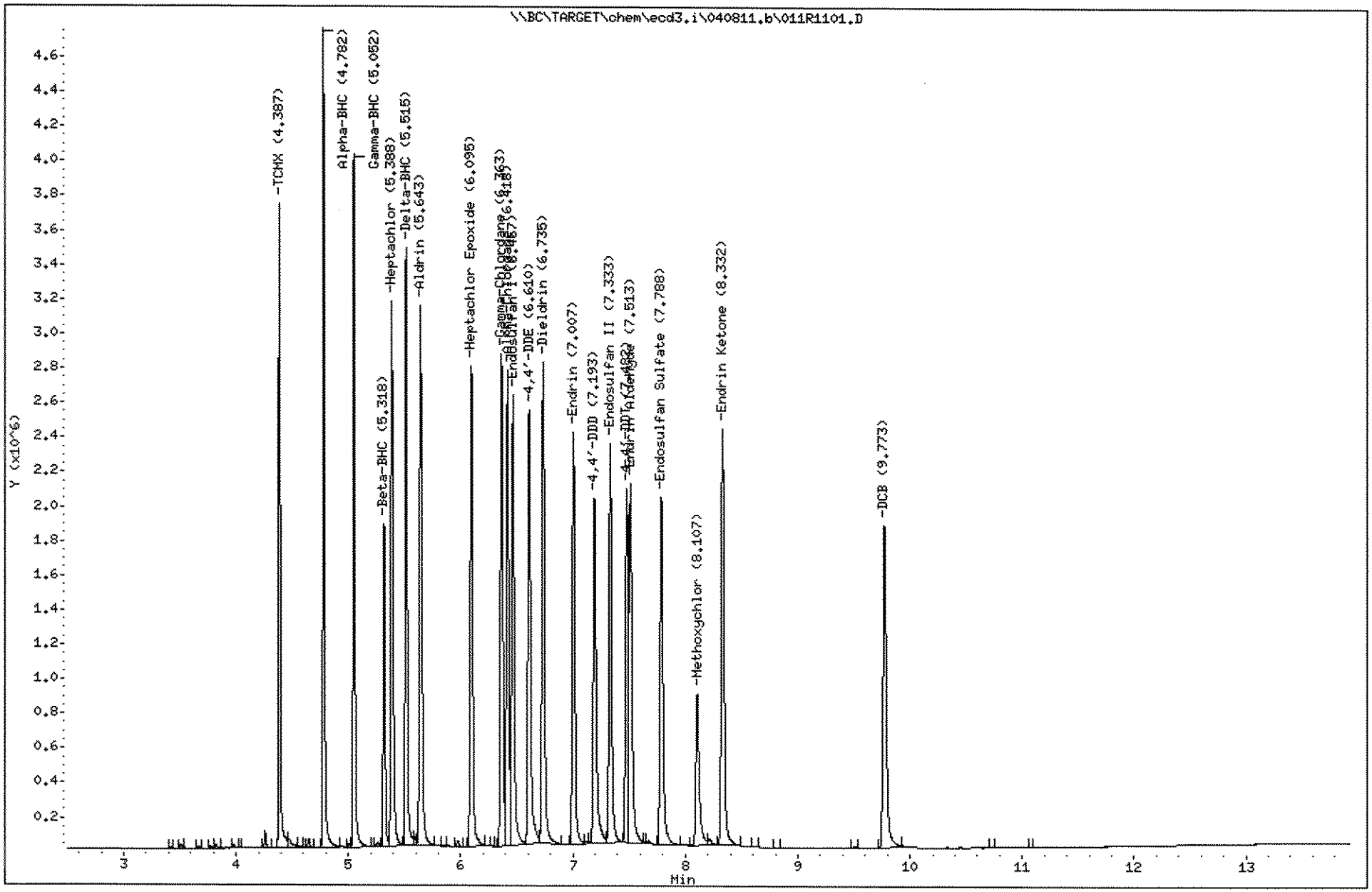
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\011R1101.D
Date : 08-APR-2011 15:23
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.14.11
04/14/11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

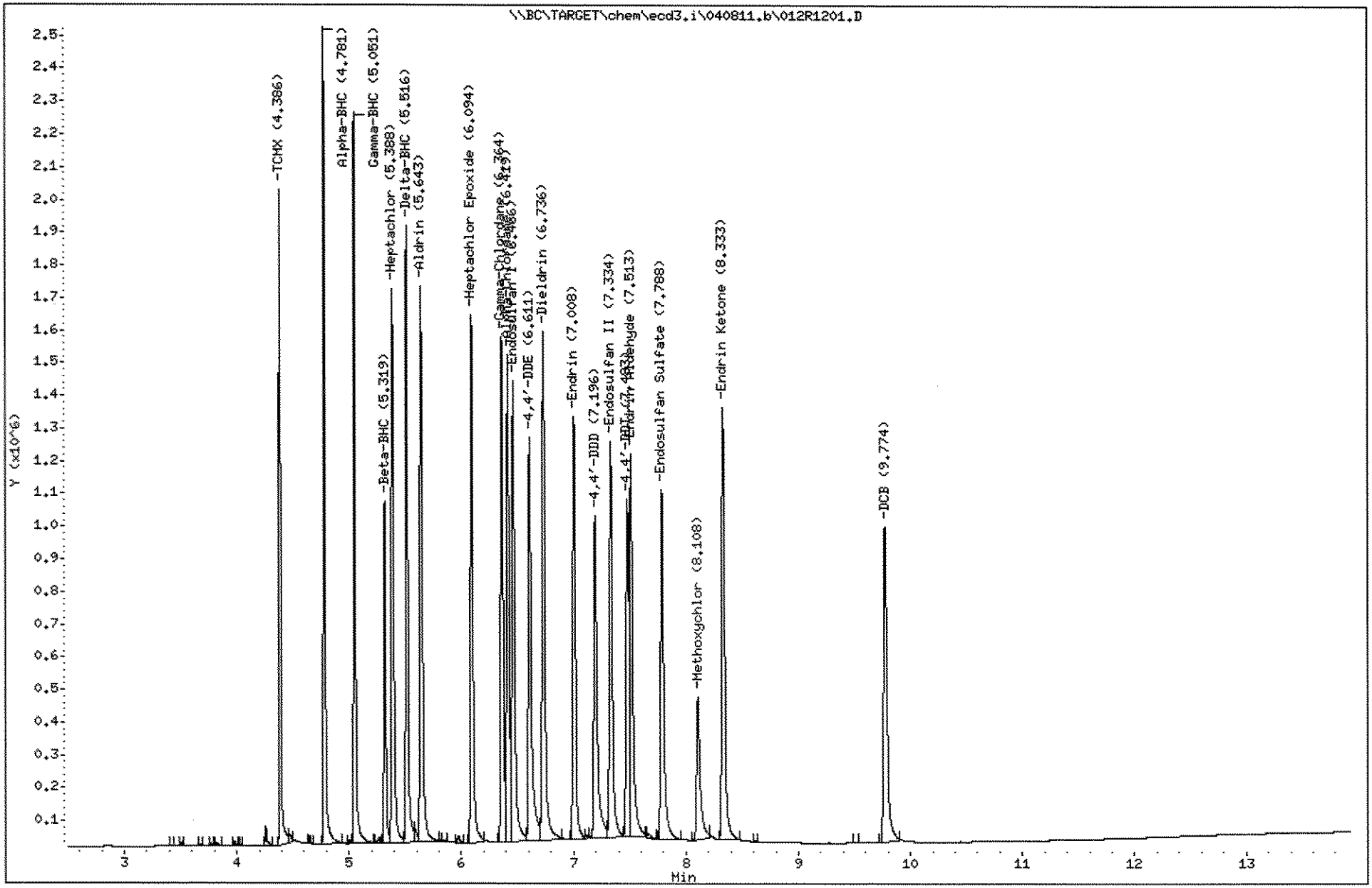
Data file : \\BC\TARGET\chem\ecd3.i\040811.b\012R1201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 08-APR-2011 15:42
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	2034125	100.000	95.35
3 Alpha-BHC [2C]	4.781	4.781	0.000	2766661	100.000	99.52
23 Gamma-BHC [2C]	5.051	5.051	0.000	2511246	100.000	98.91
5 Beta-BHC [2C]	5.319	5.319	0.000	1121345	100.000	91.89
25 Heptachlor [2C]	5.387	5.387	0.000	2483374	100.000	95.98
15 Delta-BHC [2C]	5.516	5.516	0.000	2301912	100.000	103.2
2 Aldrin [2C]	5.642	5.642	0.000	2618487	100.000	97.66
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	2402560	100.000	93.85
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	2307361	100.000	96.55
4 Alpha-Chlordane [2C]	6.419	6.419	0.000	2312937	100.000	93.79
17 Endosulfan I [2C]	6.466	6.466	0.000	2450083	100.000	92.85
13 4,4'-DDE [2C]	6.611	6.611	0.000	2311362	100.000	107.6
16 Dieldrin [2C]	6.736	6.736	0.000	2717878	100.000	99.22
20 Endrin [2C]	7.007	7.007	0.000	2157880	100.000	98.09
12 4,4'-DDD [2C]	7.196	7.196	0.000	1979664	100.000	108.8
18 Endosulfan II [2C]	7.334	7.334	0.000	2181960	100.000	97.60
14 4,4'-DDT [2C]	7.482	7.482	0.000	1652821	100.000	112.3
21 Endrin Aldehyde [2C]	7.512	7.512	0.000	2243592	100.000	92.84
19 Endosulfan Sulfate [2C]	7.787	7.787	0.000	2017902	100.000	100.4
27 Methoxychlor [2C]	8.107	8.107	0.000	957923	100.000	100.8
22 Endrin Ketone [2C]	8.332	8.332	0.000	2453074	100.000	93.79
$ 39 DCB [2C]	9.774	9.774	0.000	2099840	100.000	97.09

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\012R1201.D
Date : 08-APR-2011 15:42
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.14.11
04/14/11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\013R1301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 08-APR-2011 16:01
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

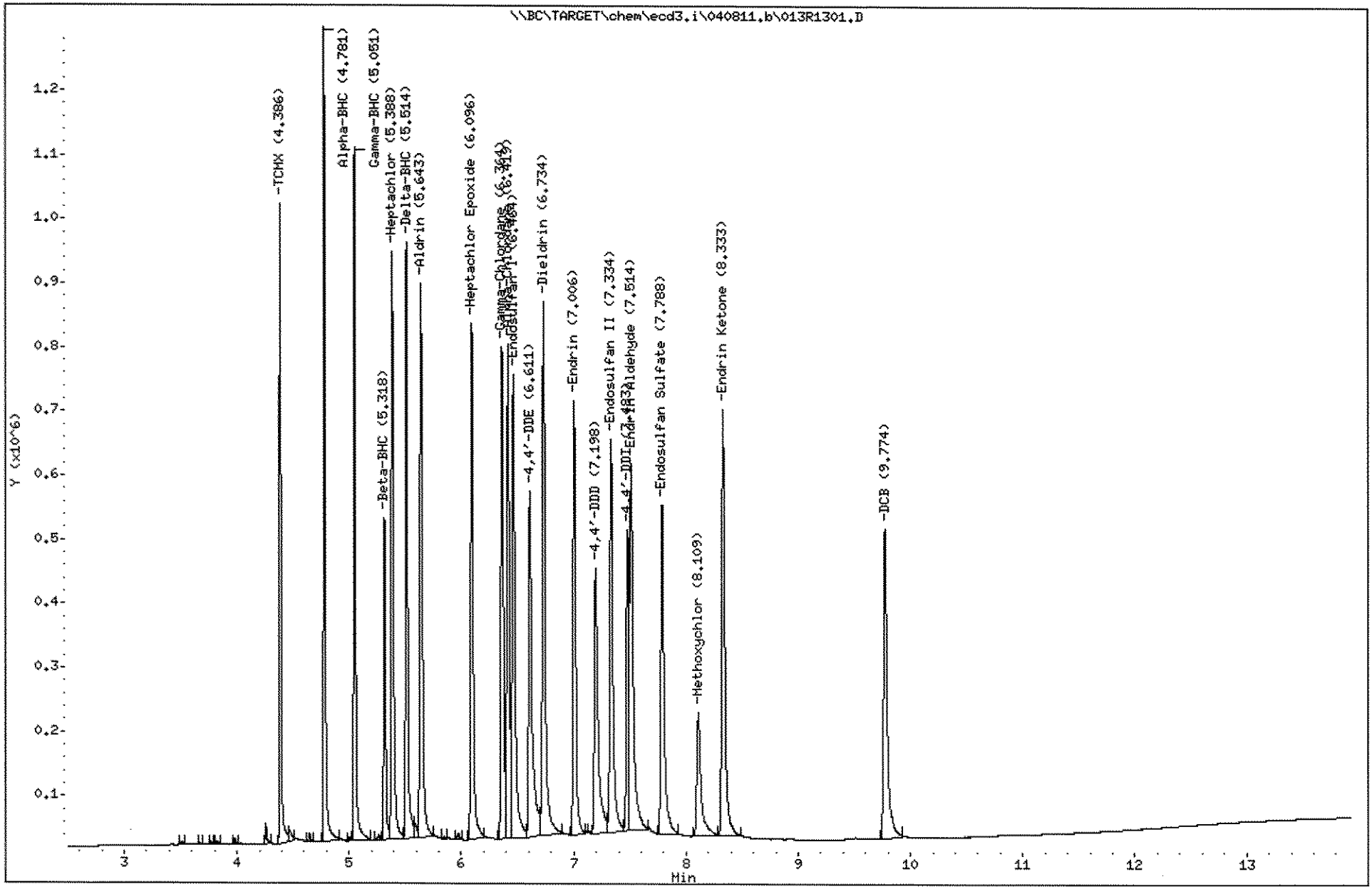
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	1019218	50.0000	47.78
3 Alpha-BHC [2C]	4.781	4.781	0.000	1380976	50.0000	49.68
23 Gamma-BHC [2C]	5.051	5.051	0.000	1261599	50.0000	49.69
5 Beta-BHC [2C]	5.317	5.319	-0.002	558718	50.0000	45.79
25 Heptachlor [2C]	5.387	5.387	0.000	1276796	50.0000	49.35
15 Delta-BHC [2C]	5.514	5.516	-0.002	1131458	50.0000	50.72
2 Aldrin [2C]	5.642	5.642	0.000	1346600	50.0000	50.22
26 Heptachlor Epoxide [2C]	6.096	6.094	0.002	1250801	50.0000	48.86
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	1175080	50.0000	49.17
4 Alpha-Chlordane [2C]	6.419	6.419	0.000	1204028	50.0000	48.82
17 Endosulfan I [2C]	6.464	6.466	-0.002	1312444	50.0000	49.74
13 4,4'-DDE [2C]	6.611	6.611	0.000	1126761	50.0000	52.47
16 Dieldrin [2C]	6.734	6.736	-0.002	1452338	50.0000	53.02
20 Endrin [2C]	7.006	7.007	-0.001	1088887	50.0000	49.50
12 4,4'-DDD [2C]	7.197	7.196	0.001	945745	50.0000	52.00
18 Endosulfan II [2C]	7.334	7.334	0.000	1147470	50.0000	51.32
14 4,4'-DDT [2C]	7.482	7.482	0.000	716983	50.0000	48.70
21 Endrin Aldehyde [2C]	7.514	7.512	0.002	1259204	50.0000	52.11
19 Endosulfan Sulfate [2C]	7.787	7.787	0.000	1031868	50.0000	51.34
27 Methoxychlor [2C]	8.109	8.107	0.002	509646	50.0000	53.66
22 Endrin Ketone [2C]	8.332	8.332	0.000	1308710	50.0000	50.04
$ 39 DCB [2C]	9.774	9.774	0.000	1084110	50.0000	50.12

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\013R1301.D
Date : 08-APR-2011 16:01
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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Data file : \\BC\TARGET\chem\ecd3.i\040811.b\014R1401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 08-APR-2011 16:19
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

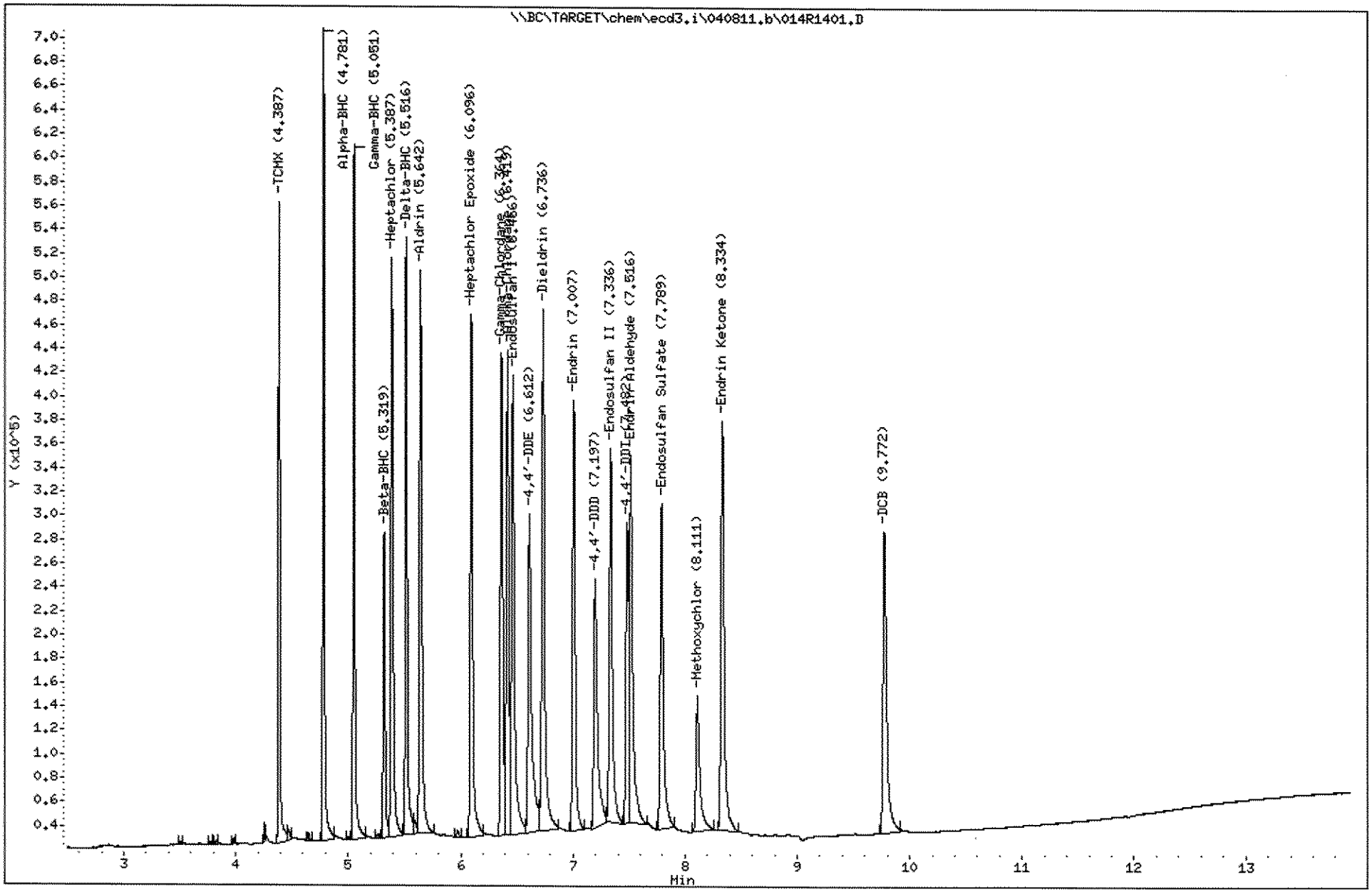
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.387	4.386	0.001	549500	25.0000	25.76
3 Alpha-BHC [2C]	4.780	4.781	-0.001	731672	25.0000	26.32
23 Gamma-BHC [2C]	5.050	5.051	-0.001	670215	25.0000	26.40
5 Beta-BHC [2C]	5.319	5.319	0.000	298091	25.0000	24.43
25 Heptachlor [2C]	5.387	5.387	0.000	686513	25.0000	26.53
15 Delta-BHC [2C]	5.515	5.516	-0.001	591615	25.0000	26.52
2 Aldrin [2C]	5.642	5.642	0.000	719233	25.0000	26.82
26 Heptachlor Epoxide [2C]	6.095	6.094	0.001	676368	25.0000	26.42
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	620213	25.0000	25.95
4 Alpha-Chlordane [2C]	6.419	6.419	0.000	646057	25.0000	26.20
17 Endosulfan I [2C]	6.465	6.466	-0.001	720769	25.0000	27.32
13 4,4'-DDE [2C]	6.612	6.611	0.001	593555	25.0000	27.64
16 Dieldrin [2C]	6.735	6.736	-0.001	783065	25.0000	28.59
20 Endrin [2C]	7.007	7.007	0.000	595415	25.0000	27.06
12 4,4'-DDD [2C]	7.197	7.196	0.001	472722	25.0000	25.99
18 Endosulfan II [2C]	7.335	7.334	0.001	583154	25.0000	26.08
14 4,4'-DDT [2C]	7.482	7.482	0.000	379822	25.0000	25.80
21 Endrin Aldehyde [2C]	7.515	7.512	0.003	652062	25.0000	26.98
19 Endosulfan Sulfate [2C]	7.789	7.787	0.002	539366	25.0000	26.83
27 Methoxychlor [2C]	8.110	8.107	0.003	277108	25.0000	29.18
22 Endrin Ketone [2C]	8.334	8.332	0.002	701819	25.0000	26.83
$ 39 DCB [2C]	9.772	9.774	-0.002	583612	25.0000	26.98

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\014R1401.D
Date : 08-APR-2011 16:19
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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Data file : \\BC\TARGET\chem\ecd3.i\040811.b\015R1501.D
Lab Smp Id: SEQ-CAL5
Inj Date : 08-APR-2011 16:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

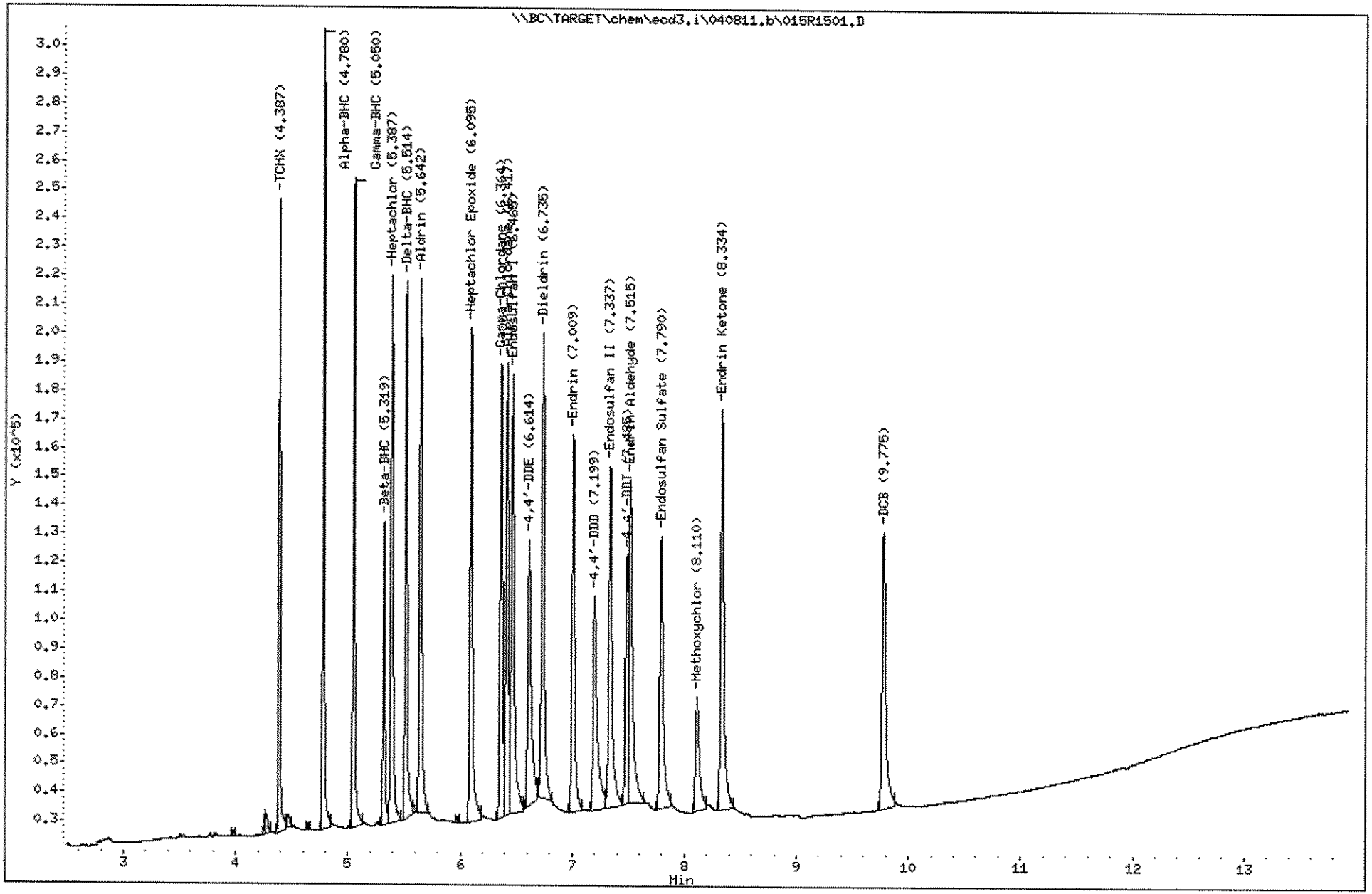
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.387	4.386	0.001	221839	10.0000	10.40
3 Alpha-BHC [2C]	4.780	4.781	-0.001	289980	10.0000	10.43
23 Gamma-BHC [2C]	5.050	5.051	-0.001	264635	10.0000	10.42
5 Beta-BHC [2C]	5.318	5.319	-0.001	120889	10.0000	9.907
25 Heptachlor [2C]	5.387	5.387	0.000	269830	10.0000	10.43
15 Delta-BHC [2C]	5.513	5.516	-0.003	224458	10.0000	10.06
2 Aldrin [2C]	5.642	5.642	0.000	273539	10.0000	10.20
26 Heptachlor Epoxide [2C]	6.095	6.094	0.001	271026	10.0000	10.59
24 Gamma-Chlordane [2C]	6.363	6.364	-0.001	244872	10.0000	10.25
4 Alpha-Chlordane [2C]	6.417	6.419	-0.002	257189	10.0000	10.43
17 Endosulfan I [2C]	6.465	6.466	-0.001	279912	10.0000	10.61
13 4,4'-DDE [2C]	6.613	6.611	0.002	199447	10.0000	9.287
16 Dieldrin [2C]	6.735	6.736	-0.001	276612	10.0000	10.10
20 Endrin [2C]	7.008	7.007	0.001	226355	10.0000	10.29
12 4,4'-DDD [2C]	7.198	7.196	0.002	187081	10.0000	10.29
18 Endosulfan II [2C]	7.337	7.334	0.003	244868	10.0000	10.95
14 4,4'-DDT [2C]	7.485	7.482	0.003	141195	10.0000	9.591
21 Endrin Aldehyde [2C]	7.515	7.512	0.003	258433	10.0000	10.69
19 Endosulfan Sulfate [2C]	7.790	7.787	0.003	202910	10.0000	10.09
27 Methoxychlor [2C]	8.110	8.107	0.003	97629	10.0000	10.28
22 Endrin Ketone [2C]	8.333	8.332	0.001	276046	10.0000	10.55
$ 39 DCB [2C]	9.775	9.774	0.001	223171	10.0000	10.32

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\015R1501.D
Date : 08-APR-2011 16:38
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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Data file : \\BC\TARGET\chem\ecd3.i\040811.b\016R1601.D
Lab Smp Id: SEQ-CAL6
Inj Date : 08-APR-2011 16:57
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

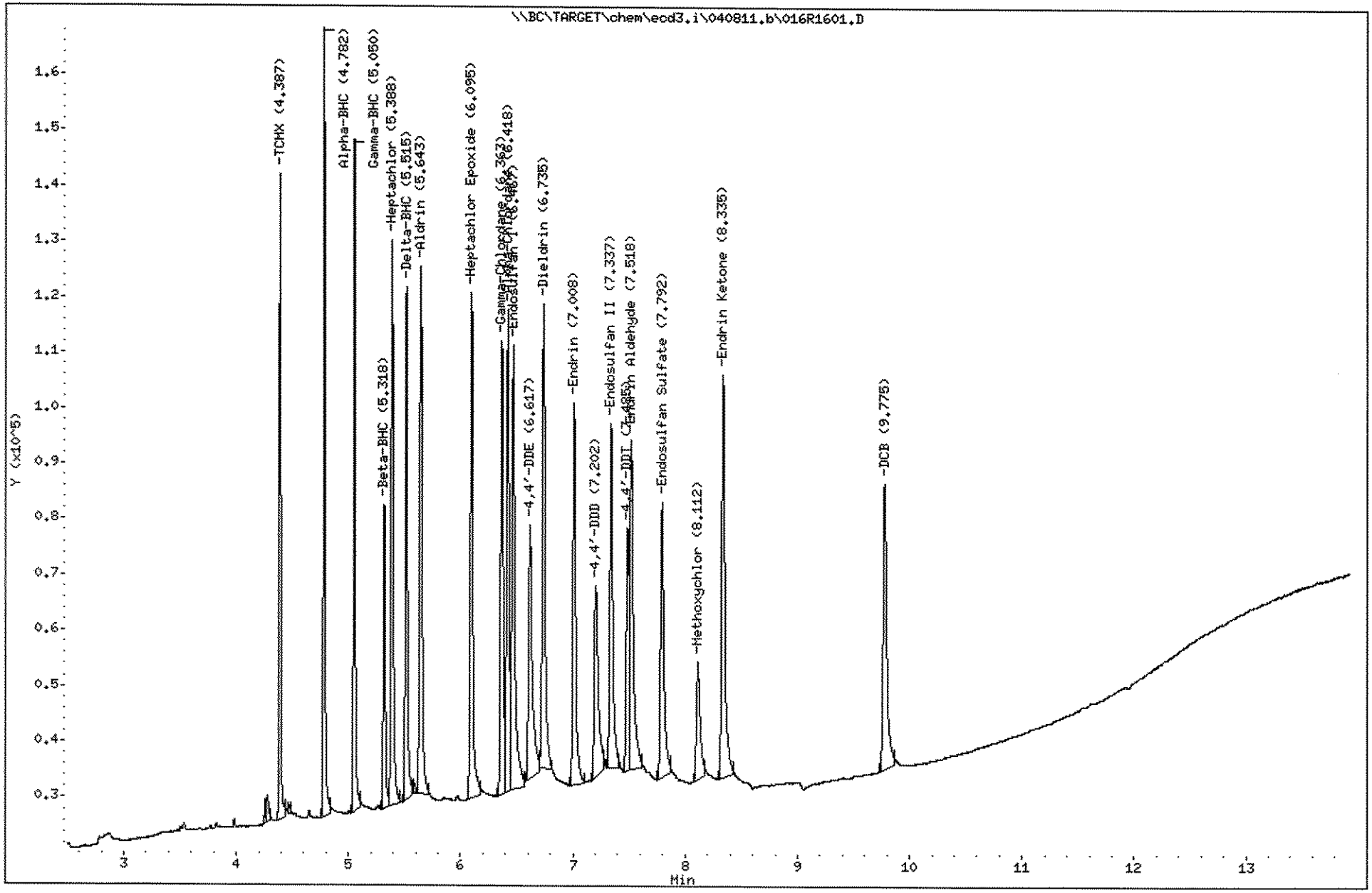
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	114232	5.00000	5.355
3 Alpha-BHC [2C]	4.781	4.781	0.000	148002	5.00000	5.324
23 Gamma-BHC [2C]	5.049	5.051	-0.002	133408	5.00000	5.254
5 Beta-BHC [2C]	5.318	5.319	-0.001	64404	5.00000	5.278
25 Heptachlor [2C]	5.388	5.387	0.001	139785	5.00000	5.403
15 Delta-BHC [2C]	5.514	5.516	-0.002	114227	5.00000	5.121
2 Aldrin [2C]	5.643	5.642	0.001	143304	5.00000	5.344
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	141264	5.00000	5.518
24 Gamma-Chlordane [2C]	6.363	6.364	-0.001	126541	5.00000	5.295
4 Alpha-Chlordane [2C]	6.418	6.419	-0.001	135542	5.00000	5.496
17 Endosulfan I [2C]	6.466	6.466	0.000	152578	5.00000	5.782
13 4,4'-DDE [2C]	6.616	6.611	0.005	102672	5.00000	4.781
16 Dieldrin [2C]	6.734	6.736	-0.002	141964	5.00000	5.183
20 Endrin [2C]	7.008	7.007	0.001	118097	5.00000	5.368
12 4,4'-DDD [2C]	7.201	7.196	0.005	86631	5.00000	4.763
18 Endosulfan II [2C]	7.336	7.334	0.002	114608	5.00000	5.126
14 4,4'-DDT [2C]	7.484	7.482	0.002	65223	5.00000	4.430
21 Endrin Aldehyde [2C]	7.518	7.512	0.006	135023	5.00000	5.587
19 Endosulfan Sulfate [2C]	7.791	7.787	0.004	102600	5.00000	5.104
27 Methoxychlor [2C]	8.111	8.107	0.004	47855	5.00000	5.038
22 Endrin Ketone [2C]	8.334	8.332	0.002	144007	5.00000	5.506
$ 39 DCB [2C]	9.774	9.774	0.000	117787	5.00000	5.446

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\016R1601.D
Date : 08-APR-2011 16:57
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



J.H. 4.14.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\017R1701.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-APR-2011 17:15
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

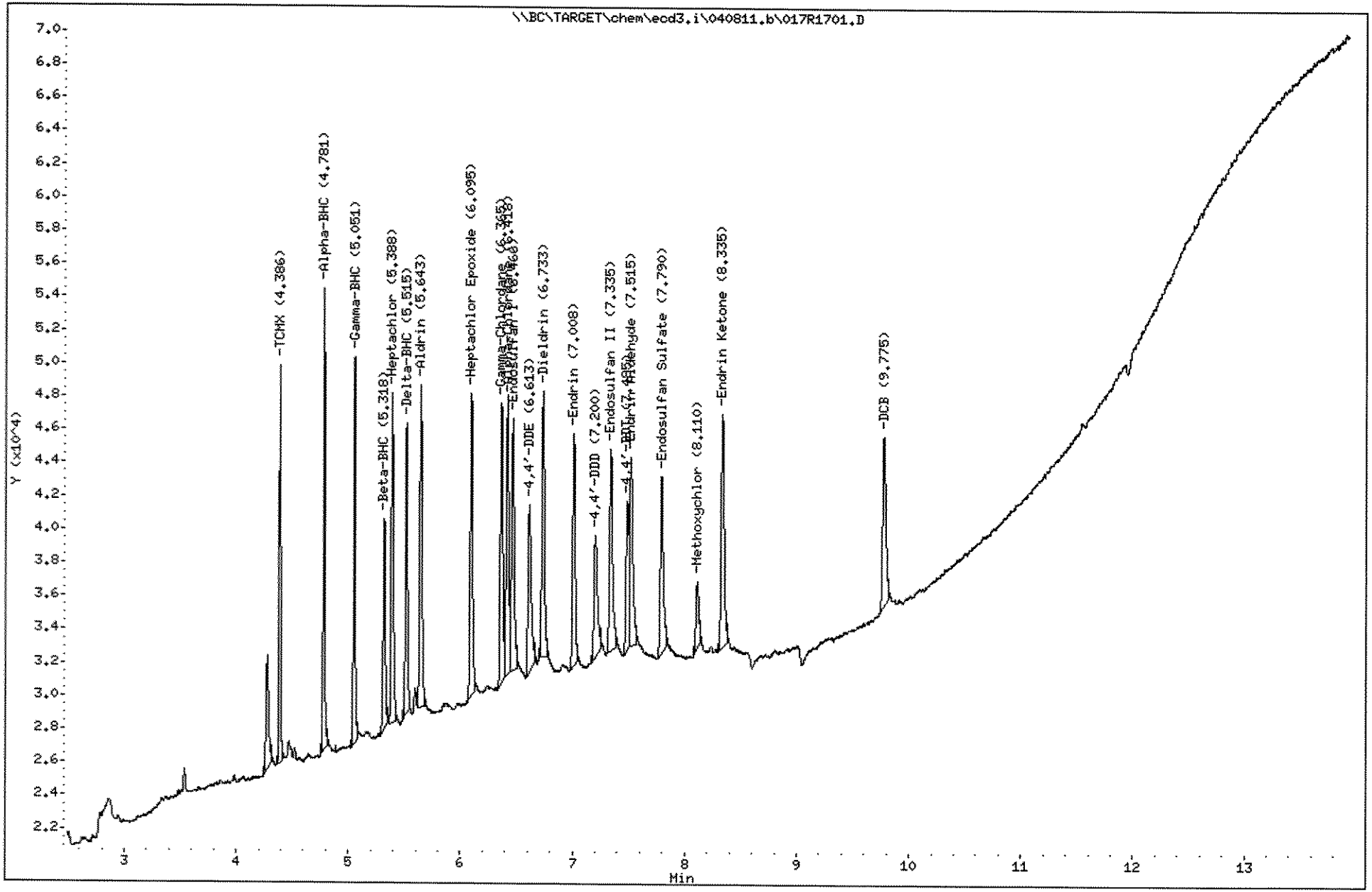
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	22595	1.00000	1.059
3 Alpha-BHC [2C]	4.781	4.781	0.000	26504	1.00000	0.9534
23 Gamma-BHC [2C]	5.051	5.051	0.000	24834	1.00000	0.9781
5 Beta-BHC [2C]	5.317	5.319	-0.002	16013	1.00000	1.312
25 Heptachlor [2C]	5.387	5.387	0.000	26564	1.00000	1.027
15 Delta-BHC [2C]	5.514	5.516	-0.002	20662	1.00000	0.9263
2 Aldrin [2C]	5.642	5.642	0.000	27198	1.00000	1.014
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	26432	1.00000	1.032
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	25248	1.00000	1.056
4 Alpha-Chlordane [2C]	6.417	6.419	-0.002	26494	1.00000	1.074
17 Endosulfan I [2C]	6.466	6.466	0.000	25535	1.00000	0.9677
13 4,4'-DDE [2C]	6.612	6.611	0.001	19282	1.00000	0.8978
16 Dieldrin [2C]	6.732	6.736	-0.004	24943	1.00000	0.9106
20 Endrin [2C]	7.007	7.007	0.000	21186	1.00000	0.9630
12 4,4'-DDD [2C]	7.199	7.196	0.003	15223	1.00000	0.8370
18 Endosulfan II [2C]	7.334	7.334	0.000	22110	1.00000	0.9889
14 4,4'-DDT [2C]	7.484	7.482	0.002	13541	1.00000	0.9198
21 Endrin Aldehyde [2C]	7.514	7.512	0.002	23062	1.00000	0.9543
19 Endosulfan Sulfate [2C]	7.789	7.787	0.002	19069	1.00000	0.9487
27 Methoxychlor [2C]	8.109	8.107	0.002	7094	1.00000	0.7469
22 Endrin Ketone [2C]	8.334	8.332	0.002	25926	1.00000	0.9912
$ 39 DCB [2C]	9.774	9.774	0.000	20209	1.00000	0.9344

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\017R1701.D
Date : 08-APR-2011 17:15
Client ID:
Sample Info: SEQ-CAL7

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Sequence Table (Front Injector): Back

Quantification Part:

PG 34 of Cycle 041511

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PEST PRIMER				
2	Vial 2	SEQ-CCV1 ID#11C0977				
3	Vial 3	1D09814-BLK1 1x A				
4	Vial 4	1D09814-BS1				
5	Vial 5	1104087-11				
6	Vial 6	1104087-12 Re-Run w/1254 CCV				
7	Vial 7	1104093-01				
8	Vial 8	1D09814-MS1				
9	Vial 9	1D09814-MSD1				
10	Vial 10	1104093-02				
11	Vial 11	1104093-03				
12	Vial 12	1104093-04				
13	Vial 13	1104093-05				
14	Vial 14	1104093-06				
15	Vial 15	1104093-07				
16	Vial 16	1104093-08				
17	Vial 17	SEQ-CCV2 ID#11C0977				
1254 - 18	Vial 18	SEQ-CCV3 ID# 11D0028				
19	Vial 19	1104087-11 1x A				
20	Vial 20	1104087-12				
21	Vial 21	1104114-03				
22	Vial 22	1104114-04				
23	Vial 23	1104093-01RE1@10x A				
24	Vial 24	SEQ-CCV4 ID# 11C0977				
1259 - 25	Vial 25	SEQ-CCV5 ID# 11D0028				

Seq #: 1D0105O5

~~Sequence Table (Back Injector):~~

No entries - ~~empty table~~ Cycle 041511

Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 13:38
Lab File ID: 002F0201.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

			MIN		MAX	
COMPOUND	RRF	RF100	RRF	%D	%D	
29 PCB-1016(1)	1238	1234	0.010	-0.3	20.0	
(2)	455	430	0.010	-5.6	20.0	
(3)	656	626	0.010	-4.5	20.0	
(4)	656	648	0.010	-1.3	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	489	0.010	-1.8	20.0	
35 PCB-1260(1)	4039	3921	0.010	-2.9	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1614	0.010	-4.9	20.0	
(4)	1978	2248	0.010	13.6	20.0	
(5)	1628	1578	0.010	-3.1	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	915	0.010	-5.4	20.0	
$ 38 TCMX	29064	28375	0.010	-2.4	20.0	
$ 39 DCB	34730	30194	0.010	-13.1	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002F0201.D
Lab Smp Id: SEQ-CCV1
Inj Date : 14-APR-2011 13:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

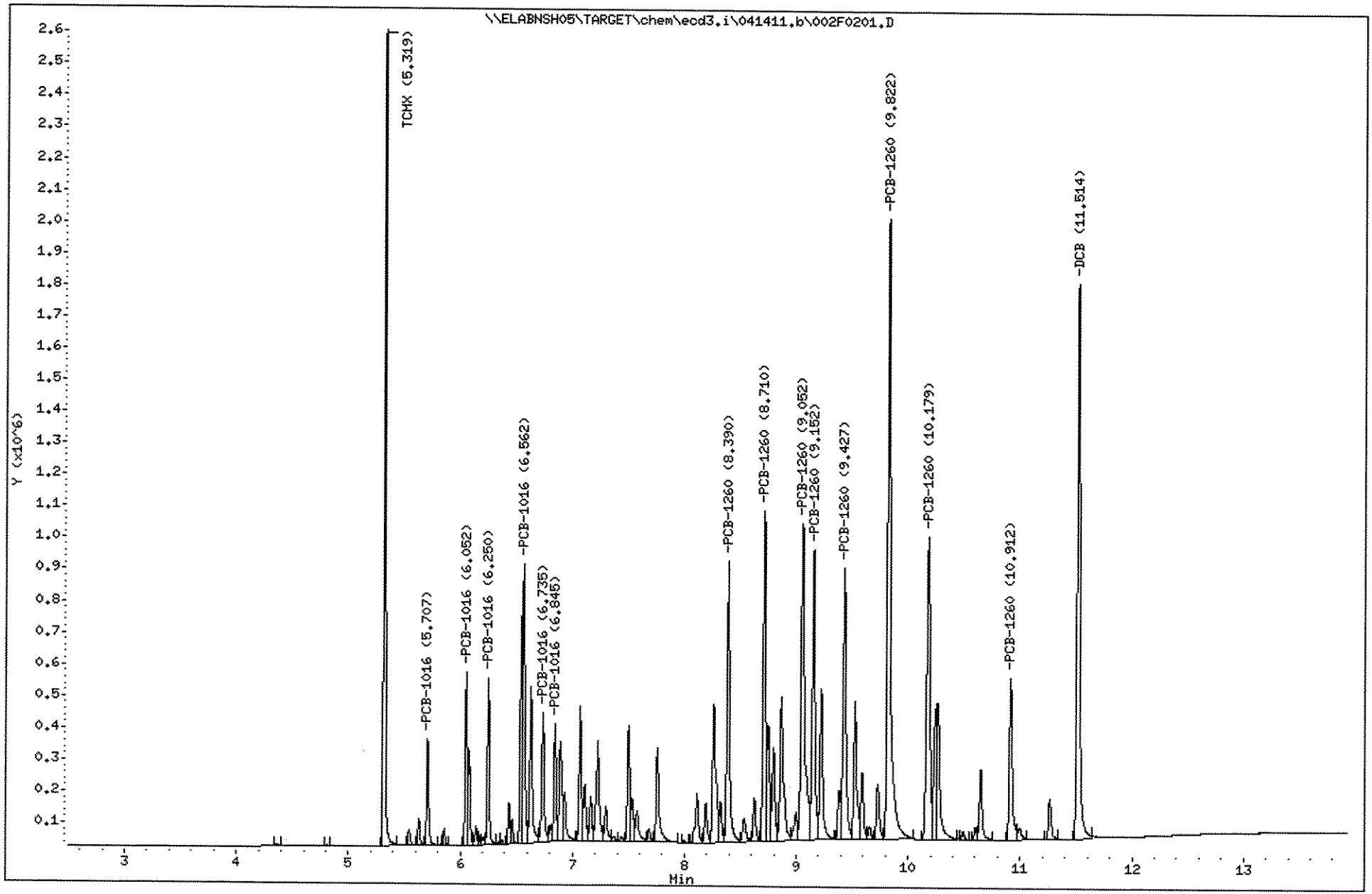
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016						CAS #: 12674-11-2		
6.562	6.562	(0.000)	1233815	1000.00	996.6	80.00-	120.00	100.00
5.707	5.707	(0.000)	429675	1000.00	943.9	27.86-	41.79	34.82
6.052	6.052	(0.000)	626248	1000.00	955.3	40.61-	60.91	50.76
6.250	6.250	(0.000)	648023	1000.00	987.4	42.02-	63.03	52.52
6.735	6.735	(0.000)	628558			40.76-	61.13	50.94
6.845	6.845	(0.000)	488707	1000.00	982.0	31.69-	47.53	39.61
Average of Peak Amounts =					973			
35 PCB-1260						CAS #: 11096-82-5		
9.822	9.822	(0.000)	3920612	1000.00	970.7	80.00-	120.00	100.00
8.390	8.390	(0.000)	1497543			30.56-	45.84	38.20
8.710	8.710	(0.000)	1613965	1000.00	950.6	32.93-	49.40	41.17
9.052	9.052	(0.000)	2247591	1000.00	1136	45.86-	68.79	57.33
9.152	9.152	(0.000)	1577764	1000.00	969.2	32.19-	48.29	40.24
9.427	9.427	(0.000)	1598855			32.62-	48.94	40.78
10.178	10.178	(0.000)	2008484			40.98-	61.47	51.23
10.912	10.912	(0.000)	914752	1000.00	945.8	18.67-	28.00	23.33
Average of Peak Amounts =					994.5			
$ 38 TCMX						CAS #: 877-09-8		
5.318	5.318	(0.000)	2837486	100.000	97.63			
$ 39 DCB						CAS #: 2051-24-3		
11.513	11.513	(0.000)	3019425	100.000	86.94			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002F0201.D
Date : 14-APR-2011 13:38
Client ID:
Sample Info: SEQ-CCV1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



160

1104087

Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 13:38
Lab File ID: 002R0201.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	901	0.010	4.0	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	534	0.010	-6.1	20.0	
(4)	555	582	0.010	4.7	20.0	
(5)	473	545	0.010	15.3	20.0	
(6)	480	517	0.010	7.7	20.0	
35 PCB-1260(1)	2400	2460	0.010	2.5	20.0	
(2)	1234	1280	0.010	3.7	20.0	
(3)	1424	1496	0.010	5.0	20.0	
(4)	1011	1046	0.010	3.5	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1235	0.010	3.3	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21333	21016	0.010	-1.5	20.0	
$ 39 DCB	21628	19637	0.010	-9.2	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002R0201.D
Lab Smp Id: SEQ-CCV1
Inj Date : 14-APR-2011 13:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

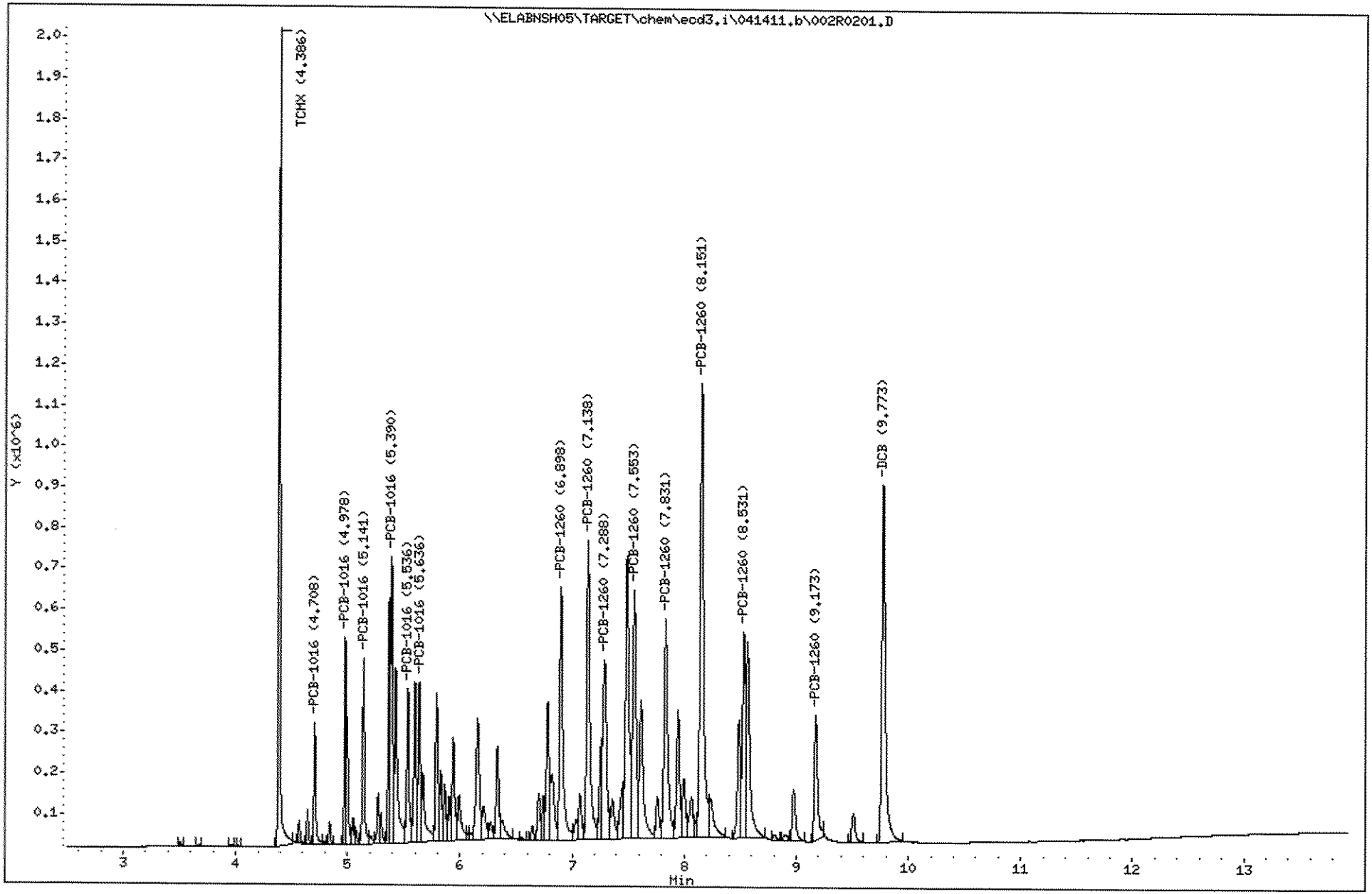
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.389	5.389	(0.000)	900533	1000.00	1040	80.00- 120.00	100.00
4.708	4.708	(0.000)	331540			29.45- 44.18	36.82
4.978	4.978	(0.000)	533641	1000.00	938.8	47.41- 71.11	59.26
5.141	5.141	(0.000)	581505	1000.00	1047	51.66- 77.49	64.57
5.536	5.536	(0.000)	545196	1000.00	1153	48.43- 72.65	60.54
5.636	5.636	(0.000)	517099	1000.00	1077	45.94- 68.91	57.42
	Average of Peak Amounts =				1051		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.151	8.151	(0.000)	2459786	1000.00	1025	80.00- 120.00	100.00
6.898	6.898	(0.000)	1279875	1000.00	1037	41.63- 62.44	52.03
7.138	7.138	(0.000)	1495967	1000.00	1050	48.65- 72.98	60.82
7.288	7.288	(0.000)	1046157	1000.00	1035	34.02- 51.04	42.53
7.553	7.553	(0.000)	1300974			42.31- 63.47	52.89
7.831	7.831	(0.000)	1234594	1000.00	1033	40.15- 60.23	50.19
8.531	8.531	(0.000)	879604			28.61- 42.91	35.76
9.173	9.173	(0.000)	602897			19.61- 29.41	24.51
	Average of Peak Amounts =				1036		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.386	4.386	(0.000)	2101588	100.000	98.51		
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.773	9.773	(0.000)	1963720	100.000	90.80		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002R0201.D
Date : 14-APR-2011 13:38
Client ID:
Sample Info: SEQ-CCV1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003F0301.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003R0301.D
Inj Date : 14-APR-2011 14:19
Sample Info: 1D09814-BLK1
Misc Info : ;;;;;;1660D.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : pcb.sub
Sub List #2 : pcb.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
TCMX	5.328	4.386	1327413	995517	45.67	46.66		100.00(R)
DCB	11.525	9.777	1511137	1000223	43.51	46.25		100.00(R)

QC Flag Legend

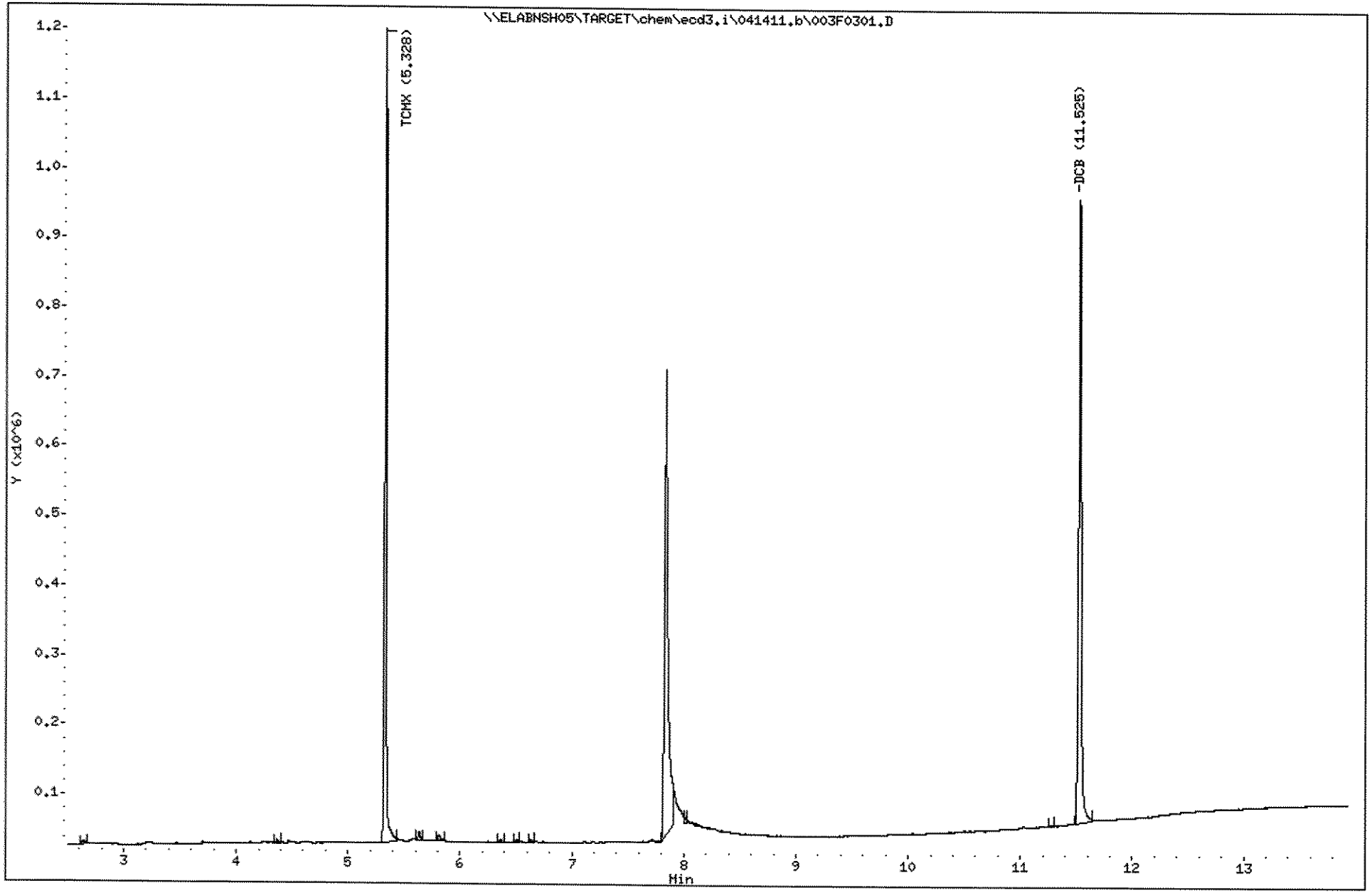
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003F0301.D
Date : 14-APR-2011 14:19
Client ID:
Sample Info: 1D09S14-BLK1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

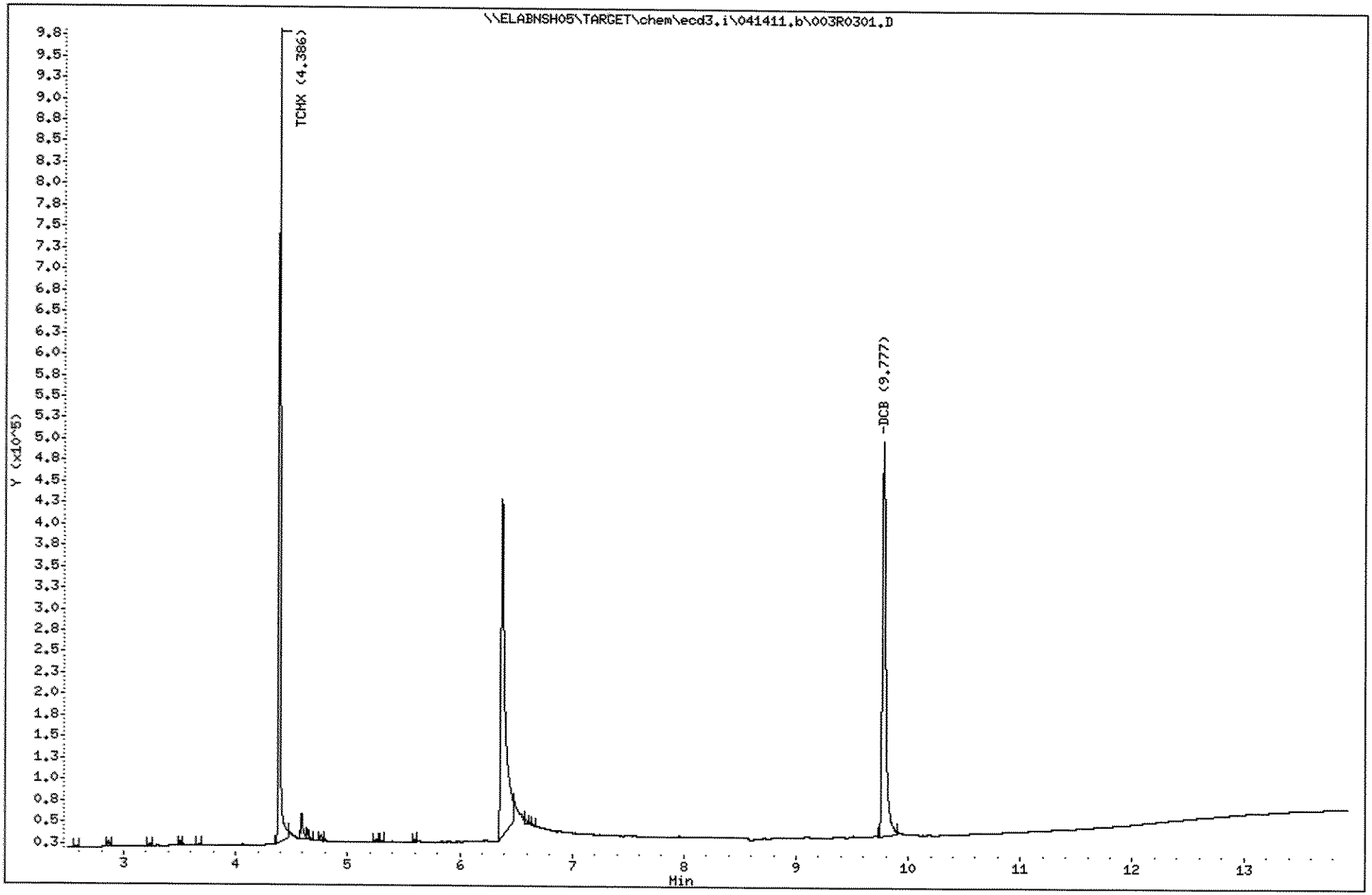


Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003R0301.D
Date : 14-APR-2011 14:19
Client ID:
Sample Info: 1D09814-BLK1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004F0401.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004R0401.D
Inj Date : 14-APR-2011 14:38
Sample Info: 1D09814-BS1
Misc Info : ;;;;;;1660D.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : pcb.sub
Sub List #2 : pcb.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1016	6.564	5.390	655641	467167	529.6	539.4	80.00- 120.00	100.00
	5.708	4.709	200457	157026	440.4		27.54- 41.32	30.57
	6.053	4.980	309157	284121	471.6	499.8	40.42- 60.62	47.15
	6.253	5.142	321500	290841	489.9	523.6	42.08- 63.12	49.04
	6.736	5.535	323409	270717		572.5	49.19- 73.78	57.95
	6.846	5.637	258934	270594	520.3	563.4	32.66- 49.00	39.49
			Average of Peak Amounts =		490.4	539.7		
PCB-1260	9.823	8.149	1835926 *	1248928	454.5*	520.4	80.00- 120.00	100.00
	8.389	6.899	760914	641433		519.9	38.48- 57.72	51.36
	8.711	7.139	888536	804741	523.3	565.0	33.85- 50.77	48.40
	9.053	7.287	1137839	524536	575.2	518.8	46.41- 69.61	61.98
	9.153	7.552	646112	610289	396.9		32.03- 48.04	35.19
	9.428	7.830	803572	617778		517.1	38.28- 57.42	49.46
	10.179	8.530	1028099	490107			27.88- 41.82	39.24
	10.914	9.172	409503	288213	423.4		18.81- 28.21	22.30
			Average of Peak Amounts =		474.7*	528.2		
TCMX	5.319	4.387	1353949	1051996	46.58	49.31		100.00(R)
DCB	11.514	9.774	1591457	1026921	45.82	47.48		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

1260 (PEAK #1) ⇒ $\frac{1835926}{4039} = 454.5 \times 5g \div 15mL$

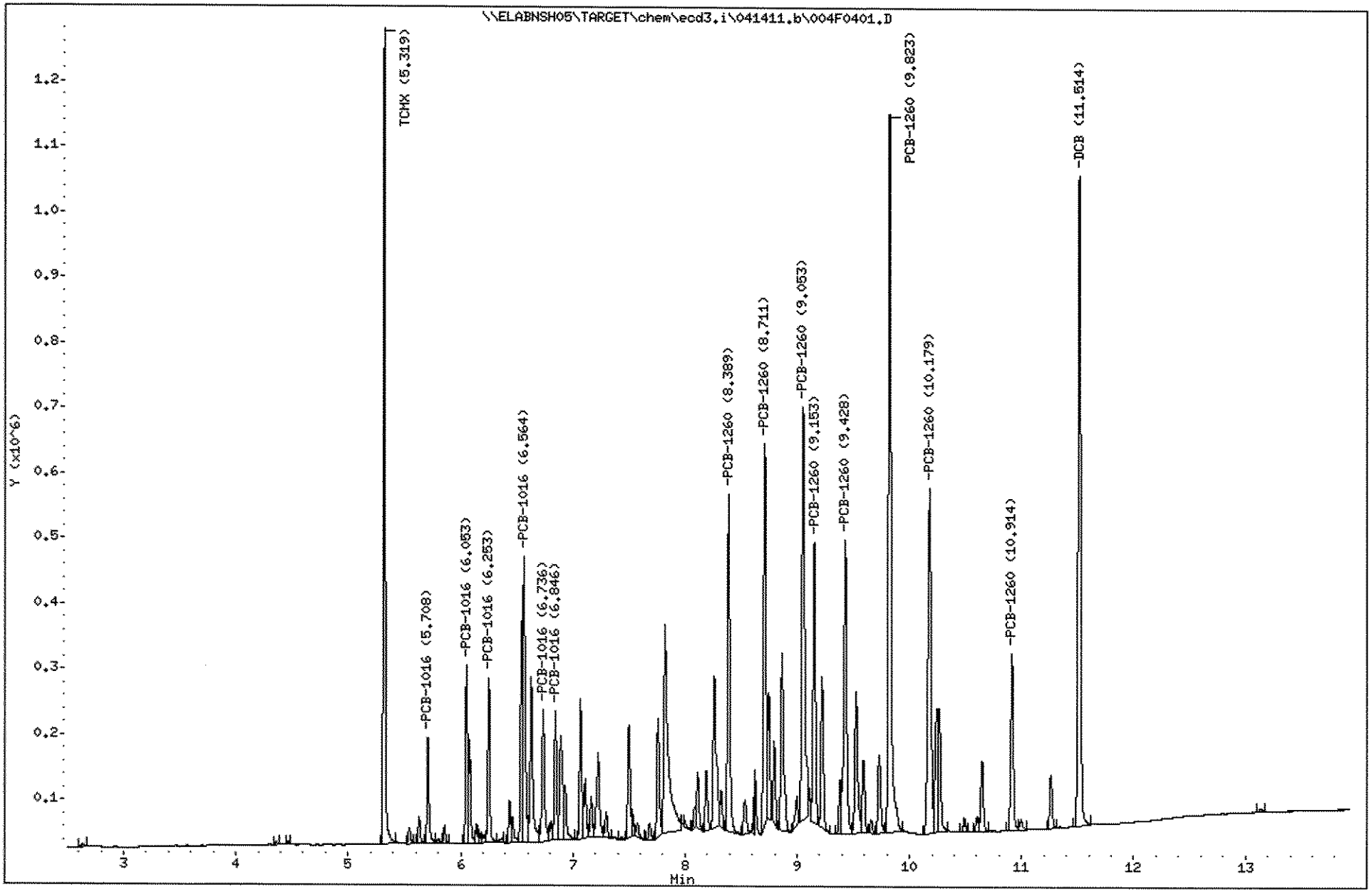
$= 151.5 \text{ mg/Kg}$

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004F0401.D
Date : 14-APR-2011 14:38
Client ID:
Sample Info: 1D09814-BS1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004R0401.D

Date : 14-APR-2011 14:38

Client ID:

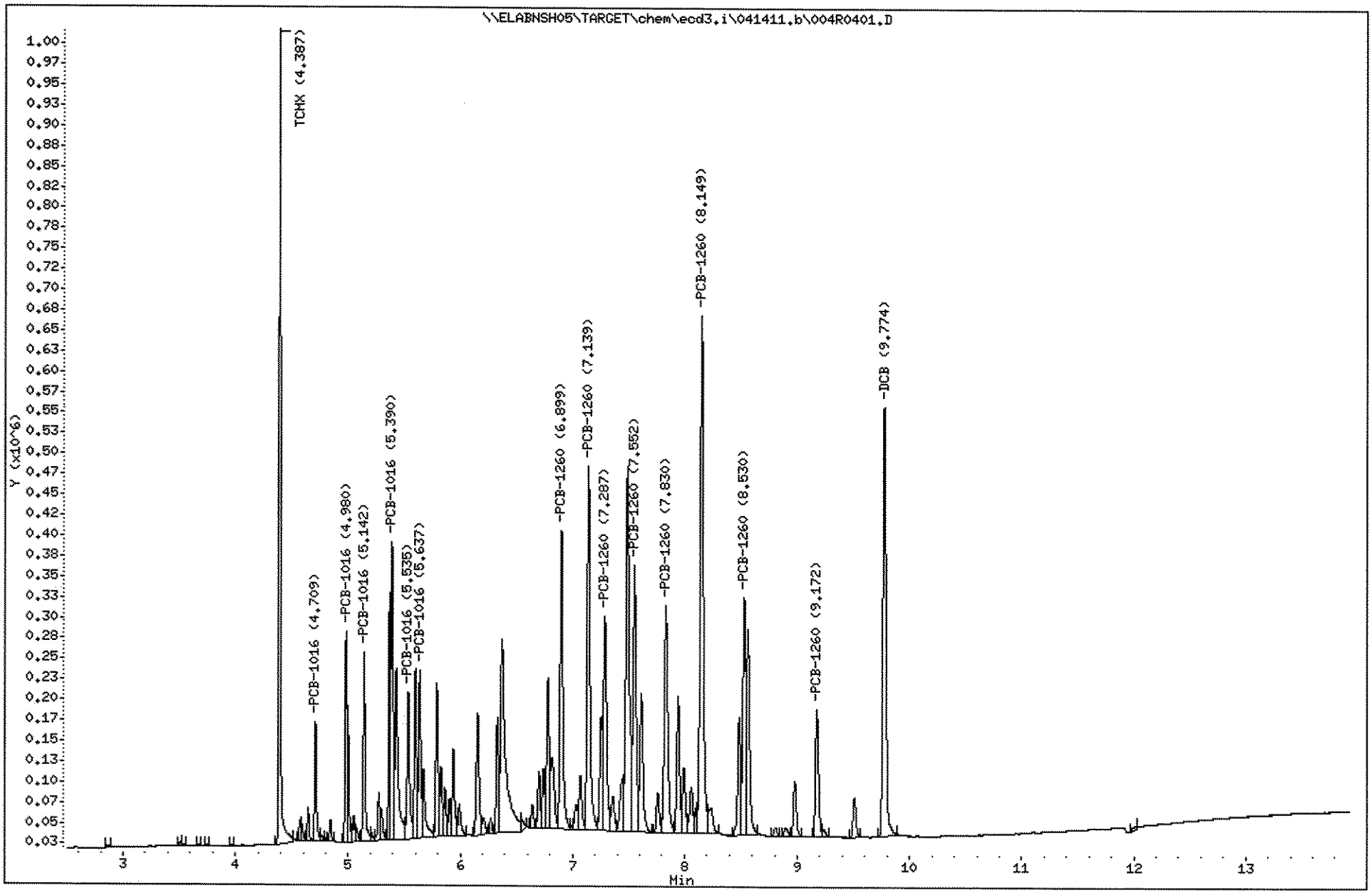
Sample Info: 1D09814-BS1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:17
Lab File ID: 017F1701.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV2 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1238	1299	0.010	4.9	20.0	
(2)	455	441	0.010	-3.2	20.0	
(3)	656	646	0.010	-1.5	20.0	
(4)	656	648	0.010	-1.3	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	529	0.010	6.4	20.0	
35 PCB-1260(1)	4039	4007	0.010	-0.8	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1676	0.010	-1.3	20.0	
(4)	1978	2331	0.010	17.9	20.0	
(5)	1628	1598	0.010	-1.8	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	933	0.010	-3.5	20.0	
$ 38 TCMX	29064	29001	0.010	-0.2	20.0	
$ 39 DCB	34730	30125	0.010	-13.3	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

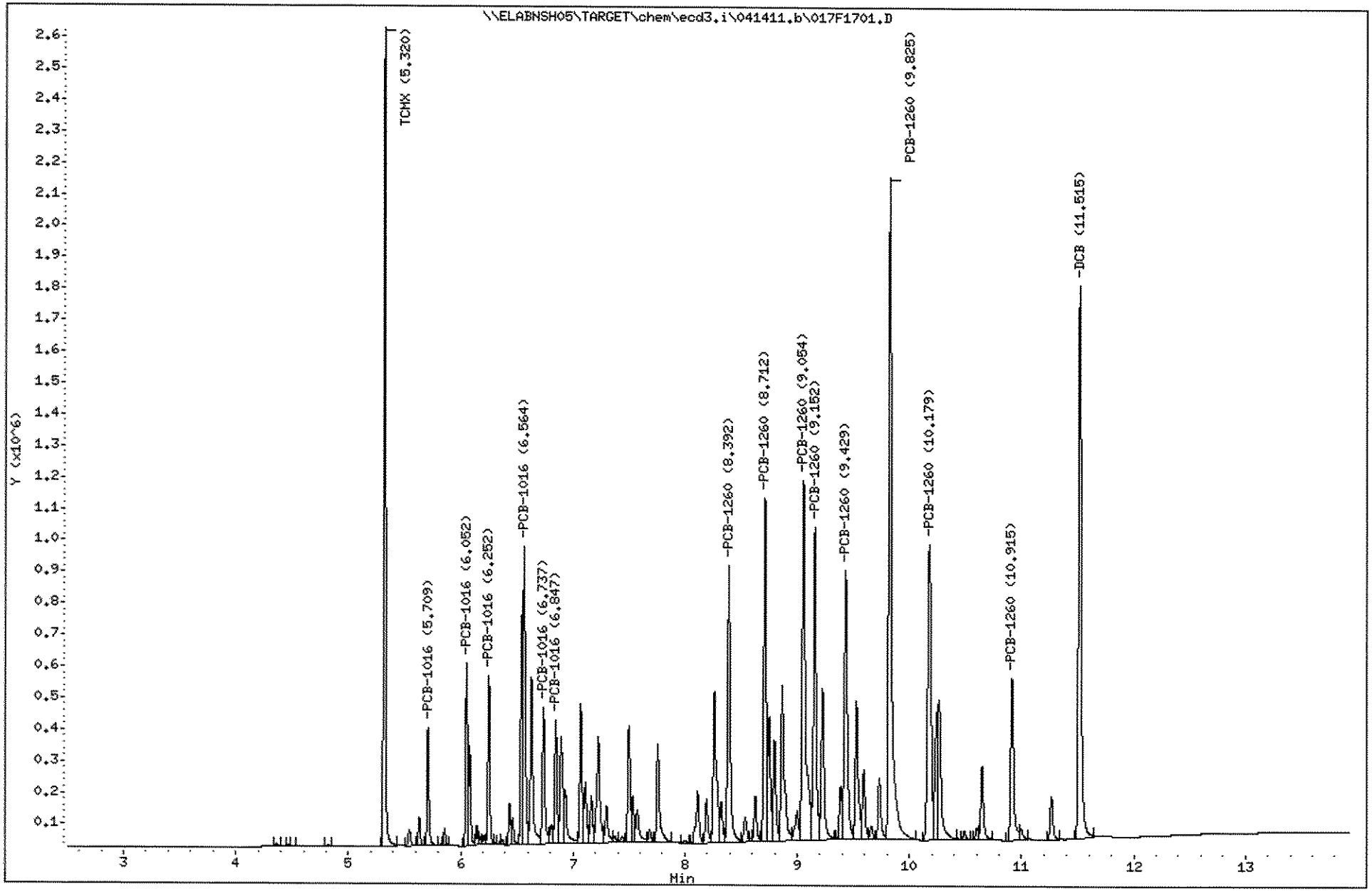
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017F1701.D
Lab Smp Id: SEQ-CCV2
Inj Date : 14-APR-2011 19:17
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.563	6.562	(0.001)	1299020	1000.00	1049	80.00- 120.00	100.00
5.708	5.707	(0.001)	440874	1000.00	968.5	27.15- 40.73	33.94
6.051	6.052	(-0.001)	645589	1000.00	984.8	39.76- 59.64	49.70
6.251	6.250	(0.001)	647718	1000.00	986.9	39.89- 59.83	49.86
6.736	6.735	(0.001)	670406			41.29- 61.93	51.61
6.846	6.845	(0.001)	529393	1000.00	1064	32.60- 48.90	40.75
		Average of Peak Amounts =			1011		
35 PCB-1260					CAS #: 11096-82-5		
9.825	9.822	(0.003)	4007434	1000.00	992.2	80.00- 120.00	100.00
8.391	8.390	(0.001)	1526465			30.47- 45.71	38.09
8.711	8.710	(0.001)	1675932	1000.00	987.1	33.46- 50.18	41.82
9.053	9.052	(0.001)	2331383	1000.00	1178	46.54- 69.81	58.18
9.151	9.152	(-0.001)	1598066	1000.00	981.6	31.90- 47.85	39.88
9.428	9.427	(0.001)	1637786			32.69- 49.04	40.87
10.178	10.178	(0.000)	2063036			41.18- 61.78	51.48
10.915	10.912	(0.003)	933154	1000.00	964.8	18.63- 27.94	23.29
		Average of Peak Amounts =			1021		
$ 38 TCMX					CAS #: 877-09-8		
5.320	5.318	(0.002)	2900061	100.000	99.78		
$ 39 DCB					CAS #: 2051-24-3		
11.515	11.513	(0.002)	3012470	100.000	86.74		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017F1701.D
Date : 14-APR-2011 19:17
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:17
Lab File ID: 017R1701.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV2 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	906	0.010	4.7	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	564	0.010	-0.7	20.0	
(4)	555	593	0.010	6.8	20.0	
(5)	473	556	0.010	17.6	20.0	
(6)	480	520	0.010	8.3	20.0	
35 PCB-1260(1)	2400	2528	0.010	5.3	20.0	
(2)	1234	1192	0.010	-3.4	20.0	
(3)	1424	1416	0.010	-0.6	20.0	
(4)	1011	1005	0.010	-0.6	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1205	0.010	0.9	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21333	21343	0.010	0.0	20.0	
$ 39 DCB	21628	19272	0.010	-10.9	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017R1701.D
Lab Smp Id: SEQ-CCV2
Inj Date : 14-APR-2011 19:17
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2			
5.391	5.389	(0.002)	906347	1000.00	1046	80.00-	120.00	100.00
4.709	4.708	(0.001)	336188			29.67-	44.51	37.09
4.979	4.978	(0.001)	564328	1000.00	992.8	49.81-	74.72	62.26
5.142	5.141	(0.001)	593454	1000.00	1068	52.38-	78.57	65.48
5.536	5.536	(0.000)	555827	1000.00	1176	49.06-	73.59	61.33
5.637	5.636	(0.001)	520206	1000.00	1083	45.92-	68.88	57.40
		Average of Peak Amounts =			1073			
35 PCB-1260 [2C]					CAS #: 11096-82-5			
8.152	8.151	(0.001)	2528324	1000.00	1053	80.00-	120.00	100.00
6.899	6.898	(0.001)	1191532	1000.00	965.8	37.70-	56.55	47.13
7.141	7.138	(0.003)	1415875	1000.00	994.0	44.80-	67.20	56.00
7.289	7.288	(0.001)	1004919	1000.00	993.9	31.80-	47.70	39.75
7.554	7.553	(0.001)	1275702			40.37-	60.55	50.46
7.832	7.831	(0.001)	1204864	1000.00	1008	38.12-	57.19	47.65
8.532	8.531	(0.001)	867272			27.44-	41.16	34.30
9.174	9.173	(0.001)	621312			19.66-	29.49	24.57
		Average of Peak Amounts =			1003			
$ 38 TCMX [2C]					CAS #: 877-09-8			
4.387	4.386	(0.001)	2134326	100.000	100.0			(A)
$ 39 DCB [2C]					CAS #: 2051-24-3			
9.776	9.773	(0.003)	1927183	100.000	89.11			

QC Flag Legend

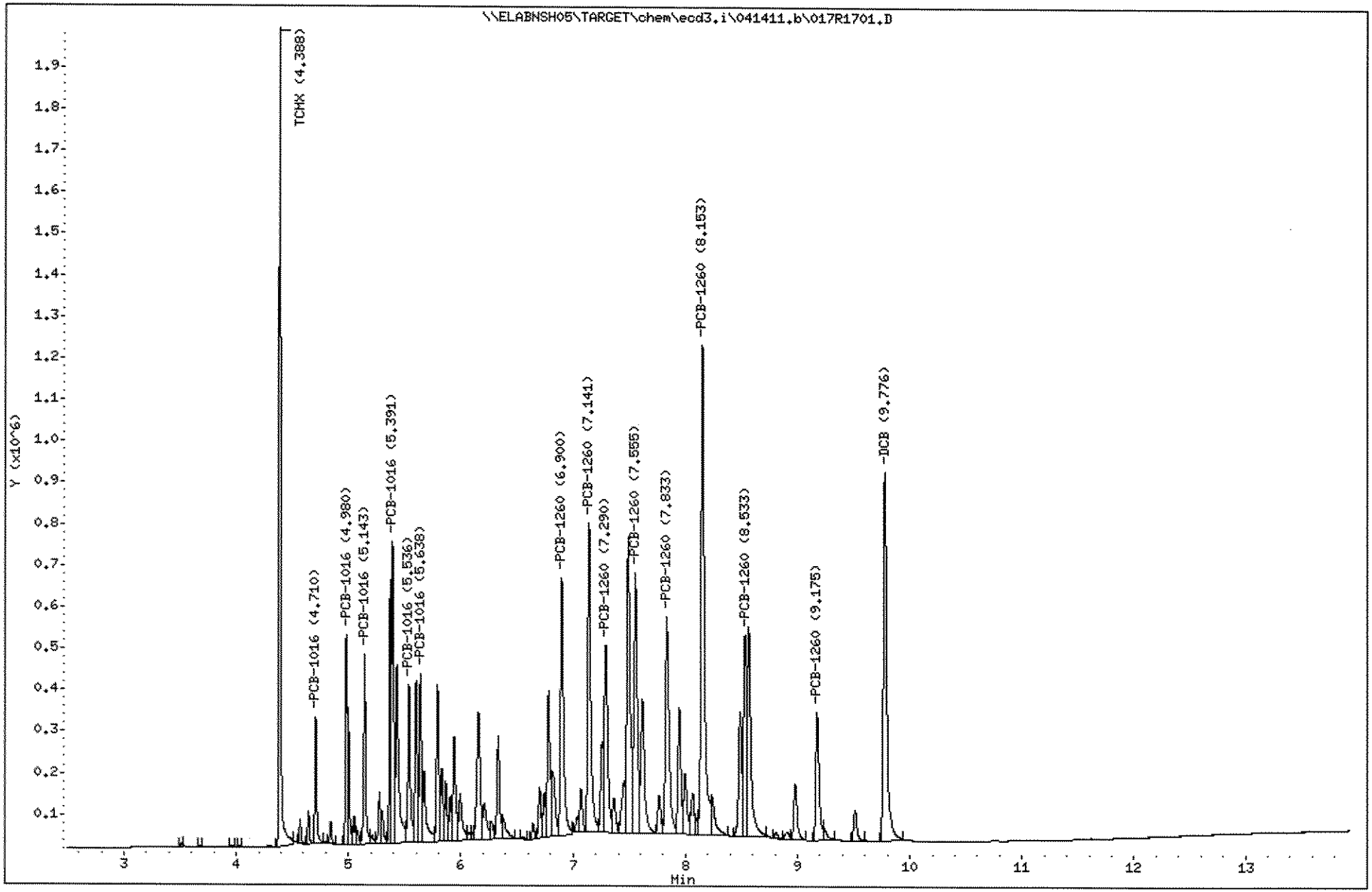
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017R1701.D
Date : 14-APR-2011 19:17
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:35
Lab File ID: 018F1801.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV3 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1743	0.010	-3.3	20.0	
(2)	1085	958	0.010	-11.7	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1025	0.010	-6.2	20.0	
(5)	1523	1173	0.010	-23.0	20.0	<-
(6)	1545	1659	0.010	7.4	20.0	

Avg %D = 7.49%

Laboratory Name

SW-846 METHODS 8081A/8082

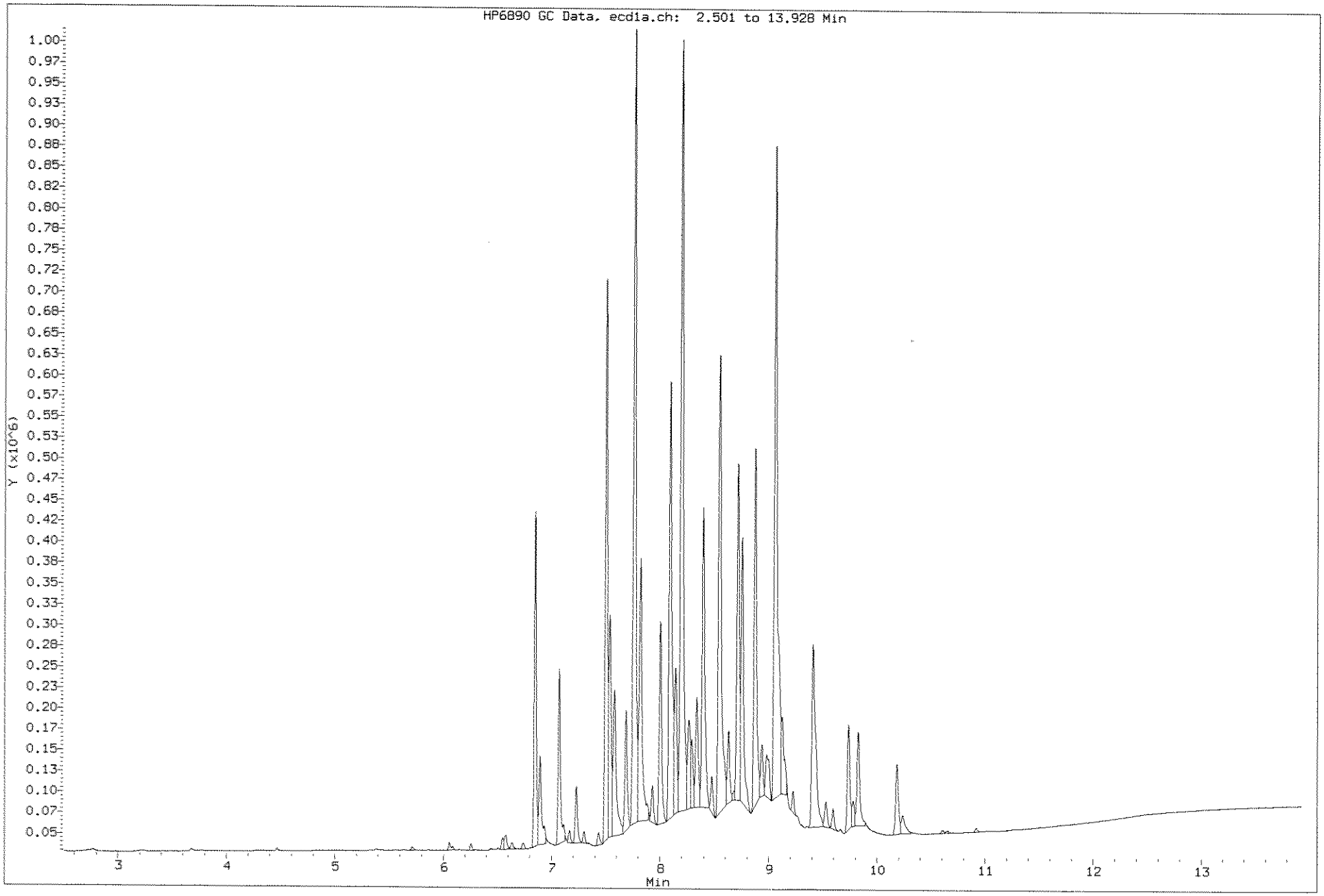
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018F1801.D
Lab Smp Id: SEQ-CCV3
Inj Date : 14-APR-2011 19:35
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.194	8.194	(0.000)	1743039	1000.00	966.6	80.00-	120.00	100.00(M)
7.501	7.501	(0.000)	958270	1000.00	882.8	43.98-	65.97	54.98
7.758	7.758	(0.000)	1585580			72.77-	109.16	90.97
8.089	8.089	(0.000)	1025295	1000.00	937.7	47.06-	70.59	58.82
8.544	8.544	(0.000)	1173437	1000.00	770.4	53.86-	80.79	67.32
9.059	9.059	(0.000)	1659258	1000.00	1074	76.15-	114.23	95.19
		Average of Peak Amounts =			926.3			

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\041411.b\018F1801.D
Injection Date: 14-APR-2011 19:35
Instrument: ecd3.i
Client Sample ID:



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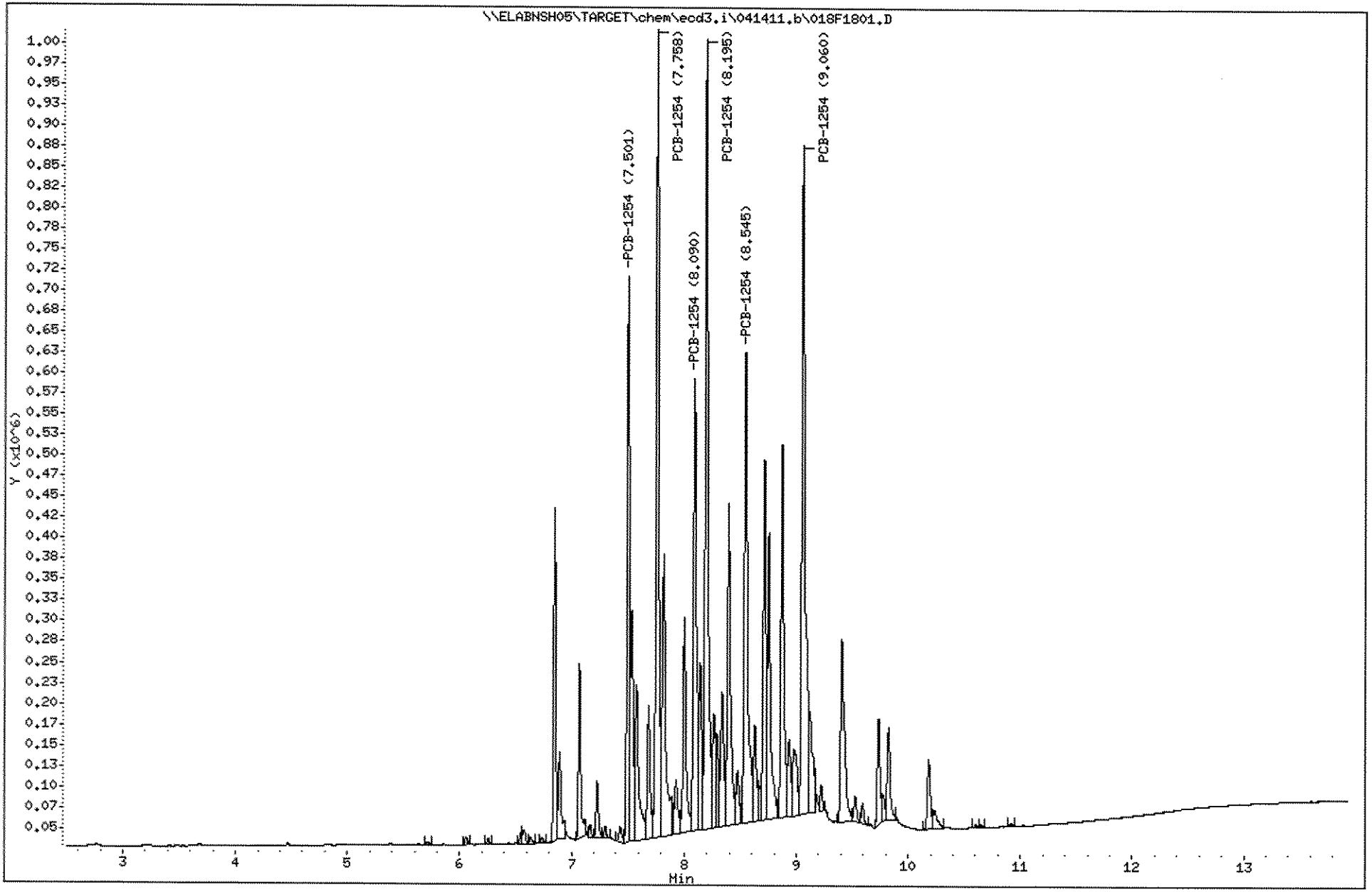
1104087

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018F1801.D
Date : 14-APR-2011 19:35
Client ID:
Sample Info: SEQ-CCV3

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:35
Lab File ID: 018R1801.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV3 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1516	0.010	13.2	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1105	0.010	-1.7	20.0	
(4)	959	945	0.010	-1.4	20.0	
(5)	719	733	0.010	2.0	20.0	
(6)	934	831	0.010	-11.0	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

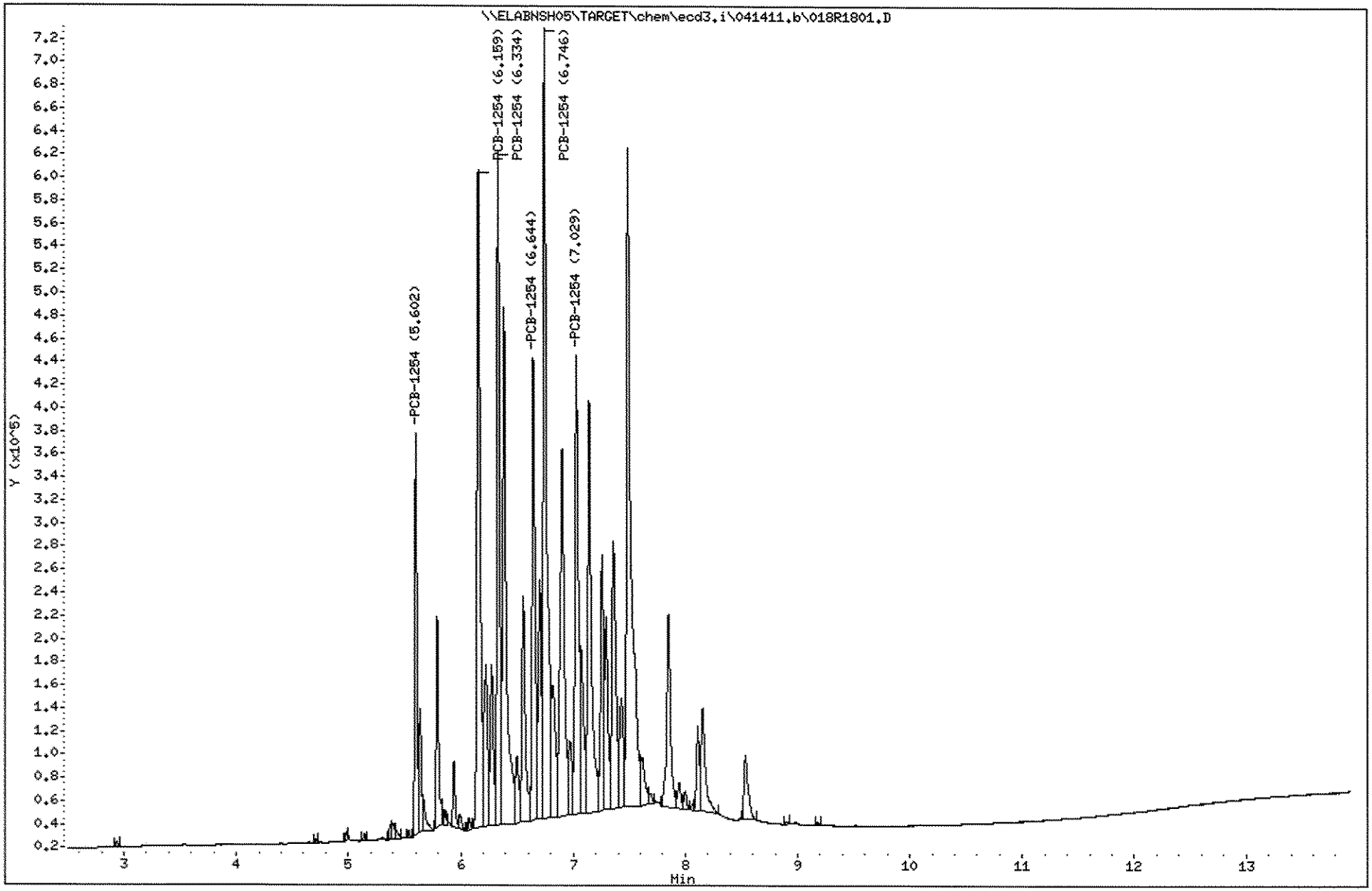
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018R1801.D
Lab Smp Id: SEQ-CCV3
Inj Date : 14-APR-2011 19:35
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.745	6.745	(0.000)	1516111	1000.00	1132	80.00-	120.00	100.00
5.602	5.602	(0.000)	443665			23.41-	35.12	29.26
6.159	6.159	(0.000)	1104769	1000.00	982.8	58.29-	87.44	72.87
6.334	6.334	(0.000)	945455	1000.00	985.8	49.89-	74.83	62.36
6.644	6.644	(0.000)	733417	1000.00	1020	38.70-	58.05	48.37
7.029	7.029	(0.000)	831443	1000.00	890.4	43.87-	65.81	54.84
		Average of Peak Amounts =			1002			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018R1801.D
Date : 14-APR-2011 19:35
Client ID:
Sample Info: SEQ-CCV3

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\019F1901.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\019R1901.D
Inj Date : 14-APR-2011 19:54
Sample Info: 1104087-11
Misc Info : ;;;;;;PCB.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : PCB.sub
Sub List #2 : PCB.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

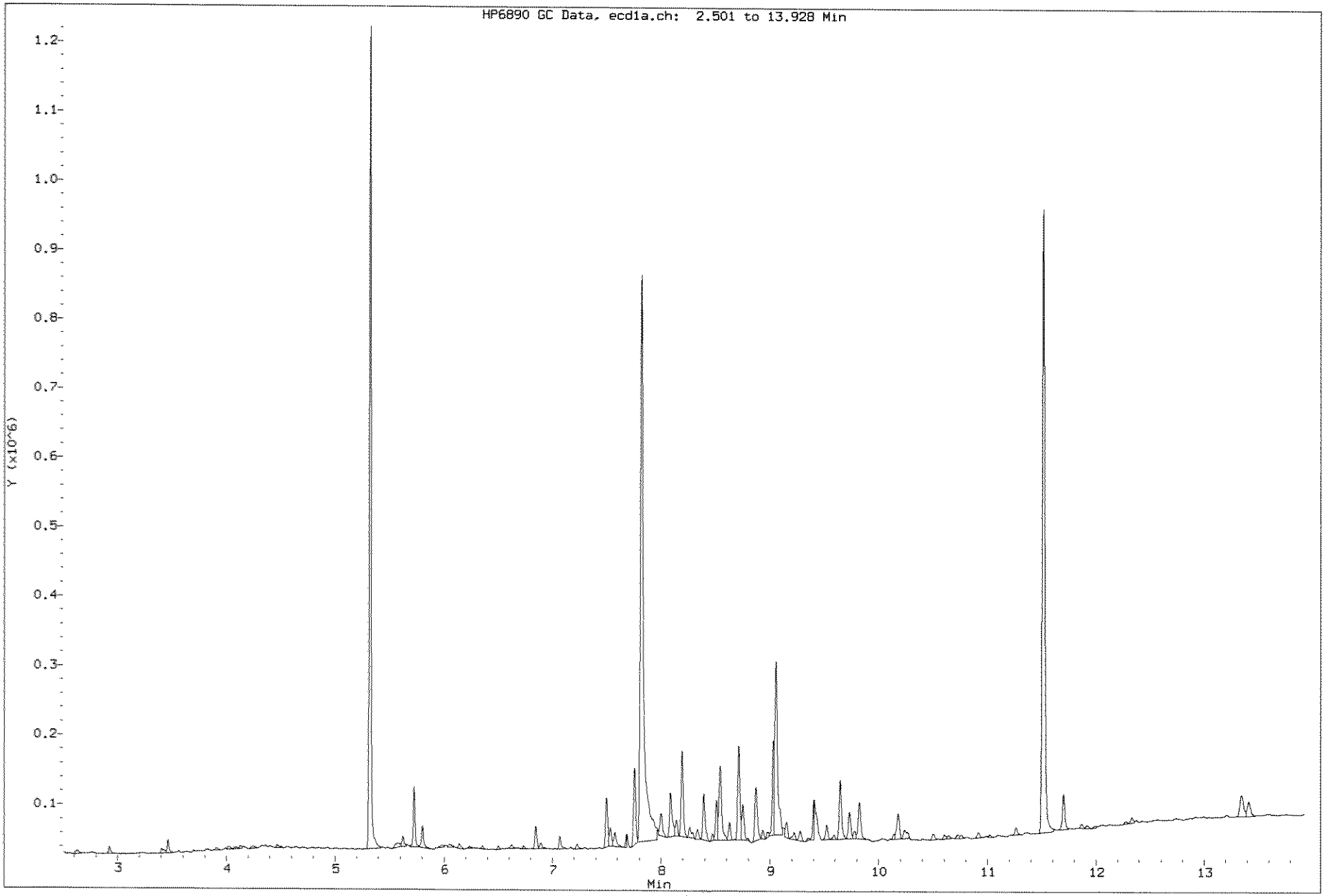
Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1254	8.191	6.742	232646	162795	129.0	121.6	80.00- 120.00	100.00(M)
	7.498	5.601	97054	40437	89.41		45.47- 68.20	41.72(M)
	7.756	6.157	170700	108663		96.67	59.12- 88.69	66.75(M)
	8.085	6.334	161331	91120	147.5	95.01	46.90- 70.36	69.35(M)
	8.541	6.644	207796	102317	136.4	142.3	52.69- 79.03	89.32(M)
	9.053	7.024	472757	146070	305.0	156.4	60.62- 90.93	203.21(M)
			Average of Peak Amounts =		161.7	122.4		
TCMX	5.320	4.387	1301266	945115	44.77	44.30		100.00(R)
DCB	11.515	9.774	1473416	887000	42.42	41.01		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

1254 (peak #1) => 232646 / 1803 = 129.0 × 5mL ÷ 15.7g = 0.754 (solids)
= 54.5 mg/kg

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\019F1901.D
Injection Date: 14-APR-2011 19:54
Instrument: ecd3.i
Client Sample ID: 8101-5W (20110407)

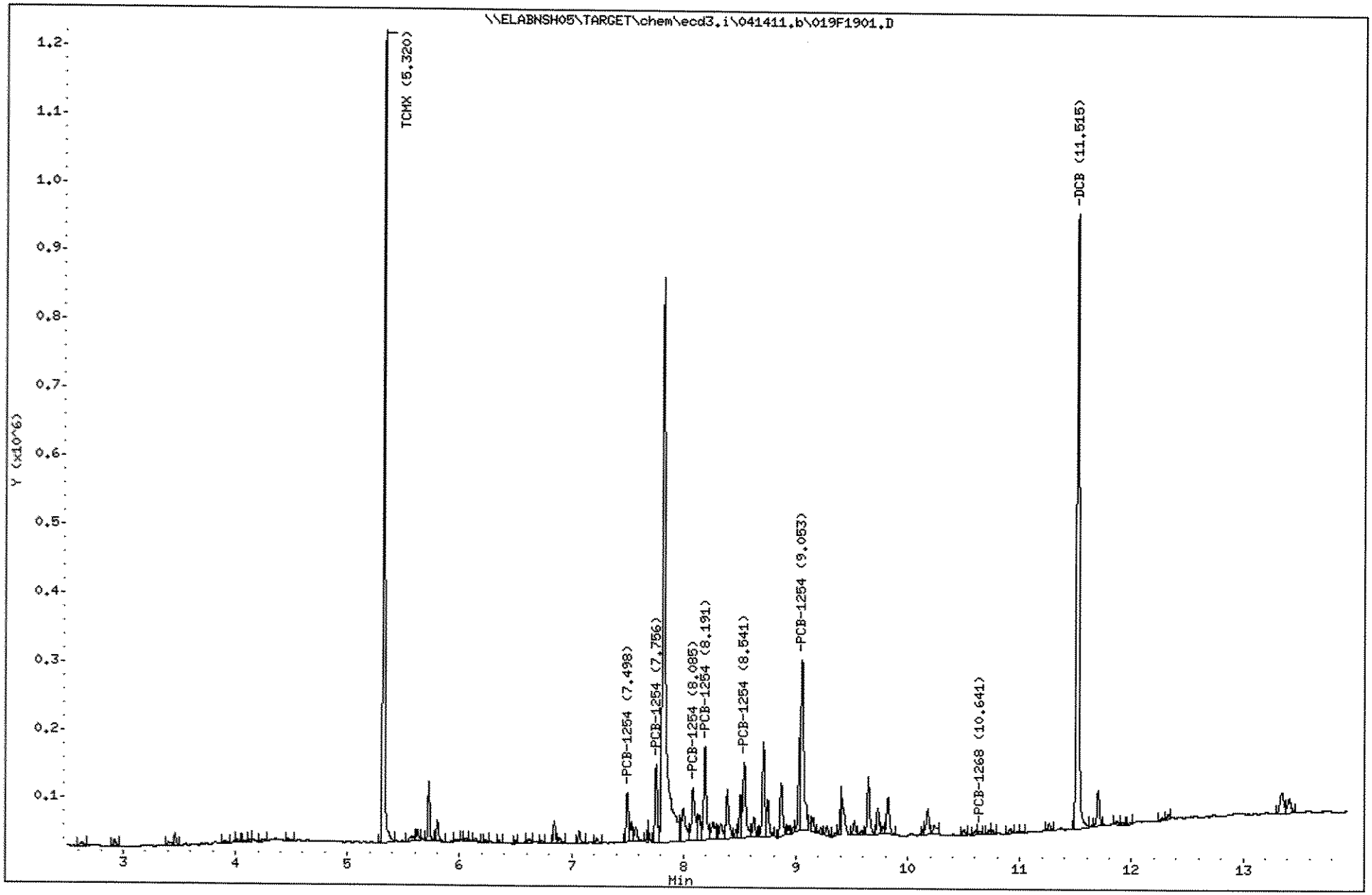


Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\019F1901.D
Date : 14-APR-2011 19:54
Client ID: 8101-SW (20110407)
Sample Info: 1104087-11

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



1104087

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\019R1901.D

Date : 14-APR-2011 19:54

Client ID: 8101-SW (20110407)

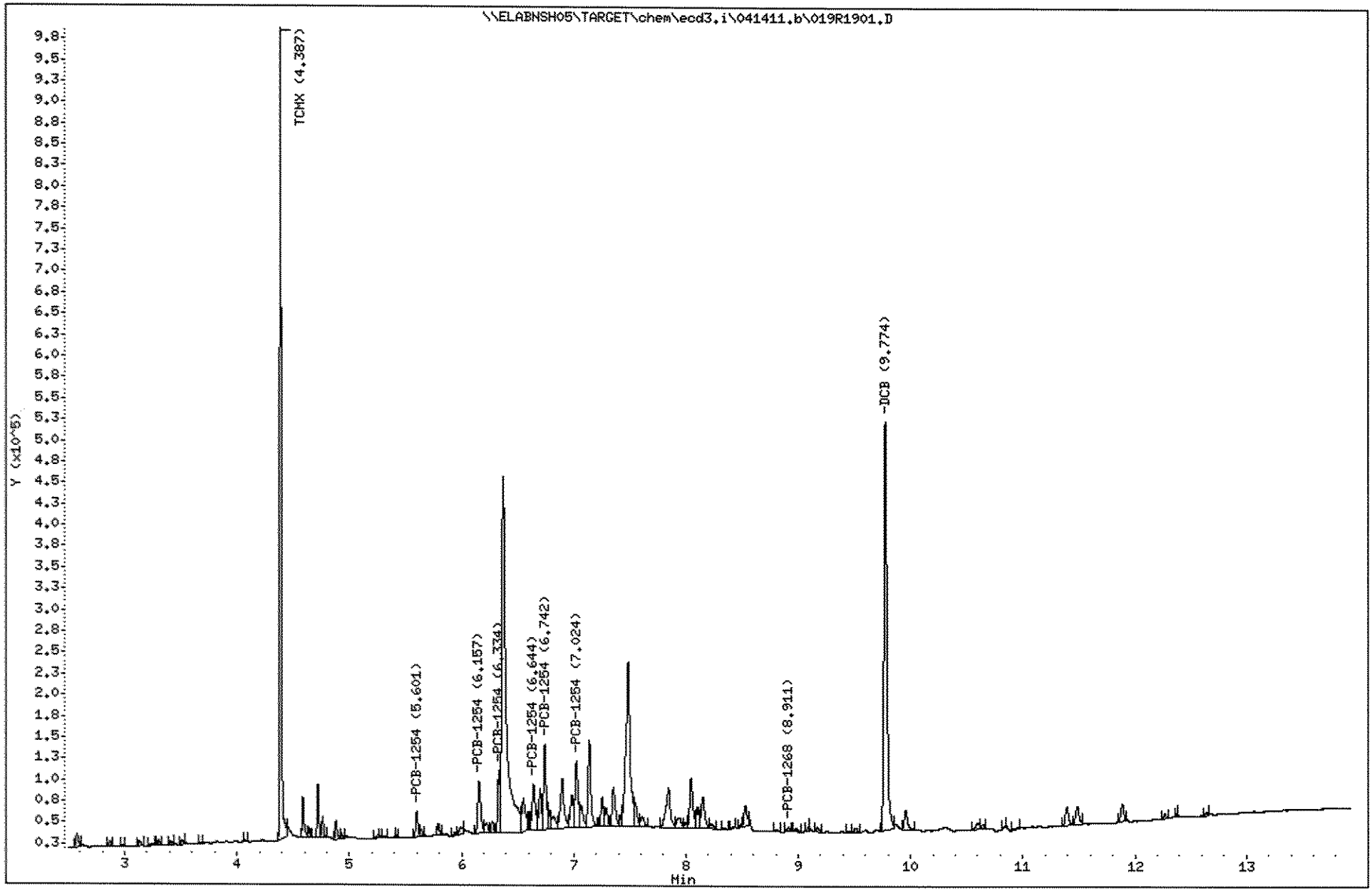
Sample Info: 1104087-11

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



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Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\020F2001.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\020R2001.D
Inj Date : 14-APR-2011 20:13
Sample Info: 1104087-12
Misc Info : ;;;;;;PCB.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

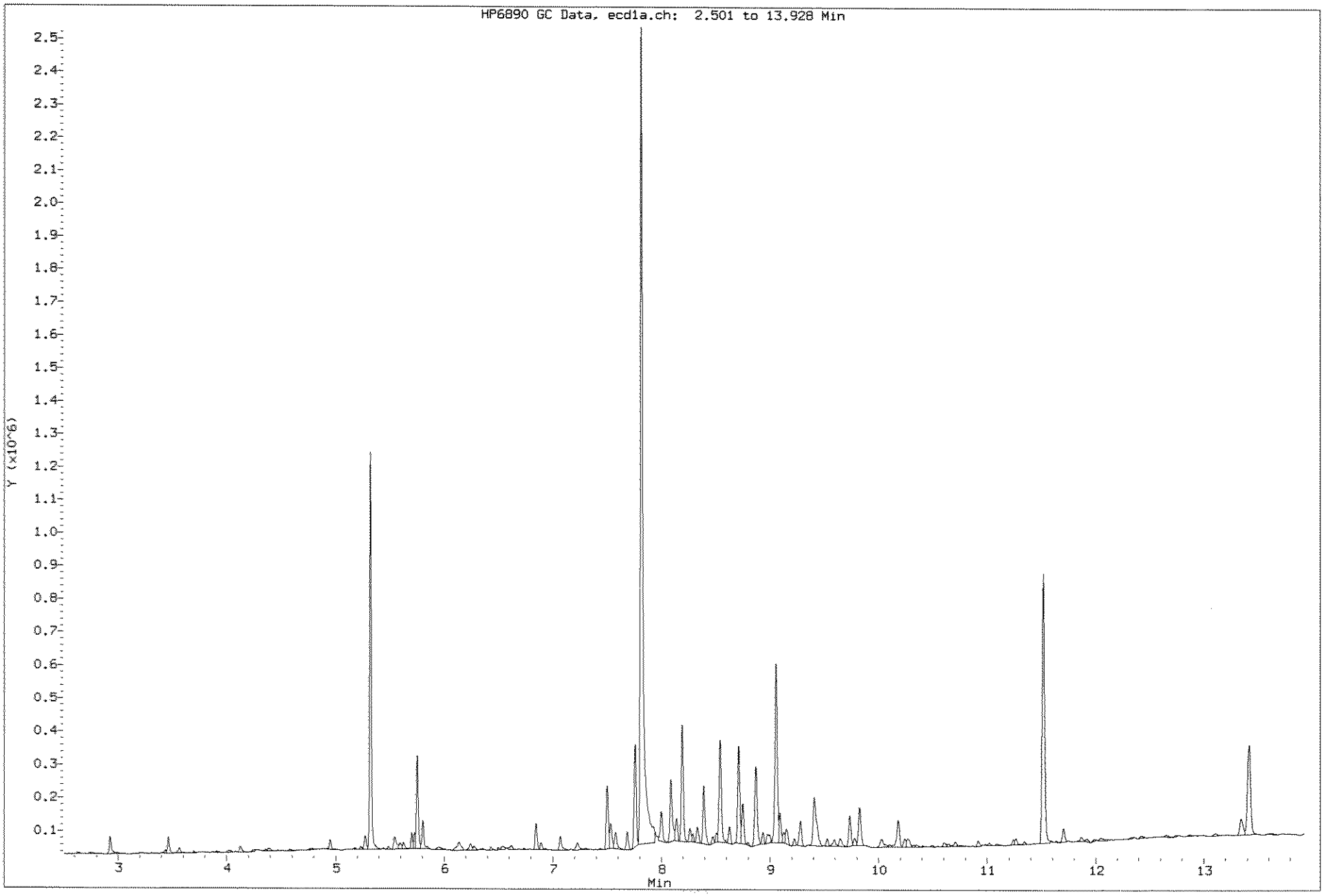
Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : PCB.sub
Sub List #2 : PCB.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1254	8.191	6.742	572289	384397	317.4	287.0	80.00- 120.00	100.00(M)
	7.499	5.600	248370	88724	228.8		45.47- 68.20	43.40(M)
	7.758	6.159	452321	273069		242.9	59.12- 88.69	71.04(M)
	8.086	6.332	378556	245149	346.2	255.6	46.90- 70.36	66.15(M)
	8.541	6.644	524958	244730	344.6	340.4	52.69- 79.03	91.73(M)
	9.054	7.024	827443	378874	535.7	405.7	60.62- 90.93	144.58(M)
			Average of Peak Amounts =		354.5	306.3		
TCMX	5.319	4.387	1265400	989702	43.54	46.39		100.00(R)
DCB	11.516	9.775	1286885	733262	37.05	33.90		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\020F2001.D
Injection Date: 14-APR-2011 20:13
Instrument: ecd3.i
Client Sample ID: 8101-6N (20110407)

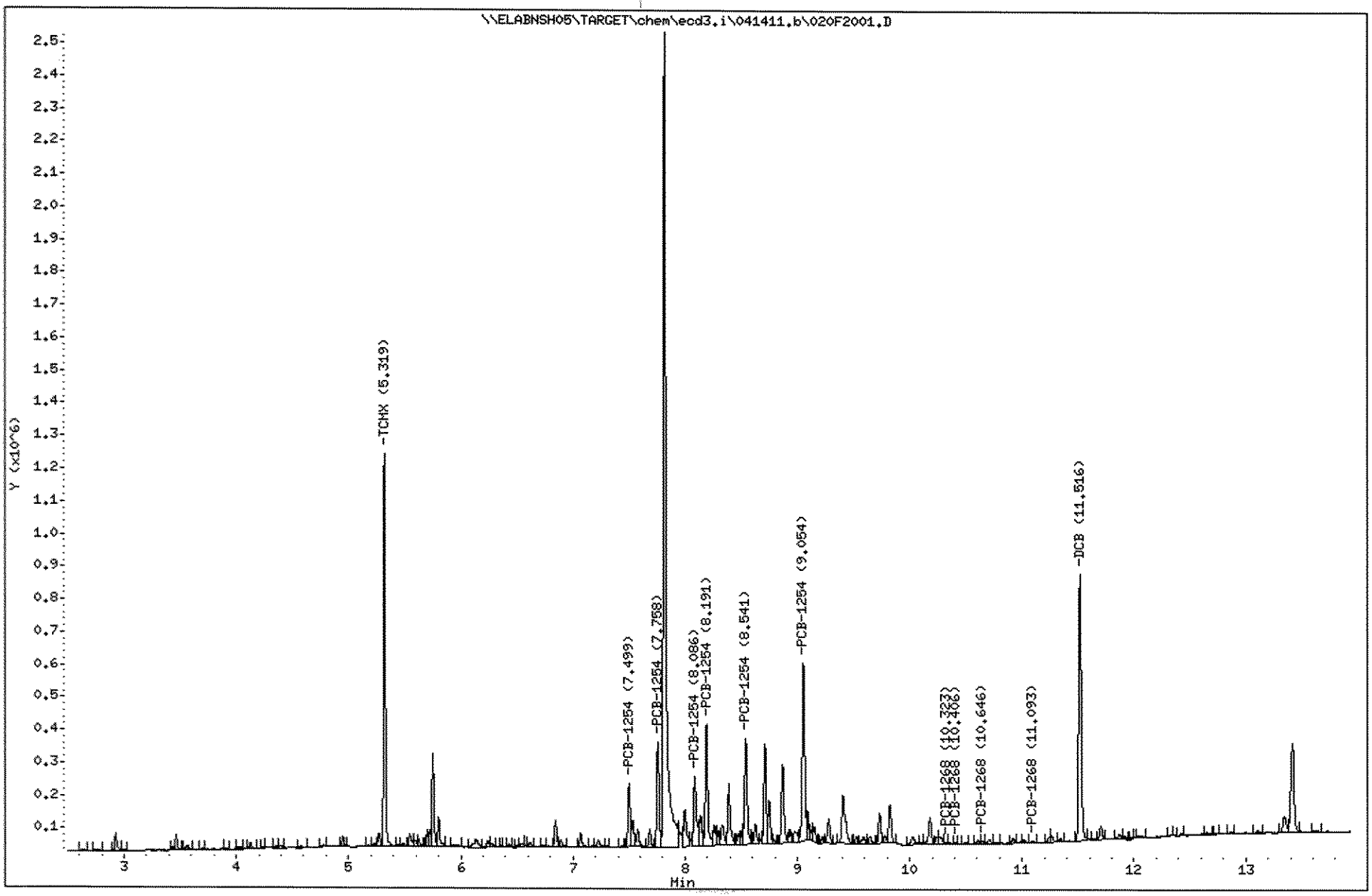


Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\020F2001.D
Date : 14-APR-2011 20:13
Client ID: 8101-6N (20110407)
Sample Info: 1104087-12

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\020R2001.D

Date : 14-APR-2011 20:13

Client ID: 8101-6N (20110407)

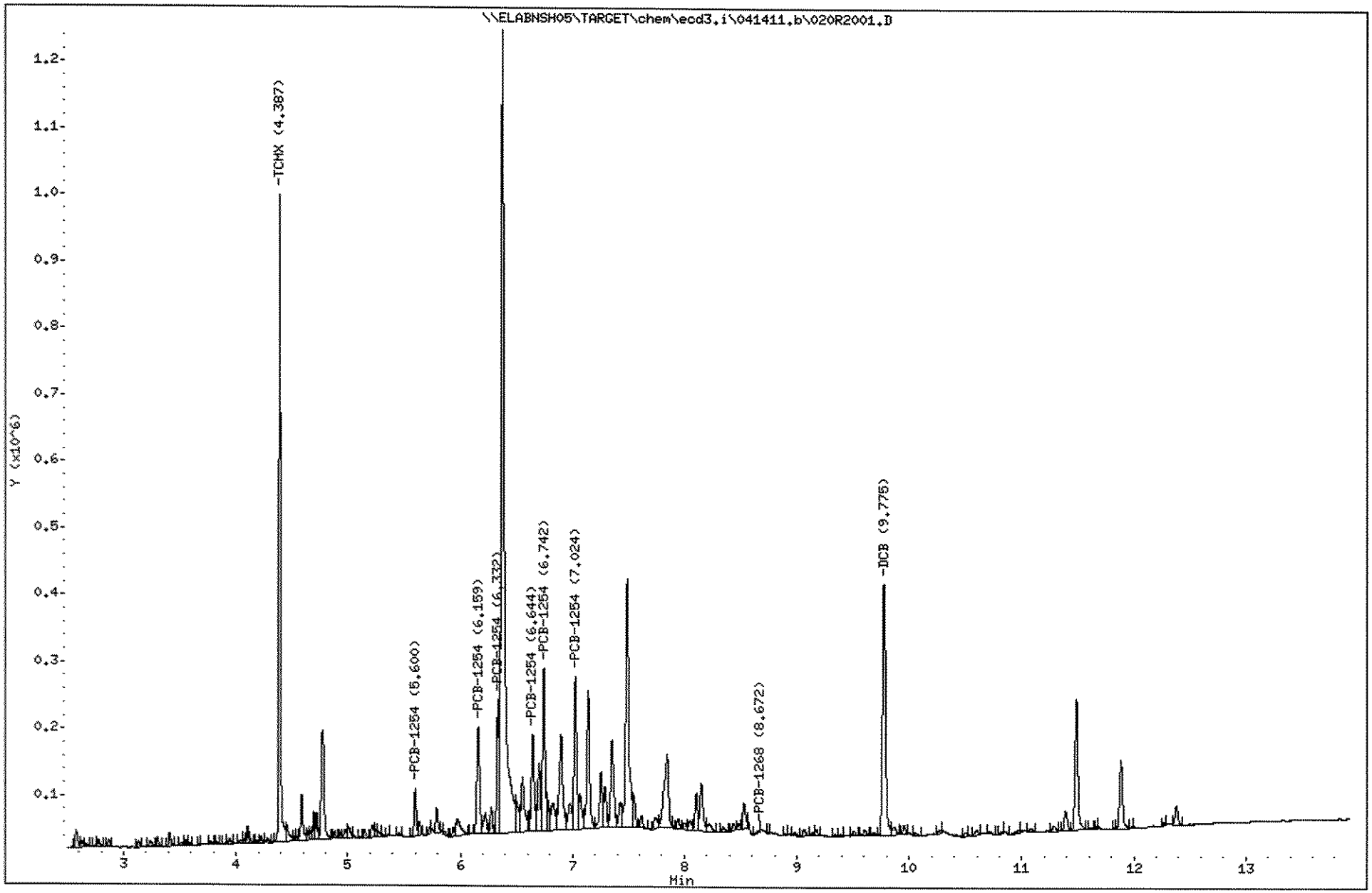
Sample Info: 1104087-12

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:27
Lab File ID: 024F2401.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

			MIN		MAX	
COMPOUND	RRF	RF100	RRF	%D	%D	
29 PCB-1016(1)	1238	1272	0.010	2.7	20.0	
(2)	455	438	0.010	-3.8	20.0	
(3)	656	643	0.010	-2.0	20.0	
(4)	656	669	0.010	1.9	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	519	0.010	4.3	20.0	
35 PCB-1260(1)	4039	3983	0.010	-1.4	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1685	0.010	-0.8	20.0	
(4)	1978	2310	0.010	16.8	20.0	
(5)	1628	1594	0.010	-2.1	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	936	0.010	-3.2	20.0	
$ 38 TCMX	29064	28966	0.010	-0.3	20.0	
$ 39 DCB	34730	30577	0.010	-12.0	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024F2401.D
Lab Smp Id: SEQ-CCV4
Inj Date : 14-APR-2011 21:27
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

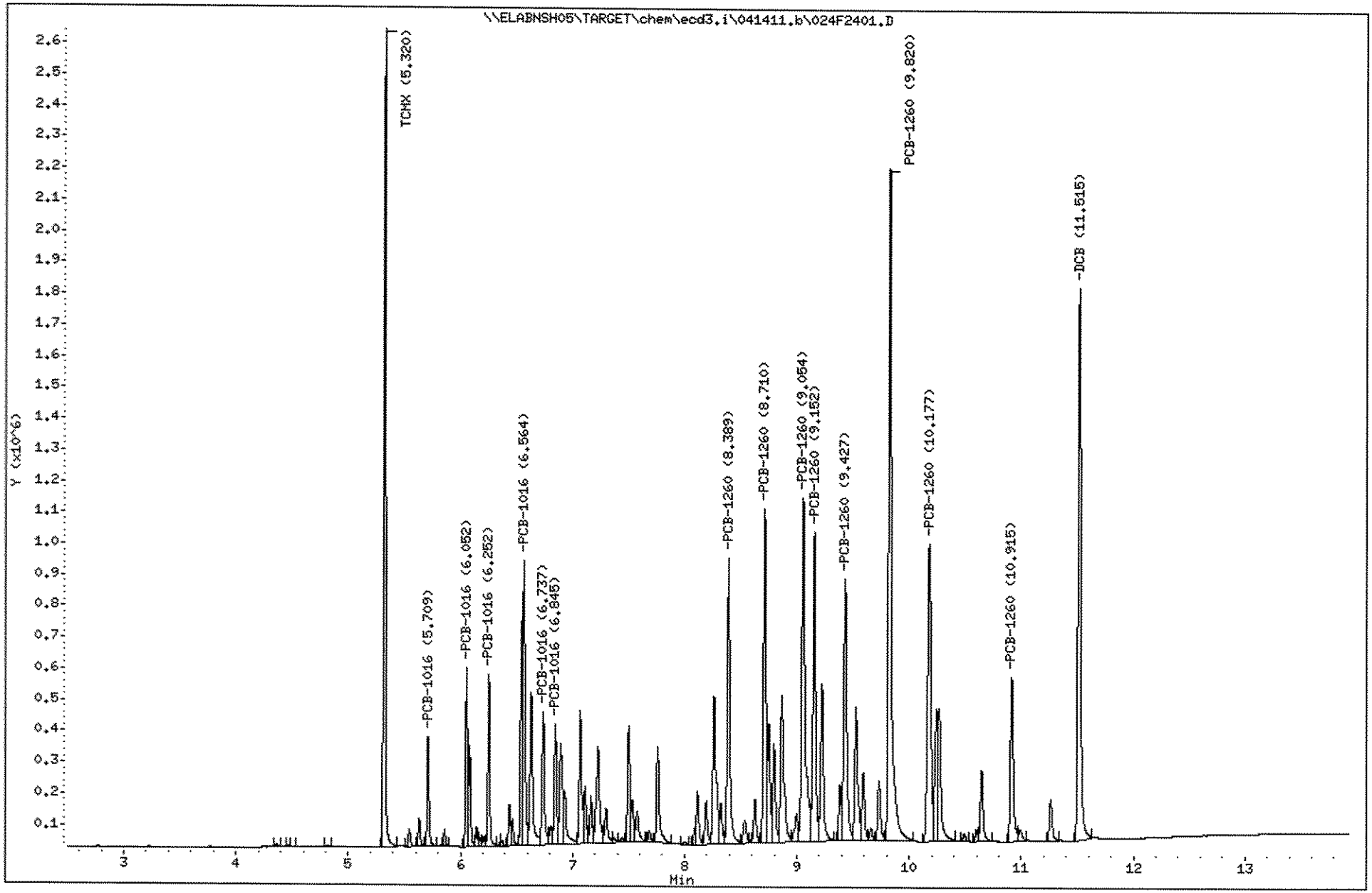
				AMOUNTS CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016					CAS #: 12674-11-2			
6.563	6.562	(0.001)	1271923	1000.00	1027	80.00-	120.00	100.00
5.708	5.707	(0.001)	437917	1000.00	962.0	27.54-	41.32	34.43
6.051	6.052	(-0.001)	642583	1000.00	980.2	40.42-	60.62	50.52
6.251	6.250	(0.001)	669053	1000.00	1019	42.08-	63.12	52.60
6.736	6.735	(0.001)	664801			41.81-	62.72	52.27
6.845	6.845	(0.000)	519323	1000.00	1043	32.66-	49.00	40.83
		Average of Peak Amounts =			1007			
35 PCB-1260					CAS #: 11096-82-5			
9.820	9.822	(-0.002)	3982558	1000.00	986.0	80.00-	120.00	100.00
8.388	8.390	(-0.002)	1523690			30.61-	45.91	38.26
8.710	8.710	(0.000)	1684946	1000.00	992.4	33.85-	50.77	42.31
9.053	9.052	(0.001)	2310142	1000.00	1168	46.41-	69.61	58.01
9.151	9.152	(-0.001)	1594334	1000.00	979.4	32.03-	48.04	40.03
9.426	9.427	(-0.001)	1633680			32.82-	49.23	41.02
10.176	10.178	(-0.002)	2068277			41.55-	62.32	51.93
10.915	10.912	(0.003)	936194	1000.00	968.0	18.81-	28.21	23.51
		Average of Peak Amounts =			1019			
$ 38 TCMX					CAS #: 877-09-8			
5.320	5.318	(0.002)	2896565	100.000	99.66			
$ 39 DCB					CAS #: 2051-24-3			
11.515	11.513	(0.002)	3057675	100.000	88.04			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024F2401.D
Date : 14-APR-2011 21:27
Client ID:
Sample Info: SEQ-CCV4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:27
Lab File ID: 024R2401.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	897	0.010	3.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	532	0.010	-6.3	20.0	
(4)	555	591	0.010	6.4	20.0	
(5)	473	551	0.010	16.6	20.0	
(6)	480	525	0.010	9.3	20.0	
35 PCB-1260(1)	2400	2485	0.010	3.6	20.0	
(2)	1234	1196	0.010	-3.1	20.0	
(3)	1424	1410	0.010	-1.0	20.0	
(4)	1011	997	0.010	-1.4	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1189	0.010	-0.5	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21333	21498	0.010	0.8	20.0	
$ 39 DCB	21628	19774	0.010	-8.6	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024R2401.D
Lab Smp Id: SEQ-CCV4
Inj Date : 14-APR-2011 21:27
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.391	5.389	(0.002)	896557	1000.00	1035	80.00- 120.00	100.00
4.709	4.708	(0.001)	340541			30.39- 45.58	37.98
4.979	4.978	(0.001)	532365	1000.00	936.5	47.50- 71.25	59.38
5.142	5.141	(0.001)	590782	1000.00	1064	52.72- 79.07	65.89
5.536	5.536	(0.000)	551261	1000.00	1166	49.19- 73.78	61.49
5.639	5.636	(0.003)	525092	1000.00	1093	46.85- 70.28	58.57
		Average of Peak Amounts =			1059		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.151	8.151	(0.000)	2485468	1000.00	1036	80.00- 120.00	100.00
6.899	6.898	(0.001)	1195562	1000.00	969.1	38.48- 57.72	48.10
7.141	7.138	(0.003)	1409679	1000.00	989.6	45.37- 68.06	56.72
7.289	7.288	(0.001)	997091	1000.00	986.2	32.09- 48.14	40.12
7.556	7.553	(0.003)	1264860			40.71- 61.07	50.89
7.832	7.831	(0.001)	1189214	1000.00	995.4	38.28- 57.42	47.85
8.532	8.531	(0.001)	866088			27.88- 41.82	34.85
9.174	9.173	(0.001)	641952			20.66- 30.99	25.83
		Average of Peak Amounts =			995.2		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.387	4.386	(0.001)	2149845	100.000	100.8		(A)
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.776	9.773	(0.003)	1977392	100.000	91.43		

QC Flag Legend

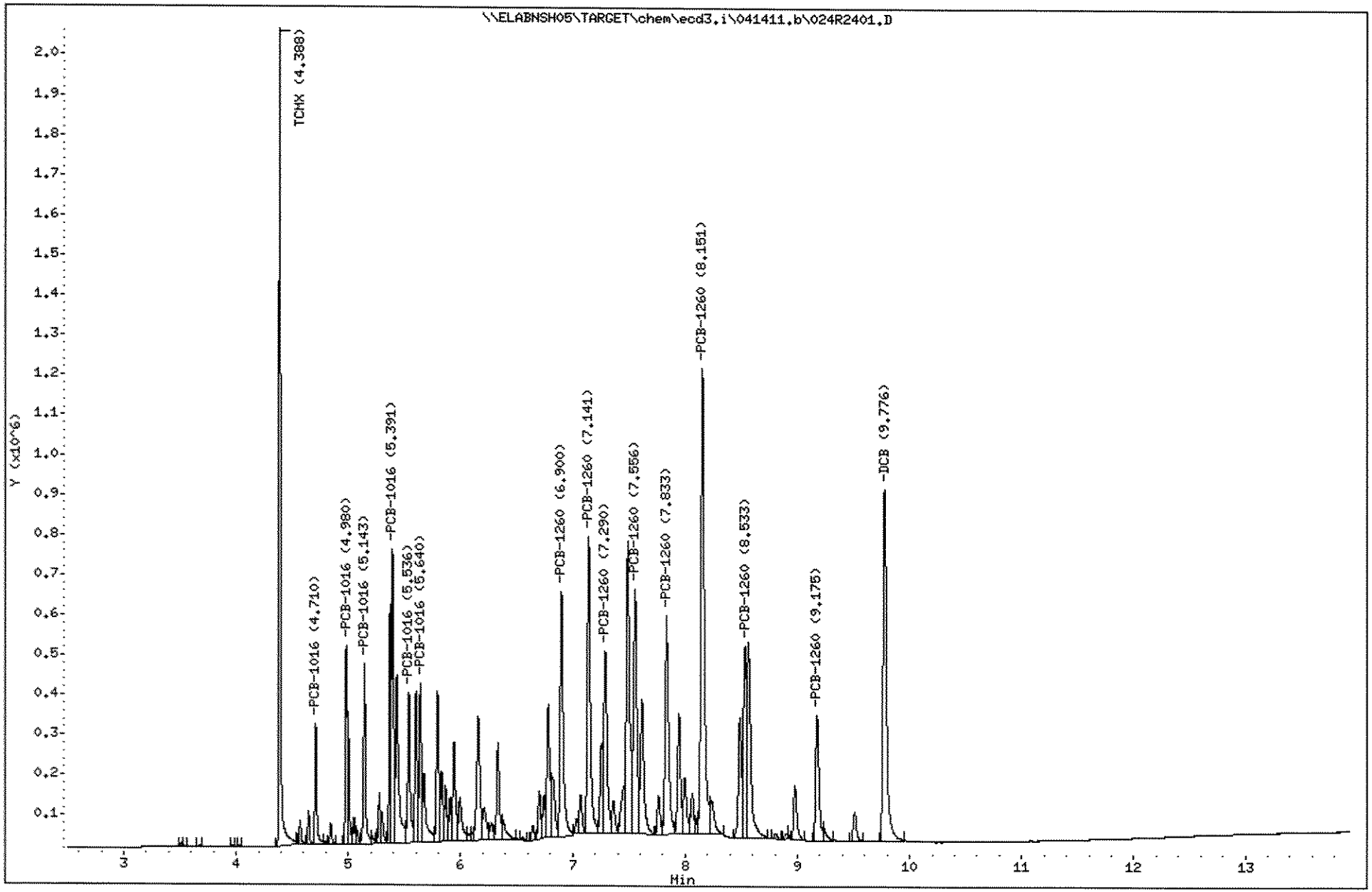
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024R2401.D
Date : 14-APR-2011 21:27
Client ID:
Sample Info: SEQ-CCV4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:46
Lab File ID: 025F2501.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV5 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1892	0.010	4.9	20.0	
(2)	1085	1075	0.010	-1.0	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1109	0.010	1.4	20.0	
(5)	1523	1246	0.010	-18.2	20.0	
(6)	1545	1433	0.010	-7.2	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025F2501.D
Lab Smp Id: SEQ-CCV5
Inj Date : 14-APR-2011 21:46
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254						CAS #: 11097-69-1		
8.191	8.194	(-0.003)	1891658	1000.00	1049	80.00-	120.00	100.00(M)
7.499	7.501	(-0.002)	1075084	1000.00	990.4	45.47-	68.20	56.83
7.756	7.758	(-0.002)	1736031			73.42-	110.13	91.77
8.088	8.089	(-0.001)	1109093	1000.00	1014	46.90-	70.36	58.63
8.541	8.544	(-0.003)	1245854	1000.00	817.9	52.69-	79.03	65.86
9.056	9.059	(-0.003)	1433344	1000.00	927.9	60.62-	90.93	75.77
		Average of Peak Amounts =			959.9			

QC Flag Legend

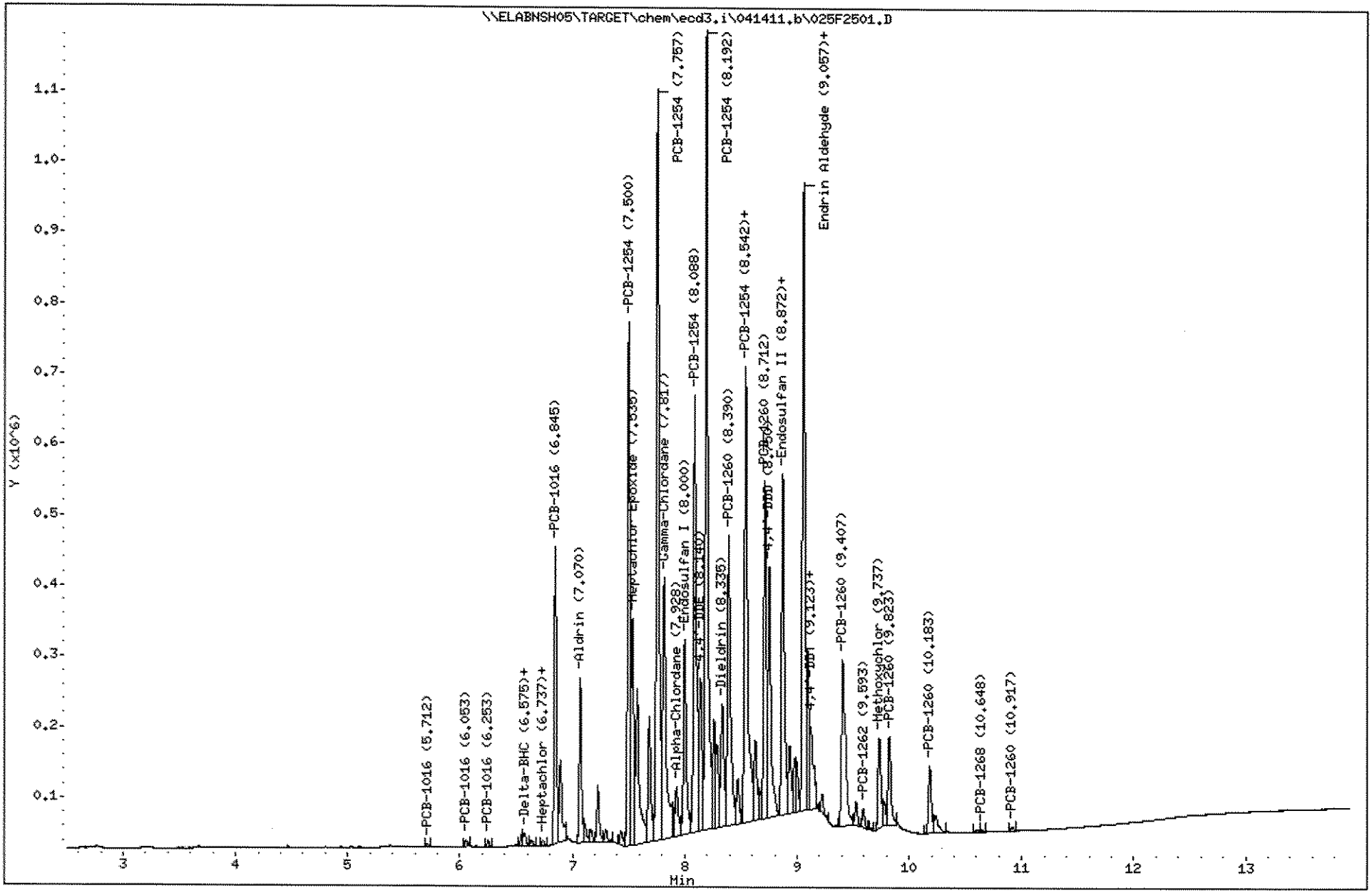
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025F2501.D
Date : 14-APR-2011 21:46
Client ID:
Sample Info: SEQ-CCV5

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:46
Lab File ID: 025R2501.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV5 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1626	0.010	21.4	20.0	<-
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1202	0.010	6.9	20.0	
(4)	959	1028	0.010	7.1	20.0	
(5)	719	773	0.010	7.5	20.0	
(6)	934	884	0.010	-5.3	20.0	

AVG %D = 7.5%

Laboratory Name

SW-846 METHODS 8081A/8082

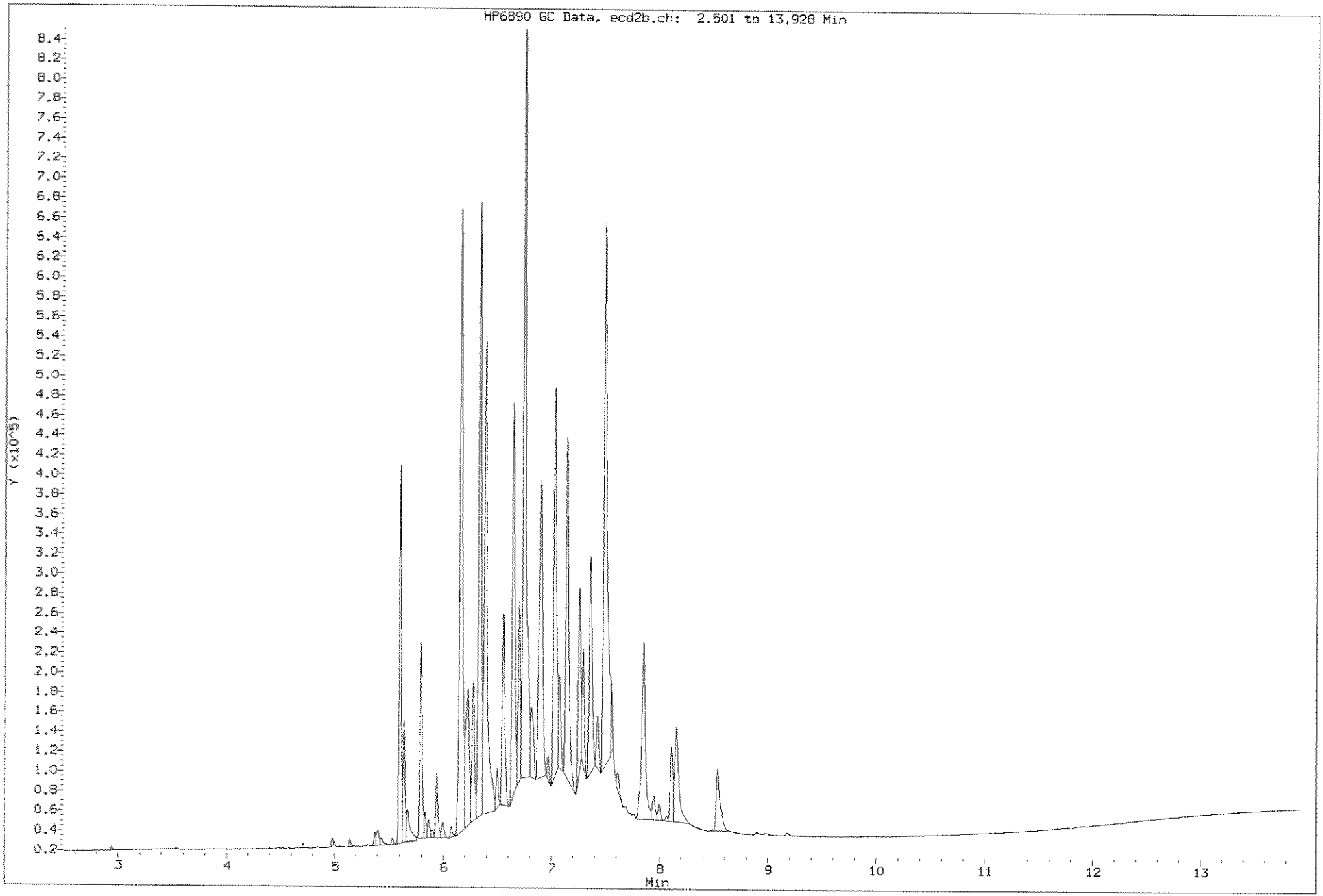
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025R2501.D
Lab Smp Id: SEQ-CCV5
Inj Date : 14-APR-2011 21:46
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.742	6.745	(-0.003)	1626320	1000.00	1214	80.00-	120.00	100.00(M)
5.600	5.602	(-0.002)	486242			23.92-	35.88	29.90
6.157	6.159	(-0.002)	1201936	1000.00	1069	59.12-	88.69	73.91
6.332	6.334	(-0.002)	1027529	1000.00	1071	50.54-	75.82	63.18
6.644	6.644	(0.000)	773071	1000.00	1075	38.03-	57.04	47.53
7.027	7.029	(-0.002)	884076	1000.00	946.7	43.49-	65.23	54.36
Average of Peak Amounts =					1075			

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025R2501.D
Injection Date: 14-APR-2011 21:46
Instrument: ecd3.i
Client Sample ID:

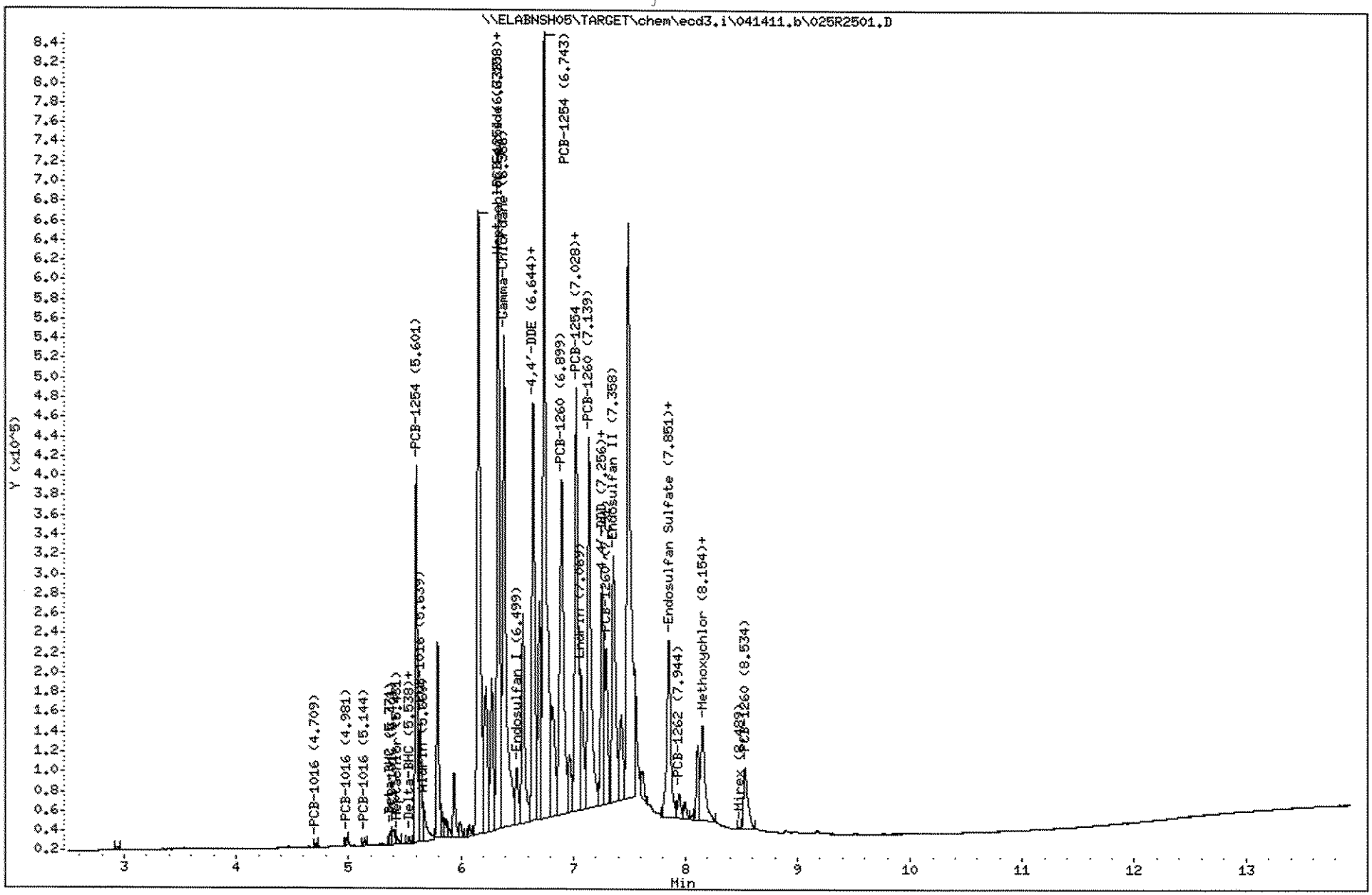


Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025R2501.D
Date : 14-APR-2011 21:46
Client ID:
Sample Info: SEQ-CCV5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



205

1104087

PREPARATION BENCH SHEET

1D09814

Empirical Laboratories, LLC

Printed: 4/18/2011 10:34:47AM

206

Matrix: Solid **Prepared using: EXT - EXT_3546** **Surrogate used: 11B0080**

Lab Number	Cont ID	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1104087-11	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.7	5				500	see version
1104087-12	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.2	5				500	see version
1104093-01	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	no quadratic calib
1104093-01RE1	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	Added 4/15/2011 by AJK
1104093-02	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.4	5				500	no quadratic calib
1104093-03	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	no quadratic calib
1104093-04	A	SGC_PCB8082A_3546	04/12/2011 16:11	15	5				500	no quadratic calib
1104093-05	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.2	5				500	no quadratic calib
1104093-06	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.5	5				500	no quadratic calib
1104093-07	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.5	5				500	no quadratic calib
1104093-08	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.6	5				500	no quadratic calib
1104114-03	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.2	5				500	see version
1104114-04	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	see version
1D09814-BLK1		QC	04/12/2011 16:11	15	5				500	
1D09814-BS1		QC	04/12/2011 16:11	15	5	11D0079		500	500	
1D09814-MS1		QC	04/12/2011 16:11	15	5	11D0079	1104093-01	500	500	
1D09814-MSD1		QC	04/12/2011 16:11	15.6	5	11D0079	1104093-01	500	500	

1104087

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Data for SW6010B Forms

ANALYSIS DATA SHEET

8102 (5)-3E (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 16:50
% Solids: 69.95

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-01
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	47.5	1.11	2.78	1	N	SW6010B	1D11002	04/13/11 17:07
7439-92-1	Lead	26.2	0.416	0.833	1		SW6010B	1D11002	04/13/11 17:07

ANALYSIS DATA SHEET

8102 (5)-11W (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 17:00
% Solids: 76.00

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-02
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	48.1	1.05	2.63	1	N	SW6010B	1D11002	04/13/11 17:12
7439-92-1	Lead	41.0	0.395	0.789	1		SW6010B	1D11002	04/13/11 17:12

ANALYSIS DATA SHEET

8102 (6)-3E (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 17:10
% Solids: 73.17

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-03
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	169	1.06	2.65	1	N	SW6010B	1D11002	04/13/11 17:16
7439-92-1	Lead	33.1	0.398	0.796	1		SW6010B	1D11002	04/13/11 17:16

ANALYSIS DATA SHEET

8102 (6)-6E (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 17:20
% Solids: 74.34

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-04
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	72.7	1.12	2.80	1	N	SW6010B	1D11002	04/13/11 17:21
7439-92-1	Lead	19.8	0.420	0.841	1		SW6010B	1D11002	04/13/11 17:21

ANALYSIS DATA SHEET

8102 (6)-8W (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 17:30
% Solids: 74.11

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-05
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	313	1.05	2.62	1	N	SW6010B	1D11002	04/13/11 17:25
7439-92-1	Lead	27.9	0.393	0.786	1		SW6010B	1D11002	04/13/11 17:25

ANALYSIS DATA SHEET

8102 (7)-3E (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 17:40
% Solids: 73.12

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-06
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	23.4	1.07	2.68	1	N	SW6010B	1D11002	04/13/11 17:30
7439-92-1	Lead	14.9	0.402	0.804	1		SW6010B	1D11002	04/13/11 17:30

ANALYSIS DATA SHEET

8102 (7)-11W (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 17:50
% Solids: 72.71

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-07
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	85.7	1.06	2.64	1	N	SW6010B	1D11002	04/13/11 17:34
7439-92-1	Lead	26.3	0.397	0.793	1		SW6010B	1D11002	04/13/11 17:34

ANALYSIS DATA SHEET

8102 (8)-2E (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 18:00
% Solids: 74.94

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-08
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	76.1	0.970	2.43	1	N	SW6010B	1D11002	04/13/11 17:39
7439-92-1	Lead	41.1	0.364	0.728	1		SW6010B	1D11002	04/13/11 17:39

ANALYSIS DATA SHEET

8102 (8)-5E (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 18:10
% Solids: 75.69

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-09
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	311	0.979	2.45	1	N	SW6010B	1D11002	04/13/11 17:56
7439-92-1	Lead	99.1	0.367	0.734	1		SW6010B	1D11002	04/13/11 17:56

ANALYSIS DATA SHEET

8102 (8)-13W (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sampled: 04/06/11 18:20
% Solids: 75.97

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104087-10
Received: 04/08/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	107	1.02	2.56	1	N	SW6010B	1D11002	04/13/11 18:01
7439-92-1	Lead	56.5	0.383	0.767	1		SW6010B	1D11002	04/13/11 18:01

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP
SDG: 1104087
Project: Radford Army Ammunition Plant2010
Calibration: 1104005
Sequence: 1D10419

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1D10419-ICV1	Copper	1000	981.9	98.2	ug/L	+/- 10.00%
	Lead	1000	951.7	95.2	ug/L	+/- 10.00%
1D10419-CCV1	Copper	1000	996.6	99.7	ug/L	+/- 10.00%
	Lead	1000	958.3	95.8	ug/L	+/- 10.00%
1D10419-CCV3	Copper	1000	1040	104	ug/L	+/- 10.00%
	Lead	1000	989.8	99.0	ug/L	+/- 10.00%
1D10419-CCV4	Copper	1000	1024	102	ug/L	+/- 10.00%
	Lead	1000	977.6	97.8	ug/L	+/- 10.00%
1D10419-CCV5	Copper	1000	998.5	99.9	ug/L	+/- 10.00%
	Lead	1000	967.0	96.7	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1104087

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1104005

Sequence: 1D10419

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1D10419-CRL1	Copper	8.000	7.988	99.8	ug/L	80 - 120
	Lead	3.000	3.210	107	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1D10419
Calibration: 1104005

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1D10419-ICB1	Copper	0.1092	4.00	10.0	ug/L	U	SW6010B
	Lead	0.6147	1.50	3.00	ug/L	U	SW6010B
1D10419-CCB1	Copper	0.616	4.00	10.0	ug/L	U	SW6010B
	Lead	0.484	1.50	3.00	ug/L	U	SW6010B
1D10419-CCB3	Copper	0.312	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.118	1.50	3.00	ug/L	U	SW6010B
1D11002-BLK1	Copper	0.0808	0.800	2.00	mg/Kg wet	U	SW6010B
	Lead	0.167	0.300	0.600	mg/Kg wet	U	SW6010B
1D10419-CCB4	Copper	0.164	4.00	10.0	ug/L	U	SW6010B
	Lead	0.212	1.50	3.00	ug/L	U	SW6010B
1D10419-CCB5	Copper	0.0277	4.00	10.0	ug/L	U	SW6010B
	Lead	0.199	1.50	3.00	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1104005
Sequence: 1D10419

Lab Sample ID	Analyte	True	Found	%R	Units
1D10419-IFA1	Aluminum	500000	515,460.00	103	ug/L
	Antimony		3.32		ug/L
	Arsenic		-2.43		ug/L
	Barium		0.79		ug/L
	Beryllium		0.02		ug/L
	Boron		0.97		ug/L
	Cadmium		0.61		ug/L
	Calcium	500000	485,460.00	97.1	ug/L
	Chromium		-1.34		ug/L
	Cobalt		-1.62		ug/L
	Copper		-4.23		ug/L
	Iron	200000	202,330.00	101	ug/L
	Lead		8.61		ug/L
	Magnesium	500000	498,540.00	99.7	ug/L
	Manganese		3.92		ug/L
	Molybdenum		0.54		ug/L
	Nickel		-1.81		ug/L
	Potassium		-57.57		ug/L
	Selenium		1.43		ug/L
	Silver		-0.44		ug/L
	Sodium		24.43		ug/L
	Strontium		-5.56		ug/L
	Thallium		1.80		ug/L
	Tin		0.63		ug/L
	Titanium		-4.35		ug/L
	Vanadium		-0.90		ug/L
	Zinc		6.93		ug/L
1D10419-IFB1	Aluminum	500000	510,270.00	102	ug/L
	Antimony	600.0	652.40	109	ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1104005
Sequence: 1D10419

Lab Sample ID	Analyte	True	Found	%R	Units
1D10419-IFB1	Arsenic	100.0	107.38	107	ug/L
	Barium	500.0	541.93	108	ug/L
	Beryllium	500.0	494.95	99.0	ug/L
	Boron		0.35		ug/L
	Cadmium	1000	1,048.10	105	ug/L
	Calcium	500000	481,020.00	96.2	ug/L
	Chromium	500.0	452.68	90.5	ug/L
	Cobalt	500.0	486.38	97.3	ug/L
	Copper	500.0	511.77	102	ug/L
	Iron	200000	202,050.00	101	ug/L
	Lead	50.00	58.70	117	ug/L
	Magnesium	500000	499,570.00	99.9	ug/L
	Manganese	500.0	493.68	98.7	ug/L
	Molybdenum		0.89		ug/L
	Nickel	1000	963.75	96.4	ug/L
	Potassium		-39.48		ug/L
	Selenium	50.00	53.06	106	ug/L
	Silver	200.0	203.62	102	ug/L
	Sodium		30.17		ug/L
	Strontium		-5.51		ug/L
	Thallium	100.0	93.00	93.0	ug/L
	Tin		1.40		ug/L
	Titanium		-3.82		ug/L
	Vanadium	500.0	463.26	92.7	ug/L
	Zinc	1000	1,010.40	101	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

8102 (8)-13W (20110406)

Laboratory: Empirical Laboratories, LLC

SDG: 1104087

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Solid

Batch: 1D11002

% Solids: 75.97

Source Sample Name: **1104087-10**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Copper	63.28	107.2	154.1	74.1	N	80 - 120
Lead	63.28	56.45	110.1	84.9		80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Copper	63.90	165.1	90.6	6.90		20	80 - 120
Lead	63.90	108.3	81.2	1.68		20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

8102 (8)-13W (20110406)

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Solid
Laboratory ID: 1D11002-PS1
Batch: 1D11002
Lab Source ID: 1104087-10
Preparation: MET_3050B
Initial/Final: 1.03 g / 200 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Copper	672.6	419.5	250.0	101	80 - 120
Lead	471.4	220.9	250.0	100	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1D11002	Laboratory ID:	1D11002-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Copper	50.00	49.48	99.0	80 - 120
Lead	50.00	48.80	97.6	80 - 120

SERIAL DILUTION

SW6010B

8102 (8)-13W (20110406)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sequence: 1D10419
Preparation: MET_3050B

SDG: 1104087
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1D11002-DUP1
Lab Source ID: 1104087-10
Initial/Final: 1.03 / 200

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Copper	419.54	427.18	1.82		SW6010B	10.00
Lead	220.88	226.21	2.41		SW6010B	10.00

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1104087

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Copper	0.800	2.00	mg/Kg	SW6010B
Lead	0.300	0.600	mg/Kg	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104087

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104087

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		As	B	Ba	Be	Cd
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104087

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Co	Cr	Cu	K	Mn
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104087

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Mo	Na	Ni	Pb	Sb
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104087

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104087

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Copper	224.7	0.0000000				
Lead	220.3	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1104087

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Copper	15	10000	P
Lead	15	10000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1104087

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1D11002 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
8102 (5)-3E (20110406)	1104087-01	04/11/11 07:38	1.03	200.00
8102 (5)-11W (20110406)	1104087-02	04/11/11 07:38	1.00	200.00
8102 (6)-3E (20110406)	1104087-03	04/11/11 07:38	1.03	200.00
8102 (6)-6E (20110406)	1104087-04	04/11/11 07:38	0.96	200.00
8102 (6)-8W (20110406)	1104087-05	04/11/11 07:38	1.03	200.00
8102 (7)-3E (20110406)	1104087-06	04/11/11 07:38	1.02	200.00
8102 (7)-11W (20110406)	1104087-07	04/11/11 07:38	1.04	200.00
8102 (8)-2E (20110406)	1104087-08	04/11/11 07:38	1.10	200.00
8102 (8)-5E (20110406)	1104087-09	04/11/11 07:38	1.08	200.00
8102 (8)-13W (20110406)	1104087-10	04/11/11 07:38	1.03	200.00
Blank	1D11002-BLK1	04/11/11 07:38	1.00	200.00
LCS	1D11002-BS1	04/11/11 07:38	1.00	200.00
8102 (8)-13W (20110406)	1D11002-DUP1	04/11/11 07:38	1.03	200.00
8102 (8)-13W (20110406)	1D11002-MS1	04/11/11 07:38	1.04	200.00
8102 (8)-13W (20110406)	1D11002-MSD1	04/11/11 07:38	1.03	200.00
8102 (8)-13W (20110406)	1D11002-PS1	04/11/11 07:38	1.03	200.00

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D10419
Instrument: ME-ICP
Calibration: 1104005

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D10419-CAL1	041311A-001	04/13/11 12:51
Cal Standard	1D10419-CAL2	041311A-002	04/13/11 12:55
Cal Standard	1D10419-CAL3	041311A-003	04/13/11 13:00
Cal Standard	1D10419-CAL4	041311A-004	04/13/11 13:05
Cal Standard	1D10419-CAL5	041311A-005	04/13/11 13:09
Cal Standard	1D10419-CAL6	041311A-006	04/13/11 13:14
Cal Standard	1D10419-CAL7	041311A-008	04/13/11 13:25
Cal Standard	1D10419-CAL8	041311A-009	04/13/11 13:30
Initial Cal Check	1D10419-ICV1	041311B-001	04/13/11 13:59
Initial Cal Blank	1D10419-ICB1	041311B-002	04/13/11 14:07
Instrument RL Check	1D10419-CRL1	041311B-003	04/13/11 14:12
Interference Check A	1D10419-IFA1	041311C-001	04/13/11 14:46
Interference Check B	1D10419-IFB1	041311C-002	04/13/11 14:52
Calibration Check	1D10419-CCV1	041311C-004	04/13/11 15:04
Calibration Blank	1D10419-CCB1	041311C-005	04/13/11 15:11
Calibration Check	1D10419-CCV3	041311C-022	04/13/11 16:35
Calibration Blank	1D10419-CCB3	041311C-023	04/13/11 16:42
Blank	1D11002-BLK1	041311C-024	04/13/11 16:47
LCS	1D11002-BS1	041311C-025	04/13/11 16:52
8102 (5)-3E (20110406)	1104087-01	041311C-028	04/13/11 17:07
8102 (5)-11W (20110406)	1104087-02	041311C-029	04/13/11 17:12
8102 (6)-3E (20110406)	1104087-03	041311C-030	04/13/11 17:16
8102 (6)-6E (20110406)	1104087-04	041311C-031	04/13/11 17:21
8102 (6)-8W (20110406)	1104087-05	041311C-032	04/13/11 17:25
8102 (7)-3E (20110406)	1104087-06	041311C-033	04/13/11 17:30
8102 (7)-11W (20110406)	1104087-07	041311C-034	04/13/11 17:34
8102 (8)-2E (20110406)	1104087-08	041311C-035	04/13/11 17:39
Calibration Check	1D10419-CCV4	041311C-036	04/13/11 17:44
Calibration Blank	1D10419-CCB4	041311C-037	04/13/11 17:52
8102 (8)-5E (20110406)	1104087-09	041311C-038	04/13/11 17:56
8102 (8)-13W (20110406)	1104087-10	041311C-039	04/13/11 18:01
8102 (8)-13W (20110406)	1D11002-MS1	041311C-040	04/13/11 18:05

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1104087
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D10419	Instrument:	ME-ICP
Calibration:	1104005		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
8102 (8)-13W (20110406)	1D11002-MSD1	041311C-041	04/13/11 18:10
8102 (8)-13W (20110406)	1D11002-PS1	041311C-042	04/13/11 18:14
8102 (8)-13W (20110406)	1D11002-DUP1	041311C-043	04/13/11 18:20
Calibration Check	1D10419-CCV5	041311C-044	04/13/11 18:25
Calibration Blank	1D10419-CCB5	041311C-045	04/13/11 18:32

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104005
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/13/11 12:51 4/13/11 13:30

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.662E-05	10000	1.7175E-05			500000	1.71646E-05		
Antimony	0	0	100	0.0006583	1000	6.9408E-04					10000	6.9873E-04
Arsenic	0	0	100	0.0003138	1000	3.4663E-04					10000	3.4912E-04
Barium	0	0	50	0.0115558	1000	0.011262	5000	0.0112508				
Beryllium	0	0	100	0.0024841	1000	0.0025337					10000	0.0024746
Boron	0	0	50	0.0000128	1000	1.314E-05					5000	1.3322E-05
Cadmium	0	0	100	0.012274	1000	0.012567					10000	0.011917
Calcium	0	0	1100	4.072727E-05	50000	4.047E-05					10000	
Chromium	0	0	100	0.0000332	1000	3.296E-05					10000	3.4426E-05
Cobalt	0	0	100	0.0054223	1000	0.0054826					10000	0.0056133
Copper	0	0	100	0.0000741	1000	7.155E-05					10000	7.0752E-05
Iron	0	0	5100	1.25902E-05	10000	1.2565E-05			500000	1.21786E-05	10000	
Lead	0	0	100	0.0012411	1000	0.0012358					10000	0.0012778
Magnesium	0	0	5100		50000	1.5838E-06			500000	1.69652E-06	10000	
Manganese	0	0	100	0.0002235	1000	2.2074E-04	10000	2.1168E-04			10000	
Molybdenum	0	0	100	0.0038625	1000	0.0040097					10000	0.0040753
Nickel	0	0	100	0.0032264	1000	0.0031837					10000	0.0032795
Potassium	0	0	1000	8.02E-06	10000	8.999E-06						
Selenium	0	0	100	0.0004107	1000	4.1592E-04					10000	4.1984E-04
Silver	0	0	20	0.0000505	500	4.748E-05	2000	4.9835E-05				
Sodium	0	0	1000		50000	3.731E-05						
Strontium	0	0	100	0.001418	1000	0.00142					10000	0.001456
Thallium	0	0	100	0.0007007	1000	7.1742E-04					10000	7.4041E-04
Tin	0	0	50	0.0011696	1000	0.0012168					5000	1.24854E-03
Titanium	0	0	100	0.0001949	1000	1.9413E-04					10000	2.0154E-04
Vanadium	0	0	100	0.0000406	1000	0.0000405					10000	4.1885E-05
Zinc	0	0	100	0.0052473	1000	0.0054371					10000	0.0054011

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104005
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/13/11 12:51 4/13/11 13:30

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	4.0302E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.6225E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	9.4751E-06										
Selenium												
Silver												
Sodium	100000	3.5754E-05	500000	3.6932E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104087
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104005
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/13/11 12:51 4/13/11 13:30

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.27399E-05	66.69771	2.484628	169.8884	0.9999999		0.998	
Antimony	5.127775E-04	66.75967	37.34837	197.0851	0.9999995		0.998	
Arsenic	2.523875E-04	66.97099	2.853045	150.6552	0.9999997		0.998	
Barium	8.51715E-03	66.68728	0.86403	113.4016	1		0.998	
Beryllium	0.0018731	66.68102	22.61026	195.6008	0.9999944		0.998	
Boron	9.8155E-06	66.70309	2.306202	110.3889	0.9999894		0.998	
Cadmium	0.0091895	66.72938	2.042738	161.9958	0.9999716		0.998	
Calcium	3.037482E-05	66.66915	3.100965	185.1394	0.9999998		0.998	
Chromium	2.51465E-05	66.71554	12.9982	182.874	0.9999832		0.998	
Cobalt	4.12955E-03	66.69461	3.901637	181.3656	0.9999949		0.998	
Copper	5.41005E-05	66.71889	1.07777	44.18035	0.9999995		0.998	
Iron	9.333449E-06	66.69721	17.41018	191.8311	0.9999997		0.998	
Lead	9.38675E-04	66.69635	44.74078	197.6713	0.9999898		0.998	
Magnesium	1.225705E-06	66.77575	95.51893	199.3609	0.9999201		0.998	
Manganese	1.6398E-04	66.73773	18.8058	194.0636	0.9999835		0.998	
Molybdenum	2.986875E-03	66.73319	14.21859	193.0546	0.9999979		0.998	
Nickel	0.0024224	66.68629	1.644938	151.0669	0.9999911		0.998	
Potassium	6.623525E-06	67.29104	2.47178	112.3292	0.999984		0.998	
Selenium	3.11615E-04	66.67749	7.171787	188.6823	0.9999987		0.998	
Silver	3.695375E-05	66.7588	5.423538	164.7695	0.999839		0.998	
Sodium	2.7499E-05	66.7102	3.738467	135.7777	0.9999455		0.998	
Strontium	0.0010735	66.68651	5.535525	184.5347	0.9999944		0.998	
Thallium	5.396325E-04	66.73488	7.179725	186.37	0.9999924		0.998	
Tin	9.08735E-04	66.76213	7.990427	189.0889	0.9999748		0.998	
Titanium	1.476425E-04	66.70473	4.143102	188.9	0.9999869		0.998	
Vanadium	3.074625E-05	66.69821	2.674345	130.467	0.9999894		0.998	
Zinc	4.021375E-03	66.69808	13.60364	196.1865	0.9999993		0.998	

Data for SW6010B
Supporting Raw Data / Logs

Sample Name: SEQ-CAL1 Acquired: 4/13/2011 12:51:05 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00004**	**-.00033**	**-.00127**	**.00167**	**.00000**	**.00006**	**.00596**
Stddev	.00001	.00003	.00012	.00020	.00028	.00000	.00014
%RSD	18.783	8.8090	9.2894	12.260	30363.	6.0045	2.3026
#1	.00004	-.00034	-.00141	.00174	.00014	.00006	.00611
#2	.00005	-.00034	-.00118	.00184	.00018	.00006	.00595
#3	.00003	-.00029	-.00124	.00144	-.00032	.00005	.00583

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00007**	**.00038**	**.00490**	**.00502**	**-.00001**	**.0000**	**.00037**
Stddev	.00006	.00004	.00034	.00073	.00001	.000	.00000
%RSD	88.946	11.710	6.9934	14.514	48.638	30.67	1.2569
#1	.00007	.00033	.00482	.00574	-.00001	.0000	.00037
#2	.00013	.00042	.00461	.00428	-.00001	.0000	.00037
#3	.00001	.00039	.00528	.00505	.00000	.0000	.00037

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00002**	**-.00078**	**.00000**	**.00001**	**.00109**	**.00124**	**.00831**
Stddev	.00001	.00005	.00000	.00000	.00060	.00014	.00045
%RSD	67.503	6.1948	381.16	73.544	55.393	11.091	5.3705
#1	-.00002	-.00072	.00000	.00001	.00159	.00109	.00881
#2	.00000	-.00081	.00000	.00000	.00124	.00125	.00794
#3	-.00002	-.00080	.00000	.00000	.00042	.00136	.00819

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00049**	**.00030**	**.00159**	**-.00057**	**-.0003**	**.00028**	**-.00186**
Stddev	.00087	.00045	.00044	.00017	.0001	.00004	.00051
%RSD	177.40	147.76	27.469	30.653	20.85	15.882	27.250
#1	.00099	.00003	.00169	-.00056	-.0002	.00023	-.00199
#2	-.00052	.00082	.00197	-.00040	-.0003	.00029	-.00130
#3	.00101	.00006	.00111	-.00074	-.0003	.00032	-.00229

Sample Name: SEQ-CAL1 Acquired: 4/13/2011 12:51:05 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.00006**	**.00033**
Stddev	.00000	.00018
%RSD	7.8331	53.636
#1	.00006	.00024
#2	.00005	.00054
#3	.00006	.00022

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1783.8	756500.	107990.
Stddev	4.9	11031.	4046.
%RSD	.27675	1.4582	3.7469
#1	1778.2	758180.	112650.
#2	1785.8	744730.	105910.
#3	1787.5	766600.	105410.

Sample Name: SEQ-CAL2 Acquired: 4/13/2011 12:55:49 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00101**	**.08310**	**.03138**	**.02932**	**.01055**	**.00064**	**.57779**	**.24841**
Stddev	.00002	.00029	.00033	.00019	.00001	.00001	.00059	.00046
%RSD	1.9987	.34327	1.0614	.64342	.12201	1.0454	.10272	.18633
#1	.00103	.08338	.03104	.02927	.01056	.00064	.57725	.24804
#2	.00100	.08281	.03139	.02954	.01056	.00063	.57842	.24827
#3	.00099	.08309	.03171	.02917	.01054	.00063	.57769	.24893

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04480**	**1.2274**	**.54223**	**.00332**	**.0002**	**.00741**	**.06421**	**.00802**
Stddev	.00013	.0059	.00164	.00006	.0000	.00012	.00030	.00024
%RSD	.28084	.48009	.30226	1.6575	.6030	1.6320	.46148	2.9899
#1	.04466	1.2341	.54370	.00337	.0002	.00752	.06389	.00810
#2	.04484	1.2248	.54046	.00333	.0002	.00743	.06425	.00775
#3	.04491	1.2232	.54254	.00326	.0002	.00728	.06448	.00821

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02235**	**.38625**	**.32264**	**.12411**	**.06583**	**.04107**	**.05848**	**.1418**
Stddev	.00028	.00188	.00094	.00095	.00053	.00010	.00019	.0002
%RSD	1.2307	.48788	.29206	.76651	.79767	.25557	.32450	.1302
#1	.02260	.38585	.32350	.12483	.06597	.04119	.05827	.1418
#2	.02240	.38459	.32163	.12303	.06626	.04099	.05863	.1417
#3	.02206	.38830	.32279	.12448	.06524	.04103	.05854	.1420

Elem	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01949**	**.07007**	**.00406**	**.52473**
Stddev	.00004	.00041	.00005	.00057
%RSD	.19014	.58744	1.2953	.10950
#1	.01953	.06977	.00410	.52416
#2	.01945	.06991	.00407	.52473
#3	.01949	.07054	.00400	.52531

Sample Name: SEQ-CAL2 Acquired: 4/13/2011 12:55:49 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1778.6	764410.	106210.
Stddev	3.3	8983.	140.
%RSD	.18623	1.1752	.13193
#1	1776.1	756940.	106190.
#2	1782.4	761900.	106350.
#3	1777.5	774380.	106070.

Sample Name: SEQ-CAL3 Acquired: 4/13/2011 13:00:26 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02374**	**.17175**	**.34663**	**.30091**	**.11283**	**.01314**	**11.262**	**2.5337**
Stddev	.00013	.00025	.00194	.00185	.00058	.00004	.063	.0054
%RSD	.55890	.14716	.56051	.61480	.51251	.31111	.55497	.21261
#1	.02380	.17155	.34619	.30038	.11270	.01314	11.228	2.5318
#2	.02384	.17166	.34494	.29939	.11233	.01318	11.224	2.5398
#3	.02359	.17203	.34875	.30297	.11346	.01309	11.334	2.5296

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.0235**	**12.567**	**5.4826**	**.03296**	**.0019**	**.07155**	**.12565**	**.08999**
Stddev	.0008	.079	.0304	.00004	.0000	.00037	.00043	.00027
%RSD	.03817	.63259	.55377	.12239	.2371	.52132	.34245	.30432
#1	2.0226	12.544	5.4747	.03300	.0019	.07183	.12516	.09001
#2	2.0240	12.501	5.4570	.03293	.0019	.07169	.12599	.08971
#3	2.0238	12.655	5.5162	.03294	.0019	.07112	.12579	.09026

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.07919**	**.22074**	**4.0097**	**1.8655**	**3.1837**	**1.2358**	**.69408**	**.41592**
Stddev	.00010	.00050	.0176	.0024	.0144	.0062	.00392	.00199
%RSD	.12907	.22720	.43793	.12593	.45116	.50181	.56475	.47734
#1	.07930	.22086	4.0024	1.8652	3.1766	1.2322	.69260	.41478
#2	.07910	.22117	3.9969	1.8634	3.1742	1.2322	.69111	.41476
#3	.07916	.22019	4.0297	1.8680	3.2002	1.2429	.69852	.41821

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.2168**	**1.420**	**.19413**	**.71742**	**.04050**	**5.4371**
Stddev	.0077	.004	.00031	.00215	.00005	.0214
%RSD	.63039	.2725	.16118	.29978	.12698	.39439
#1	1.2124	1.417	.19386	.71563	.04048	5.4384
#2	1.2123	1.424	.19447	.71682	.04056	5.4150
#3	1.2256	1.418	.19405	.71981	.04046	5.4578

Sample Name: SEQ-CAL3 Acquired: 4/13/2011 13:00:26 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1613.9	725340.	104030.
Stddev	8.2	2020.	52.
%RSD	.51043	.27844	.04959
#1	1617.5	723950.	104050.
#2	1619.8	724420.	104060.
#3	1604.5	727660.	103970.

Sample Name: SEQ-CAL4 Acquired: 4/13/2011 13:05:02 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Ba2335	Mn2576
Units	Cts/S	Cts/S	Cts/S
Avg	**.09967**	**56.254**	**2.1168**
Stddev	.00035	.279	.0047
%RSD	.35355	.49583	.22131
#1	.09941	55.953	2.1115
#2	.10007	56.307	2.1184
#3	.09954	56.504	2.1204

Int. Std.	Sc1880	Sc3613
Units	Cts/S	Cts/S
Avg	1796.3	761440.
Stddev	9.1	1396.
%RSD	.50465	.18333
#1	1806.1	762930.
#2	1794.7	760160.
#3	1788.2	761240.

Sample Name: SEQ-CAL5 Acquired: 4/13/2011 13:09:56 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Fe2611	Mg2790
Units	Cts/S	Cts/S	Cts/S
Avg	**8.5823**	**6.0893**	**.84826**
Stddev	.0549	.0812	.00334
%RSD	.63908	1.3338	.39386
#1	8.5269	6.0195	.84669
#2	8.6366	6.0701	.84600
#3	8.5833	6.1785	.85210

Int. Std.	Sc3613-2
Units	Cts/S
Avg	101240.
Stddev	390.
%RSD	.38524
#1	101410.
#2	101520.
#3	100790.

Sample Name: SEQ-CAL6 Acquired: 4/13/2011 13:14:47 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	As1972	As2003	B_2496	Be3130	Cd2144	Co2286	Cr2677
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.4912**	**2.9914**	**1.1549**	**.06661**	**24.746**	**119.17**	**56.133**	**.34426**
Stddev	.0175	.0135	.0069	.00124	.271	.08	.133	.00542
%RSD	.50087	.45099	.59822	1.8638	1.0961	.06487	.23652	1.5749
#1	3.4811	2.9839	1.1509	.06731	24.567	119.26	56.063	.34770
#2	3.4812	2.9833	1.1509	.06518	24.612	119.11	56.050	.33801
#3	3.5114	3.0070	1.1629	.06735	25.058	119.16	56.286	.34706

Elem	Cu2199	Cu3247	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0197**	**.70752**	**40.753**	**32.795**	**12.778**	**6.9873**	**4.1984**	**6.2427**
Stddev	.0003	.00637	.226	.153	.038	.0189	.0204	.0221
%RSD	1.664	.90086	.55556	.46603	.29481	.27106	.48524	.35382
#1	.0198	.70964	40.618	32.721	12.750	6.9688	4.1823	6.2352
#2	.0193	.70035	40.627	32.692	12.764	6.9865	4.1916	6.2253
#3	.0198	.71256	41.015	32.970	12.821	7.0067	4.2213	6.2675

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**14.56**	**2.0154**	**7.4041**	**.41885**	**54.011**
Stddev	.13	.0068	.0431	.00604	.148
%RSD	.8894	.33909	.58168	1.4420	.27465
#1	14.57	2.0076	7.3737	.42377	53.980
#2	14.69	2.0203	7.3852	.41211	53.881
#3	14.43	2.0183	7.4534	.42067	54.173

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1629.5	736380.	103660.
Stddev	5.1	11580.	254.
%RSD	.31080	1.5726	.24516
#1	1632.3	727630.	103850.
#2	1632.5	749510.	103370.
#3	1623.6	732000.	103750.

Sample Name: SEQ-CAL7 Acquired: 4/13/2011 13:25:01 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**.94751**	**3.5754**
Stddev	.00377	.1120
%RSD	.39810	3.1321
#1	.94578	3.4461
#2	.95183	3.6388
#3	.94491	3.6412

Int. Std.	Sc3613-2
Units	Cts/S
Avg	104280.
Stddev	405.
%RSD	.38816
#1	104610.
#2	104400.
#3	103820.

Sample Name: SEQ-CAL8 Acquired: 4/13/2011 13:30:06 Type: Cal
Method: DuoEnviroMethodNEW(v2085) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca3179	Mg2790	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**20.151**	**.16225**	**18.466**
Stddev	.076	.00064	.112
%RSD	.37485	.39279	.60484
#1	20.064	.16190	18.369
#2	20.182	.16186	18.440
#3	20.205	.16299	18.588

Int. Std.	Sc3613-2
Units	Cts/S
Avg	99263.
Stddev	396.
%RSD	.39929
#1	99589.
#2	99379.
#3	98822.

Sample Name: SEQ-ICV Acquired: 4/13/2011 13:59:41 Type: QC
Method: DuoEnviroMethodNEW(v2087) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0272

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**487.61**	**9902.9**	**1001.5**	**978.99**	**979.42**	**996.99**	**982.21**
Stddev	1.11	17.2	3.0	4.12	4.24	1.87	3.61
%RSD	.22757	.17337	.29669	.42071	.43296	.18788	.36732
#1	488.30	9921.0	998.25	976.98	976.95	999.15	979.74
#2	486.33	9900.9	1002.3	976.26	976.99	995.92	980.53
#3	488.21	9886.8	1004.0	983.73	984.32	995.90	986.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1005.5**	**50.635**	**1005.3**	**952.65**	F **940.00**	**987.3**	**981.92**
Stddev	4.3	.248	3.2	3.25	2.76	2.7	3.10
%RSD	.42847	.49020	.31422	.34112	.29373	.2702	.31552
#1	1009.8	50.835	1002.8	950.11	941.77	989.9	982.39
#2	1005.6	50.714	1004.2	951.53	936.82	984.6	978.61
#3	1001.1	50.357	1008.8	956.31	941.42	987.6	984.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value					1000.0		
Range					±-50.000		

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**10286.**	**9.7231**	F **46.719**	**1034.1**	**988.06**	**49.360**	**968.37**
Stddev	79.	.0242	.252	2.8	5.86	.181	4.05
%RSD	.76642	.24850	.53841	.27223	.59276	.36652	.41838
#1	10369.	9.7504	46.883	1035.4	983.46	49.569	965.91
#2	10278.	9.7147	46.845	1030.8	986.05	49.246	966.14
#3	10212.	9.7044	46.429	1036.0	994.65	49.266	973.04
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			50.000				
Range			±-2.5000				

Sample Name: SEQ-ICV Acquired: 4/13/2011 13:59:41 Type: QC
Method: DuoEnviroMethodNEW(v2087) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0272

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**951.70**	**955.42**	**972.88**	**961.45**	**970.6**	**960.32**	**970.67**
Stddev	3.94	3.23	4.97	3.00	3.8	3.50	7.40
%RSD	.41398	.33830	.51102	.31174	.3894	.36483	.76252
#1	948.28	951.75	968.47	961.14	974.9	963.47	966.25
#2	950.81	956.66	971.91	958.62	969.1	960.94	966.54
#3	956.01	957.85	978.27	964.59	967.7	956.55	979.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**959.68**	**998.08**
Stddev	2.53	4.00
%RSD	.26405	.40029
#1	962.19	996.64
#2	957.12	995.00
#3	959.72	1002.6
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1652.0	736850.	105360.
Stddev	6.4	1938.	547.
%RSD	.38792	.26306	.51963
#1	1656.5	736370.	105000.
#2	1654.9	738980.	105090.
#3	1644.7	735200.	105990.

Sample Name: SEQ-ICB Acquired: 4/13/2011 14:07:33 Type: QC
Method: DuoEnviroMethodNEW(v2087) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.10985**	**-.14649**	**.99364**	**-.36401**	F **-4.0471**	**1.2260**	**.07855**
Stddev	.20020	2.6740	1.3682	.97005	2.9782	.5226	.04208
%RSD	182.25	1825.3	137.70	266.49	73.590	42.626	53.569
#1	.25566	-.82046	1.3904	-.96607	-5.3181	1.8180	.11327
#2	.19229	2.8000	-.52911	-.88101	-.64419	1.0309	.03175
#3	-.11841	-2.4190	2.1196	.75503	-6.1789	.82898	.09063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					3.0000		
Low Limit					-3.0000		

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.03768**	**.00236**	**.08018**	**.12922**	**.17325**	**.4512**	**.10919**
Stddev	.01824	.00165	.07053	.15305	.10436	.1619	.04936
%RSD	48.407	69.625	87.966	118.44	60.233	35.87	45.211
#1	.01685	.00082	.15984	.21501	.16460	.2664	.16062
#2	.04541	.00218	.05502	.22014	.07349	.5193	.06219
#3	.05077	.00410	.02568	-.04748	.28167	.5680	.10475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**3.0307**	**.00585**	**.00594**	**.11749**	**.62570**	**.01385**	**.08838**
Stddev	2.4805	.01493	.00380	.02422	.07820	.00346	.15763
%RSD	81.846	255.02	64.001	20.618	12.499	24.970	178.36
#1	.52331	.02199	.00861	.09986	.70746	.01035	.26699
#2	3.0854	-.00748	.00159	.10751	.55162	.01392	.02942
#3	5.4834	.00306	.00764	.14512	.61801	.01727	-.03127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-ICB Acquired: 4/13/2011 14:07:33 Type: QC
Method: DuoEnviroMethodNEW(v2087) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.61467**	**-.29534**	**-.37256**	**.34465**	**.0304**	**-.04884**	**1.0630**
Stddev	.27448	.35509	1.7645	.28208	.0418	.00893	.4699
%RSD	44.656	120.23	473.63	81.846	137.4	18.275	44.209
#1	.55656	-.69684	1.2930	.08055	-.0050	-.05262	.99210
#2	.91355	-.02257	-2.2217	.31161	.0765	-.03865	1.5643
#3	.37389	-.16662	-.18890	.64180	.0197	-.05525	.63253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.06669**	**.02479**
Stddev	.04519	.09524
%RSD	67.770	384.28
#1	.03850	.04200
#2	.04274	.11025
#3	.11881	-.07789
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1788.0	752860.	105570.
Stddev	4.4	268.	536.
%RSD	.24485	.03555	.50807
#1	1789.2	752990.	106190.
#2	1791.7	752560.	105340.
#3	1783.2	753050.	105190.

Sample Name: SEQ-CRL Acquired: 4/13/2011 14:12:14 Type: QC
Method: DuoEnviroMethodNEW(v2087) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.0627**	**108.70**	**6.7491**	F **3.3112**	F **4.7477**	**8.2718**	**10.435**
Stddev	.1064	2.94	.3233	1.6975	.8902	.3093	.081
%RSD	5.1574	2.7031	4.7907	51.265	18.749	3.7390	.77823
#1	2.1500	108.52	7.1145	4.1908	4.1240	8.4979	10.479
#2	2.0940	111.72	6.5001	1.3544	5.7671	8.3982	10.341
#3	1.9442	105.85	6.6326	4.3883	4.3520	7.9194	10.485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	None	Chk Pass
Value				6.0000	6.0000		
Range				±-1.2000	±-1.2000		

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.1061**	**2.0532**	**2.1106**	**9.6027**	**3.9456**	**8.696**	**7.9875**
Stddev	.0267	.0250	.0853	.0673	.0519	.170	.0448
%RSD	1.2672	1.2151	4.0411	.70096	1.3145	1.951	.56052
#1	2.1369	2.0813	2.0137	9.5746	4.0047	8.823	7.9487
#2	2.0900	2.0338	2.1439	9.6795	3.9240	8.762	8.0365
#3	2.0915	2.0443	2.1742	9.5540	3.9079	8.503	7.9773
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**65.966**	**2.7734**	**2.8442**	**6.5954**	**9.7063**	**2.9911**	**5.9389**
Stddev	1.193	.0188	.0377	.0744	.1596	.0270	.2841
%RSD	1.8085	.67794	1.3274	1.1279	1.6439	.90184	4.7838
#1	67.072	2.7921	2.8876	6.6167	9.6720	3.0222	6.0123
#2	64.702	2.7736	2.8188	6.6569	9.5667	2.9753	5.6253
#3	66.122	2.7545	2.8261	6.5127	9.8802	2.9757	6.1791
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 4/13/2011 14:12:14 Type: QC
Method: DuoEnviroMethodNEW(v2087) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.2100**	**7.7614**	**5.4590**	**18.985**	**5.962**	**9.5862**	**4.4202**
Stddev	.0973	.3771	.7359	.139	.024	.2849	.5026
%RSD	3.0310	4.8586	13.480	.72954	.4088	2.9722	11.371
#1	3.1209	8.1920	5.2658	18.860	5.984	9.8810	4.4754
#2	3.3138	7.6020	6.2722	18.960	5.936	9.5654	3.8923
#3	3.1953	7.4901	4.8390	19.134	5.966	9.3123	4.8930
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**9.9289**	**9.9193**
Stddev	.1439	.0305
%RSD	1.4489	.30699
#1	9.8734	9.9085
#2	10.092	9.8957
#3	9.8211	9.9537
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1764.4	751490.	104490.
Stddev	15.8	8390.	1282.
%RSD	.89295	1.1165	1.2270
#1	1772.7	746730.	103050.
#2	1774.2	746560.	105520.
#3	1746.2	761180.	104880.

Sample Name: SEQ-IFA Acquired: 4/13/2011 14:46:19 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.43803**	**515460.**	**-2.4297**	**-3.2965**	**-.17586**	**.97441**	**.78887**
Stddev	.31502	4378.	.7784	1.2772	11.123	1.3724	.07759
%RSD	71.917	.84932	32.036	38.745	6324.8	140.84	9.8353
#1	-.77908	512930.	-1.5430	-4.5831	2.1999	-.42011	.70362
#2	-.37707	520510.	-2.7456	-3.2773	-12.295	1.0198	.80765
#3	-.15795	512930.	-3.0004	-2.0289	9.5670	2.3235	.85535

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.02177**	**485.46**	**.60839**	**-1.6160**	**-1.3393**	**-3.339**	**-4.2258**
Stddev	.00433	1.92	.18798	.1388	.2209	2.319	.1207
%RSD	19.872	.39638	30.897	8.5882	16.494	69.43	2.8566
#1	.02561	483.34	.74417	-1.5011	-1.5183	-4.198	-4.2919
#2	.01708	485.95	.39385	-1.5767	-1.4072	-.7139	-4.2991
#3	.02263	487.09	.68717	-1.7702	-1.0924	-5.107	-4.0865

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**202330.**	**-.05757**	**498.54**	**3.9173**	**.53947**	**.02443**	**-1.8061**
Stddev	1545.	.00545	1.02	.0509	.07756	.00503	.1565
%RSD	.76344	9.4743	.20490	1.2994	14.377	20.580	8.6622
#1	200830.	-.05181	497.74	3.9741	.45386	.01863	-1.6262
#2	202240.	-.05825	499.69	3.8760	.60504	.02715	-1.9103
#3	203920.	-.06266	498.20	3.9017	.55952	.02751	-1.8818

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**8.6076**	**3.3231**	**1.4279**	**.63257**	**-5.563**	**-4.3457**	**1.8043**
Stddev	1.7425	.1039	.4650	.41553	.059	.3793	.6908
%RSD	20.243	3.1277	32.564	65.690	1.069	8.7292	38.284
#1	8.9908	3.2063	1.3992	.80127	-5.519	-3.9798	1.6031
#2	6.7054	3.3575	1.9066	.15922	-5.541	-4.7372	1.2365
#3	10.127	3.4055	.97797	.93721	-5.631	-4.3201	2.5733

Sample Name: SEQ-IFA Acquired: 4/13/2011 14:46:19 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**-.90013**	**6.9280**	
Stddev	.14687	.4884	
%RSD	16.317	7.0496	
#1	-.76228	6.7257	
#2	-.88349	6.5732	
#3	-1.0546	7.4850	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1341.3	667440.	99563.
Stddev	6.6	2808.	205.
%RSD	.49047	.42064	.20629
#1	1346.0	667360.	99781.
#2	1344.1	670290.	99372.
#3	1333.8	664680.	99537.

Sample Name: SEQ-IFB Acquired: 4/13/2011 14:52:23 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**203.62**	**510270.**	**107.38**	**108.92**	**96.631**	**.35147**	**541.93**
Stddev	2.80	4629.	1.19	4.59	7.956	1.4949	4.73
%RSD	1.3744	.90715	1.1086	4.2115	8.2329	425.31	.87242
#1	206.85	511790.	106.06	113.48	100.72	-1.3744	538.24
#2	201.88	513950.	107.71	108.98	101.71	1.1887	540.27
#3	202.13	505080.	108.38	104.30	87.462	1.2401	547.26
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**494.95**	**481.02**	**1048.1**	**486.38**	**452.68**	**466.8**	**511.77**
Stddev	2.12	1.03	11.1	4.55	1.97	3.3	5.01
%RSD	.42890	.21427	1.0632	.93462	.43590	.7002	.97933
#1	494.23	479.96	1042.7	483.69	454.84	470.5	517.56
#2	497.33	481.09	1040.7	483.83	450.98	465.0	508.80
#3	493.27	482.01	1061.0	491.63	452.23	464.8	508.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**202050.**	**-.03948**	**499.57**	**493.68**	**.88967**	**.03017**	**963.75**
Stddev	1568.	.01094	1.77	4.06	.22944	.00326	6.56
%RSD	.77612	27.709	.35523	.82278	25.790	10.797	.68017
#1	200790.	-.03554	499.51	498.19	.66448	.03393	959.59
#2	203810.	-.05184	501.37	490.31	1.1231	.02849	960.35
#3	201560.	-.03105	497.82	492.54	.88140	.02810	971.31
Check ?	Chk Pass	None	Chk Pass	Chk Pass	None	None	Chk Pass
Value							
Range							

Sample Name: SEQ-IFB Acquired: 4/13/2011 14:52:23 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**58.696**	**652.40**	**53.061**	**1.4000**	**-5.513**	**-3.8179**	**92.995**
Stddev	1.518	6.26	2.788	.9452	.038	.2737	1.403
%RSD	2.5858	.95893	5.2547	67.517	.6937	7.1677	1.5082
#1	57.807	648.55	55.185	2.4783	-5.554	-3.5216	92.623
#2	60.448	649.04	54.095	1.0070	-5.479	-4.0612	94.546
#3	57.832	659.62	49.904	.71460	-5.506	-3.8710	91.816
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**463.26**	**1010.4**
Stddev	3.37	7.7
%RSD	.72778	.76493
#1	467.10	1004.9
#2	460.80	1007.0
#3	461.87	1019.2
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1320.6	663280.	99418.
Stddev	8.4	5428.	335.
%RSD	.63333	.81836	.33695
#1	1326.8	657080.	99362.
#2	1323.9	667150.	99114.
#3	1311.1	665630.	99777.

Sample Name: SEQ-CCV Acquired: 4/13/2011 15:04:02 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**484.49**	**9850.7**	**1007.7**	**990.76**	**995.50**	**1009.8**	**997.20**	**1030.5**
Stddev	2.10	18.6	4.9	6.52	6.27	6.5	4.70	1.9
%RSD	.43353	.18896	.49007	.65853	.62987	.64054	.47156	.18219
#1	482.27	9840.6	1005.7	988.85	988.34	1002.5	996.04	1028.3
#2	484.76	9839.4	1004.1	985.40	998.17	1011.8	993.18	1031.2
#3	486.45	9872.2	1013.4	998.02	1000.00	1015.0	1002.4	1031.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**51.358**	**1018.2**	**962.36**	**975.60**	**1011.**	**996.60**	**10598.**	**9.6122**
Stddev	.073	2.7	4.67	2.90	3.	3.14	25.	.0336
%RSD	.14257	.26274	.48499	.29690	.3157	.31500	.23953	.34953
#1	51.326	1017.9	961.03	972.61	1007.	993.10	10582.	9.6433
#2	51.306	1015.6	958.50	978.39	1013.	997.55	10584.	9.6169
#3	51.442	1021.0	967.54	975.81	1013.	999.16	10627.	9.5766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**48.476**	**1053.6**	**991.11**	**49.752**	**976.93**	**958.30**	**978.43**	**994.92**
Stddev	.116	4.6	5.47	.112	4.19	4.79	5.03	1.56
%RSD	.23860	.43357	.55199	.22591	.42864	.49979	.51392	.15727
#1	48.367	1048.5	988.98	49.786	976.56	955.78	975.59	995.28
#2	48.463	1057.2	987.02	49.843	972.93	955.30	975.47	993.21
#3	48.597	1055.2	997.32	49.626	981.29	963.83	984.24	996.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 4/13/2011 15:04:02 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**978.93**	**990.1**	**976.53**	**984.57**	**988.18**	**1000.3**
Stddev	4.45	.6	2.35	6.58	3.39	2.0
%RSD	.45437	.0610	.24023	.66870	.34294	.19640
#1	978.57	989.7	974.21	980.33	984.27	999.55
#2	974.67	990.8	976.47	981.23	990.33	998.76
#3	983.54	989.8	978.90	992.15	989.94	1002.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1647.4	728180.	104320.
Stddev	6.9	1865.	89.
%RSD	.41879	.25607	.08522
#1	1648.5	730300.	104420.
#2	1653.7	727490.	104300.
#3	1640.1	726770.	104240.

Sample Name: SEQ-CCB Acquired: 4/13/2011 15:11:40 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.15943**	**11.463**	**1.2116**	**-1.1130**	**-2.1982**	**1.2715**	**.00949**	**.03379**
Stddev	.16517	.963	.2357	.4620	3.6129	.1309	.07385	.00895
%RSD	103.60	8.4012	19.454	41.511	164.36	10.294	777.87	26.478
#1	.04556	11.921	1.4832	-1.5840	-.02823	1.1343	.09373	.02352
#2	.34886	10.356	1.0604	-.66059	-6.3688	1.3950	-.02116	.03801
#3	.08386	12.111	1.0912	-1.0943	-.19751	1.2853	-.04409	.03985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.01417**	**.05887**	**.03813**	**.08997**	**.5207**	**.61623**	**6.7705**	**.00035**
Stddev	.00314	.04438	.09630	.05099	.0534	.20687	1.1073	.00815
%RSD	22.179	75.391	252.57	56.672	10.25	33.570	16.355	2362.8
#1	.01060	.10378	.06137	.11948	.4756	.46230	6.8323	-.00135
#2	.01653	.05780	-.06767	.03109	.5069	.85138	7.8455	.00921
#3	.01536	.01503	.12067	.11934	.5796	.53501	5.6335	-.00683
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.01756**	**.13754**	**.54170**	**.00533**	**-.40289**	**.48383**	**.18067**	**.37517**
Stddev	.00308	.04321	.11192	.00333	.05858	.51789	.91672	.98428
%RSD	17.541	31.417	20.660	62.366	14.540	107.04	507.40	262.36
#1	.01723	.09367	.66384	.00212	-.41631	1.0483	-.33347	.83456
#2	.02079	.13889	.51717	.00876	-.45359	.37274	1.2391	1.0458
#3	.01466	.18006	.44408	.00512	-.33876	.03049	-.36358	-.75482
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/13/2011 15:11:40 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.27573**	**-.0048**	**.08332**	**.95382**	**.02100**	**.03550**
Stddev	.05280	.0171	.25316	.26959	.12361	.05823
%RSD	19.148	354.4	303.84	28.264	588.72	164.00
#1	.27213	-.0193	.37230	.66007	-.12136	.06097
#2	.22483	.0140	-.02303	1.0115	.08320	.07666
#3	.33024	-.0092	-.09931	1.1899	.10115	-.03112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1897.8	779150.	107530.
Stddev	11.4	2165.	164.
%RSD	.59947	.27788	.15292
#1	1901.2	781210.	107600.
#2	1907.0	779340.	107650.
#3	1885.1	776890.	107340.

Sample Name: SEQ-CCV Acquired: 4/13/2011 16:35:41 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**479.41**	**9906.7**	**1005.8**	**1033.1**	**993.78**	**1002.4**	**1021.2**	**1055.8**
Stddev	1.64	13.1	6.3	5.8	4.56	5.8	6.8	3.5
%RSD	.34156	.13273	.62310	.56354	.45858	.58176	.67012	.33034
#1	480.33	9921.5	999.98	1029.8	992.51	1005.1	1014.8	1051.9
#2	480.39	9902.0	1005.0	1029.6	989.98	1006.4	1020.5	1058.7
#3	477.52	9896.4	1012.4	1039.8	998.83	995.70	1028.4	1056.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**49.880**	**1079.4**	**1005.0**	**995.25**	**997.3**	**1040.5**	**10500.**	**9.7374**
Stddev	.138	4.0	5.7	6.66	3.2	5.6	38.	.0357
%RSD	.27634	.36957	.56685	.66887	.3181	.54110	.36092	.36684
#1	49.808	1075.9	999.68	998.09	998.5	1044.7	10478.	9.7446
#2	50.039	1078.6	1004.3	1000.0	999.7	1042.7	10543.	9.6986
#3	49.793	1083.8	1011.0	987.64	993.7	1034.1	10477.	9.7689
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**48.356**	**1050.4**	**997.36**	**52.453**	**982.11**	**989.77**	**1033.7**	**1015.0**
Stddev	.118	6.6	7.94	.126	6.61	7.13	6.6	9.2
%RSD	.24310	.63206	.79654	.24075	.67286	.72039	.63455	.90365
#1	48.229	1052.8	990.21	52.435	976.45	984.02	1026.7	1006.5
#2	48.461	1055.6	995.95	52.337	980.50	987.55	1034.7	1013.8
#3	48.378	1042.9	1005.9	52.588	989.37	997.75	1039.6	1024.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 4/13/2011 16:35:41 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**997.35**	**1013.**	**989.23**	**981.65**	**996.01**	**1010.4**
Stddev	7.79	2.	2.82	5.69	5.88	5.9
%RSD	.78073	.2405	.28514	.57962	.59042	.58639
#1	989.28	1010.	986.51	976.54	996.94	1005.0
#2	997.96	1014.	992.14	980.64	1001.4	1009.4
#3	1004.8	1015.	989.04	987.78	989.72	1016.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1589.5	719510.	103660.
Stddev	8.5	3936.	386.
%RSD	.53314	.54697	.37215
#1	1597.4	717220.	104000.
#2	1590.4	717270.	103240.
#3	1580.5	724060.	103750.

Sample Name: SEQ-CCB Acquired: 4/13/2011 16:42:57 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.18426**	**13.672**	**1.1064**	**-.24417**	**.04495**	**.73776**	**-.01005**	**.06841**
Stddev	.19766	3.019	.3726	.93657	1.7942	.17457	.01559	.02044
%RSD	107.28	22.079	33.677	383.57	3991.3	23.662	155.15	29.880
#1	.07563	12.032	1.3259	.57619	-1.7914	.55768	.00013	.05315
#2	.41241	11.828	.67619	-1.2646	.13259	.90624	-.02799	.06045
#3	.06473	17.156	1.3172	-.04409	1.7937	.74936	-.00227	.09164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.01041**	**-.00452**	**.04547**	**.26931**	**.8814**	**.31173**	**29.056**	**-.00728**
Stddev	.00382	.00976	.11916	.23578	.4824	.15326	9.468	.01461
%RSD	36.718	215.78	262.06	87.548	54.73	49.164	32.586	200.74
#1	.00672	-.00652	.16051	.53589	.5216	.32707	20.331	-.00173
#2	.01015	-.01313	-.07742	.08813	.6930	.15137	27.713	-.02384
#3	.01435	.00608	.05333	.18393	1.430	.45673	39.124	.00375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.00372**	**.46588**	**.58828**	**.01071**	**-.25060**	**-.11813**	**-.16139**	**-.03416**
Stddev	.00448	.08741	.20027	.00426	.16899	.28056	1.0213	.63958
%RSD	120.50	18.763	34.043	39.818	67.433	237.51	632.85	1872.5
#1	-.00144	.55626	.71560	.00662	-.24213	-.44208	.98464	-.27985
#2	.00593	.45961	.35744	.01037	-.42366	.04270	-.97546	.69184
#3	.00666	.38178	.69181	.01513	-.08600	.04501	-.49334	-.51446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/13/2011 16:42:57 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.02999**	**.0210**	**.08576**	**.47455**	**.12931**	**-.01810**
Stddev	.15237	.0032	.14463	.38052	.15166	.03165
%RSD	507.98	15.37	168.65	80.185	117.28	174.86
#1	-.14595	.0175	-.07562	.74450	.29508	.01487
#2	.11764	.0219	.20368	.03934	.09533	-.02094
#3	.11829	.0237	.12921	.63981	-.00247	-.04824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1820.3	769260.	107520.
Stddev	6.2	2379.	137.
%RSD	.33992	.30926	.12725
#1	1820.1	770050.	107380.
#2	1826.6	766580.	107520.
#3	1814.3	771140.	107650.

Sample Name: 1D11002-BLK1 Acquired: 4/13/2011 16:47:33 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS041111A 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.02029**	**22.901**	**.68860**	**.42883**	**-2.9860**	**-1.3600**	**.17990**
Stddev	.17855	2.790	.92335	.56897	3.0379	.4244	.07798
%RSD	879.89	12.182	134.09	132.68	101.74	31.206	43.347
#1	-.10688	19.979	-.13813	-.22816	.33743	-1.4676	.09358
#2	.18505	25.537	1.6850	.75780	-5.6199	-.89218	.24525
#3	-.13904	23.188	.51889	.75686	-3.6755	-1.7203	.20086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.01343**	**.03790**	**.13427**	**.02175**	**.52014**	**.5595**	**.40420**
Stddev	.01365	.00225	.02724	.12168	.12555	.4103	.04164
%RSD	101.61	5.9234	20.289	559.39	24.137	73.32	10.302
#1	-.00031	.03561	.16523	.16080	.38560	.5603	.37213
#2	.02698	.03801	.12362	-.03035	.63416	.9694	.45126
#3	.01363	.04009	.11396	-.06520	.54067	.1489	.38921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**8.8190**	**.01525**	**.00832**	**.28440**	**.36458**	**.00853**	**.01944**
Stddev	3.0452	.01915	.00616	.04261	.04291	.00227	.16373
%RSD	34.530	125.59	73.943	14.984	11.770	26.637	842.27
#1	6.0494	.03220	.00208	.25279	.38373	.00591	.02139
#2	8.3277	.01907	.00850	.26754	.39458	.00981	.18219
#3	12.080	-.00552	.01439	.33286	.31543	.00988	-.14526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1D11002-BLK1 Acquired: 4/13/2011 16:47:33 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS041111A 1g->200ml

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.83257**	**-.17909**	**.49211**	F **12.148**	**.1163**	**.86973**	**-.64453**
Stddev	1.0187	.72033	1.1202	.323	.0394	.10437	.45190
%RSD	122.35	402.22	227.63	2.6566	33.87	12.001	70.114
#1	1.3943	-.22025	-.63934	12.399	.1528	.81965	-.72555
#2	-.34330	-.87795	.51499	11.784	.0746	.98971	-1.0504
#3	1.4467	.56094	1.6007	12.260	.1216	.79983	-.15759
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				10.000			
Low Limit				-10.000			

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**-.00002**	**.22180**
Stddev	.15518	.03544
%RSD	825310.	15.979
#1	.17765	.18199
#2	-.10900	.23349
#3	-.06870	.24992
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1745.1	777980.	109110.
Stddev	20.1	2544.	320.
%RSD	1.1516	.32701	.29297
#1	1724.7	779490.	108870.
#2	1764.9	775040.	108990.
#3	1745.9	779400.	109480.

Sample Name: 1D11002-BS1 Acquired: 4/13/2011 16:52:10 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS041111A 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**238.72**	**2020.1**	**237.10**	**241.87**	**231.68**	**908.13**	**2024.5**	**50.216**
Stddev	1.62	24.1	1.18	1.71	1.59	8.10	13.6	.750
%RSD	.67668	1.1953	.49592	.70729	.68704	.89226	.67155	1.4939
#1	237.10	1998.0	237.05	242.40	230.70	899.06	2018.0	49.437
#2	238.73	2045.9	235.95	239.95	230.83	910.69	2015.3	50.934
#3	240.34	2016.5	238.30	243.25	233.52	914.65	2040.1	50.278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**4.9764**	**128.58**	**490.26**	**190.16**	**239.3**	**247.40**	**1082.2**	**4.8737**
Stddev	.0626	.69	3.00	1.76	2.3	1.90	16.5	.0526
%RSD	1.2573	.53723	.61170	.92814	.9610	.76735	1.5222	1.0788
#1	4.9071	128.12	488.53	188.17	237.4	245.27	1063.2	4.8195
#2	5.0286	128.26	488.53	190.80	238.7	248.03	1092.3	4.9245
#3	4.9934	129.38	493.72	191.52	241.9	248.91	1091.2	4.8769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**4.5282**	**522.79**	**985.93**	**5.0686**	**493.23**	**243.98**	**240.29**	**227.49**
Stddev	.0617	4.54	6.78	.0684	2.78	.92	1.18	1.14
%RSD	1.3635	.86876	.68772	1.3489	.56310	.37821	.48949	.50288
#1	4.4669	517.72	983.41	5.0079	492.06	243.69	239.75	228.64
#2	4.5904	524.16	980.77	5.1427	491.24	243.24	239.48	226.35
#3	4.5273	526.48	993.61	5.0552	496.41	245.02	241.64	227.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: 1D11002-BS1 Acquired: 4/13/2011 16:52:10 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS041111A 1g->200ml

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**989.63**	**994.8**	**975.85**	**236.42**	**477.50**	**494.43**
Stddev	5.95	14.9	14.49	1.25	3.43	1.79
%RSD	.60105	1.498	1.4853	.52665	.71886	.36163
#1	988.03	979.6	961.00	236.33	473.54	494.46
#2	984.65	1009.	989.95	235.22	479.22	492.63
#3	996.22	995.5	976.61	237.71	479.72	496.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1719.2	781360.	108840.
Stddev	9.0	5695.	1483.
%RSD	.52282	.72884	1.3627
#1	1724.9	787550.	110480.
#2	1723.9	780180.	107590.
#3	1708.9	776340.	108450.

Sample Name: 1104087-01 Acquired: 4/13/2011 17:07:36 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.3673**	**113950.**	**41.887**	**44.093**	**41.236**	**5.5823**	**129.73**
Stddev	.0395	186.	1.259	.885	6.870	1.0585	.47
%RSD	2.8857	.16307	3.0054	2.0066	16.661	18.962	.36130
#1	-1.3557	114110.	42.093	43.955	38.642	6.3548	129.38
#2	-1.3350	113750.	40.537	43.285	36.041	4.3757	129.55
#3	-1.4113	114000.	43.029	45.038	49.026	6.0164	130.26

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.8270**	**5.9552**	**-.36985**	**40.555**	**152.51**	**158.7**	**171.27**
Stddev	.0168	.0253	.22657	.060	.43	.6	.89
%RSD	.59296	.42401	61.260	.14773	.28202	.3578	.51803
#1	2.8222	5.9263	-.47251	40.509	152.87	159.2	171.74
#2	2.8132	5.9730	-.11012	40.623	152.63	158.9	171.83
#3	2.8457	5.9664	-.52693	40.534	152.03	158.1	170.25

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**151330.**	**1.8131**	**4.7899**	**822.79**	**4.1125**	**.06204**	**61.641**
Stddev	1661.	.0104	.0267	2.37	.0796	.00187	.399
%RSD	1.0977	.57431	.55826	.28768	1.9362	3.0121	.64651
#1	152060.	1.8106	4.7690	823.91	4.1156	.06129	61.223
#2	149430.	1.8041	4.7806	824.39	4.0314	.06417	61.685
#3	152500.	1.8245	4.8200	820.07	4.1905	.06067	62.016

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**94.486**	**-.28661**	**1.3573**	**12.813**	**16.18**	**861.47**	F **-4.9780**
Stddev	1.292	.10308	1.3227	.174	.06	3.44	.3122
%RSD	1.3671	35.964	97.449	1.3620	.3458	.39945	6.2719
#1	93.049	-.17289	2.7509	12.662	16.16	859.92	-5.2222
#2	95.551	-.37390	1.2020	13.004	16.14	859.07	-5.0856
#3	94.859	-.31305	.11916	12.771	16.25	865.41	-4.6262

Sample Name: 1104087-01 Acquired: 4/13/2011 17:07:36 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**267.87**	**181.56**
Stddev	.63	1.00
%RSD	.23558	.55306
#1	268.29	181.34
#2	268.17	180.68
#3	267.14	182.65

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1652.9	783140.	110650.
Stddev	7.7	2620.	469.
%RSD	.46718	.33451	.42369
#1	1660.7	781320.	111110.
#2	1652.7	781970.	110680.
#3	1645.3	786150.	110170.

Sample Name: 1104087-02 Acquired: 4/13/2011 17:12:08 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F -1.2656	109020.	48.665	48.327	48.302	4.4567	135.04
Stddev	.1359	557.	.332	.937	2.448	2.2144	.80
%RSD	10.735	.51060	.68300	1.9397	5.0673	49.687	.59457
#1	-1.3459	109650.	48.310	47.561	48.073	6.6027	134.56
#2	-1.3422	108830.	48.718	49.372	50.855	4.5877	134.60
#3	-1.1087	108590.	48.968	48.048	45.976	2.1797	135.97

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	3.6494	4.1539	.03622	64.257	118.27	167.7	182.90
Stddev	.0133	.0191	.30690	.435	1.34	1.6	2.31
%RSD	.36379	.46069	847.28	.67669	1.1289	.9265	1.2621
#1	3.6643	4.1697	-.29326	63.892	116.73	166.0	180.71
#2	3.6452	4.1594	.08797	64.142	118.92	168.2	182.69
#3	3.6388	4.1326	.31396	64.738	119.16	169.0	185.31

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	154500.	1.7877	3.1306	1163.6	4.5159	.04822	73.675
Stddev	2405.	.0094	.0229	14.3	.0663	.00396	.751
%RSD	1.5566	.52681	.73094	1.2303	1.4672	8.2036	1.0193
#1	157130.	1.7970	3.1458	1148.3	4.4619	.04456	72.984
#2	153940.	1.7879	3.1418	1166.1	4.5898	.04768	73.566
#3	152420.	1.7782	3.1043	1176.6	4.4961	.05241	74.474

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	155.91	-.14503	.03543	12.585	34.00	756.96	F -4.6967
Stddev	1.53	1.1743	1.2351	.257	.23	4.44	.2754
%RSD	.98013	809.72	3485.8	2.0390	.6744	.58624	5.8632
#1	154.86	1.2092	-1.3881	12.538	34.22	761.65	-4.8589
#2	155.20	-.76117	.82195	12.861	34.02	756.41	-4.3787
#3	157.66	-.88307	.67245	12.354	33.76	752.83	-4.8524

Sample Name: 1104087-02 Acquired: 4/13/2011 17:12:08 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**238.13**	**215.90**	
Stddev	2.66	.73	
%RSD	1.1187	.33707	
#1	235.15	216.73	
#2	238.95	215.35	
#3	240.28	215.64	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1643.2	797390.	111060.
Stddev	5.2	9094.	756.
%RSD	.31829	1.1405	.68044
#1	1646.1	807290.	110690.
#2	1646.4	795470.	110570.
#3	1637.2	789400.	111930.

Sample Name: 1104087-03 Acquired: 4/13/2011 17:16:42 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.57146**	**79831.**	**46.287**	**48.302**	**41.263**	**4.7922**	**289.14**
Stddev	.26074	211.	1.187	3.552	.994	.6553	5.71
%RSD	45.628	.26399	2.5633	7.3530	2.4094	13.675	1.9744
#1	-.47746	79589.	46.271	52.281	40.125	4.4946	295.06
#2	-.86616	79971.	47.482	47.172	41.706	5.5435	283.66
#3	-.37074	79934.	45.109	45.453	41.959	4.3385	288.69

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.4476**	**3.4270**	**-.04797**	**64.222**	**142.79**	**585.9**	**636.33**
Stddev	.0221	.0043	.29221	1.253	.78	2.1	4.49
%RSD	.63978	.12413	609.19	1.9508	.54663	.3539	.70601
#1	3.4412	3.4275	.28945	65.441	142.55	586.1	636.24
#2	3.4721	3.4309	-.21825	62.938	142.16	583.7	631.89
#3	3.4294	3.4224	-.21510	64.288	143.66	587.9	640.87

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**149330.**	**2.2250**	**5.3576**	**1445.5**	**4.8151**	**.06881**	**59.990**
Stddev	331.	.0104	.0160	7.3	.0607	.00181	1.164
%RSD	.22147	.46601	.29898	.50763	1.2600	2.6289	1.9408
#1	149130.	2.2282	5.3504	1441.3	4.8596	.07065	61.200
#2	149710.	2.2134	5.3760	1441.2	4.7460	.06874	58.877
#3	149140.	2.2334	5.3466	1454.0	4.8396	.06703	59.894

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**124.73**	**.62970**	**.43057**	**14.099**	**16.65**	**1273.7**	**-2.6370**
Stddev	3.76	.48150	.67053	.168	.03	2.0	.2739
%RSD	3.0152	76.464	155.73	1.1916	.1707	.15337	10.385
#1	128.26	.25556	-.24664	14.006	16.64	1272.2	-2.6249
#2	120.77	.46061	.44415	14.293	16.68	1275.9	-2.9167
#3	125.15	1.1729	1.0942	13.998	16.62	1273.0	-2.3694

Sample Name: 1104087-03 Acquired: 4/13/2011 17:16:42 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**259.29**	**293.12**
Stddev	1.90	5.14
%RSD	.73449	1.7548
#1	258.32	298.27
#2	258.08	287.98
#3	261.49	293.11

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1610.0	764460.	108530.
Stddev	25.7	4669.	235.
%RSD	1.5990	.61071	.21686
#1	1583.8	766390.	108740.
#2	1635.3	767860.	108280.
#3	1610.9	759140.	108580.

Sample Name: 1104087-04 Acquired: 4/13/2011 17:21:09 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.63807**	**93778.**	**32.612**	**36.632**	**29.166**	**2.8948**	**233.94**
Stddev	.10380	53.	.463	2.981	3.250	.7697	.36
%RSD	16.268	.05654	1.4208	8.1372	11.142	26.590	.15177
#1	-.75720	93839.	32.097	39.671	25.816	2.0163	233.58
#2	-.56703	93741.	32.745	33.713	32.306	3.4510	234.29
#3	-.58998	93755.	32.994	36.512	29.376	3.2170	233.96

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.2600**	**3.7439**	**-.32716**	**9.2459**	**150.12**	**240.1**	**259.55**
Stddev	.0184	.0105	.03459	.0796	.39	1.5	1.45
%RSD	.81463	.28012	10.574	.86102	.25646	.6353	.55820
#1	2.2401	3.7332	-.31427	9.2595	150.26	241.6	261.12
#2	2.2634	3.7441	-.30087	9.1603	149.69	238.5	258.27
#3	2.2765	3.7542	-.36635	9.3178	150.42	240.3	259.25

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**156840.**	**1.7916**	**4.1450**	**212.56**	**4.5946**	**.06585**	**40.410**
Stddev	725.	.0231	.0219	.32	.1065	.00360	.388
%RSD	.46207	1.2882	.52792	.15097	2.3183	5.4694	.96098
#1	156040.	1.8154	4.1204	212.49	4.6915	.06430	40.195
#2	157020.	1.7694	4.1524	212.28	4.4806	.06329	40.858
#3	157460.	1.7901	4.1622	212.91	4.6118	.06997	40.177

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**70.765**	**1.7612**	**-.20516**	**14.675**	**15.84**	**848.82**	**-1.6091**
Stddev	1.326	.6717	1.1302	.317	.10	1.74	.2675
%RSD	1.8739	38.142	550.87	2.1608	.6347	.20478	16.624
#1	69.381	2.4555	-1.4992	14.309	15.73	847.08	-1.9175
#2	72.024	1.7135	.58794	14.875	15.85	850.55	-1.4408
#3	70.892	1.1145	.29580	14.840	15.94	848.83	-1.4688

Sample Name: 1104087-04 Acquired: 4/13/2011 17:21:09 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**269.88**	**126.42**
Stddev	.70	.28
%RSD	.25911	.22026
#1	269.77	126.10
#2	269.24	126.55
#3	270.63	126.61

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1626.3	767960.	108510.
Stddev	2.8	871.	535.
%RSD	.17236	.11339	.49306
#1	1629.5	768280.	109120.
#2	1624.5	768620.	108230.
#3	1624.7	766970.	108160.

Sample Name: 1104087-05 Acquired: 4/13/2011 17:25:44 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.42264**	**85090.**	**39.338**	**41.570**	**32.699**	**2.1061**	**394.05**
Stddev	.14213	113.	1.095	1.463	.677	.6773	.49
%RSD	33.628	.13334	2.7837	3.5192	2.0702	32.160	.12560
#1	-.26942	84995.	38.117	40.499	33.413	1.3612	394.18
#2	-.55016	85060.	39.665	40.974	32.066	2.6850	393.51
#3	-.44835	85216.	40.232	43.236	32.618	2.2722	394.47

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.1665**	**5.6071**	**.37029**	**12.724**	**148.28**	**1104.**	**1194.3**
Stddev	.0071	.0079	.04815	.145	1.04	6.	7.0
%RSD	.22558	.14115	13.003	1.1425	.69919	.5038	.58557
#1	3.1660	5.5989	.39775	12.695	149.46	1108.	1201.6
#2	3.1739	5.6077	.31470	12.595	147.50	1098.	1187.6
#3	3.1596	5.6147	.39843	12.881	147.90	1107.	1193.8

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**157780.**	**2.4083**	**5.1538**	**389.25**	**4.7223**	**.04484**	**53.670**
Stddev	1228.	.0099	.0180	2.02	.1625	.00010	.323
%RSD	.77807	.41017	.34824	.51790	3.4413	.23264	.60262
#1	156610.	2.4059	5.1344	390.73	4.5594	.04481	53.532
#2	157670.	2.3999	5.1699	386.95	4.7231	.04495	53.439
#3	159060.	2.4192	5.1570	390.06	4.8844	.04475	54.040

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**106.46**	**.46762**	**1.5397**	**13.326**	**31.10**	**800.70**	**-.54573**
Stddev	.73	.72067	.9126	.200	.12	2.71	.87504
%RSD	.68725	154.11	59.269	1.5038	.3853	.33889	160.34
#1	105.70	.66325	.72687	13.556	31.04	797.80	-1.4936
#2	106.52	-.33067	1.3654	13.229	31.03	801.11	-.37478
#3	107.16	1.0703	2.5269	13.193	31.24	803.18	.23121

Sample Name: 1104087-05 Acquired: 4/13/2011 17:25:44 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**271.91**	**525.58**
Stddev	1.44	2.05
%RSD	.52848	.39006
#1	273.35	524.00
#2	270.47	524.84
#3	271.90	527.90

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1650.4	776610.	110010.
Stddev	2.3	3483.	444.
%RSD	.14161	.44852	.40317
#1	1652.1	774060.	110410.
#2	1651.3	780580.	110090.
#3	1647.7	775200.	109540.

Sample Name: 1104087-06 Acquired: 4/13/2011 17:30:19 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.62796**	**99860.**	**27.277**	**28.136**	**24.799**	**-.09613**	**96.736**
Stddev	.30848	186.	1.934	1.345	2.637	.90809	.396
%RSD	49.124	.18643	7.0896	4.7802	10.635	944.60	.40934
#1	-.90719	99938.	28.561	28.385	22.530	-1.1190	96.352
#2	-.29682	99648.	28.217	26.684	27.693	.61505	96.711
#3	-.67988	99995.	25.053	29.339	24.176	.21558	97.143

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1.9911**	**6.4554**	**-.15555**	**5.4270**	**130.44**	**82.20**	**87.189**
Stddev	.0124	.0301	.17555	.0652	.30	.44	.275
%RSD	.62264	.46676	112.86	1.2017	.23287	.5330	.31499
#1	1.9830	6.4232	-.08327	5.3985	130.76	82.60	87.368
#2	2.0053	6.4830	-.35569	5.5016	130.40	82.26	87.327
#3	1.9849	6.4599	-.02768	5.3809	130.15	81.73	86.873

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**152480.**	**1.5045**	**1.9977**	**125.91**	**4.4283**	**.03797**	**34.192**
Stddev	1154.	.0093	.0033	.09	.1785	.00105	.157
%RSD	.75668	.61845	.16372	.07070	4.0298	2.7549	.46013
#1	151480.	1.5104	1.9940	125.81	4.2400	.03741	34.257
#2	153740.	1.4938	2.0002	125.97	4.5949	.03733	34.012
#3	152230.	1.5094	1.9988	125.96	4.4499	.03918	34.305

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**55.466**	**1.5577**	**2.2509**	**13.377**	**32.60**	**898.27**	**-.20059**
Stddev	.649	.5835	.7953	.180	.13	2.88	.57652
%RSD	1.1701	37.455	35.331	1.3421	.3990	.32053	287.42
#1	54.758	1.9172	1.9930	13.576	32.45	895.06	-.84756
#2	56.031	.88454	3.1432	13.325	32.70	900.62	.25873
#3	55.610	1.8715	1.6166	13.228	32.64	899.12	-.01293

Sample Name: 1104087-06 Acquired: 4/13/2011 17:30:19 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**287.23**	**111.15**
Stddev	.61	.58
%RSD	.21294	.52149
#1	287.45	110.63
#2	287.70	111.03
#3	286.53	111.78

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1650.0	779930.	110070.
Stddev	5.8	716.	261.
%RSD	.35291	.09179	.23699
#1	1652.4	780730.	110360.
#2	1654.2	779720.	109840.
#3	1643.3	779340.	110010.

Sample Name: 1104087-07 Acquired: 4/13/2011 17:34:54 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.92700**	**85246.**	**37.704**	**35.189**	**31.450**	**3.4978**	**242.58**
Stddev	.05500	23.	.839	2.270	4.759	.2084	1.67
%RSD	5.9328	.02663	2.2244	6.4509	15.133	5.9571	.68753
#1	-.92541	85226.	36.823	36.369	25.956	3.5357	241.89
#2	-.98278	85270.	38.493	32.572	34.080	3.6846	241.37
#3	-.87282	85241.	37.795	36.626	34.313	3.2731	244.49

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.5835**	**3.9796**	**-.28618**	**29.469**	**131.39**	**302.0**	**323.94**
Stddev	.0270	.0148	.08065	.078	.74	2.6	1.62
%RSD	1.0442	.37156	28.181	.26392	.56219	.8647	.50094
#1	2.6001	3.9829	-.35747	29.386	131.77	304.4	325.79
#2	2.5524	3.9634	-.30242	29.482	130.54	299.3	322.76
#3	2.5980	3.9924	-.19865	29.540	131.86	302.3	323.26

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**140880.**	**2.8060**	**4.4005**	**1109.6**	**4.4934**	**.04444**	**45.911**
Stddev	456.	.0119	.0259	6.1	.0283	.00266	.187
%RSD	.32399	.42409	.58940	.55186	.62962	5.9898	.40779
#1	140680.	2.7969	4.4109	1114.1	4.5089	.04619	45.739
#2	140560.	2.8017	4.3709	1102.6	4.5105	.04575	45.883
#3	141410.	2.8195	4.4196	1112.0	4.4607	.04138	46.111

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**99.342**	**-.15369**	**.46043**	**12.736**	**32.65**	**741.49**	**-2.3904**
Stddev	.310	.83448	.23786	.267	.19	1.34	.8385
%RSD	.31216	542.96	51.662	2.0933	.5969	.18029	35.077
#1	98.984	-.12789	.41214	13.037	32.43	739.96	-2.7674
#2	99.525	.66759	.71873	12.645	32.74	742.08	-2.9741
#3	99.517	-1.0008	.25041	12.527	32.79	742.44	-1.4296

Sample Name: 1104087-07 Acquired: 4/13/2011 17:34:54 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**247.46**	**179.70**
Stddev	1.19	.59
%RSD	.48087	.32667
#1	248.25	179.24
#2	246.09	179.50
#3	248.03	180.36

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1650.2	778050.	110060.
Stddev	9.7	4416.	393.
%RSD	.59023	.56756	.35707
#1	1656.9	774170.	109980.
#2	1654.6	782850.	110490.
#3	1639.0	777110.	109710.

Sample Name: 1104087-08 Acquired: 4/13/2011 17:39:19 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.5489**	**125880.**	**64.654**	**54.346**	**50.768**	**1.6833**	**195.52**
Stddev	.0340	144.	.816	.819	2.712	.8586	1.27
%RSD	2.1929	.11438	1.2619	1.5074	5.3416	51.007	.64812
#1	-1.5252	125800.	63.772	53.560	53.121	2.4741	194.63
#2	-1.5336	125810.	64.809	55.195	51.381	1.8058	194.97
#3	-1.5878	126050.	65.381	54.284	47.802	.77005	196.97

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**5.2971**	**6.3613**	**.22498**	**52.615**	**186.29**	**287.0**	**313.47**
Stddev	.0236	.0225	.13781	.367	1.42	2.2	1.84
%RSD	.44492	.35290	61.256	.69669	.75976	.7531	.58754
#1	5.3002	6.3380	.06657	52.211	186.05	286.5	313.82
#2	5.2721	6.3828	.29109	52.707	185.00	285.1	311.48
#3	5.3189	6.3632	.31728	52.926	187.80	289.3	315.11

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**206300.**	**2.6711**	**5.2991**	**768.90**	**6.7612**	**.04626**	**92.585**
Stddev	1181.	.0074	.0235	5.32	.0703	.00145	.679
%RSD	.57261	.27711	.44336	.69253	1.0390	3.1267	.73306
#1	207540.	2.6658	5.2773	768.06	6.6873	.04553	92.137
#2	205190.	2.6681	5.3240	764.05	6.8271	.04533	92.251
#3	206160.	2.6796	5.2960	774.60	6.7693	.04793	93.366

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**169.34**	**1.0514**	**-1.8472**	**13.433**	**26.49**	**993.78**	F **-5.4232**
Stddev	.95	.7064	1.6776	.341	.13	2.57	.6322
%RSD	.55870	67.187	90.816	2.5415	.4958	.25901	11.657
#1	169.78	.38965	-.74782	13.739	26.62	993.73	-5.3300
#2	170.00	1.7952	-1.0157	13.495	26.36	991.23	-4.8429
#3	168.26	.96924	-3.7781	13.064	26.48	996.38	-6.0969

Sample Name: 1104087-08 Acquired: 4/13/2011 17:39:19 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**333.04**	**359.68**
Stddev	2.72	2.28
%RSD	.81696	.63335
#1	332.33	358.66
#2	330.75	358.09
#3	336.05	362.29

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1632.8	780120.	111490.
Stddev	6.8	4583.	450.
%RSD	.41610	.58746	.40373
#1	1638.9	781000.	111430.
#2	1634.1	784190.	111070.
#3	1625.5	775150.	111960.

Sample Name: SEQ-CCV Acquired: 4/13/2011 17:44:50 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**481.42**	**9878.7**	**1006.1**	**1022.8**	**993.37**	**990.53**	**1009.2**	**1028.6**
Stddev	3.99	21.0	6.9	3.5	10.23	11.87	5.3	7.1
%RSD	.82977	.21253	.68936	.33831	1.0303	1.1979	.52788	.68871
#1	476.82	9901.2	1006.2	1023.6	987.59	976.83	1007.9	1036.7
#2	483.97	9875.3	999.16	1019.0	987.34	997.52	1004.6	1025.0
#3	483.49	9859.6	1013.0	1025.7	1005.2	997.24	1015.0	1024.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**49.179**	**1059.1**	**992.12**	**964.47**	**981.5**	**1024.2**	**10205.**	**9.7783**
Stddev	.283	5.1	5.84	11.49	9.9	8.1	91.	.0403
%RSD	.57633	.48087	.58877	1.1918	1.004	.79559	.89220	.41215
#1	49.506	1056.4	990.01	951.73	970.2	1015.0	10298.	9.7369
#2	49.029	1055.9	987.64	967.61	985.7	1027.5	10203.	9.8175
#3	49.002	1065.0	998.73	974.07	988.5	1030.2	10116.	9.7806
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**47.401**	**1034.0**	**993.56**	**51.994**	**973.87**	**977.57**	**1021.1**	**1003.7**
Stddev	.358	11.0	7.20	.164	5.30	4.37	5.9	4.0
%RSD	.75454	1.0617	.72500	.31456	.54402	.44746	.57432	.39482
#1	47.808	1021.4	990.44	51.897	973.21	976.60	1017.4	1005.1
#2	47.137	1039.5	988.45	52.183	968.94	973.76	1018.0	999.28
#3	47.259	1041.1	1001.8	51.902	979.47	982.35	1027.9	1006.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 4/13/2011 17:44:50 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**985.83**	**993.0**	**971.83**	**978.82**	**972.88**	**999.38**
Stddev	5.18	4.4	5.81	3.47	11.61	5.08
%RSD	.52529	.4449	.59774	.35475	1.1928	.50802
#1	984.12	997.1	978.44	980.74	959.76	997.03
#2	981.72	993.7	969.47	974.81	977.09	995.91
#3	991.65	988.3	967.56	980.91	981.80	1005.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1605.4	732220.	105520.
Stddev	8.6	7294.	645.
%RSD	.53636	.99614	.61098
#1	1607.2	740640.	104800.
#2	1612.9	727890.	106040.
#3	1596.0	728140.	105720.

Sample Name: SEQ-CCB Acquired: 4/13/2011 17:52:04 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.04966**	**39.403**	**1.0904**	**-.29487**	**-1.7067**	1.0041	**.09308**
Stddev	.06384	16.243	1.1213	1.3998	2.4241	.2885	.07558
%RSD	128.56	41.223	102.83	474.70	142.03	28.735	81.197
#1	.02179	57.317	1.9408	-1.7726	.60931	1.1972	.18035
#2	-.10109	35.261	-.18036	1.0110	-1.5034	1.1425	.04925
#3	-.06968	25.633	1.5108	-.12302	-4.2260	.67241	.04964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.24085**	**.01397**	**.05600**	**-.03644**	**.15840**	**.3779**	**.16441**
Stddev	.07667	.00372	.05960	.05694	.04350	.3184	.17607
%RSD	31.833	26.662	106.44	156.25	27.460	84.25	107.09
#1	.32430	.01823	.10197	-.00976	.20861	.6984	.23528
#2	.22472	.01228	-.01134	-.10182	.13442	.0616	.29401
#3	.17352	.01138	.07736	.00225	.13217	.3737	-.03605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	F **59.945**	**.01767**	**.01920**	**.29242**	**.66053**	**.01895**	**.15527**
Stddev	13.454	.00899	.00240	.03740	.15469	.00590	.19736
%RSD	22.445	50.891	12.480	12.789	23.419	31.148	127.11
#1	73.779	.02729	.02002	.32698	.83661	.02516	.37581
#2	59.151	.01625	.02108	.25272	.59846	.01341	-.00474
#3	46.905	.00947	.01650	.29757	.54651	.01827	.09476
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	30.000						
Low Limit	-30.000						

Sample Name: SEQ-CCB Acquired: 4/13/2011 17:52:04 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.21207**	**-.67221**	**-.45667**	**.44775**	**.2352**	**.69530**	**.63504**
Stddev	.80998	.59492	.33718	.46614	.0997	.25181	.50472
%RSD	381.94	88.503	73.833	104.11	42.39	36.216	79.479
#1	-.68852	-.34022	-.41220	.77786	.3286	.86489	1.1705
#2	.44380	-1.3590	-.14394	-.08549	.2467	.81506	.16811
#3	.88093	-.31736	-.81388	.65089	.1302	.40596	.56647
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**.03849**	**.04420**
Stddev	.10831	.09108
%RSD	281.38	206.06
#1	-.07702	.14760
#2	.13776	.00915
#3	.05474	-.02415
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1791.6	764400.	107570.
Stddev	7.6	4729.	216.
%RSD	.42412	.61872	.20048
#1	1796.4	759100.	107790.
#2	1795.4	765900.	107560.
#3	1782.8	768190.	107360.

Sample Name: 1104087-09 Acquired: 4/13/2011 17:56:41 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.3001**	**93925.**	**49.366**	**44.199**	**44.123**	**1.6142**	**362.41**
Stddev	.0911	126.	.468	.678	3.759	.5470	2.08
%RSD	7.0086	.13378	.94868	1.5348	8.5199	33.885	.57330
#1	-1.2929	93871.	48.954	44.420	48.396	.98273	360.76
#2	-1.3946	93835.	49.269	44.740	41.327	1.9182	361.73
#3	-1.2128	94068.	49.875	43.438	42.644	1.9416	364.74

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**5.1722**	**8.2280**	**.51578**	**92.400**	**140.03**	**1145.**	**1269.3**
Stddev	.0296	.0289	.10512	.610	1.16	6.	5.8
%RSD	.57146	.35103	20.381	.65973	.82673	.4836	.45305
#1	5.1389	8.2042	.46722	91.745	139.01	1140.	1262.7
#2	5.1827	8.2197	.44372	92.506	139.81	1145.	1273.0
#3	5.1951	8.2601	.63640	92.950	141.29	1151.	1272.2

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**161450.**	**2.2740**	**8.3389**	**1372.5**	**5.1376**	**.06338**	**100.21**
Stddev	1044.	.0142	.0128	5.7	.0878	.00271	.49
%RSD	.64640	.62250	.15353	.41675	1.7097	4.2760	.48764
#1	160280.	2.2879	8.3257	1366.6	5.1715	.06028	99.670
#2	162290.	2.2596	8.3397	1373.1	5.0379	.06454	100.34
#3	161780.	2.2745	8.3513	1378.0	5.2034	.06531	100.62

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**404.98**	**-.32643**	**-1.0281**	**22.304**	**23.82**	**844.36**	F **-4.5312**
Stddev	3.10	.74332	1.3972	.592	.11	2.24	.6632
%RSD	.76478	227.72	135.90	2.6527	.4580	.26587	14.636
#1	402.73	-1.1254	.46382	22.206	23.73	841.90	-4.7584
#2	403.68	-.19844	-1.2422	21.768	23.79	844.88	-5.0510
#3	408.51	.34459	-2.3058	22.939	23.94	846.29	-3.7843

Sample Name: 1104087-09 Acquired: 4/13/2011 17:56:41 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062	
Units	ppb	ppb	
Avg	**248.99**	**1001.9**	
Stddev	1.04	5.4	
%RSD	.41962	.53454	
#1	247.99	996.99	
#2	248.92	1001.0	
#3	250.07	1007.6	
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1624.1	780000.	111050.
Stddev	7.5	4022.	356.
%RSD	.46151	.51561	.32086
#1	1632.1	784370.	111420.
#2	1623.0	779190.	111030.
#3	1617.2	776440.	110700.

Sample Name: 1104087-10 Acquired: 4/13/2011 18:01:12 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.2633**	**103760.**	**43.614**	**42.829**	**42.503**	**4.6627**	**304.03**
Stddev	.1512	100.	.823	2.011	5.197	.8575	.97
%RSD	11.972	.09649	1.8871	4.6963	12.228	18.390	.31871
#1	-1.3652	103850.	44.561	42.893	44.443	4.4810	303.66
#2	-1.0895	103770.	43.209	44.807	36.614	3.9107	303.30
#3	-1.3351	103650.	43.072	40.786	46.451	5.5965	305.13

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**4.3904**	**3.8145**	**-.48510**	**53.020**	**174.39**	**382.7**	**419.54**
Stddev	.0202	.0117	.19752	.396	1.31	2.1	3.12
%RSD	.46004	.30727	40.717	.74649	.75125	.5580	.74247
#1	4.3998	3.8280	-.70556	52.655	175.90	385.2	422.96
#2	4.4043	3.8063	-.42545	52.965	173.50	381.3	416.87
#3	4.3673	3.8094	-.32428	53.440	173.78	381.7	418.80

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**155140.**	**3.9398**	**8.4545**	**766.87**	**6.1643**	**.06427**	**80.584**
Stddev	1512.	.0292	.0246	5.83	.0436	.00253	.717
%RSD	.97487	.74133	.29067	.76078	.70769	3.9367	.88917
#1	156880.	3.9105	8.4800	773.54	6.2087	.06138	80.265
#2	154160.	3.9689	8.4310	764.40	6.1215	.06610	80.082
#3	154380.	3.9399	8.4526	762.69	6.1627	.06532	81.405

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**220.88**	**.10337**	**.33632**	**15.140**	**22.10**	**859.15**	F **-5.5045**
Stddev	2.07	.32138	1.1157	.688	.02	1.77	.7198
%RSD	.93606	310.89	331.73	4.5460	.0851	.20593	13.077
#1	221.14	.17032	-.95004	15.044	22.08	861.10	-5.0697
#2	218.70	-.24621	.91904	15.872	22.11	858.68	-6.3354
#3	222.81	.38600	1.0400	14.505	22.09	857.66	-5.1083

Sample Name: 1104087-10 Acquired: 4/13/2011 18:01:12 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**261.25**	**224.13**
Stddev	1.90	1.00
%RSD	.72718	.44721
#1	263.29	223.51
#2	260.91	223.60
#3	259.54	225.29

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1637.4	774370.	109160.
Stddev	5.3	5261.	330.
%RSD	.32375	.67943	.30250
#1	1641.4	768300.	108860.
#2	1639.5	777460.	109520.
#3	1631.4	777350.	109120.

Sample Name: 1D11002-MS1 Acquired: 4/13/2011 18:05:42 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**237.56**	**145480.**	**291.75**	**295.45**	**275.98**	**834.69**	**2385.6**
Stddev	2.17	1459.	3.31	5.29	10.48	4.83	22.2
%RSD	.91245	1.0031	1.1351	1.7896	3.7991	.57833	.93154
#1	235.33	144010.	288.52	289.75	277.96	829.24	2375.1
#2	237.71	146930.	291.59	296.41	264.65	836.41	2370.6
#3	239.66	145520.	295.14	300.19	285.33	838.42	2411.1

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**55.313**	**9.1612**	**135.70**	**553.55**	**367.93**	**551.5**	**608.80**
Stddev	.493	.0899	1.42	5.14	2.05	4.8	5.45
%RSD	.89137	.98144	1.0488	.92890	.55753	.8766	.89530
#1	54.870	9.0939	135.22	551.34	365.69	546.0	602.79
#2	55.844	9.2633	134.58	549.89	369.71	555.1	610.20
#3	55.225	9.1264	137.30	559.43	368.41	553.5	613.42

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**162280.**	**9.2358**	**12.887**	**1084.3**	**944.21**	**5.3055**	**587.23**
Stddev	932.	.1143	.109	7.5	11.77	.0662	5.98
%RSD	.57404	1.2378	.84943	.69158	1.2462	1.2484	1.0177
#1	161290.	9.1178	12.796	1075.8	934.63	5.2322	583.25
#2	162390.	9.3460	13.008	1087.3	940.65	5.3610	584.34
#3	163140.	9.2437	12.856	1089.9	957.34	5.3234	594.10

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**435.16**	**45.231**	**229.06**	**889.81**	**1033.**	**1751.4**	**226.98**
Stddev	6.01	1.465	2.29	9.67	11.	17.6	3.63
%RSD	1.3816	3.2399	.99764	1.0863	1.026	1.0071	1.6005
#1	433.09	43.989	227.86	885.21	1022.	1735.2	226.65
#2	430.45	44.857	227.62	883.30	1043.	1770.2	223.52
#3	441.93	46.847	231.69	900.91	1034.	1748.6	230.76

Sample Name: 1D11002-MS1 Acquired: 4/13/2011 18:05:42 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**740.65**	**757.54**
Stddev	4.71	7.40
%RSD	.63624	.97631
#1	735.49	752.81
#2	744.72	753.74
#3	741.75	766.06

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1609.5	783540.	110070.
Stddev	14.3	6320.	1033.
%RSD	.89063	.80658	.93803
#1	1617.9	790780.	111000.
#2	1617.6	780660.	108960.
#3	1592.9	779170.	110270.

Sample Name: 1D11002-MSD1 Acquired: 4/13/2011 18:10:12 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**239.51**	**148150.**	**291.20**	**296.13**	**274.40**	**839.80**	**2359.1**
Stddev	1.30	365.	.60	1.83	5.20	1.10	11.6
%RSD	.54319	.24627	.20728	.61759	1.8934	.13075	.49323
#1	240.81	147730.	290.57	294.22	278.78	840.99	2351.8
#2	239.51	148330.	291.26	296.31	275.76	838.82	2353.0
#3	238.20	148390.	291.77	297.86	268.66	839.61	2372.5

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**53.468**	**8.3640**	**134.51**	**547.97**	**359.55**	**584.7**	**646.05**
Stddev	.068	.0184	.62	2.91	.97	1.5	2.26
%RSD	.12682	.22009	.45913	.53168	.26933	.2607	.34988
#1	53.479	8.3699	134.14	546.05	358.98	585.1	648.53
#2	53.395	8.3434	134.17	546.55	359.00	583.0	644.10
#3	53.529	8.3787	135.22	551.33	360.67	586.0	645.53

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**157860.**	**8.9589**	**11.434**	**1102.8**	**932.38**	**5.1725**	**581.90**
Stddev	1104.	.0375	.013	1.0	5.46	.0184	3.43
%RSD	.69913	.41897	.11335	.08955	.58522	.35528	.58901
#1	156610.	**8.9156**	11.446	1103.5	929.93	5.1524	580.11
#2	158700.	8.9828	11.420	1103.2	928.58	5.1766	579.73
#3	158270.	**8.9782**	11.435	1101.7	938.63	5.1884	585.85

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**423.78**	**42.792**	**231.12**	**874.12**	**997.6**	**1678.0**	**225.76**
Stddev	.95	.105	1.24	4.46	.4	.2	1.70
%RSD	.22385	.24476	.53531	.51079	.0354	.01178	.75305
#1	423.36	42.855	231.36	870.55	997.5	1677.9	226.51
#2	423.10	42.851	229.78	872.68	997.3	1678.2	223.81
#3	424.86	42.671	232.22	879.13	997.9	1677.9	226.96

Sample Name: 1D11002-MSD1 Acquired: 4/13/2011 18:10:12 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**734.20**	**750.37**
Stddev	.96	3.70
%RSD	.13051	.49342
#1	733.80	749.30
#2	733.50	747.32
#3	735.29	754.49

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1618.4	782640.	111660.
Stddev	8.2	764.	75.
%RSD	.50919	.09767	.06746
#1	1623.5	781770.	111690.
#2	1622.9	782930.	111710.
#3	1608.9	783220.	111570.

Sample Name: 1D11002-PS1 Acquired: 4/13/2011 18:14:41 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**244.11**	**105650.**	**299.27**	**304.66**	**289.92**	**4.2648**	**2458.5**
Stddev	.86	341.	1.35	1.42	3.21	.7748	13.3
%RSD	.35280	.32247	.45172	.46552	1.1077	18.168	.53995
#1	244.85	105930.	298.70	306.13	286.91	4.5678	2454.1
#2	243.16	105270.	300.81	303.30	293.30	4.8424	2448.0
#3	244.33	105750.	298.30	304.54	289.54	3.3842	2473.4

Elem	Be3130	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**54.763**	**8.6702**	**138.72**	**571.59**	**356.23**	**613.6**	**672.56**
Stddev	.177	.0712	.89	3.27	2.96	3.8	4.69
%RSD	.32328	.82133	.64119	.57146	.83135	.6172	.69711
#1	54.749	8.6210	138.82	570.78	354.56	612.9	673.68
#2	54.947	8.7519	137.78	568.81	354.49	610.1	667.41
#3	54.594	8.6378	139.55	575.19	359.65	617.6	676.58

Elem	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Units	ppb	ppm	ppm	ppb	ppb	ppm	ppb
Avg	**149650.**	**9.0977**	**12.800**	**1270.5**	**8.2299**	**5.3397**	**593.43**
Stddev	819.	.0717	.075	5.7	.1965	.0504	3.98
%RSD	.54741	.78816	.58763	.44520	2.3875	.94464	.67109
#1	150080.	9.1286	12.754	1267.9	8.3496	5.3806	591.48
#2	150150.	9.0157	12.887	1266.6	8.3370	5.2833	590.79
#3	148700.	9.1487	12.760	1277.0	8.0032	5.3551	598.01

Elem	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349	Tl1908
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**471.39**	**262.81**	**245.61**	**14.971**	**21.51**	**831.77**	**232.46**
Stddev	2.78	.87	1.52	.357	.02	1.89	.87
%RSD	.59035	.33140	.61880	2.3842	.1063	.22692	.37595
#1	470.65	263.15	247.33	14.572	21.48	832.38	232.39
#2	469.06	261.83	245.10	15.258	21.51	833.28	231.62
#3	474.47	263.47	244.42	15.084	21.53	829.65	233.37

Sample Name: 1D11002-PS1 Acquired: 4/13/2011 18:14:41 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	V_2924	Zn2062
Units	ppb	ppb
Avg	**733.51**	**745.34**
Stddev	4.24	4.45
%RSD	.57845	.59718
#1	730.48	744.16
#2	731.70	741.60
#3	738.36	750.27

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1623.8	784770.	111600.
Stddev	6.6	3777.	448.
%RSD	.40686	.48127	.40185
#1	1625.5	785750.	111840.
#2	1629.4	787970.	111080.
#3	1616.5	780610.	111870.

Sample Name: 1D11002-DUP1@5X Acquired: 4/13/2011 18:20:11 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.28463**	**20979.**	**9.0902**	**8.8140**	**6.5948**	**2.0028**	**59.759**	**.88792**
Stddev	.11760	5.	.5031	.4671	.7273	.5083	.489	.00798
%RSD	41.315	.02379	5.5348	5.2999	11.028	25.378	.81790	.89877
#1	-.15498	20980.	8.6060	9.3476	7.4008	2.5692	59.263	.88389
#2	-.38439	20973.	9.0543	8.4790	6.3961	1.8524	59.772	.88276
#3	-.31453	20983.	9.6103	8.6154	5.9875	1.5866	60.241	.89711

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.81123**	**-.17303**	**10.395**	**35.513**	**81.40**	**85.436**	**31747.**	**.78793**
Stddev	.00220	.06763	.267	.076	.44	.311	94.	.01619
%RSD	.27150	39.089	2.5645	.21363	.5440	.36449	.29675	2.0545
#1	.80908	-.19813	10.276	35.515	80.89	85.163	31650.	.78806
#2	.81111	-.09643	10.208	35.587	81.69	85.370	31838.	.77168
#3	.81348	-.22452	10.700	35.436	81.61	85.775	31753.	.80405

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**1.7314**	**158.21**	**1.6109**	**.01788**	**15.867**	**45.242**	**-.39318**	**.55011**
Stddev	.0046	.19	.0612	.00301	.336	.770	.20291	.38233
%RSD	.26576	.11886	3.8000	16.843	2.1150	1.7020	51.607	69.501
#1	1.7345	158.00	1.6158	.01575	15.519	44.429	-.55130	.40099
#2	1.7336	158.35	1.6696	.02132	15.893	45.960	-.46387	.26481
#3	1.7261	158.28	1.5474	.01656	16.189	45.337	-.16439	.98453

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**3.5395**	**4.586**	**174.55**	**.09498**	**53.474**	**44.352**
Stddev	.3352	.078	.39	.77076	.120	.399
%RSD	9.4698	1.706	.22628	811.53	.22521	.89974
#1	3.1554	4.525	174.16	-.78865	53.458	44.121
#2	3.6902	4.674	174.95	.44476	53.601	44.122
#3	3.7728	4.559	174.53	.62882	53.362	44.813

Sample Name: 1D11002-DUP1@5X Acquired: 4/13/2011 18:20:11 Type: Unk
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1744.9	779430.	109080.
Stddev	8.0	578.	283.
%RSD	.45648	.07412	.25935
#1	1751.5	779990.	109370.
#2	1747.2	778840.	109070.
#3	1736.1	779450.	108800.

Sample Name: SEQ-CCV Acquired: 4/13/2011 18:25:41 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**474.09**	**9800.9**	**998.03**	**1013.0**	**977.96**	**965.58**	**993.44**	**1013.7**
Stddev	.78	33.6	6.77	8.7	6.73	2.61	6.47	3.3
%RSD	.16487	.34262	.67814	.85952	.68804	.27033	.65141	.32735
#1	474.85	9775.4	990.22	1005.5	970.39	966.05	986.02	1017.0
#2	474.15	9839.0	1001.6	1010.9	983.28	967.92	996.34	1013.7
#3	473.29	9788.4	1002.2	1022.6	980.19	962.76	997.95	1010.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**48.456**	**1044.5**	**979.28**	**927.24**	**953.8**	**998.54**	**9902.7**	**9.7414**
Stddev	.121	6.7	6.89	1.70	3.3	1.82	56.0	.0809
%RSD	.24970	.64499	.70317	.18350	.3461	.18199	.56600	.83067
#1	48.592	1037.1	971.63	929.11	955.9	999.33	9966.0	9.6837
#2	48.413	1045.9	981.25	926.82	955.5	999.83	9882.8	9.8339
#3	48.361	1050.4	984.97	925.78	950.0	996.46	9859.3	9.7067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**46.742**	**1005.3**	**987.19**	**51.564**	**962.75**	**967.00**	**1001.4**	**986.66**
Stddev	.089	1.8	8.41	.227	6.43	4.86	7.0	6.42
%RSD	.18980	.18293	.85230	.44105	.66808	.50248	.70002	.65055
#1	46.833	1007.2	977.92	51.387	955.54	961.56	993.27	979.42
#2	46.735	1005.2	989.33	51.821	964.80	968.53	1005.4	988.89
#3	46.656	1003.5	994.34	51.485	967.90	970.91	1005.4	991.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CCV Acquired: 4/13/2011 18:25:41 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0273

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**968.92**	**979.8**	**959.18**	**965.73**	**940.43**	**989.39**
Stddev	6.67	3.7	1.80	5.75	1.80	6.92
%RSD	.68824	.3771	.18725	.59491	.19119	.69930
#1	961.40	982.4	960.69	959.18	941.34	981.46
#2	971.26	981.6	959.67	968.07	941.59	992.47
#3	974.10	975.6	957.20	969.94	938.36	994.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1622.2	751260.	106850.
Stddev	11.4	2035.	214.
%RSD	.70128	.27090	.20000
#1	1634.9	749370.	106630.
#2	1618.8	750990.	107050.
#3	1612.9	753410.	106880.

Sample Name: SEQ-CCB Acquired: 4/13/2011 18:32:57 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.05474**	**9.7693**	**.91893**	**-1.2721**	**.17550**	**.73556**	**.20446**	**.08238**
Stddev	.29275	4.9341	1.0187	.2244	1.1313	.16359	.05636	.00272
%RSD	534.83	50.506	110.86	17.636	644.63	22.240	27.564	3.3034
#1	-.21361	5.4025	1.8845	-1.0844	-.44553	.74808	.25728	.07961
#2	.28310	15.122	1.0181	-1.5206	-.50930	.89253	.21095	.08505
#3	-.23371	8.7835	-.14577	-1.2114	1.4813	.56607	.14513	.08248
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Co2286	Cr2677	Cu2199	Cu3247	Fe2611	K_7664
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm
Avg	**.00556**	**.06634**	**.12470**	**.09807**	**.6118**	**.02768**	**15.500**	**.01665**
Stddev	.00104	.02245	.16827	.16996	.2969	.04725	2.179	.00267
%RSD	18.745	33.840	134.93	173.30	48.53	170.68	14.057	16.009
#1	.00458	.05887	.31890	.27043	.2740	.05191	13.102	.01670
#2	.00665	.04857	.03298	-.06938	.8313	-.02676	16.039	.01930
#3	.00545	.09157	.02222	.09316	.7301	.05790	17.359	.01396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960
Units	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avg	**.00986**	**.17505**	**.75131**	**.00933**	**-.05708**	**.19885**	**.00273**	**.06819**
Stddev	.00397	.01228	.04208	.00392	.07572	.33541	.41248	.30684
%RSD	40.287	7.0175	5.6012	42.007	132.64	168.67	15103.	449.95
#1	.01268	.18571	.70313	.01184	.01724	.49922	.43567	-.07259
#2	.01157	.16162	.78087	.01134	-.05437	-.16307	-.38567	-.14299
#3	.00532	.17782	.76992	.00481	-.13412	.26041	-.04181	.42016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/13/2011 18:32:57 Type: QC
Method: DuoEnviroMethodNEW(v2088) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.22211**	**.0850**	**.24220**	**.78009**	**.09726**	**.07507**
Stddev	.15314	.0331	.02719	.49619	.05228	.07815
%RSD	68.950	38.95	11.225	63.606	53.748	104.10
#1	.39883	.0890	.27174	.22343	.14787	.14731
#2	.12828	.0501	.21822	1.1759	.04347	.08579
#3	.13921	.1159	.23665	.94097	.10045	-.00789
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1796.9	778940.	109110.
Stddev	12.8	1276.	465.
%RSD	.71399	.16376	.42662
#1	1804.4	777970.	108580.
#2	1804.2	778470.	109460.
#3	1782.1	780390.	109280.

PREPARATION BENCH SHEET

1D11002

Empirical Laboratories, LLC

Printed: 4/20/2011 12:08:55PM

311

Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Cont ID	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1104067-01	A	MET_ICP_6010B_FULL	04/11/2011 07:38	1.02	200					see version
1104078-04	A	MET_ICP_6010B_FULL	04/11/2011 07:38	1.04	200					See Version
1104087-01	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.03	200					Pb & Cu
1104087-02	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1	200					Pb & Cu
1104087-03	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.03	200					Pb & Cu
1104087-04	B	MET_ICP_6010B_FULL	04/11/2011 07:38	0.96	200					Pb & Cu
1104087-05	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.03	200					Pb & Cu
1104087-06	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.02	200					Pb & Cu
1104087-07	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.04	200					Pb & Cu
1104087-08	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.1	200					Pb & Cu
1104087-09	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.08	200					Pb & Cu
1104087-10	B	MET_ICP_6010B_FULL	04/11/2011 07:38	1.03	200					Pb & Cu
1D11002-BLK1		QC	04/11/2011 07:38	1	200					
1D11002-BS1		QC	04/11/2011 07:38	1	200	11D0005		200		
1D11002-DUP1		QC	04/11/2011 07:38	1.03	200		1104087-10			
1D11002-MS1		QC	04/11/2011 07:38	1.04	200	11D0005	1104087-10	200		
1D11002-MSD1		QC	04/11/2011 07:38	1.03	200	11D0005	1104087-10	200		
1D11002-PS1		QC	04/11/2011 07:38	1.03	200	11D0005	1104087-10	200		

1104087

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Subcontractor Data Package

EMLab P&K

Report for:

Ms. Sonya Gordon
Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: 1104087; Radford
EML ID: 772745

Approved by:

Lab Director
Eric Ciotti

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 04-13-2011 and 04-13-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1104087; Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-13-2011
Date of Report: 04-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	11
Total Samples Analysed:	11
Total Samples with Layer Asbestos Content > 1%:	0

Location: 8102(5)-3E (20110406) Lab ID-Version‡: 3419306-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(5)-11W (20110406) Lab ID-Version‡: 3419307-1

Sample Layers	Asbestos Content
Multicolored Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(6)-3E (20110406) Lab ID-Version‡: 3419308-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(6)-6E (20110406) Lab ID-Version‡: 3419309-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(6)-8W (20110406) Lab ID-Version‡: 3419310-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1104087; Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-13-2011
Date of Report: 04-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 8102(7)-3E (20110406) Lab ID-Version‡: 3419311-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102A-NW (20110411) Lab ID-Version‡: 3419312-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 6-1NW (20110411) Lab ID-Version‡: 3419313-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 504-20N (20110411) Lab ID-Version‡: 3419314-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 504-22E (20110411) Lab ID-Version‡: 3419315-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

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EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1104087; Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-13-2011
Date of Report: 04-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 2102(3)-13W (20110411)

Lab ID-Version‡: 3419316-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K

Report for:

Ms. Sonya Gordon
Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: Radford
EML ID: 773358

Approved by:

Lab Director
Eric Ciotti

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 04-14-2011 and 04-14-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-14-2011
Date of Report: 04-15-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	4
Total Samples Analysed:	4
Total Samples with Layer Asbestos Content > 1%:	0

Location: 8102 (7)-11W (20110406) Lab ID-Version‡: 3422295-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102 (8)-2E (20110406) Lab ID-Version‡: 3422296-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102 (8)-5E (20110406) Lab ID-Version‡: 3422297-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102 (8)-13W (20110406) Lab ID-Version‡: 3422298-1

Sample Layers	Asbestos Content
Brown Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104087

000772745

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

P.O. 11-0423
Project Radford

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102 (5)-3E (20110406)				
Reference No: 1104087-01	**Solid**	**Sampled:04/06/2011 16:50**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 15:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (5)-11W (20110406)				
Reference No: 1104087-02	**Solid**	**Sampled:04/06/2011 17:00**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-3E (20110406)				
Reference No: 1104087-03	**Solid**	**Sampled:04/06/2011 17:10**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-6E (20110406)				
Reference No: 1104087-04	**Solid**	**Sampled:04/06/2011 17:20**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-8W (20110406)				
Reference No: 1104087-05	**Solid**	**Sampled:04/06/2011 17:30**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (7)-3E (20110406)				
Reference No: 1104087-06	**Solid**	**Sampled:04/06/2011 17:40**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:40		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	4-12-11	[signature]	4/13/11 9:30
Released By	Date	Received By	Date

000772745

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104114

P.O # 11-0423

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Project: Radford

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102A-NW(20110411)				
Reference No: 1104114-01	**Solid**	**Sampled:04/11/2011 14:00**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 6-1NW(20110411)				
Reference No: 1104114-02	**Solid**	**Sampled:04/11/2011 14:10**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 504-20N(20110411)				
Reference No: 1104114-03	**Solid**	**Sampled:04/11/2011 14:20**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 504-22E(20110411)				
Reference No: 1104114-04	**Solid**	**Sampled:04/11/2011 14:30**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 2102(3)-13W(20110411)				
Reference No: 1104114-05	**Solid**	**Sampled:04/11/2011 14:40**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:40		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	4-12-11	[signature]	4/13/11 9:30a
Released By	Date	Received By	Date

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104087

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

000773358

RECEIVING LABORATORY:

/Lab P&K (SUB)
36 Olney Ave
lerry Hill, NJ 08003
one :(866) 871-1984
x: (856) 489-4085

PO#: 11-0425
Proj: Radford

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102 (5)-3E (20110406)				
Reference No: 1104087-01	**Solid**	**Sampled:04/06/2011 16:50**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 15:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (5)-11W (20110406)				
Reference No: 1104087-02	**Solid**	**Sampled:04/06/2011 17:00**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-3E (20110406)				
Reference No: 1104087-03	**Solid**	**Sampled:04/06/2011 17:10**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-6E (20110406)				
Reference No: 1104087-04	**Solid**	**Sampled:04/06/2011 17:20**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-8W (20110406)				
Reference No: 1104087-05	**Solid**	**Sampled:04/06/2011 17:30**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (7)-3E (20110406)				
Reference No: 1104087-06	**Solid**	**Sampled:04/06/2011 17:40**		
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:40		% Asbestos EPA 600
Containers Supplied:				

Released By 4-13-11 Date | Received By Date

Released By Date | Received By Date

Only Sample 7A this lot Rec'd LT

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104087

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102 (7)-11W (20110406)				
Reference No: 1104087-07	**Solid**	**Sampled:04/06/2011 17:50**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (8)-2E (20110406)				
Reference No: 1104087-08	**Solid**	**Sampled:04/06/2011 18:00**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 17:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (8)-5E (20110406)				
Reference No: 1104087-09	**Solid**	**Sampled:04/06/2011 18:10**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 17:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (8)-13W (20110406)				
Reference No: 1104087-10	**Solid**	**Sampled:04/06/2011 18:20**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 17:20		% Asbestos EPA 600
Containers Supplied:				

000773358

Released By	Date	Received By	Date
Released By	Date	Received By	Date

ANALYTICAL DATA PACKAGE
SDG # 1104114

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
Fax (866)417-0548
Email: sgordon@empirlabs.com

Original Report Date: May 2, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 299

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. *This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.*

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. Samples were subcontracted to EMLab P&K for Asbestos by EPA 600/R-93/116.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW8082A:
The surrogate Decachlorobiphenyl exceeded criteria with a negative bias on column 1 in sample 1104114-03.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW6010B:
No anomalies or deviations are noted.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

_____
Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Organic Calculations:

GC/MS Volatiles

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg)} * \text{Expected Vol/Weight (mL or g)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * (\text{Percent Solids}/100) \text{ (if applicable)}}$$

Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.

GC/MS Extractables

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL)} * \text{Final Vol (ml)} * \text{Dilution} * (1000\text{uL/mL})}{\text{Initial Vol/Weight (mL or g)} * (\text{Percent Solids}/100) \text{ (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

GC or LC Extractables

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL)} * \text{Final Vol (mL)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * (\text{Percent Solids}/100) \text{ (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name GP08RAAP.4JAA.KGIAA
Project Location NRU Dublin, Va. (RAAP)
Laboratory Empirical Laboratories
Project Manager Chris Kalinowski
Sampler(s)/Affiliation W. Keith Carr/ARCADIS

1104114

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Lead/Copper (USEPA 6010)	% Asbestos TEM (USEPA 600/R-93/116)	Aroclor-1254 CARB 335 (USEPA 8082B)		IM		Remarks	Total
-01 8102A-1NW(20110411)	SO	04.11.11/1400		1	1			1M		2-Day Turn Around	2
-02 6-1NW(20110411)		04.11.11/1410		1	1			↓		↓	2
-03 504-20N(20110411)		04.11.11/1420		1	1	1					2
-04 504-22E(20110411)		04.11.11/1430		1	1	1					2
-05 8102(3)-13W(20110411)		04.11.11/1440		1	1			↓			2

Sample Matrix: L = Liquid; S = Solid; A = Air SO = Soil

Total No. of Bottles/Containers: 10

					Seal Intact?
Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 04/11/11	Time		
Received by: FED EX # 8757 0206 7079	Organization: FED EX	Date 04/11/11	Time		Yes No N/A
Relinquished by:	Organization:	Date / /	Time		Seal Intact?
Received by: Reginald Lilly	Organization: 266	Date 4/12/11	Time 0845		Yes No N/A

Special Instructions/Remarks: Please Contact Chris Kalinowski with any Questions

Delivery Method: ☐ In Person ☒ Common Carrier FED EX (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-12/01

9

1104114

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1104114 Number of Coolers: 1 of 1

Client: ARCADIS Project: GROSRAND.4IAA.KGIAA

Date/Time Received: 4.12.11 0845 Date cooler(s) opened: 4.12.11

Opened By (print): Reginald Talley (signature): Reginald Talley

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered
EL Courier Other: _____

If applicable, enter airbill number here: 7079

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 1 Seal date: 4.11.11 Seal Initials: ?

3. Were custody seals unbroken and intact at the date and time of arrival?	(Yes)	No	N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler?	(Yes)	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	(Yes)	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	(Yes)	No	N/A
7. Was project identifiable from custody papers?	(Yes)	No	N/A
8. If required, was enough ice present in the cooler(s)?	(Yes)	No	N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 2.9 °C Correction Factor: -0.3 °C Final Value: 2.6 °C

Dates samples were logged-in: 4.12.11

9. Initial this form to acknowledge login of sample(s): (Name): Reginald Talley (Initial): RT

10. Were all bottle lids intact and sealed tightly?	(Yes)	No	N/A
11. Did all bottles arrive unbroken?	(Yes)	No	N/A
12. Was all required bottle label information complete?	(Yes)	No	N/A
13. Did all bottle labels agree with custody papers?	(Yes)	No	N/A
14. Were correct containers used for the analyses indicated?	(Yes)	No	N/A
15. Were preservative levels correct in all applicable sample containers?	Yes	No	(N/A)
16. Was residual chlorine present in any applicable sample containers?	Yes	No	(N/A)
17. Was sufficient amount of sample sent for the analyses required?	(Yes)	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	(N/A)

If Non-Conformance issues were present, list by sample ID: _____

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104114

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102A-1NW(20110411)				
Reference No: 1104114-01 **Solid**		**Sampled:04/11/2011 14:00**		
SUB_Asbestos Lab SOP	04/18/2011 14:00	04/13/2011 14:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 6-1NW(20110411)				
Reference No: 1104114-02 **Solid**		**Sampled:04/11/2011 14:10**		
SUB_Asbestos Lab SOP	04/18/2011 14:00	04/13/2011 14:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 504-20N(20110411)				
Reference No: 1104114-03 **Solid**		**Sampled:04/11/2011 14:20**		
SUB_Asbestos Lab SOP	04/18/2011 14:00	04/13/2011 14:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 504-22E(20110411)				
Reference No: 1104114-04 **Solid**		**Sampled:04/11/2011 14:30**		
SUB_Asbestos Lab SOP	04/18/2011 14:00	04/13/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102(3)-13W(20110411)				
Reference No: 1104114-05 **Solid**		**Sampled:04/11/2011 14:40**		
SUB_Asbestos Lab SOP	04/18/2011 14:00	04/13/2011 14:40		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
Released By	Date	Received By	Date

WORK ORDER

1104114

Printed: 5/2/2011 2:42:51PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 04/19/2011 16:00 (5 day TAT)
Received By: Reginald Talley
Logged In By: Reginald Talley

Date Received: 04/12/2011 08:45
Date Logged In 04/12/2011 13:52

Samples Received at: **2.6°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	Yes		

Analysis	Due	TAT	Expires	Version	Comments
1104114-01 8102A-1NW(20110411) [Solid] Sampled 04/11/2011 14:00 Mexico					
SM2540B	04/18/2011 14:00	5	04/18/2011 14:00		
SW6010B	04/18/2011 14:00	5	10/08/2011 14:00		Pb & Cu
1104114-02 6-1NW(20110411) [Solid] Sampled 04/11/2011 14:10 Mexico					
SW6010B	04/18/2011 14:00	5	10/08/2011 14:10		Pb & Cu
SM2540B	04/18/2011 14:00	5	04/18/2011 14:10		

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1104114

WORK ORDER

1104114

Printed: 5/2/2011 2:42:51PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
1104114-03 504-20N(20110411) [Solid] Sampled 04/11/2011 14:20 Mexico					
SM2540B	04/18/2011 14:00	5	04/18/2011 14:20		
SW6010B	04/18/2011 14:00	5	10/08/2011 14:20		Pb & Cu
SW8082A	04/18/2011 14:00	5	04/25/2011 14:20	Aroclor-1254	see version
1104114-04 504-22E(20110411) [Solid] Sampled 04/11/2011 14:30 Mexico					
SW6010B	04/18/2011 14:00	5	10/08/2011 14:30		Pb & Cu
SW8082A	04/18/2011 14:00	5	04/25/2011 14:30	Aroclor-1254	see version
SM2540B	04/18/2011 14:00	5	04/18/2011 14:30		
1104114-05 8102(3)-13W(20110411) [Solid] Sampled 04/11/2011 14:40 Mexico					
SM2540B	04/18/2011 14:00	5	04/18/2011 14:40		
SW6010B	04/18/2011 14:00	5	10/08/2011 14:40		Pb & Cu
EMLab P&K (SUB)					
1104114-01 8102A-1NW(20110411) [Solid] Sampled 04/11/2011 14:00 Mexico					
bAsbestos Lab SOP-S (SubContracted)	04/18/2011 14:00	5	04/13/2011 14:00		% Asbestos EPA 600
1104114-02 6-1NW(20110411) [Solid] Sampled 04/11/2011 14:10 Mexico					
bAsbestos Lab SOP-S (SubContracted)	04/18/2011 14:00	5	04/13/2011 14:10		% Asbestos EPA 600
1104114-03 504-20N(20110411) [Solid] Sampled 04/11/2011 14:20 Mexico					
bAsbestos Lab SOP-S (SubContracted)	04/18/2011 14:00	5	04/13/2011 14:20		% Asbestos EPA 600
1104114-04 504-22E(20110411) [Solid] Sampled 04/11/2011 14:30 Mexico					
bAsbestos Lab SOP-S (SubContracted)	04/18/2011 14:00	5	04/13/2011 14:30		% Asbestos EPA 600

1104114

WORK ORDER

1104114

Printed: 5/2/2011 2:42:51PM

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Analysis	Due	TAT	Expires	Version	Comments
EMLab P&K (SUB)					
1104114-05 8102(3)-13W(20110411) [Solid] Sampled 04/11/2011 14:40 Mexico					
bAsbestos Lab SOP-S (SubContracted)	04/18/2011 14:00	5	04/13/2011 14:40		% Asbestos EPA 600

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1104114

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1104114
MATRIX: Soil

QC LEVEL: Level IV
Report Due: 4/19/2011
Client Sample Count: 5

Sample Type	Sampled	Received	Lab ID	Client ID	bAsbestos Lab SOP-S	SM2540B	SW6010B	SW8082A
Client Sample	4/11/2011	4/12/2011	1104114-01	8102A-1NW(20110411)	X	X	X	
Client Sample	4/11/2011	4/12/2011	1104114-02	6-1NW(20110411)	X	X	X	
Client Sample	4/11/2011	4/12/2011	1104114-03	504-20N(20110411)	X	X	X	X
Client Sample	4/11/2011	4/12/2011	1104114-04	504-22E(20110411)	X	X	X	X
Client Sample	4/11/2011	4/12/2011	1104114-05	8102(3)-13W(20110411)	X	X	X	

Data for SW8082A Forms

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	0K33419	Instrument:	GL-ECD3
Calibration:	1104004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	0K33419-CAL1	001R0101.D	11/24/10 17:39
Cal Standard	0K33419-CAL1	001F0101.D	11/24/10 17:39
Cal Standard	0K33419-CAL2	002R0201.D	11/24/10 17:58
Cal Standard	0K33419-CAL2	002F0201.D	11/24/10 17:58
Cal Standard	0K33419-CAL3	003R0301.D	11/24/10 18:16
Cal Standard	0K33419-CAL3	003F0301.D	11/24/10 18:16
Cal Standard	0K33419-CAL4	004R0401.D	11/24/10 18:35
Cal Standard	0K33419-CAL4	004F0401.D	11/24/10 18:35
Cal Standard	0K33419-CAL5	005R0601.D	11/24/10 19:12
Cal Standard	0K33419-CAL5	005F0601.D	11/24/10 19:12
Cal Standard	0K33419-CAL6	006R0701.D	11/24/10 19:31
Cal Standard	0K33419-CAL6	006F0701.D	11/24/10 19:31
Initial Cal Check	0K33419-ICV1	007R0801.D	11/24/10 19:49
Initial Cal Check	0K33419-ICV1	007F0801.D	11/24/10 19:49

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D09605	Instrument:	GL-ECD3
Calibration:	1104004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D09605-CAL1	003R0301.D	04/04/11 16:51
Cal Standard	1D09605-CAL1	003F0301.D	04/04/11 16:51
Cal Standard	1D09605-CAL2	004R0401.D	04/04/11 17:10
Cal Standard	1D09605-CAL2	004F0401.D	04/04/11 17:10
Cal Standard	1D09605-CAL3	005R0501.D	04/04/11 17:29
Cal Standard	1D09605-CAL3	005F0501.D	04/04/11 17:29
Cal Standard	1D09605-CAL4	006R0601.D	04/04/11 17:47
Cal Standard	1D09605-CAL4	006F0601.D	04/04/11 17:47
Cal Standard	1D09605-CAL5	007R0701.D	04/04/11 18:06
Cal Standard	1D09605-CAL5	007F0701.D	04/04/11 18:06
Cal Standard	1D09605-CAL6	008R0801.D	04/04/11 18:24
Cal Standard	1D09605-CAL6	008F0801.D	04/04/11 18:24
Initial Cal Check	1D09605-ICV1	009R0901.D	04/04/11 18:43
Initial Cal Check	1D09605-ICV1	009F0901.D	04/04/11 18:43

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D10406
Instrument: GL-ECD3
Calibration: 1104004

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D10406-CAL1	011R1101.D	04/08/11 15:23
Cal Standard	1D10406-CAL1	011F1101.D	04/08/11 15:23
Cal Standard	1D10406-CAL2	012R1201.D	04/08/11 15:42
Cal Standard	1D10406-CAL2	012F1201.D	04/08/11 15:42
Cal Standard	1D10406-CAL3	013R1301.D	04/08/11 16:01
Cal Standard	1D10406-CAL3	013F1301.D	04/08/11 16:01
Cal Standard	1D10406-CAL4	014R1401.D	04/08/11 16:19
Cal Standard	1D10406-CAL4	014F1401.D	04/08/11 16:19
Cal Standard	1D10406-CAL5	015R1501.D	04/08/11 16:38
Cal Standard	1D10406-CAL5	015F1501.D	04/08/11 16:38
Cal Standard	1D10406-CAL6	016R1601.D	04/08/11 16:57
Cal Standard	1D10406-CAL6	016F1601.D	04/08/11 16:57
Cal Standard	1D10406-CAL7	017R1701.D	04/08/11 17:15
Cal Standard	1D10406-CAL7	017F1701.D	04/08/11 17:15

ANALYSIS SEQUENCE SUMMARY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D10505	Instrument:	GL-ECD3
Calibration:	1104004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1D10505-CCV1	002R0201.D	04/14/11 13:38
Calibration Check	1D10505-CCV1	002F0201.D	04/14/11 13:38
Blank	1D09814-BLK1	003F0301.D	04/14/11 14:19
Blank	1D09814-BLK1	003R0301.D	04/14/11 14:19
LCS	1D09814-BS1	004F0401.D	04/14/11 14:38
LCS	1D09814-BS1	004R0401.D	04/14/11 14:38
Calibration Check	1D10505-CCV2	017R1701.D	04/14/11 19:17
Calibration Check	1D10505-CCV2	017F1701.D	04/14/11 19:17
Calibration Check	1D10505-CCV3	018R1801.D	04/14/11 19:35
Calibration Check	1D10505-CCV3	018F1801.D	04/14/11 19:35
504-20N(20110411)	1104114-03	021R2101.D	04/14/11 20:31
504-20N(20110411)	1104114-03	021F2101.D	04/14/11 20:31
504-22E(20110411)	1104114-04	022R2201.D	04/14/11 20:50
504-22E(20110411)	1104114-04	022F2201.D	04/14/11 20:50
Calibration Check	1D10505-CCV4	024R2401.D	04/14/11 21:27
Calibration Check	1D10505-CCV4	024F2401.D	04/14/11 21:27
Calibration Check	1D10505-CCV5	025R2501.D	04/14/11 21:46
Calibration Check	1D10505-CCV5	025F2501.D	04/14/11 21:46

ANALYSIS DATA SHEET

504-20N(20110411)

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1104114-03 File ID: 021F2101.D

Sampled: 04/11/11 14:20 Prepared: 04/12/11 16:11 Analyzed: 04/14/11 20:31

Solids: 81.87 Preparation: EXT_3546 Dilution: 1

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254		5.06	20.5	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	20.09	14.89	74.1	70 - 125	
Tetrachloro-m-xylene [2C]	20.09	15.16	75.5	70 - 125	
Decachlorobiphenyl	20.09	12.00	59.7	60 - 125	*
Decachlorobiphenyl [2C]	20.09	12.51	62.3	60 - 125	

* Values outside of QC limits

ANALYSIS DATA SHEET

504-22E(20110411)

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Soil Laboratory ID: 1104114-04 File ID: 022F2201.D

Sampled: 04/11/11 14:30 Prepared: 04/12/11 16:11 Analyzed: 04/14/11 20:50

Solids: 74.30 Preparation: EXT_3546 Dilution: 1

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg dry)	MDL	MRL	Q
11097-69-1	Aroclor-1254		5.54	22.4	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg dry)	CONC (ug/Kg dry)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	21.99	18.48	84.0	70 - 125	
Tetrachloro-m-xylene [2C]	21.99	18.93	86.1	70 - 125	
Decachlorobiphenyl	21.99	15.56	70.7	60 - 125	
Decachlorobiphenyl [2C]	21.99	16.22	73.7	60 - 125	

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1D09814	Laboratory ID:	1D09814-BS1
Preparation:	EXT_3546	Initial/Final:	15 g / 5 mL

ANALYTE	SPIKE ADDED (ug/Kg wet)	LCS CONCENTRATION (ug/Kg wet)	LCS % REC.	QC LIMITS REC.
Aroclor-1016	166.7	163.4	98.1	40 - 140
Aroclor-1016 [2C]	166.7	179.9	108	40 - 140
Aroclor-1260	166.7	158.2	94.9	60 - 130
Aroclor-1260 [2C]	166.7	176.1	106	60 - 130

PREPARATION BATCH SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1D09814 Batch Matrix: Solid Preparation: EXT_3546

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
504-20N(20110411)	1104114-03	04/12/11 16:11	15.20	5.00
504-22E(20110411)	1104114-04	04/12/11 16:11	15.30	5.00
Blank	1D09814-BLK1	04/12/11 16:11	15.00	5.00
LCS	1D09814-BS1	04/12/11 16:11	15.00	5.00

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1D09814-BLK1 File ID: 003F0301.D

Sampled: Prepared: 04/12/11 16:11 Analyzed: 04/14/11 14:19

Solids: Preparation: EXT_3546 Dilution:

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
11097-69-1	Aroclor-1254		4.20	17.0	U

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.22	91.3	70 - 125	
Tetrachloro-m-xylene [2C]	16.67	15.56	93.3	70 - 125	
Decachlorobiphenyl	16.67	14.50	87.0	60 - 125	
Decachlorobiphenyl [2C]	16.67	15.42	92.5	60 - 125	

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	0K33419	Instrument:	GL-ECD3
Calibration:	1104004		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
10I0240	Aroclor-1254 CAL1@2500ppb	0K33419-CAL1	001R0101.D	11/24/10 17:39
10I0240	Aroclor-1254 CAL1@2500ppb	0K33419-CAL1	001F0101.D	11/24/10 17:39
10I0241	Aroclor-1254 CAL2@1000ppb	0K33419-CAL2	002F0201.D	11/24/10 17:58
10I0241	Aroclor-1254 CAL2@1000ppb	0K33419-CAL2	002R0201.D	11/24/10 17:58
10I0242	Aroclor-1254 CAL3@750ppb	0K33419-CAL3	003F0301.D	11/24/10 18:16
10I0242	Aroclor-1254 CAL3@750ppb	0K33419-CAL3	003R0301.D	11/24/10 18:16
10I0243	Aroclor-1254 CAL4@500ppb	0K33419-CAL4	004F0401.D	11/24/10 18:35
10I0243	Aroclor-1254 CAL4@500ppb	0K33419-CAL4	004R0401.D	11/24/10 18:35
10I0244	Aroclor-1254 CAL5@100ppb	0K33419-CAL5	005F0601.D	11/24/10 19:12
10I0244	Aroclor-1254 CAL5@100ppb	0K33419-CAL5	005R0601.D	11/24/10 19:12
10I0245	Aroclor-1254 CAL6@50ppb	0K33419-CAL6	006R0701.D	11/24/10 19:31
10I0245	Aroclor-1254 CAL6@50ppb	0K33419-CAL6	006F0701.D	11/24/10 19:31

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D09605	Instrument:	GL-ECD3
Calibration:	1104004		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
11A0220	Aro-1660 Cal1@2500/125	1D09605-CAL1	003F0301.D	04/04/11 16:51
11A0220	Aro-1660 Cal1@2500/125	1D09605-CAL1	003R0301.D	04/04/11 16:51
11C0777	Aro-1660 Cal2@1000/50 (CCV)	1D09605-CAL2	004F0401.D	04/04/11 17:10
11C0777	Aro-1660 Cal2@1000/50 (CCV)	1D09605-CAL2	004R0401.D	04/04/11 17:10
11A0221	Aro-1660 Cal3@750/37.5	1D09605-CAL3	005F0501.D	04/04/11 17:29
11A0221	Aro-1660 Cal3@750/37.5	1D09605-CAL3	005R0501.D	04/04/11 17:29
11A0222	Aro-1660 Cal4@500/25	1D09605-CAL4	006R0601.D	04/04/11 17:47
11A0222	Aro-1660 Cal4@500/25	1D09605-CAL4	006F0601.D	04/04/11 17:47
11A0223	Aro-1660 Cal5@100/5	1D09605-CAL5	007F0701.D	04/04/11 18:06
11A0223	Aro-1660 Cal5@100/5	1D09605-CAL5	007R0701.D	04/04/11 18:06
11A0224	Aro-1660 Cal6@50/2.5	1D09605-CAL6	008F0801.D	04/04/11 18:24
11A0224	Aro-1660 Cal6@50/2.5	1D09605-CAL6	008R0801.D	04/04/11 18:24

INITIAL CALIBRATION STANDARDS

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1D10406	Instrument:	GL-ECD3
Calibration:	1104004		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
11C0272	Pest_ICAL1@200ppb	1D10406-CAL1	011F1101.D	04/08/11 15:23
11C0272	Pest_ICAL1@200ppb	1D10406-CAL1	011R1101.D	04/08/11 15:23
11C0273	Pest. AB/Sur CCV @ 100ppb	1D10406-CAL2	012R1201.D	04/08/11 15:42
11C0273	Pest. AB/Sur CCV @ 100ppb	1D10406-CAL2	012F1201.D	04/08/11 15:42
11C0274	Pest_ICAL3@50ppb	1D10406-CAL3	013F1301.D	04/08/11 16:01
11C0274	Pest_ICAL3@50ppb	1D10406-CAL3	013R1301.D	04/08/11 16:01
11C0275	Pest_ICAL4@25ppb	1D10406-CAL4	014F1401.D	04/08/11 16:19
11C0275	Pest_ICAL4@25ppb	1D10406-CAL4	014R1401.D	04/08/11 16:19
11C0276	Pest_ICAL5@10ppb	1D10406-CAL5	015F1501.D	04/08/11 16:38
11C0276	Pest_ICAL5@10ppb	1D10406-CAL5	015R1501.D	04/08/11 16:38
11C0277	Pest_ICAL6@5ppb	1D10406-CAL6	016F1601.D	04/08/11 16:57
11C0277	Pest_ICAL6@5ppb	1D10406-CAL6	016R1601.D	04/08/11 16:57
11C0278	Pest_ICAL7@1ppb	1D10406-CAL7	017R1701.D	04/08/11 17:15
11C0278	Pest_ICAL7@1ppb	1D10406-CAL7	017F1701.D	04/08/11 17:15

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene	200	29210.96	100	29940.19	50	29511.66	25	30252.16	10	28086.1	5	28435.4
Tetrachloro-m-xylene [2C]	200	19000.99	100	20341.25	50	20384.36	25	21980	10	22183.9	5	22846.4
Decachlorobiphenyl	200	32018.2	100	32856.69	50	33542.94	25	35775.72	10	34898.2	5	37035.6
Decachlorobiphenyl [2C]	200	19285.74	100	20998.4	50	21682.2	25	23344.48	10	22317.1	5	23557.4

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016			2500	676.9136	1000	691.2852	750	669.0416	500	680.4464	100	754.796
Aroclor-1016 (1)			2500	1217.65	1000	1229.998	750	1189.257	500	1204.4	100	1323.44
Aroclor-1016 (2)			2500	411.5284	1000	436.264	750	422.1533	500	462.214	100	506.67
Aroclor-1016 (3)			2500	610.4732	1000	632.399	750	615.948	500	626.556	100	719.66
Aroclor-1016 (4)			2500	639.2368	1000	641.394	750	639.332	500	622.906	100	695.67
Aroclor-1016 (5)			2500	505.6792	1000	516.371	750	478.5173	500	486.156	100	528.54
Aroclor-1016 [2C]			2500	549.3244	1000	612.5476	750	588.8837	500	511.1124	100	631.294
Aroclor-1016 (1) [2C]			2500	797.3272	1000	888.022	750	843.7173	500	754.838	100	966.08
Aroclor-1016 (2) [2C]			2500	503.6404	1000	539.048	750	528.4133	500	497.748	100	604.53
Aroclor-1016 (3) [2C]			2500	515.6812	1000	580.522	750	560.304	500	482.538	100	611.31
Aroclor-1016 (4) [2C]			2500	473.6256	1000	536.257	750	517.692	500	415.94	100	464.93
Aroclor-1016 (5) [2C]			2500	456.3472	1000	518.889	750	494.292	500	404.498	100	509.62
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260			2500	2114.394	1000	2030.354	750	1933.505	500	2091.174	100	2157.532
Aroclor-1260 (1)			2500	4189.412	1000	4002.488	750	3818.928	500	3998.878	100	4225.21
Aroclor-1260 (2)			2500	1777.734	1000	1626.658	750	1567.005	500	1861.922	100	1697.79
Aroclor-1260 (3)			2500	2053.269	1000	1977.965	750	1828.556	500	2073.638	100	2048.58
Aroclor-1260 (4)			2500	1579.668	1000	1606.553	750	1554.785	500	1501.482	100	1804.94
Aroclor-1260 (5)			2500	971.8872	1000	938.104	750	898.2546	500	1019.948	100	1011.14
Aroclor-1260 [2C]			2500	1396.039	1000	1499.182	750	1401.309	500	1260.416	100	1632.432
Aroclor-1260 (1) [2C]			2500	2351.586	1000	2495.946	750	2396.393	500	2183.458	100	2563.14
Aroclor-1260 (2) [2C]			2500	1124.384	1000	1245.201	750	1150.013	500	1033.16	100	1479.67

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]			2500	1388.438	1000	1480.025	750	1337.512	500	1250.004	100	1604.36
Aroclor-1260 (4) [2C]			2500	967.1232	1000	1052.987	750	966.2333	500	821.176	100	1191.68
Aroclor-1260 (5) [2C]			2500	1148.663	1000	1221.751	750	1156.393	500	1014.282	100	1323.31
Tetrachloro-m-xylene	1	28010	250		100		75		50		10	
Tetrachloro-m-xylene [2C]	1	22595	250		100		75		50		10	
Decachlorobiphenyl	1	36985	250		100		75		50		10	
Decachlorobiphenyl [2C]	1	20209	250		100		75		50		10	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016	50	730.808										
Aroclor-1016 (1)	50	1263.14										
Aroclor-1016 (2)	50	492.48										
Aroclor-1016 (3)	50	728.28										
Aroclor-1016 (4)	50	699.28										
Aroclor-1016 (5)	50	470.86										
Aroclor-1016 [2C]	50	638.524										
Aroclor-1016 (1) [2C]	50	946.38										
Aroclor-1016 (2) [2C]	50	737.22										
Aroclor-1016 (3) [2C]	50	582.5										
Aroclor-1016 (4) [2C]	50	428.58										
Aroclor-1016 (5) [2C]	50	497.94										
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260	50	2045.3										
Aroclor-1260 (1)	50	3999.26										
Aroclor-1260 (2)	50	1655.98										
Aroclor-1260 (3)	50	1887.28										
Aroclor-1260 (4)	50	1720.26										
Aroclor-1260 (5)	50	963.72										
Aroclor-1260 [2C]	50	1527.296										
Aroclor-1260 (1) [2C]	50	2409.66										
Aroclor-1260 (2) [2C]	50	1369.82										

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]	50	1486.22										
Aroclor-1260 (4) [2C]	50	1067.26										
Aroclor-1260 (5) [2C]	50	1303.52										
Tetrachloro-m-xylene	5											
Tetrachloro-m-xylene [2C]	5											
Decachlorobiphenyl	5											
Decachlorobiphenyl [2C]	5											

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)												
Aroclor-1254 (2)												
Aroclor-1254 (3)												
Aroclor-1254 (4)												
Aroclor-1254 (5)												
Aroclor-1254 (1) [2C]												
Aroclor-1254 (2) [2C]												
Aroclor-1254 (3) [2C]												
Aroclor-1254 (4) [2C]												
Aroclor-1254 (5) [2C]												
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)			2500	1816.263	1000	1800.472	750	1761.127	500	1853.234	100	1754.93
Aroclor-1254 (2)			2500	1061.708	1000	1065.415	750	1042.129	500	1090.35	100	1097.12
Aroclor-1254 (3)			2500	1081.426	1000	1086.616	750	1072.105	500	1129.022	100	1064.89
Aroclor-1254 (4)			2500	1504.907	1000	1496.942	750	1467.855	500	1547.658	100	1529.54
Aroclor-1254 (5)			2500	1548.73	1000	1558.402	750	1501.871	500	1605.23	100	1504.21
Aroclor-1254 (1) [2C]			2500	1211.378	1000	1259.03	750	1287.229	500	1346.022	100	1382.74
Aroclor-1254 (2) [2C]			2500	940.7952	1000	998.081	750	1019.987	500	1086.73	100	1255.29
Aroclor-1254 (3) [2C]			2500	820.3788	1000	867.261	750	876.9533	500	913.634	100	1068.46
Aroclor-1254 (4) [2C]			2500	648.5668	1000	671.711	750	683.1773	500	719.072	100	750.24
Aroclor-1254 (5) [2C]			2500	806.4816	1000	809.888	750	806.7466	500	1004.288	100	1007.23
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC

SDG: 1104114

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Calibration: 1104004

Instrument: GL-ECD3

Matrix: Water

Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

~~SW8082A~~

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 31		Level 32		Level 33		Level 34		Level 35		Level 36	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1016												
Aroclor-1016 (1)												
Aroclor-1016 (2)												
Aroclor-1016 (3)												
Aroclor-1016 (4)												
Aroclor-1016 (5)												
Aroclor-1016 [2C]												
Aroclor-1016 (1) [2C]												
Aroclor-1016 (2) [2C]												
Aroclor-1016 (3) [2C]												
Aroclor-1016 (4) [2C]												
Aroclor-1016 (5) [2C]												
Aroclor-1254 (1)	50	1833800										
Aroclor-1254 (2)	50	1156000										
Aroclor-1254 (3)	50	1126500										
Aroclor-1254 (4)	50	1591980										
Aroclor-1254 (5)	50	1549600										
Aroclor-1254 (1) [2C]	50	1548680										
Aroclor-1254 (2) [2C]	50	1443460										
Aroclor-1254 (3) [2C]	50	1207540										
Aroclor-1254 (4) [2C]	50	840580										
Aroclor-1254 (5) [2C]	50	1168280										
Aroclor-1260												
Aroclor-1260 (1)												
Aroclor-1260 (2)												
Aroclor-1260 (3)												
Aroclor-1260 (4)												
Aroclor-1260 (5)												
Aroclor-1260 [2C]												
Aroclor-1260 (1) [2C]												
Aroclor-1260 (2) [2C]												

INITIAL CALIBRATION DATA (Continued)

~~SW8082A~~

Laboratory: Empirical Laboratories, LLC

SDG: 1104114

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Calibration: 1104004

Instrument: GL-ECD3

Matrix: Water

Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Level 31		Level 32		Level 33		Level 34		Level 35		Level 36	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aroclor-1260 (3) [2C]												
Aroclor-1260 (4) [2C]												
Aroclor-1260 (5) [2C]												
Tetrachloro-m-xylene												
Tetrachloro-m-xylene [2C]												
Decachlorobiphenyl												
Decachlorobiphenyl [2C]												

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor-1016	700.5485	4.903307	6.890167	5.371017E-02			20	
Aroclor-1016 (1)	1237.981	3.943186	6.608	4.985535E-02			20	
Aroclor-1016 (2)	455.2183	8.477295	5.747833	5.179216E-02			20	
Aroclor-1016 (3)	655.5527	8.179665	6.093167	4.178403E-02			20	
Aroclor-1016 (4)	656.3031	4.967166	6.2935	4.164898E-02			20	
Aroclor-1016 (5)	497.6873	4.568661	6.890167	5.371017E-02			20	
Aroclor-1016 [2C]	588.6144	8.472632	5.672333	1.252804E-02			20	
Aroclor-1016 (1) [2C]	866.0608	9.595629	5.423667	2.909411E-02			20	
Aroclor-1016 (2) [2C]	568.4333	16.01791	5.0095	3.165443E-02			20	
Aroclor-1016 (3) [2C]	555.4759	8.596839	5.1735	0.0193099			20	
Aroclor-1016 (4) [2C]	472.8374	10.05104	5.570667	2.262423E-02			20	
Aroclor-1016 (5) [2C]	480.2644	8.919631	5.672333	1.252804E-02			20	
Aroclor-1254 (1)	1803.304	2.178697	8.235666	0.0355389			20	
Aroclor-1254 (2)	1085.454	3.680311	7.543	0.0399491			20	
Aroclor-1254 (3)	1093.427	2.527954	8.131333	4.376735E-02			20	
Aroclor-1254 (4)	1523.147	2.855178	8.584667	4.521186E-02			20	
Aroclor-1254 (5)	1544.674	2.484758	9.099166	3.591379E-02			20	
Aroclor-1254 (1) [2C]	1339.18	8.916472	6.924167	0.0325885			20	
Aroclor-1254 (2) [2C]	1124.057	16.92267	6.330667	1.678979E-02			20	
Aroclor-1254 (3) [2C]	959.0379	15.47823	6.4945	2.867968E-02			20	
Aroclor-1254 (4) [2C]	718.8912	9.684997	6.824833	3.501469E-02			20	
Aroclor-1254 (5) [2C]	933.819	16.10215	7.189167	4.059321E-02			20	
Aroclor-1260	2062.043	3.788487	10.9705	3.398021E-02			20	
Aroclor-1260 (1)	4039.029	3.676468	9.877167	4.205502E-02			20	
Aroclor-1260 (2)	1697.848	6.301978	8.762667	0.0462441			20	
Aroclor-1260 (3)	1978.215	5.073072	9.106	0.0380858			20	
Aroclor-1260 (4)	1627.948	6.948739	9.2045	3.409496E-02			20	
Aroclor-1260 (5)	967.1756	4.703497	10.9705	3.398021E-02			20	
Aroclor-1260 [2C]	1452.779	8.860746	8.1965	3.050126E-02			20	
Aroclor-1260 (1) [2C]	2400.031	5.437739	8.1965	3.050126E-02			20	
Aroclor-1260 (2) [2C]	1233.708	13.48229	6.940333	4.342536E-02			20	
Aroclor-1260 (3) [2C]	1424.427	8.799753	7.182333	4.460125E-02			20	

INITIAL CALIBRATION DATA (Continued)

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1104004
Instrument: GL-ECD3
Matrix: Water
Calibration Dates: 11/24/10 17:39 4/8/11 17:15

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aroclor-1260 (4) [2C]	1011.077	12.31634	7.3335	3.882021E-02			20	
Aroclor-1260 (5) [2C]	1194.653	9.562436	7.877333	2.200048E-02			20	
Tetrachloro-m-xylene	29063.78	3.097839	5.319429	2.203025E-02			20	
Tetrachloro-m-xylene [2C]	21333.13	6.724467	4.386286	1.354911E-02			20	
Decachlorobiphenyl	34730.34	5.733994	11.513	1.125907E-02			20	
Decachlorobiphenyl [2C]	21627.76	7.321114	9.773714	2.006134E-02			20	

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	007F0801.D	Calibration Date:	04/08/11 00:00
Sequence:	0K33419	Injection Date:	11/24/10
Lab Sample ID:	0K33419-ICV1	Injection Time:	19:49

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1254 (1)	A	1000	973.1	1803.304	1754.749		-2.7	20
Aroclor-1254 (2)	A	1000	953.1	1085.454	1034.595		-4.7	20
Aroclor-1254 (3)	A	1000	978.3	1093.427	1069.689		-2.2	20
Aroclor-1254 (4)	A	1000	956.1	1523.147	1456.336		-4.4	20
Aroclor-1254 (5)	A	1000	971.9	1544.674	1501.287		-2.8	20
Aroclor-1254 (1) [2C]	A	1000	945.5	1339.18	1266.188		-5.5	20
Aroclor-1254 (2) [2C]	A	1000	878.8	1124.057	987.794		-12.1	20
Aroclor-1254 (3) [2C]	A	1000	890.6	959.0379	854.17		-10.9	20
Aroclor-1254 (4) [2C]	A	1000	931.2	718.8912	669.47		-6.9	20
Aroclor-1254 (5) [2C]	A	1000	887.5	933.819	828.766		-11.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	009F0901.D	Calibration Date:	04/08/11 00:00
Sequence:	1D09605	Injection Date:	04/04/11
Lab Sample ID:	1D09605-ICV1	Injection Time:	18:43

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Aroclor-1016	A	1000	933.8	700.5485	659.6606		-5.8	20
Aroclor-1016 (1)	A	1000	963.8	1237.981	1193.216		-3.6	20
Aroclor-1016 (2)	A	1000	913.5	455.2183	415.83		-8.7	20
Aroclor-1016 (3)	A	1000	960.7	655.5527	629.822		-3.9	20
Aroclor-1016 (4)	A	1000	933.6	656.3031	612.75		-6.6	20
Aroclor-1016 (5)	A	1000	897.5	497.6873	446.685		-10.2	20
Aroclor-1016 [2C]	A	1000	1022	588.6144	596.4024		1.3	20
Aroclor-1016 (1) [2C]	A	1000	970.4	866.0608	840.388		-3.0	20
Aroclor-1016 (2) [2C]	A	1000	953.5	568.4333	542.021		-4.6	20
Aroclor-1016 (3) [2C]	A	1000	1025	555.4759	569.378		2.5	20
Aroclor-1016 (4) [2C]	A	1000	1118	472.8374	528.704		11.8	20
Aroclor-1016 (5) [2C]	A	1000	1044	480.2644	501.521		4.4	20
Aroclor-1260	A	1000	913.9	2062.043	1888.745		-8.4	20
Aroclor-1260 (1)	A	1000	913.8	4039.029	3690.785		-8.6	20
Aroclor-1260 (2)	A	1000	921.1	1697.848	1563.968		-7.9	20
Aroclor-1260 (3)	A	1000	923.0	1978.215	1825.928		-7.7	20
Aroclor-1260 (4)	A	1000	925.0	1627.948	1505.782		-7.5	20
Aroclor-1260 (5)	A	1000	886.4	967.1756	857.262		-11.4	20
Aroclor-1260 [2C]	A	1000	947.2	1452.779	1382.39		-4.8	20
Aroclor-1260 (1) [2C]	A	1000	977.9	2400.031	2346.937		-2.2	20
Aroclor-1260 (2) [2C]	A	1000	933.0	1233.708	1151.034		-6.7	20
Aroclor-1260 (3) [2C]	A	1000	933.0	1424.427	1328.929		-6.7	20
Aroclor-1260 (4) [2C]	A	1000	955.7	1011.077	966.304		-4.4	20
Aroclor-1260 (5) [2C]	A	1000	936.5	1194.653	1118.746		-6.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	002F0201.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV1	Injection Time:	13:38

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016	A	1000	973.0	700.5485	685.2936		-2.2	20
Aroclor-1016 (1)	A	1000	996.6	1237.981	1233.815		-0.3	20
Aroclor-1016 (2)	A	1000	943.9	455.2183	429.675		-5.6	20
Aroclor-1016 (3)	A	1000	955.3	655.5527	626.248		-4.5	20
Aroclor-1016 (4)	A	1000	987.4	656.3031	648.023		-1.3	20
Aroclor-1016 (5)	A	1000	982.0	497.6873	488.707		-1.8	20
Aroclor-1016 [2C]	A	1000	1051	588.6144	615.5948		4.6	20
Aroclor-1016 (1) [2C]	A	1000	1040	866.0608	900.533		4.0	20
Aroclor-1016 (2) [2C]	A	1000	938.8	568.4333	533.641		-6.1	20
Aroclor-1016 (3) [2C]	A	1000	1047	555.4759	581.505		4.7	20
Aroclor-1016 (4) [2C]	A	1000	1153	472.8374	545.196		15.3	20
Aroclor-1016 (5) [2C]	A	1000	1077	480.2644	517.099		7.7	20
Aroclor-1260	A	1000	994.5	2062.043	2054.937		-0.3	20
Aroclor-1260 (1)	A	1000	970.7	4039.029	3920.612		-2.9	20
Aroclor-1260 (2)	A	1000	950.6	1697.848	1613.965		-4.9	20
Aroclor-1260 (3)	A	1000	1136	1978.215	2247.591		13.6	20
Aroclor-1260 (4)	A	1000	969.2	1627.948	1577.764		-3.1	20
Aroclor-1260 (5)	A	1000	945.8	967.1756	914.752		-5.4	20
Aroclor-1260 [2C]	A	1000	1036	1452.779	1503.276		3.5	20
Aroclor-1260 (1) [2C]	A	1000	1025	2400.031	2459.786		2.5	20
Aroclor-1260 (2) [2C]	A	1000	1037	1233.708	1279.875		3.7	20
Aroclor-1260 (3) [2C]	A	1000	1050	1424.427	1495.967		5.0	20
Aroclor-1260 (4) [2C]	A	1000	1035	1011.077	1046.157		3.5	20
Aroclor-1260 (5) [2C]	A	1000	1033	1194.653	1234.594		3.3	20
Tetrachloro-m-xylene	A	100.0	97.63	29063.78	28374.86		-2.4	20
Tetrachloro-m-xylene [2C]	A	100.0	98.51	21333.13	21015.88		-1.5	20
Decachlorobiphenyl	A	100.0	86.94	34730.34	30194.25		-13.1	20
Decachlorobiphenyl [2C]	A	100.0	90.80	21627.76	19637.2		-9.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	017F1701.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV2	Injection Time:	19:17

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016	A	1000	1011	700.5485	712.5188		1.7	20
Aroclor-1016 (1)	A	1000	1049	1237.981	1299.02		4.9	20
Aroclor-1016 (2)	A	1000	968.5	455.2183	440.874		-3.2	20
Aroclor-1016 (3)	A	1000	984.8	655.5527	645.589		-1.5	20
Aroclor-1016 (4)	A	1000	986.9	656.3031	647.718		-1.3	20
Aroclor-1016 (5)	A	1000	1064	497.6873	529.393		6.4	20
Aroclor-1016 [2C]	A	1000	1073	588.6144	628.0324		6.7	20
Aroclor-1016 (1) [2C]	A	1000	1046	866.0608	906.347		4.7	20
Aroclor-1016 (2) [2C]	A	1000	992.8	568.4333	564.328		-0.7	20
Aroclor-1016 (3) [2C]	A	1000	1068	555.4759	593.454		6.8	20
Aroclor-1016 (4) [2C]	A	1000	1176	472.8374	555.827		17.6	20
Aroclor-1016 (5) [2C]	A	1000	1083	480.2644	520.206		8.3	20
Aroclor-1260	A	1000	1021	2062.043	2109.194		2.3	20
Aroclor-1260 (1)	A	1000	992.2	4039.029	4007.434		-0.8	20
Aroclor-1260 (2)	A	1000	987.1	1697.848	1675.932		-1.3	20
Aroclor-1260 (3)	A	1000	1178	1978.215	2331.383		17.9	20
Aroclor-1260 (4)	A	1000	981.6	1627.948	1598.066		-1.8	20
Aroclor-1260 (5)	A	1000	964.8	967.1756	933.154		-3.5	20
Aroclor-1260 [2C]	A	1000	1003	1452.779	1469.103		1.1	20
Aroclor-1260 (1) [2C]	A	1000	1053	2400.031	2528.324		5.3	20
Aroclor-1260 (2) [2C]	A	1000	965.8	1233.708	1191.532		-3.4	20
Aroclor-1260 (3) [2C]	A	1000	994.0	1424.427	1415.875		-0.6	20
Aroclor-1260 (4) [2C]	A	1000	993.9	1011.077	1004.919		-0.6	20
Aroclor-1260 (5) [2C]	A	1000	1008	1194.653	1204.864		0.9	20
Tetrachloro-m-xylene	A	100.0	99.78	29063.78	29000.61		-0.2	20
Tetrachloro-m-xylene [2C]	A	100.0	100.0	21333.13	21343.26		0.05	20
Decachlorobiphenyl	A	100.0	86.74	34730.34	30124.7		-13.3	20
Decachlorobiphenyl [2C]	A	100.0	89.11	21627.76	19271.83		-10.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	018F1801.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV3	Injection Time:	19:35

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	966.6	1803.304	1743.039		-3.3	20	
Aroclor-1254 (2)	A	1000	882.8	1085.454	958.27		-11.7	20	
Aroclor-1254 (3)	A	1000	937.7	1093.427	1025.295		-6.2	20	
Aroclor-1254 (4)	A	1000	770.4	1523.147	1173.437		-23.0	20	*
Aroclor-1254 (5)	A	1000	1074	1544.674	1659.258		7.4	20	
Aroclor-1254 (1) [2C]	A	1000	1132	1339.18	1516.111		13.2	20	
Aroclor-1254 (2) [2C]	A	1000	982.8	1124.057	1104.769		-1.7	20	
Aroclor-1254 (3) [2C]	A	1000	985.8	959.0379	945.455		-1.4	20	
Aroclor-1254 (4) [2C]	A	1000	1020	718.8912	733.417		2.0	20	
Aroclor-1254 (5) [2C]	A	1000	890.4	933.819	831.443		-11.0	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	024F2401.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV4	Injection Time:	21:27

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Aroclor-1016	A	1000	1006	700.5485	708.1598		1.1	20
Aroclor-1016 (1)	A	1000	1027	1237.981	1271.923		2.7	20
Aroclor-1016 (2)	A	1000	962.0	455.2183	437.917		-3.8	20
Aroclor-1016 (3)	A	1000	980.2	655.5527	642.583		-2.0	20
Aroclor-1016 (4)	A	1000	1019	656.3031	669.053		1.9	20
Aroclor-1016 (5)	A	1000	1043	497.6873	519.323		4.3	20
Aroclor-1016 [2C]	A	1000	1059	588.6144	619.2114		5.2	20
Aroclor-1016 (1) [2C]	A	1000	1035	866.0608	896.557		3.5	20
Aroclor-1016 (2) [2C]	A	1000	936.5	568.4333	532.365		-6.3	20
Aroclor-1016 (3) [2C]	A	1000	1064	555.4759	590.782		6.4	20
Aroclor-1016 (4) [2C]	A	1000	1166	472.8374	551.261		16.6	20
Aroclor-1016 (5) [2C]	A	1000	1093	480.2644	525.092		9.3	20
Aroclor-1260	A	1000	1019	2062.043	2101.635		1.9	20
Aroclor-1260 (1)	A	1000	986.0	4039.029	3982.558		-1.4	20
Aroclor-1260 (2)	A	1000	992.4	1697.848	1684.946		-0.8	20
Aroclor-1260 (3)	A	1000	1168	1978.215	2310.142		16.8	20
Aroclor-1260 (4)	A	1000	979.4	1627.948	1594.334		-2.1	20
Aroclor-1260 (5)	A	1000	968.0	967.1756	936.194		-3.2	20
Aroclor-1260 [2C]	A	1000	995.3	1452.779	1455.403		0.2	20
Aroclor-1260 (1) [2C]	A	1000	1036	2400.031	2485.468		3.6	20
Aroclor-1260 (2) [2C]	A	1000	969.1	1233.708	1195.562		-3.1	20
Aroclor-1260 (3) [2C]	A	1000	989.6	1424.427	1409.679		-1.0	20
Aroclor-1260 (4) [2C]	A	1000	986.2	1011.077	997.091		-1.4	20
Aroclor-1260 (5) [2C]	A	1000	995.4	1194.653	1189.214		-0.5	20
Tetrachloro-m-xylene	A	100.0	99.66	29063.78	28965.65		-0.3	20
Tetrachloro-m-xylene [2C]	A	100.0	100.8	21333.13	21498.45		0.8	20
Decachlorobiphenyl	A	100.0	88.04	34730.34	30576.75		-12.0	20
Decachlorobiphenyl [2C]	A	100.0	91.43	21627.76	19773.92		-8.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8082A

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Instrument ID:	GL-ECD3	Calibration:	1104004
Lab File ID:	025F2501.D	Calibration Date:	04/08/11 00:00
Sequence:	1D10505	Injection Date:	04/14/11
Lab Sample ID:	1D10505-CCV5	Injection Time:	21:46

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Aroclor-1254 (1)	A	1000	1049	1803.304	1891.658		4.9	20	
Aroclor-1254 (2)	A	1000	990.4	1085.454	1075.084		-1.0	20	
Aroclor-1254 (3)	A	1000	1014	1093.427	1109.093		1.4	20	
Aroclor-1254 (4)	A	1000	817.9	1523.147	1245.854		-18.2	20	
Aroclor-1254 (5)	A	1000	927.9	1544.674	1433.344		-7.2	20	
Aroclor-1254 (1) [2C]	A	1000	1214	1339.18	1626.32		21.4	20	*
Aroclor-1254 (2) [2C]	A	1000	1069	1124.057	1201.936		6.9	20	
Aroclor-1254 (3) [2C]	A	1000	1071	959.0379	1027.529		7.1	20	
Aroclor-1254 (4) [2C]	A	1000	1075	718.8912	773.071		7.5	20	
Aroclor-1254 (5) [2C]	A	1000	946.7	933.819	884.076		-5.3	20	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D10505
Instrument: GL-ECD3
Calibration: 1104004

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (1D10505-CCV1) ug/L				Lab File ID: 002F0201.D		Analyzed: 04/14/11 13:38		
Tetrachloro-m-xylene	100.0	97.6	80 - 120	5.318	5.318	0.0000	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	98.5	80 - 120	4.386	4.386	0.0000	+/-0.030	
Decachlorobiphenyl	100.0	86.9	80 - 120	11.513	11.513	0.0000	+/-0.030	
Decachlorobiphenyl [2C]	100.0	90.8	80 - 120	9.773	9.773	0.0000	+/-0.030	
Blank (1D09814-BLK1) ug/Kg wet				Lab File ID: 003F0301.D		Analyzed: 04/14/11 14:19		
Tetrachloro-m-xylene	16.67	91.3	70 - 125	5.328	5.318	0.0100	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	93.3	70 - 125	4.385	4.386	-0.0010	+/-0.030	
Decachlorobiphenyl	16.67	87.0	60 - 125	11.524	11.513	0.0110	+/-0.030	
Decachlorobiphenyl [2C]	16.67	92.5	60 - 125	9.777	9.773	0.0040	+/-0.030	
LCS (1D09814-BS1) ug/Kg wet				Lab File ID: 004F0401.D		Analyzed: 04/14/11 14:38		
Tetrachloro-m-xylene	16.67	93.2	70 - 125	5.319	5.318	0.0010	+/-0.030	
Tetrachloro-m-xylene [2C]	16.67	98.6	70 - 125	4.386	4.386	0.0000	+/-0.030	
Decachlorobiphenyl	16.67	91.6	60 - 125	11.514	11.513	0.0010	+/-0.030	
Decachlorobiphenyl [2C]	16.67	95.0	60 - 125	9.773	9.773	0.0000	+/-0.030	
Calibration Check (1D10505-CCV2) ug/L				Lab File ID: 017F1701.D		Analyzed: 04/14/11 19:17		
Tetrachloro-m-xylene	100.0	99.8	80 - 120	5.32	5.318	0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	100	80 - 120	4.387	4.386	0.0010	+/-0.030	
Decachlorobiphenyl	100.0	86.7	80 - 120	11.515	11.513	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	100.0	89.1	80 - 120	9.776	9.773	0.0030	+/-0.030	
504-20N(20110411) (1104114-03) ug/Kg dry				Lab File ID: 021F2101.D		Analyzed: 04/14/11 20:31		
Tetrachloro-m-xylene	20.09	74.1	70 - 125	5.32	5.318	0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	20.09	75.5	70 - 125	4.388	4.386	0.0020	+/-0.030	
Decachlorobiphenyl	20.09	59.7	60 - 125	11.515	11.513	0.0020	+/-0.030	*
Decachlorobiphenyl [2C]	20.09	62.3	60 - 125	9.775	9.773	0.0020	+/-0.030	
504-22E(20110411) (1104114-04) ug/Kg dry				Lab File ID: 022F2201.D		Analyzed: 04/14/11 20:50		
Tetrachloro-m-xylene	21.99	84.0	70 - 125	5.32	5.318	0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	21.99	86.1	70 - 125	4.386	4.386	0.0000	+/-0.030	
Decachlorobiphenyl	21.99	70.7	60 - 125	11.517	11.513	0.0040	+/-0.030	
Decachlorobiphenyl [2C]	21.99	73.7	60 - 125	9.774	9.773	0.0010	+/-0.030	
Calibration Check (1D10505-CCV4) ug/L				Lab File ID: 024F2401.D		Analyzed: 04/14/11 21:27		
Tetrachloro-m-xylene	100.0	99.7	80 - 120	5.32	5.318	0.0020	+/-0.030	
Tetrachloro-m-xylene [2C]	100.0	101	80 - 120	4.387	4.386	0.0010	+/-0.030	
Decachlorobiphenyl	100.0	88.0	80 - 120	11.515	11.513	0.0020	+/-0.030	
Decachlorobiphenyl [2C]	100.0	91.4	80 - 120	9.776	9.773	0.0030	+/-0.030	

HOLDING TIME SUMMARY

SW8082A

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
504-20N(20110411)	04/11/11 14:20	04/12/11 08:45	04/12/11 16:11	1.08	14.00	04/14/11 20:31	2.18	40.00	
504-22E(20110411)	04/11/11 14:30	04/12/11 08:45	04/12/11 16:11	1.07	14.00	04/14/11 20:50	2.19	40.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1D09814-BS1 File ID: 004F0401.D

Sampled: Prepared: Analyzed: 04/14/11 14:38

Solids: Preparation: EXT_3546 Dilution:

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016	163.4	4.20	17.0	
11097-69-1	Aroclor-1254		4.20	17.0	U
11096-82-5	Aroclor-1260	158.2	4.20	17.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene	16.67	15.53	93.2	70 - 125	
Decachlorobiphenyl	16.67	15.27	91.6	60 - 125	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant201(

Matrix: Laboratory ID: 1D09814-BS1 File ID: 004R0401.D

Sampled: Prepared: Analyzed: 04/14/11 14:38

Solids: Preparation: EXT_3546 Dilution:

Batch: 1D09814 Sequence: 1D10505 Calibration: 1104004 Instrument: GL-ECD3

CAS NO.	COMPOUND	CONC. (ug/Kg wet)	MDL	MRL	Q
12674-11-2	Aroclor-1016 [2C]	179.9	4.20	17.0	
11097-69-1	Aroclor-1254 [2C]		4.20	17.0	U
11096-82-5	Aroclor-1260 [2C]	176.1	4.20	17.0	

SYSTEM MONITORING COMPOUND	ADDED (ug/Kg wet)	CONC (ug/Kg wet)	% REC	QC LIMITS	Q
Tetrachloro-m-xylene [2C]	16.67	16.44	98.6	70 - 125	
Decachlorobiphenyl [2C]	16.67	15.83	95.0	60 - 125	

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1D09814-BS1 Date(s) Analyzed: 04/14/2011 04/14/2011

Instrument ID (1): GL-ECD3 Instrument ID (2): GL-ECD3

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	6.85	6.86	6.92	163.4	
	2	5.64	5.64	5.70	179.9	10
Aroclor-1260	1	10.91	10.94	11.00	158.2	
	2	8.15	8.17	8.23	176.1	11

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1104114

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** GL-ECD3

Analyte	MDL	MRL	Units	Method
Aroclor-1254	4.20	17.0	ug/Kg	SW8082A

Data for SW8082A
Supporting Raw Data / Logs

Sequence Table (Front Injector): Back

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Method and Injection Info Part:

Line	Location	SampleName	Method	Inj	SampleType	InjVolume	DataFile
1	Vial 1	SEQ-CAL1 10J0240	8081_82	1	Sample		
2	Vial 2	SEQ-CAL2 10J0241	8081_82	1	Sample		
3	Vial 3	SEQ-CAL3 10J0242	8081_82	1	Sample		
4	Vial 4	SEQ-CAL4 10J0243	8081_82	1	Sample		
~~5~~	~~Vial 25~~	~~0K22021-BS1,R&D~~	~~8081_82~~	~~1~~	~~Sample~~		
6	Vial 5	SEQ-CAL5 11J0244	8081_82	1	Sample		
7	Vial 6	SEQ-CAL6 10J0245	8081_82	1	Sample		
8	Vial 7	SEQ-ICV1 10J0248	8081_82	1	Sample		
9	Vial 8	SEQ-CAL7 10K0734	8081_82	1	Sample		
10	Vial 9	SEQ-CAL8 10K0735	8081_82	1	Sample		
11	Vial 10	SEQ-CAL9 10K0736	8081_82	1	Sample		
12	Vial 11	SEQ-CALA 10K0737	8081_82	1	Sample		
13	Vial 12	SEQ-CALB 10K0738	8081_82	1	Sample		
14	Vial 13	SEQ-CALC 10K0739	8081_82	1	Sample		
15	Vial 14	SEQ-ICV2 10K0742	8081_82	1	Sample		
16	Vial 15	SEQ-CCV1 10J0157 AB	8081_82	1	Sample		
17	Vial 16	SEQ-CCV2 1060159 1660	8081_82	1	Sample		
18	Vial 17	SEQ-CCV3 10J0241 1254	8081_82	1	Sample		
19	Vial 18	SEQ-CCV4 10K0735 1268	8081_82	1	Sample		
20	Vial 19	1011193-01 IX	8081_82	1	Sample		
21	Vial 20	1011193-03 IY	8081_82	1	Sample		
22	Vial 21	SEQ-CCV5 10J0157 AO	8081_82	1	Sample		
23	Vial 22	SEQ-CCV6 1060159 1660	8081_82	1	Sample		
24	Vial 23	SEQ-CCV7 10J0241 1254	8081_82	1	Sample		
25	Vial 24	SEQ-CCV8 10K0735	8081_82	1	Sample		
~~26~~	~~Vial 25~~	~~0K22021-BS1~~	~~8081_82~~	~~1~~	~~Sample~~		

1254 curve

1254 curve

1268 curve

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not used

~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

JCG 12-1-10

Laboratory Name:

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001F0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 24-NOV-2010 17:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.242	8.235	(0.007)	4540658	2500.00	2518	80.00- 120.00	100.00
7.549	7.542	(0.007)	2654271	2500.00	2445	46.76- 70.15	58.46
7.809	7.802	(0.007)	4346663			76.58- 114.87	95.73
8.139	8.128	(0.011)	2703565	2500.00	2472	47.63- 71.45	59.54
8.592	8.582	(0.010)	3762268	2500.00	2470	66.29- 99.43	82.86
9.105	9.098	(0.007)	3871825	2500.00	2506	68.22- 102.32	85.27
		Average of Peak Amounts =			2482		

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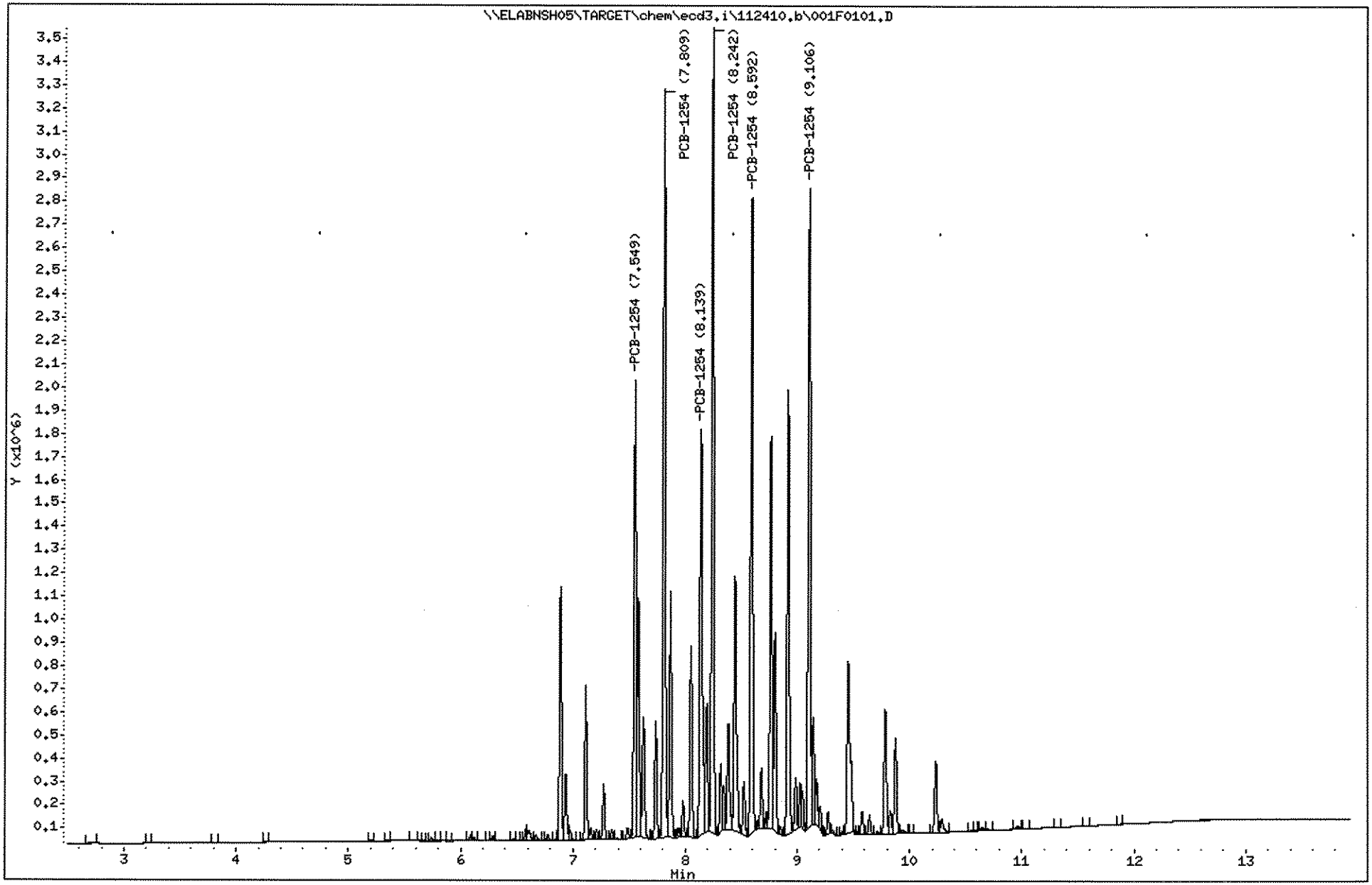
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001F0101.D
Date : 24-NOV-2010 17:39
Client ID:
Sample Info: SEQ-CAL1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



12.1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002F0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 24-NOV-2010 17:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			-
8.235	8.235	(0.000)	1800472	1000.00	998.4	80.00-	120.00	100.00
7.542	7.542	(0.000)	1065415	1000.00	981.5	47.34-	71.01	59.17
7.802	7.802	(0.000)	1718086			76.34-	114.51	95.42
8.128	8.128	(0.000)	1086616	1000.00	993.8	48.28-	72.42	60.35
8.582	8.582	(0.000)	1496942	1000.00	982.8	66.51-	99.77	83.14
9.098	9.098	(0.000)	1558402	1000.00	1009	69.24-	103.87	86.56
		Average of Peak Amounts =			993.1			

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Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002F0201.D

Date : 24-NOV-2010 17:58

Client ID:

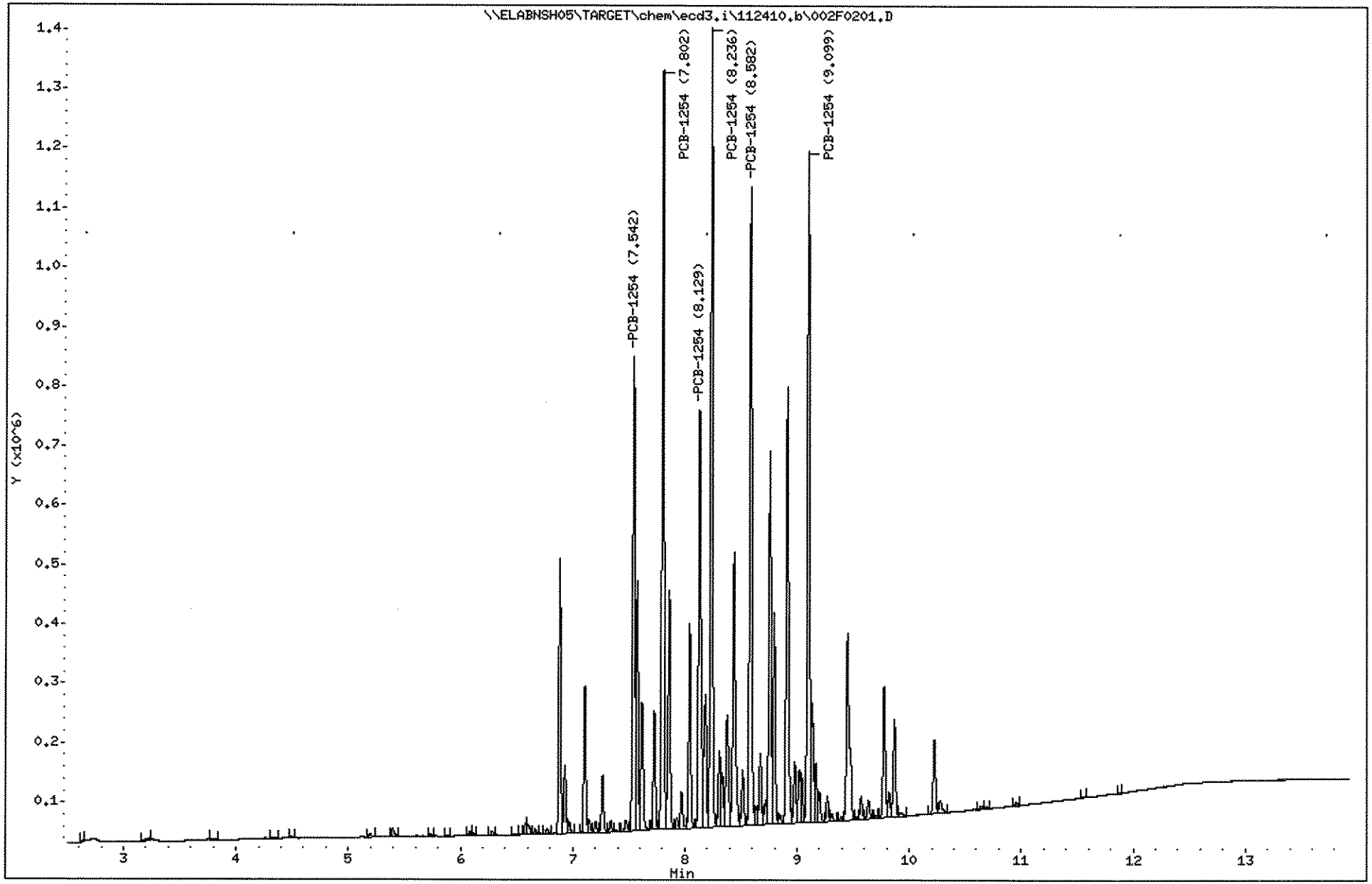
Sample Info: SEQ-CAL2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL

Column diameter: 0.32



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003F0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 24-NOV-2010 18:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.233	8.235	(-0.002)	1320845	750.000	732.4	80.00-	120.00	100.00
7.540	7.542	(-0.002)	781597	750.000	720.1	47.34-	71.01	59.17
7.800	7.802	(-0.002)	1268132			76.81-	115.21	96.01
8.130	8.128	(0.002)	804079	750.000	735.4	48.70-	73.05	60.88
8.581	8.582	(-0.001)	1100891	750.000	722.8	66.68-	100.02	83.35
9.096	9.098	(-0.002)	1126403	750.000	729.2	68.22-	102.33	85.28
Average of Peak Amounts =					728			

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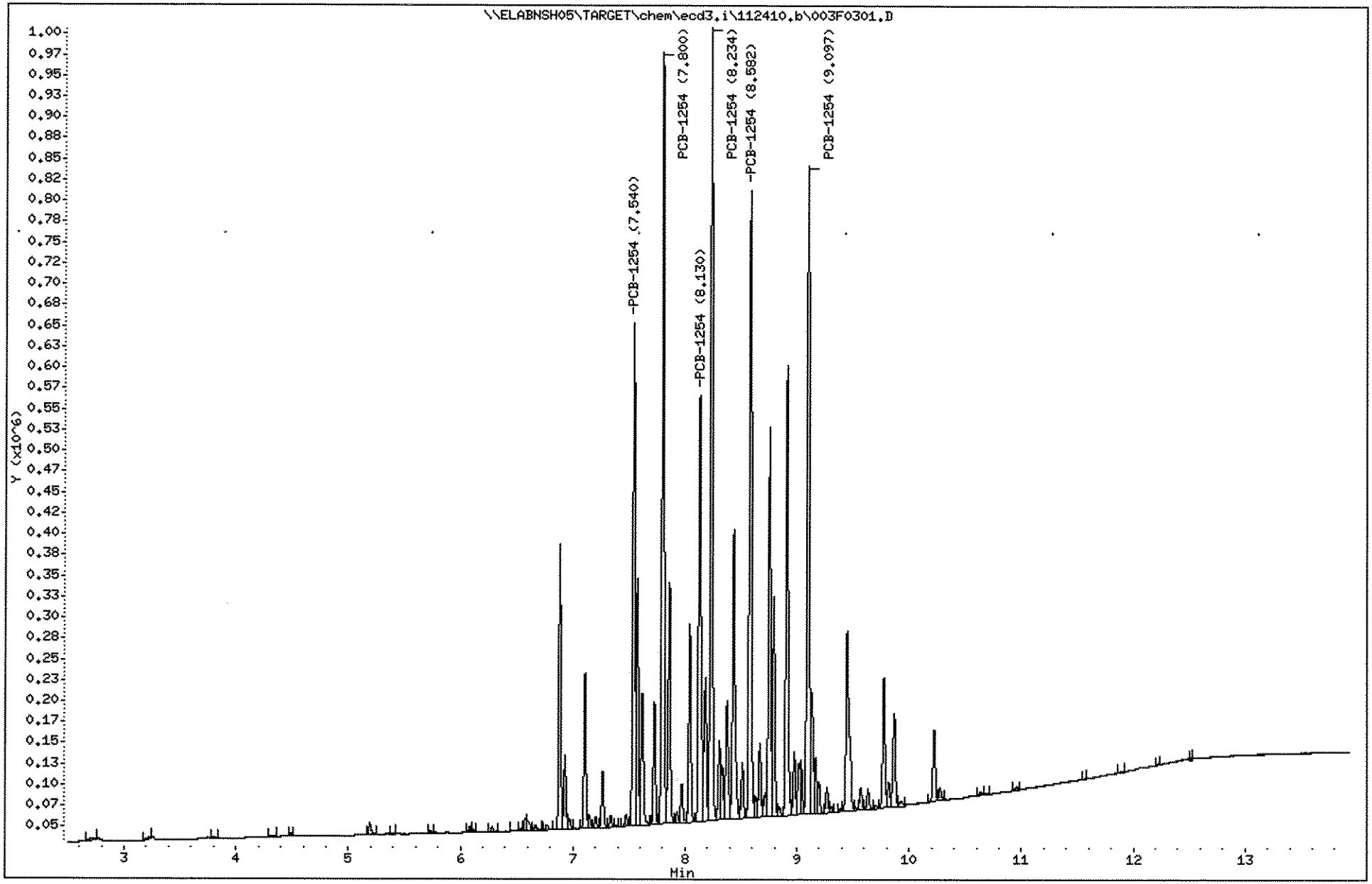
Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003F0301.D
Date : 24-NOV-2010 18:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

SW-846 METHODS 8081A/8082

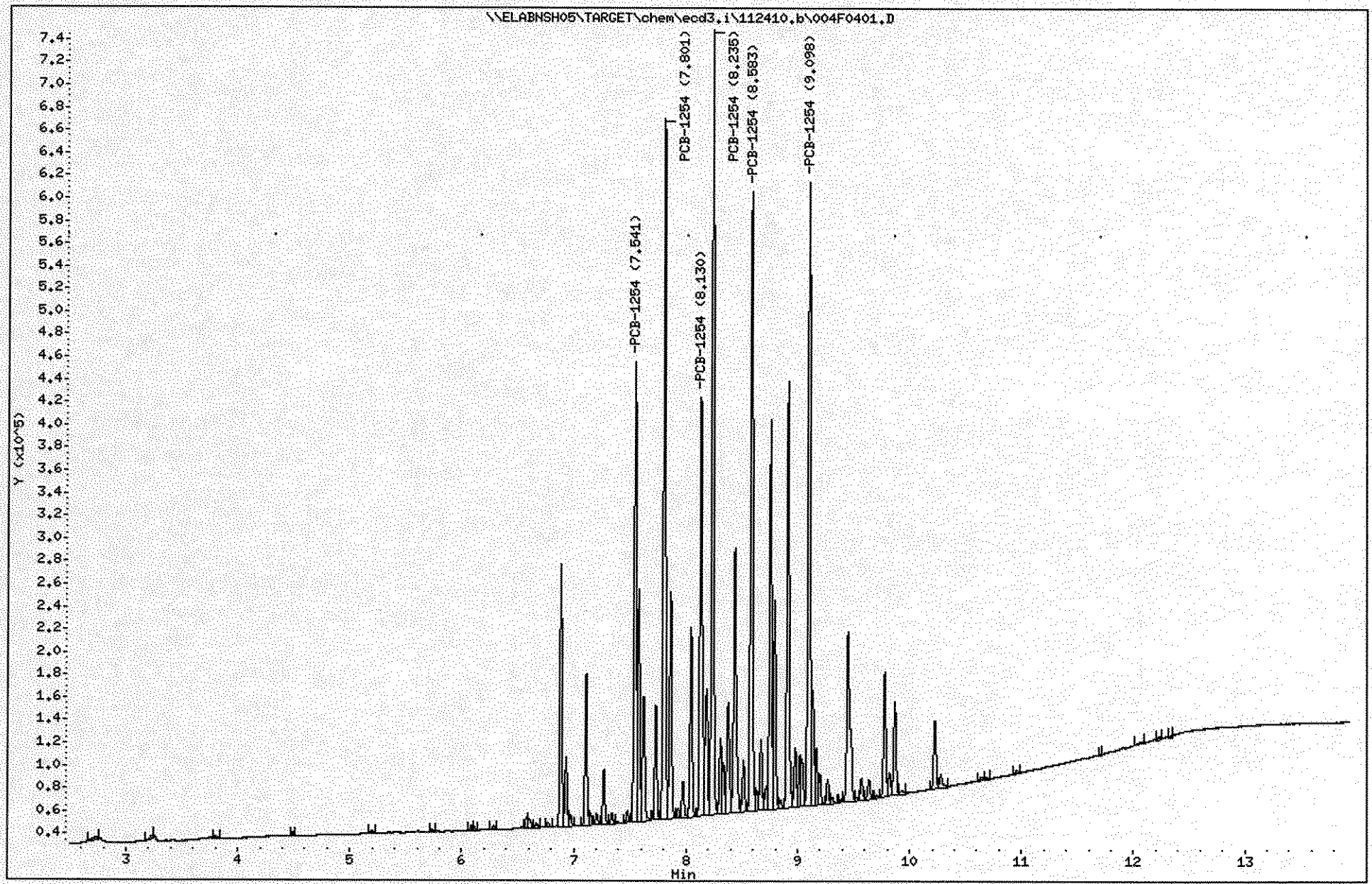
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004F0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 24-NOV-2010 18:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.234	8.235	(-0.001)	926617	500.000	513.8	80.00- 120.00	100.00
7.541	7.542	(-0.001)	545175	500.000	502.2	47.07- 70.60	58.83
7.801	7.802	(-0.001)	888930			76.75- 115.12	95.93
8.129	8.128	(0.001)	564511	500.000	516.3	48.74- 73.11	60.92
8.583	8.582	(0.001)	773829	500.000	508.0	66.81- 100.21	83.51
9.098	9.098	(0.000)	802615	500.000	519.6	69.29- 103.94	86.62
		Average of Peak Amounts =			512		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004F0401.D
Date : 24-NOV-2010 18:35
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005F0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 24-NOV-2010 19:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.235	8.235	(0.000)	175493	100.000	97.32	80.00-	120.00	100.00
7.543	7.542	(0.001)	109712	100.000	101.1	50.01-	75.02	62.52
7.800	7.802	(-0.002)	172231			78.51-	117.77	98.14
8.131	8.128	(0.003)	106489	100.000	97.39	48.54-	72.82	60.68
8.585	8.582	(0.003)	152954	100.000	100.4	69.73-	104.59	87.16
9.100	9.098	(0.002)	150421	100.000	97.38	68.57-	102.86	85.71
		Average of Peak Amounts =			98.72			

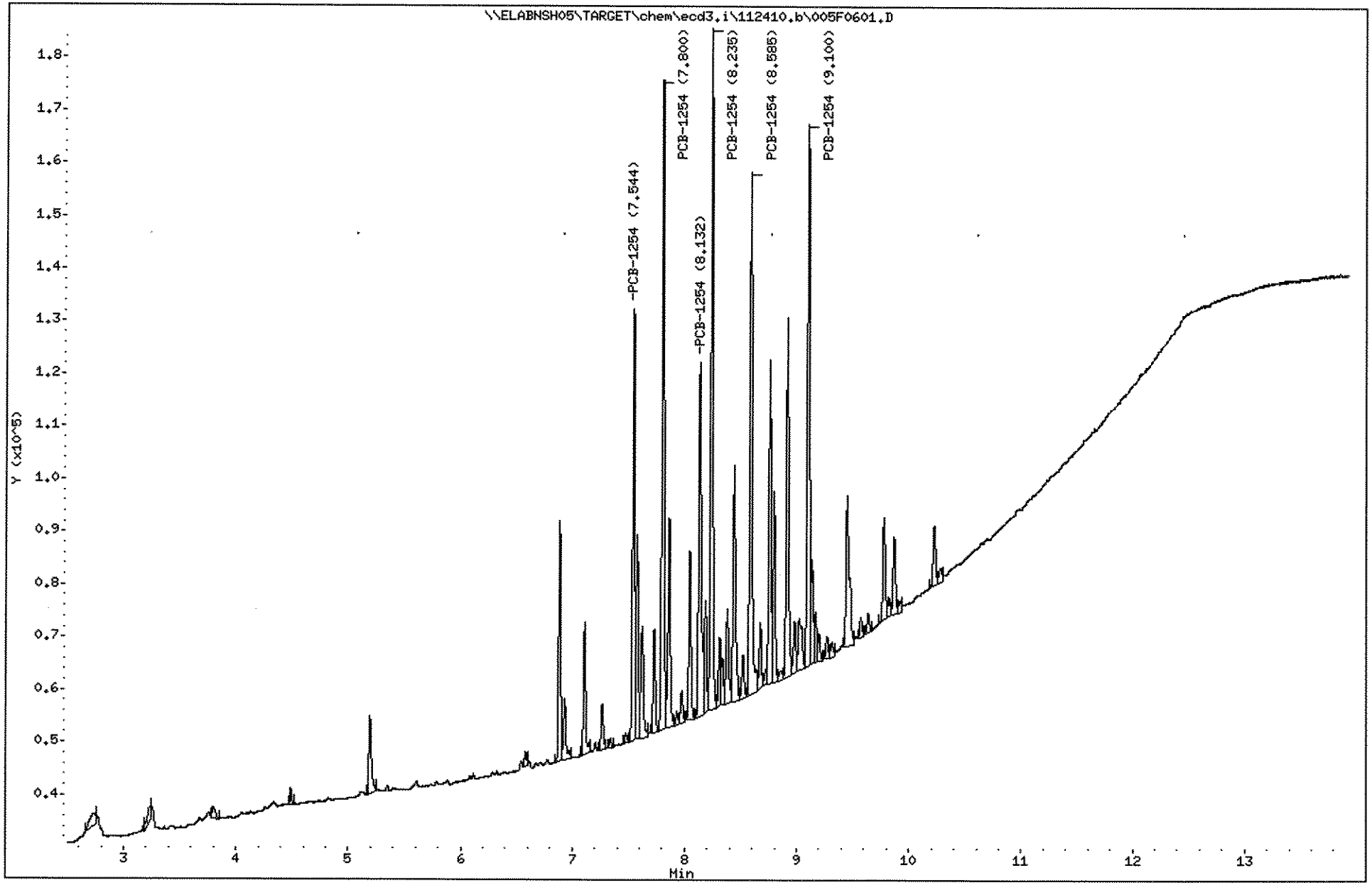
WL 11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005F0601.D
Date : 24-NOV-2010 19:12
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006F0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 24-NOV-2010 19:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

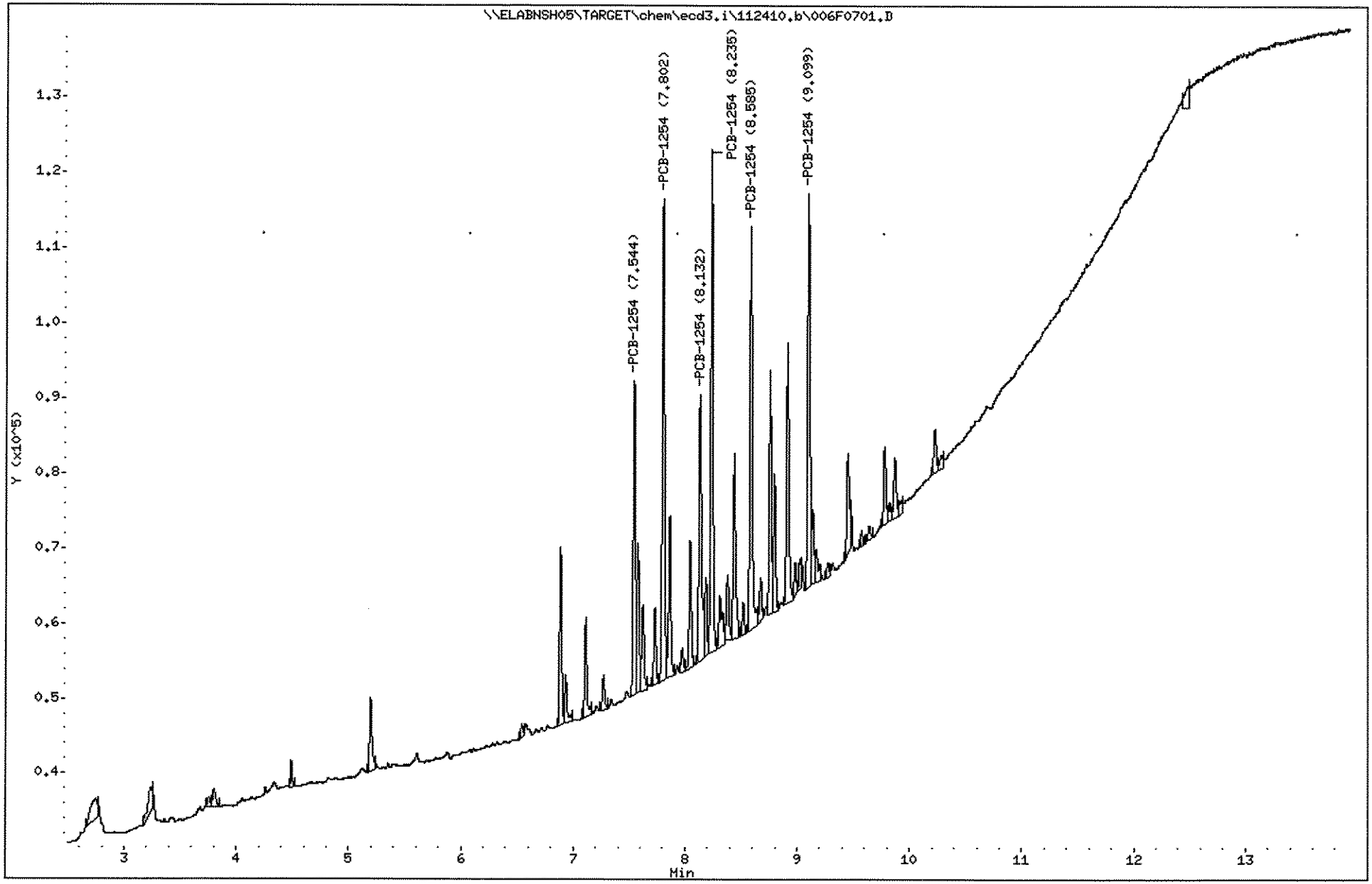
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.235	8.235	(0.000)	91690	50.0000	50.84	80.00-	120.00	100.00
7.543	7.542	(0.001)	57800	50.0000	53.25	50.43-	75.65	63.04
7.801	7.802	(-0.001)	91309			79.67-	119.50	99.58
8.131	8.128	(0.003)	56325	50.0000	51.51	49.14-	73.72	61.43
8.585	8.582	(0.003)	79599	50.0000	52.26	69.45-	104.18	86.81
9.098	9.098	(0.000)	77480	50.0000	50.16	67.60-	101.40	84.50
Average of Peak Amounts =					51.61			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006F0701.D
Date : 24-NOV-2010 19:31
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

JLG 12-1-10

Instrument ID: ecd3.i Injection Date: 24-NOV-2010 19:49
Lab File ID: 007F0801.D Init. Cal. Date(s): 01-JUL-2010 24-NOV-2010
Analysis Type: Init. Cal. Times: 08:58 21:41
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1755	0.010	-2.7	20.0	
(2)	1085	1035	0.010	-4.7	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1070	0.010	-2.2	20.0	
(5)	1523	1456	0.010	-4.4	20.0	
(6)	1545	1501	0.010	-2.8	20.0	

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JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007F0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 24-NOV-2010 19:49
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82F.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015F1501.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254					CAS #: 11097-69-1		
8.236	8.235	(0.001)	1754749	1000.00	973.1	80.00- 120.00	100.00
7.543	7.542	(0.001)	1034595	1000.00	953.1	47.17- 70.75	58.96
7.803	7.802	(0.001)	1680755			76.63- 114.94	95.78
8.131	8.128	(0.003)	1069689	1000.00	978.3	48.77- 73.15	60.96
8.585	8.582	(0.003)	1456336	1000.00	956.1	66.40- 99.59	82.99
9.100	9.098	(0.002)	1501287	1000.00	971.9	68.44- 102.67	85.56
		Average of Peak Amounts =			966.5		

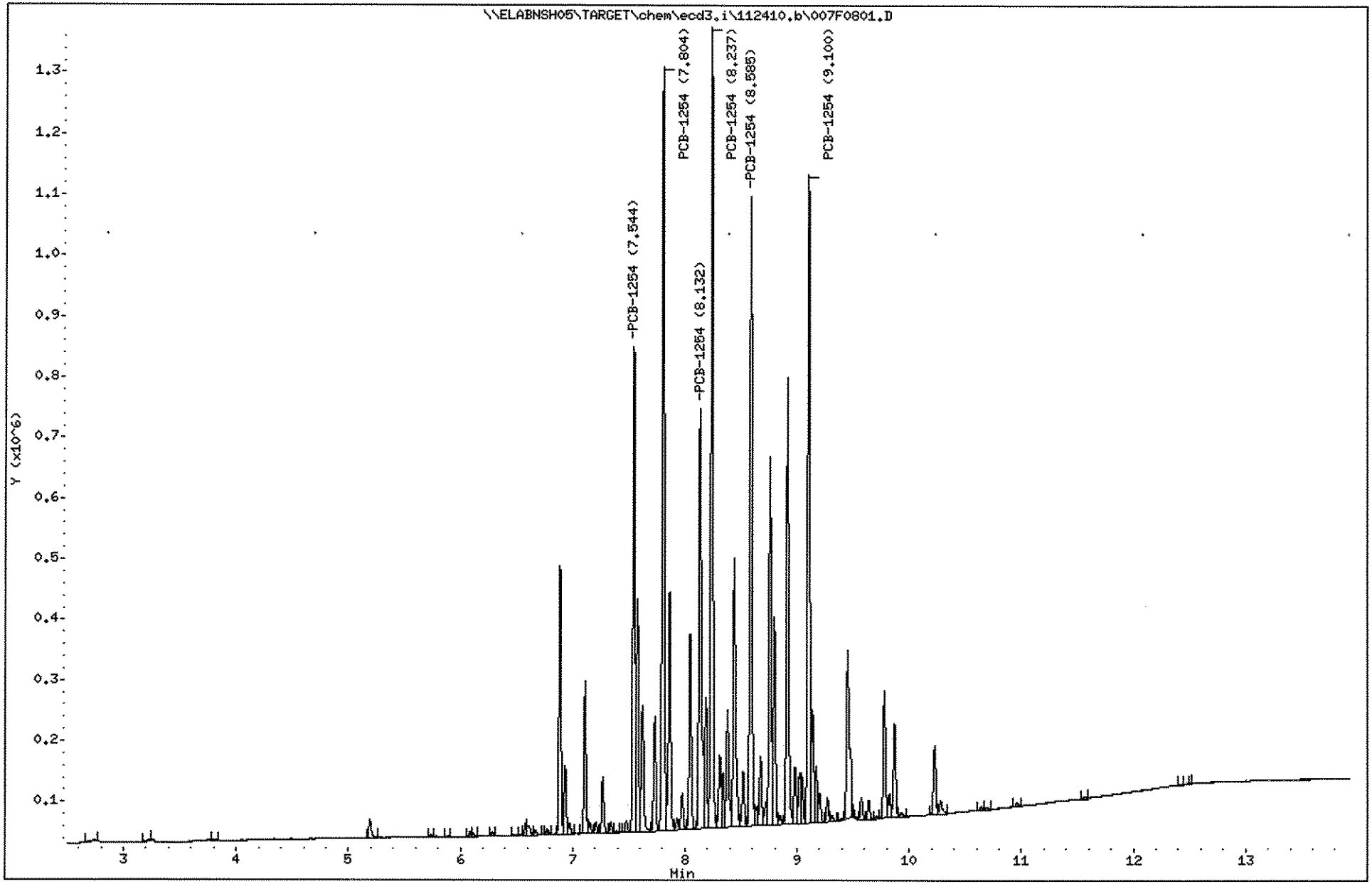
WL 11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007F0801.D
Date : 24-NOV-2010 19:49
Client ID:
Sample Info: SEQ-ICV1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



JLG 12-1-10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001R0101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 24-NOV-2010 17:39
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

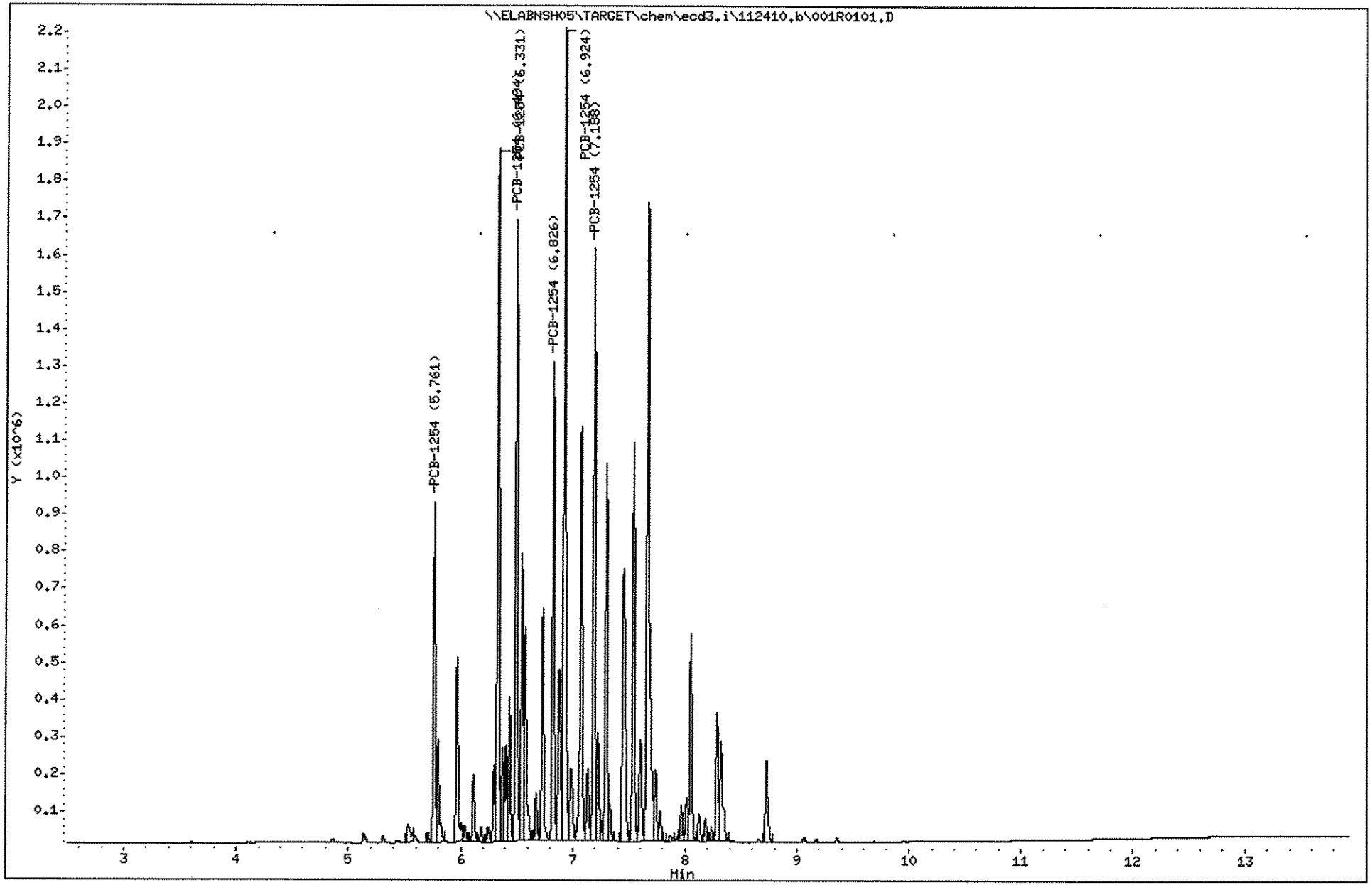
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.924	6.922	(0.002)	3028444	2500.00	2261	80.00- 120.00	100.00
5.760	5.760	(0.000)	1008424			26.64- 39.96	33.30
6.330	6.329	(0.001)	2351988	2500.00	2092	62.13- 93.20	77.66
6.494	6.492	(0.002)	2050947	2500.00	2138	54.18- 81.27	67.72
6.825	6.822	(0.003)	1621417	2500.00	2255	42.83- 64.25	53.54
7.187	7.187	(0.000)	2016204	2500.00	2159	53.26- 79.89	66.58
		Average of Peak Amounts =			2181		

WL 11/24/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\001R0101.D
Date : 24-NOV-2010 17:39
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLS 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002R0201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 24-NOV-2010 17:58
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.922	6.922	(0.000)	1259030	1000.00	940.2	80.00-	120.00	100.00
5.760	5.760	(0.000)	426725			27.11-	40.67	33.89
6.329	6.329	(0.000)	998081	1000.00	887.9	63.42-	95.13	79.27
6.492	6.492	(0.000)	867261	1000.00	904.3	55.11-	82.66	68.88
6.822	6.822	(0.000)	671711	1000.00	934.4	42.68-	64.02	53.35
7.187	7.187	(0.000)	809888	1000.00	867.3	51.46-	77.19	64.33
Average of Peak Amounts =					906.8			

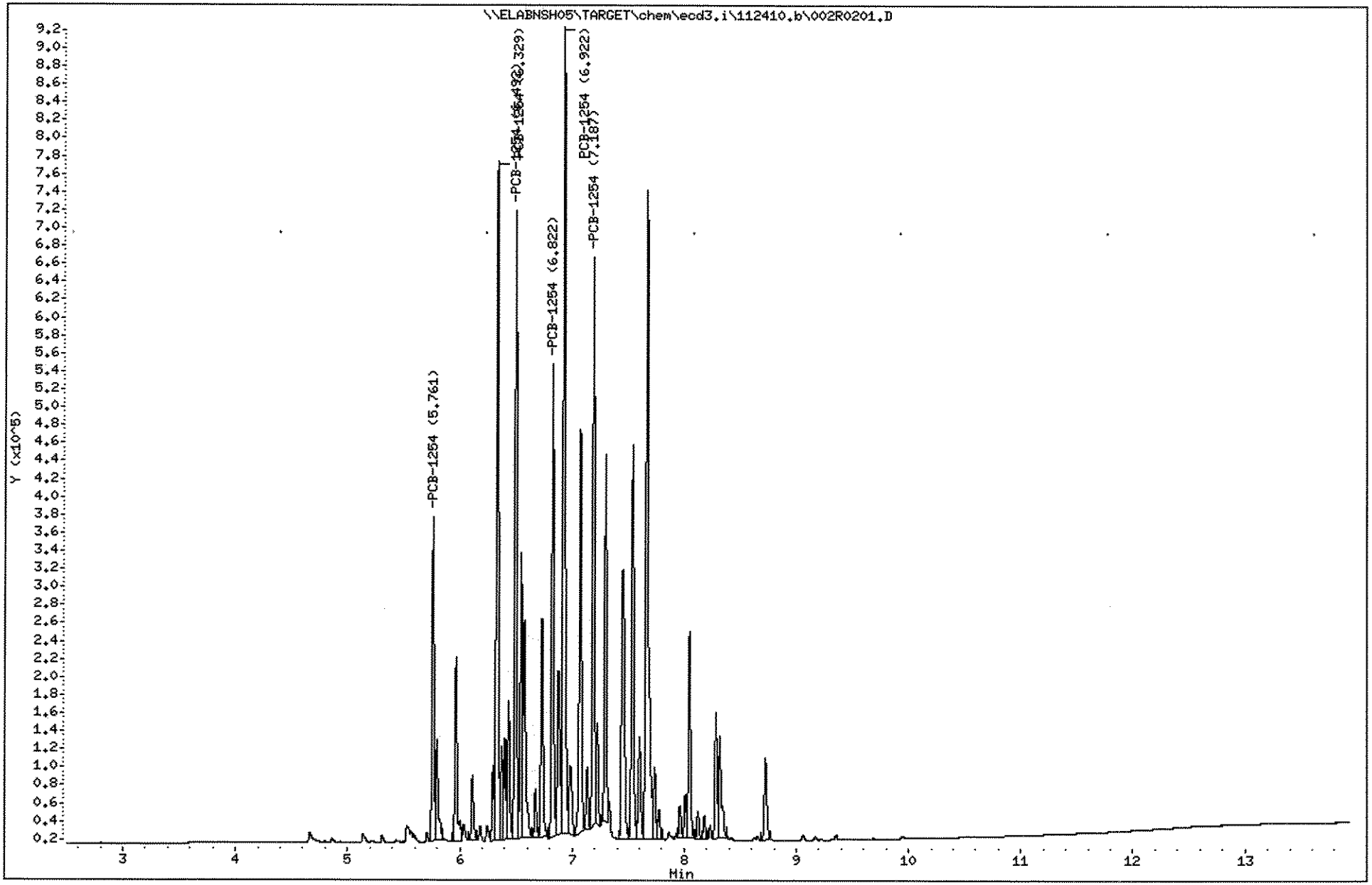
WL
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\002R0201.D
Date : 24-NOV-2010 17:58
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003R0301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 24-NOV-2010 18:16
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.922	6.922	(0.000)	965422	750.000	720.9	80.00-	120.00	100.00
5.760	5.760	(0.000)	314051			26.02-	39.04	32.53
6.330	6.329	(0.001)	764990	750.000	680.6	63.39-	95.09	79.24
6.493	6.492	(0.001)	657715	750.000	685.8	54.50-	81.75	68.13
6.823	6.822	(0.001)	512383	750.000	712.7	42.46-	63.69	53.07
7.187	7.187	(0.000)	605060	750.000	647.9	50.14-	75.21	62.67
Average of Peak Amounts =					689.6			

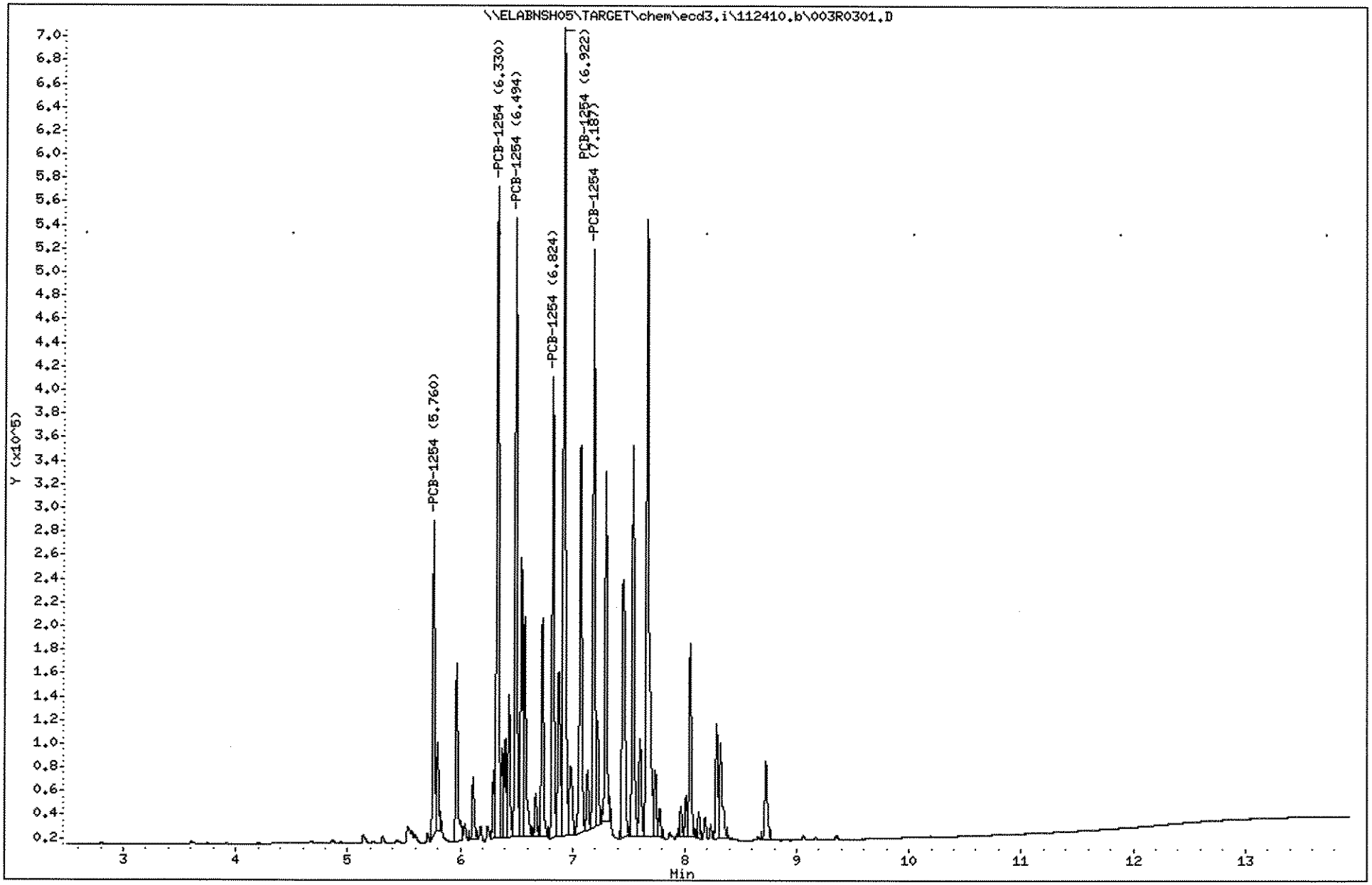
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\003R0301.D
Date : 24-NOV-2010 18:16
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004R0401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 24-NOV-2010 18:35
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.923	6.922	(0.001)	673011	500.000	502.6	80.00- 120.00	100.00
5.761	5.760	(0.001)	223775			26.60- 39.90	33.25
6.331	6.329	(0.002)	543365	500.000	483.4	64.59- 96.88	80.74
6.494	6.492	(0.002)	456817	500.000	476.3	54.30- 81.45	67.88
6.824	6.822	(0.002)	359536	500.000	500.1	42.74- 64.11	53.42
7.188	7.187	(0.001)	502144	500.000	537.7	59.69- 89.53	74.61
		Average of Peak Amounts =			500		

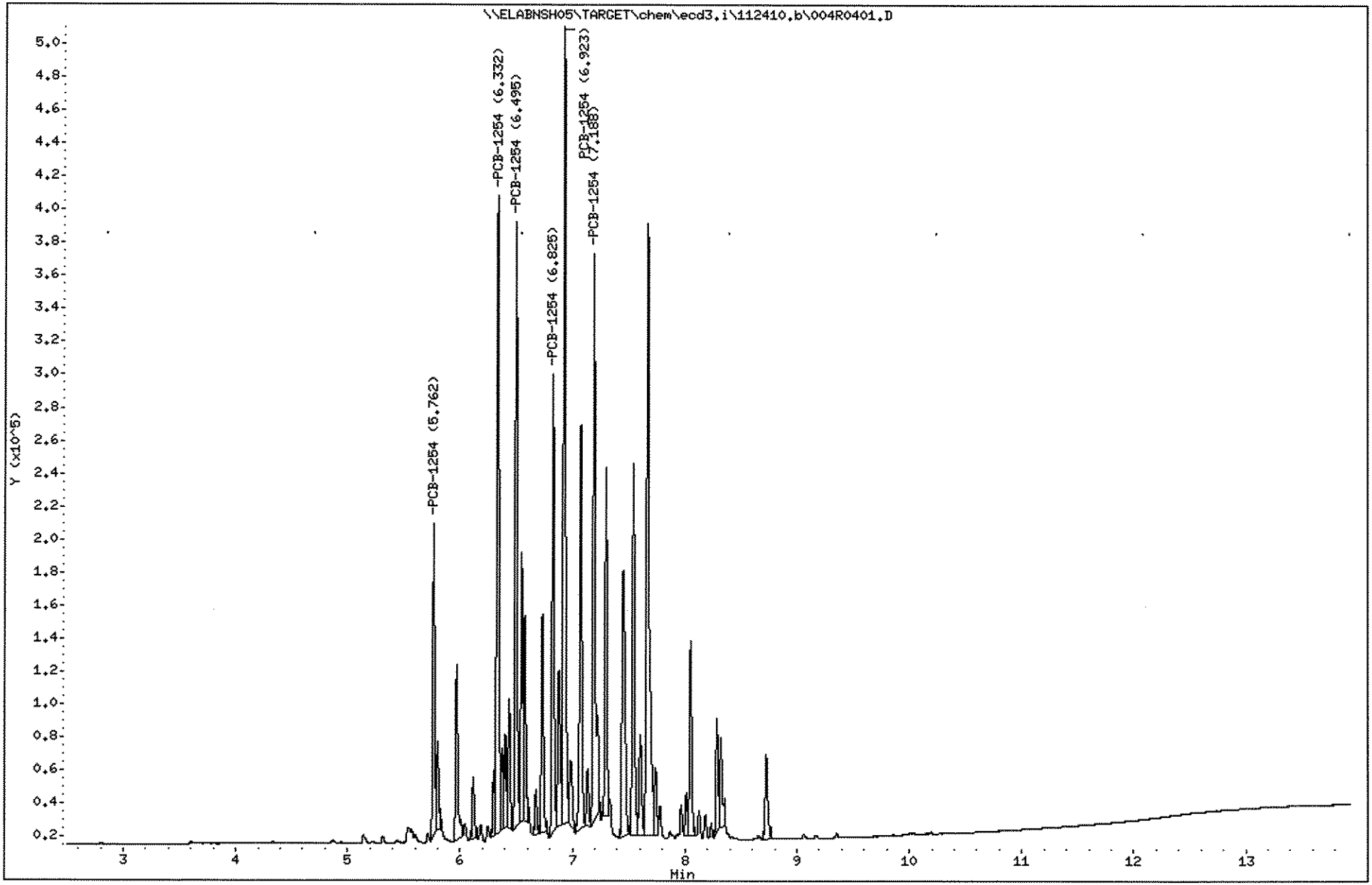
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\004R0401.D
Date : 24-NOV-2010 18:35
Client ID:
Sample Info: SEQ-CAL4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



JLG 12.1.10

Laboratory Name:

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005R0601.D
Lab Smp Id: SEQ-CAL5
Inj Date : 24-NOV-2010 19:12
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:48 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1			
6.927	6.922	(0.005)	138274	100.000	103.2	80.00-	120.00	100.00
5.765	5.760	(0.005)	54356			31.45-	47.17	39.31
6.332	6.329	(0.003)	125529	100.000	111.7	72.63-	108.94	90.78
6.497	6.492	(0.005)	106846	100.000	111.4	61.82-	92.73	77.27
6.827	6.822	(0.005)	75024	100.000	104.4	43.41-	65.11	54.26
7.193	7.187	(0.006)	100723	p100.000	107.9	58.27-	87.41	72.84
Average of Peak Amounts =					107.7			

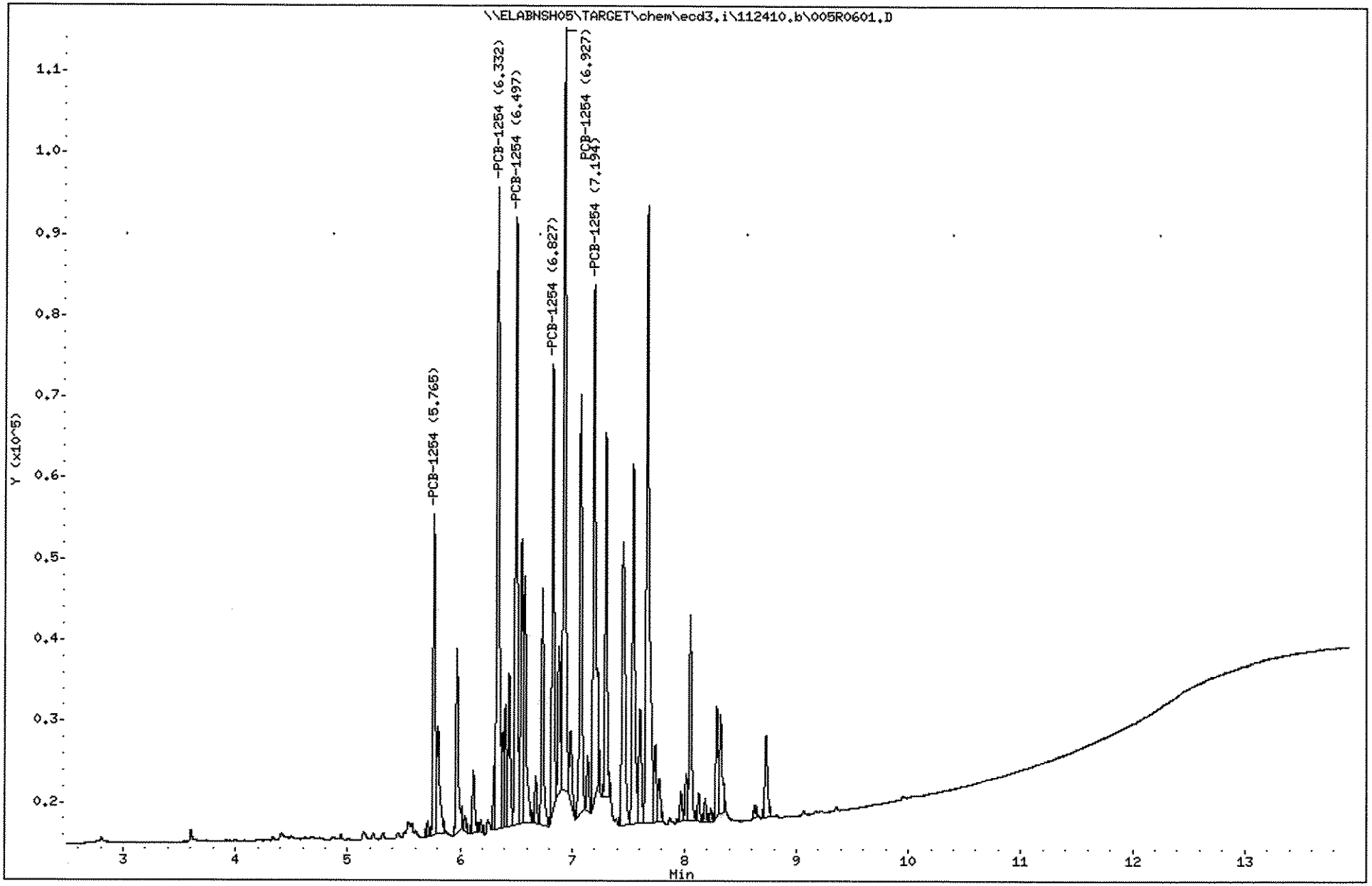
11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\005R0601.D
Date : 24-NOV-2010 19:12
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32



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JLG 12.1.10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006R0701.D
Lab Smp Id: SEQ-CAL6
Inj Date : 24-NOV-2010 19:31
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

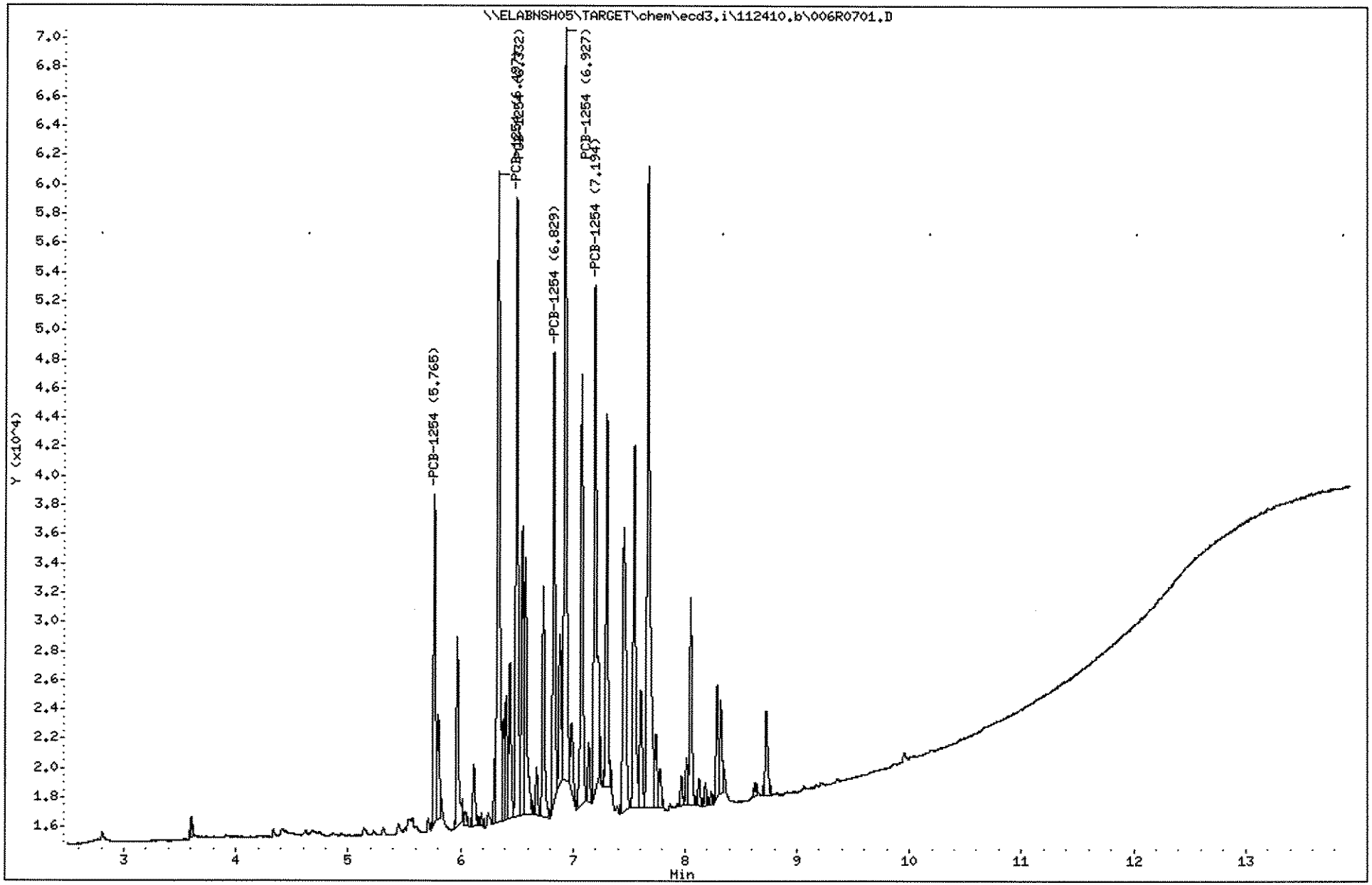
				AMOUNTS CAL-AMT	AMOUNTS ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
34 PCB-1254 [2C]					CAS #: 11097-69-1		
6.927	6.922	(0.005)	77434	50.0000	57.82	80.00- 120.00	100.00
5.765	5.760	(0.005)	29750			30.74- 46.10	38.42
6.332	6.329	(0.003)	72173	50.0000	64.21	74.56- 111.85	93.21
6.497	6.492	(0.005)	60377	50.0000	62.96	62.38- 93.57	77.97
6.828	6.822	(0.006)	42029	50.0000	58.46	43.42- 65.13	54.28
7.193	7.187	(0.006)	58414	50.0000	62.55	60.35- 90.52	75.44
		Average of Peak Amounts =			61.2		

11/30/10

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\006R0701.D
Date : 24-NOV-2010 19:31
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i
Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

JLS 12-1-10

Instrument ID: ecd3.i Injection Date: 24-NOV-2010 19:49
Lab File ID: 007R0801.D Init. Cal. Date(s): 01-JUL-2010 24-NOV-2010
Analysis Type: Init. Cal. Times: 08:58 21:41
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1266	0.010	-5.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	988	0.010	-12.1	20.0	
(4)	959	854	0.010	-10.9	20.0	
(5)	719	669	0.010	-6.9	20.0	
(6)	934	829	0.010	-11.2	20.0	

12/30/10

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007R0801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 24-NOV-2010 19:49
Operator : WAL Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;AR1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\8081_82R.m
Meth Date : 30-Nov-2010 17:49 wlancaster Quant Type: ESTD
Cal Date : 13-OCT-2010 06:51 Cal File: 015R1501.D
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET18_VM

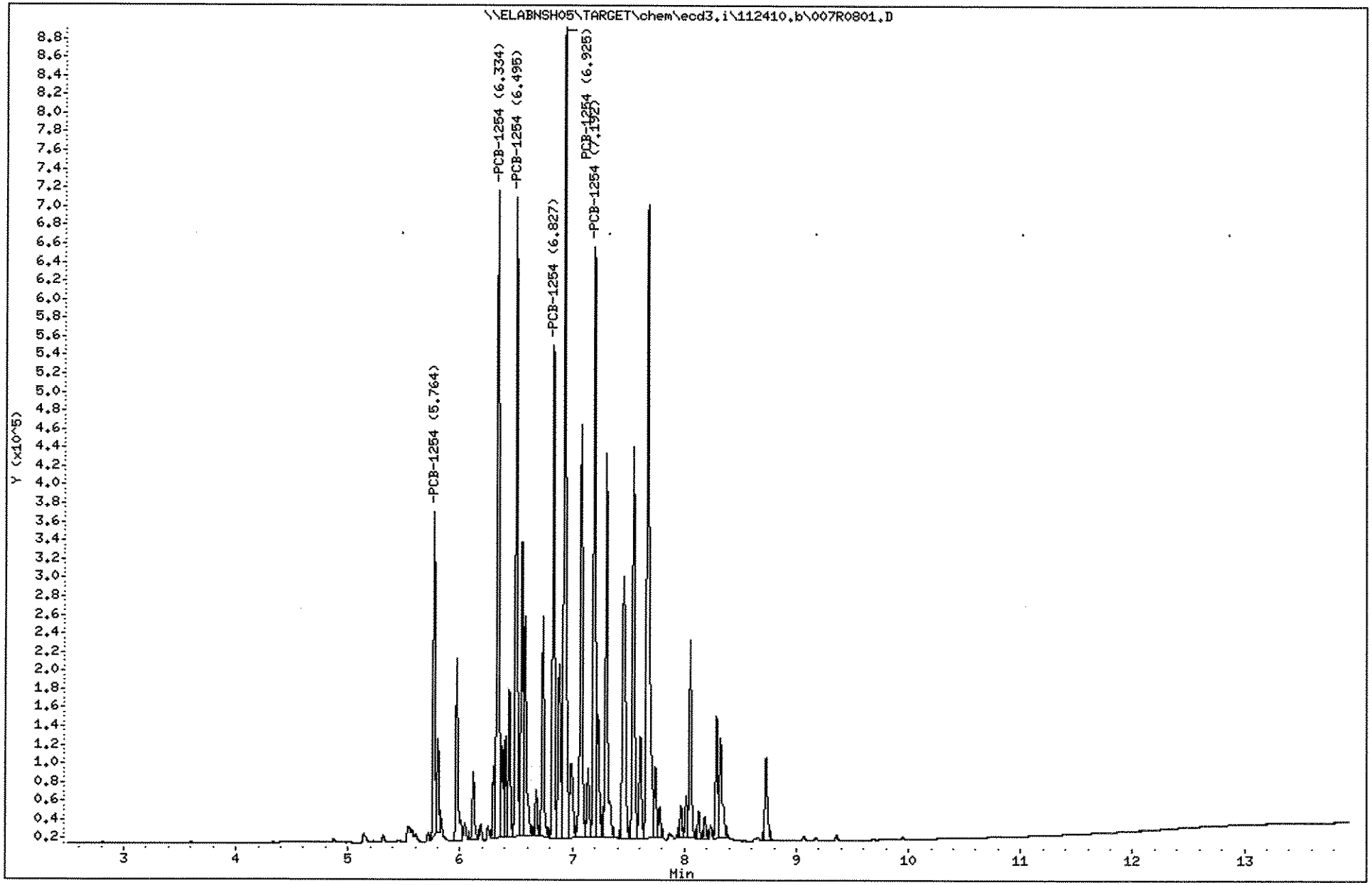
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.925	6.922	(0.003)	1266188	1000.00	945.5	80.00-	120.00	100.00
5.763	5.760	(0.003)	412426			26.06-	39.09	32.57
6.333	6.329	(0.004)	987794	1000.00	878.8	62.41-	93.62	78.01
6.495	6.492	(0.003)	854170	1000.00	890.6	53.97-	80.95	67.46
6.827	6.822	(0.005)	669470	1000.00	931.2	42.30-	63.45	52.87
7.192	7.187	(0.005)	828766	1000.00	887.5	52.36-	78.54	65.45
		Average of Peak Amounts =			906.7			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\112410.b\007R0801.D
Date : 24-NOV-2010 19:49
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: WAL
Column diameter: 0.32

Column phase: ZB MR-2



Sequence: C:\HPCHEM\ECD3\SEQUENCE\040411.S \ ECD·5 \ HP.E/F \ 8082

PG. 344

Sequence Table (Front/BACK Injector):

4.5.11

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PCB PRIMER				
2	Vial 2	SEQ-CCV1	I.D.# 11C0777			
3	Vial 3	SEQ-CAL1	11A0220 (2500ppb)			
4	Vial 4	SEQ-CAL2	11C0777 (1000ppb)			
5	Vial 5	SEQ-CAL3	11A0221 (750ppb)			
6	Vial 6	SEQ-CAL4	11A0222 (500ppb)			
7	Vial 7	SEQ-CAL5	11A0223 (100ppb)			
8	Vial 8	SEQ-CAL6	11A0224 (50ppb)			
9	Vial 9	SEQ-ICV1	11A00600 (1000ppb)			
10	Vial 10	SEQ-CCV1	11C0777			

~~Sequence Table (Back Injector):~~

~~No entries - empty table!~~

J.H. 4.6.11
ajk 04Ob.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040411.b\003F0301.D
Lab Smp Id: SEQ-CAL1
Inj Date : 04-APR-2011 16:51
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:53 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.613	6.606	(0.007)	3044126	2500.00	2459	80.00- 120.00	100.00
5.752	5.746	(0.006)	1028821	2500.00	2260	27.04- 40.56	33.80
6.098	6.091	(0.007)	1526183	2500.00	2328	40.11- 60.16	50.14
6.298	6.291	(0.007)	1598092	2500.00	2435	42.00- 63.00	52.50
6.788	6.780	(0.008)	1612949			42.39- 63.58	52.99
6.897	6.888	(0.009)	1264198	2500.00	2540	33.22- 49.83	41.53
		Average of Peak Amounts =			2404		
35 PCB-1260					CAS #: 11096-82-5		
9.885	9.876	(0.009)	10473528	2500.00	2593	80.00- 120.00	100.00(A)
8.448	8.441	(0.007)	3701540			28.27- 42.41	35.34
8.770	8.761	(0.009)	4444336	2500.00	2618	33.95- 50.92	42.43
9.112	9.106	(0.006)	5133172	2500.00	2595	39.21- 58.81	49.01
9.210	9.205	(0.005)	3949171	2500.00	2426	30.16- 45.25	37.71
9.488	9.481	(0.007)	4168274			31.84- 47.76	39.80
10.238	10.233	(0.005)	5460542			41.71- 62.56	52.14
10.977	10.970	(0.007)	2429718	2500.00	2512	18.56- 27.84	23.20
		Average of Peak Amounts =			2549		

QC Flag Legend

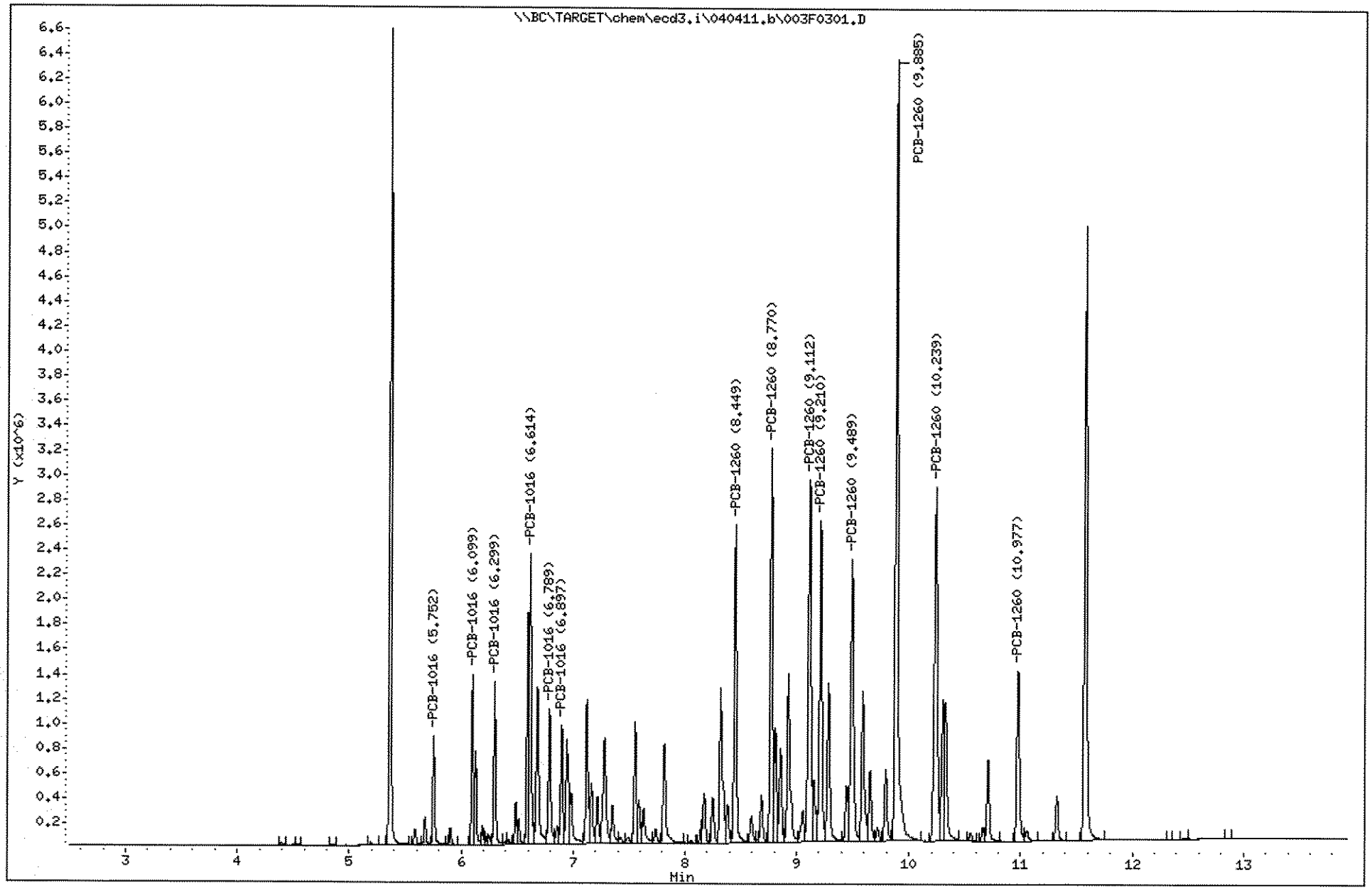
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\003F0301.D
Date : 04-APR-2011 16:51
Client ID:
Sample Info: SEQ-CAL1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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J.H. 4.6.11
cis/trans

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

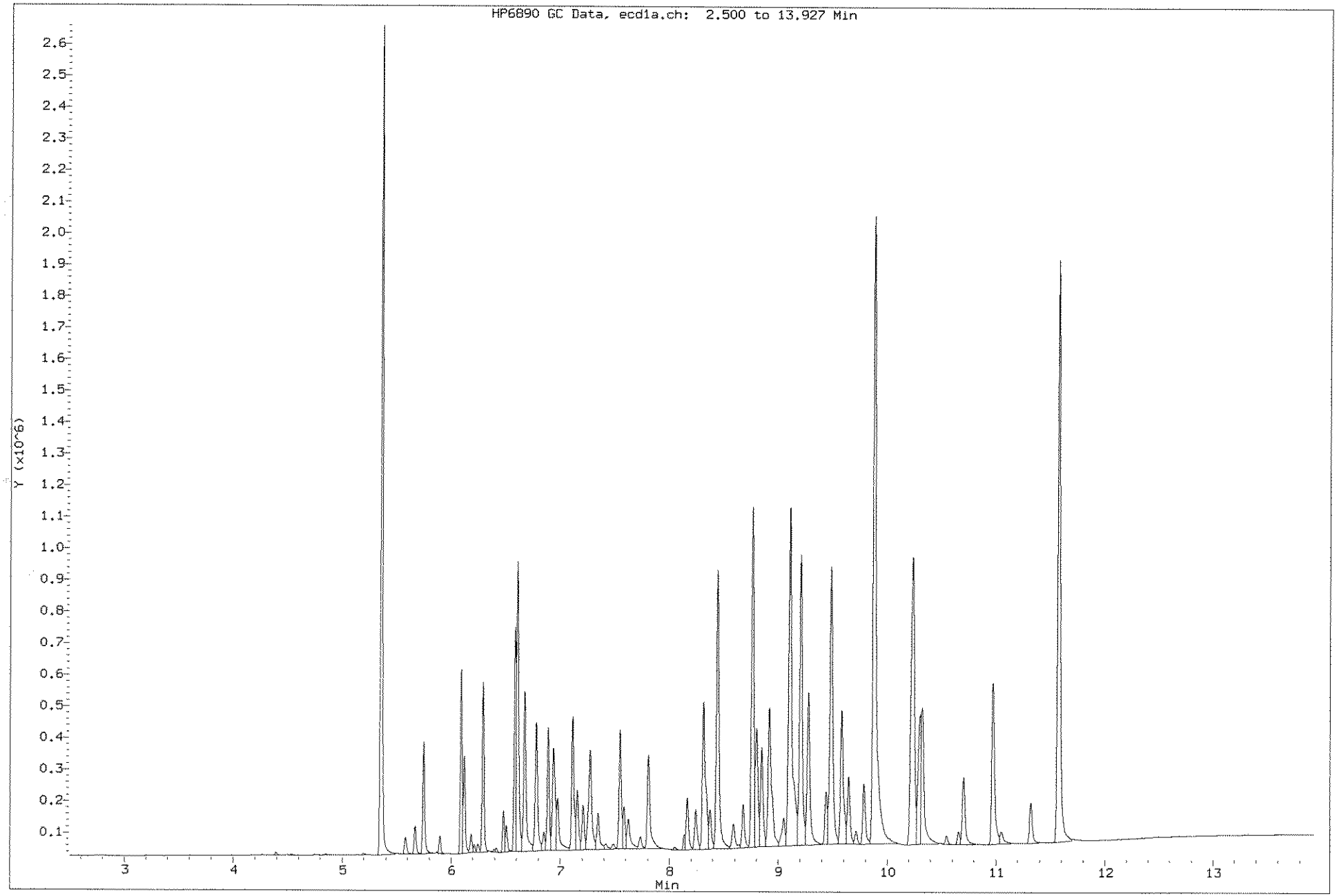
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\004F0401.D
Lab Smp Id: SEQ-CAL2
Inj Date : 04-APR-2011 17:10
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
==	======	========	========	=======	=======	============	=====
29 PCB-1016					CAS #: 12674-11-2		
6.606	6.606	(0.000)	1229998	1000.00	993.6	80.00- 120.00	100.00
5.746	5.746	(0.000)	436264	1000.00	958.4	28.37- 42.56	35.47
6.091	6.091	(0.000)	632399	1000.00	964.7	41.13- 61.70	51.41
6.291	6.291	(0.000)	641394	1000.00	977.3	41.72- 62.58	52.15
6.780	6.780	(0.000)	652172			42.42- 63.63	53.02
6.888	6.888	(0.000)	516371	1000.00	1038	33.59- 50.38	41.98
		Average of Peak Amounts =			986.3		
35 PCB-1260					CAS #: 11096-82-5		
9.876	9.876	(0.000)	4002488	1000.00	991.0	80.00- 120.00	100.00(M)
8.441	8.441	(0.000)	1515826			30.30- 45.45	37.87
8.761	8.761	(0.000)	1626658	1000.00	958.1	32.51- 48.77	40.64
9.106	9.106	(0.000)	1977965	1000.00	999.9	39.53- 59.30	49.42
9.205	9.205	(0.000)	1606553	1000.00	986.8	32.11- 48.17	40.14
9.481	9.481	(0.000)	1650922			33.00- 49.50	41.25
10.233	10.233	(0.000)	2053207			41.04- 61.56	51.30
10.970	10.970	(0.000)	938104	1000.00	969.9	18.75- 28.13	23.44
		Average of Peak Amounts =			981.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\004F0401.D
Injection Date: 04-APR-2011 17:10
Instrument: ecd3.i
Client Sample ID:

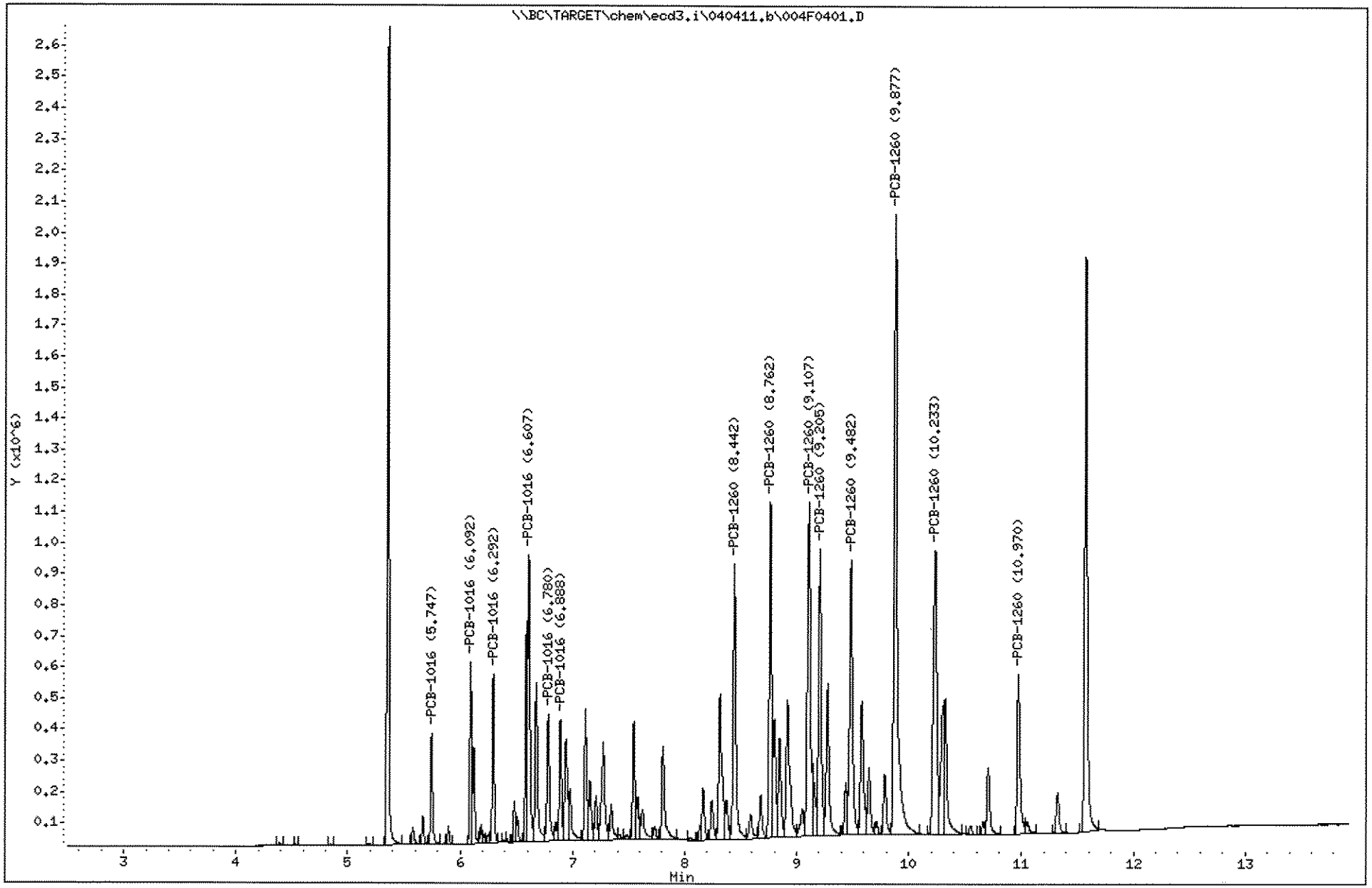


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\004F0401.D
Date : 04-APR-2011 17:10
Client ID:
Sample Info: SEQ-CAL2

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



93

1104114

JH 4.6.11
aijk 04Ae(1)

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SW-846 METHODS 8081A/8082

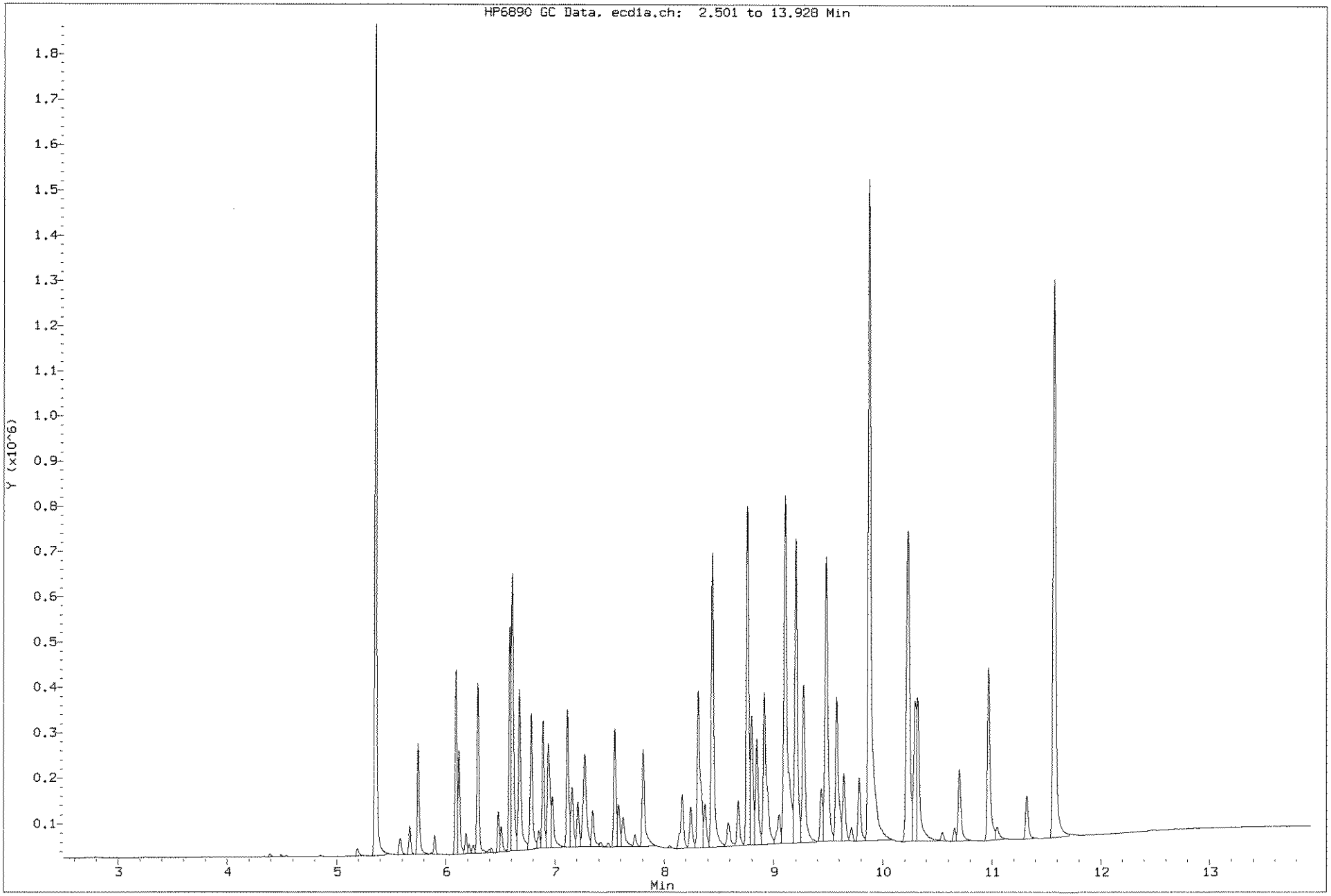
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\005F0501.D
Lab Smp Id: SEQ-CAL3
Inj Date : 04-APR-2011 17:29
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.606	6.606	(0.000)	891943	750.000	720.5	80.00- 120.00	100.00
5.746	5.746	(0.000)	316615	750.000	695.5	28.40- 42.60	35.50
6.092	6.091	(0.001)	461961	750.000	704.7	41.43- 62.15	51.79
6.292	6.291	(0.001)	479499	750.000	730.6	43.01- 64.51	53.76
6.781	6.780	(0.001)	456241			40.92- 61.38	51.15
6.889	6.888	(0.001)	358888	750.000	721.1	32.19- 48.28	40.24
		Average of Peak Amounts =			714.5		
35 PCB-1260					CAS #: 11096-82-5		
9.877	9.876	(0.001)	2864196	750.000	709.1	80.00- 120.00	100.00(M)
8.439	8.441	(-0.002)	1104376			30.85- 46.27	38.56
8.759	8.761	(-0.002)	1175254	750.000	692.2	32.83- 49.24	41.03
9.104	9.106	(-0.002)	1371417	750.000	693.2	38.31- 57.46	47.88
9.202	9.205	(-0.003)	1166089	750.000	716.3	32.57- 48.86	40.71
9.481	9.481	(0.000)	1182029			33.02- 49.52	41.27
10.231	10.233	(-0.002)	1480421			41.35- 62.02	51.69
10.969	10.970	(-0.001)	673691	750.000	696.6	18.82- 28.23	23.52
		Average of Peak Amounts =			701.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\005F0501.D
Injection Date: 04-APR-2011 17:29
Instrument: ecd3.i
Client Sample ID:

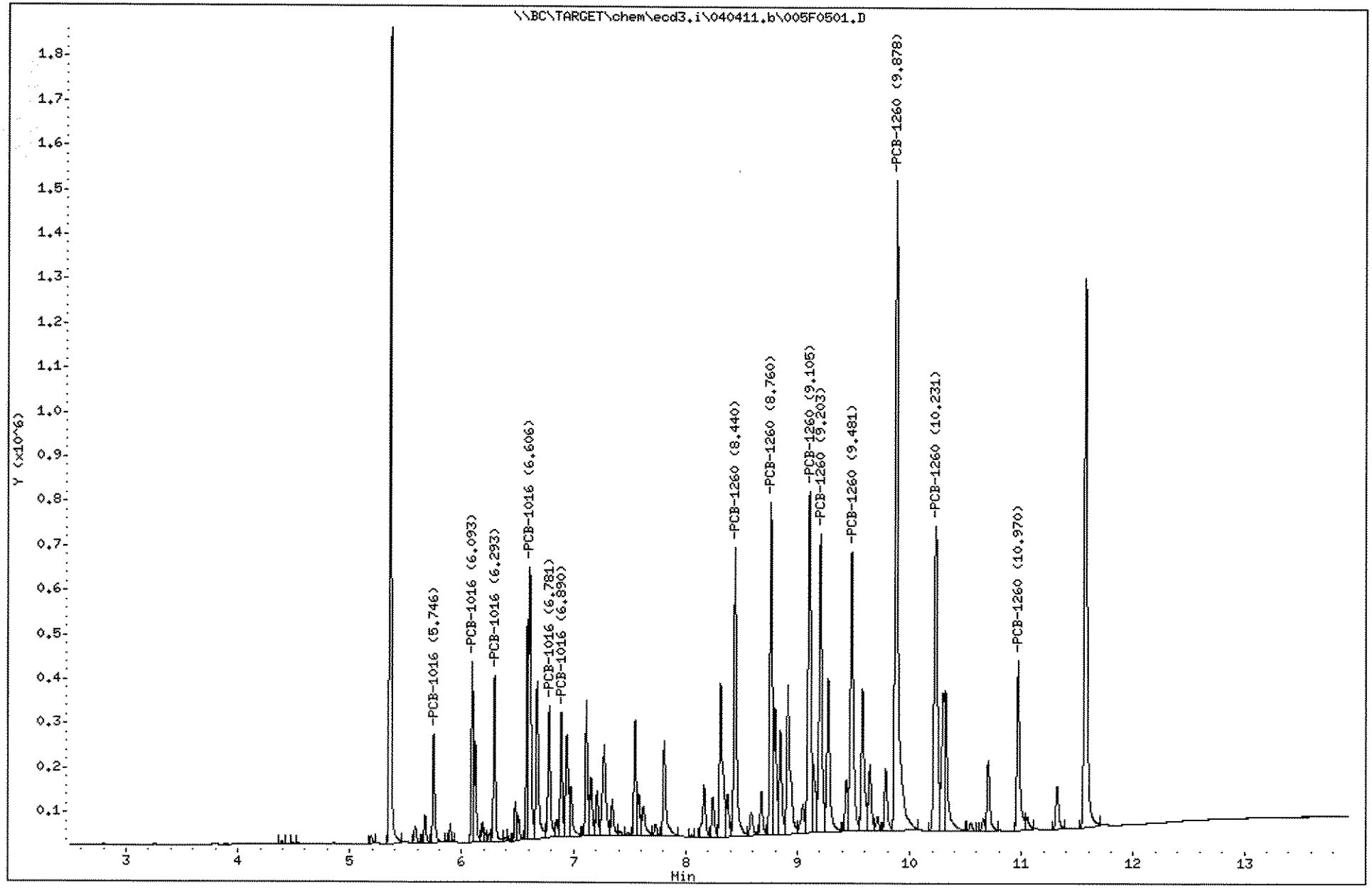


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\005F0501.D
Date : 04-APR-2011 17:29
Client ID:
Sample Info: SEQ-CAL3

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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JH. 4.6.11
ajk 040611

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040411.b\006F0601.D
Lab Smp Id: SEQ-CAL4
Inj Date : 04-APR-2011 17:47
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

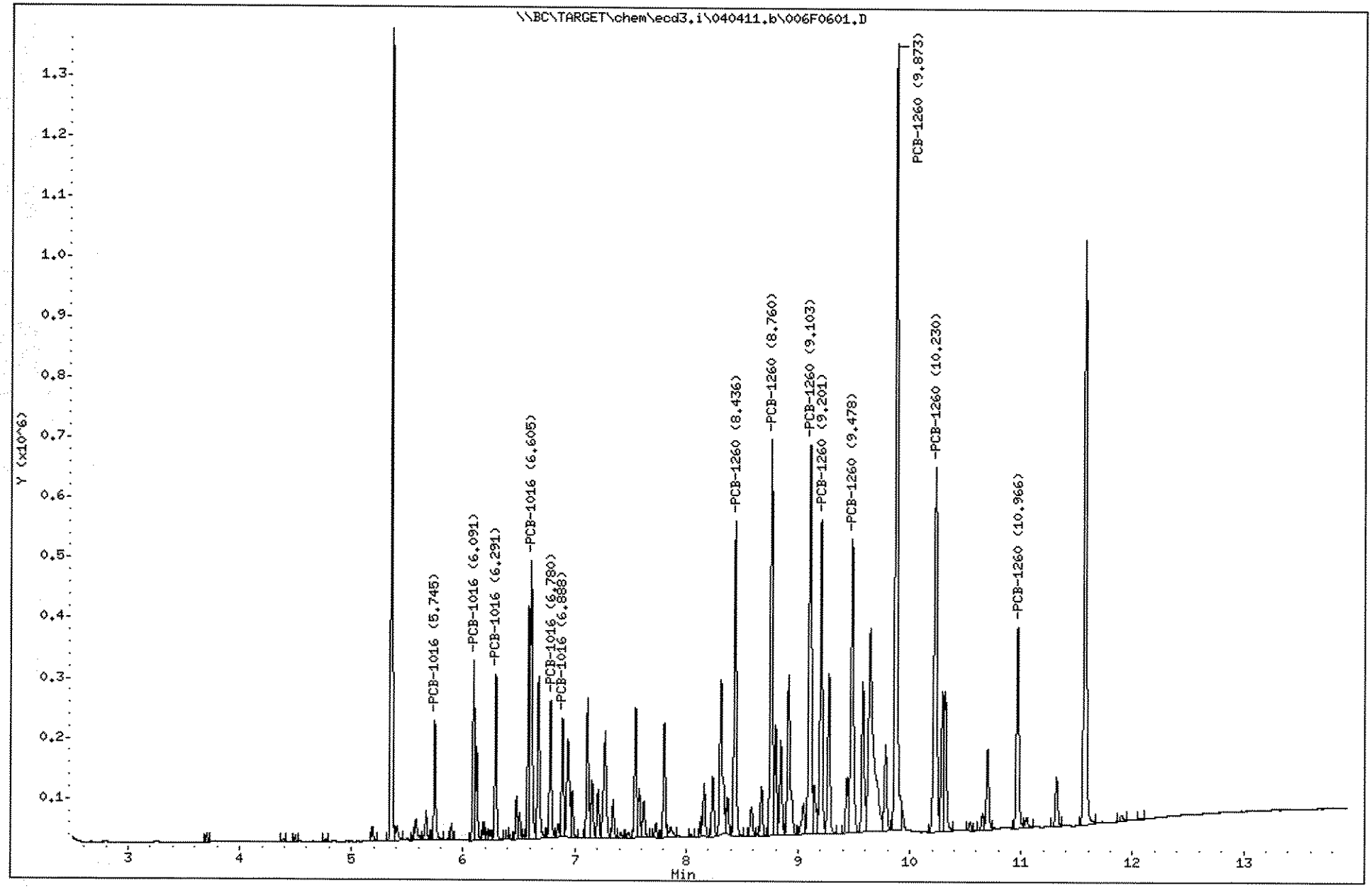
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.604	6.606	(-0.002)	602200	500.000	486.4	80.00- 120.00	100.00
5.744	5.746	(-0.002)	231107	500.000	507.7	30.70- 46.05	38.38
6.091	6.091	(0.000)	313278	500.000	477.9	41.62- 62.43	52.02
6.291	6.291	(0.000)	311453	500.000	474.6	41.38- 62.06	51.72
6.779	6.780	(-0.001)	290286			38.56- 57.85	48.20
6.887	6.888	(-0.001)	243078	500.000	488.4	32.29- 48.44	40.36
		Average of Peak Amounts =			487		
35 PCB-1260					CAS #: 11096-82-5		
9.872	9.876	(-0.004)	1999439	500.000	495.0	80.00- 120.00	100.00
8.436	8.441	(-0.005)	720009			28.81- 43.21	36.01
8.759	8.761	(-0.002)	930961	500.000	548.3	37.25- 55.87	46.56
9.102	9.106	(-0.004)	1036819	500.000	524.1	41.48- 62.23	51.86
9.201	9.205	(-0.004)	750741	500.000	461.2	30.04- 45.06	37.55
9.477	9.481	(-0.004)	831734			33.28- 49.92	41.60
10.229	10.233	(-0.004)	1139441			45.59- 68.39	56.99
10.966	10.970	(-0.004)	509974	500.000	527.3	20.40- 30.61	25.51
		Average of Peak Amounts =			511.2		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\006F0601.D
Date : 04-APR-2011 17:47
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



JH 4.6.11
ajk 040611

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SW-846 METHODS 8081A/8082

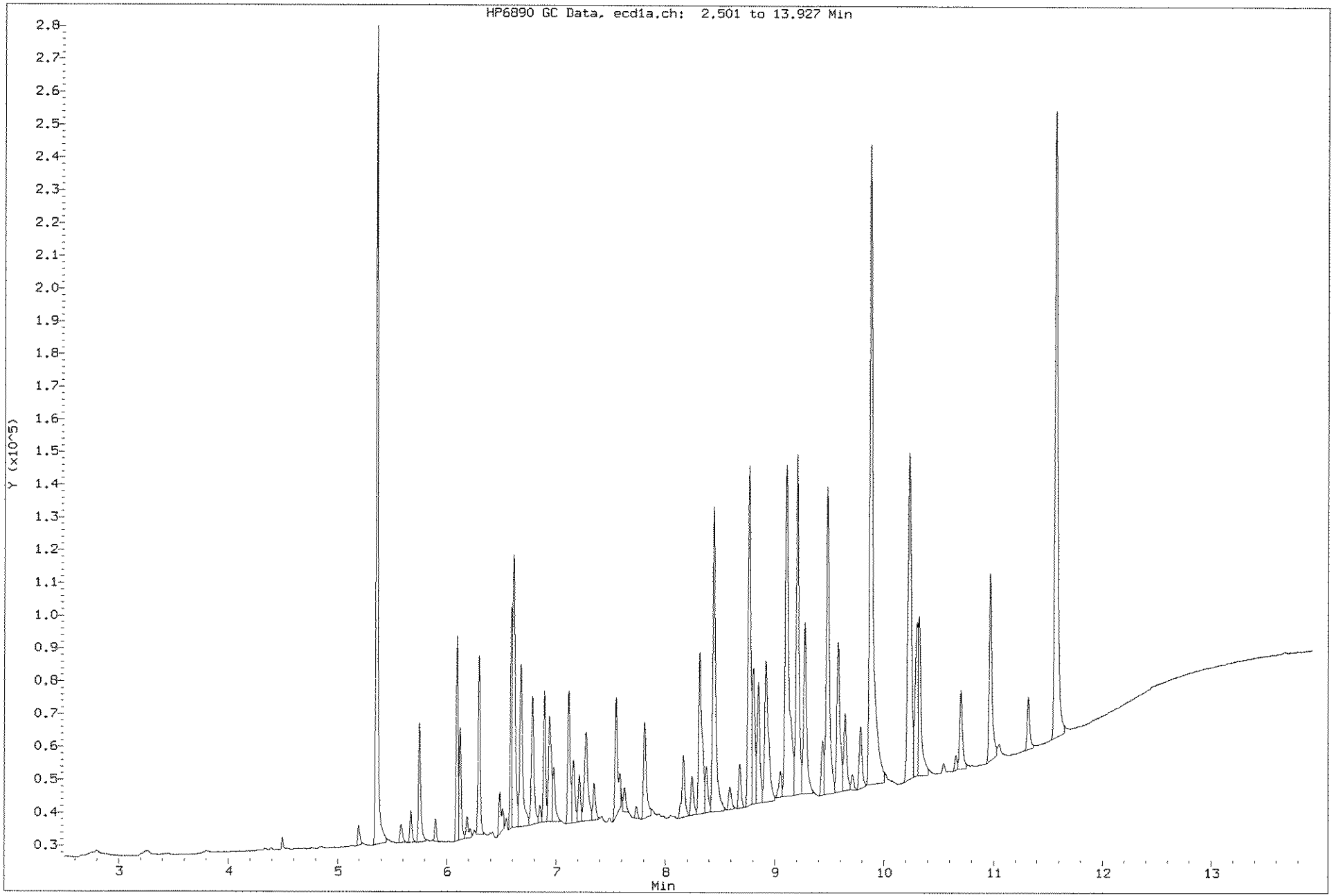
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\007F0701.D
Lab Smp Id: SEQ-CAL5
Inj Date : 04-APR-2011 18:06
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.609	6.606	(0.003)	132344	100.000	106.9	80.00- 120.00	100.00
5.749	5.746	(0.003)	50667	100.000	111.3	30.63- 45.94	38.28
6.094	6.091	(0.003)	71966	100.000	109.8	43.50- 65.25	54.38
6.294	6.291	(0.003)	69567	100.000	106.0	42.05- 63.08	52.57
6.782	6.780	(0.002)	66160			39.99- 59.99	49.99
6.890	6.888	(0.002)	52854	100.000	106.2	31.95- 47.92	39.94
		Average of Peak Amounts =			108		
35 PCB-1260					CAS #: 11096-82-5		
9.875	9.876	(-0.001)	422521	100.000	104.6	80.00- 120.00	100.00(M)
8.442	8.441	(0.001)	173537			32.86- 49.29	41.07
8.764	8.761	(0.003)	169779	100.000	100.0	32.15- 48.22	40.18
9.104	9.106	(-0.002)	204858	100.000	103.6	38.79- 58.18	48.48
9.204	9.205	(-0.001)	180494	100.000	110.9	34.17- 51.26	42.72
9.480	9.481	(-0.001)	185587			35.14- 52.71	43.92
10.230	10.233	(-0.003)	222559			42.14- 63.21	52.67
10.969	10.970	(-0.001)	101114	100.000	104.5	19.14- 28.72	23.93
		Average of Peak Amounts =			104.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\007F0701.D
Injection Date: 04-APR-2011 18:06
Instrument: ecd3.i
Client Sample ID:



100

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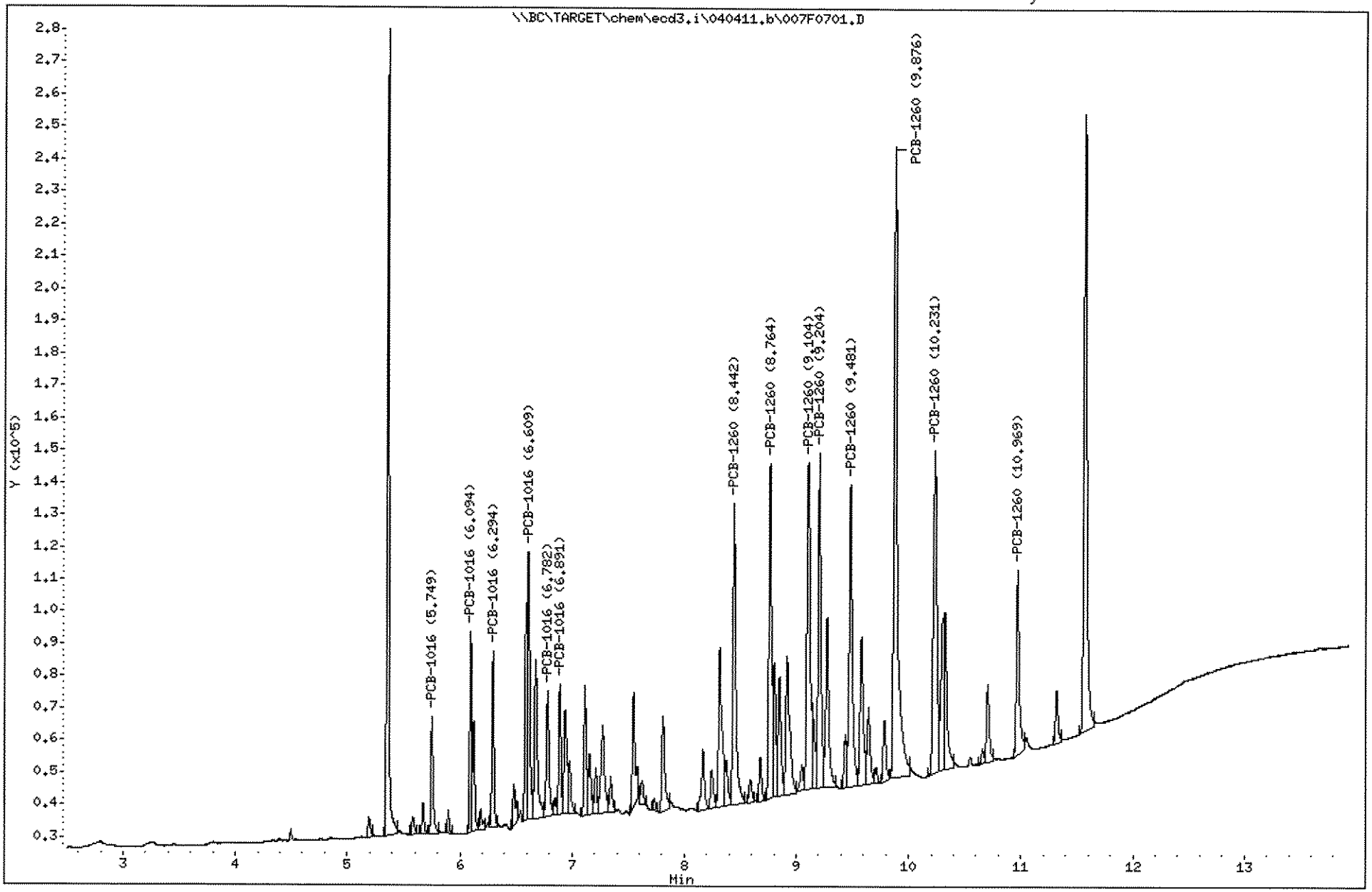
Data File: \\BC\TARGET\chem\ecd3.i\040411.b\007F0701.D
Date : 04-APR-2011 18:06
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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J.H. 4.6.11
ajk 040611

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SW-846 METHODS 8081A/8082

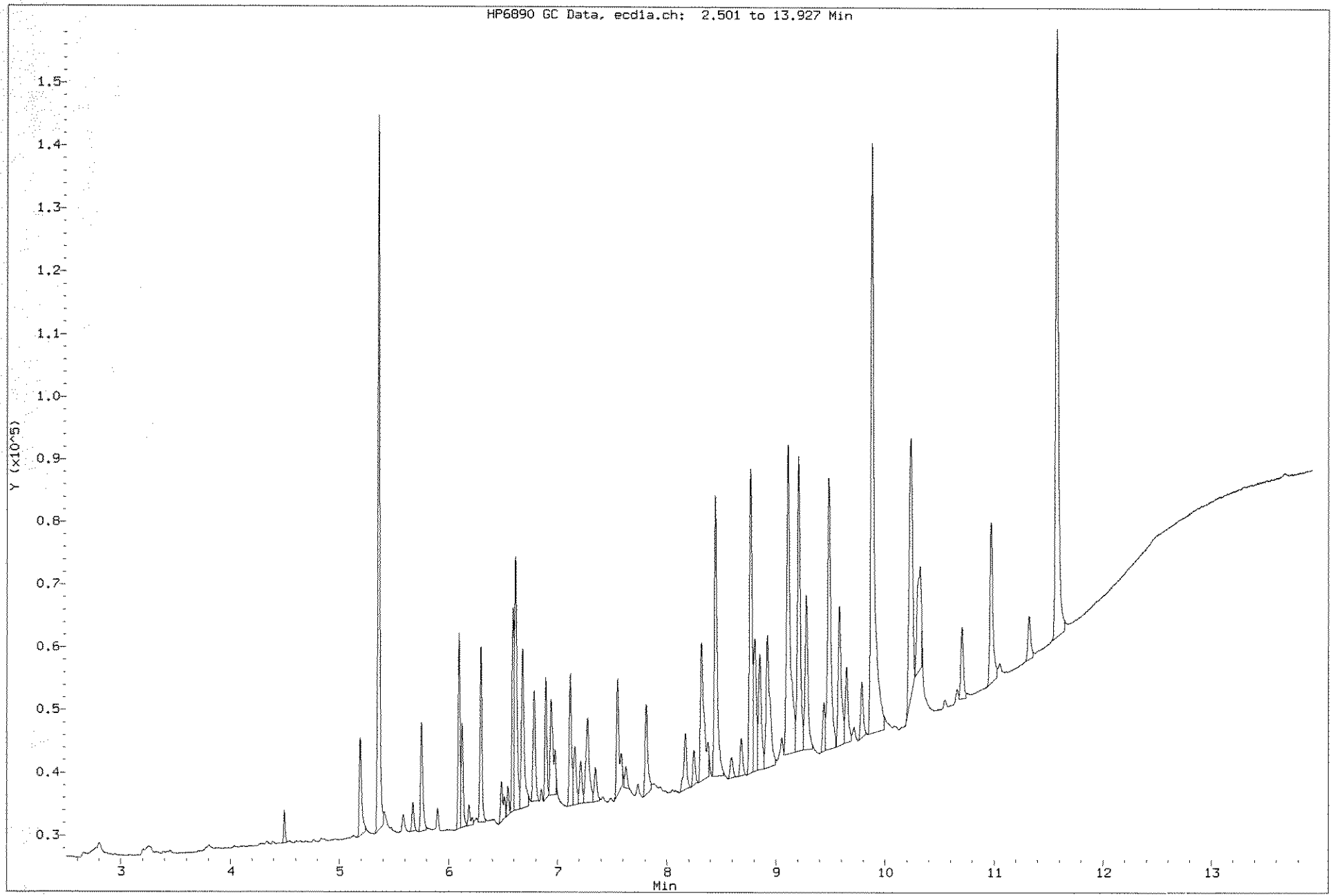
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\008F0801.D
Lab Smp Id: SEQ-CAL6
Inj Date : 04-APR-2011 18:24
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.610	6.606	(0.004)	63157	50.0000	51.02	80.00- 120.00	100.00
5.750	5.746	(0.004)	24624	50.0000	54.09	31.19- 46.79	38.99
6.093	6.091	(0.002)	36414	50.0000	55.55	46.13- 69.19	57.66
6.295	6.291	(0.004)	34964	50.0000	53.27	44.29- 66.43	55.36
6.783	6.780	(0.003)	27508			34.84- 52.27	43.55
6.890	6.888	(0.002)	23543	50.0000	47.30	29.82- 44.73	37.28
		Average of Peak Amounts =			52.25		
35 PCB-1260					CAS #: 11096-82-5		
9.878	9.876	(0.002)	199963	50.0000	49.51	80.00- 120.00	100.00(M)
8.442	8.441	(0.001)	79546			31.82- 47.74	39.78
8.763	8.761	(0.002)	82799	50.0000	48.77	33.13- 49.69	41.41
9.108	9.106	(0.002)	94364	50.0000	47.70	37.75- 56.63	47.19
9.205	9.205	(0.000)	86013	50.0000	52.84	34.41- 51.62	43.01
9.482	9.481	(0.001)	89697			35.89- 53.83	44.86
10.235	10.233	(0.002)	89765			35.91- 53.87	44.89
10.972	10.970	(0.002)	48186	50.0000	49.82	19.28- 28.92	24.10
		Average of Peak Amounts =			49.73		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\008F0801.D
Injection Date: 04-APR-2011 18:24
Instrument: ecd3.i
Client Sample ID:

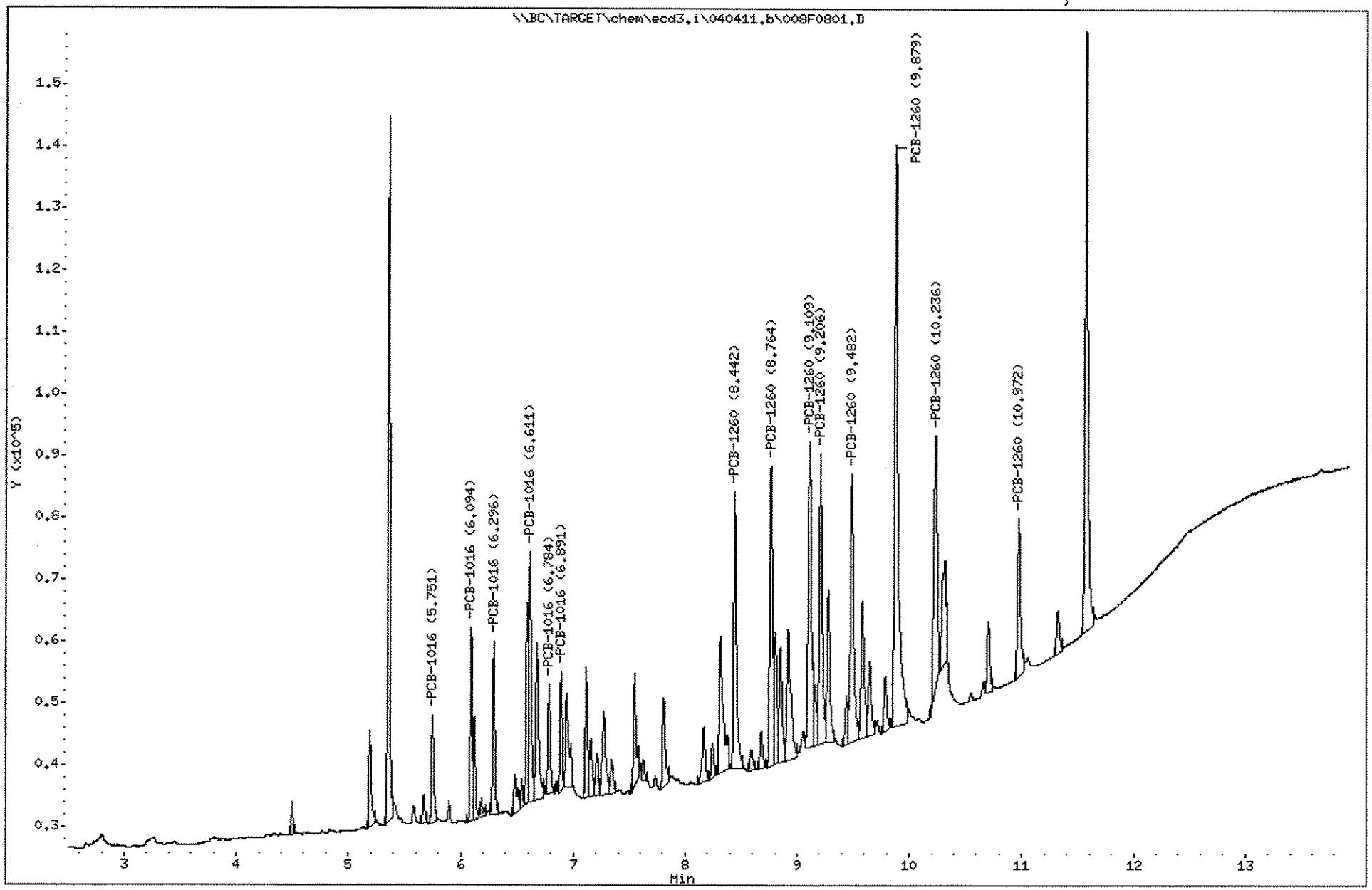


Data File: \\BC\TARGET\chem\ecd3.i\040411.b\008F0801.D
Date : 04-APR-2011 18:24
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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J.H. 4.6.11
ajk 040411

Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i Injection Date: 04-APR-2011 18:43
Lab File ID: 009F0901.D Init. Cal. Date(s): 01-JUL-2010 04-APR-2011
Analysis Type: Init. Cal. Times: 08:58 18:24
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1238	1193	0.010	-3.6	20.0	
(2)	455	416	0.010	-8.7	20.0	
(3)	656	630	0.010	-3.9	20.0	
(4)	656	613	0.010	-6.6	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	447	0.010	-10.2	20.0	
35 PCB-1260(1)	4039	3691	0.010	-8.6	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1564	0.010	-7.9	20.0	
(4)	1978	1826	0.010	-7.7	20.0	
(5)	1628	1506	0.010	-7.5	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	857	0.010	-11.4	20.0	

J.H. 4.6.11
QC 04201

Laboratory Name

SW-846 METHODS 8081A/8082

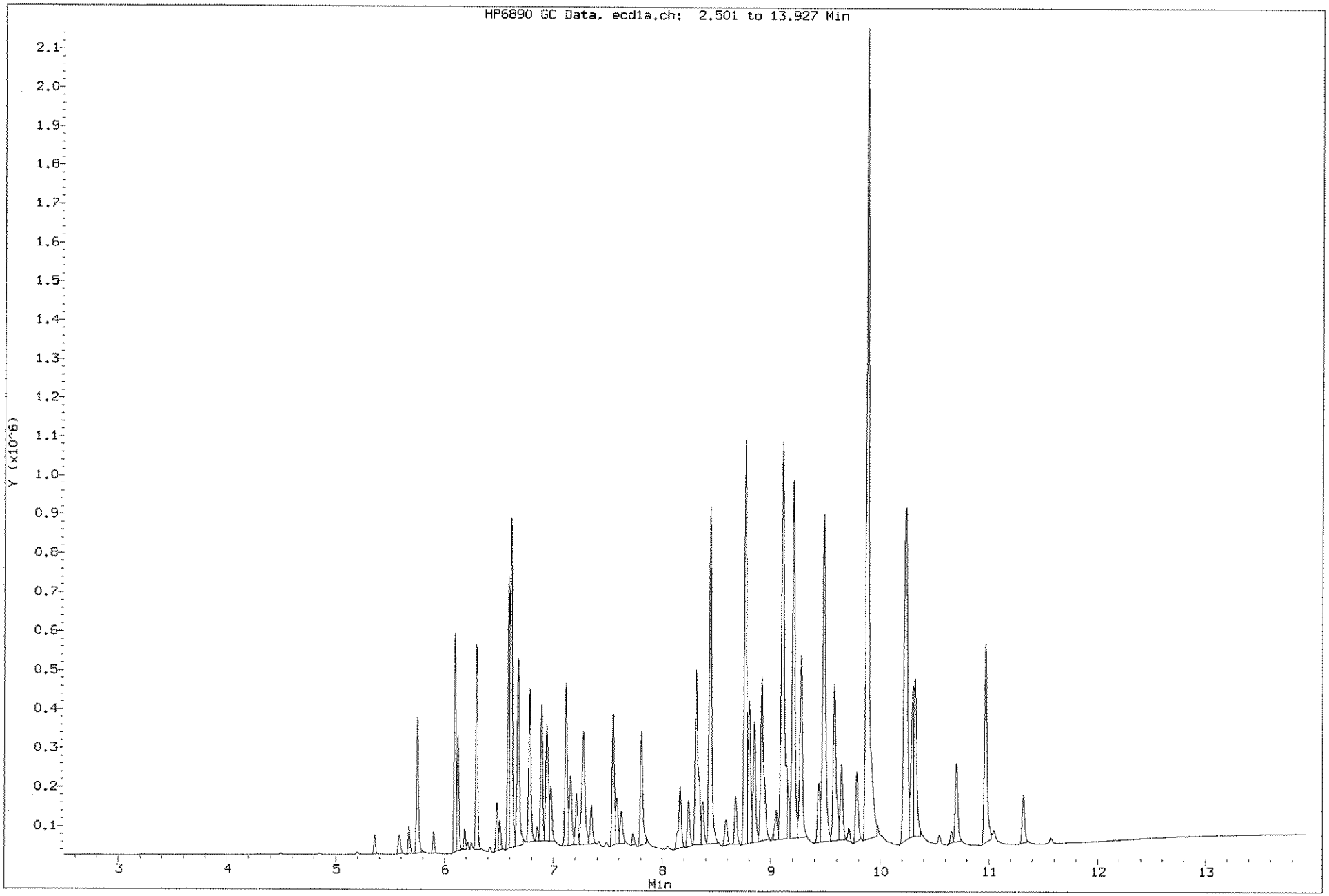
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009F0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 04-APR-2011 18:43
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82F.m
Meth Date : 05-Apr-2011 11:02 jsales Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035F3501.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET07_VM

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.607	6.607	(0.000)	1193216	1000.00	963.8	80.00- 120.00	100.00
5.747	5.747	(0.000)	415830	1000.00	913.5	27.88- 41.82	34.85
6.092	6.092	(0.000)	629822	1000.00	960.7	42.23- 63.34	52.78
6.293	6.293	(0.000)	612750	1000.00	933.6	41.08- 61.62	51.35
6.782	6.782	(0.000)	542055			36.34- 54.51	45.43
6.890	6.890	(0.000)	446685	1000.00	897.5	29.95- 44.92	37.44
		Average of Peak Amounts =			933.8		
35 PCB-1260					CAS #: 11096-82-5		
9.875	9.875	(0.000)	3690785	1000.00	913.8	80.00- 120.00	100.00(M)
8.440	8.440	(0.000)	1382165			29.96- 44.94	37.45
8.762	8.762	(0.000)	1563968	1000.00	921.1	33.90- 50.85	42.37
9.103	9.103	(0.000)	1825928	1000.00	923.0	39.58- 59.37	49.47
9.203	9.203	(0.000)	1505782	1000.00	925.0	32.64- 48.96	40.80
9.480	9.480	(0.000)	1577231			34.19- 51.28	42.73
10.233	10.233	(0.000)	1939795			42.05- 63.07	52.56
10.968	10.968	(0.000)	857262	1000.00	886.4	18.58- 27.87	23.23
		Average of Peak Amounts =			913.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\040411.b\009F0901.D
Injection Date: 04-APR-2011 18:43
Instrument: ecd3.i
Client Sample ID:



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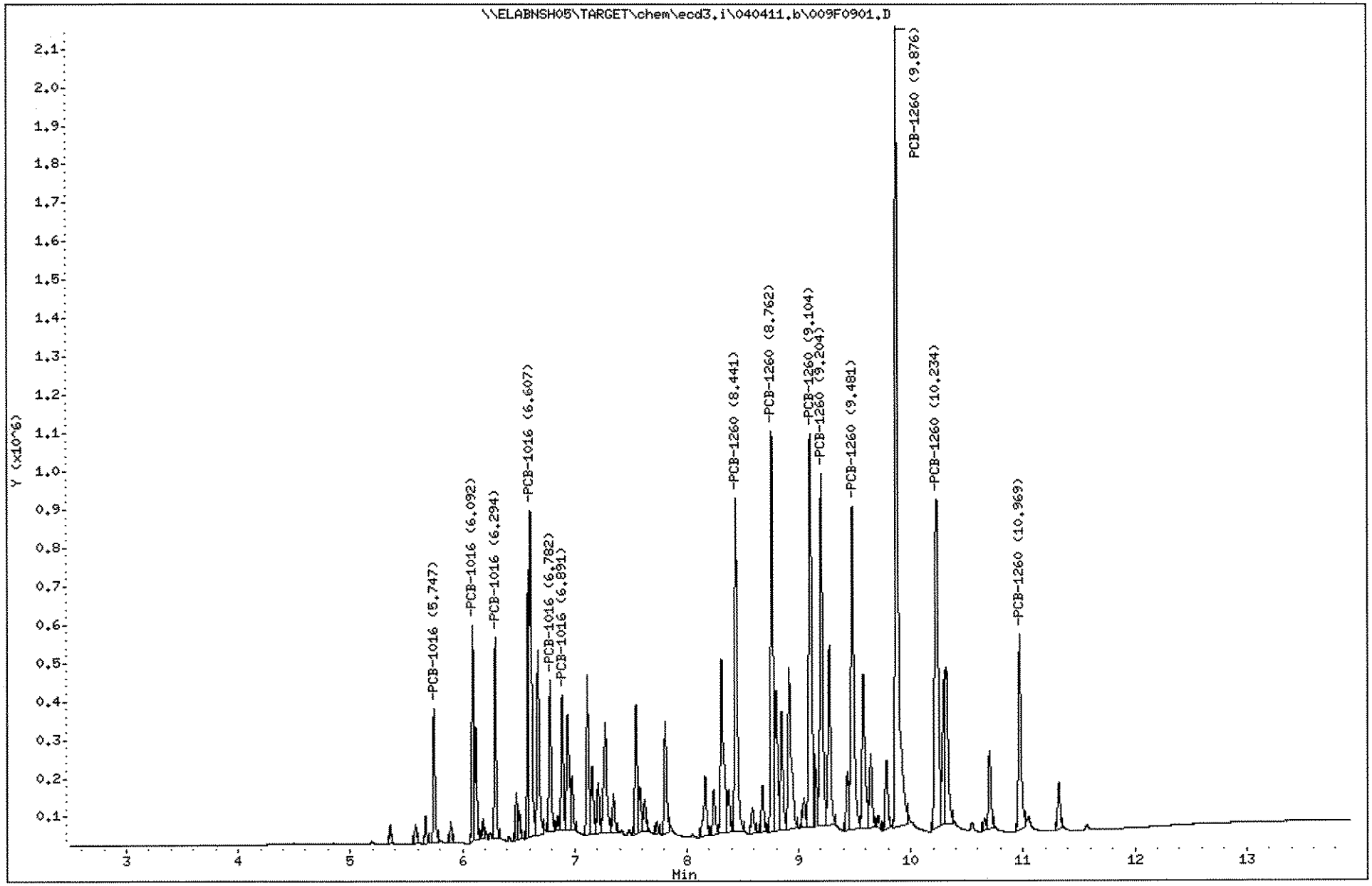
1104114

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009F0901.D
Date : 04-APR-2011 18:43
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.6.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

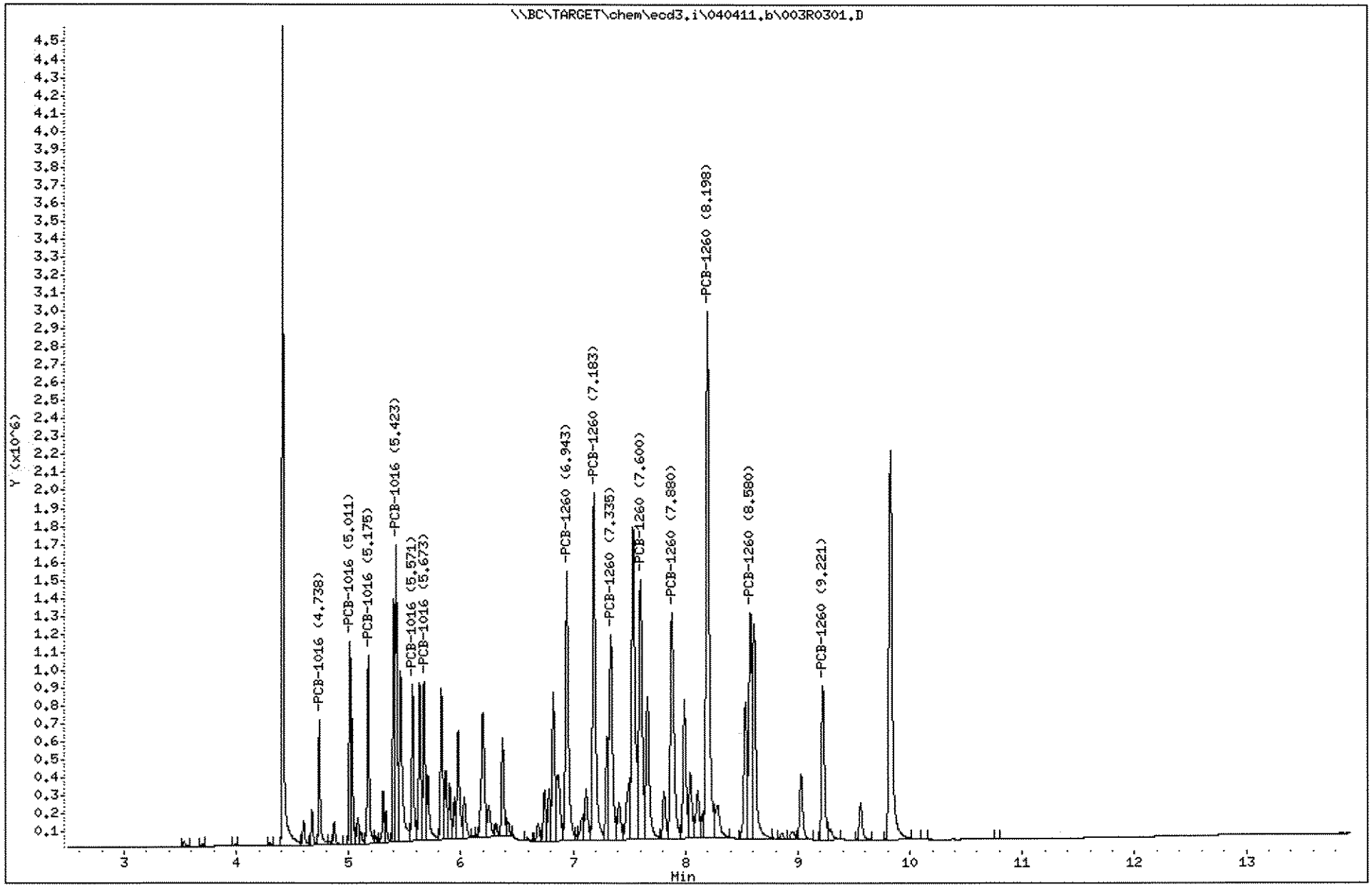
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\003R0301.D
Lab Smp Id: SEQ-CAL1
Inj Date : 04-APR-2011 16:51
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:53 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.423	5.422	(0.001)	1993318	2500.00	2302	80.00- 120.00	100.00
4.738	4.736	(0.002)	803374			32.24- 48.36	40.30
5.011	5.007	(0.004)	1259101	2500.00	2215	50.53- 75.80	63.17
5.174	5.172	(0.002)	1289203	2500.00	2321	51.74- 77.61	64.68
5.571	5.569	(0.002)	1184064	2500.00	2504	47.52- 71.28	59.40
5.673	5.671	(0.002)	1140868	2500.00	2375	45.79- 68.68	57.23
		Average of Peak Amounts =			2343		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.198	8.196	(0.002)	5878966	2500.00	2450	80.00- 120.00	100.00
6.943	6.937	(0.006)	2810960	2500.00	2278	38.25- 57.38	47.81
7.183	7.182	(0.001)	3471096	2500.00	2437	47.23- 70.85	59.04
7.334	7.332	(0.002)	2417808	2500.00	2391	32.90- 49.35	41.13
7.599	7.597	(0.002)	2946760			40.10- 60.15	50.12
7.879	7.876	(0.003)	2871658	2500.00	2404	39.08- 58.62	48.85
8.579	8.579	(0.000)	2128979			28.97- 43.46	36.21
9.221	9.222	(-0.001)	1611415			21.93- 32.89	27.41
		Average of Peak Amounts =			2392		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\003R0301.D
Date : 04-APR-2011 16:51
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.6.11
gjk 04Apr11

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SW-846 METHODS 8081A/8082

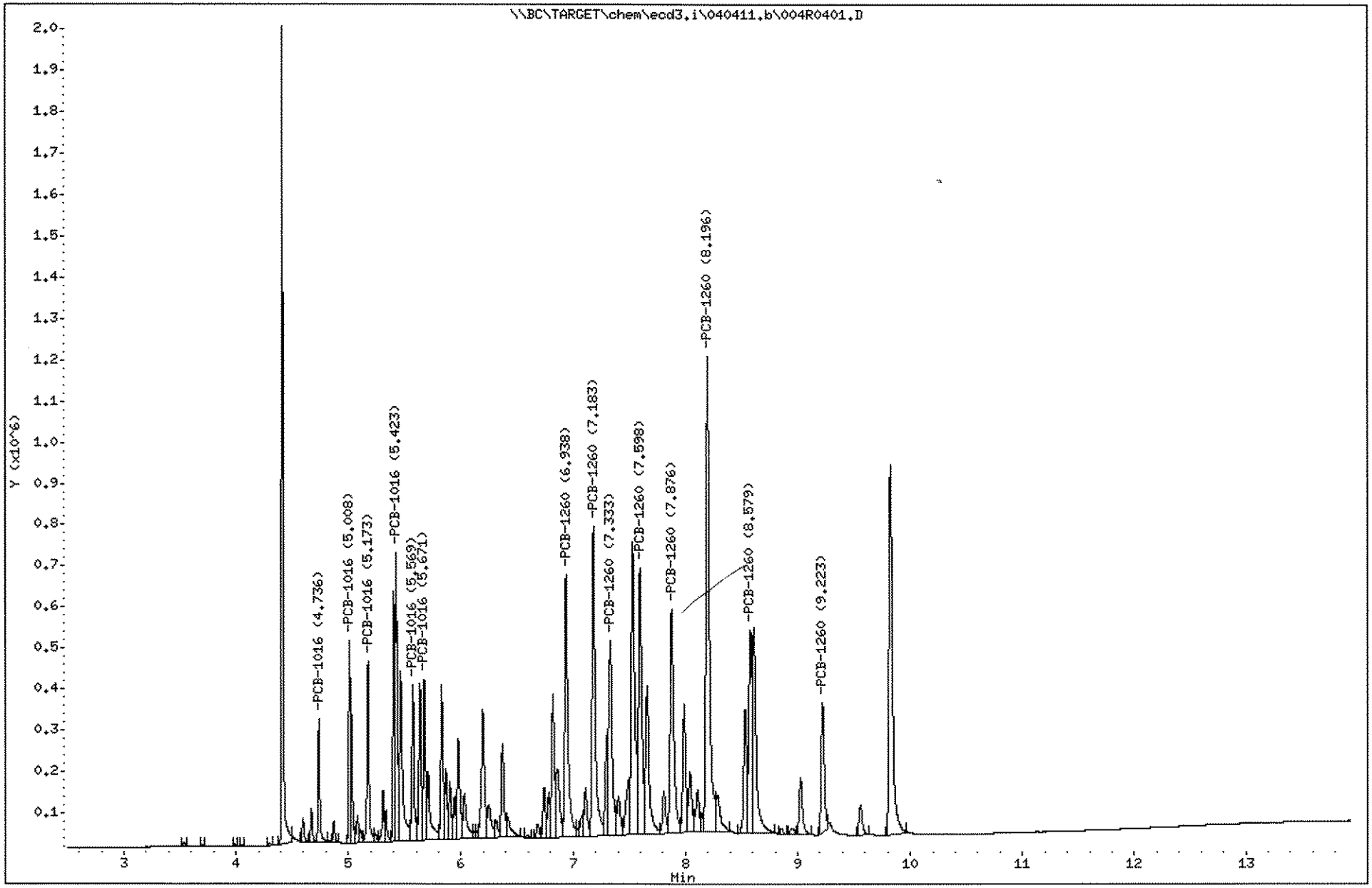
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\004R0401.D
Lab Smp Id: SEQ-CAL2
Inj Date : 04-APR-2011 17:10
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.422	5.422	(0.000)	888022	1000.00	1025	80.00- 120.00	100.00
4.736	4.736	(0.000)	332061			29.91- 44.87	37.39
5.007	5.007	(0.000)	539048	1000.00	948.3	48.56- 72.84	60.70
5.172	5.172	(0.000)	580522	1000.00	1045	52.30- 78.45	65.37
5.569	5.569	(0.000)	536257	1000.00	1134	48.31- 72.47	60.39
5.671	5.671	(0.000)	518889	1000.00	1080	46.75- 70.12	58.43
	Average of Peak Amounts =				1047		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.196	8.196	(0.000)	2495946	1000.00	1040	80.00- 120.00	100.00
6.937	6.937	(0.000)	1245201	1000.00	1009	39.91- 59.87	49.89
7.182	7.182	(0.000)	1480025	1000.00	1039	47.44- 71.16	59.30
7.332	7.332	(0.000)	1052987	1000.00	1041	33.75- 50.63	42.19
7.597	7.597	(0.000)	1296335			41.55- 62.33	51.94
7.876	7.876	(0.000)	1221751	1000.00	1023	39.16- 58.74	48.95
8.579	8.579	(0.000)	862158			27.63- 41.45	34.54
9.222	9.222	(0.000)	603767			19.35- 29.03	24.19
	Average of Peak Amounts =				1030		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\004R0401.D
Date : 04-APR-2011 17:10
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



JH 4.6.11
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SW-846 METHODS 8081A/8082

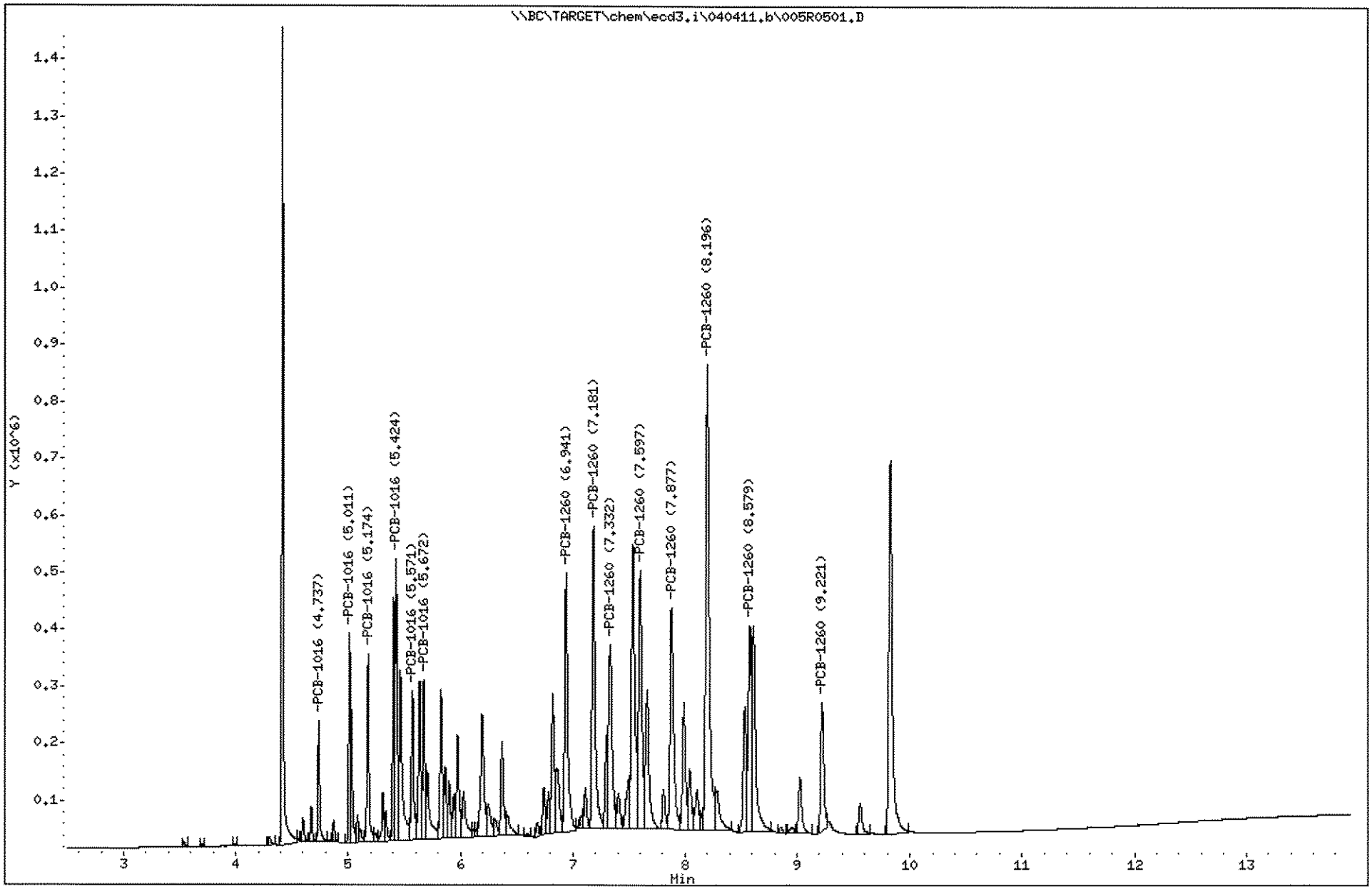
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\005R0501.D
Lab Smp Id: SEQ-CAL3
Inj Date : 04-APR-2011 17:29
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.423	5.422	(0.001)	632788	750.000	730.6	80.00- 120.00	100.00
4.737	4.736	(0.001)	242494			30.66- 45.99	38.32
5.010	5.007	(0.003)	396310	750.000	697.2	50.10- 75.16	62.63
5.173	5.172	(0.001)	420228	750.000	756.5	53.13- 79.69	66.41
5.570	5.569	(0.001)	388269	750.000	821.1	49.09- 73.63	61.36
5.672	5.671	(0.001)	370719	750.000	771.9	46.87- 70.30	58.59
		Average of Peak Amounts =			755.5		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.195	8.196	(-0.001)	1797295	750.000	748.9	80.00- 120.00	100.00
6.940	6.937	(0.003)	862510	750.000	699.1	38.39- 57.59	47.99
7.180	7.182	(-0.002)	1003134	750.000	704.2	44.65- 66.98	55.81
7.332	7.332	(0.000)	724675	750.000	716.7	32.26- 48.38	40.32
7.597	7.597	(0.000)	938796			41.79- 62.68	52.23
7.877	7.876	(0.001)	867295	750.000	726.0	38.60- 57.91	48.26
8.578	8.579	(-0.001)	614257			27.34- 41.01	34.18
9.220	9.222	(-0.002)	435405			19.38- 29.07	24.23
		Average of Peak Amounts =			719		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\005R0501.D
Date : 04-APR-2011 17:29
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



JH. 4.4.11
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SW-846 METHODS 8081A/8082

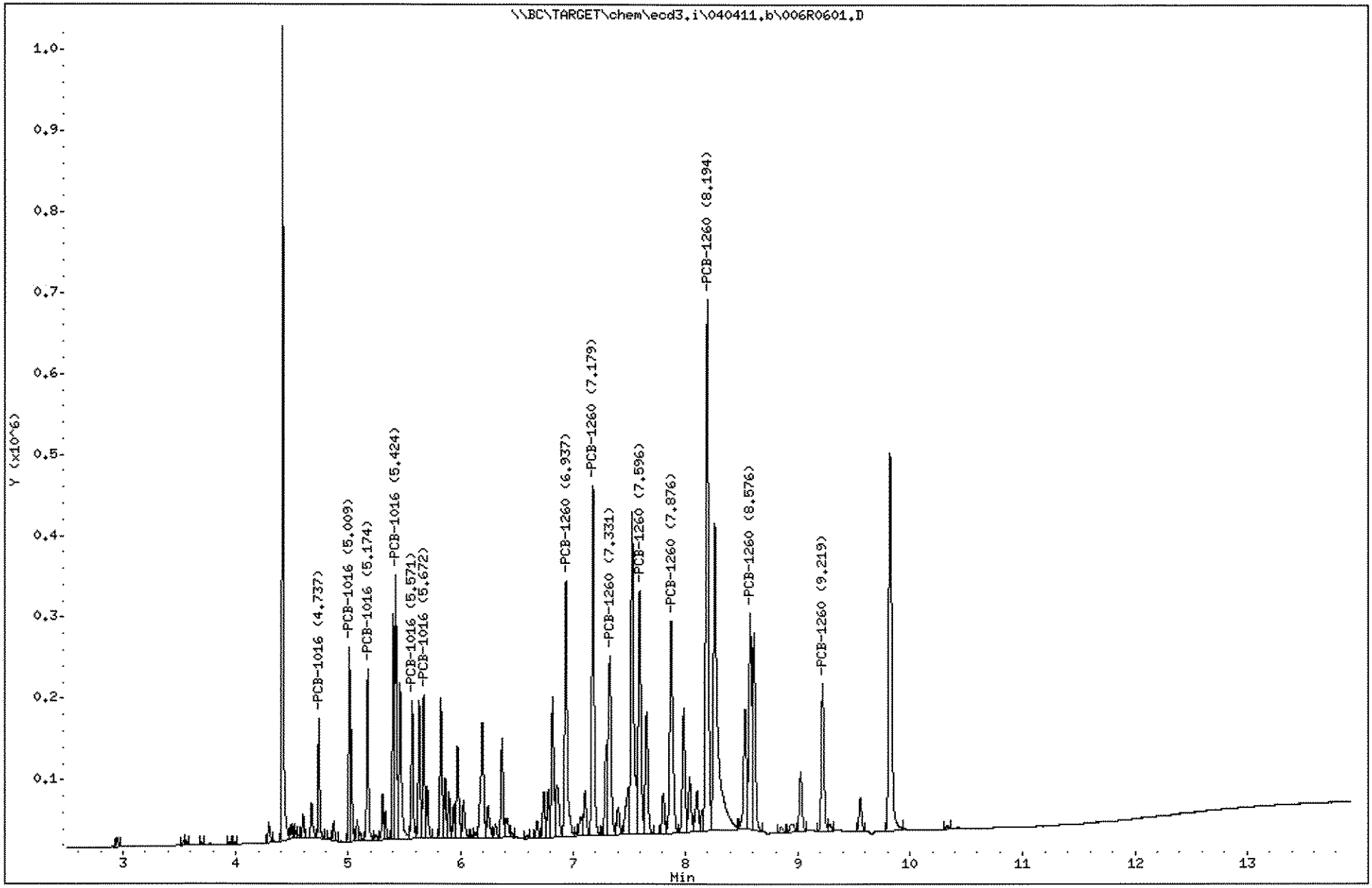
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\006R0601.D
Lab Smp Id: SEQ-CAL4
Inj Date : 04-APR-2011 17:47
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:54 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.423	5.422	(0.001)	377419	500.000	435.8	80.00- 120.00	100.00
4.737	4.736	(0.001)	150614			31.93- 47.89	39.91
5.008	5.007	(0.001)	248874	500.000	437.8	52.75- 79.13	65.94
5.173	5.172	(0.001)	241269	500.000	434.3	51.14- 76.71	63.93
5.570	5.569	(0.001)	207970	500.000	439.8	44.08- 66.12	55.10
5.672	5.671	(0.001)	202249	500.000	421.1	42.87- 64.30	53.59
		Average of Peak Amounts =			433.8		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.193	8.196	(-0.003)	1091729	500.000	454.9	80.00- 120.00	100.00
6.937	6.937	(0.000)	516580	500.000	418.7	37.85- 56.78	47.32
7.178	7.182	(-0.004)	625002	500.000	438.8	45.80- 68.70	57.25
7.330	7.332	(-0.002)	410588	500.000	406.1	30.09- 45.13	37.61
7.595	7.597	(-0.002)	514515			37.70- 56.55	47.13
7.875	7.876	(-0.001)	507141	500.000	424.5	37.16- 55.74	46.45
8.575	8.579	(-0.004)	412795			30.25- 45.37	37.81
9.218	9.222	(-0.004)	301917			22.12- 33.19	27.65
		Average of Peak Amounts =			428.6		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\006R0601.D
Date : 04-APR-2011 17:47
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



JH 4.4.11
ajk 4/6/11

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SW-846 METHODS 8081A/8082

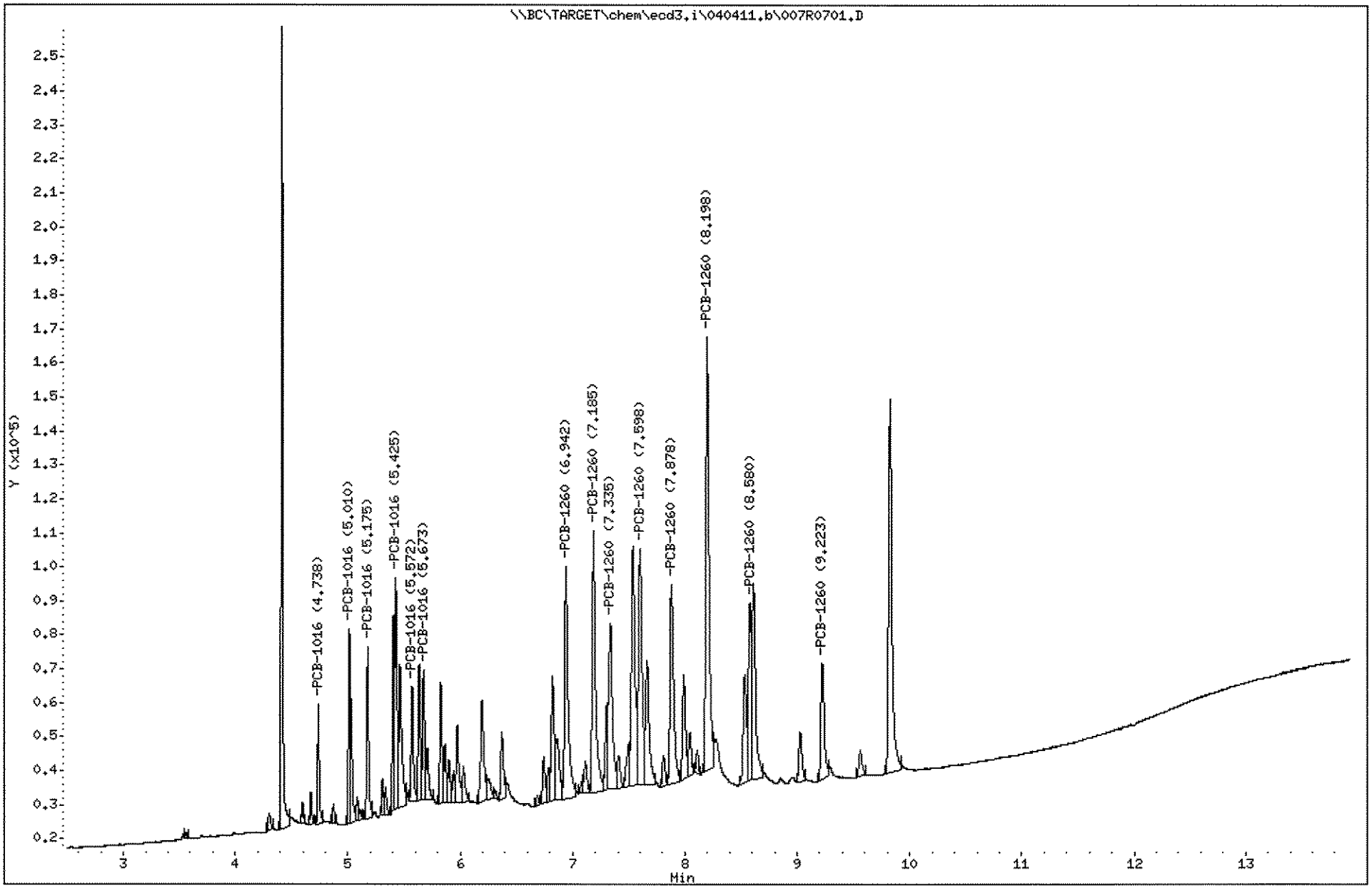
Data file : \\BC\TARGET\chem\ecd3.i\040411.b\007R0701.D
Lab Smp Id: SEQ-CAL5
Inj Date : 04-APR-2011 18:06
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.425	5.422	(0.003)	96608	100.000	111.5	80.00- 120.00	100.00
4.738	4.736	(0.002)	37527			31.08- 46.61	38.84
5.010	5.007	(0.003)	60453	100.000	106.4	50.06- 75.09	62.58
5.175	5.172	(0.003)	61131	100.000	110.0	50.62- 75.93	63.28
5.571	5.569	(0.002)	46493	100.000	98.33	38.50- 57.75	48.13
5.673	5.671	(0.002)	50962	100.000	106.1	42.20- 63.30	52.75
		Average of Peak Amounts =			106.5		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.198	8.196	(0.002)	256314	100.000	106.8	80.00- 120.00	100.00
6.941	6.937	(0.004)	147967	100.000	119.9	46.18- 69.27	57.73
7.185	7.182	(0.003)	160436	100.000	112.6	50.07- 75.11	62.59
7.335	7.332	(0.003)	119168	100.000	117.9	37.19- 55.79	46.49
7.598	7.597	(0.001)	150097			46.85- 70.27	58.56
7.878	7.876	(0.002)	132331	100.000	110.8	41.30- 61.95	51.63
8.580	8.579	(0.001)	87612			27.35- 41.02	34.18
9.223	9.222	(0.001)	68796			21.47- 32.21	26.84
		Average of Peak Amounts =			113.6		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\007R0701.D
Date : 04-APR-2011 18:06
Client ID:
Sample Info: SEQ-CAL5

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040411.b\008R0801.D
Lab Smp Id: SEQ-CAL6
Inj Date : 04-APR-2011 18:24
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 10:55 jeh Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: NSH-LAPTOP1

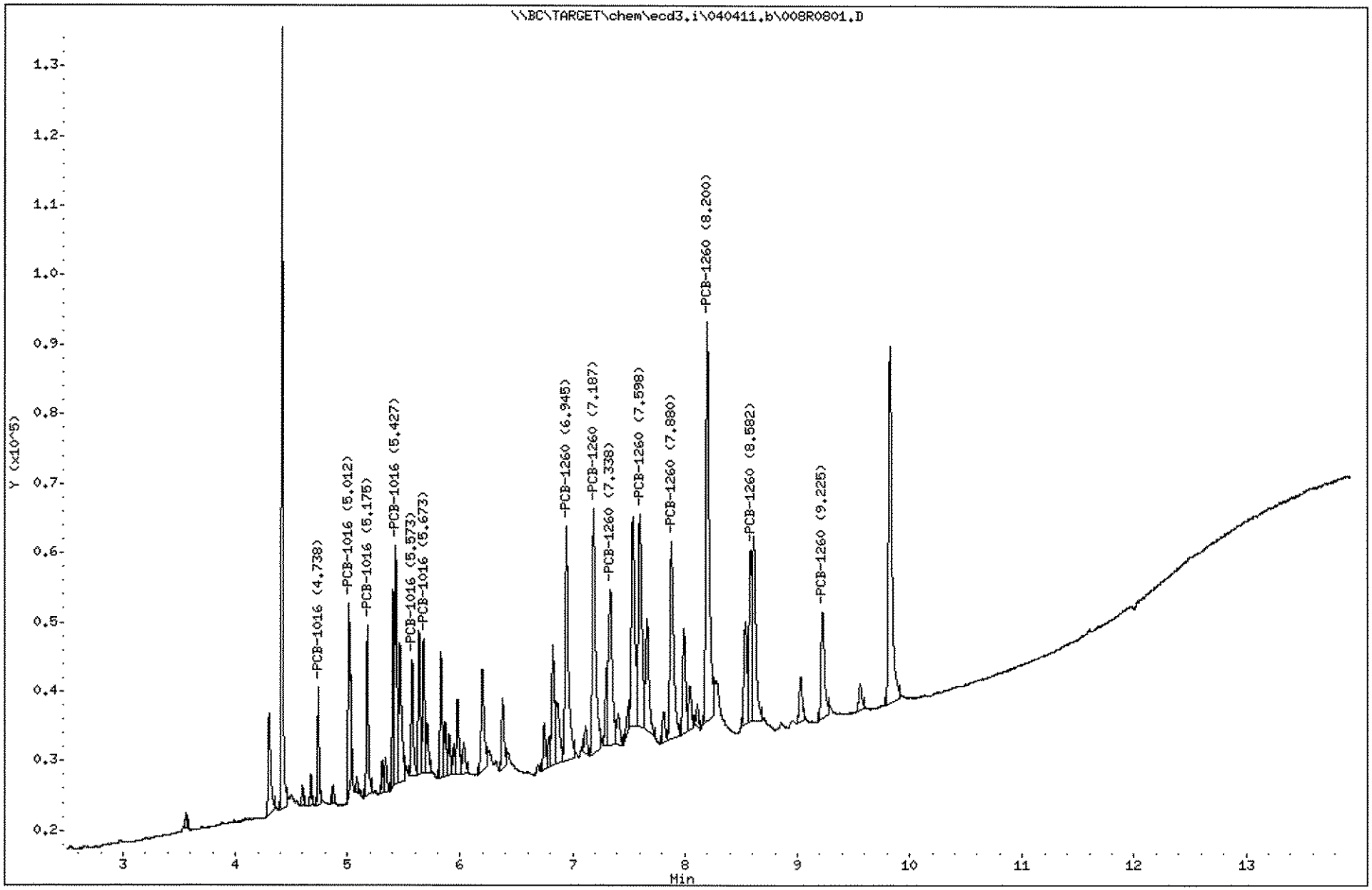
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.426	5.422	(0.004)	47319	50.0000	54.64	80.00- 120.00	100.00
4.738	4.736	(0.002)	18276			30.90- 46.35	38.62
5.011	5.007	(0.004)	36861	50.0000	64.85	62.32- 93.48	77.90
5.174	5.172	(0.002)	29125	50.0000	52.43	49.24- 73.86	61.55
5.573	5.569	(0.004)	21429	50.0000	45.32	36.23- 54.34	45.29
5.673	5.671	(0.002)	24897	50.0000	51.84	42.09- 63.14	52.62
		Average of Peak Amounts =			53.82		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.199	8.196	(0.003)	120483	50.0000	50.20	80.00- 120.00	100.00
6.944	6.937	(0.007)	68491	50.0000	55.52	45.48- 68.22	56.85
7.186	7.182	(0.004)	74311	50.0000	52.17	49.34- 74.01	61.68
7.338	7.332	(0.006)	53363	50.0000	52.78	35.43- 53.15	44.29
7.598	7.597	(0.001)	64741			42.99- 64.48	53.73
7.879	7.876	(0.003)	65176	50.0000	54.56	43.28- 64.91	54.10
8.581	8.579	(0.002)	42144			27.98- 41.98	34.98
9.224	9.222	(0.002)	32534			21.60- 32.40	27.00
		Average of Peak Amounts =			53.04		

Data File: \\BC\TARGET\chem\ecd3.i\040411.b\008R0801.D
Date : 04-APR-2011 18:24
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



J.H. 4.6.11
ajh 04dell

Laboratory Name

ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i Injection Date: 04-APR-2011 18:43
Lab File ID: 009R0901.D Init. Cal. Date(s): 01-JUL-2010 04-APR-2011
Analysis Type: Init. Cal. Times: 08:58 18:24
Lab Sample ID: SEQ-ICV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	840	0.010	-3.0	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	542	0.010	-4.6	20.0	
(4)	555	569	0.010	2.5	20.0	
(5)	473	529	0.010	11.8	20.0	
(6)	480	502	0.010	4.4	20.0	
35 PCB-1260(1)	2400	2347	0.010	-2.2	20.0	
(2)	1234	1151	0.010	-6.7	20.0	
(3)	1424	1329	0.010	-6.7	20.0	
(4)	1011	966	0.010	-4.4	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1119	0.010	-6.4	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-

J.H. 4.6.11
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Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009R0901.D
Lab Smp Id: SEQ-ICV1
Inj Date : 04-APR-2011 18:43
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;AR1660.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\8081_82R.m
Meth Date : 05-Apr-2011 11:02 jsales Quant Type: ESTD
Cal Date : 02-DEC-2010 17:10 Cal File: 035R3501.D
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET07_VM

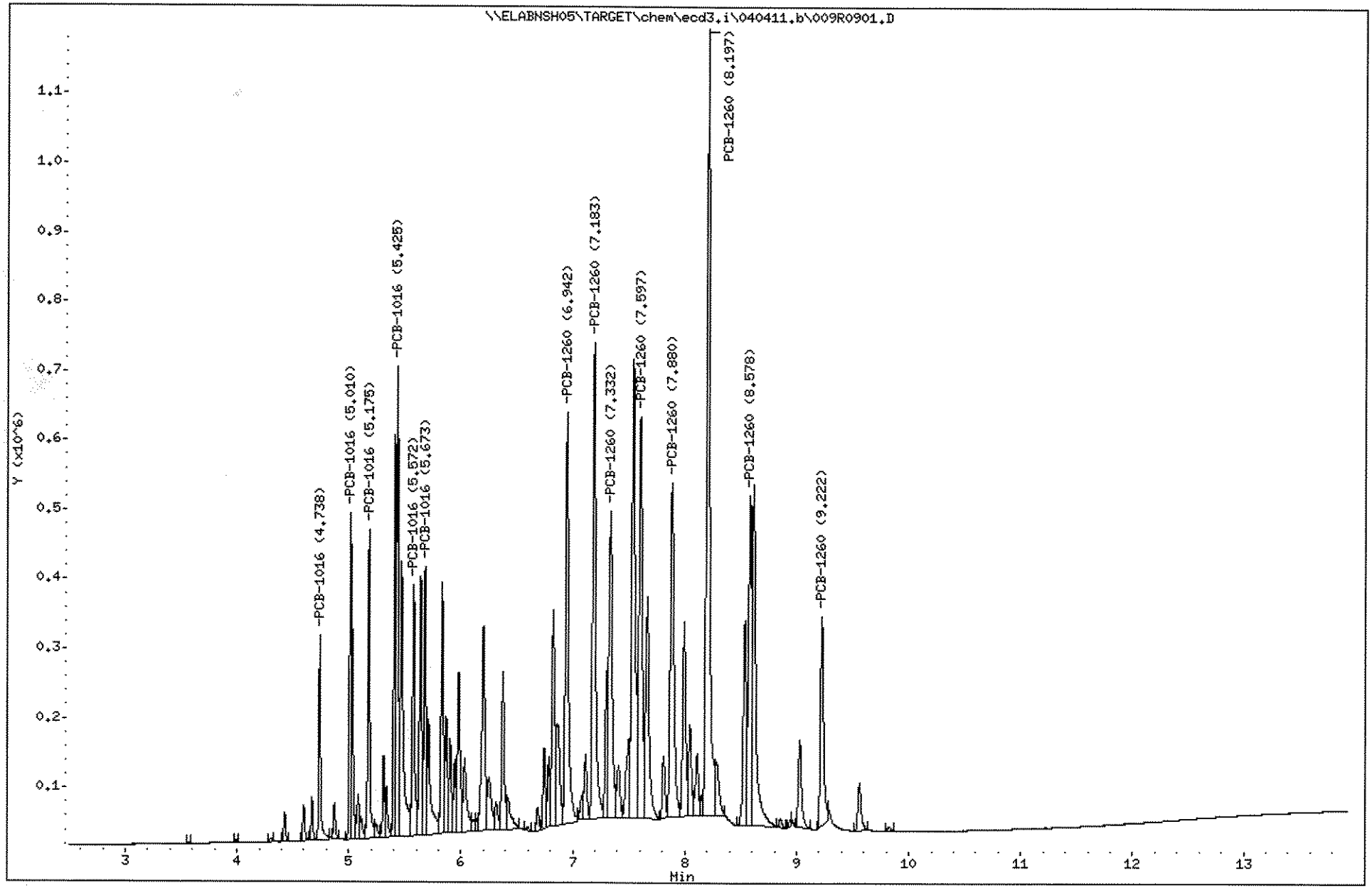
			AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.424	5.424	(0.000)	840388	1000.00	970.4	80.00- 120.00	100.00
4.738	4.738	(0.000)	338676			32.24- 48.36	40.30
5.009	5.009	(0.000)	542021	1000.00	953.5	51.60- 77.40	64.50
5.174	5.174	(0.000)	569378	1000.00	1025	54.20- 81.30	67.75
5.571	5.571	(0.000)	528704	1000.00	1118	50.33- 75.49	62.91
5.673	5.673	(0.000)	501521	1000.00	1044	47.74- 71.61	59.68
		Average of Peak Amounts =			1022		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.196	8.196	(0.000)	2346937	1000.00	977.9	80.00- 120.00	100.00
6.941	6.941	(0.000)	1151034	1000.00	933.0	39.24- 58.85	49.04
7.183	7.183	(0.000)	1328929	1000.00	933.0	45.30- 67.95	56.62
7.331	7.331	(0.000)	966304	1000.00	955.7	32.94- 49.41	41.17
7.596	7.596	(0.000)	1234840			42.09- 63.14	52.61
7.879	7.879	(0.000)	1118746	1000.00	936.5	38.13- 57.20	47.67
8.578	8.578	(0.000)	797586			27.19- 40.78	33.98
9.221	9.221	(0.000)	585328			19.95- 29.93	24.94
		Average of Peak Amounts =			947.2		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\040411.b\009R0901.D
Date : 04-APR-2011 18:43
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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J.H. 4.14.11
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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\011F1101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 08-APR-2011 15:23
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:34 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.318	5.320	-0.002	5842191	200.000	201.0(A)
3 Alpha-BHC	5.758	5.758	0.000	9359332	200.000	218.2(A)
23 Gamma-BHC	6.085	6.085	0.000	8212977	200.000	216.0(A)
5 Beta-BHC	6.298	6.298	0.000	3149846	200.000	200.3(A)
15 Delta-BHC	6.552	6.553	-0.001	7716405	200.000	200.0(A)
25 Heptachlor	6.667	6.666	0.001	8306307	200.000	210.0(A)
2 Aldrin	7.030	7.030	0.000	8342512	200.000	211.2(A)
26 Heptachlor Epoxide	7.505	7.503	0.002	7574416	200.000	205.6(A)
24 Gamma-Chlordane	7.793	7.793	0.000	7647908	200.000	211.3(A)
4 Alpha-Chlordane	7.880	7.881	-0.001	7283505	200.000	205.2(A)
17 Endosulfan I	7.943	7.943	0.000	7017527	200.000	203.5(A)
13 4,4'-DDE	8.083	8.085	-0.002	7088000	200.000	201.2(A)
16 Dieldrin	8.265	8.268	-0.003	7850271	200.000	212.7(A)
20 Endrin	8.542	8.541	0.001	6685277	200.000	216.8(A)
12 4,4'-DDD	8.710	8.711	-0.001	5944055	200.000	202.1(A)
18 Endosulfan II	8.818	8.820	-0.002	6579833	200.000	197.2
21 Endrin Aldehyde	8.978	8.981	-0.003	5427858	200.000	201.8(A)
14 4,4'-DDT	9.087	9.088	-0.001	6513781	200.000	232.8(A)
19 Endosulfan Sulfate	9.270	9.270	0.000	5920713	200.000	206.8(A)
27 Methoxychlor	9.690	9.695	-0.005	3102647	200.000	221.5(A)
22 Endrin Ketone	9.873	9.875	-0.002	7788718	200.000	210.4(A)
$ 39 DCB	11.512	11.513	-0.001	6403640	200.000	184.4

QC Flag Legend

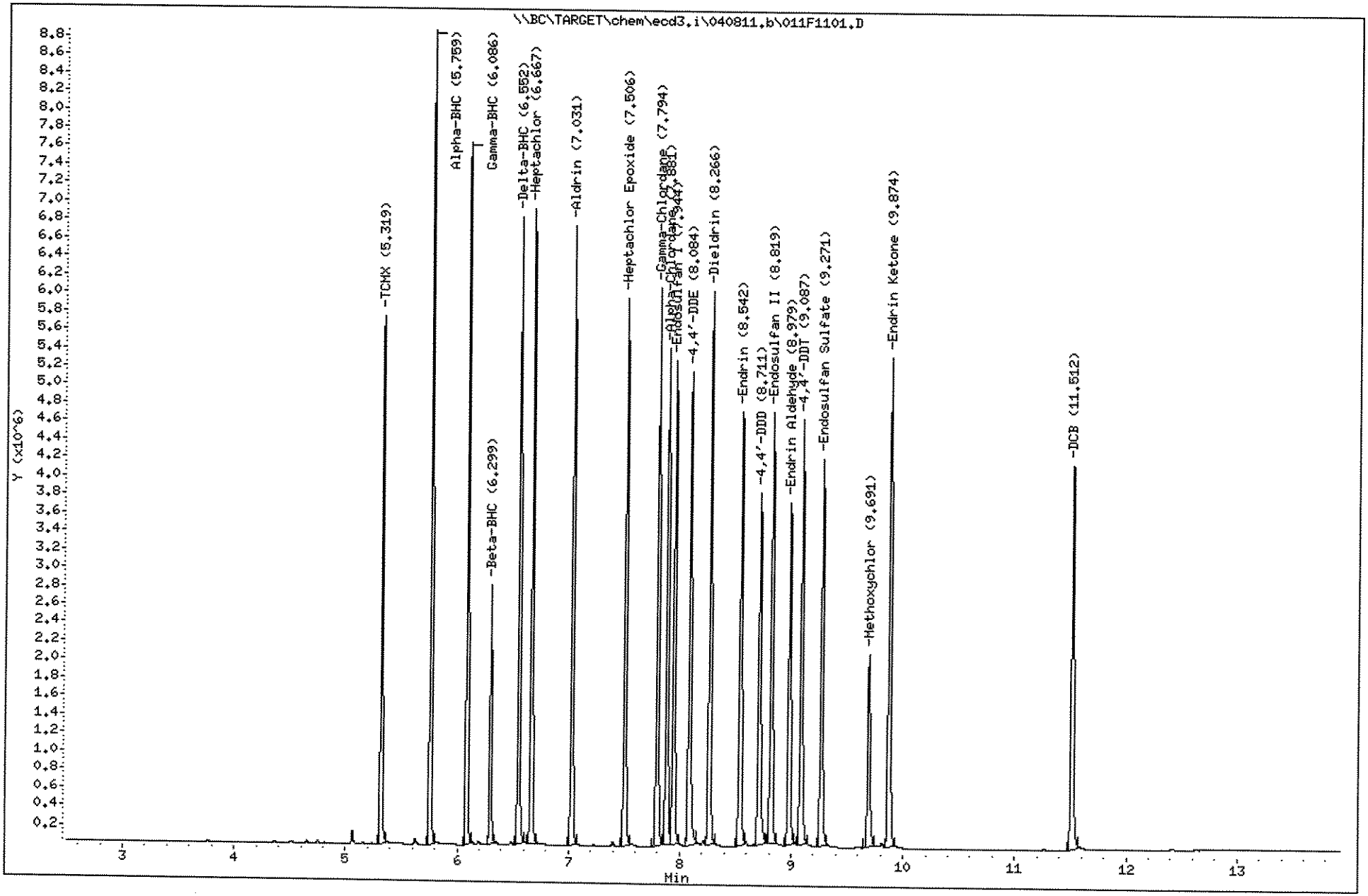
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\011F1101.D
Date : 08-APR-2011 15:23
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



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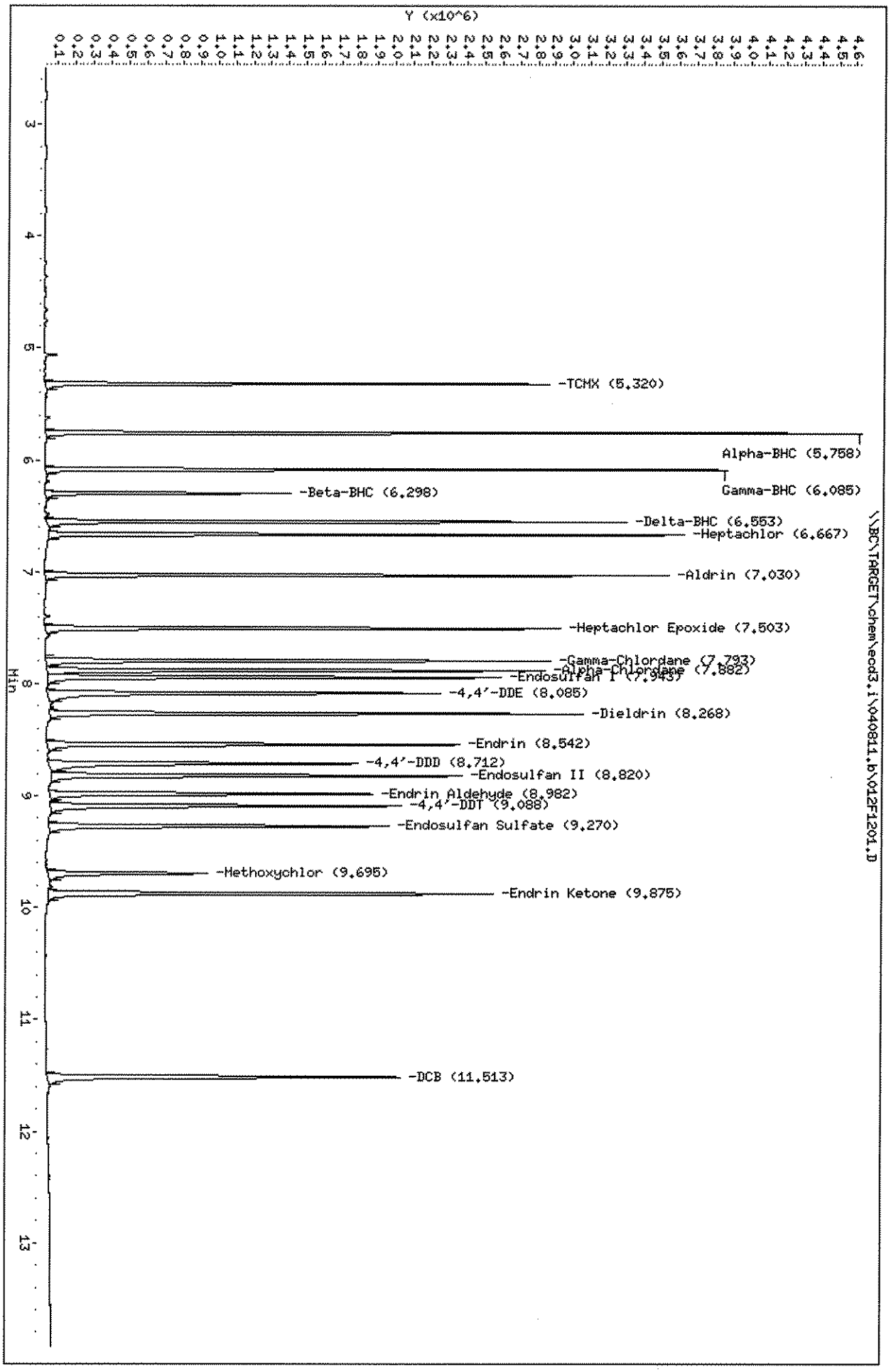
SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\012F1201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 08-APR-2011 15:42
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.320	5.320	0.000	2994019	100.000	103.0
3 Alpha-BHC	5.758	5.758	0.000	4751139	100.000	110.7
23 Gamma-BHC	6.085	6.085	0.000	4161425	100.000	109.5
5 Beta-BHC	6.298	6.298	0.000	1621968	100.000	103.1
15 Delta-BHC	6.553	6.553	0.000	3861067	100.000	100.8
25 Heptachlor	6.666	6.666	0.000	4206947	100.000	106.4
2 Aldrin	7.030	7.030	0.000	4265986	100.000	108.0
26 Heptachlor Epoxide	7.503	7.503	0.000	3865870	100.000	104.9
24 Gamma-Chlordane	7.793	7.793	0.000	3895723	100.000	107.6
4 Alpha-Chlordane	7.881	7.881	0.000	3737302	100.000	105.3
17 Endosulfan I	7.943	7.943	0.000	3602189	100.000	104.5
13 4,4'-DDE	8.085	8.085	0.000	3436631	100.000	98.62
16 Dieldrin	8.268	8.268	0.000	3978162	100.000	107.8
20 Endrin	8.541	8.541	0.000	3369315	100.000	109.3
12 4,4'-DDD	8.711	8.711	0.000	2809299	100.000	97.02
18 Endosulfan II	8.820	8.820	0.000	3347236	100.000	100.3
21 Endrin Aldehyde	8.981	8.981	0.000	2713586	100.000	100.9
14 4,4'-DDT	9.088	9.088	0.000	3117319	100.000	111.4
19 Endosulfan Sulfate	9.270	9.270	0.000	2954739	100.000	103.2
27 Methoxychlor	9.695	9.695	0.000	1474921	100.000	105.3
22 Endrin Ketone	9.875	9.875	0.000	3846360	100.000	103.9
$ 39 DCB	11.513	11.513	0.000	3285669	100.000	94.60



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Date : 08-APR-2011 15:42
Client ID:
Sample Info: SEQ-CAL2
Column phase: ZB MR-1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

J.H. 4.14.11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\013F1301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 08-APR-2011 16:01
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;INDABD.sub
Comment :
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Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

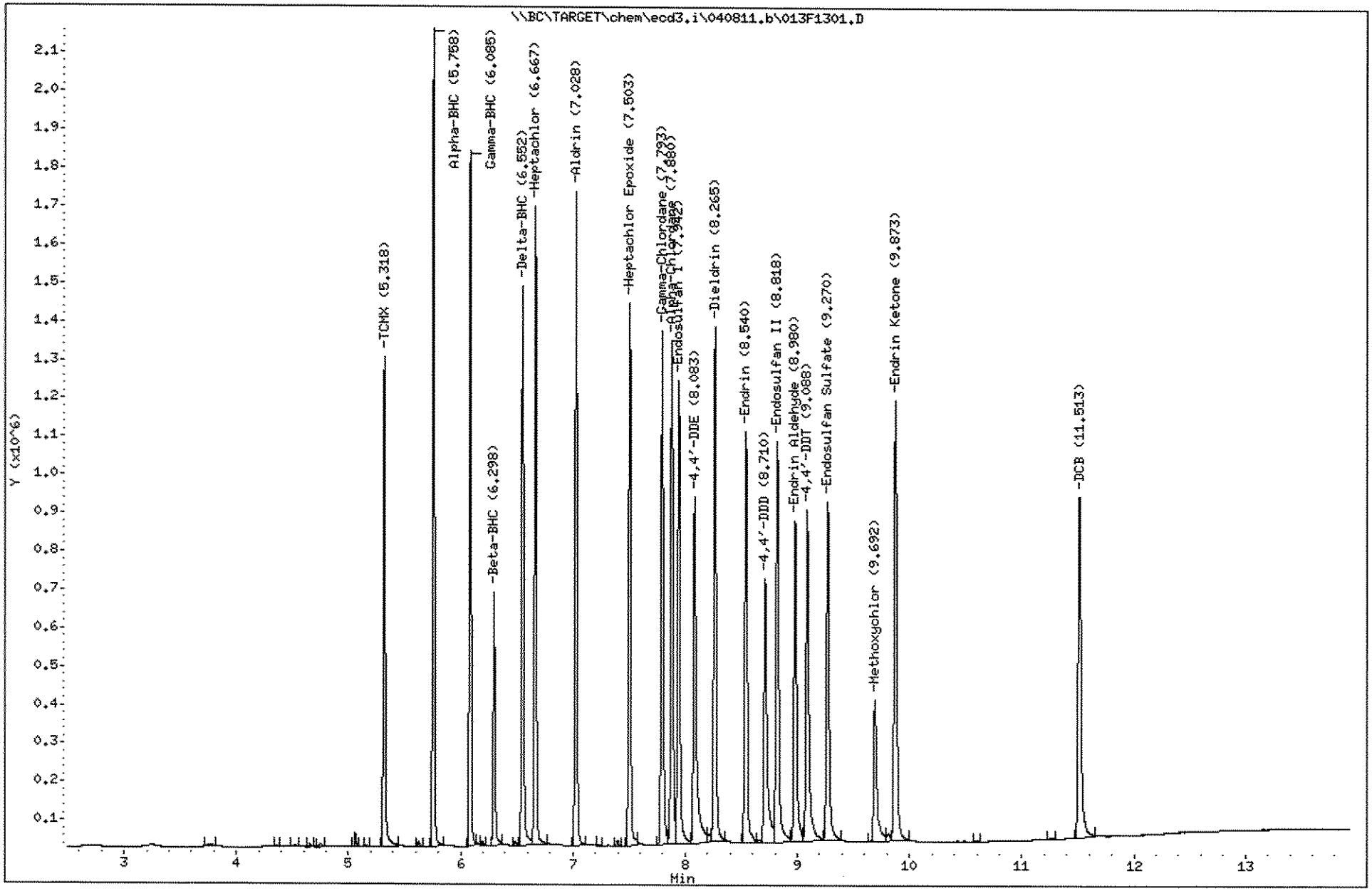
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.318	5.320	-0.002	1475583	50.0000	50.77
3 Alpha-BHC	5.758	5.758	0.000	2247132	50.0000	52.38
23 Gamma-BHC	6.085	6.085	0.000	1966834	50.0000	51.73
5 Beta-BHC	6.298	6.298	0.000	786096	50.0000	49.98
15 Delta-BHC	6.551	6.553	-0.002	1821859	50.0000	48.30
25 Heptachlor	6.666	6.666	0.000	2043943	50.0000	51.67
2 Aldrin	7.028	7.030	-0.002	2058983	50.0000	52.12
26 Heptachlor Epoxide	7.503	7.503	0.000	1880503	50.0000	51.04
24 Gamma-Chlordane	7.793	7.793	0.000	1871475	50.0000	51.70
4 Alpha-Chlordane	7.880	7.881	-0.001	1820317	50.0000	51.29
17 Endosulfan I	7.941	7.943	-0.002	1803631	50.0000	52.31
13 4,4'-DDE	8.083	8.085	-0.002	1627812	50.0000	47.83
16 Dieldrin	8.265	8.268	-0.003	1963690	50.0000	53.20
20 Endrin	8.540	8.541	-0.001	1628655	50.0000	52.83
12 4,4'-DDD	8.710	8.711	-0.001	1313591	50.0000	46.90
18 Endosulfan II	8.818	8.820	-0.002	1791872	50.0000	53.70
21 Endrin Aldehyde	8.980	8.981	-0.001	1384948	50.0000	51.49
14 4,4'-DDT	9.088	9.088	0.000	1538324	50.0000	54.98
19 Endosulfan Sulfate	9.270	9.270	0.000	1474712	50.0000	51.52
27 Methoxychlor	9.691	9.695	-0.004	743085	50.0000	53.05
22 Endrin Ketone	9.873	9.875	-0.002	1913818	50.0000	51.70
$ 39 DCB	11.513	11.513	0.000	1677147	50.0000	48.29

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\013F1301.D
Date : 08-APR-2011 16:01
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.14.11
angie 04.14.11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\014F1401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 08-APR-2011 16:19
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

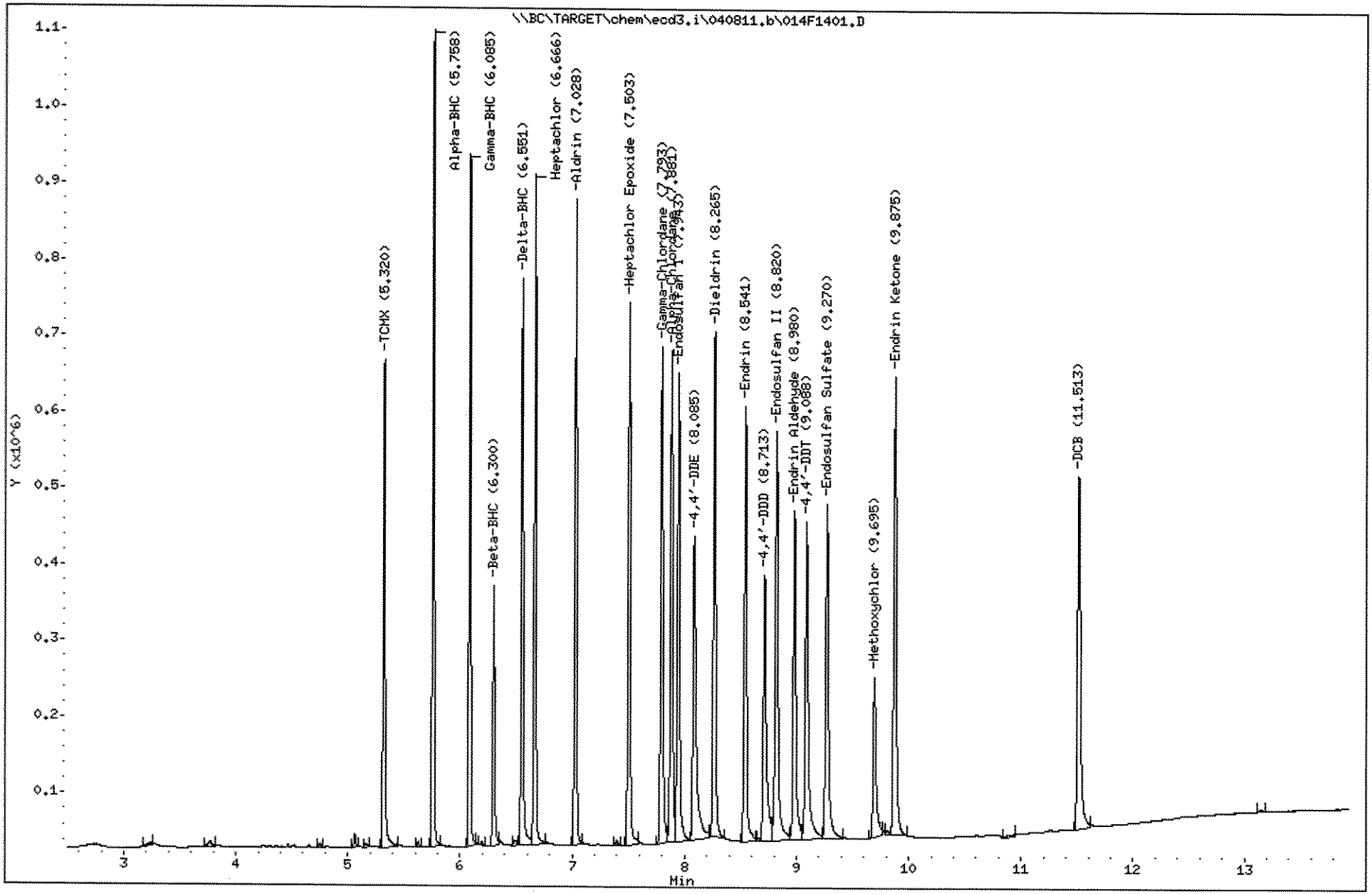
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.319	5.320	-0.001	756304	25.0000	26.02
3 Alpha-BHC	5.758	5.758	0.000	1131790	25.0000	26.38
23 Gamma-BHC	6.084	6.085	-0.001	994800	25.0000	26.17
5 Beta-BHC	6.299	6.298	0.001	399753	25.0000	25.42
15 Delta-BHC	6.551	6.553	-0.002	910381	25.0000	24.84
25 Heptachlor	6.666	6.666	0.000	1041436	25.0000	26.33
2 Aldrin	7.028	7.030	-0.002	1036468	25.0000	26.24
26 Heptachlor Epoxide	7.503	7.503	0.000	962439	25.0000	26.12
24 Gamma-Chlordane	7.793	7.793	0.000	943490	25.0000	26.07
4 Alpha-Chlordane	7.881	7.881	0.000	918600	25.0000	25.88
17 Endosulfan I	7.943	7.943	0.000	912308	25.0000	26.46
13 4,4'-DDE	8.084	8.085	-0.001	808055	25.0000	24.81
16 Dieldrin	8.264	8.268	-0.004	972150	25.0000	26.34
20 Endrin	8.541	8.541	0.000	834084	25.0000	27.06
12 4,4'-DDD	8.713	8.711	0.002	653317	25.0000	24.77
18 Endosulfan II	8.819	8.820	-0.001	927303	25.0000	27.79
21 Endrin Aldehyde	8.979	8.981	-0.002	711866	25.0000	26.46
14 4,4'-DDT	9.088	9.088	0.000	791109	25.0000	28.27
19 Endosulfan Sulfate	9.269	9.270	-0.001	771202	25.0000	26.94
27 Methoxychlor	9.694	9.695	-0.001	370684	25.0000	26.46
22 Endrin Ketone	9.874	9.875	-0.001	958289	25.0000	25.89
$ 39 DCB	11.513	11.513	0.000	894393	25.0000	25.75

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\014F1401.D
Date : 08-APR-2011 16:19
Client ID:
Sample Info: SEQ-CAL4

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\015F1501.D
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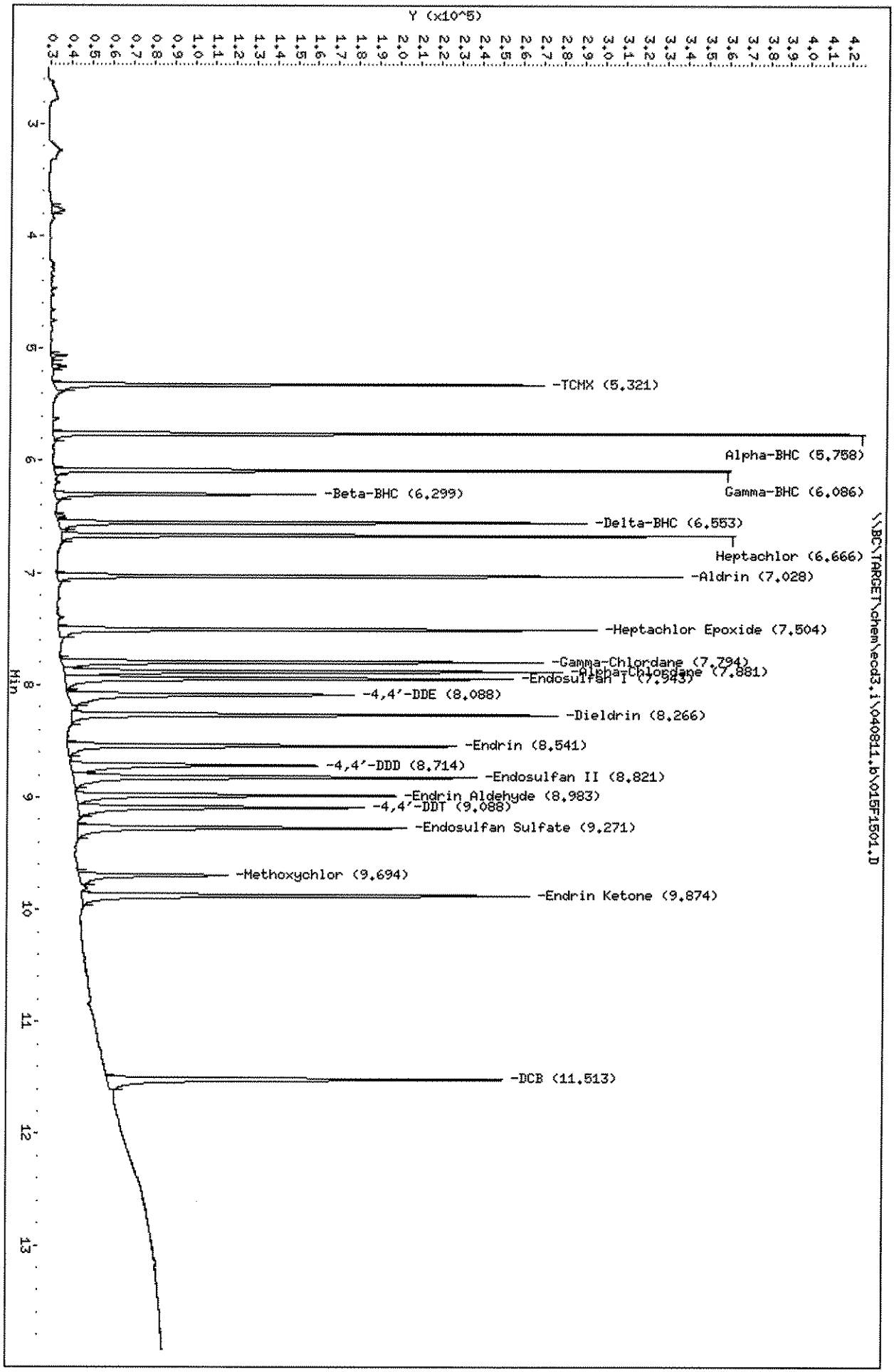
Inj Date : 08-APR-2011 16:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.321	5.320	0.001	280861	10.0000	9.664
3 Alpha-BHC	5.757	5.758	-0.001	416060	10.0000	9.698
23 Gamma-BHC	6.086	6.085	0.001	366738	10.0000	9.646
5 Beta-BHC	6.299	6.298	0.001	153129	10.0000	9.736
15 Delta-BHC	6.552	6.553	-0.001	315933	10.0000	9.539
25 Heptachlor	6.666	6.666	0.000	374795	10.0000	9.475
2 Aldrin	7.027	7.030	-0.003	381585	10.0000	9.659
26 Heptachlor Epoxide	7.504	7.503	0.001	360403	10.0000	9.782
24 Gamma-Chlordane	7.794	7.793	0.001	348578	10.0000	9.630
4 Alpha-Chlordane	7.881	7.881	0.000	345183	10.0000	9.726
17 Endosulfan I	7.942	7.943	-0.001	341602	10.0000	9.907
13 4,4'-DDE	8.087	8.085	0.002	277354	10.0000	9.903
16 Dieldrin	8.266	8.268	-0.002	353026	10.0000	9.564
20 Endrin	8.541	8.541	0.000	290306	10.0000	9.417
12 4,4'-DDD	8.714	8.711	0.003	220011	10.0000	10.25
18 Endosulfan II	8.821	8.820	0.001	333524	10.0000	9.996
21 Endrin Aldehyde	8.982	8.981	0.001	259044	10.0000	9.631
14 4,4'-DDT	9.087	9.088	-0.001	249712	10.0000	8.924
19 Endosulfan Sulfate	9.271	9.270	0.001	272156	10.0000	9.508
27 Methoxychlor	9.694	9.695	-0.001	135960	10.0000	9.706
22 Endrin Ketone	9.874	9.875	-0.001	358450	10.0000	9.684
$ 39 DCB	11.512	11.513	-0.001	348982	10.0000	10.05



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Date : 08-APR-2011 16:38
Client ID:
Sample Info: SEQ-CAL5
Column phase: ZB MR-1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

JH. 4.14.11

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SW-846 METHODS 8081A/8082

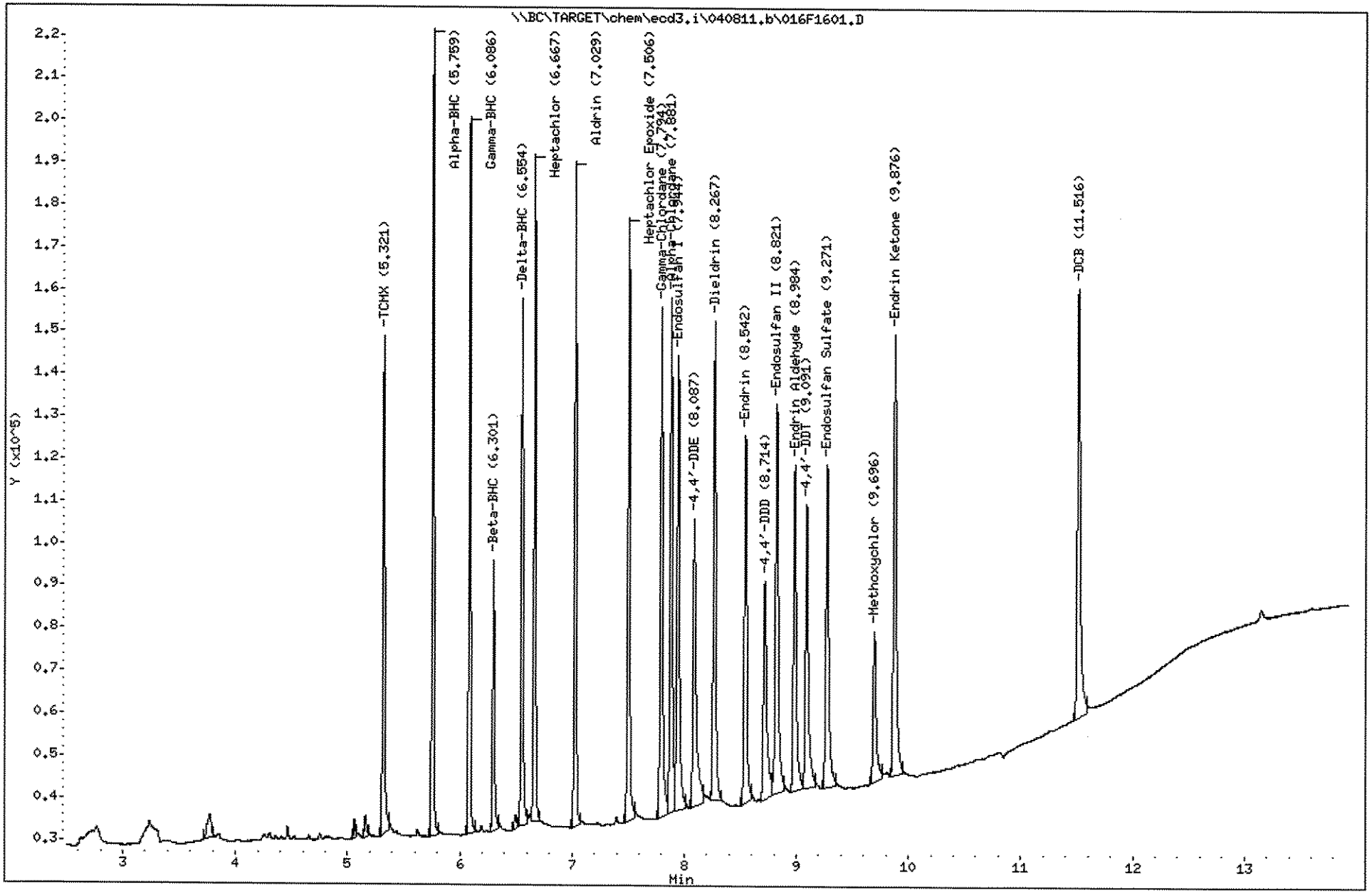
Data file : \\BC\TARGET\chem\ecd3.i\040811.b\016F1601.D
Lab Smp Id: SEQ-CAL6
Inj Date : 08-APR-2011 16:57
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.320	5.320	0.000	142177	5.00000	4.892
3 Alpha-BHC	5.758	5.758	0.000	201042	5.00000	4.686
23 Gamma-BHC	6.085	6.085	0.000	180498	5.00000	4.748
5 Beta-BHC	6.300	6.298	0.002	77860	5.00000	4.950
15 Delta-BHC	6.553	6.553	0.000	152753	5.00000	5.339
25 Heptachlor	6.667	6.666	0.001	184387	5.00000	4.661
2 Aldrin	7.028	7.030	-0.002	188065	5.00000	4.761
26 Heptachlor Epoxide	7.505	7.503	0.002	178252	5.00000	4.838
24 Gamma-Chlordane	7.793	7.793	0.000	174418	5.00000	4.819
4 Alpha-Chlordane	7.880	7.881	-0.001	174106	5.00000	4.906
17 Endosulfan I	7.943	7.943	0.000	169659	5.00000	4.921
13 4,4'-DDE	8.087	8.085	0.002	134623	5.00000	5.894
16 Dieldrin	8.267	8.268	-0.001	172655	5.00000	4.678
20 Endrin	8.542	8.541	0.001	138124	5.00000	4.480
12 4,4'-DDD	8.713	8.711	0.002	107902	5.00000	6.495
18 Endosulfan II	8.820	8.820	0.000	163808	5.00000	4.910
21 Endrin Aldehyde	8.983	8.981	0.002	133204	5.00000	4.952
14 4,4'-DDT	9.090	9.088	0.002	121735	5.00000	4.350
19 Endosulfan Sulfate	9.270	9.270	0.000	138235	5.00000	4.829
27 Methoxychlor	9.695	9.695	0.000	67077	5.00000	4.789
22 Endrin Ketone	9.875	9.875	0.000	182170	5.00000	4.921
$ 39 DCB	11.515	11.513	0.002	185178	5.00000	5.332

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\016F1601.D
Date : 08-APR-2011 16:57
Client ID:
Sample Info: SEQ-CAL6

Instrument: ecd3.i

Operator: JH
Column phase: ZB MR-1
Column diameter: 0.32



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ajc 04/14/11

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\017F1701.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-APR-2011 17:15
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

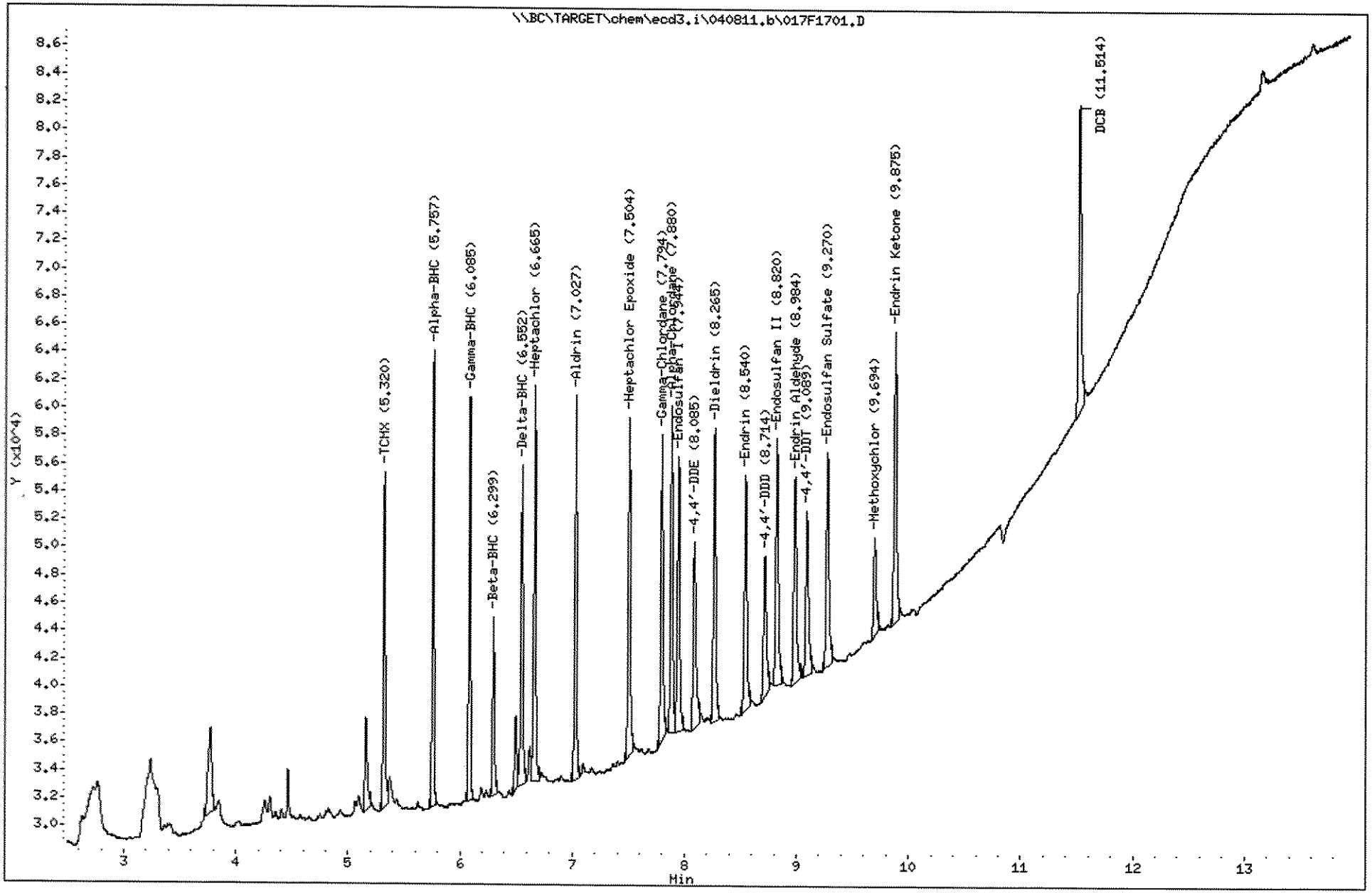
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX	5.320	5.320	0.000	28010	1.00000	0.9637
3 Alpha-BHC	5.756	5.758	-0.002	33984	1.00000	0.7921
23 Gamma-BHC	6.085	6.085	0.000	31542	1.00000	0.8297
5 Beta-BHC	6.298	6.298	0.000	15528	1.00000	0.9873
15 Delta-BHC	6.551	6.553	-0.002	29055	1.00000	2.155
25 Heptachlor	6.665	6.666	-0.001	36395	1.00000	0.9201
2 Aldrin	7.026	7.030	-0.004	33746	1.00000	0.8542
26 Heptachlor Epoxide	7.503	7.503	0.000	33569	1.00000	0.9111
24 Gamma-Chlordane	7.793	7.793	0.000	31257	1.00000	0.8636
4 Alpha-Chlordane	7.880	7.881	-0.001	32163	1.00000	0.9062
17 Endosulfan I	7.943	7.943	0.000	29588	1.00000	0.8581
13 4,4'-DDE	8.085	8.085	0.000	23495	1.00000	2.774
16 Dieldrin	8.265	8.268	-0.003	31354	1.00000	0.8494
20 Endrin	8.540	8.541	-0.001	26089	1.00000	0.8462
12 4,4'-DDD	8.713	8.711	0.002	18108	1.00000	3.486
18 Endosulfan II	8.820	8.820	0.000	28141	1.00000	0.8434
21 Endrin Aldehyde	8.983	8.981	0.002	25288	1.00000	0.9402
14 4,4'-DDT	9.088	9.088	0.000	20401	1.00000	0.7291
19 Endosulfan Sulfate	9.270	9.270	0.000	26018	1.00000	0.9089
27 Methoxychlor	9.693	9.695	-0.002	11090	1.00000	0.7917
22 Endrin Ketone	9.875	9.875	0.000	32813	1.00000	0.8865
$ 39 DCB	11.513	11.513	0.000	36985	1.00000	1.065

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\017F1701.D
Date : 08-APR-2011 17:15
Client ID:
Sample Info: SEQ-CAL7

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.14.11

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ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 018F1801.D
Analysis Type:
Lab Sample ID: SEQ-ICV1
Method: \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m

Injection Date: 08-APR-2011 17:34
Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Init. Cal. Times: 08:58 17:15
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D
3 Alpha-BHC	42903	50513	0.010	17.7	20.0
23 Gamma-BHC	38018	44482	0.010	17.0	20.0
5 Beta-BHC	15728	17895	0.010	13.8	20.0
15 Delta-BHC	100	109	0.010	-8.6	20.0
25 Heptachlor	39556	44390	0.010	12.2	20.0
2 Aldrin	39504	45049	0.010	14.0	20.0
26 Heptachlor Epoxide	36843	41413	0.010	12.4	20.0
24 Gamma-Chlordane	36195	41865	0.010	15.7	20.0
4 Alpha-Chlordane	35492	39961	0.010	12.6	20.0
17 Endosulfan I	34479	38553	0.010	11.8	20.0
13 4,4'-DDE	100	107	0.010	-7.1	20.0
16 Dieldrin	36911	42203	0.010	14.3	20.0
20 Endrin	30829	35474	0.010	15.1	20.0
12 4,4'-DDD	100	107	0.010	-7.3	20.0
18 Endosulfan II	33365	35805	0.010	7.3	20.0
21 Endrin Aldehyde	26897	27561	0.010	2.5	20.0
14 4,4'-DDT	27982	33350	0.010	19.2	20.0
19 Endosulfan Sulfate	28625	32317	0.010	12.9	20.0
27 Methoxychlor	14008	16676	0.010	19.1	20.0
22 Endrin Ketone	37015	41791	0.010	12.9	20.0

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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\018F1801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 08-APR-2011 17:34
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82F.m
Meth Date : 13-Apr-2011 09:50 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

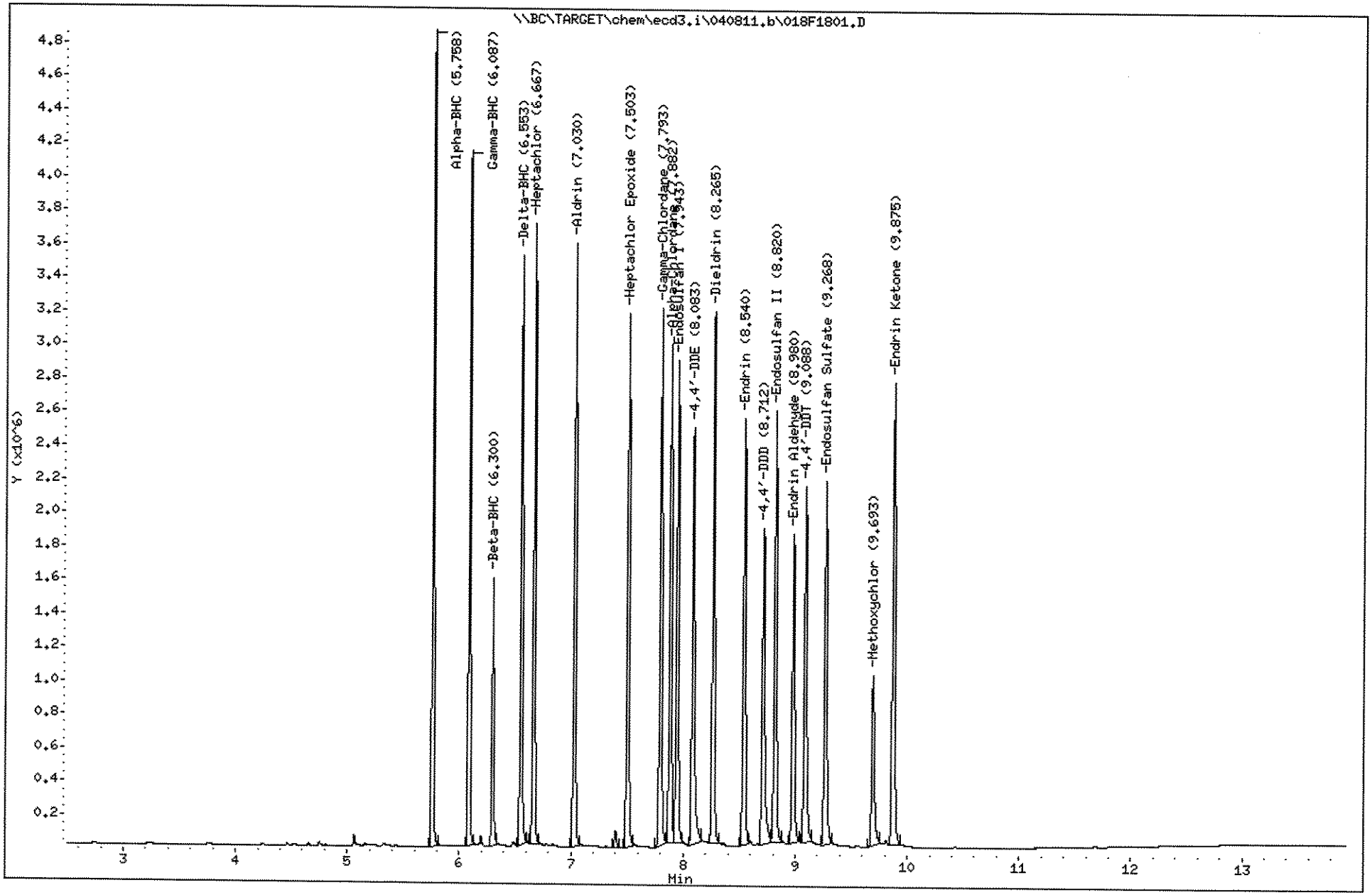
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
3 Alpha-BHC	5.758	5.758	0.000	5051312	100.000	117.7
23 Gamma-BHC	6.086	6.085	0.001	4448226	100.000	117.0
5 Beta-BHC	6.299	6.298	0.001	1789490	100.000	113.8
15 Delta-BHC	6.553	6.553	0.000	4162650	100.000	108.6
25 Heptachlor	6.666	6.666	0.000	4438969	100.000	112.2
2 Aldrin	7.029	7.030	-0.001	4504869	100.000	114.0
26 Heptachlor Epoxide	7.503	7.503	0.000	4141312	100.000	112.4
24 Gamma-Chlordane	7.793	7.793	0.000	4186549	100.000	115.7
4 Alpha-Chlordane	7.881	7.881	0.000	3996053	100.000	112.6
17 Endosulfan I	7.943	7.943	0.000	3855252	100.000	111.8
13 4,4'-DDE	8.083	8.085	-0.002	3739677	100.000	107.1
16 Dieldrin	8.264	8.268	-0.004	4220346	100.000	114.3
20 Endrin	8.539	8.541	-0.002	3547425	100.000	115.1
12 4,4'-DDD	8.711	8.711	0.000	3115023	100.000	107.3
18 Endosulfan II	8.819	8.820	-0.001	3580454	100.000	107.3
21 Endrin Aldehyde	8.979	8.981	-0.002	2756149	100.000	102.5
14 4,4'-DDT	9.088	9.088	0.000	3334992	100.000	119.2
19 Endosulfan Sulfate	9.268	9.270	-0.002	3231744	100.000	112.9
27 Methoxychlor	9.693	9.695	-0.002	1667638	100.000	119.0
22 Endrin Ketone	9.874	9.875	-0.001	4179110	100.000	112.9

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\018F1801.D
Date : 08-APR-2011 17:34
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



J.H. 4.14.11
cjk 04/14/11

Empirical Laboratories, LLC

SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\011R1101.D
Lab Smp Id: SEQ-CAL1
Inj Date : 08-APR-2011 15:23
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:34 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	3800198	200.000	178.1
3 Alpha-BHC [2C]	4.781	4.781	0.000	4988604	200.000	179.4
23 Gamma-BHC [2C]	5.051	5.051	0.000	4517971	200.000	178.0
5 Beta-BHC [2C]	5.318	5.319	-0.001	2024812	200.000	165.9
25 Heptachlor [2C]	5.388	5.387	0.001	4355751	200.000	168.3
15 Delta-BHC [2C]	5.514	5.516	-0.002	4176117	200.000	187.2
2 Aldrin [2C]	5.643	5.642	0.001	4519139	200.000	168.5
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	4262565	200.000	166.5
24 Gamma-Chlordane [2C]	6.363	6.364	-0.001	4171499	200.000	174.6
4 Alpha-Chlordane [2C]	6.418	6.419	-0.001	4051122	200.000	164.3
17 Endosulfan I [2C]	6.466	6.466	0.000	4217454	200.000	159.8
13 4,4'-DDE [2C]	6.609	6.611	-0.002	4235769	200.000	197.2
16 Dieldrin [2C]	6.734	6.736	-0.002	4638254	200.000	169.3
20 Endrin [2C]	7.006	7.007	-0.001	3876063	200.000	176.2
12 4,4'-DDD [2C]	7.193	7.196	-0.003	3686473	200.000	202.7(A)
18 Endosulfan II [2C]	7.333	7.334	-0.001	3777460	200.000	169.0
14 4,4'-DDT [2C]	7.481	7.482	-0.001	3257758	200.000	221.3(A)
21 Endrin Aldehyde [2C]	7.513	7.512	0.001	3909269	200.000	161.8
19 Endosulfan Sulfate [2C]	7.788	7.787	0.001	3686596	200.000	183.4
27 Methoxychlor [2C]	8.106	8.107	-0.001	1840175	200.000	193.7
22 Endrin Ketone [2C]	8.331	8.332	-0.001	4394884	200.000	168.0
$ 39 DCB [2C]	9.773	9.774	-0.001	3857149	200.000	178.3

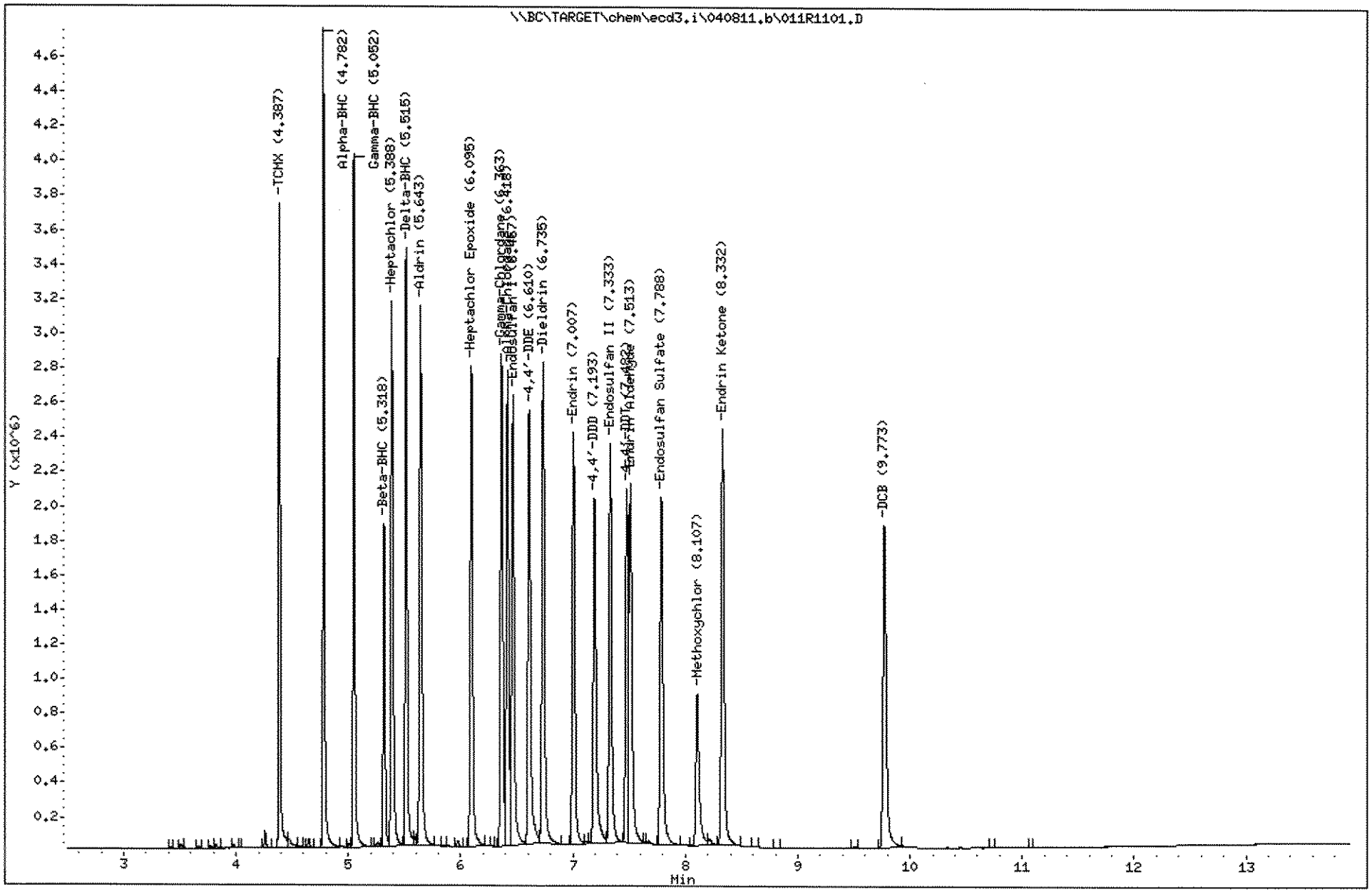
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\011R1101.D
Date : 08-APR-2011 15:23
Client ID:
Sample Info: SEQ-CAL1

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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04/14/11

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SW-846 METHODS 8081A/8082

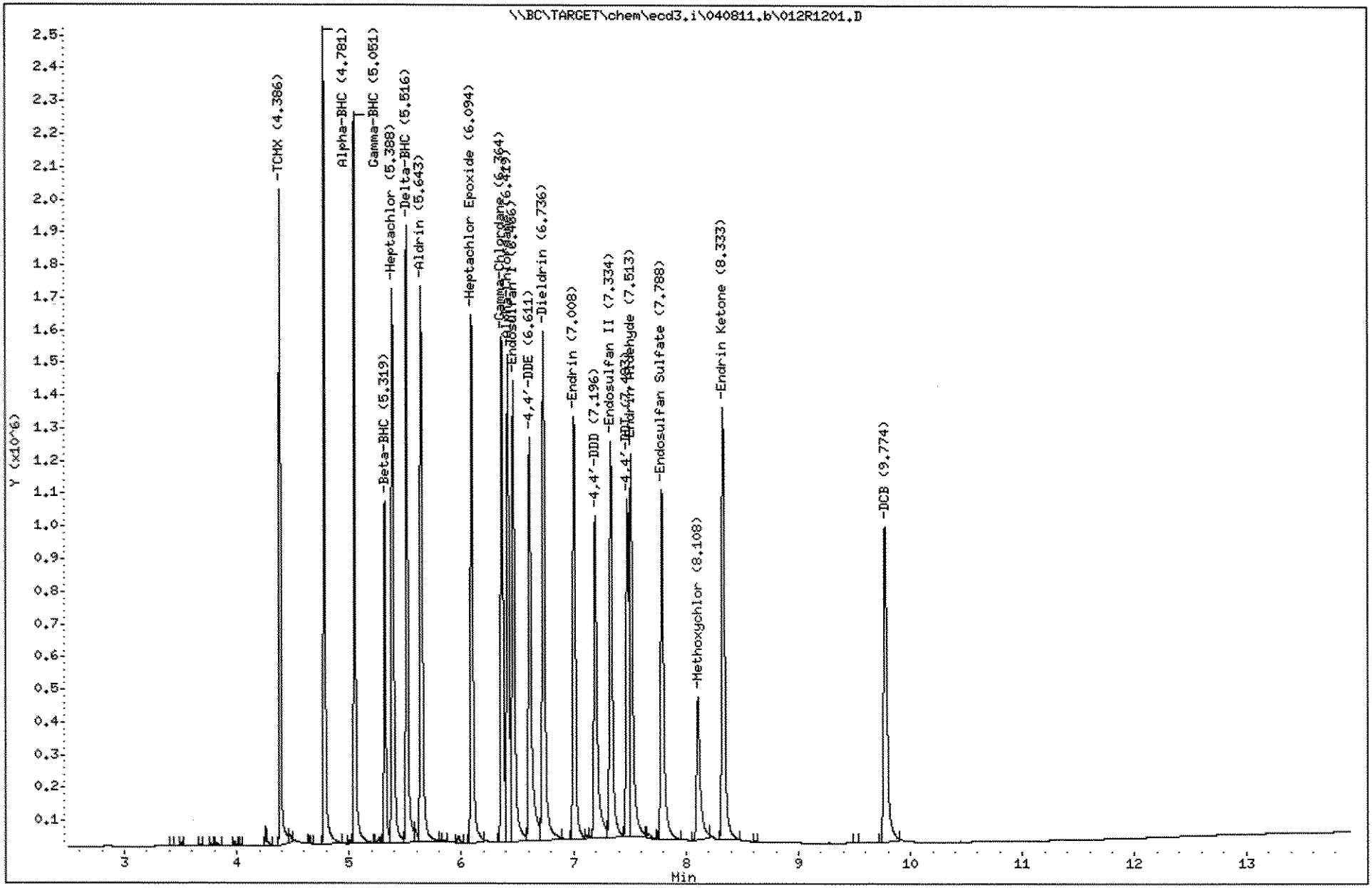
Data file : \\BC\TARGET\chem\ecd3.i\040811.b\012R1201.D
Lab Smp Id: SEQ-CAL2
Inj Date : 08-APR-2011 15:42
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL2
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	2034125	100.000	95.35
3 Alpha-BHC [2C]	4.781	4.781	0.000	2766661	100.000	99.52
23 Gamma-BHC [2C]	5.051	5.051	0.000	2511246	100.000	98.91
5 Beta-BHC [2C]	5.319	5.319	0.000	1121345	100.000	91.89
25 Heptachlor [2C]	5.387	5.387	0.000	2483374	100.000	95.98
15 Delta-BHC [2C]	5.516	5.516	0.000	2301912	100.000	103.2
2 Aldrin [2C]	5.642	5.642	0.000	2618487	100.000	97.66
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	2402560	100.000	93.85
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	2307361	100.000	96.55
4 Alpha-Chlordane [2C]	6.419	6.419	0.000	2312937	100.000	93.79
17 Endosulfan I [2C]	6.466	6.466	0.000	2450083	100.000	92.85
13 4,4'-DDE [2C]	6.611	6.611	0.000	2311362	100.000	107.6
16 Dieldrin [2C]	6.736	6.736	0.000	2717878	100.000	99.22
20 Endrin [2C]	7.007	7.007	0.000	2157880	100.000	98.09
12 4,4'-DDD [2C]	7.196	7.196	0.000	1979664	100.000	108.8
18 Endosulfan II [2C]	7.334	7.334	0.000	2181960	100.000	97.60
14 4,4'-DDT [2C]	7.482	7.482	0.000	1652821	100.000	112.3
21 Endrin Aldehyde [2C]	7.512	7.512	0.000	2243592	100.000	92.84
19 Endosulfan Sulfate [2C]	7.787	7.787	0.000	2017902	100.000	100.4
27 Methoxychlor [2C]	8.107	8.107	0.000	957923	100.000	100.8
22 Endrin Ketone [2C]	8.332	8.332	0.000	2453074	100.000	93.79
$ 39 DCB [2C]	9.774	9.774	0.000	2099840	100.000	97.09

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\012R1201.D
Date : 08-APR-2011 15:42
Client ID:
Sample Info: SEQ-CAL2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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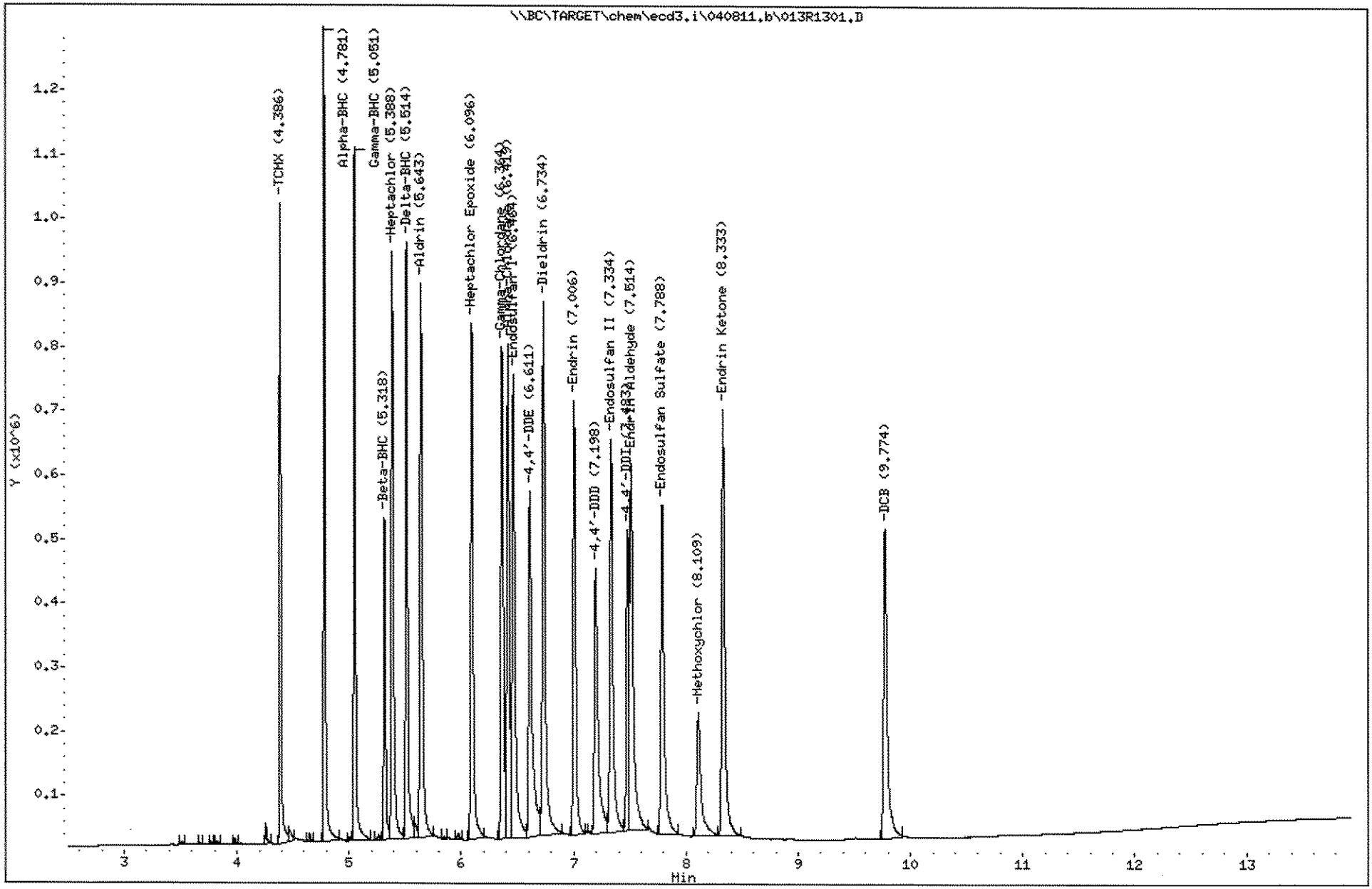
Data file : \\BC\TARGET\chem\ecd3.i\040811.b\013R1301.D
Lab Smp Id: SEQ-CAL3
Inj Date : 08-APR-2011 16:01
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL3
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	1019218	50.0000	47.78
3 Alpha-BHC [2C]	4.781	4.781	0.000	1380976	50.0000	49.68
23 Gamma-BHC [2C]	5.051	5.051	0.000	1261599	50.0000	49.69
5 Beta-BHC [2C]	5.317	5.319	-0.002	558718	50.0000	45.79
25 Heptachlor [2C]	5.387	5.387	0.000	1276796	50.0000	49.35
15 Delta-BHC [2C]	5.514	5.516	-0.002	1131458	50.0000	50.72
2 Aldrin [2C]	5.642	5.642	0.000	1346600	50.0000	50.22
26 Heptachlor Epoxide [2C]	6.096	6.094	0.002	1250801	50.0000	48.86
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	1175080	50.0000	49.17
4 Alpha-Chlordane [2C]	6.419	6.419	0.000	1204028	50.0000	48.82
17 Endosulfan I [2C]	6.464	6.466	-0.002	1312444	50.0000	49.74
13 4,4'-DDE [2C]	6.611	6.611	0.000	1126761	50.0000	52.47
16 Dieldrin [2C]	6.734	6.736	-0.002	1452338	50.0000	53.02
20 Endrin [2C]	7.006	7.007	-0.001	1088887	50.0000	49.50
12 4,4'-DDD [2C]	7.197	7.196	0.001	945745	50.0000	52.00
18 Endosulfan II [2C]	7.334	7.334	0.000	1147470	50.0000	51.32
14 4,4'-DDT [2C]	7.482	7.482	0.000	716983	50.0000	48.70
21 Endrin Aldehyde [2C]	7.514	7.512	0.002	1259204	50.0000	52.11
19 Endosulfan Sulfate [2C]	7.787	7.787	0.000	1031868	50.0000	51.34
27 Methoxychlor [2C]	8.109	8.107	0.002	509646	50.0000	53.66
22 Endrin Ketone [2C]	8.332	8.332	0.000	1308710	50.0000	50.04
$ 39 DCB [2C]	9.774	9.774	0.000	1084110	50.0000	50.12

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\013R1301.D
Date : 08-APR-2011 16:01
Client ID:
Sample Info: SEQ-CAL3

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



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Data file : \\BC\TARGET\chem\ecd3.i\040811.b\014R1401.D
Lab Smp Id: SEQ-CAL4
Inj Date : 08-APR-2011 16:19
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL4
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:35 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

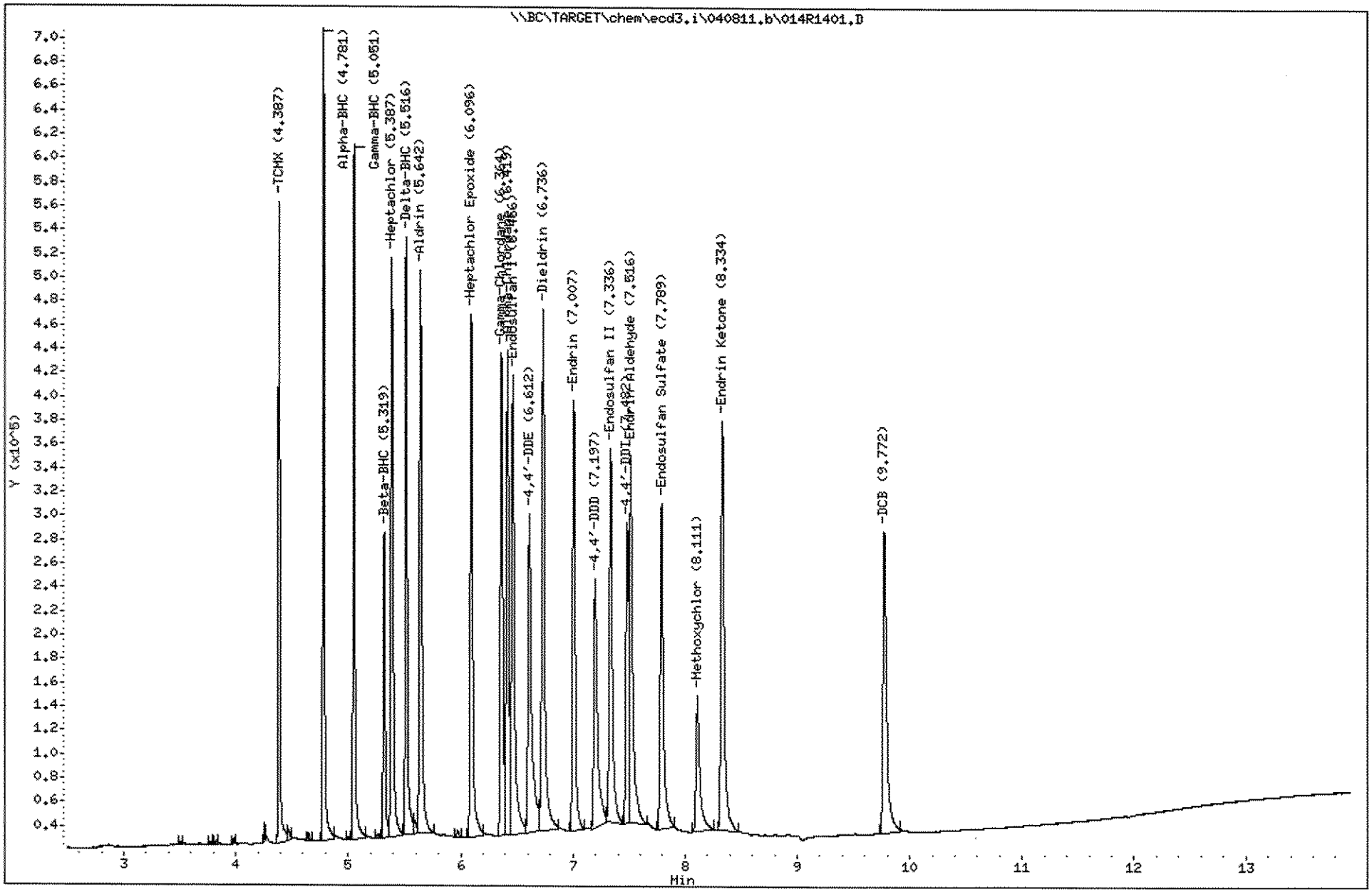
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.387	4.386	0.001	549500	25.0000	25.76
3 Alpha-BHC [2C]	4.780	4.781	-0.001	731672	25.0000	26.32
23 Gamma-BHC [2C]	5.050	5.051	-0.001	670215	25.0000	26.40
5 Beta-BHC [2C]	5.319	5.319	0.000	298091	25.0000	24.43
25 Heptachlor [2C]	5.387	5.387	0.000	686513	25.0000	26.53
15 Delta-BHC [2C]	5.515	5.516	-0.001	591615	25.0000	26.52
2 Aldrin [2C]	5.642	5.642	0.000	719233	25.0000	26.82
26 Heptachlor Epoxide [2C]	6.095	6.094	0.001	676368	25.0000	26.42
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	620213	25.0000	25.95
4 Alpha-Chlordane [2C]	6.419	6.419	0.000	646057	25.0000	26.20
17 Endosulfan I [2C]	6.465	6.466	-0.001	720769	25.0000	27.32
13 4,4'-DDE [2C]	6.612	6.611	0.001	593555	25.0000	27.64
16 Dieldrin [2C]	6.735	6.736	-0.001	783065	25.0000	28.59
20 Endrin [2C]	7.007	7.007	0.000	595415	25.0000	27.06
12 4,4'-DDD [2C]	7.197	7.196	0.001	472722	25.0000	25.99
18 Endosulfan II [2C]	7.335	7.334	0.001	583154	25.0000	26.08
14 4,4'-DDT [2C]	7.482	7.482	0.000	379822	25.0000	25.80
21 Endrin Aldehyde [2C]	7.515	7.512	0.003	652062	25.0000	26.98
19 Endosulfan Sulfate [2C]	7.789	7.787	0.002	539366	25.0000	26.83
27 Methoxychlor [2C]	8.110	8.107	0.003	277108	25.0000	29.18
22 Endrin Ketone [2C]	8.334	8.332	0.002	701819	25.0000	26.83
$ 39 DCB [2C]	9.772	9.774	-0.002	583612	25.0000	26.98

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\014R1401.D
Date : 08-APR-2011 16:19
Client ID:
Sample Info: SEQ-CAL4

Instrument: ecd3.i

Operator: JH
Column diameter: 0,32

Column phase: ZB MR-2



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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\015R1501.D
Lab Smp Id: SEQ-CAL5
Inj Date : 08-APR-2011 16:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL5
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

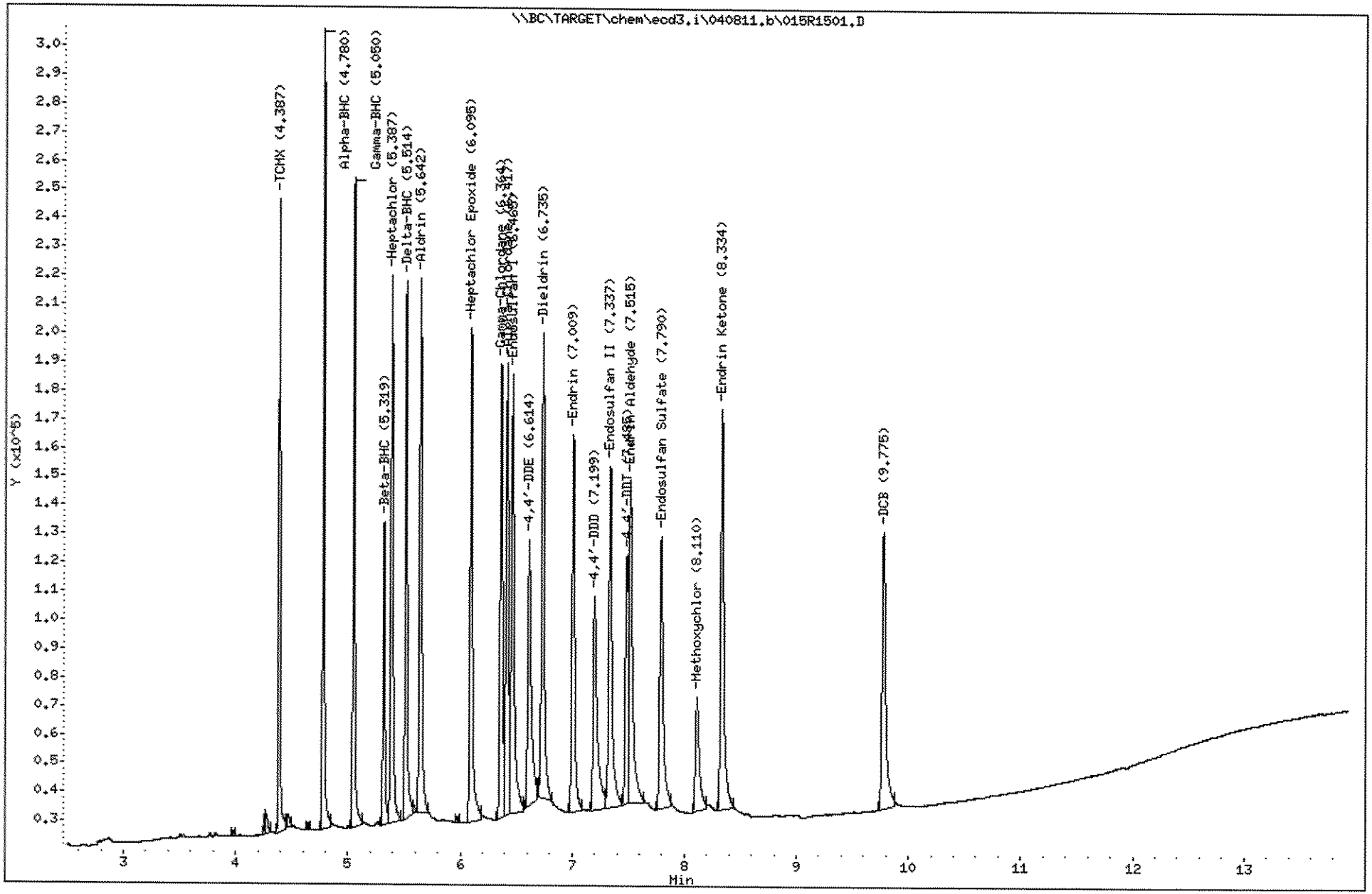
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.387	4.386	0.001	221839	10.0000	10.40
3 Alpha-BHC [2C]	4.780	4.781	-0.001	289980	10.0000	10.43
23 Gamma-BHC [2C]	5.050	5.051	-0.001	264635	10.0000	10.42
5 Beta-BHC [2C]	5.318	5.319	-0.001	120889	10.0000	9.907
25 Heptachlor [2C]	5.387	5.387	0.000	269830	10.0000	10.43
15 Delta-BHC [2C]	5.513	5.516	-0.003	224458	10.0000	10.06
2 Aldrin [2C]	5.642	5.642	0.000	273539	10.0000	10.20
26 Heptachlor Epoxide [2C]	6.095	6.094	0.001	271026	10.0000	10.59
24 Gamma-Chlordane [2C]	6.363	6.364	-0.001	244872	10.0000	10.25
4 Alpha-Chlordane [2C]	6.417	6.419	-0.002	257189	10.0000	10.43
17 Endosulfan I [2C]	6.465	6.466	-0.001	279912	10.0000	10.61
13 4,4'-DDE [2C]	6.613	6.611	0.002	199447	10.0000	9.287
16 Dieldrin [2C]	6.735	6.736	-0.001	276612	10.0000	10.10
20 Endrin [2C]	7.008	7.007	0.001	226355	10.0000	10.29
12 4,4'-DDD [2C]	7.198	7.196	0.002	187081	10.0000	10.29
18 Endosulfan II [2C]	7.337	7.334	0.003	244868	10.0000	10.95
14 4,4'-DDT [2C]	7.485	7.482	0.003	141195	10.0000	9.591
21 Endrin Aldehyde [2C]	7.515	7.512	0.003	258433	10.0000	10.69
19 Endosulfan Sulfate [2C]	7.790	7.787	0.003	202910	10.0000	10.09
27 Methoxychlor [2C]	8.110	8.107	0.003	97629	10.0000	10.28
22 Endrin Ketone [2C]	8.333	8.332	0.001	276046	10.0000	10.55
$ 39 DCB [2C]	9.775	9.774	0.001	223171	10.0000	10.32

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\015R1501.D
Date : 08-APR-2011 16:38
Client ID:
Sample Info: SEQ-CAL5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\016R1601.D
Lab Smp Id: SEQ-CAL6
Inj Date : 08-APR-2011 16:57
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL6
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

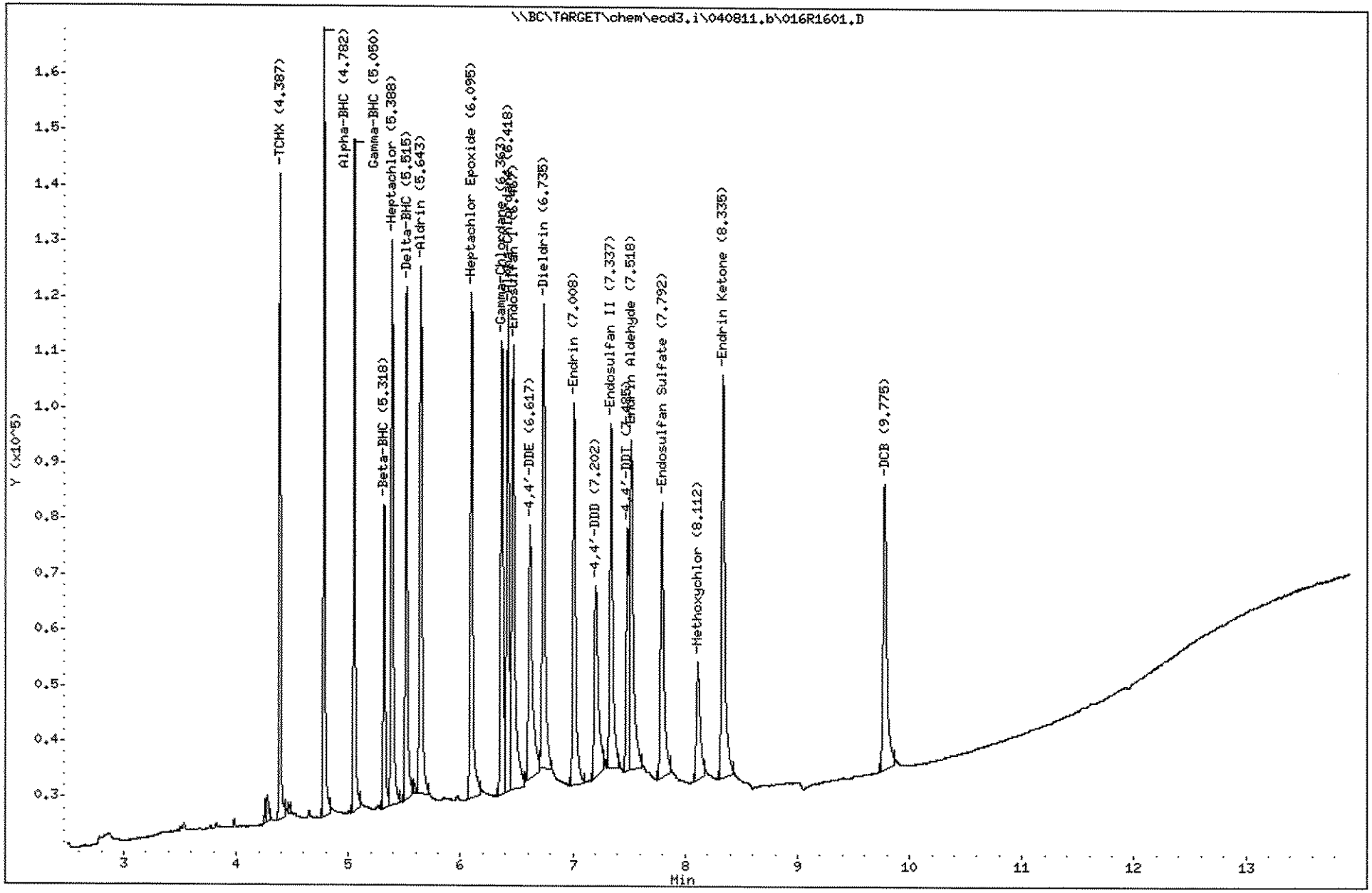
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	114232	5.00000	5.355
3 Alpha-BHC [2C]	4.781	4.781	0.000	148002	5.00000	5.324
23 Gamma-BHC [2C]	5.049	5.051	-0.002	133408	5.00000	5.254
5 Beta-BHC [2C]	5.318	5.319	-0.001	64404	5.00000	5.278
25 Heptachlor [2C]	5.388	5.387	0.001	139785	5.00000	5.403
15 Delta-BHC [2C]	5.514	5.516	-0.002	114227	5.00000	5.121
2 Aldrin [2C]	5.643	5.642	0.001	143304	5.00000	5.344
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	141264	5.00000	5.518
24 Gamma-Chlordane [2C]	6.363	6.364	-0.001	126541	5.00000	5.295
4 Alpha-Chlordane [2C]	6.418	6.419	-0.001	135542	5.00000	5.496
17 Endosulfan I [2C]	6.466	6.466	0.000	152578	5.00000	5.782
13 4,4'-DDE [2C]	6.616	6.611	0.005	102672	5.00000	4.781
16 Dieldrin [2C]	6.734	6.736	-0.002	141964	5.00000	5.183
20 Endrin [2C]	7.008	7.007	0.001	118097	5.00000	5.368
12 4,4'-DDD [2C]	7.201	7.196	0.005	86631	5.00000	4.763
18 Endosulfan II [2C]	7.336	7.334	0.002	114608	5.00000	5.126
14 4,4'-DDT [2C]	7.484	7.482	0.002	65223	5.00000	4.430
21 Endrin Aldehyde [2C]	7.518	7.512	0.006	135023	5.00000	5.587
19 Endosulfan Sulfate [2C]	7.791	7.787	0.004	102600	5.00000	5.104
27 Methoxychlor [2C]	8.111	8.107	0.004	47855	5.00000	5.038
22 Endrin Ketone [2C]	8.334	8.332	0.002	144007	5.00000	5.506
$ 39 DCB [2C]	9.774	9.774	0.000	117787	5.00000	5.446

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\016R1601.D
Date : 08-APR-2011 16:57
Client ID:
Sample Info: SEQ-CAL6

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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SW-846 METHODS 8081A/8082

Data file : \\BC\TARGET\chem\ecd3.i\040811.b\017R1701.D
Lab Smp Id: SEQ-CAL7
Inj Date : 08-APR-2011 17:15
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CAL7
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:36 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: INDABD.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

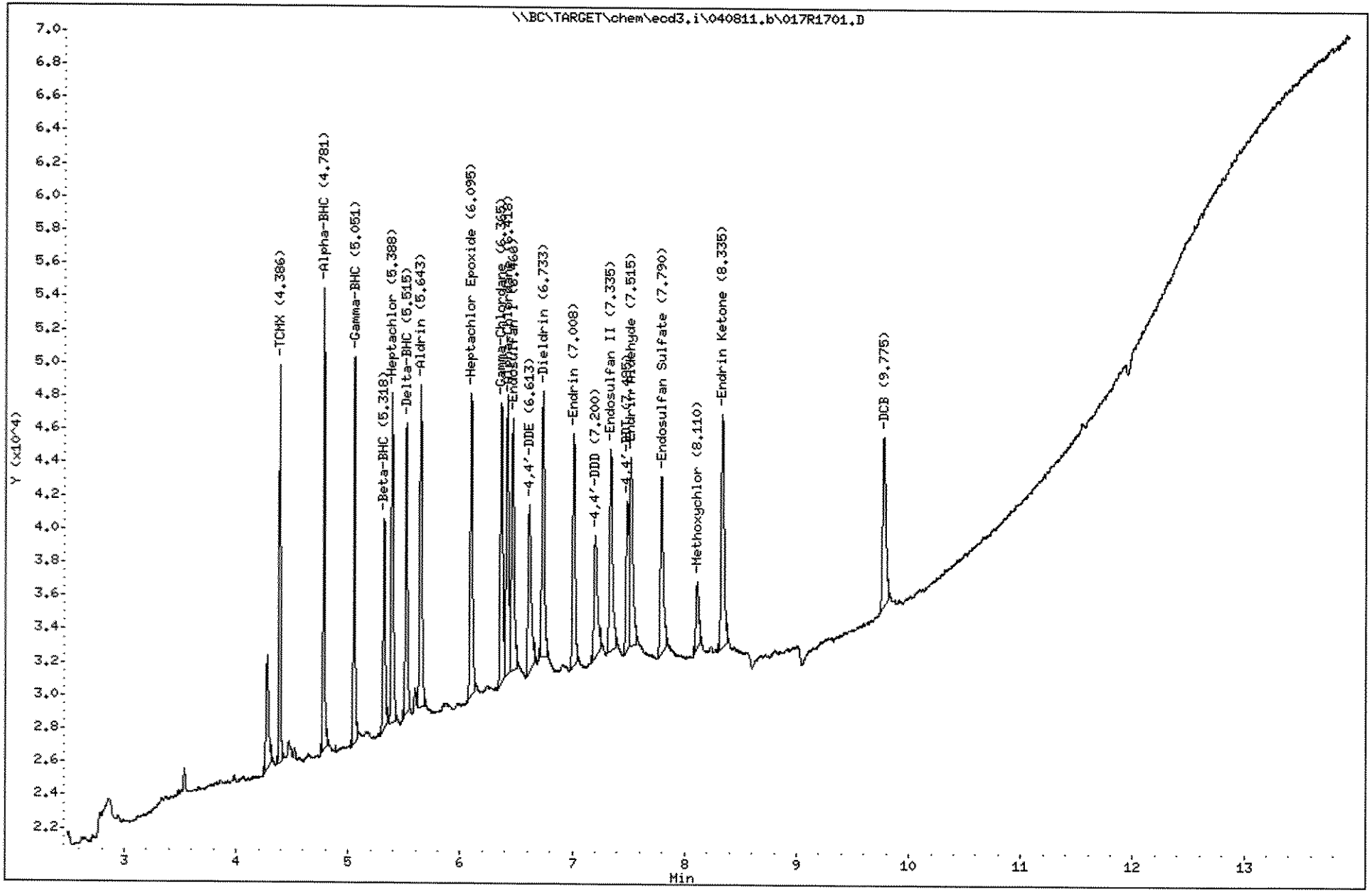
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
$ 38 TCMX [2C]	4.386	4.386	0.000	22595	1.00000	1.059
3 Alpha-BHC [2C]	4.781	4.781	0.000	26504	1.00000	0.9534
23 Gamma-BHC [2C]	5.051	5.051	0.000	24834	1.00000	0.9781
5 Beta-BHC [2C]	5.317	5.319	-0.002	16013	1.00000	1.312
25 Heptachlor [2C]	5.387	5.387	0.000	26564	1.00000	1.027
15 Delta-BHC [2C]	5.514	5.516	-0.002	20662	1.00000	0.9263
2 Aldrin [2C]	5.642	5.642	0.000	27198	1.00000	1.014
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	26432	1.00000	1.032
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	25248	1.00000	1.056
4 Alpha-Chlordane [2C]	6.417	6.419	-0.002	26494	1.00000	1.074
17 Endosulfan I [2C]	6.466	6.466	0.000	25535	1.00000	0.9677
13 4,4'-DDE [2C]	6.612	6.611	0.001	19282	1.00000	0.8978
16 Dieldrin [2C]	6.732	6.736	-0.004	24943	1.00000	0.9106
20 Endrin [2C]	7.007	7.007	0.000	21186	1.00000	0.9630
12 4,4'-DDD [2C]	7.199	7.196	0.003	15223	1.00000	0.8370
18 Endosulfan II [2C]	7.334	7.334	0.000	22110	1.00000	0.9889
14 4,4'-DDT [2C]	7.484	7.482	0.002	13541	1.00000	0.9198
21 Endrin Aldehyde [2C]	7.514	7.512	0.002	23062	1.00000	0.9543
19 Endosulfan Sulfate [2C]	7.789	7.787	0.002	19069	1.00000	0.9487
27 Methoxychlor [2C]	8.109	8.107	0.002	7094	1.00000	0.7469
22 Endrin Ketone [2C]	8.334	8.332	0.002	25926	1.00000	0.9912
$ 39 DCB [2C]	9.774	9.774	0.000	20209	1.00000	0.9344

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\017R1701.D
Date : 08-APR-2011 17:15
Client ID:
Sample Info: SEQ-CAL7

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



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ICV ~~CONTINUING CALIBRATION~~ COMPOUNDS

Instrument ID: ecd3.i
Lab File ID: 018R1801.D
Analysis Type:
Lab Sample ID: SEQ-ICV1
Method: \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m

Injection Date: 08-APR-2011 17:34
Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Init. Cal. Times: 08:58 17:15
Quant Type: ESTD

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D
3 Alpha-BHC	27800	✗28454	0.010	2.4	20.0
23 Gamma-BHC	25389	26000	0.010	2.4	20.0
5 Beta-BHC	12203	12240	0.010	0.3	20.0
25 Heptachlor	25873	25842	0.010	-0.1	20.0
15 Delta-BHC	22307	24592	0.010	10.2	20.0
2 Aldrin	26814	26356	0.010	-1.7	20.0
26 Heptachlor Epoxide	25600	25172	0.010	-1.7	20.0
24 Gamma-Chlordane	23898	24591	0.010	2.9	20.0
4 Alpha-Chlordane	24661	24866	0.010	0.8	20.0
17 Endosulfan I	26387	24900	0.010	-5.6	20.0
13 4,4'-DDE	21476	24002	0.010	11.8	20.0
16 Dieldrin	27391	26842	0.010	-2.0	20.0
20 Endrin	21999	22216	0.010	1.0	20.0
12 4,4'-DDD	18187	20886	0.010	14.8	20.0
18 Endosulfan II	22357	22046	0.010	-1.4	20.0
14 4,4'-DDT	14722	16996	0.010	15.4	20.0
21 Endrin Aldehyde	24166	22326	0.010	-7.6	20.0
19 Endosulfan Sulfate	20101	21235	0.010	5.6	20.0
27 Methoxychlor	9498	✓10170	0.010	7.1	20.0
22 Endrin Ketone	26155	25804	0.010	-1.3	20.0

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Data file : \\BC\TARGET\chem\ecd3.i\040811.b\018R1801.D
Lab Smp Id: SEQ-ICV1
Inj Date : 08-APR-2011 17:34
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-ICV1
Misc Info : ;;;;;;INDABD.sub
Comment :
Method : \\BC\TARGET\chem\ecd3.i\040811.b\8081_82R.m
Meth Date : 13-Apr-2011 09:50 jeh Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 4.04
Processing Host: NSH-LAPTOP1

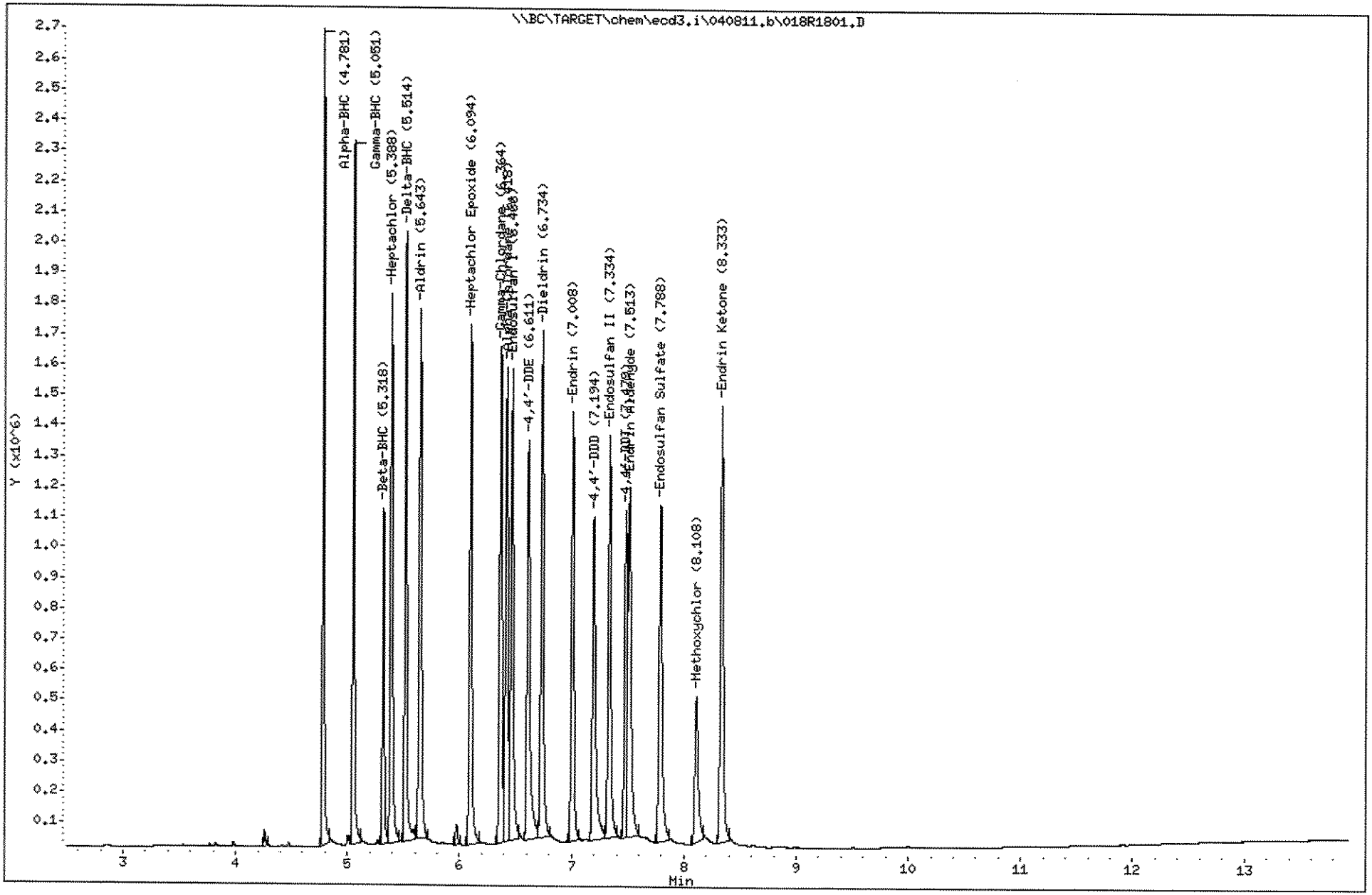
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
3 Alpha-BHC [2C]	4.780	4.781	-0.001	2845377 ✗	100.000	102.4
23 Gamma-BHC [2C]	5.050	5.051	-0.001	2600005	100.000	102.4
5 Beta-BHC [2C]	5.317	5.319	-0.002	1223979	100.000	100.3
25 Heptachlor [2C]	5.387	5.387	0.000	2584158	100.000	99.88
15 Delta-BHC [2C]	5.514	5.516	-0.002	2459226	100.000	110.2
2 Aldrin [2C]	5.642	5.642	0.000	2635567	100.000	98.29
26 Heptachlor Epoxide [2C]	6.094	6.094	0.000	2517203	100.000	98.33
24 Gamma-Chlordane [2C]	6.364	6.364	0.000	2459109	100.000	102.9
4 Alpha-Chlordane [2C]	6.417	6.419	-0.002	2486643	100.000	100.8
17 Endosulfan I [2C]	6.465	6.466	-0.001	2489971	100.000	94.36
13 4,4'-DDE [2C]	6.610	6.611	-0.001	2400210	100.000	111.8
16 Dieldrin [2C]	6.734	6.736	-0.002	2684228	100.000	98.00
20 Endrin [2C]	7.007	7.007	0.000	2221567	100.000	101.0
12 4,4'-DDD [2C]	7.194	7.196	-0.002	2088593	100.000	114.8
18 Endosulfan II [2C]	7.334	7.334	0.000	2204589	100.000	98.61
14 4,4'-DDT [2C]	7.479	7.482	-0.003	1699646	100.000	115.4
21 Endrin Aldehyde [2C]	7.512	7.512	0.000	2232621	100.000	92.39
19 Endosulfan Sulfate [2C]	7.787	7.787	0.000	2123460	100.000	105.6
27 Methoxychlor [2C]	8.107	8.107	0.000	1016994 ✓	100.000	107.1
22 Endrin Ketone [2C]	8.332	8.332	0.000	2580367	100.000	98.66

Data File: \\BC\TARGET\chem\ecd3.i\040811.b\018R1801.D
Date : 08-APR-2011 17:34
Client ID:
Sample Info: SEQ-ICV1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



Sequence Table (Front Injector): Back

Quantification Part:

PG 34 of Cycle 041511

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PEST PRIMER				
2	Vial 2	SEQ-CCV1 ID#11C0977				
3	Vial 3	1D09814-BLK1				
4	Vial 4	1D09814-BS1				
5	Vial 5	1104087-11				
6	Vial 6	1104087-12				
7	Vial 7	1104093-01				
8	Vial 8	1D09814-MS1				
9	Vial 9	1D09814-MSD1				
10	Vial 10	1104093-02				
11	Vial 11	1104093-03				
12	Vial 12	1104093-04				
13	Vial 13	1104093-05				
14	Vial 14	1104093-06				
15	Vial 15	1104093-07				
16	Vial 16	1104093-08				
17	Vial 17	SEQ-CCV2 ID#11C0977				
18	Vial 18	SEQ-CCV3 ID#11D0028				
19	Vial 19	1104087-11				
20	Vial 20	1104087-12				
21	Vial 21	1104114-03				
22	Vial 22	1104114-04				
23	Vial 23	1104093-01RE1@10x				
24	Vial 24	SEQ-CCV4 ID#11C0977				
25	Vial 25	SEQ-CCV5 ID#11D0028				

1x A

Re-Run w/1254 CCV

SEQ#: ID01505

1254

1259

~~Sequence Table (Back Injector):~~

~~No entries - empty table~~ Cycle 041511

Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 13:38
Lab File ID: 002F0201.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

			MIN		MAX	
COMPOUND	RRF	RF100	RRF	%D	%D	
29 PCB-1016(1)	1238	1234	0.010	-0.3	20.0	
(2)	455	430	0.010	-5.6	20.0	
(3)	656	626	0.010	-4.5	20.0	
(4)	656	648	0.010	-1.3	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	489	0.010	-1.8	20.0	
35 PCB-1260(1)	4039	3921	0.010	-2.9	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1614	0.010	-4.9	20.0	
(4)	1978	2248	0.010	13.6	20.0	
(5)	1628	1578	0.010	-3.1	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	915	0.010	-5.4	20.0	
$ 38 TCMX	29064	28375	0.010	-2.4	20.0	
$ 39 DCB	34730	30194	0.010	-13.1	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002F0201.D
Lab Smp Id: SEQ-CCV1
Inj Date : 14-APR-2011 13:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

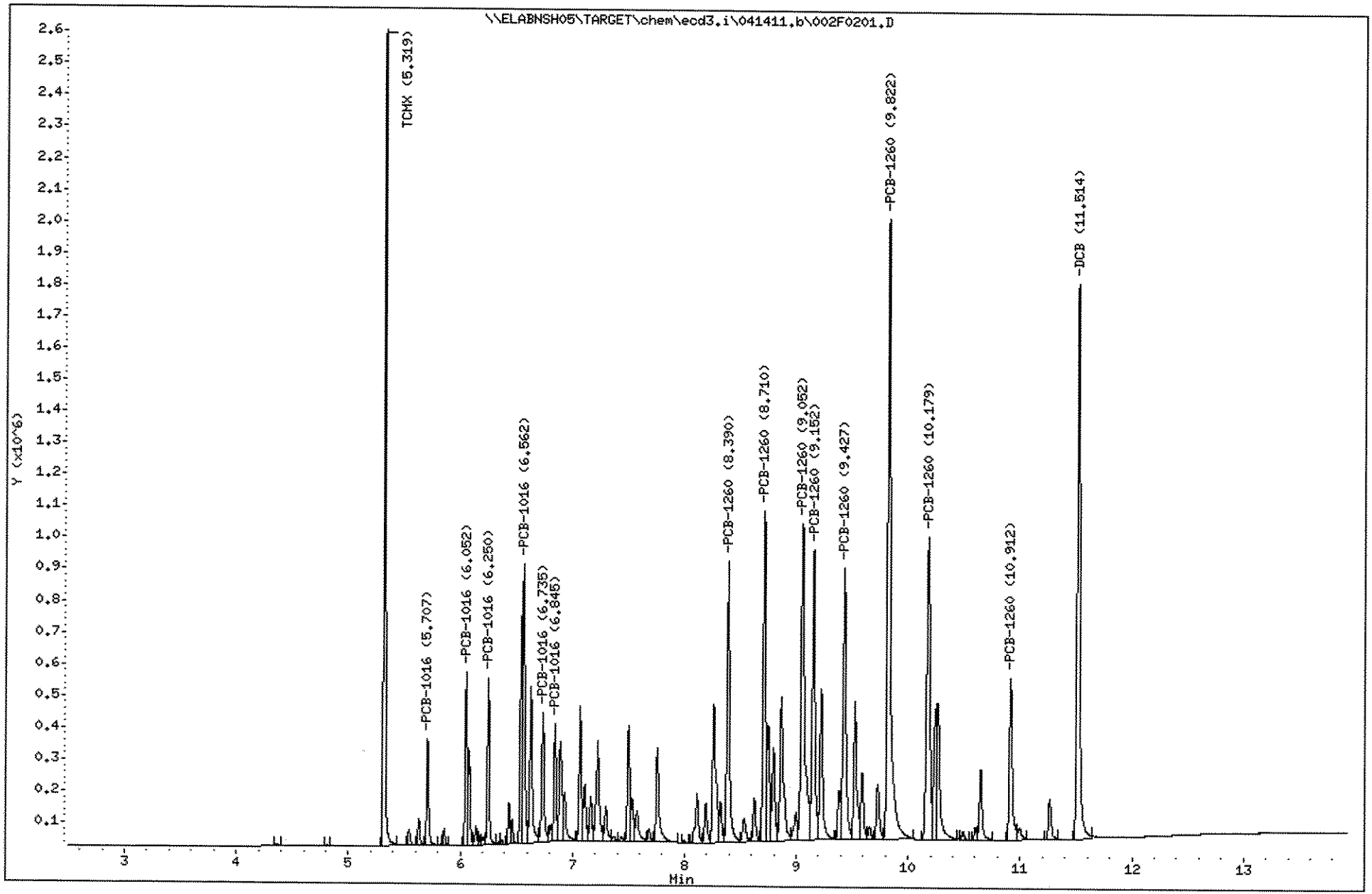
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016						CAS #: 12674-11-2		
6.562	6.562	(0.000)	1233815	1000.00	996.6	80.00-	120.00	100.00
5.707	5.707	(0.000)	429675	1000.00	943.9	27.86-	41.79	34.82
6.052	6.052	(0.000)	626248	1000.00	955.3	40.61-	60.91	50.76
6.250	6.250	(0.000)	648023	1000.00	987.4	42.02-	63.03	52.52
6.735	6.735	(0.000)	628558			40.76-	61.13	50.94
6.845	6.845	(0.000)	488707	1000.00	982.0	31.69-	47.53	39.61
Average of Peak Amounts =					973			
35 PCB-1260						CAS #: 11096-82-5		
9.822	9.822	(0.000)	3920612	1000.00	970.7	80.00-	120.00	100.00
8.390	8.390	(0.000)	1497543			30.56-	45.84	38.20
8.710	8.710	(0.000)	1613965	1000.00	950.6	32.93-	49.40	41.17
9.052	9.052	(0.000)	2247591	1000.00	1136	45.86-	68.79	57.33
9.152	9.152	(0.000)	1577764	1000.00	969.2	32.19-	48.29	40.24
9.427	9.427	(0.000)	1598855			32.62-	48.94	40.78
10.178	10.178	(0.000)	2008484			40.98-	61.47	51.23
10.912	10.912	(0.000)	914752	1000.00	945.8	18.67-	28.00	23.33
Average of Peak Amounts =					994.5			
$ 38 TCMX						CAS #: 877-09-8		
5.318	5.318	(0.000)	2837486	100.000	97.63			
$ 39 DCB						CAS #: 2051-24-3		
11.513	11.513	(0.000)	3019425	100.000	86.94			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002F0201.D
Date : 14-APR-2011 13:38
Client ID:
Sample Info: SEQ-CCV1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 13:38
Lab File ID: 002R0201.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV1 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	901	0.010	4.0	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	534	0.010	-6.1	20.0	
(4)	555	582	0.010	4.7	20.0	
(5)	473	545	0.010	15.3	20.0	
(6)	480	517	0.010	7.7	20.0	
35 PCB-1260(1)	2400	2460	0.010	2.5	20.0	
(2)	1234	1280	0.010	3.7	20.0	
(3)	1424	1496	0.010	5.0	20.0	
(4)	1011	1046	0.010	3.5	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1235	0.010	3.3	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21333	21016	0.010	-1.5	20.0	
$ 39 DCB	21628	19637	0.010	-9.2	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002R0201.D
Lab Smp Id: SEQ-CCV1
Inj Date : 14-APR-2011 13:38
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV1
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

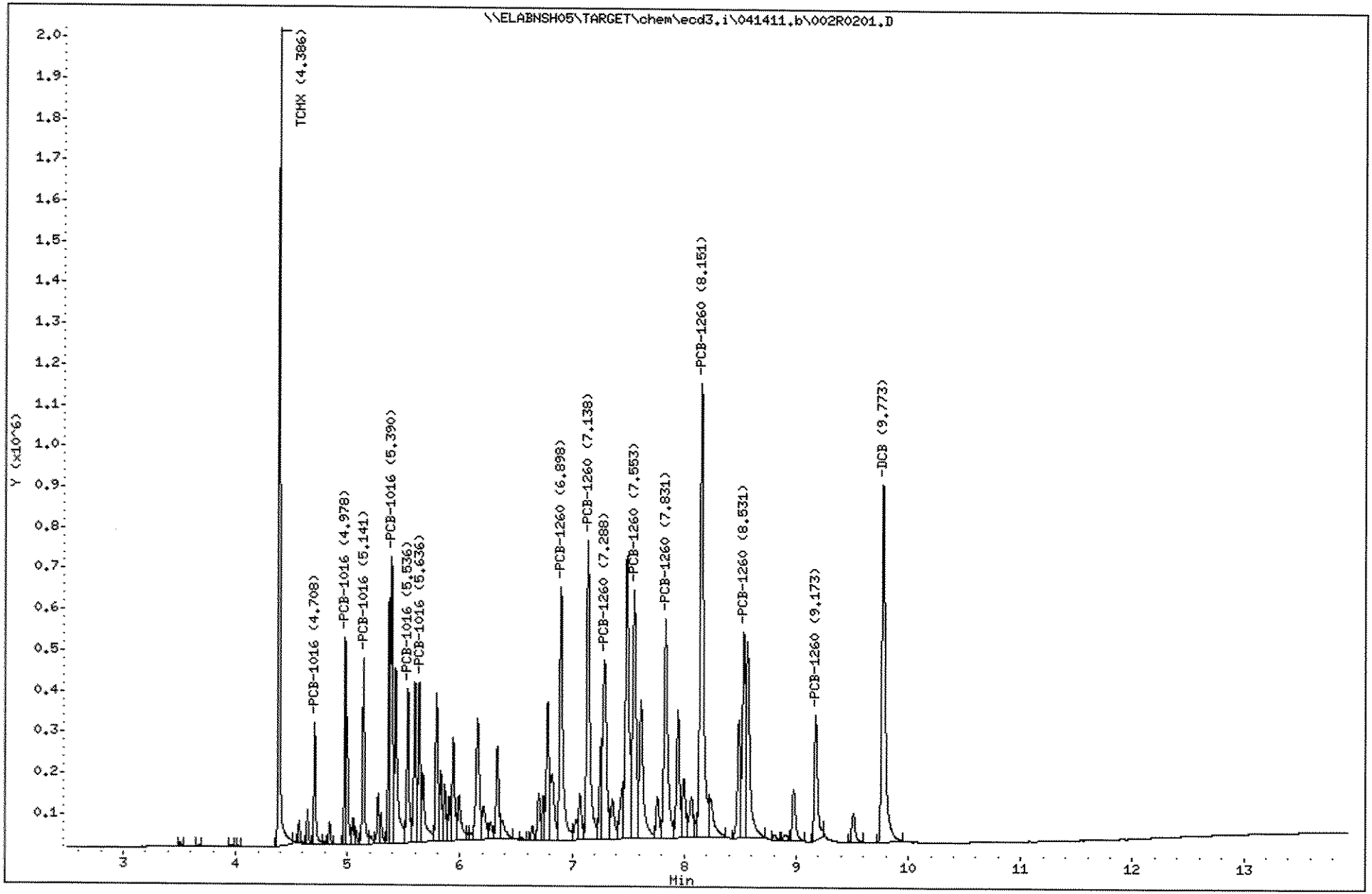
			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.389	5.389	(0.000)	900533	1000.00	1040	80.00- 120.00	100.00
4.708	4.708	(0.000)	331540			29.45- 44.18	36.82
4.978	4.978	(0.000)	533641	1000.00	938.8	47.41- 71.11	59.26
5.141	5.141	(0.000)	581505	1000.00	1047	51.66- 77.49	64.57
5.536	5.536	(0.000)	545196	1000.00	1153	48.43- 72.65	60.54
5.636	5.636	(0.000)	517099	1000.00	1077	45.94- 68.91	57.42
	Average of Peak Amounts =				1051		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.151	8.151	(0.000)	2459786	1000.00	1025	80.00- 120.00	100.00
6.898	6.898	(0.000)	1279875	1000.00	1037	41.63- 62.44	52.03
7.138	7.138	(0.000)	1495967	1000.00	1050	48.65- 72.98	60.82
7.288	7.288	(0.000)	1046157	1000.00	1035	34.02- 51.04	42.53
7.553	7.553	(0.000)	1300974			42.31- 63.47	52.89
7.831	7.831	(0.000)	1234594	1000.00	1033	40.15- 60.23	50.19
8.531	8.531	(0.000)	879604			28.61- 42.91	35.76
9.173	9.173	(0.000)	602897			19.61- 29.41	24.51
	Average of Peak Amounts =				1036		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.386	4.386	(0.000)	2101588	100.000	98.51		
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.773	9.773	(0.000)	1963720	100.000	90.80		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\002R0201.D
Date : 14-APR-2011 13:38
Client ID:
Sample Info: SEQ-CCV1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003F0301.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003R0301.D
Inj Date : 14-APR-2011 14:19
Sample Info: 1D09814-BLK1
Misc Info : ;;;;;;1660D.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : pcb.sub
Sub List #2 : pcb.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
TCMX	5.328	4.386	1327413	995517	45.67	46.66		100.00(R)
DCB	11.525	9.777	1511137	1000223	43.51	46.25		100.00(R)

QC Flag Legend

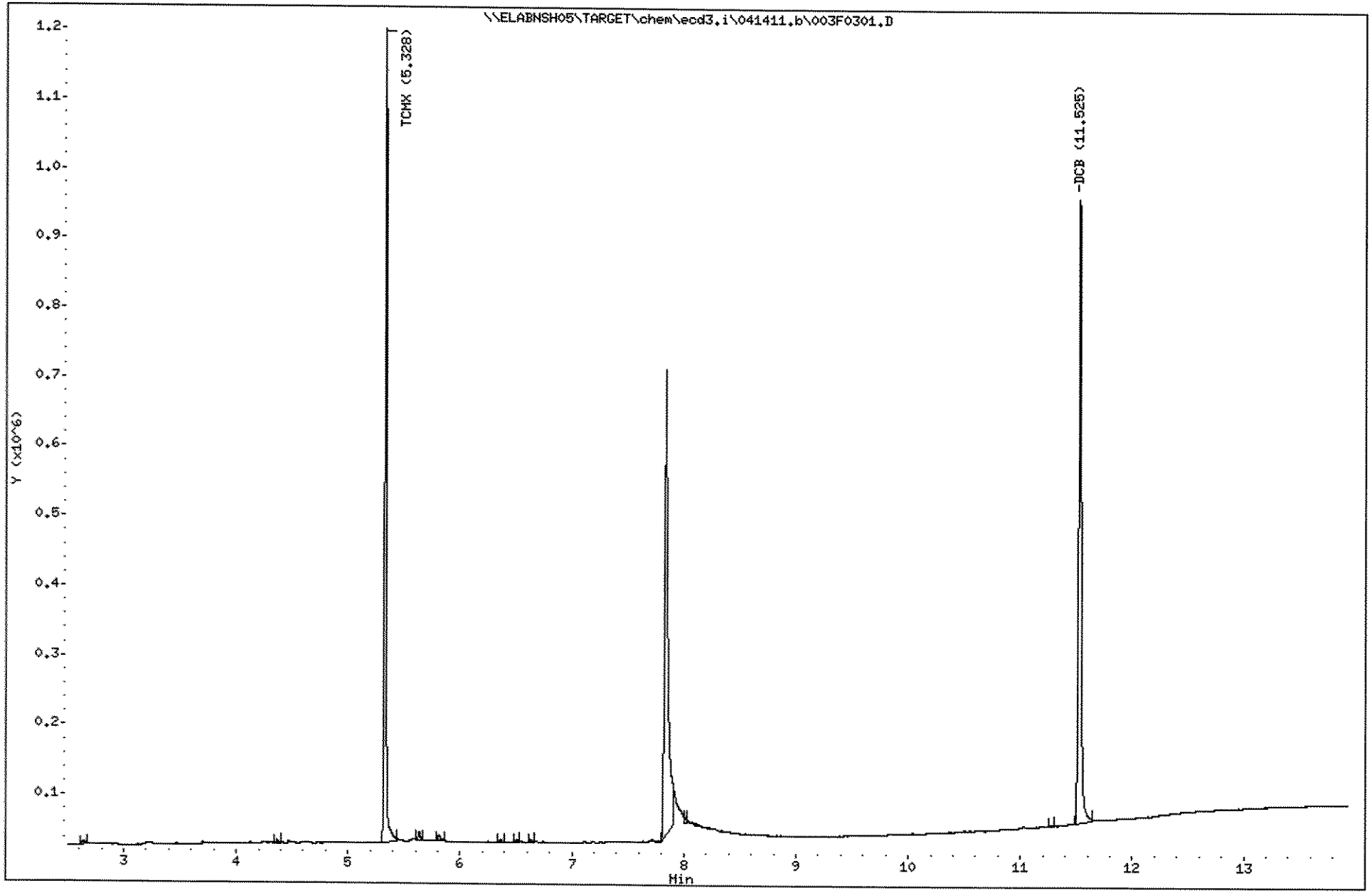
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003F0301.D
Date : 14-APR-2011 14:19
Client ID:
Sample Info: 1D09S14-BLK1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1

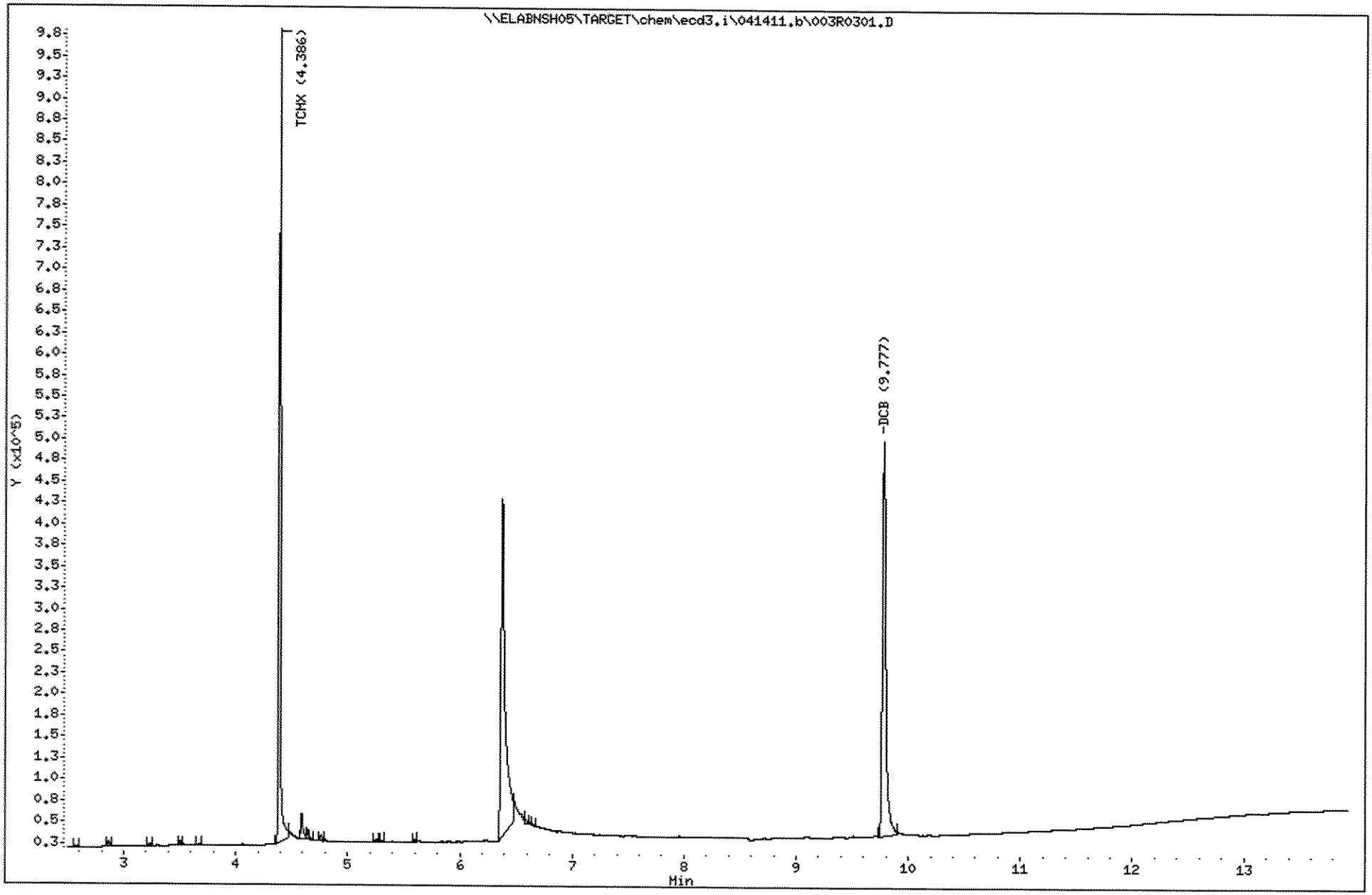


Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\003R0301.D
Date : 14-APR-2011 14:19
Client ID:
Sample Info: 1D09814-BLK1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004F0401.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004R0401.D
Inj Date : 14-APR-2011 14:38
Sample Info: 1D09814-BS1
Misc Info : ;;;;;;1660D.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : pcb.sub
Sub List #2 : pcb.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
PCB-1016	6.564	5.390	655641	467167	529.6	539.4	80.00- 120.00	100.00
	5.708	4.709	200457	157026	440.4		27.54- 41.32	30.57
	6.053	4.980	309157	284121	471.6	499.8	40.42- 60.62	47.15
	6.253	5.142	321500	290841	489.9	523.6	42.08- 63.12	49.04
	6.736	5.535	323409	270717		572.5	49.19- 73.78	57.95
	6.846	5.637	258934	270594	520.3	563.4	32.66- 49.00	39.49
			Average of Peak Amounts =		490.4	539.7		
PCB-1260	9.823	8.149	1835926 *	1248928	454.5*	520.4	80.00- 120.00	100.00
	8.389	6.899	760914	641433		519.9	38.48- 57.72	51.36
	8.711	7.139	888536	804741	523.3	565.0	33.85- 50.77	48.40
	9.053	7.287	1137839	524536	575.2	518.8	46.41- 69.61	61.98
	9.153	7.552	646112	610289	396.9		32.03- 48.04	35.19
	9.428	7.830	803572	617778		517.1	38.28- 57.42	49.46
	10.179	8.530	1028099	490107			27.88- 41.82	39.24
	10.914	9.172	409503	288213	423.4		18.81- 28.21	22.30
			Average of Peak Amounts =		474.7*	528.2		
TCMX	5.319	4.387	1353949	1051996	46.58	49.31		100.00(R)
DCB	11.514	9.774	1591457	1026921	45.82	47.48		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

1260 (PEAK #1) ⇒ $\frac{1835926}{4039} = 454.5 \times 5g \div 15mL$

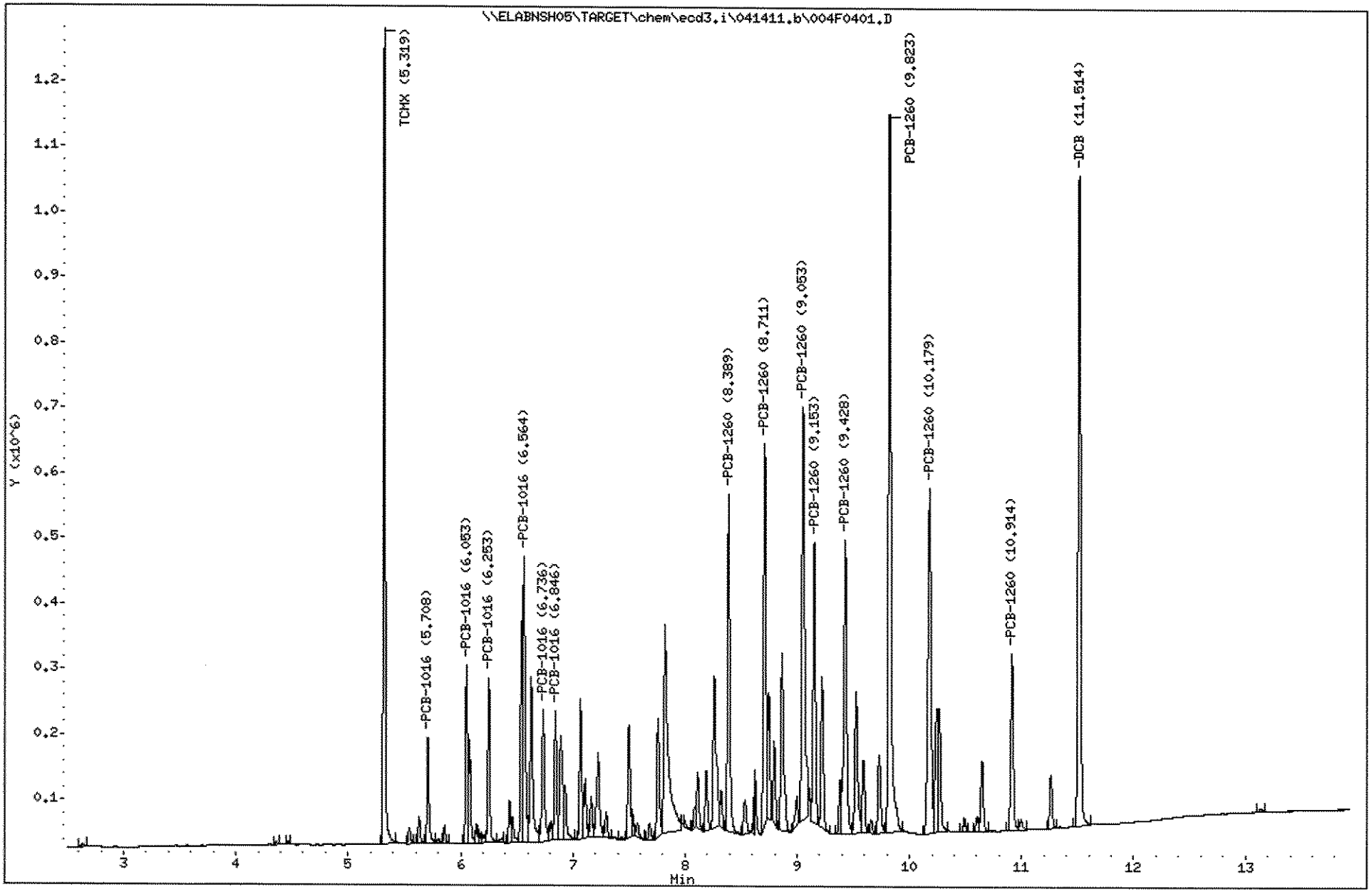
$= 151.5 \text{ mg/Kg}$

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004F0401.D
Date : 14-APR-2011 14:38
Client ID:
Sample Info: 1D09814-BS1

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\004R0401.D

Date : 14-APR-2011 14:38

Client ID:

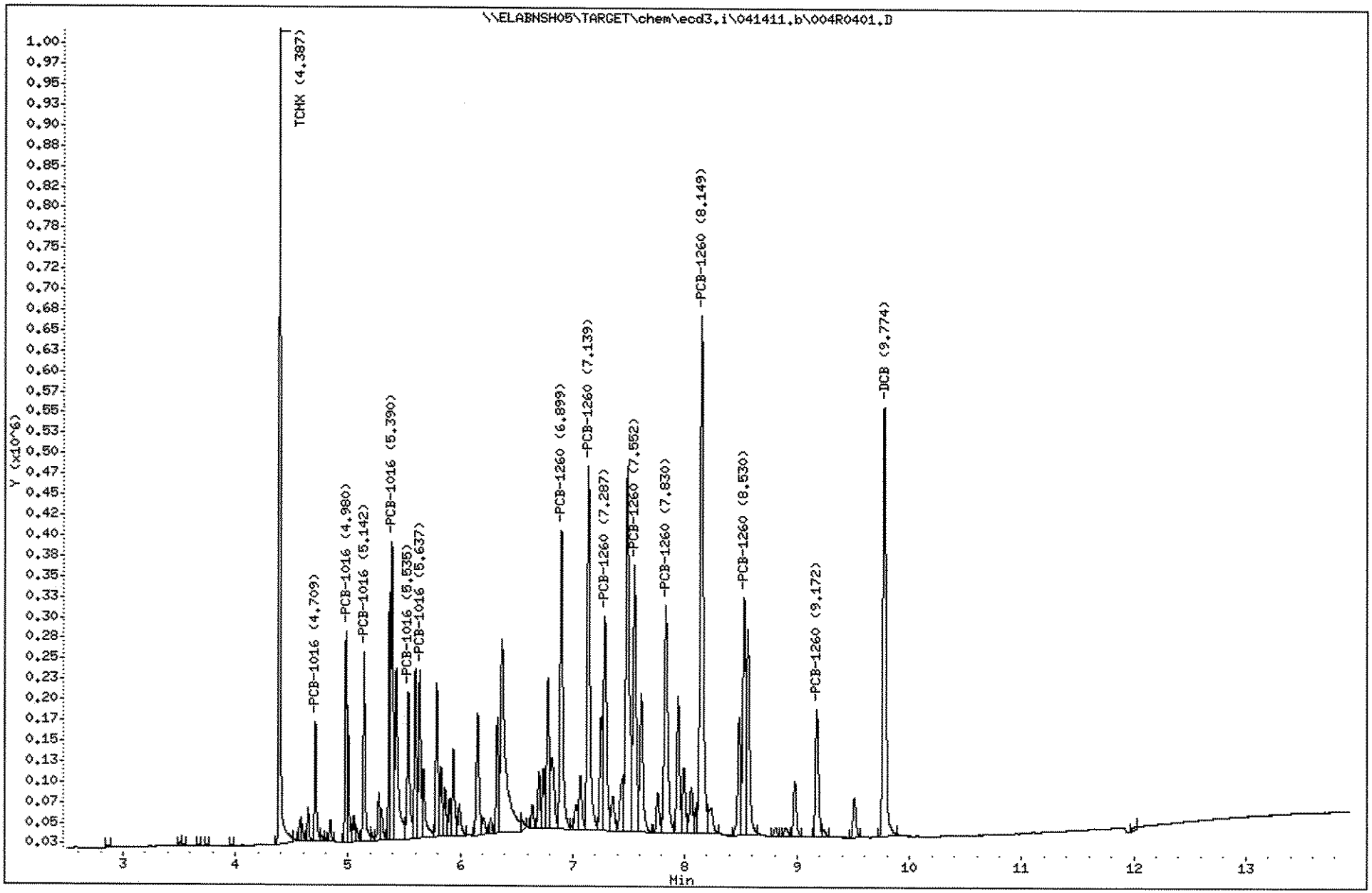
Sample Info: 1D09814-BS1

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:17
Lab File ID: 017F1701.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV2 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	1238	1299	0.010	4.9	20.0	
(2)	455	441	0.010	-3.2	20.0	
(3)	656	646	0.010	-1.5	20.0	
(4)	656	648	0.010	-1.3	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	529	0.010	6.4	20.0	
35 PCB-1260(1)	4039	4007	0.010	-0.8	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1676	0.010	-1.3	20.0	
(4)	1978	2331	0.010	17.9	20.0	
(5)	1628	1598	0.010	-1.8	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	933	0.010	-3.5	20.0	
$ 38 TCMX	29064	29001	0.010	-0.2	20.0	
$ 39 DCB	34730	30125	0.010	-13.3	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

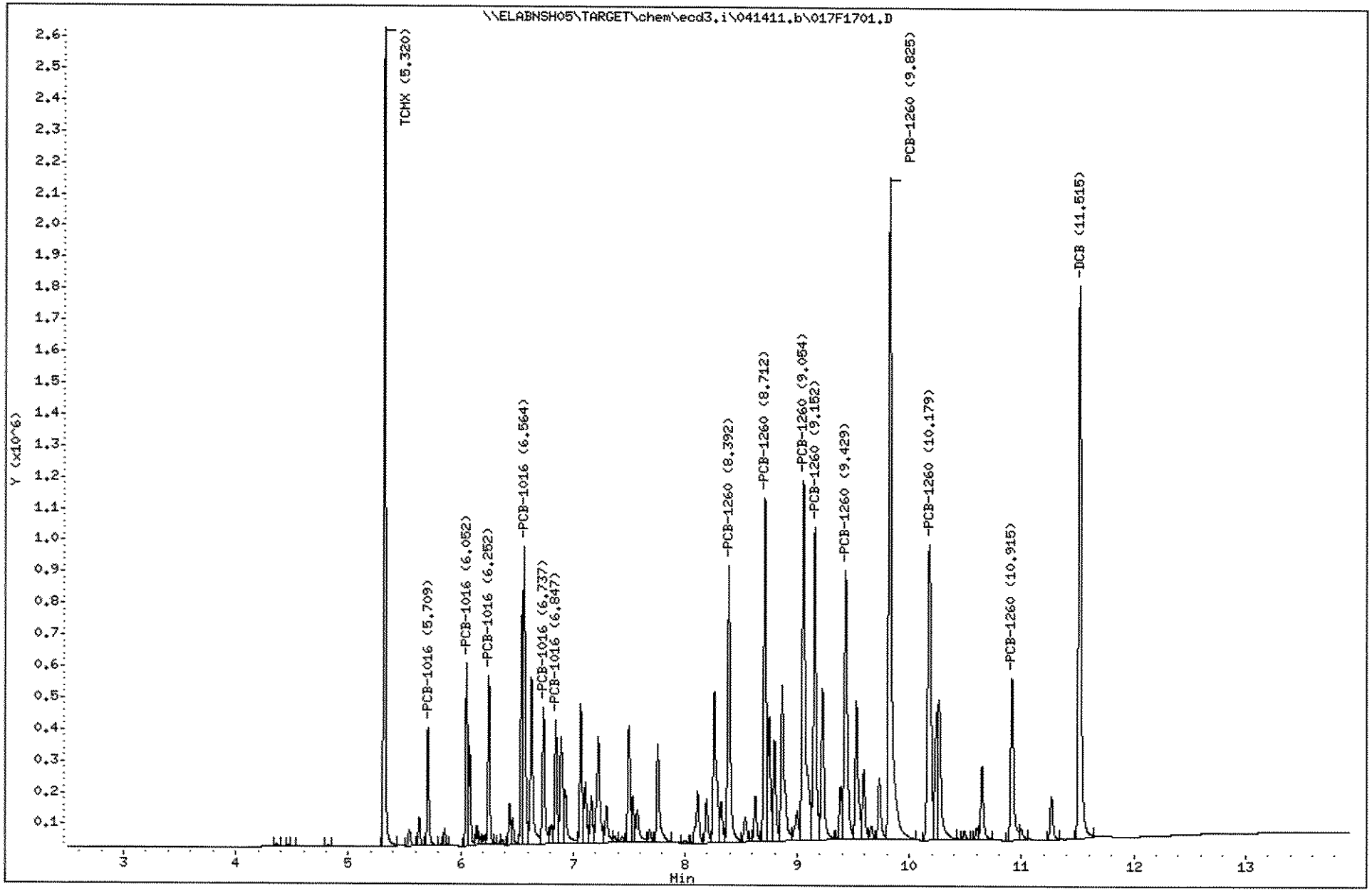
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017F1701.D
Lab Smp Id: SEQ-CCV2
Inj Date : 14-APR-2011 19:17
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.563	6.562	(0.001)	1299020	1000.00	1049	80.00- 120.00	100.00
5.708	5.707	(0.001)	440874	1000.00	968.5	27.15- 40.73	33.94
6.051	6.052	(-0.001)	645589	1000.00	984.8	39.76- 59.64	49.70
6.251	6.250	(0.001)	647718	1000.00	986.9	39.89- 59.83	49.86
6.736	6.735	(0.001)	670406			41.29- 61.93	51.61
6.846	6.845	(0.001)	529393	1000.00	1064	32.60- 48.90	40.75
		Average of Peak Amounts =			1011		
35 PCB-1260					CAS #: 11096-82-5		
9.825	9.822	(0.003)	4007434	1000.00	992.2	80.00- 120.00	100.00
8.391	8.390	(0.001)	1526465			30.47- 45.71	38.09
8.711	8.710	(0.001)	1675932	1000.00	987.1	33.46- 50.18	41.82
9.053	9.052	(0.001)	2331383	1000.00	1178	46.54- 69.81	58.18
9.151	9.152	(-0.001)	1598066	1000.00	981.6	31.90- 47.85	39.88
9.428	9.427	(0.001)	1637786			32.69- 49.04	40.87
10.178	10.178	(0.000)	2063036			41.18- 61.78	51.48
10.915	10.912	(0.003)	933154	1000.00	964.8	18.63- 27.94	23.29
		Average of Peak Amounts =			1021		
$ 38 TCMX					CAS #: 877-09-8		
5.320	5.318	(0.002)	2900061	100.000	99.78		
$ 39 DCB					CAS #: 2051-24-3		
11.515	11.513	(0.002)	3012470	100.000	86.74		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017F1701.D
Date : 14-APR-2011 19:17
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:17
Lab File ID: 017R1701.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV2 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	906	0.010	4.7	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	564	0.010	-0.7	20.0	
(4)	555	593	0.010	6.8	20.0	
(5)	473	556	0.010	17.6	20.0	
(6)	480	520	0.010	8.3	20.0	
35 PCB-1260(1)	2400	2528	0.010	5.3	20.0	
(2)	1234	1192	0.010	-3.4	20.0	
(3)	1424	1416	0.010	-0.6	20.0	
(4)	1011	1005	0.010	-0.6	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1205	0.010	0.9	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21333	21343	0.010	0.0	20.0	
$ 39 DCB	21628	19272	0.010	-10.9	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017R1701.D
Lab Smp Id: SEQ-CCV2
Inj Date : 14-APR-2011 19:17
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV2
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2		
5.391	5.389	(0.002)	906347	1000.00	1046	80.00- 120.00	100.00
4.709	4.708	(0.001)	336188			29.67- 44.51	37.09
4.979	4.978	(0.001)	564328	1000.00	992.8	49.81- 74.72	62.26
5.142	5.141	(0.001)	593454	1000.00	1068	52.38- 78.57	65.48
5.536	5.536	(0.000)	555827	1000.00	1176	49.06- 73.59	61.33
5.637	5.636	(0.001)	520206	1000.00	1083	45.92- 68.88	57.40
		Average of Peak Amounts =			1073		
35 PCB-1260 [2C]					CAS #: 11096-82-5		
8.152	8.151	(0.001)	2528324	1000.00	1053	80.00- 120.00	100.00
6.899	6.898	(0.001)	1191532	1000.00	965.8	37.70- 56.55	47.13
7.141	7.138	(0.003)	1415875	1000.00	994.0	44.80- 67.20	56.00
7.289	7.288	(0.001)	1004919	1000.00	993.9	31.80- 47.70	39.75
7.554	7.553	(0.001)	1275702			40.37- 60.55	50.46
7.832	7.831	(0.001)	1204864	1000.00	1008	38.12- 57.19	47.65
8.532	8.531	(0.001)	867272			27.44- 41.16	34.30
9.174	9.173	(0.001)	621312			19.66- 29.49	24.57
		Average of Peak Amounts =			1003		
$ 38 TCMX [2C]					CAS #: 877-09-8		
4.387	4.386	(0.001)	2134326	100.000	100.0		(A)
$ 39 DCB [2C]					CAS #: 2051-24-3		
9.776	9.773	(0.003)	1927183	100.000	89.11		

QC Flag Legend

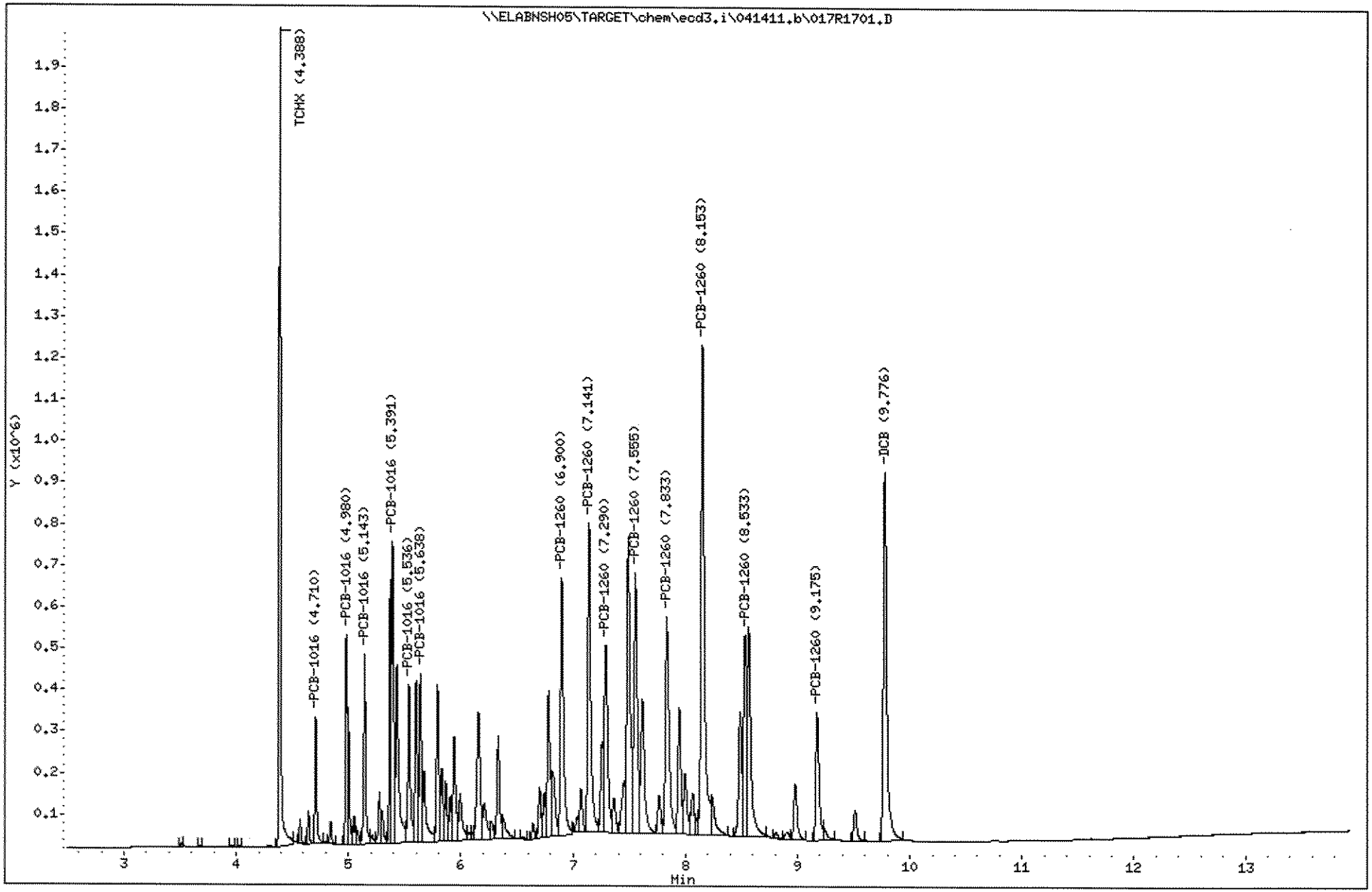
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\017R1701.D
Date : 14-APR-2011 19:17
Client ID:
Sample Info: SEQ-CCV2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:35
Lab File ID: 018F1801.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV3 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1743	0.010	-3.3	20.0	
(2)	1085	958	0.010	-11.7	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1025	0.010	-6.2	20.0	
(5)	1523	1173	0.010	-23.0	20.0	<-
(6)	1545	1659	0.010	7.4	20.0	

Avg %D = 7.49%

Laboratory Name

SW-846 METHODS 8081A/8082

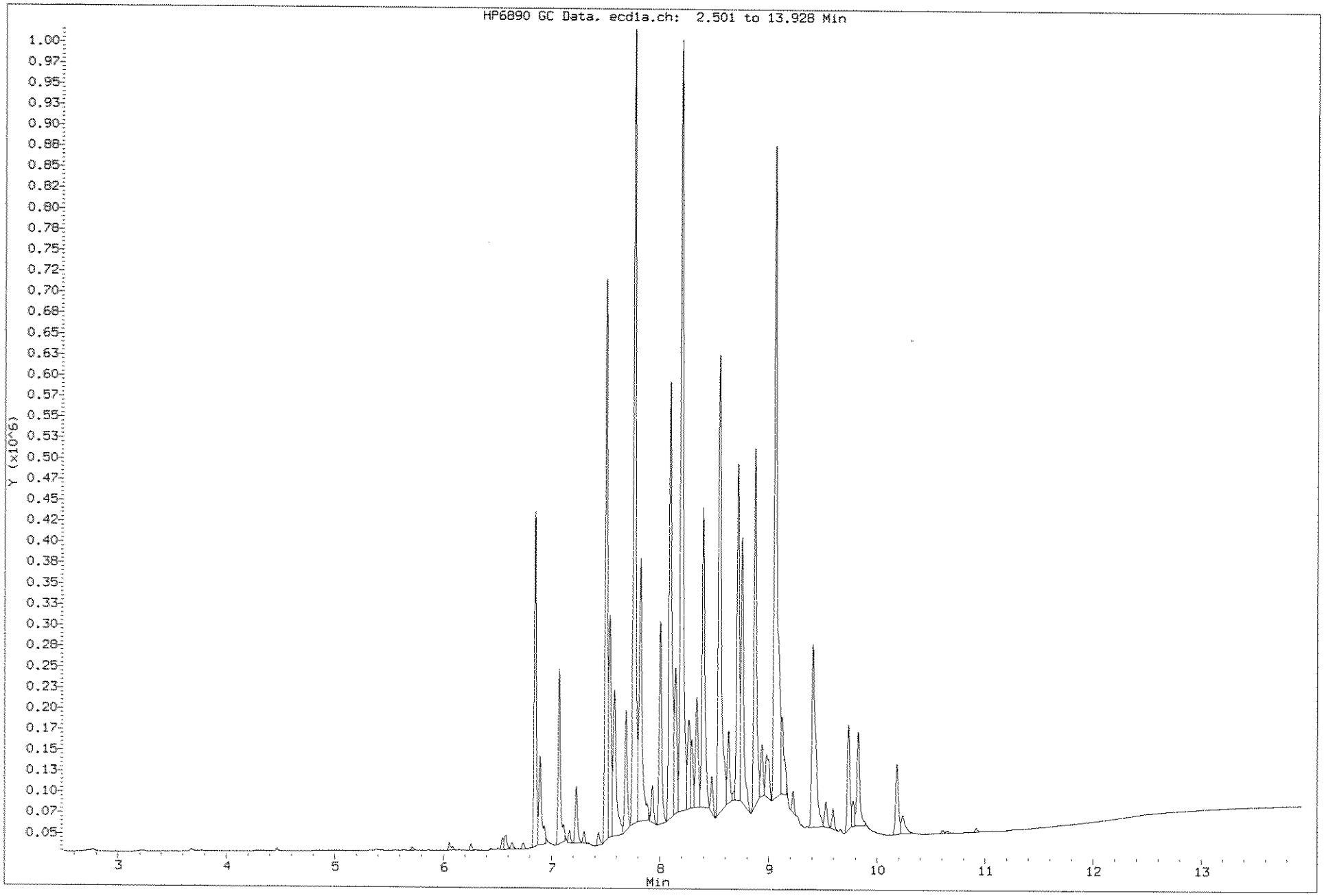
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018F1801.D
Lab Smp Id: SEQ-CCV3
Inj Date : 14-APR-2011 19:35
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254					CAS #: 11097-69-1			
8.194	8.194	(0.000)	1743039	1000.00	966.6	80.00-	120.00	100.00(M)
7.501	7.501	(0.000)	958270	1000.00	882.8	43.98-	65.97	54.98
7.758	7.758	(0.000)	1585580			72.77-	109.16	90.97
8.089	8.089	(0.000)	1025295	1000.00	937.7	47.06-	70.59	58.82
8.544	8.544	(0.000)	1173437	1000.00	770.4	53.86-	80.79	67.32
9.059	9.059	(0.000)	1659258	1000.00	1074	76.15-	114.23	95.19
		Average of Peak Amounts =			926.3			

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSHO5\TARGET\chem\ecd3.i\041411.b\018F1801.D
Injection Date: 14-APR-2011 19:35
Instrument: ecd3.i
Client Sample ID:



182

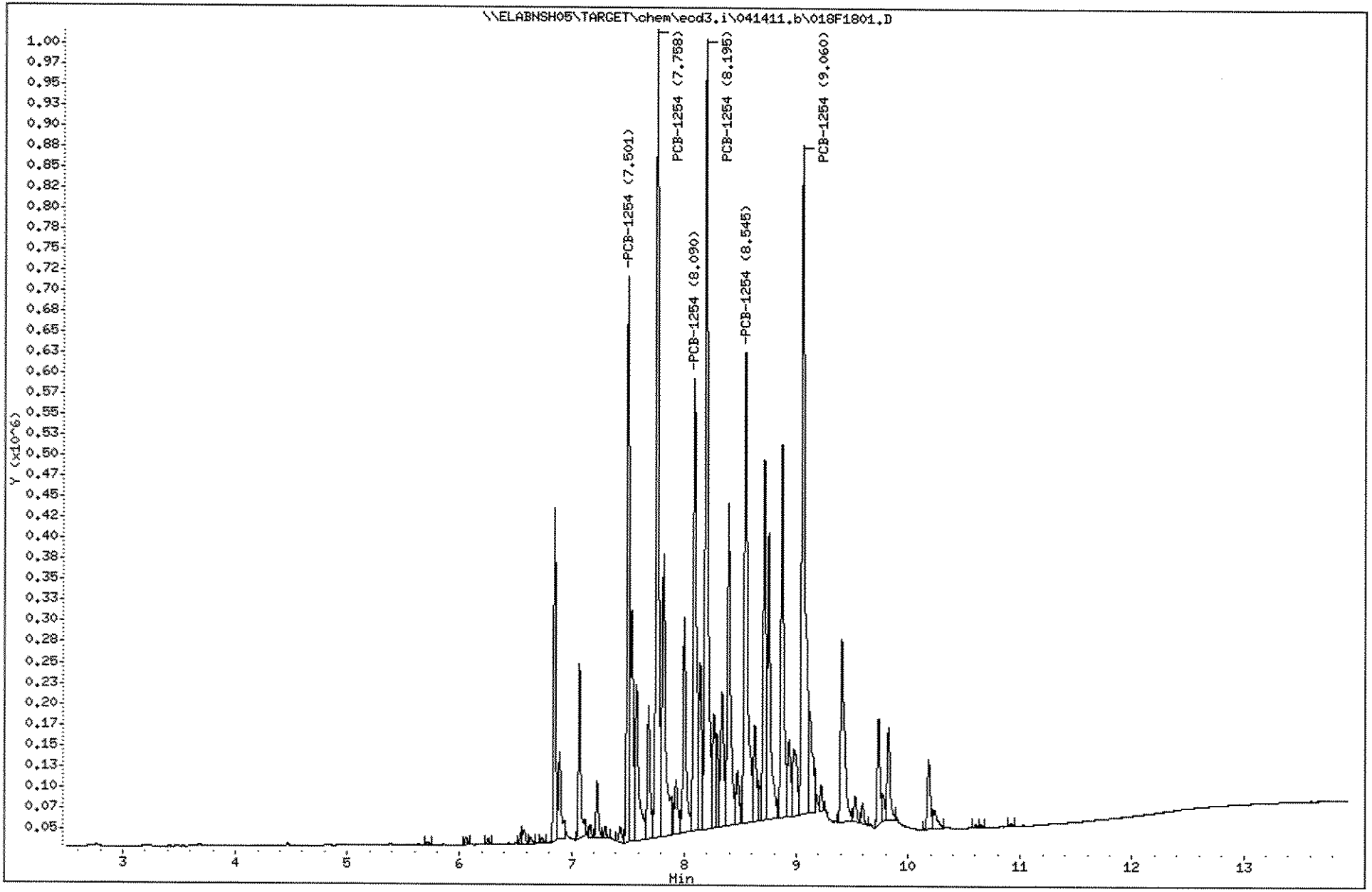
1104114

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018F1801.D
Date : 14-APR-2011 19:35
Client ID:
Sample Info: SEQ-CCV3

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 19:35
Lab File ID: 018R1801.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV3 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1516	0.010	13.2	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1105	0.010	-1.7	20.0	
(4)	959	945	0.010	-1.4	20.0	
(5)	719	733	0.010	2.0	20.0	
(6)	934	831	0.010	-11.0	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

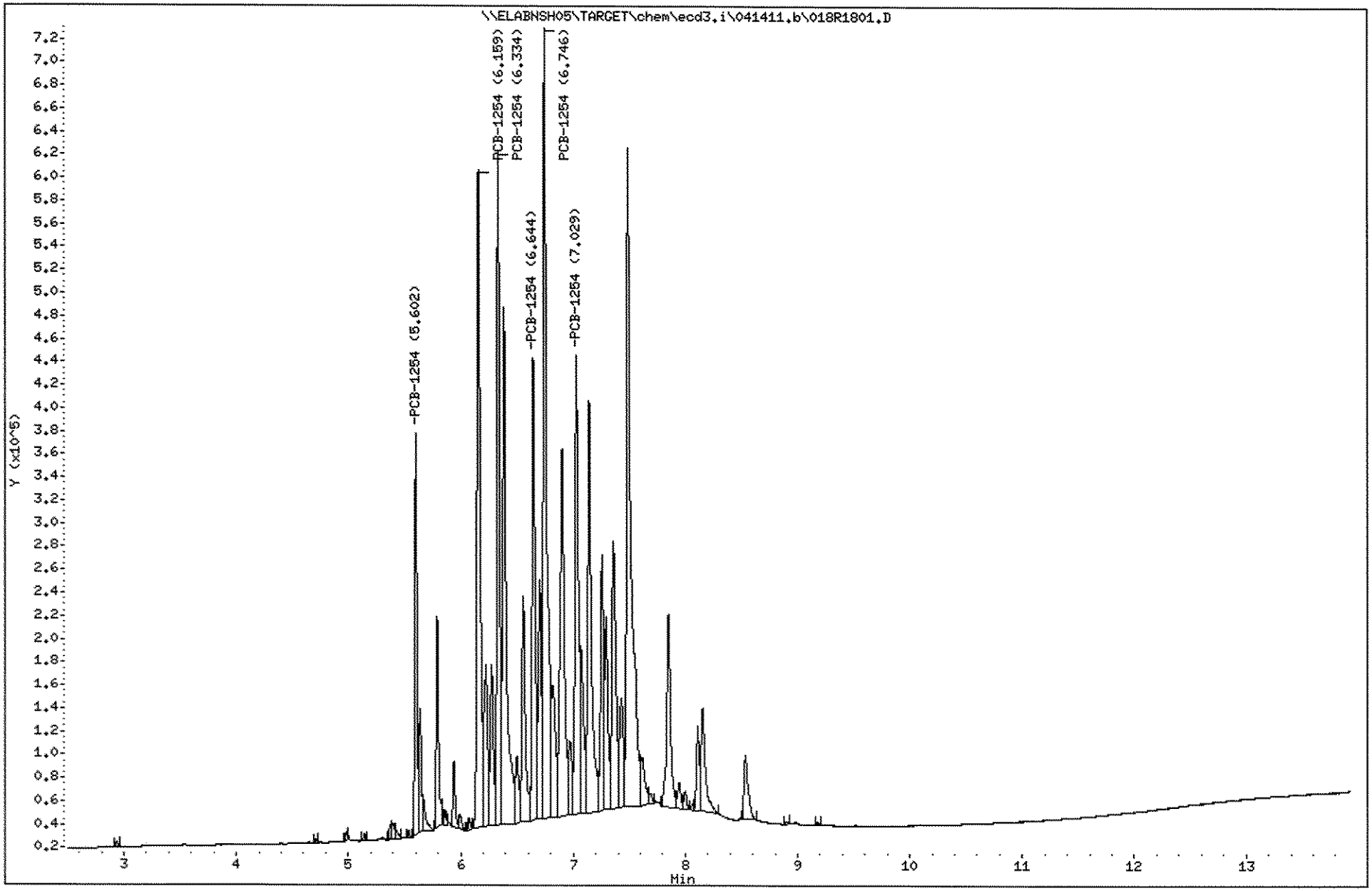
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018R1801.D
Lab Smp Id: SEQ-CCV3
Inj Date : 14-APR-2011 19:35
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV3
Misc Info : ;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.745	6.745	(0.000)	1516111	1000.00	1132	80.00-	120.00	100.00
5.602	5.602	(0.000)	443665			23.41-	35.12	29.26
6.159	6.159	(0.000)	1104769	1000.00	982.8	58.29-	87.44	72.87
6.334	6.334	(0.000)	945455	1000.00	985.8	49.89-	74.83	62.36
6.644	6.644	(0.000)	733417	1000.00	1020	38.70-	58.05	48.37
7.029	7.029	(0.000)	831443	1000.00	890.4	43.87-	65.81	54.84
		Average of Peak Amounts =			1002			

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\018R1801.D
Date : 14-APR-2011 19:35
Client ID:
Sample Info: SEQ-CCV3

Instrument: ecd3.i
Operator: JH
Column diameter: 0.32

Column phase: ZB MR-2



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\021F2101.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\021R2101.D
Inj Date : 14-APR-2011 20:31
Sample Info: 1104114-03
Misc Info : ;;;;;;PCB.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : PCB.sub
Sub List #2 : PCB.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
TCMX	5.321	4.388	1077026	804918	37.06	37.73		100.00(R)
DCB	11.516	9.775	1036840	673363	29.85	31.13		100.00(R)

QC Flag Legend

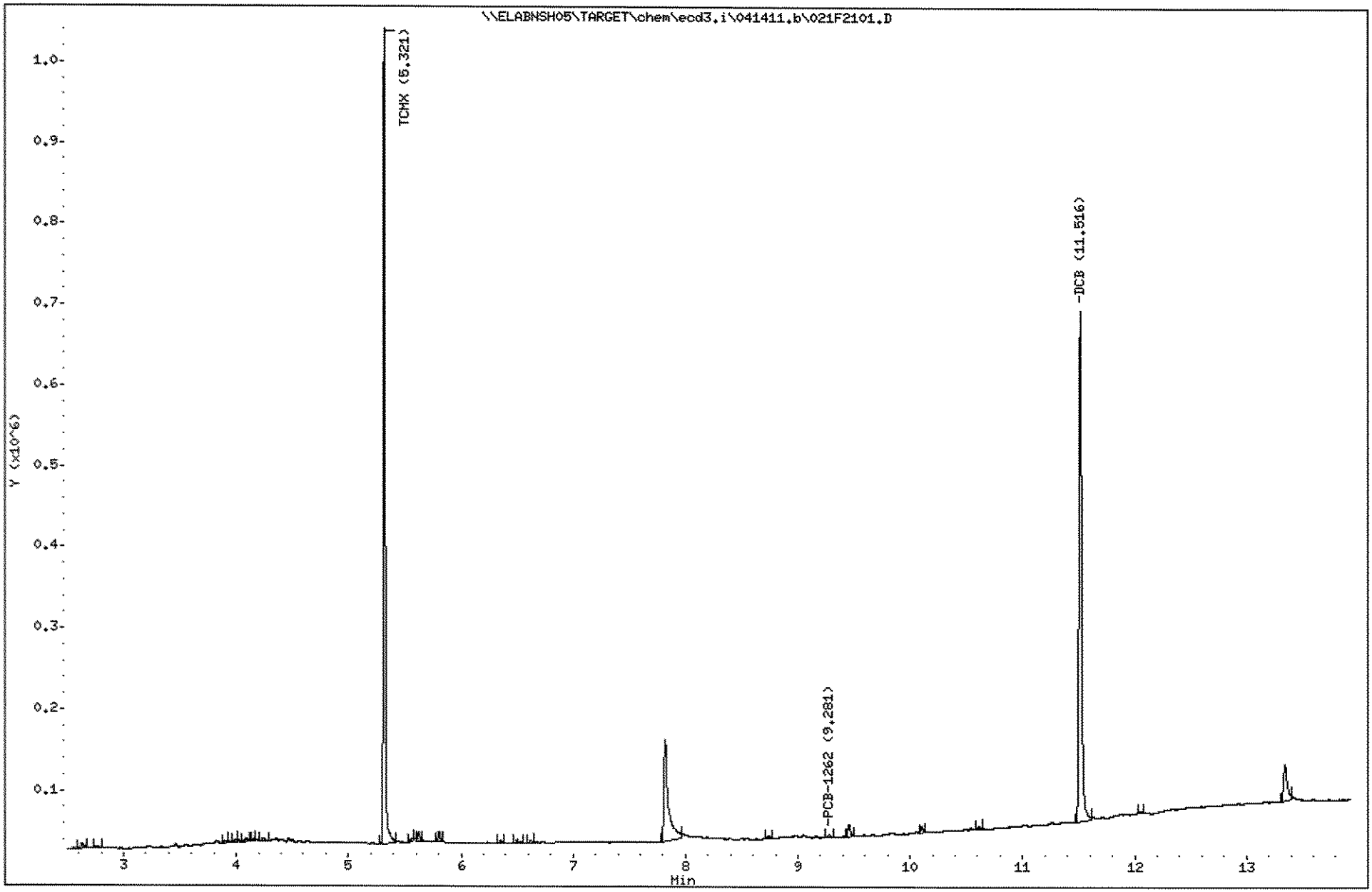
R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\021F2101.D
Date : 14-APR-2011 20:31
Client ID: 504-20N(20110411)
Sample Info: 1104114-03

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\021R2101.D

Date : 14-APR-2011 20:31

Client ID: 504-20N(20110411)

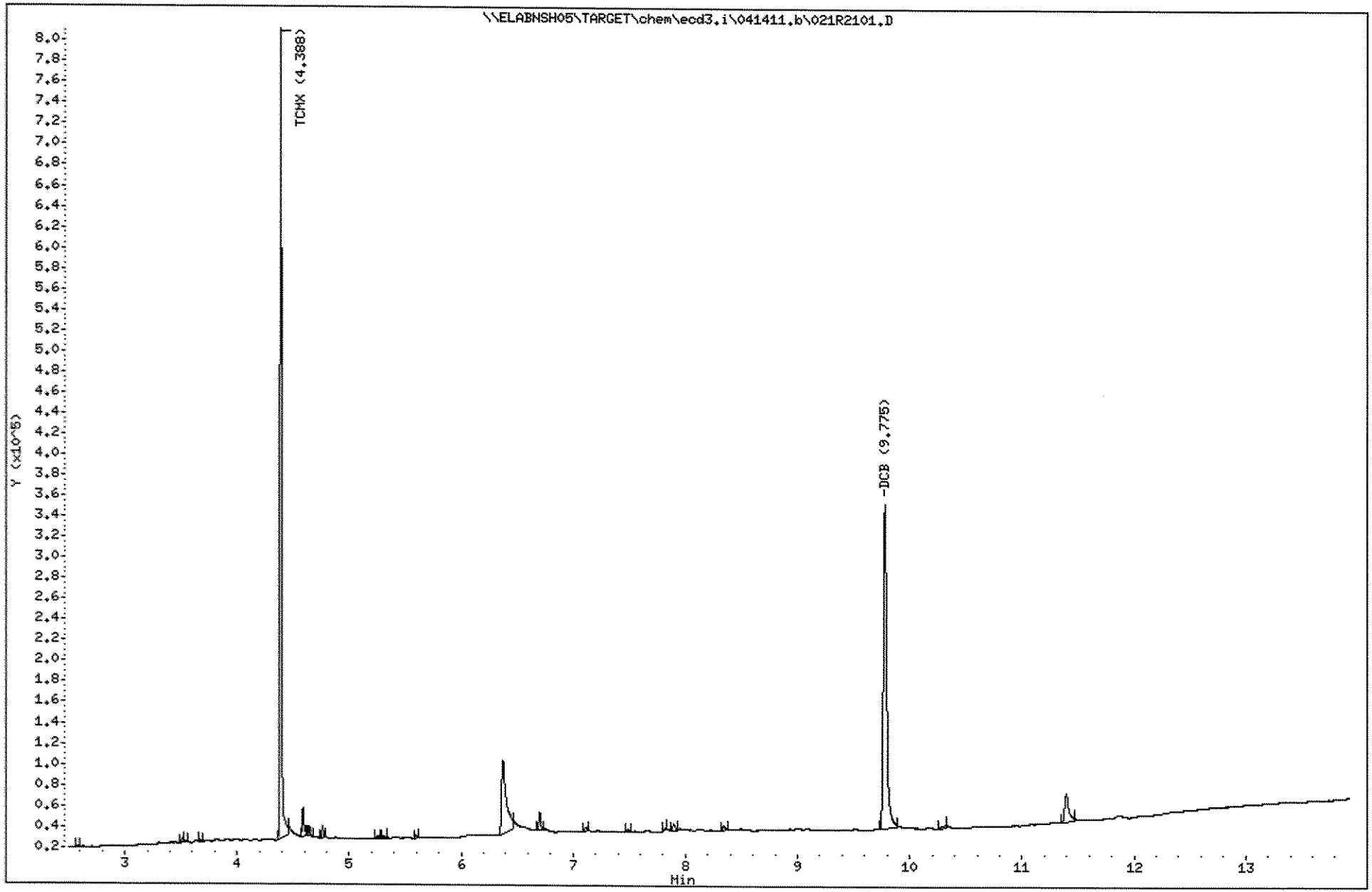
Sample Info: 1104114-03

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



Laboratory Name

Sample #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\022F2201.D
Sample #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\022R2201.D
Inj Date : 14-APR-2011 20:50
Sample Info: 1104114-04
Misc Info : ;;;;;;PCB.sub
Cal Date : 15-APR-2011 12:36
Operator : JH
Inst ID : ecd3.i
Dil Factor : 1.000000

Method #1 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Method #2 : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Sub List #1 : PCB.sub
Sub List #2 : PCB.sub
Col #1 Phase : ZB MR-1
Col #2 Phase : ZB MR-2

Compound	RT#1	RT#2	Resp#1	Resp#2	Conc#1	Conc#2	Target Range	Ratio
TCMX	5.321	4.386	1220965	918009	42.01	43.03		100.00(R)
DCB	11.517	9.775	1228425	797363	35.37	36.87		100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\022F2201.D

Date : 14-APR-2011 20:50

Client ID: 504-22E(20110411)

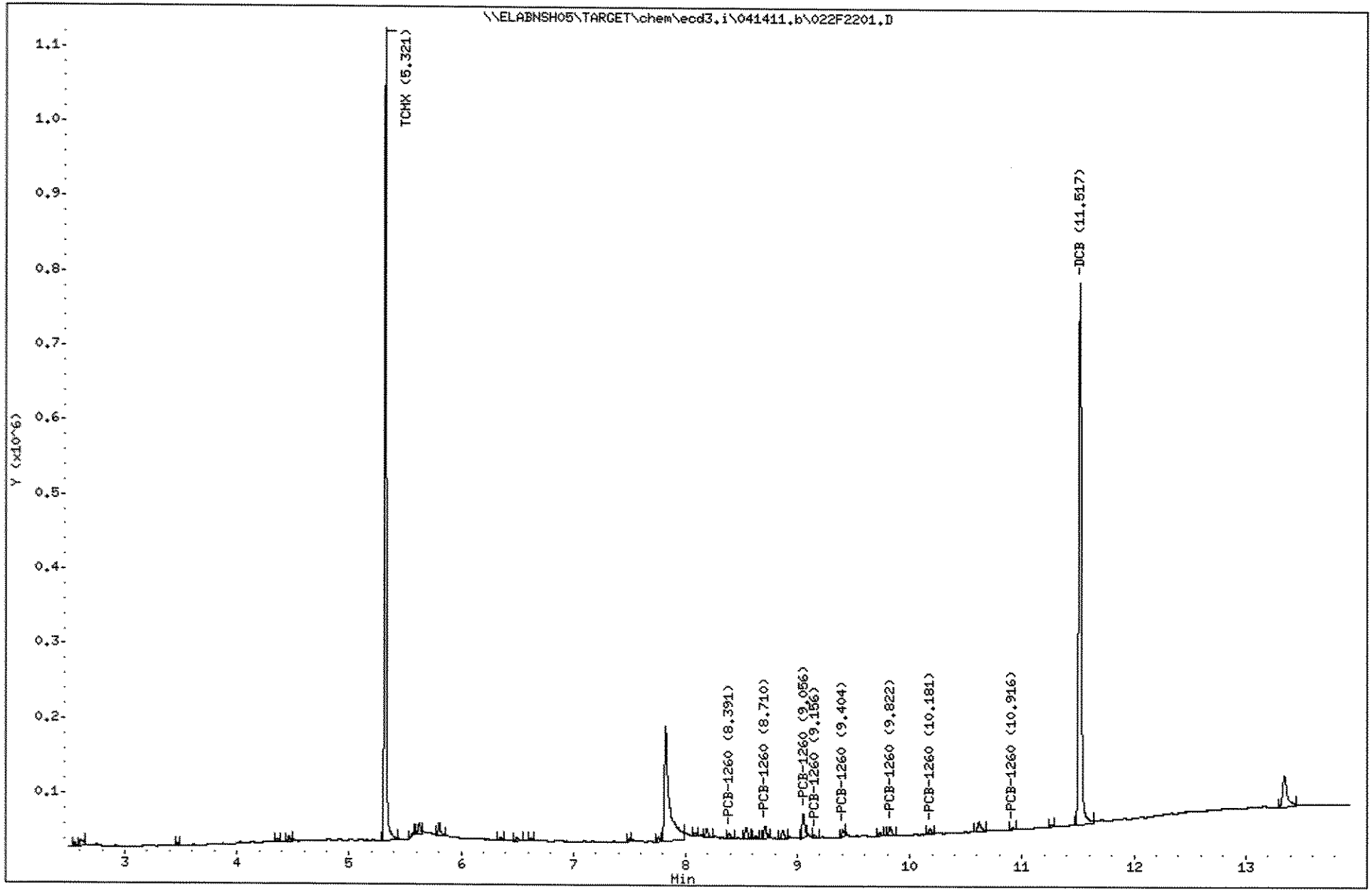
Sample Info: 1104114-04

Column phase: ZB MR-1

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\022R2201.D

Date : 14-APR-2011 20:50

Client ID: 504-22E(20110411)

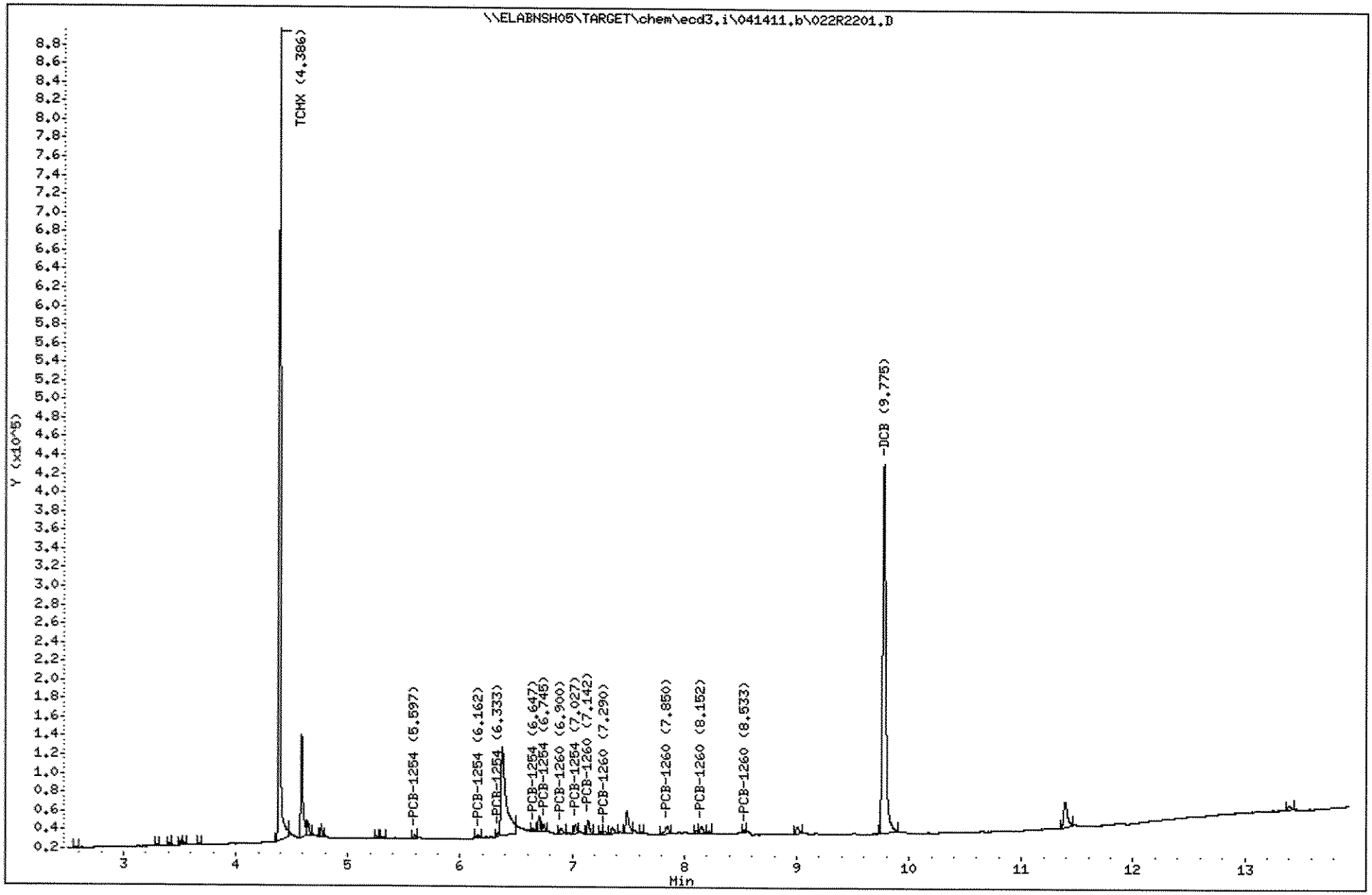
Sample Info: 1104114-04

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH

Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:27
Lab File ID: 024F2401.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

			MIN		MAX	
COMPOUND	RRF	RF100	RRF	%D	%D	
29 PCB-1016(1)	1238	1272	0.010	2.7	20.0	
(2)	455	438	0.010	-3.8	20.0	
(3)	656	643	0.010	-2.0	20.0	
(4)	656	669	0.010	1.9	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	498	519	0.010	4.3	20.0	
35 PCB-1260(1)	4039	3983	0.010	-1.4	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1698	1685	0.010	-0.8	20.0	
(4)	1978	2310	0.010	16.8	20.0	
(5)	1628	1594	0.010	-2.1	20.0	
(6)	++++	++++	0.010	++++	20.0	<-
(7)	++++	++++	0.010	++++	20.0	<-
(8)	967	936	0.010	-3.2	20.0	
$ 38 TCMX	29064	28966	0.010	-0.3	20.0	
$ 39 DCB	34730	30577	0.010	-12.0	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024F2401.D
Lab Smp Id: SEQ-CCV4
Inj Date : 14-APR-2011 21:27
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

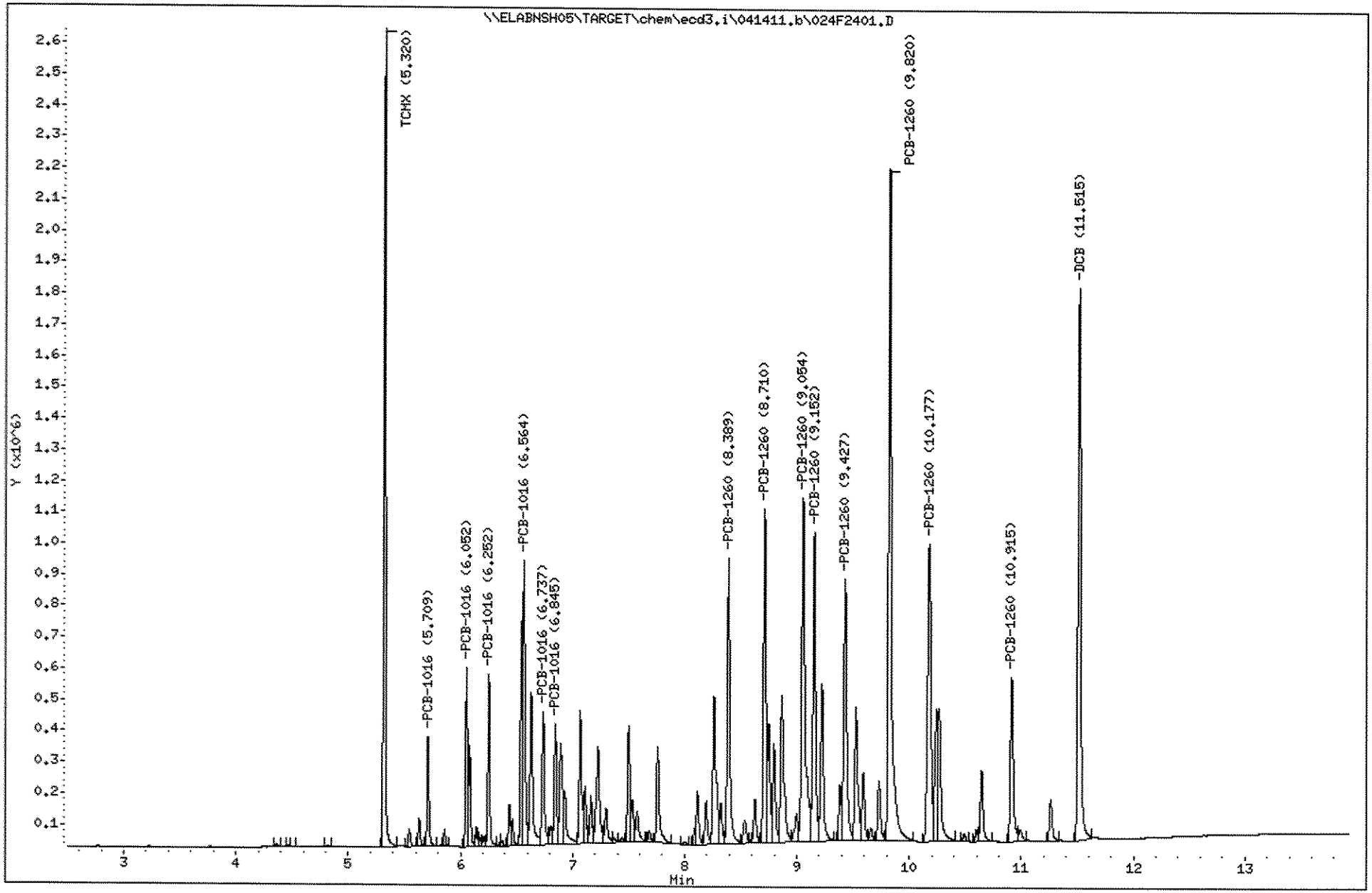
RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)	TARGET RANGE	RATIO
29 PCB-1016					CAS #: 12674-11-2		
6.563	6.562	(0.001)	1271923	1000.00	1027	80.00- 120.00	100.00
5.708	5.707	(0.001)	437917	1000.00	962.0	27.54- 41.32	34.43
6.051	6.052	(-0.001)	642583	1000.00	980.2	40.42- 60.62	50.52
6.251	6.250	(0.001)	669053	1000.00	1019	42.08- 63.12	52.60
6.736	6.735	(0.001)	664801			41.81- 62.72	52.27
6.845	6.845	(0.000)	519323	1000.00	1043	32.66- 49.00	40.83
		Average of Peak Amounts =			1007		
35 PCB-1260					CAS #: 11096-82-5		
9.820	9.822	(-0.002)	3982558	1000.00	986.0	80.00- 120.00	100.00
8.388	8.390	(-0.002)	1523690			30.61- 45.91	38.26
8.710	8.710	(0.000)	1684946	1000.00	992.4	33.85- 50.77	42.31
9.053	9.052	(0.001)	2310142	1000.00	1168	46.41- 69.61	58.01
9.151	9.152	(-0.001)	1594334	1000.00	979.4	32.03- 48.04	40.03
9.426	9.427	(-0.001)	1633680			32.82- 49.23	41.02
10.176	10.178	(-0.002)	2068277			41.55- 62.32	51.93
10.915	10.912	(0.003)	936194	1000.00	968.0	18.81- 28.21	23.51
		Average of Peak Amounts =			1019		
$ 38 TCMX					CAS #: 877-09-8		
5.320	5.318	(0.002)	2896565	100.000	99.66		
$ 39 DCB					CAS #: 2051-24-3		
11.515	11.513	(0.002)	3057675	100.000	88.04		

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024F2401.D
Date : 14-APR-2011 21:27
Client ID:
Sample Info: SEQ-CCV4

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:27
Lab File ID: 024R2401.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV4 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
29 PCB-1016(1)	866	897	0.010	3.5	20.0	
(2)	++++	++++	0.010	++++	20.0	<-
(3)	568	532	0.010	-6.3	20.0	
(4)	555	591	0.010	6.4	20.0	
(5)	473	551	0.010	16.6	20.0	
(6)	480	525	0.010	9.3	20.0	
35 PCB-1260(1)	2400	2485	0.010	3.6	20.0	
(2)	1234	1196	0.010	-3.1	20.0	
(3)	1424	1410	0.010	-1.0	20.0	
(4)	1011	997	0.010	-1.4	20.0	
(5)	++++	++++	0.010	++++	20.0	<-
(6)	1195	1189	0.010	-0.5	20.0	
(7)	++++	++++	0.010	++++	20.0	<-
(8)	++++	++++	0.010	++++	20.0	<-
$ 38 TCMX	21333	21498	0.010	0.8	20.0	
$ 39 DCB	21628	19774	0.010	-8.6	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024R2401.D
Lab Smp Id: SEQ-CCV4
Inj Date : 14-APR-2011 21:27
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV4
Misc Info : ;;;;;;1660D.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 24 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660D.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
29 PCB-1016 [2C]					CAS #: 12674-11-2			
5.391	5.389	(0.002)	896557	1000.00	1035	80.00-	120.00	100.00
4.709	4.708	(0.001)	340541			30.39-	45.58	37.98
4.979	4.978	(0.001)	532365	1000.00	936.5	47.50-	71.25	59.38
5.142	5.141	(0.001)	590782	1000.00	1064	52.72-	79.07	65.89
5.536	5.536	(0.000)	551261	1000.00	1166	49.19-	73.78	61.49
5.639	5.636	(0.003)	525092	1000.00	1093	46.85-	70.28	58.57
	Average of Peak Amounts =				1059			
35 PCB-1260 [2C]					CAS #: 11096-82-5			
8.151	8.151	(0.000)	2485468	1000.00	1036	80.00-	120.00	100.00
6.899	6.898	(0.001)	1195562	1000.00	969.1	38.48-	57.72	48.10
7.141	7.138	(0.003)	1409679	1000.00	989.6	45.37-	68.06	56.72
7.289	7.288	(0.001)	997091	1000.00	986.2	32.09-	48.14	40.12
7.556	7.553	(0.003)	1264860			40.71-	61.07	50.89
7.832	7.831	(0.001)	1189214	1000.00	995.4	38.28-	57.42	47.85
8.532	8.531	(0.001)	866088			27.88-	41.82	34.85
9.174	9.173	(0.001)	641952			20.66-	30.99	25.83
	Average of Peak Amounts =				995.2			
$ 38 TCMX [2C]					CAS #: 877-09-8			
4.387	4.386	(0.001)	2149845	100.000	100.8			(A)
$ 39 DCB [2C]					CAS #: 2051-24-3			
9.776	9.773	(0.003)	1977392	100.000	91.43			

QC Flag Legend

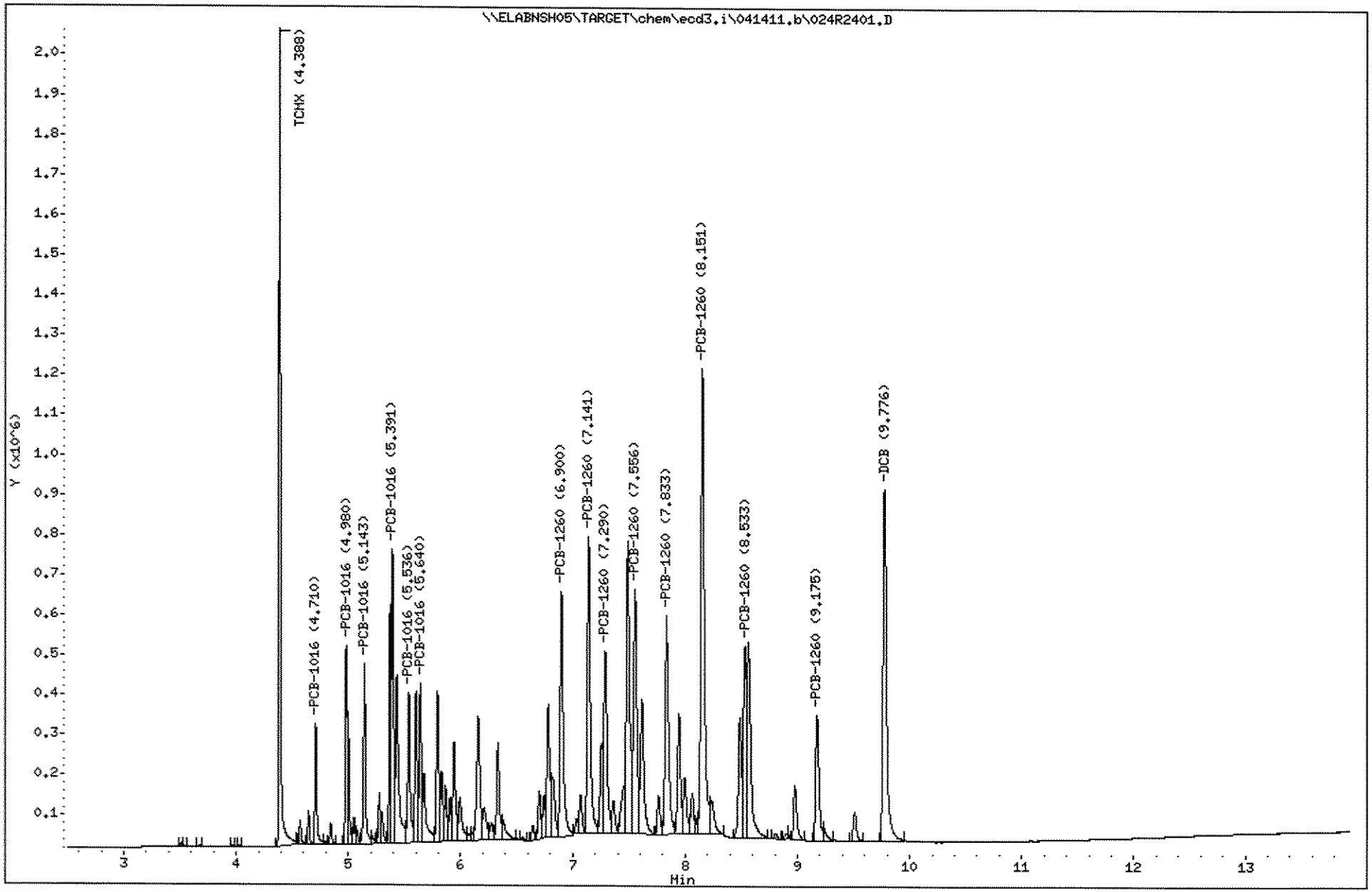
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\024R2401.D
Date : 14-APR-2011 21:27
Client ID:
Sample Info: SEQ-CCV4

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:46
Lab File ID: 025F2501.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV5 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1803	1892	0.010	4.9	20.0	
(2)	1085	1075	0.010	-1.0	20.0	
(3)	++++	++++	0.010	++++	20.0	<-
(4)	1093	1109	0.010	1.4	20.0	
(5)	1523	1246	0.010	-18.2	20.0	
(6)	1545	1433	0.010	-7.2	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025F2501.D
Lab Smp Id: SEQ-CCV5
Inj Date : 14-APR-2011 21:46
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82F.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016F1601.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254						CAS #: 11097-69-1		
8.191	8.194	(-0.003)	1891658	1000.00	1049	80.00-	120.00	100.00(M)
7.499	7.501	(-0.002)	1075084	1000.00	990.4	45.47-	68.20	56.83
7.756	7.758	(-0.002)	1736031			73.42-	110.13	91.77
8.088	8.089	(-0.001)	1109093	1000.00	1014	46.90-	70.36	58.63
8.541	8.544	(-0.003)	1245854	1000.00	817.9	52.69-	79.03	65.86
9.056	9.059	(-0.003)	1433344	1000.00	927.9	60.62-	90.93	75.77
		Average of Peak Amounts =			959.9			

QC Flag Legend

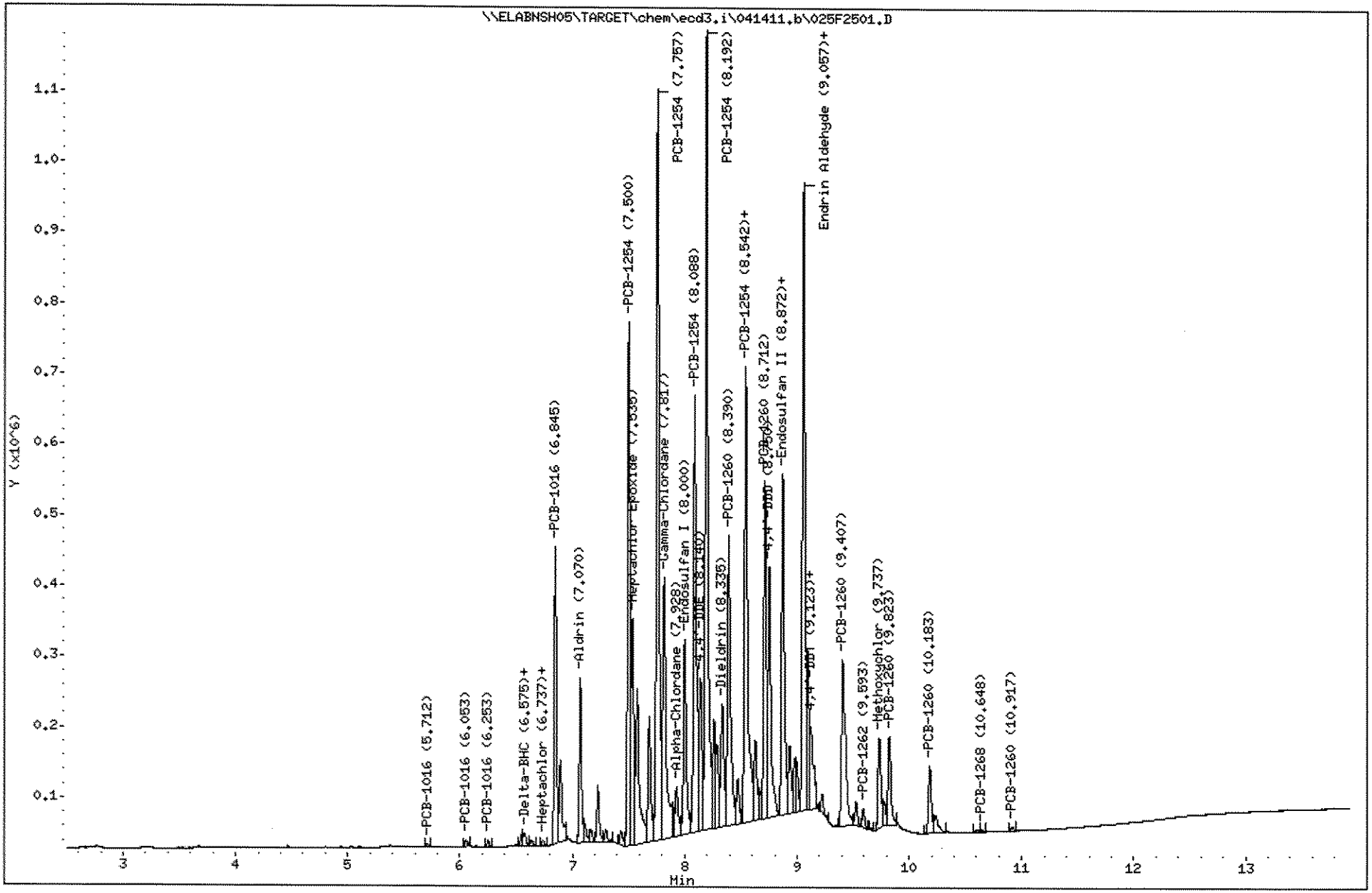
M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025F2501.D
Date : 14-APR-2011 21:46
Client ID:
Sample Info: SEQ-CCV5

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32

Column phase: ZB MR-1



Laboratory Name

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ecd3.i Injection Date: 14-APR-2011 21:46
Lab File ID: 025R2501.D Init. Cal. Date(s): 01-JUL-2010 08-APR-2011
Analysis Type: Init. Cal. Times: 08:58 17:15
Lab Sample ID: SEQ-CCV5 Quant Type: ESTD
Method: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m

COMPOUND	RRF	RF100	MIN RRF	%D	MAX %D	
34 PCB-1254(1)	1339	1626	0.010	21.4	20.0	<-
(2)	++++	++++	0.010	++++	20.0	<-
(3)	1124	1202	0.010	6.9	20.0	
(4)	959	1028	0.010	7.1	20.0	
(5)	719	773	0.010	7.5	20.0	
(6)	934	884	0.010	-5.3	20.0	

Laboratory Name

SW-846 METHODS 8081A/8082

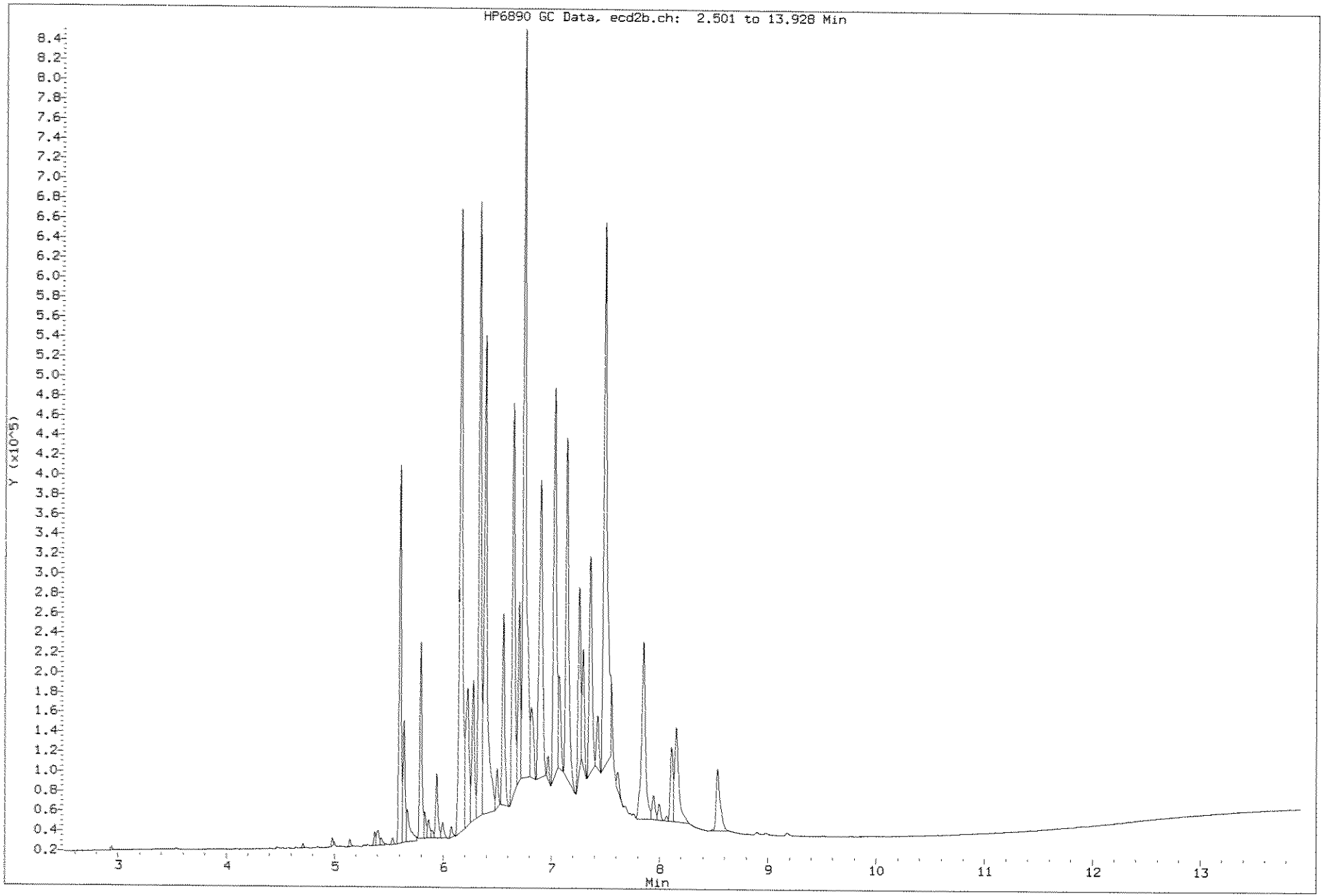
Data file : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025R2501.D
Lab Smp Id: SEQ-CCV5
Inj Date : 14-APR-2011 21:46
Operator : JH Inst ID: ecd3.i
Smp Info : SEQ-CCV5
Misc Info : ;;;;;;ARO1254.sub
Comment :
Method : \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\8081_82R.m
Meth Date : 15-Apr-2011 12:32 aknowles Quant Type: ESTD
Cal Date : 13-OCT-2010 07:10 Cal File: 016R1601.D
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: TARGET08_VM

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng/mL)	(ng/mL)	TARGET RANGE		RATIO
34 PCB-1254 [2C]						CAS #: 11097-69-1		
6.742	6.745	(-0.003)	1626320	1000.00	1214	80.00-	120.00	100.00(M)
5.600	5.602	(-0.002)	486242			23.92-	35.88	29.90
6.157	6.159	(-0.002)	1201936	1000.00	1069	59.12-	88.69	73.91
6.332	6.334	(-0.002)	1027529	1000.00	1071	50.54-	75.82	63.18
6.644	6.644	(0.000)	773071	1000.00	1075	38.03-	57.04	47.53
7.027	7.029	(-0.002)	884076	1000.00	946.7	43.49-	65.23	54.36
Average of Peak Amounts =					1075			

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025R2501.D
Injection Date: 14-APR-2011 21:46
Instrument: ecd3.i
Client Sample ID:

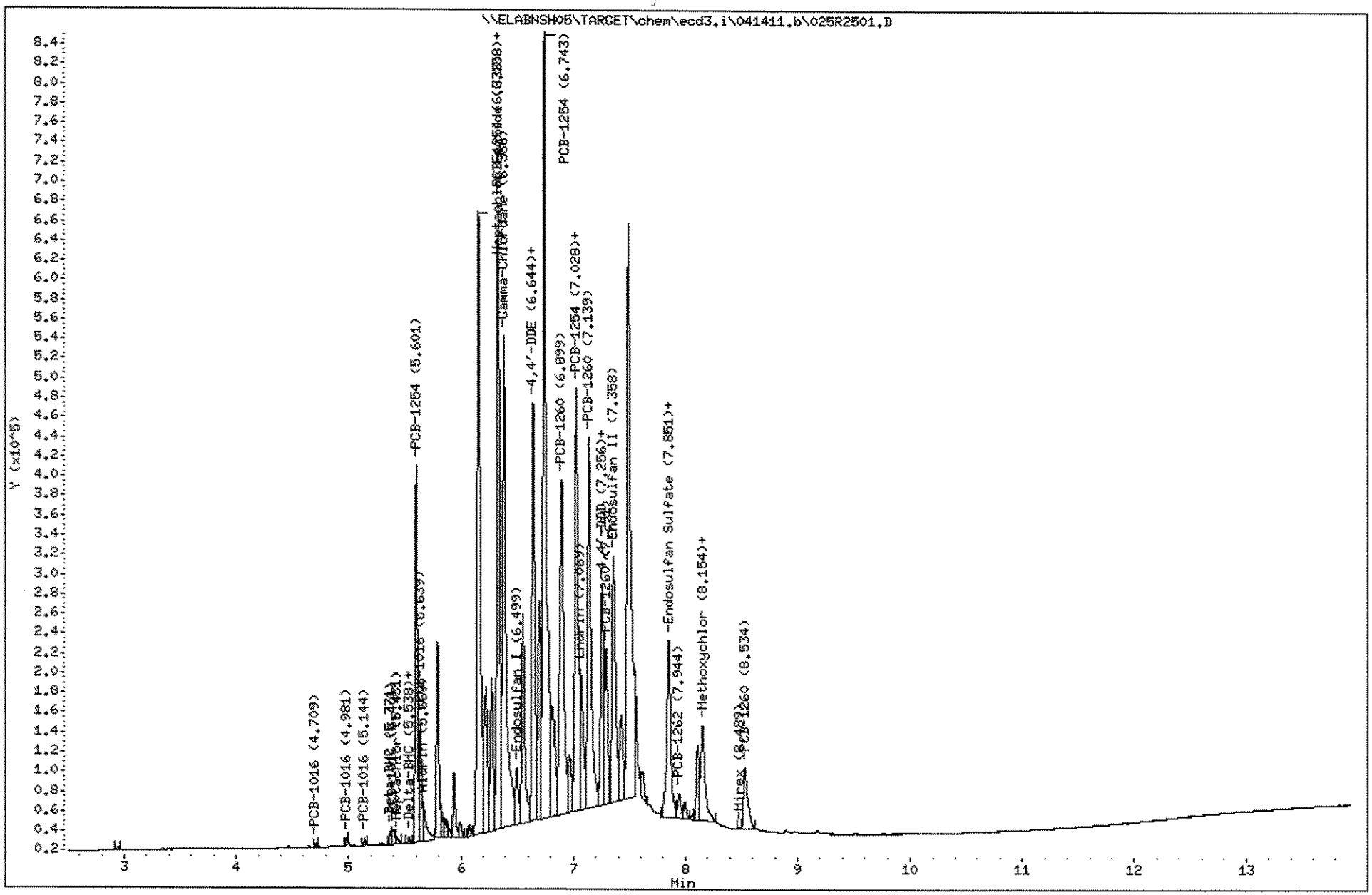


Data File: \\ELABNSH05\TARGET\chem\ecd3.i\041411.b\025R2501.D
Date : 14-APR-2011 21:46
Client ID:
Sample Info: SEQ-CCV5

Column phase: ZB MR-2

Instrument: ecd3.i

Operator: JH
Column diameter: 0.32



206

1104114

PREPARATION BENCH SHEET

1D09814

Empirical Laboratories, LLC

Printed: 4/18/2011 10:34:47AM

207

Matrix: Solid **Prepared using: EXT - EXT_3546** **Surrogate used: 11B0080**

Lab Number	Cont ID	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1104087-11	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.7	5				500	see version
1104087-12	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.2	5				500	see version
1104093-01	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	no quadratic calib
1104093-01RE1	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	Added 4/15/2011 by AJK
1104093-02	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.4	5				500	no quadratic calib
1104093-03	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	no quadratic calib
1104093-04	A	SGC_PCB8082A_3546	04/12/2011 16:11	15	5				500	no quadratic calib
1104093-05	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.2	5				500	no quadratic calib
1104093-06	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.5	5				500	no quadratic calib
1104093-07	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.5	5				500	no quadratic calib
1104093-08	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.6	5				500	no quadratic calib
1104114-03	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.2	5				500	see version
1104114-04	A	SGC_PCB8082A_3546	04/12/2011 16:11	15.3	5				500	see version
1D09814-BLK1		QC	04/12/2011 16:11	15	5				500	
1D09814-BS1		QC	04/12/2011 16:11	15	5	11D0079		500	500	
1D09814-MS1		QC	04/12/2011 16:11	15	5	11D0079	1104093-01	500	500	
1D09814-MSD1		QC	04/12/2011 16:11	15.6	5	11D0079	1104093-01	500	500	

1104114

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Data for SW6010B Forms

ANALYSIS DATA SHEET

8102A-1NW(20110411)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 04/11/11 14:00
% Solids: 76.58

SDG: 1104114
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104114-01
Received: 04/12/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	48.9	1.07	2.67	1		SW6010B	1D13003	04/19/11 19:59
7439-92-1	Lead	31.0	0.400	0.800	1		SW6010B	1D13003	04/19/11 19:59

ANALYSIS DATA SHEET

6-1NW(20110411)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 04/11/11 14:10
% Solids: 70.75

SDG: 1104114
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104114-02
Received: 04/12/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	20.2	1.10	2.74	1		SW6010B	1D13003	04/19/11 20:03
7439-92-1	Lead	18.5	0.412	0.823	1		SW6010B	1D13003	04/19/11 20:03

ANALYSIS DATA SHEET

504-20N(20110411)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 04/11/11 14:20
% Solids: 81.87

SDG: 1104114
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104114-03
Received: 04/12/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	46.0	0.896	2.24	1		SW6010B	1D13003	04/19/11 20:08
7439-92-1	Lead	23.5	0.336	0.672	1		SW6010B	1D13003	04/19/11 20:08

ANALYSIS DATA SHEET

504-22E(20110411)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 04/11/11 14:30
% Solids: 74.30

SDG: 1104114
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104114-04
Received: 04/12/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	25.0	1.13	2.83	1		SW6010B	1D13003	04/19/11 20:12
7439-92-1	Lead	56.2	0.425	0.850	1		SW6010B	1D13003	04/19/11 20:12

ANALYSIS DATA SHEET

8102(3)-13W(20110411)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 04/11/11 14:40
% Solids: 67.25

SDG: 1104114
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1104114-05
Received: 04/12/11 08:45

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-50-8	Copper	28.0	1.18	2.94	1		SW6010B	1D13003	04/19/11 20:17
7439-92-1	Lead	25.9	0.442	0.883	1		SW6010B	1D13003	04/19/11 20:17

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP
SDG: 1104114
Project: Radford Army Ammunition Plant2010
Calibration: 1110004
Sequence: 1D11028

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1D11028-ICV1	Copper	1000	1004	100	ug/L	+/- 10.00%
	Lead	1000	992.2	99.2	ug/L	+/- 10.00%
1D11028-CCV1	Copper	1000	1020	102	ug/L	+/- 10.00%
	Lead	1000	1009	101	ug/L	+/- 10.00%
1D11028-CCV5	Copper	1000	1014	101	ug/L	+/- 10.00%
	Lead	1000	1020	102	ug/L	+/- 10.00%
1D11028-CCV6	Copper	1000	1011	101	ug/L	+/- 10.00%
	Lead	1000	1046	105	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1104114

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1110004

Sequence: 1D11028

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1D11028-CRL1	Copper	8.000	7.932	99.2	ug/L	80 - 120
	Lead	3.000	3.035	101	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1D11028
Calibration: 1110004

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1D11028-ICB1	Copper	-0.05851	4.00	10.0	ug/L	U	SW6010B
	Lead	0.4364	1.50	3.00	ug/L	U	SW6010B
1D11028-CCB1	Copper	-0.0195	4.00	10.0	ug/L	U	SW6010B
	Lead	0.335	1.50	3.00	ug/L	U	SW6010B
1D11028-CCB5	Copper	-0.692	4.00	10.0	ug/L	U	SW6010B
	Lead	0.467	1.50	3.00	ug/L	U	SW6010B
1D13003-BLK1	Copper	-0.162	0.800	2.00	mg/Kg wet	U	SW6010B
	Lead	0.215	0.300	0.600	mg/Kg wet	U	SW6010B
1D11028-CCB6	Copper	-0.944	4.00	10.0	ug/L	U	SW6010B
	Lead	-0.360	1.50	3.00	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1110004
Sequence: 1D11028

Lab Sample ID	Analyte	True	Found	%R	Units
1D11028-IFA1	Aluminum	500000	503,940.00	101	ug/L
	Antimony		-1.46		ug/L
	Arsenic		-3.89		ug/L
	Barium		-0.43		ug/L
	Beryllium		0.01		ug/L
	Boron		4.58		ug/L
	Cadmium		1.77		ug/L
	Calcium	500000	477,540.00	95.5	ug/L
	Chromium		-1.51		ug/L
	Cobalt		0.45		ug/L
	Copper		-5.11		ug/L
	Iron	200000	187,840.00	93.9	ug/L
	Lead		9.50		ug/L
	Magnesium	500000	506,900.00	101	ug/L
	Manganese		4.70		ug/L
	Molybdenum		0.33		ug/L
	Nickel		-0.15		ug/L
	Potassium		-78.23		ug/L
	Selenium		1.69		ug/L
	Silver		-0.59		ug/L
	Sodium		2.54		ug/L
	Strontium		-5.35		ug/L
	Thallium		1.11		ug/L
	Tin		1.05		ug/L
	Titanium		-6.16		ug/L
	Vanadium		0.52		ug/L
	Zinc		7.39		ug/L
1D11028-IFB1	Aluminum	500000	482,990.00	96.6	ug/L
	Antimony	600.0	632.90	105	ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1110004
Sequence: 1D11028

Lab Sample ID	Analyte	True	Found	%R	Units
1D11028-IFB1	Arsenic	100.0	104.84	105	ug/L
	Barium	500.0	516.79	103	ug/L
	Beryllium	500.0	477.31	95.5	ug/L
	Boron		13.20		ug/L
	Cadmium	1000	1,035.20	104	ug/L
	Calcium	500000	452,000.00	90.4	ug/L
	Chromium	500.0	424.00	84.8	ug/L
	Cobalt	500.0	477.54	95.5	ug/L
	Copper	500.0	470.27	94.1	ug/L
	Iron	200000	182,580.00	91.3	ug/L
	Lead	50.00	56.81	114	ug/L
	Magnesium	500000	487,170.00	97.4	ug/L
	Manganese	500.0	453.04	90.6	ug/L
	Molybdenum		1.43		ug/L
	Nickel	1000	922.97	92.3	ug/L
	Potassium		-52.98		ug/L
	Selenium	50.00	51.44	103	ug/L
	Silver	200.0	188.59	94.3	ug/L
	Sodium		58.79		ug/L
	Strontium		-5.02		ug/L
	Thallium	100.0	87.88	87.9	ug/L
	Tin		0.76		ug/L
	Titanium		-5.56		ug/L
	Vanadium	500.0	436.40	87.3	ug/L
	Zinc	1000	972.17	97.2	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

8102(3)-13W(20110411)

Laboratory: Empirical Laboratories, LLC

SDG: 1104114

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Solid

Batch: 1D13003

% Solids: 67.25

Source Sample Name: **1104114-05**

ANALYTE	SPIKE ADDED (mg/Kg dry)	SAMPLE CONCENTRATION (mg/Kg dry)	MS CONCENTRATION (mg/Kg dry)	MS % REC.	Q	QC LIMITS REC.
Copper	73.61	27.98	106.7	107		80 - 120
Lead	73.61	25.85	100.9	102		80 - 120

ANALYTE	SPIKE ADDED (mg/Kg dry)	MSD CONCENTRATION (mg/Kg dry)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Copper	73.61	107.0	107	0.353		20	80 - 120
Lead	73.61	104.4	107	3.39		20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

8102(3)-13W(20110411)

Laboratory: Empirical Laboratories, LLC

Client: Arcadis (A285)

Matrix: Solid

Batch: 1D13003

Preparation: MET_3050B

SDG: 1104114

Project: Radford Army Ammunition Plant2010

Laboratory ID: 1D13003-PS1

Lab Source ID: 1104114-05

Initial/Final: 1.01 g / 200 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Copper	357.2	95.02	250.0	105	80 - 120
Lead	355.0	87.80	250.0	107	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1104114
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1D13003	Laboratory ID:	1D13003-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Copper	50.00	51.53	103	80 - 120
Lead	50.00	52.64	105	80 - 120

SERIAL DILUTION

SW6010B

8102(3)-13W(20110411)

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Solid
Sequence: 1D11028
Preparation: MET_3050B

SDG: 1104114
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1D13003-DUP1
Lab Source ID: 1104114-05
Initial/Final: 1.01 / 200

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Copper	95.016	93	-2.12		SW6010B	10.00
Lead	87.797	89.13	1.52		SW6010B	10.00

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1104114

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Copper	0.800	2.00	mg/Kg	SW6010B
Lead	0.300	0.600	mg/Kg	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104114

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Copper	224.7	0.0000000	0.0000000	0.0002930	0.0000000	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104114

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	B	Ba	Be	Cd
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104114

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Co	Cr	Cu	K	Mn
Copper	224.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104114

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Mo	Na	Ni	Pb	Sb
Copper	224.7	0.0018210	0.0000000	-0.0088250	0.0030200	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104114

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Copper	224.7	0.0000000	0.0000000	0.0002300	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1104114

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Copper	224.7	0.0000000				
Lead	220.3	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1104114

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Copper	15	10000	P
Lead	15	10000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1104114

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1D13003 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
8102A-1NW(20110411)	1104114-01	04/13/11 07:40	0.98	200.00
6-1NW(20110411)	1104114-02	04/13/11 07:40	1.03	200.00
504-20N(20110411)	1104114-03	04/13/11 07:40	1.09	200.00
504-22E(20110411)	1104114-04	04/13/11 07:40	0.95	200.00
8102(3)-13W(20110411)	1104114-05	04/13/11 07:40	1.01	200.00
Blank	1D13003-BLK1	04/13/11 07:40	1.00	200.00
LCS	1D13003-BS1	04/13/11 07:40	1.00	200.00
8102(3)-13W(20110411)	1D13003-DUP1	04/13/11 07:40	1.01	200.00
8102(3)-13W(20110411)	1D13003-MS1	04/13/11 07:40	1.01	200.00
8102(3)-13W(20110411)	1D13003-MSD1	04/13/11 07:40	1.01	200.00
8102(3)-13W(20110411)	1D13003-PS1	04/13/11 07:40	1.01	200.00

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1D11028
Instrument: ME-ICP
Calibration: 1110004

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1D11028-CAL1	041911A-001	04/19/11 11:12
Cal Standard	1D11028-CAL2	041911A-002	04/19/11 11:17
Cal Standard	1D11028-CAL3	041911A-003	04/19/11 11:22
Cal Standard	1D11028-CAL4	041911A-004	04/19/11 11:26
Cal Standard	1D11028-CAL5	041911A-005	04/19/11 11:31
Cal Standard	1D11028-CAL6	041911A-006	04/19/11 11:36
Cal Standard	1D11028-CAL7	041911A-007	04/19/11 11:42
Cal Standard	1D11028-CAL8	041911A-008	04/19/11 11:48
Initial Cal Check	1D11028-ICV1	041911B-001	04/19/11 12:24
Initial Cal Blank	1D11028-ICB1	041911B-002	04/19/11 12:31
Instrument RL Check	1D11028-CRL1	041911B-003	04/19/11 12:36
Interference Check A	1D11028-IFA1	041911B-006	04/19/11 12:52
Interference Check B	1D11028-IFB1	041911B-007	04/19/11 12:58
Calibration Check	1D11028-CCV1	041911B-009	04/19/11 13:09
Calibration Blank	1D11028-CCB1	041911B-010	04/19/11 13:17
Calibration Check	1D11028-CCV5	041911C-027	04/19/11 19:36
Calibration Blank	1D11028-CCB5	041911C-028	04/19/11 19:43
Blank	1D13003-BLK1	041911C-029	04/19/11 19:48
LCS	1D13003-BS1	041911C-030	04/19/11 19:52
8102A-1NW(20110411)	1104114-01	041911C-031	04/19/11 19:59
6-1NW(20110411)	1104114-02	041911C-032	04/19/11 20:03
504-20N(20110411)	1104114-03	041911C-033	04/19/11 20:08
504-22E(20110411)	1104114-04	041911C-034	04/19/11 20:12
8102(3)-13W(20110411)	1104114-05	041911C-035	04/19/11 20:17
8102(3)-13W(20110411)	1D13003-MS1	041911C-036	04/19/11 20:21
8102(3)-13W(20110411)	1D13003-MSD1	041911C-037	04/19/11 20:26
8102(3)-13W(20110411)	1D13003-PS1	041911C-038	04/19/11 20:30
8102(3)-13W(20110411)	1D13003-DUP1	041911C-039	04/19/11 20:36
Calibration Check	1D11028-CCV6	041911C-040	04/19/11 20:42
Calibration Blank	1D11028-CCB6	041911C-041	04/19/11 20:49

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1110004
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/19/11 11:12 4/19/11 11:48

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.8154E-05	10000	1.8331E-05			500000	1.8598E-05		
Antimony	0	0	100	0.0008076	1000	8.6874E-04					10000	8.5731E-04
Arsenic	0	0	100	0.000343	1000	3.8251E-04					10000	3.6912E-04
Barium	0	0	50	0.0134122	1000	0.013034	5000	0.0126906				
Beryllium	0	0	100	0.0028117	1000	0.0027578					10000	0.0026444
Boron	0	0	50	0.0000128	1000	1.334E-05					5000	1.3068E-05
Cadmium	0	0	100	0.015519	1000	0.015893					10000	0.014815
Calcium	0	0	1100	4.113636E-05	50000	3.9362E-05					10000	
Chromium	0	0	100	0.0000368	1000	0.0000348					10000	3.5259E-05
Cobalt	0	0	100	0.0065139	1000	0.006611					10000	0.006604
Copper	0	0	100	0.0000843	1000	8.102E-05					10000	8.0001E-05
Iron	0	0	5100	1.50902E-05	10000	1.4013E-05			500000	1.4346E-05	10000	
Lead	0	0	100	0.0014458	1000	0.0014477					10000	0.0014518
Magnesium	0	0	5100		50000	1.6138E-06			500000	1.78492E-06	10000	
Manganese	0	0	100	0.0002392	1000	0.00023	10000	2.1431E-04			10000	
Molybdenum	0	0	100	0.0042976	1000	0.0045379					10000	0.004426
Nickel	0	0	100	0.0036057	1000	0.0035398					10000	0.0034854
Potassium	0	0	1000	8.030001E-06	10000	9.747E-06						
Selenium	0	0	100	0.0004729	1000	4.7522E-04					10000	4.6134E-04
Silver	0	0	20	0.000054	500	5.156E-05	2000	5.1215E-05				
Sodium	0	0	1000		50000	4.1492E-05						
Strontium	0	0	100	0.00158	1000	0.001524					10000	0.001536
Thallium	0	0	100	0.000905	1000	9.1364E-04					10000	9.1076E-04
Tin	0	0	50	0.0013324	1000	0.0013847					5000	1.35384E-03
Titanium	0	0	100	0.0002164	1000	2.0683E-04					10000	2.1076E-04
Vanadium	0	0	100	0.0000435	1000	4.151E-05					10000	4.1303E-05
Zinc	0	0	100	0.0059427	1000	0.0062239					10000	0.005918

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1110004
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/19/11 11:12 4/19/11 11:48

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	3.8236E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.6757E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.0131E-05										
Selenium												
Silver												
Sodium	100000	4.2911E-05	500000	0.0000429								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1104114
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1110004
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 4/19/11 11:12 4/19/11 11:48

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.377075E-05	66.67984	8.062005	182.4825	0.9999999		0.998	
Antimony	6.334125E-04	66.79822	4.194153	134.7617	0.999997		0.998	
Arsenic	2.736575E-04	66.9357	4.440225	153.6878	0.9999831		0.998	
Barium	0.0097842	66.73468	3.483207	130.0635	0.9999709		0.998	
Beryllium	2.053475E-03	66.75308	2.564237	132.7977	0.9999836		0.998	
Boron	9.802E-06	66.70459	16.01786	190.0127	0.9999808		0.998	
Cadmium	1.155675E-02	66.77873	3.78984	152.4635	0.9999498		0.998	
Calcium	2.968359E-05	66.78788	2.013183	126.1209	0.9999918		0.998	
Chromium	2.671475E-05	66.74352	4.73897	171.4899	0.9999976		0.998	
Cobalt	4.932225E-03	66.67269	4.275465	154.884	0.9999999		0.998	
Copper	6.133025E-05	66.73372	1.883443	137.7451	0.9999992		0.998	
Iron	1.08623E-05	66.79544	31.99572	194.6655	0.9999993		0.998	
Lead	1.086325E-03	66.66706	38.91587	193.2082	0.9999999		0.998	
Magnesium	1.268605E-06	66.89949	17.10319	191.7309	0.9998408		0.998	
Manganese	1.708775E-04	66.93734	10.08231	173.1061	0.9999524		0.998	
Molybdenum	3.315375E-03	66.73241	16.42153	188.6469	0.9999929		0.998	
Nickel	2.657725E-03	66.69235	1.845545	108.8512	0.9999984		0.998	
Potassium	6.977E-06	67.94011	4.250825	137.1076	0.9999946		0.998	
Selenium	3.52365E-04	66.68893	8.004945	174.6824	0.9999925		0.998	
Silver	3.919375E-05	66.74164	3.07386	101.9411	0.9999981		0.998	
Sodium	3.182575E-05	66.69953	8.28641	173.7676	0.9999871		0.998	
Strontium	0.00116	66.69896	2.79425	123.7653	0.9999991		0.998	
Thallium	6.8235E-04	66.66874	13.17056	181.2485	0.9999998		0.998	
Tin	1.017735E-03	66.70002	23.05877	190.8629	0.9999764		0.998	
Titanium	1.584975E-04	66.71271	3.306415	161.1227	0.9999958		0.998	
Vanadium	3.157825E-05	66.74042	2.53606	149.5397	0.9999999		0.998	
Zinc	4.52115E-03	66.73726	82.4444	197.694	0.9999733		0.998	

Data for SW6010B
Supporting Raw Data / Logs

Sample Name: SEQ-CAL1 Acquired: 4/19/2011 11:12:18 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00005**	**-.00026**	**-.00115**	**.00187**	**-.00060**	**.00001**	**.00612**
Stddev	.00000	.00008	.00017	.00049	.00022	.00000	.00062
%RSD	7.6306	30.115	14.536	26.391	35.893	61.671	10.131
#1	.00005	-.00029	-.00130	.00130	-.00081	.00001	.00598
#2	.00006	-.00017	-.00117	.00211	-.00062	.00001	.00679
#3	.00006	-.00032	-.00097	.00219	-.00038	.00000	.00557

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00004**	**.00027**	**.00438**	**.03465**	**.00557**	**-.00001**	**.0000**
Stddev	.00000	.00002	.00054	.00006	.00078	.00000	.0000
%RSD	7.6186	5.7722	12.289	.18145	14.082	16.905	382.4
#1	.00003	.00027	.00498	.03458	.00468	-.00001	.0000
#2	.00004	.00025	.00394	.03471	.00584	-.00002	.0000
#3	.00004	.00028	.00422	.03465	.00617	-.00001	.0000

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00031**	**.00002**	**-.00138**	.00001	**.00001**	**.00085**	**.00654**
Stddev	.00002	.00003	.00018	.00001	.00000	.00053	.00195
%RSD	5.7438	125.42	12.992	66.286	36.227	62.861	29.869
#1	.00030	-.00001	-.00136	.00000	.00001	.00145	.00675
#2	.00033	.00003	-.00120	.00002	.00001	.00065	.00839
#3	.00030	.00004	-.00156	.00002	.00001	.00044	.00449

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.01230**	**.00068**	**-.00179**	**.00164**	**-.00044**	**-.0004**	**.00030**
Stddev	.00054	.00103	.00023	.00047	.00039	.0000	.00003
%RSD	4.4224	151.69	12.600	28.937	89.061	7.928	11.243
#1	.01181	-.00042	-.00158	.00198	-.00067	-.0004	.00032
#2	.01219	.00161	-.00176	.00110	-.00066	-.0004	.00026
#3	.01289	.00084	-.00203	.00185	.00001	-.0004	.00031

Sample Name: SEQ-CAL1 Acquired: 4/19/2011 11:12:18 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S
Avg	**-.00111**	**.00006**	**-.00011**
Stddev	.00054	.00000	.00036
%RSD	48.952	8.1768	326.92
#1	-.00122	.00006	-.00050
#2	-.00052	.00005	.00022
#3	-.00159	.00005	-.00006

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1604.4	710600.	96943.
Stddev	2.3	32159.	941.
%RSD	.14479	4.5256	.97106
#1	1602.7	726740.	96925.
#2	1603.5	673570.	96010.
#3	1607.1	731510.	97893.

Sample Name: SEQ-CAL2 Acquired: 4/19/2011 11:17:23 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00108**	**.09077**	**.03430**	**.03533**	**.01086**	**.00064**	**.67061**	**.28117**
Stddev	.00001	.00022	.00011	.00067	.00069	.00000	.00194	.00068
%RSD	1.2659	.23837	.31438	1.8868	6.3771	.62914	.28923	.24340
#1	.00107	.09095	.03428	.03576	.01009	.00064	.67085	.28163
#2	.00110	.09053	.03420	.03565	.01143	.00064	.67242	.28038
#3	.00108	.09082	.03441	.03456	.01106	.00065	.66857	.28149

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04525**	**1.5519**	**.98180**	**.65139**	**.00368**	**.0002**	**.00843**	**.07696**
Stddev	.00020	.0032	.00134	.00178	.00001	.0000	.00003	.00021
%RSD	.44405	.20819	.13662	.27375	.17777	.7831	.31625	.27313
#1	.04508	1.5552	.98271	.65127	.00367	.0002	.00842	.07712
#2	.04521	1.5516	.98243	.65323	.00368	.0002	.00846	.07672
#3	.04547	1.5488	.98026	.64966	.00368	.0002	.00841	.07704

Elem	K_7664	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00803**	**.02392**	**.42976**	**.36057**	**.14458**	**.08076**	**.04729**	**.06662**
Stddev	.00010	.00009	.00067	.00145	.00168	.00116	.00020	.00043
%RSD	1.2946	.39644	.15627	.40148	1.1587	1.4381	.42999	.64867
#1	.00810	.02382	.43053	.36001	.14536	.07942	.04747	.06694
#2	.00809	.02401	.42932	.36222	.14572	.08138	.04733	.06678
#3	.00791	.02393	.42943	.35949	.14265	.08148	.04707	.06613

Elem	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1580**	**.02164**	**.09050**	**.00435**	**.59427**
Stddev	.0006	.00003	.00080	.00002	.00128
%RSD	.3830	.15429	.88706	.40258	.21596
#1	.1585	.02168	.09101	.00435	.59290
#2	.1573	.02161	.09093	.00437	.59544
#3	.1581	.02164	.08958	.00433	.59447

Sample Name: SEQ-CAL2 Acquired: 4/19/2011 11:17:23 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1576.4	721500.	96652.
Stddev	1.6	3165.	123.
%RSD	.10067	.43869	.12758
#1	1575.6	725150.	96641.
#2	1575.4	719410.	96781.
#3	1578.3	719960.	96535.

Sample Name: SEQ-CAL3 Acquired: 4/19/2011 11:22:07 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02578**	**.18331**	**.38251**	**.36310**	**.12355**	**.01334**	**13.034**	**2.7578**
Stddev	.00020	.00268	.01020	.01002	.00307	.00014	.330	.0397
%RSD	.79214	1.4600	2.6671	2.7601	2.4827	1.0523	2.5354	1.4406
#1	.02589	.18067	.39429	.37466	.12705	.01349	13.416	2.7257
#2	.02554	.18602	.37669	.35679	.12226	.01321	12.838	2.8022
#3	.02590	.18323	.37655	.35785	.12133	.01333	12.849	2.7454

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.9681**	**15.893**	**10.088**	**6.6110**	**.03480**	**.0019**	**.08102**	**.14013**
Stddev	.0263	.406	.238	.1650	.00048	.0000	.00086	.00199
%RSD	1.3366	2.5569	2.3576	2.4963	1.3859	1.038	1.0564	1.4227
#1	1.9462	16.362	10.362	6.8016	.03535	.0019	.08195	.13855
#2	1.9973	15.657	9.9334	6.5136	.03446	.0019	.08027	.14237
#3	1.9609	15.660	9.9691	6.5179	.03459	.0019	.08085	.13946

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.09747**	**.08069**	**.23000**	**4.5379**	**2.0746**	**3.5398**	**1.4477**	**.86874**
Stddev	.00143	.00112	.00262	.1125	.0140	.0867	.0369	.01973
%RSD	1.4670	1.3862	1.1374	2.4785	.67276	2.4496	2.5509	2.2706
#1	.09584	.07973	.23278	4.6676	2.0595	3.6399	1.4903	.89150
#2	.09851	.08192	.22759	4.4687	2.0871	3.4898	1.4269	.85656
#3	.09805	.08043	.22963	4.4773	2.0772	3.4896	1.4258	.85817

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.47522**	**1.3847**	**1.524**	**.20683**	**.91364**	**.04151**	**6.2239**
Stddev	.01088	.0319	.021	.00318	.02271	.00056	.1587
%RSD	2.2895	2.3036	1.387	1.5356	2.4859	1.3424	2.5493
#1	.48778	1.4214	1.505	.20395	.93987	.04213	6.4071
#2	.46894	1.3642	1.547	.21024	.90060	.04105	6.1327
#3	.46893	1.3684	1.520	.20629	.90046	.04136	6.1319

Sample Name: SEQ-CAL3 Acquired: 4/19/2011 11:22:07 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1426.2	700770.	97198.
Stddev	31.1	7290.	1177.
%RSD	2.1777	1.0402	1.2109
#1	1390.4	693750.	98387.
#2	1445.8	708310.	96033.
#3	1442.4	700260.	97174.

Sample Name: SEQ-CAL4 Acquired: 4/19/2011 11:26:52 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Ba2335	Mn2576
Units	Cts/S	Cts/S	Cts/S
Avg	**.10243**	**63.453**	**2.1431**
Stddev	.00267	.620	.0550
%RSD	2.6068	.97720	2.5684
#1	.10490	62.792	2.1902
#2	.09959	63.546	2.0826
#3	.10279	64.022	2.1565

Int. Std.	Sc1880	Sc3613
Units	Cts/S	Cts/S
Avg	1578.1	736450.
Stddev	15.1	17438.
%RSD	.95560	2.3678
#1	1594.6	721270.
#2	1574.8	755500.
#3	1564.9	732580.

Sample Name: SEQ-CAL5 Acquired: 4/19/2011 11:31:58 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Fe2611	Mg2790
Units	Cts/S	Cts/S	Cts/S
Avg	**9.2990**	**7.1730**	**.89246**
Stddev	.0404	.0622	.00404
%RSD	.43465	.86705	.45286
#1	9.3392	7.1414	.88895
#2	9.2993	7.1330	.89154
#3	9.2584	7.2447	.89688

Int. Std.	Sc3613-2
Units	Cts/S
Avg	91206.
Stddev	358.
%RSD	.39245
#1	91507.
#2	91301.
#3	90810.

Sample Name: SEQ-CAL6 Acquired: 4/19/2011 11:36:53 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	As1972	As2003	B_2496	Be3130	Cd2144	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.6912**	**3.5368**	**1.1989**	**.06534**	**26.444**	**148.15**	**93.445**	**66.040**
Stddev	.0090	.0118	.0030	.00047	.252	.16	.188	.165
%RSD	.24342	.33482	.24942	.71899	.95435	.10527	.20103	.24981
#1	3.6820	3.5236	1.1955	.06569	26.715	147.98	93.229	65.864
#2	3.7000	3.5463	1.1999	.06481	26.400	148.22	93.567	66.191
#3	3.6917	3.5406	1.2012	.06553	26.216	148.26	93.540	66.064

Elem	Cr2677	Cu2199	Cu3247	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.35259**	**.0191**	**.80001**	**44.260**	**34.854**	**14.518**	**8.5731**	**4.6134**
Stddev	.00172	.0001	.00334	.084	.038	.038	.0401	.0168
%RSD	.48721	.3544	.41732	.19037	.10870	.26389	.46791	.36329
#1	.35457	.0191	.80149	44.164	34.812	14.474	8.5315	4.5948
#2	.35143	.0190	.79618	44.319	34.865	14.546	8.6115	4.6273
#3	.35178	.0191	.80235	44.298	34.885	14.534	8.5762	4.6182

Elem	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.7692**	**15.36**	**2.1076**	**9.1076**	**.41303**	**59.180**
Stddev	.0150	.23	.0062	.0325	.00092	.055
%RSD	.22182	1.479	.29277	.35730	.22246	.09233
#1	6.7521	15.61	2.1146	9.0707	.41406	59.180
#2	6.7758	15.27	2.1029	9.1320	.41274	59.125
#3	6.7799	15.18	2.1053	9.1202	.41230	59.234

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1445.3	710500.	96580.
Stddev	2.2	1874.	407.
%RSD	.15557	.26377	.42139
#1	1447.6	709490.	96110.
#2	1443.2	712660.	96798.
#3	1445.2	709340.	96831.

Sample Name: SEQ-CAL7 Acquired: 4/19/2011 11:42:22 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	K_7664	Na5895
Units	Cts/S	Cts/S
Avg	**1.0131**	**4.2911**
Stddev	.0127	.0805
%RSD	1.2497	1.8767
#1	1.0148	4.3424
#2	.99970	4.1983
#3	1.0248	4.3325

Int. Std.	Sc3613-2
Units	Cts/S
Avg	96023.
Stddev	662.
%RSD	.68944
#1	96228.
#2	96558.
#3	95282.

Sample Name: SEQ-CAL8 Acquired: 4/19/2011 11:48:08 Type: Cal
Method: DuoEnviroMethodNEW(v2149) Mode: IR Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ca3179	Mg2790	Na5895
Units	Cts/S	Cts/S	Cts/S
Avg	**19.118**	**.16757**	**21.450**
Stddev	.096	.00048	.156
%RSD	.49988	.28771	.72718
#1	19.009	.16788	21.619
#2	19.160	.16702	21.420
#3	19.185	.16783	21.311

Int. Std.	Sc3613-2
Units	Cts/S
Avg	90769.
Stddev	237.
%RSD	.26068
#1	90545.
#2	91017.
#3	90745.

Sample Name: SEQ-ICV Acquired: 4/19/2011 12:24:15 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0376

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**502.21**	**9880.9**	**1020.6**	**1026.6**	**1024.5**	F **1052.9**	**1028.5**
Stddev	4.94	31.4	11.3	9.6	3.4	12.4	10.9
%RSD	.98348	.31786	1.1030	.93136	.33031	1.1733	1.0643
#1	507.30	9875.0	1015.9	1024.5	1020.9	1066.8	1025.5
#2	497.44	9852.8	1012.5	1018.4	1024.8	1043.3	1019.3
#3	501.88	9914.8	1033.4	1037.1	1027.7	1048.6	1040.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						1000.0	
Range						±50.000	

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1034.3**	**51.073**	F **1077.8**	F **1071.0**	**1003.4**	**968.34**	**997.1**
Stddev	2.4	.112	12.7	9.5	11.5	9.64	8.1
%RSD	.22844	.21842	1.1821	.88351	1.1491	.99516	.8078
#1	1036.2	51.137	1076.0	1068.7	1001.1	979.41	1006.
#2	1031.7	51.138	1066.1	1062.9	993.26	961.78	989.5
#3	1035.0	50.944	1091.4	1081.4	1016.0	963.85	996.3
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			1000.0	1000.0			
Range			±50.000	±50.000			

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1003.7**	**9845.2**	F **9.0172**	**50.196**	F **1062.9**	1031.6	**50.320**
Stddev	12.0	23.6	.0116	.106	9.2	11.0	.238
%RSD	1.1985	.23940	.12804	.21032	.86864	1.0707	.47302
#1	1015.5	9870.8	9.0075	50.289	1073.5	1027.2	50.384
#2	991.45	9824.3	9.0299	50.216	1056.3	1023.4	50.057
#3	1004.3	9840.6	9.0141	50.081	1059.1	1044.2	50.520
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value			10.000		1000.0		
Range			±-.50000		±50.000		

Sample Name: SEQ-ICV Acquired: 4/19/2011 12:24:15 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0376

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**997.05**	**992.20**	**1009.4**	**1015.0**	**1003.1**	**1019.**	**996.28**
Stddev	9.97	9.46	9.7	8.0	8.9	4.	2.14
%RSD	.99950	.95375	.95804	.78937	.89073	.3633	.21476
#1	993.64	988.56	1005.9	1014.3	1001.9	1018.	997.48
#2	989.23	985.10	1001.9	1007.4	994.86	1015.	993.80
#3	1008.3	1002.9	1020.3	1023.4	1012.6	1023.	997.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**982.44**	**1008.8**	10**23.7**
Stddev	9.92	9.7	11.1
%RSD	1.0096	.95805	1.0797
#1	980.38	1019.7	1021.2
#2	973.71	1001.5	1014.2
#3	993.23	1005.1	1035.8
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1409.7	696350.	96273.
Stddev	13.7	5882.	220.
%RSD	.97469	.84463	.22830
#1	1412.0	689990.	96064.
#2	1422.1	701600.	96252.
#3	1394.9	697460.	96502.

Sample Name: SEQ-ICB Acquired: 4/19/2011 12:31:53 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.15475**	**-1.6706**	**.21931**	**.31274**	F **4.0542**	**1.0320**	**.09001**
Stddev	.16362	6.8428	.78639	1.7184	3.6194	.1395	.04853
%RSD	105.73	409.61	358.58	549.47	89.274	13.519	53.914
#1	-.11096	-.07302	.93909	1.3301	6.0049	1.0081	.14570
#2	-.33581	4.2321	-.62001	-1.6713	-.12206	.90594	.05684
#3	-.01749	-9.1708	.33884	1.2794	6.2798	1.1819	.06748
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					3.0000		
Low Limit					-3.0000		

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**-.00402**	**.00088**	**.06915**	**.22662**	**.05368**	**.15018**	**-.4007**
Stddev	.00894	.00208	.03079	.06652	.04397	.11218	.1673
%RSD	222.54	236.10	44.522	29.355	81.914	74.697	41.75
#1	-.01431	.00099	.08572	.15538	.07755	.03438	-.3030
#2	.00170	-.00125	.08811	.23735	.00294	.15780	-.3052
#3	.00057	.00290	.03363	.28713	.08057	.25836	-.5938
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**-.05851**	**.70759**	**-.01031**	**-.00072**	**.03318**	**.57530**	**.07605**
Stddev	.09967	.54364	.00350	.00994	.03821	.09415	.09254
%RSD	170.34	76.829	33.917	1381.5	115.17	16.365	121.69
#1	-.17149	1.3013	-.00993	.00888	.00146	.66030	.17559
#2	.01699	.23422	-.00702	-.01098	.02246	.59148	.05993
#3	-.02104	.58724	-.01398	-.00006	.07560	.47410	-.00738
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: SEQ-ICB Acquired: 4/19/2011 12:31:53 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.11655**	**.43642**	**-.28779**	**.48287**	**.12119**	**.0213**	**.07733**
Stddev	.06598	.10146	.35574	1.5590	.12876	.0225	.19009
%RSD	56.616	23.247	123.61	322.87	106.24	106.0	245.82
#1	.07390	.36793	-.44759	2.1948	.20814	.0467	.29671
#2	.08319	.38835	.11982	.10903	.18217	.0037	-.02612
#3	.19255	.55298	-.53561	-.85526	-.02673	.0134	-.03860
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.12514**	**-.15718**	**.08260**
Stddev	.48421	.22954	.06317
%RSD	386.94	146.04	76.478
#1	.34905	-.16851	.14121
#2	-.10567	.07782	.01569
#3	-.61879	-.38084	.09090
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1586.5	722080.	97521.
Stddev	12.0	5436.	542.
%RSD	.75706	.75276	.55542
#1	1576.2	726450.	97736.
#2	1599.7	715990.	96904.
#3	1583.6	723790.	97921.

Sample Name: SEQ-CRL Acquired: 4/19/2011 12:36:52 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.9958**	**107.52**	**6.1591**	F **3.2405**	F **9.5145**	**17.210**	**10.465**
Stddev	.0886	1.39	1.2565	2.1589	3.2383	.578	.077
%RSD	4.4371	1.2911	20.401	66.623	34.035	3.3556	.73243
#1	1.9114	108.91	4.7688	5.6614	6.4722	16.572	10.498
#2	2.0880	106.14	6.4947	1.5149	12.918	17.698	10.377
#3	1.9879	107.51	7.2137	2.5451	9.1530	17.361	10.519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	None	Chk Pass
Value				6.0000	6.0000		
Range				±-1.2000	±1.2000		

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.1448**	**2.0513**	**2.2330**	**2.1919**	**9.8572**	**4.1292**	**7.949**
Stddev	.0170	.0010	.0155	.0633	.1485	.0755	.759
%RSD	.79288	.04756	.69613	2.8889	1.5069	1.8281	9.551
#1	2.1331	2.0519	2.2507	2.1291	9.8703	4.0736	7.089
#2	2.1369	2.0502	2.2218	2.1910	9.7026	4.2151	8.527
#3	2.1643	2.0519	2.2265	2.2557	9.9988	4.0988	8.231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**7.9323**	**62.484**	**2.8762**	**2.8896**	**6.6760**	**9.6746**	**3.0536**
Stddev	.1908	1.066	.0289	.0042	.0672	.0968	.0707
%RSD	2.4058	1.7056	1.0042	.14673	1.0060	1.0002	2.3136
#1	7.9364	61.479	2.8934	2.8944	6.6125	9.5855	3.0418
#2	8.1211	62.371	2.8923	2.8882	6.7463	9.6609	3.1293
#3	7.7395	63.602	2.8428	2.8862	6.6694	9.7776	2.9895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CRL Acquired: 4/19/2011 12:36:52 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: RLSTDA

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.1742**	**3.0346**	**7.6597**	**6.2864**	**19.789**	**6.069**	**10.072**
Stddev	.0723	.2969	.2960	.7332	.089	.026	.074
%RSD	1.1708	9.7847	3.8639	11.664	.44845	.4329	.73244
#1	6.1823	2.9073	7.6357	5.8227	19.865	6.098	10.088
#2	6.0982	3.3739	7.9670	7.1317	19.811	6.047	10.136
#3	6.2421	2.8225	7.3765	5.9048	19.692	6.062	9.9914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**4.2036**	**10.136**	**9.8982**
Stddev	.2934	.304	.1041
%RSD	6.9799	2.9984	1.0516
#1	4.3187	9.8124	10.017
#2	4.4220	10.415	9.8521
#3	3.8701	10.181	9.8252
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1542.5	714890.	97026.
Stddev	5.6	8531.	77.
%RSD	.36145	1.1933	.07976
#1	1539.1	724170.	97045.
#2	1548.9	707380.	97093.
#3	1539.4	713120.	96942.

Sample Name: SEQ-IFA Acquired: 4/19/2011 12:52:23 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.58501**	**503940.**	**-3.8898**	**-2.9160**	**3.5919**	**4.5846**	**-.42689**
Stddev	.25436	7436.	1.8801	1.7653	3.6636	1.7551	.11137
%RSD	43.480	1.4756	48.334	60.540	102.00	38.282	26.088
#1	-.49142	511980.	-4.3637	-4.9243	6.2471	6.6085	-.55032
#2	-.39070	497310.	-5.4876	-2.2138	-.58780	3.4836	-.33392
#3	-.87291	502520.	-1.8181	-1.6098	5.1165	3.6615	-.39643

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.00711**	**477.54**	**1.7671**	**-1.9753**	**.45191**	**-1.5055**	**-2.417**
Stddev	.00814	5.62	.1184	.0474	.29383	.2158	1.809
%RSD	114.55	1.1770	6.7020	2.4016	65.019	14.333	74.85
#1	-.00229	479.36	1.6718	-2.0125	.26428	-1.4222	-.3395
#2	.01208	471.23	1.8997	-1.9917	.79053	-1.7505	-3.644
#3	.01153	482.02	1.7299	-1.9219	.30092	-1.3438	-3.269

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**-5.1106**	**187840.**	**-.07823**	**506.90**	**4.7017**	**.33115**	**.00254**
Stddev	.1720	2286.	.01101	7.63	.1417	.08849	.04621
%RSD	3.3661	1.2171	14.078	1.5061	3.0144	26.722	1822.6
#1	-5.2958	189260.	-.07138	513.86	4.5409	.43219	.04852
#2	-5.0802	185200.	-.07237	498.74	4.7556	.29389	-.04390
#3	-4.9559	189060.	-.09093	508.10	4.8085	.26739	.00299

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.14854**	**9.5024**	**-1.4578**	**1.6906**	**1.0514**	**-5.349**	**-6.1553**
Stddev	.50138	1.6776	1.2280	3.5796	.0691	.063	.1782
%RSD	337.55	17.655	84.237	211.73	6.5685	1.184	2.8957
#1	-.33475	10.454	-.20157	4.9484	1.1081	-5.374	-5.9748
#2	.41931	10.488	-1.5163	2.2649	1.0717	-5.277	-6.1600
#3	-.53016	7.5654	-2.6555	-2.1414	.97449	-5.396	-6.3312

Sample Name: SEQ-IFA Acquired: 4/19/2011 12:52:23 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**1.1072**	**.51503**	**7.3943**
Stddev	2.7577	.10416	.0733
%RSD	249.07	20.224	.99095
#1	4.2800	.47822	7.4785
#2	-.24573	.43427	7.3597
#3	-.71277	.63259	7.3447
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1134.2	634540.	92670.
Stddev	3.0	5517.	1166.
%RSD	.26494	.86938	1.2586
#1	1131.4	640810.	91524.
#2	1133.9	632380.	93856.
#3	1137.4	630430.	92629.

Sample Name: SEQ-IFB Acquired: 4/19/2011 12:58:16 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**188.59**	**482990.**	**104.84**	**107.78**	**106.97**	**13.198**	**516.79**
Stddev	8.59	1061.	.70	1.05	8.09	4.944	3.68
%RSD	4.5526	.21973	.66724	.97731	7.5634	37.459	.71211
#1	195.17	484220.	105.61	106.72	98.582	10.885	513.36
#2	178.88	482430.	104.25	108.83	114.73	18.874	516.33
#3	191.74	482330.	104.65	107.78	107.60	9.8342	520.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**477.31**	**452.00**	**1035.2**	**1117.3**	**477.54**	**424.00**	**431.8**
Stddev	3.51	2.83	7.6	6.7	3.67	19.18	16.1
%RSD	.73564	.62618	.73011	.60261	.76812	4.5240	3.726
#1	480.84	453.49	1029.6	1111.9	474.65	436.59	443.5
#2	477.28	453.77	1032.2	1115.1	476.30	401.92	413.5
#3	473.82	448.74	1043.8	1124.8	481.67	433.48	438.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**470.27**	**182580.**	**-.05298**	**487.17**	**453.04**	**1.4259**	**.05879**
Stddev	21.81	1151.	.01688	2.08	20.32	.0655	.05110
%RSD	4.6379	.63053	31.866	.42664	4.4860	4.5956	86.906
#1	485.59	183290.	-.07185	488.84	467.67	1.4989	.00136
#2	445.30	183190.	-.04777	487.84	429.84	1.3720	.07581
#3	479.93	181250.	-.03932	484.84	461.63	1.4069	.09921
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	None
Value							
Range							

Sample Name: SEQ-IFB Acquired: 4/19/2011 12:58:16 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**922.97**	**56.806**	**632.90**	**51.439**	**.75880**	**-5.016**	**-5.5644**
Stddev	5.31	2.923	7.40	4.549	.65410	.028	.1421
%RSD	.57573	5.1457	1.1697	8.8438	86.201	.5586	2.5533
#1	919.22	54.649	625.95	48.589	.06515	-5.030	-5.6811
#2	920.63	55.636	632.08	49.042	1.3644	-5.035	-5.6058
#3	929.05	60.132	640.68	56.685	.84684	-4.984	-5.4062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**87.883**	**436.40**	**972.17**
Stddev	.578	19.77	4.52
%RSD	.65788	4.5301	.46474
#1	88.525	451.07	969.23
#2	87.721	413.92	969.91
#3	87.403	444.21	977.38
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1143.1	663550.	94180.
Stddev	8.1	30650.	434.
%RSD	.70697	4.6191	.46044
#1	1150.8	642140.	93788.
#2	1144.0	698660.	94105.
#3	1134.7	649850.	94646.

Sample Name: SEQ-CCV Acquired: 4/19/2011 13:09:43 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0377

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**488.70**	**9822.1**	**1016.4**	**1048.1**	**1024.1**	**1021.7**	**1026.0**
Stddev	5.88	17.8	5.9	11.4	6.5	9.6	6.4
%RSD	1.2034	.18169	.58094	1.0848	.63903	.93898	.62742
#1	487.20	9841.0	1019.4	1060.2	1031.2	1021.4	1031.1
#2	483.72	9805.5	1009.6	1037.6	1018.2	1012.3	1018.7
#3	495.19	9819.8	1020.2	1046.5	1023.1	1031.5	1028.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1072.3**	**50.547**	F **1101.2**	**1061.3**	**1023.6**	**1026.1**	**1002.**
Stddev	4.5	.188	5.3	5.2	6.5	6.6	9.
%RSD	.42027	.37157	.48054	.48817	.63934	.63857	.8661
#1	1069.5	50.381	1106.6	1065.7	1030.3	1026.8	996.9
#2	1069.8	50.751	1096.1	1055.6	1017.2	1019.2	996.7
#3	1077.5	50.510	1100.8	1062.5	1023.3	1032.3	1012.
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1000.0				
Range			±100.00				

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1020.3**	**10193.**	**9.7471**	**50.411**	**1068.6**	**1013.5**	**50.599**
Stddev	8.7	70.	.0353	.137	8.5	6.0	.085
%RSD	.85195	.69005	.36194	.27242	.79933	.59020	.16832
#1	1019.7	10136.	9.7872	50.274	1068.7	1016.4	50.680
#2	1012.0	10172.	9.7210	50.411	1059.9	1006.6	50.510
#3	1029.3	10272.	9.7330	50.548	1077.0	1017.4	50.608
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 4/19/2011 13:09:43 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0377

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1003.9**	**1009.2**	**1035.0**	**1046.6**	**1035.6**	**1037.**	**1000.2**
Stddev	5.5	5.2	9.0	4.9	4.6	3.	2.4
%RSD	.54861	.51263	.87023	.46741	.44849	.2428	.24085
#1	1008.5	1014.1	1045.0	1051.7	1040.1	1035.	998.70
#2	997.83	1003.8	1027.6	1042.0	1030.8	1035.	998.90
#3	1005.5	1009.7	1032.3	1045.9	1035.8	1040.	1003.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**1042.3**	**1026.8**	**1023.0**
Stddev	6.0	8.2	5.5
%RSD	.57598	.79386	.53974
#1	1048.6	1027.9	1026.4
#2	1036.6	1018.1	1016.6
#3	1041.8	1034.3	1025.8
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	**1378.1**	**683020.**	**95262.**
Stddev	8.1	4715.	262.
%RSD	.58715	.69028	.27487
#1	1369.6	683340.	95461.
#2	1385.8	687570.	95361.
#3	1379.0	678160.	94966.

Sample Name: SEQ-CCB Acquired: 4/19/2011 13:17:01 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.00695**	**1.4970**	**-.04731**	**-.68295**	**2.9054**	**.93678**	**.10318**	**.10197**
Stddev	.13048	1.0944	.78056	1.5299	1.8734	.37612	.02745	.04408
%RSD	1876.6	73.109	1650.0	224.02	64.480	40.151	26.601	43.231
#1	-.13950	.30026	-.64380	-.87405	1.5280	1.1342	.09507	.15251
#2	.12135	2.4470	-.33422	-2.1083	5.0387	.50305	.08070	.08191
#3	-.00271	1.7436	.83610	.93356	2.1495	1.1730	.13376	.07148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00821**	**.03659**	**.28607**	**.06152**	**.17183**	**.0666**	**-.01950**	**2.8734**
Stddev	.00244	.03339	.06178	.06420	.12596	.5125	.25144	.8782
%RSD	29.731	91.241	21.597	104.36	73.305	769.7	1289.6	30.564
#1	.01070	.00037	.31742	-.00168	.27886	-.0937	-.27806	2.1340
#2	.00810	.06613	.32590	.12668	.20362	.6400	-.00458	2.6421
#3	.00582	.04328	.21490	.05957	.03302	-.3466	.22415	3.8441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.01403**	**.00137**	**.03646**	**.51852**	**.08317**	**.14649**	**.33469**	**-.10776**
Stddev	.00333	.00373	.00695	.15758	.11940	.01401	.35061	.39098
%RSD	23.712	273.31	19.055	30.391	143.56	9.5640	104.76	362.83
#1	-.01052	-.00103	.03680	.63251	.21704	.15819	.07906	-.23559
#2	-.01443	.00567	.02934	.58436	.04480	.15030	.73439	.33114
#3	-.01713	-.00054	.04322	.33870	-.01233	.13096	.19061	-.41882
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/19/2011 13:17:01 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.71268**	**.17715**	**.1112**	**.21450**	**-.35108**	**-.08088**	**.07246**
Stddev	.38824	.65389	.0171	.19847	.34217	.16603	.14051
%RSD	54.476	369.11	15.39	92.530	97.464	205.27	193.90
#1	1.1425	.67332	.1266	.42294	-.74586	-.22976	.22889
#2	.38748	-.56382	.1141	.02778	-.16756	.09817	-.04303
#3	.60805	.42195	.0928	.19277	-.13982	-.11106	.03153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1577.4	709610.	96327.
Stddev	12.2	9298.	228.
%RSD	.77266	1.3103	.23653
#1	1570.0	712390.	96218.
#2	1570.8	717200.	96173.
#3	1591.5	699240.	96588.

Sample Name: SEQ-CCV Acquired: 4/19/2011 19:36:05 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0377

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**482.69**	**9858.9**	**1012.9**	**1080.4**	**1008.4**	**972.24**	**1035.7**
Stddev	.95	48.9	2.7	1.8	5.9	6.74	2.7
%RSD	.19595	.49560	.26204	.16759	.58972	.69316	.26548
#1	483.43	9805.1	1013.5	1082.1	1003.4	979.99	1036.3
#2	483.02	9900.5	1010.0	1078.5	1006.7	967.75	1032.7
#3	481.62	9871.2	1015.2	1080.6	1014.9	968.98	1038.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1042.2**	**47.167**	F **1133.4**	**1061.5**	**1047.9**	**970.72**	**944.0**
Stddev	3.6	.178	3.2	4.9	2.2	12.23	3.0
%RSD	.34369	.37714	.28322	.45723	.20928	1.2600	.3172
#1	1039.1	47.013	1134.8	1060.4	1048.2	984.34	947.4
#2	1046.1	47.361	1129.7	1057.4	1045.6	967.12	943.0
#3	1041.4	47.125	1135.6	1066.9	1049.9	960.69	941.7
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1000.0				
Range			±100.00				

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1013.7**	**9745.7**	**9.8566**	**48.162**	**1023.4**	**1014.9**	**52.427**
Stddev	5.7	25.8	.0586	.041	9.2	4.5	.197
%RSD	.56419	.26462	.59408	.08542	.89649	.44828	.37658
#1	1020.3	9717.1	9.7909	48.158	1033.8	1012.7	52.224
#2	1010.0	9767.3	9.9031	48.204	1020.2	1011.9	52.619
#3	1010.9	9752.5	9.8758	48.122	1016.3	1020.2	52.437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 4/19/2011 19:36:05 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0377

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**998.20**	**1020.0**	**1085.5**	**1045.9**	**1026.3**	**1020.**	**975.33**
Stddev	3.03	3.2	3.0	3.2	2.8	5.	4.52
%RSD	.30322	.31022	.27711	.30630	.27737	.5280	.46301
#1	996.50	1020.2	1086.6	1044.5	1026.2	1015.	971.28
#2	996.42	1016.7	1082.1	1043.6	1023.5	1026.	980.20
#3	1001.7	1023.0	1087.7	1049.6	1029.2	1019.	974.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**1082.5**	**971.18**	**1016.7**
Stddev	2.8	9.88	3.9
%RSD	.26308	1.0170	.38374
#1	1085.5	982.06	1017.0
#2	1079.9	968.72	1012.7
#3	1081.9	962.77	1020.5
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1345.6	**699960.**	**97782.**
Stddev	3.0	**4672.**	197.
%RSD	.22004	.66742	.20103
#1	1344.7	694880.	97844.
#2	1348.9	700920.	97563.
#3	1343.2	704070.	97941.

Sample Name: SEQ-CCB Acquired: 4/19/2011 19:43:22 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.28298**	**5.1417**	**-.14317**	**.35108**	F **5.3808**	**.61642**	**.13440**
Stddev	.36505	3.7362	.80865	.50535	4.3135	.13204	.04587
%RSD	129.00	72.664	564.83	143.94	80.165	21.420	34.127
#1	-.31706	2.1292	-1.0452	.44575	9.7874	.67870	.10076
#2	-.62980	3.9736	.09885	.80241	1.1668	.70580	.18665
#3	.09791	9.3224	.51684	-.19490	5.1881	.46476	.11580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					3.0000		
Low Limit					-3.0000		

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**.01961**	**.00344**	**.03342**	**.04237**	**.00838**	**.11593**	**-.3612**
Stddev	.03087	.00169	.08520	.02714	.07416	.01346	.1796
%RSD	157.41	49.261	254.92	64.064	885.09	11.612	49.74
#1	.01221	.00221	.05568	.02718	.08364	.13124	-.4006
#2	-.00689	.00273	.10528	.07370	.00613	.11061	-.1651
#3	.05351	.00537	-.06070	.02622	-.06463	.10595	-.5178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**-.69250**	**14.980**	**-.00689**	**-.00843**	F **1.3891**	**.57584**	**-.08109**
Stddev	.11630	5.166	.00581	.00245	.2653	.13385	.00448
%RSD	16.795	34.486	84.378	29.031	19.099	23.244	5.5231
#1	-.80183	12.710	-.01333	-.00839	1.6879	.58890	-.08263
#2	-.70536	11.338	-.00531	-.01090	1.2982	.70269	-.08460
#3	-.57030	20.893	-.00203	-.00600	1.1812	.43595	-.07604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					1.0000		
Low Limit					-1.0000		

Sample Name: SEQ-CCB Acquired: 4/19/2011 19:43:22 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.63459**	**.46685**	**-.93461**	**-.27667**	**.15427**	**.0833**	**.39559**
Stddev	.23261	.95546	.51969	.35030	.15311	.0095	.11595
%RSD	36.655	204.66	55.605	126.61	99.252	11.38	29.310
#1	.73706	1.4294	-.97880	-.18781	.14105	.0907	.26285
#2	.79837	-.48138	-.39424	-.66284	.31356	.0726	.44679
#3	.36834	.45255	-1.4308	.02064	.00819	.0865	.47712
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**.39678**	**.07863**	**.04765**
Stddev	.87375	.09955	.09285
%RSD	220.21	126.60	194.87
#1	.54900	.06618	.15350
#2	-.54308	.18382	.00947
#3	1.1844	-.01411	-.02003
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1527.8	738870.	100520.
Stddev	6.3	3155.	40.
%RSD	.41180	.42695	.03937
#1	1534.8	735630.	100470.
#2	1522.6	739060.	100530.
#3	1526.0	741930.	100550.

Sample Name: 1D13003-BLK1 Acquired: 4/19/2011 19:48:01 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS041311C 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.37649**	**12.279**	**.04993**	**.02173**	**1.2116**	**1.5370**	**.18308**
Stddev	.07919	1.890	.76727	1.1547	3.3583	.5127	.08870
%RSD	21.033	15.393	1536.7	5314.3	277.17	33.360	48.446
#1	-.30375	14.351	.85884	-.89958	-.08134	2.1228	.20532
#2	-.36488	10.649	-.66749	1.3170	-1.3080	1.3179	.25854
#3	-.46084	11.836	-.04155	-.35228	5.0242	1.1701	.08538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**-.00138**	**.00718**	**.09563**	**.17958**	**-.01233**	**.27715**	**-1.166**
Stddev	.01444	.00041	.06555	.06510	.09484	.03225	.255
%RSD	1048.6	5.6421	68.544	36.248	769.29	11.637	21.88
#1	-.01772	.00747	.16947	.23430	-.04146	.30690	-.9898
#2	.00964	.00737	.07313	.10759	-.08919	.28167	-1.049
#3	.00395	.00672	.04430	.19686	.09366	.24287	-1.459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**-.80765**	**12.049**	**-.00610**	**-.00701**	**.74904**	**.45089**	**-.09912**
Stddev	.08099	.551	.00858	.00293	.08938	.14900	.00356
%RSD	10.027	4.5725	140.61	41.843	11.932	33.046	3.5912
#1	-.73378	11.858	.00229	-.00401	.72460	.57861	-.09877
#2	-.79493	11.619	-.00574	-.00715	.67443	.48685	-.10285
#3	-.89425	12.670	-.01485	-.00986	.84810	.28720	-.09576
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Sample Name: 1D13003-BLK1 Acquired: 4/19/2011 19:48:01 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: PBS041311C 1g->200ml

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.55484**	**1.0761**	**-1.3697**	**-.23099**	F **13.168**	**.1164**	**1.0160**
Stddev	.20262	.4735	.3602	.69284	.290	.0307	.1008
%RSD	36.519	44.001	26.300	299.94	2.2014	26.40	9.9205
#1	.68010	.69016	-1.5016	-1.0209	13.004	.0830	1.1215
#2	.66335	1.6045	-1.6454	.27356	13.503	.1435	.92063
#3	.32107	.93368	-.96212	.05441	12.998	.1226	1.0060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					10.000		
Low Limit					-10.000		

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.82525**	**-.17750**	**.03461**
Stddev	.13684	.10419	.02738
%RSD	16.582	58.698	79.103
#1	-.98323	-.13693	.00938
#2	-.74888	-.29587	.03073
#3	-.74364	-.09970	.06372
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1468.0	744970.	101040.
Stddev	7.5	2186.	175.
%RSD	.50773	.29341	.17337
#1	1470.2	742490.	101200.
#2	1474.1	745780.	100850.
#3	1459.7	746640.	101070.

Sample Name: 1D13003-BS1 Acquired: 4/19/2011 19:52:42 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS041311C 1g->200ml

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**240.43**	**2010.5**	**239.89**	**264.82**	**241.19**	**908.25**	**2115.9**
Stddev	1.96	5.0	.95	3.25	5.50	7.53	12.5
%RSD	.81442	.25026	.39776	1.2259	2.2791	.82954	.59237
#1	241.72	2005.6	240.30	264.27	246.27	911.84	2108.9
#2	238.18	2010.3	238.80	261.88	241.95	899.59	2108.4
#3	241.39	2015.6	240.58	268.30	235.35	913.31	2130.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

116.8%

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**52.940**	**4.7483**	F **146.00**	**130.60**	**540.22**	**202.89**	**230.2**
Stddev	.246	.0159	.71	.75	2.99	2.13	1.0
%RSD	.46516	.33475	.48685	.57700	.55317	1.0490	.4164
#1	52.844	4.7466	145.78	129.98	540.01	203.25	229.3
#2	52.756	4.7333	145.43	130.37	537.35	200.61	230.0
#3	53.220	4.7649	146.80	131.44	543.31	204.82	231.2
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			125.00				
Range			±18.750				

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**257.66**	**1058.3**	**4.8812**	**4.6528**	**530.66**	**1012.8**	**5.2278**
Stddev	2.81	9.3	.0061	.0305	4.31	6.9	.0292
%RSD	1.0925	.87681	.12572	.65577	.81290	.68188	.55865
#1	258.33	1053.8	4.8843	4.6355	532.14	1006.9	5.2151
#2	254.57	1052.2	4.8851	4.6349	525.80	1011.1	5.2071
#3	260.08	1069.0	4.8741	4.6881	534.04	1020.4	5.2612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: 1D13003-BS1 Acquired: 4/19/2011 19:52:42 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: LCSS041311C 1g->200ml

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**511.91**	**263.19**	**268.77**	**242.25**	**1042.7**	**1032.**	**1001.4**
Stddev	3.20	2.24	2.29	1.20	5.6	5.	5.1
%RSD	.62494	.84962	.85069	.49444	.54026	.4688	.50974
#1	510.04	261.42	267.64	241.66	1039.9	1029.	997.79
#2	510.09	262.46	267.27	241.47	1039.1	1029.	999.14
#3	515.60	265.70	271.40	243.63	1049.2	1037.	1007.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**272.34**	**497.85**	**513.02**
Stddev	1.32	5.16	3.24
%RSD	.48324	1.0367	.63135
#1	272.02	499.54	510.82
#2	271.22	492.06	511.49
#3	273.79	501.96	516.74
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1407.6	730710.	99614.
Stddev	5.4	5794.	821.
%RSD	.38017	.79288	.82376
#1	1409.5	728780.	99866.
#2	1411.8	737220.	100280.
#3	1401.6	726120.	98697.

Sample Name: 1104114-01 Acquired: 4/19/2011 19:59:05 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.98820**	**125830.**	**41.769**	**46.126**	**42.277**	**4.3632**	**92.715**
Stddev	.08799	13.	.881	2.561	2.217	.8766	.680
%RSD	8.9039	.00997	2.1096	5.5526	5.2434	20.092	.73315
#1	-.92278	125830.	41.765	45.134	43.948	3.4036	92.234
#2	-1.0882	125850.	42.651	49.034	39.762	4.5639	92.420
#3	-.95357	125820.	40.889	44.208	43.121	5.1220	93.493

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**4.1545**	**4.6281**	**-.27886**	F **-1.3258**	**22.526**	**215.44**	**161.7**
Stddev	.0382	.0065	.15047	.1159	.355	.61	1.2
%RSD	.92015	.14067	53.959	8.7408	1.5759	.28122	.7567
#1	4.1756	4.6311	-.43399	-1.4596	22.515	215.31	162.7
#2	4.1776	4.6207	-.26905	-1.2586	22.177	214.90	160.3
#3	4.1104	4.6326	-.13353	-1.2593	22.886	216.10	162.2

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**183.58**	**212010.**	**1.9726**	**5.0517**	**245.14**	**5.2074**	**-.02235**
Stddev	.29	879.	.0053	.0149	.99	.2185	.02885
%RSD	.15767	.41461	.26714	.29452	.40433	4.1964	129.08
#1	183.34	211220.	1.9747	5.0577	245.13	5.4179	.01094
#2	183.50	211850.	1.9764	5.0348	244.15	4.9817	-.03805
#3	183.90	212960.	1.9666	5.0627	246.13	5.2224	-.03995

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**75.611**	**116.34**	**-1.1416**	**.99772**	**14.668**	**22.98**	**1198.8**
Stddev	.600	1.54	.7704	1.0009	.516	.06	1.5
%RSD	.79364	1.3195	67.483	100.32	3.5183	.2499	.12226
#1	75.053	114.60	-2.0218	.30313	14.828	23.00	1197.2
#2	75.533	116.92	-.58943	2.1450	15.084	22.91	1199.2
#3	76.246	117.51	-.81374	.54508	14.090	23.02	1200.1

Sample Name: 1104114-01 Acquired: 4/19/2011 19:59:05 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.62948**	**359.51**	**104.60**
Stddev	1.3704	1.13	.45
%RSD	217.71	.31428	.43440
#1	.94859	359.11	104.09
#2	-1.3169	358.64	104.73
#3	-1.5201	360.79	104.97

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1336.6	746380.	102570.
Stddev	10.6	3077.	342.
%RSD	.79642	.41223	.33359
#1	1345.6	747070.	102950.
#2	1339.3	749050.	102470.
#3	1324.9	743010.	102290.

Sample Name: 1104114-02 Acquired: 4/19/2011 20:03:40 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.58404**	**121900.**	**20.827**	**24.181**	**28.442**	**4.5173**	**91.173**
Stddev	.24174	860.	1.078	3.229	3.222	4.5102	.327
%RSD	41.391	.70556	5.1744	13.355	11.329	99.843	.35901
#1	-.77735	122780.	21.291	26.312	26.435	7.7791	90.797
#2	-.31300	121060.	19.595	20.465	32.158	-.62964	91.330
#3	-.66176	121860.	21.595	25.765	26.732	6.4025	91.392

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.5082**	**4.3363**	**-.54105**	**-.35778**	**14.852**	**119.36**	**65.48**
Stddev	.0103	.0184	.14546	.11715	.161	5.75	2.13
%RSD	.40960	.42327	26.885	32.743	1.0845	4.8170	3.245
#1	2.5064	4.3397	-.64471	-.42665	14.969	115.12	63.35
#2	2.4989	4.3165	-.37476	-.22252	14.668	125.90	67.60
#3	2.5192	4.3527	-.60366	-.42418	14.919	117.05	65.47

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**73.782**	**128330.**	**2.1886**	**2.5509**	**144.84**	**4.3990**	**-.03757**
Stddev	3.784	773.	.0121	.0163	6.81	.2599	.02651
%RSD	5.1290	.60253	.55277	.64009	4.7022	5.9071	70.570
#1	71.038	128910.	2.2025	2.5666	139.81	4.1041	-.00976
#2	78.099	127450.	2.1809	2.5340	152.59	4.5944	-.04040
#3	72.209	128640.	2.1824	2.5523	142.11	4.4985	-.06256

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.001**	**67.384**	**-.77614**	**3.3006**	**13.824**	**28.59**	**696.72**
Stddev	.189	1.431	.56366	2.1632	.291	.18	4.73
%RSD	.37051	2.1236	72.624	65.542	2.1038	.6136	.67923
#1	50.794	68.509	-1.2465	.90506	13.493	28.79	700.64
#2	51.163	67.870	-.93062	3.8853	14.039	28.46	691.46
#3	51.047	65.773	-.15135	5.1114	13.941	28.51	698.04

Sample Name: 1104114-02 Acquired: 4/19/2011 20:03:40 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-.37184**	**261.35**	**84.748**
Stddev	.91937	12.39	.209
%RSD	247.25	4.7390	.24677
#1	.12251	252.25	84.550
#2	.19459	275.45	84.727
#3	-1.4326	256.34	84.967

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1341.5	716970.	101390.
Stddev	.5	31152.	519.
%RSD	.03670	4.3450	.51174
#1	1341.0	740590.	101010.
#2	1341.8	681670.	101980.
#3	1341.9	728670.	101180.

Sample Name: 1104114-03 Acquired: 4/19/2011 20:08:09 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.0532**	**76555.**	**35.570**	**37.819**	**42.227**	**6.3253**	**221.61**
Stddev	.0543	1128.	1.846	2.644	6.362	3.3269	2.78
%RSD	5.1570	1.4730	5.1910	6.9909	15.066	52.597	1.2561
#1	-1.0062	77654.	36.055	37.633	38.126	10.129	218.43
#2	-1.1127	76610.	37.125	40.551	49.556	4.8864	222.76
#3	-1.0408	75401.	33.529	35.273	38.999	3.9599	223.63

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.3735**	**5.0753**	**-.29513**	**-.39079**	**33.218**	**125.18**	**180.7**
Stddev	.0578	.0873	.29031	.07892	.623	4.35	4.9
%RSD	1.7118	1.7197	98.364	20.195	1.8753	3.4761	2.689
#1	3.4320	5.1674	-.57055	-.30805	32.527	120.19	175.1
#2	3.3718	5.0647	-.32292	-.39910	33.388	128.16	184.3
#3	3.3165	4.9938	.00806	-.46523	33.738	127.20	182.6

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**205.28**	**123350.**	**1.5882**	**2.9518**	**1583.7**	**5.6304**	**-.06852**
Stddev	7.25	2321.	.0192	.0580	51.8	.0803	.00360
%RSD	3.5324	1.8816	1.2085	1.9631	3.2705	1.4264	5.2475
#1	196.91	125800.	1.6095	3.0149	1524.4	5.6497	-.06693
#2	209.33	123080.	1.5831	2.9397	1619.9	5.6993	-.06599
#3	209.60	121180.	1.5721	2.9009	1606.9	5.5422	-.07264

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**51.905**	**105.03**	**-1.5165**	**1.7490**	**11.200**	**27.96**	**656.71**
Stddev	1.054	3.14	1.2354	1.0546	.480	.52	10.75
%RSD	2.0310	2.9881	81.466	60.299	4.2843	1.876	1.6369
#1	50.729	101.42	-.97098	.96695	10.842	28.47	667.64
#2	52.221	107.10	-.64769	2.9485	11.746	27.99	656.33
#3	52.765	106.58	-2.9307	1.3316	11.014	27.42	646.15

Sample Name: 1104114-03 Acquired: 4/19/2011 20:08:09 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-2.6645**	**226.98**	**128.14**
Stddev	1.3863	7.91	1.51
%RSD	52.028	3.4860	1.1788
#1	-2.0712	217.91	126.50
#2	-1.6736	232.46	128.44
#3	-4.2487	230.58	129.47

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1361.5	748470.	101760.
Stddev	14.4	23676.	1323.
%RSD	1.0570	3.1632	1.2996
#1	1377.3	775800.	100360.
#2	1357.9	734090.	101920.
#3	1349.2	735530.	102990.

Sample Name: 1104114-04 Acquired: 4/19/2011 20:12:36 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	F **-1.1307**	**96206.**	**33.263**	**41.011**	**45.630**	**5.3206**	**255.75**
Stddev	.0883	56.	1.308	.751	8.231	.5537	.97
%RSD	7.8136	.05777	3.9331	1.8312	18.039	10.408	.37891
#1	-1.1961	96238.	34.774	40.154	37.663	4.7283	254.91
#2	-1.1658	96141.	32.506	41.557	45.123	5.4083	255.54
#3	-1.0302	96238.	32.509	41.321	54.102	5.8253	256.81

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**3.7012**	**15.311**	**-.26684**	**-.46971**	**27.240**	**141.58**	**78.06**
Stddev	.0207	.025	.05647	.14866	.041	.73	.13
%RSD	.55997	.16625	21.163	31.650	.15085	.51766	.1678
#1	3.6820	15.282	-.20507	-.29928	27.274	140.96	78.15
#2	3.6984	15.321	-.27962	-.57266	27.252	142.39	78.12
#3	3.7232	15.330	-.31583	-.53720	27.194	141.38	77.91

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**88.272**	**144430.**	**1.7691**	**4.4821**	**1054.9**	**4.7876**	**-.05391**
Stddev	.376	983.	.0027	.0071	2.5	.1716	.01450
%RSD	.42581	.68050	.15096	.15842	.23259	3.5835	26.900
#1	87.961	143400.	1.7721	4.4775	1053.4	4.7725	-.03727
#2	88.166	144530.	1.7679	4.4903	1057.8	4.6240	-.06382
#3	88.690	145350.	1.7672	4.4785	1053.6	4.9662	-.06064

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**66.763**	**198.52**	**-1.3746**	**.38826**	**12.118**	**29.13**	**732.92**
Stddev	.046	1.22	.8865	1.0953	.208	.11	3.79
%RSD	.06861	.61613	64.490	282.10	1.7180	.3888	.51691
#1	66.726	197.19	-.55288	-.50765	11.934	29.03	729.22
#2	66.814	199.60	-1.2568	.06316	12.075	29.11	732.75
#3	66.748	198.78	-2.3140	1.6093	12.344	29.25	736.79

Sample Name: 1104114-04 Acquired: 4/19/2011 20:12:36 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	TI1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.3249**	**259.29**	**146.25**
Stddev	.7425	1.07	.26
%RSD	56.044	.41180	.17765
#1	-.51674	258.18	146.12
#2	-1.9770	260.30	146.09
#3	-1.4809	259.40	146.55

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1335.2	738210.	101730.
Stddev	5.4	941.	444.
%RSD	.40424	.12751	.43656
#1	1339.8	739050.	102230.
#2	1336.6	737190.	101560.
#3	1329.2	738390.	101400.

Sample Name: 1104114-05 Acquired: 4/19/2011 20:17:02 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.45848**	**121160.**	**37.855**	**46.979**	**48.680**	**3.5978**	**134.44**
Stddev	.17722	572.	1.646	.710	4.807	2.4020	2.86
%RSD	38.653	.47232	4.3478	1.5104	9.8739	66.762	2.1265
#1	-.60174	121630.	35.961	47.396	48.895	4.8557	131.77
#2	-.51340	121320.	38.676	47.381	53.376	5.1096	134.10
#3	-.26031	120520.	38.929	46.160	43.770	.82813	137.46

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**2.4874**	**1.8561**	**-.33888**	F **-1.0958**	**10.111**	**188.68**	**83.04**
Stddev	.0179	.0056	.40215	.1097	.589	2.51	1.76
%RSD	.71741	.30131	118.67	10.012	5.8234	1.3324	2.115
#1	2.4943	1.8529	-.61563	-.99989	9.4452	187.41	82.33
#2	2.5008	1.8528	-.52342	-1.0720	10.323	187.06	81.75
#3	2.4672	1.8625	.12242	-1.2154	10.564	191.58	85.04

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**95.016**	**201440.**	**1.4125**	**1.5385**	**147.21**	**4.9626**	**-.04554**
Stddev	1.408	35.	.0080	.0094	2.52	.1738	.01755
%RSD	1.4815	.01758	.56263	.61037	1.7120	3.5026	38.539
#1	94.587	201460.	1.4153	1.5487	146.20	4.7639	-.06301
#2	93.873	201450.	1.4186	1.5364	145.36	5.0866	-.04571
#3	96.588	201400.	1.4035	1.5303	150.08	5.0372	-.02791

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**44.406**	**87.797**	**.51868**	**1.9778**	**13.811**	**13.35**	**913.24**
Stddev	.970	2.591	1.1080	1.7113	.070	.04	.38
%RSD	2.1845	2.9511	213.61	86.529	.50824	.2860	.04139
#1	43.425	86.532	.76473	3.2142	13.792	13.39	913.30
#2	44.428	86.081	-.69163	.02459	13.752	13.36	913.59
#3	45.364	90.777	1.4830	2.6946	13.889	13.31	912.84

Sample Name: 1104114-05 Acquired: 4/19/2011 20:17:02 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**-1.1071**	**339.25**	**110.68**
Stddev	.1278	5.10	1.91
%RSD	11.542	1.5040	1.7260
#1	-.96967	336.62	109.15
#2	-1.1295	335.99	110.08
#3	-1.2223	345.13	112.82
Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1307.5	724720.	101500.
Stddev	26.5	11354.	214.
%RSD	2.0240	1.5666	.21099
#1	1332.9	729640.	101710.
#2	1309.6	732790.	101280.
#3	1280.1	711740.	101530.

Sample Name: 1D13003-MS1 Acquired: 4/19/2011 20:21:38 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**234.77**	**172390.**	**287.36**	**319.64**	**297.97**	**781.56**	**2361.1**
Stddev	1.42	453.	1.85	3.67	6.65	2.13	10.8
%RSD	.60465	.26259	.64303	1.1482	2.2302	.27291	.45643
#1	235.63	171870.	289.36	315.58	297.86	779.71	2350.3
#2	233.13	172630.	287.01	320.60	291.38	781.08	2361.0
#3	235.55	172680.	285.72	322.73	304.67	783.89	2371.9

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**55.154**	**6.4022**	**154.31**	**136.88**	**570.00**	**378.72**	**304**.7
Stddev	.264	.0415	.74	.54	2.74	1.84	2.0
%RSD	.47848	.64890	.47720	.39235	.48056	.48546	.6469
#1	55.253	6.4501	153.47	136.40	567.38	376.78	302.8
#2	55.355	6.3795	154.59	136.79	569.76	378.94	304.6
#3	54.855	6.3769	154.86	137.46	572.85	380.44	306.8

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**362.27**	**198850.**	**6.6537**	**6.7259**	**651.52**	**893.86**	**5.2691**
Stddev	1.78	571.	.0157	.0316	2.44	4.88	.0060
%RSD	.49127	.28725	.23645	.46927	.37405	.54568	.11461
#1	362.44	199510.	6.6391	6.7597	650.39	888.68	5.2621
#2	360.41	198540.	6.6515	6.7208	649.85	894.55	5.2729
#3	363.95	198500.	6.6704	6.6972	654.31	898.36	5.2723

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**576.41**	**342.80**	**38.271**	**235.86**	**848.42**	**1018.**	**1745.3**
Stddev	1.63	1.29	.595	1.79	2.45	4.	4.6
%RSD	.28225	.37498	1.5560	.76083	.28862	.3953	.26204
#1	574.68	342.04	37.775	234.45	845.64	1019.	1747.3
#2	576.63	342.09	38.106	235.25	849.34	1021.	1748.6
#3	577.91	344.29	38.931	237.88	850.27	1013.	1740.1

Sample Name: 1D13003-MS1 Acquired: 4/19/2011 20:21:38 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**267.11**	**806.58**	**674.36**
Stddev	1.10	3.43	2.39
%RSD	.41145	.42557	.35467
#1	266.07	804.26	671.61
#2	267.00	804.96	675.55
#3	268.26	810.53	675.93

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1273.6	723900.	100240.
Stddev	5.3	1834.	351.
%RSD	.41451	.25334	.34986
#1	1279.5	724050.	99944.
#2	1272.2	725660.	100140.
#3	1269.2	722000.	100630.

Sample Name: 1D13003-MSD1 Acquired: 4/19/2011 20:26:17 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**235.90**	**179000.**	**286.50**	**317.96**	**285.23**	**775.90**	**2335.9**
Stddev	.79	625.	2.12	1.48	9.51	3.13	.8
%RSD	.33365	.34926	.73842	.46705	3.3356	.40375	.03292
#1	235.67	178330.	286.01	318.65	287.42	773.55	2335.2
#2	236.77	179560.	288.81	318.97	274.81	779.46	2336.7
#3	235.25	179130.	284.67	316.25	293.46	774.69	2335.9

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**54.627**	**6.2488**	**152.76**	**135.11**	**567.26**	**379.83**	**308.7**
Stddev	.194	.0173	.11	.47	.80	2.30	1.3
%RSD	.35579	.27643	.07060	.34789	.14140	.60654	.4369
#1	54.836	6.2428	152.65	135.08	566.35	378.08	308.0
#2	54.453	6.2352	152.87	135.60	567.84	382.44	310.2
#3	54.590	6.2682	152.75	134.66	567.60	378.97	307.7

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**363.55**	**222350.**	**6.6930**	**6.5709**	**657.25**	**879.89**	**5.2477**
Stddev	1.27	647.	.0176	.0046	3.63	.50	.0083
%RSD	.35055	.29100	.26267	.06924	.55275	.05736	.15738
#1	362.40	221660.	6.6880	6.5739	654.75	880.20	5.2394
#2	364.92	222440.	6.6785	6.5656	661.42	880.16	5.2476
#3	363.33	222950.	6.7126	6.5731	655.58	879.31	5.2559

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**576.60**	**354.61**	**37.807**	**224.37**	**840.13**	**1010.**	**1756.5**
Stddev	1.05	1.07	.473	1.42	.29	3.	3.4
%RSD	.18226	.30037	1.2524	.63385	.03458	.2710	.19328
#1	577.62	353.91	38.003	222.83	840.45	1012.	1756.4
#2	576.68	355.84	38.151	224.66	840.05	1007.	1753.2
#3	575.52	354.09	37.267	225.63	839.88	1012.	1760.0

Sample Name: 1D13003-MSD1 Acquired: 4/19/2011 20:26:17 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**264.86**	**814.18**	**662.41**
Stddev	1.97	4.93	.87
%RSD	.74238	.60584	.13093
#1	262.93	810.49	662.73
#2	264.81	819.78	661.43
#3	266.86	812.27	663.08

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1282.9	731090.	100820.
Stddev	1.6	2449.	89.
%RSD	.12623	.33492	.08818
#1	1284.7	733020.	100720.
#2	1281.7	728340.	100900.
#3	1282.2	731910.	100840.

Sample Name: 1D13003-PS1 Acquired: 4/19/2011 20:30:55 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**239.82**	**123710.**	**298.79**	**334.51**	**303.51**	**6.7003**	**2367.9**
Stddev	1.25	440.	2.28	2.57	7.03	1.1390	10.2
%RSD	.51946	.35599	.76457	.76719	2.3168	16.999	.42872
#1	240.75	123240.	299.35	336.17	299.93	5.5121	2363.2
#2	238.41	123770.	296.28	331.55	311.61	7.7827	2361.0
#3	240.31	124110.	300.74	335.81	298.98	6.8061	2379.6

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**53.918**	**6.4210**	**157.71**	**139.60**	**572.91**	**377.52**	**310.3**
Stddev	.266	.0298	.57	.20	2.13	2.74	2.1
%RSD	.49342	.46464	.36365	.14246	.37095	.72703	.6911
#1	53.649	6.3868	157.37	139.76	572.47	376.86	308.2
#2	53.923	6.4345	157.38	139.38	571.04	375.17	310.2
#3	54.181	6.4417	158.37	139.67	575.22	380.54	312.5

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**357.25**	**200890.**	**6.3779**	**6.1392**	**656.84**	**6.6569**	**5.3267**
Stddev	1.65	824.	.0420	.0370	4.18	.2595	.0322
%RSD	.46181	.41006	.65921	.60250	.63654	3.8983	.60514
#1	357.75	199940.	6.3293	6.1052	658.62	6.9399	5.2912
#2	355.41	201310.	6.4005	6.1786	652.07	6.6005	5.3348
#3	358.59	201430.	6.4037	6.1336	659.84	6.4302	5.3541

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**567.46**	**355.04**	**296.89**	**260.29**	**14.118**	**13.32**	**911.45**
Stddev	1.67	1.38	1.67	1.42	.218	.09	4.18
%RSD	.29445	.38854	.56127	.54606	1.5428	.6463	.45908
#1	567.28	353.53	296.89	261.49	13.868	13.22	907.29
#2	565.88	355.33	295.22	260.65	14.267	13.40	911.40
#3	569.21	356.25	298.55	258.72	14.220	13.33	915.66

Sample Name: 1D13003-PS1 Acquired: 4/19/2011 20:30:55 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	**277.81**	**812.48**	**654.52**
Stddev	1.45	5.08	2.18
%RSD	.52027	.62470	.33246
#1	276.63	814.77	652.67
#2	277.38	806.67	653.99
#3	279.42	816.01	656.92

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1302.1	728560.	100880.
Stddev	5.7	3633.	331.
%RSD	.43642	.49869	.32783
#1	1301.7	727820.	101260.
#2	1308.0	732510.	100740.
#3	1296.7	725360.	100650.

Sample Name: 1D13003-DUP1@5X Acquired: 4/19/2011 20:36:27 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.13510**	**24684.**	**7.1405**	**8.9856**	**13.109**	**2.0014**	**26.260**	**.52373**
Stddev	.17795	67.	1.2432	2.6916	4.288	.2973	.300	.00981
%RSD	131.72	.27254	17.411	29.954	32.709	14.852	1.1426	1.8728
#1	.05212	24631.	7.8660	8.5951	13.956	1.8445	26.156	.51527
#2	-.30205	24760.	7.8506	11.851	16.911	2.3443	26.025	.52145
#3	-.15536	24660.	5.7050	6.5106	8.4612	1.8156	26.598	.53448

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.39405**	**-.29517**	**-.18399**	**2.0023**	**38.809**	**17.32**	**18.600**	**42567.**
Stddev	.00173	.01542	.05591	.1080	.138	.52	.227	238.
%RSD	.43879	5.2250	30.390	5.3932	.35469	2.974	1.2231	.55905
#1	.39207	-.31217	-.15259	1.9133	38.723	17.91	18.624	42321.
#2	.39526	-.29123	-.24855	1.9711	38.735	17.02	18.814	42795.
#3	.39483	-.28209	-.15083	2.1224	38.968	17.02	18.361	42586.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**.26266**	**.31324**	**30.613**	**1.3584**	**-.06908**	**9.7638**	**17.826**	**-1.1730**
Stddev	.00668	.00321	.092	.1080	.02007	.0993	1.220	1.1778
%RSD	2.5423	1.0234	.30207	7.9469	29.055	1.0170	6.8418	100.41
#1	.25555	.31405	30.700	1.4505	-.06809	9.6493	17.436	-2.5145
#2	.26365	.31597	30.516	1.3850	-.04953	9.8163	16.850	-.30914
#3	.26879	.30971	30.623	1.2396	-.08963	9.8259	19.193	-.69519

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.04593**	**2.9812**	**2.863**	**190.02**	**.29465**	**69.292**	**21.632**
Stddev	1.8532	.1289	.051	1.03	.50952	.243	.243
%RSD	4034.8	4.3227	1.764	.54241	172.92	.35084	1.1251
#1	-2.1698	3.0906	2.838	188.93	.84656	69.464	21.660
#2	1.2422	3.0138	2.921	190.98	.19520	69.014	21.376
#3	.78988	2.8392	2.829	190.14	-.15781	69.398	21.861

Sample Name: 1D13003-DUP1@5X Acquired: 4/19/2011 20:36:27 Type: Unk
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: ARCADIS X5

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1397.0	728450.	99342.
Stddev	16.6	2916.	557.
%RSD	1.1850	.40033	.56033
#1	1400.6	725100.	99746.
#2	1411.4	729890.	98707.
#3	1378.9	730370.	99574.

Sample Name: SEQ-CCV Acquired: 4/19/2011 20:42:03 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0377

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**472.07**	**9733.9**	**1011.0**	F **1118.8**	**1005.3**	**935.80**	**1054.4**
Stddev	1.49	32.3	5.8	7.0	9.1	1.30	6.1
%RSD	.31565	.33153	.57001	.62406	.90254	.13842	.57636
#1	473.75	9764.8	1004.5	1113.2	997.12	935.81	1049.1
#2	471.52	9700.4	1013.0	1116.6	1003.7	937.09	1053.0
#3	470.93	9736.6	1015.4	1126.6	1015.1	934.49	1061.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				1000.0			
Range				±100.00			

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppb
Avg	**1037.8**	**45.114**	F **1207.0**	**1071.0**	**1093.6**	**954.48**	**901.1**
Stddev	2.6	.154	7.0	4.8	6.0	2.18	3.9
%RSD	.25408	.34132	.57799	.44487	.54436	.22811	.4329
#1	1040.2	45.171	1199.3	1068.2	1087.4	952.35	905.6
#2	1038.3	45.231	1208.6	1068.2	1094.1	954.40	898.4
#3	1035.0	44.940	1212.9	1076.5	1099.2	956.70	899.3
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1000.0				
Range			±100.00				

Elem	Cu3247	Fe2611	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	ppb	ppb	ppm	ppm	ppb	ppb	ppm
Avg	**1010.8**	**9759.2**	**9.6868**	**47.744**	**993.98**	**1021.6**	**52.717**
Stddev	1.3	48.2	.0752	.086	.82	8.3	.590
%RSD	.13050	.49366	.77662	.18078	.08227	.80768	1.1190
#1	1011.9	9797.2	9.7579	47.729	994.80	1015.2	53.332
#2	1011.3	9775.3	9.6081	47.837	993.16	1018.7	52.155
#3	1009.4	9705.0	9.6943	47.667	993.98	1030.9	52.664
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Sample Name: SEQ-CCV Acquired: 4/19/2011 20:42:03 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: 11D0377

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4215	Ti3349
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1001.6**	**1046.2**	F **1134.4**	**1062.7**	**1037.7**	**1004.**	**960.97**
Stddev	5.9	5.3	6.9	3.1	1.6	4.	2.27
%RSD	.59121	.50893	.60802	.29310	.15477	.3510	.23606
#1	997.13	1041.9	1128.0	1061.3	1036.0	1008.	963.27
#2	999.44	1044.5	1133.6	1060.5	1037.9	1003.	960.89
#3	1008.3	1052.1	1141.7	1066.3	1039.2	1002.	958.74
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			1000.0				
Range			±100.00				

Elem	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb
Avg	F **1148.1**	**945.44**	**1032.9**
Stddev	4.9	.38	6.4
%RSD	.43061	.04054	.61967
#1	1143.1	945.28	1026.3
#2	1148.2	945.88	1033.4
#3	1152.9	945.17	1039.1
Check ?	Chk Fail	Chk Pass	Chk Pass
Value	1000.0		
Range	±100.00		

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1285.5	698990.	97445.
Stddev	5.6	1361.	123.
%RSD	.43264	.19464	.12651
#1	1291.3	697430.	97358.
#2	1284.8	699950.	97390.
#3	1280.3	699570.	97586.

Sample Name: SEQ-CCB Acquired: 4/19/2011 20:49:19 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	As1972	As2003	B_2496	Ba2335	Be3130
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.27793**	**10.937**	**-1.1786**	**-.38069**	**1.9134**	**.90724**	**.18963**	**.04635**
Stddev	.33151	4.251	.8002	2.0022	1.3658	.28043	.09187	.01628
%RSD	119.28	38.871	67.893	525.95	71.382	30.910	48.449	35.130
#1	.08961	8.1778	-1.1610	.31024	.46629	.59185	.27803	.05242
#2	-.36905	8.8007	-.38735	1.1846	2.0939	1.1285	.09464	.02791
#3	-.55434	15.833	-1.9874	-2.6369	3.1800	1.0014	.19621	.05873
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Ca3179	Cd2144	Cd2288	Co2286	Cr2677	Cu2199	Cu3247	Fe2611
Units	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.00355**	**.04027**	**-.03826**	**-.01594**	**-.02018**	**-1.034**	**-.94447**	**24.089**
Stddev	.00063	.02283	.07744	.14912	.14452	.421	.14257	1.929
%RSD	17.801	56.692	202.39	935.60	716.14	40.72	15.095	8.0060
#1	.00290	.02772	.04582	.10484	-.16175	-.5783	-.98105	26.308
#2	.00416	.06662	-.10666	.02996	.12713	-1.115	-.78717	22.822
#3	.00357	.02647	-.05394	-.18261	-.02592	-1.409	-1.0652	23.136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
Units	ppm	ppm	ppb	ppb	ppm	ppb	ppb	ppb
Avg	**-.00653**	**-.00484**	**.06494**	**.67246**	**-.06345**	**1.0301**	**-.35979**	**-1.0814**
Stddev	.00560	.00225	.02277	.07053	.00232	.1474	.43049	.6122
%RSD	85.759	46.454	35.062	10.488	3.6522	14.305	119.65	56.618
#1	-.01183	-.00334	.09109	.61145	-.06494	.88929	-.60340	-1.7599
#2	-.00067	-.00375	.05419	.74968	-.06463	1.1832	-.61324	-.91402
#3	-.00710	-.00742	.04953	.65625	-.06078	1.0178	.13727	-.57020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-CCB Acquired: 4/19/2011 20:49:19 Type: QC
Method: DuoEnviroMethodNEW(v2153) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Se1960	Sn1899	Sr4215	Ti3349	Tl1908	V_2924	Zn2062
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.12311**	**.11315**	**.1704**	**.27975**	**-.28417**	**.02568**	**.03800**
Stddev	.85575	.07750	.1089	.11478	.27836	.03491	.06429
%RSD	695.09	68.494	63.94	41.031	97.956	135.97	169.19
#1	.84263	.07523	.2588	.34084	.03689	.06594	.02916
#2	-.82319	.06191	.2036	.35107	-.45789	.00383	-.02141
#3	.34990	.20231	.0487	.14734	-.43150	.00726	.10626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Sc1880	Sc3613	Sc3613-2
Units	Cts/S	Cts/S	Cts/S
Avg	1476.2	724450.	97883.
Stddev	21.2	5009.	3955.
%RSD	1.4369	.69146	4.0408
#1	1463.8	719120.	98017.
#2	1464.2	729050.	101770.
#3	1500.7	725180.	93863.

PREPARATION BENCH SHEET

1D13003

Empirical Laboratories, LLC

Printed: 5/2/2011 12:29:18PM

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Matrix: Solid **Prepared using: METALS - MET_3050B** **(No Surrogate)**

Lab Number	Cont ID	Test Code	Prepared	Initial (g)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Extraction Comments
1104114-01	B	MET_ICP_6010B_FULL	04/13/2011 07:40	0.98	200					Pb & Cu
1104114-02	B	MET_ICP_6010B_FULL	04/13/2011 07:40	1.03	200					Pb & Cu
1104114-03	B	MET_ICP_6010B_FULL	04/13/2011 07:40	1.09	200					Pb & Cu
1104114-04	B	MET_ICP_6010B_FULL	04/13/2011 07:40	0.95	200					Pb & Cu
1104114-05	B	MET_ICP_6010B_FULL	04/13/2011 07:40	1.01	200					Pb & Cu
1D13003-BLK1		QC	04/13/2011 07:40	1	200					
1D13003-BS1		QC	04/13/2011 07:40	1	200	11D0005		200		
1D13003-DUP1		QC	04/13/2011 07:40	1.01	200		1104114-05			
1D13003-MS1		QC	04/13/2011 07:40	1.01	200	11D0005	1104114-05	200		
1D13003-MSD1		QC	04/13/2011 07:40	1.01	200	11D0005	1104114-05	200		
1D13003-PS1		QC	04/13/2011 07:40	1.01	200	11D0005	1104114-05	200		

1104114

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Subcontractor Data Package

EMLab P&K

Report for:

Ms. Sonya Gordon
Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228

Regarding: Project: 1104087; Radford
EML ID: 772745

Approved by:

Lab Director
Eric Ciotti

Dates of Analysis:
Asbestos-EPA Method 600/R-93/116: 04-13-2011 and 04-13-2011

Service SOPs: Asbestos-EPA Method 600/R-93/116 (EPA-600/M4-82-020 (SOP 01264))

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Document Number: 200091 - Revision Number: 5

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1104087; Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-13-2011
Date of Report: 04-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Total Samples Submitted:	11
Total Samples Analysed:	11
Total Samples with Layer Asbestos Content > 1%:	0

Location: 8102(5)-3E (20110406) Lab ID-Version‡: 3419306-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(5)-11W (20110406) Lab ID-Version‡: 3419307-1

Sample Layers	Asbestos Content
Multicolored Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(6)-3E (20110406) Lab ID-Version‡: 3419308-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(6)-6E (20110406) Lab ID-Version‡: 3419309-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102(6)-8W (20110406) Lab ID-Version‡: 3419310-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1104087; Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-13-2011
Date of Report: 04-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 8102(7)-3E (20110406) Lab ID-Version‡: 3419311-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 8102A-NW (20110411) Lab ID-Version‡: 3419312-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 6-1NW (20110411) Lab ID-Version‡: 3419313-1

Sample Layers	Asbestos Content
Tan Soil	< 1% Chrysotile
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 504-20N (20110411) Lab ID-Version‡: 3419314-1

Sample Layers	Asbestos Content
Brown Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

Location: 504-22E (20110411) Lab ID-Version‡: 3419315-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
1936 Olney Avenue, Cherry Hill, NJ 08003
(866) 871-1984 Fax (856) 489-4085 www.emlab.com

Client: Empirical Laboratories, LLC
C/O: Ms. Sonya Gordon
Re: 1104087; Radford

Date of Sampling: 04-06-2011
Date of Receipt: 04-13-2011
Date of Report: 04-14-2011

ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 2102(3)-13W (20110411)

Lab ID-Version‡: 3419316-1

Sample Layers	Asbestos Content
Tan Soil	ND
Composite Non-Asbestos Fibrous Content:	< 1% Cellulose
Sample Composite Homogeneity:	Moderate

The results relate only to the items tested. Interpretation is left to the company and/or persons who conducted the field work. The test report shall not be reproduced except in full, without written approval of the laboratory. The 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.

All samples were received in acceptable condition unless otherwise noted. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104087

000772745

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

P.O. 11-0423
Project Radford

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102 (5)-3E (20110406)				
Reference No: 1104087-01	**Solid**	**Sampled:04/06/2011 16:50**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 15:50		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (5)-11W (20110406)				
Reference No: 1104087-02	**Solid**	**Sampled:04/06/2011 17:00**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-3E (20110406)				
Reference No: 1104087-03	**Solid**	**Sampled:04/06/2011 17:10**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-6E (20110406)				
Reference No: 1104087-04	**Solid**	**Sampled:04/06/2011 17:20**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (6)-8W (20110406)				
Reference No: 1104087-05	**Solid**	**Sampled:04/06/2011 17:30**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 8102 (7)-3E (20110406)				
Reference No: 1104087-06	**Solid**	**Sampled:04/06/2011 17:40**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/08/2011 16:40		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	4-12-11	[signature]	4/13/11 9:30

000772745

SUBCONTRACT ORDER

Empirical Laboratories, LLC

1104114

P.O # 11-0423

SENDING LABORATORY:

Empirical Laboratories, LLC
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Phone: 615.345.1115
Fax: 866.417.0548
Project Manager: Sonya Gordon

RECEIVING LABORATORY:

EMLab P&K (SUB)
1936 Olney Ave
Cherry Hill, NJ 08003
Phone :(866) 871-1984
Fax: (856) 489-4085

Project: Radford

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 8102A-NW(20110411)				
Reference No: 1104114-01	**Solid**	**Sampled:04/11/2011 14:00**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:00		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 6-1NW(20110411)				
Reference No: 1104114-02	**Solid**	**Sampled:04/11/2011 14:10**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:10		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 504-20N(20110411)				
Reference No: 1104114-03	**Solid**	**Sampled:04/11/2011 14:20**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:20		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 504-22E(20110411)				
Reference No: 1104114-04	**Solid**	**Sampled:04/11/2011 14:30**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:30		% Asbestos EPA 600
Containers Supplied:				
Sample ID: 2102(3)-13W(20110411)				
Reference No: 1104114-05	**Solid**	**Sampled:04/11/2011 14:40**	[redacted]	
SUB_Asbestos Lab SOP	04/14/2011 14:00	04/13/2011 14:40		% Asbestos EPA 600
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	4-12-11	David Wilson	4/13/11 9:30
Released By	Date	Received By	Date

Appendix F

Waste Disposal Manifests and Weigh Tickets for BLA and IAA Soil Disposal

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-01-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE, SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS/soil			
RG ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	02.21.11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Isaac Gray driver	Isaac Gray	2-21-11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 036.33.791 Cell III A W079.19.168H EL 546

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Tenina Valentine	Tenina M. Valentine	2-23-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 294706
Date: 02/21/2011
Account No: 1261756
Service Order No: 508321

PO/Release No: -001

CAPITOL ENVIRONMENTAL
NRL Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 260 Isaac Gray

Gross	64,560	lb	Inbound	4:55 pm
Tare	35,580	lb	Outbound	4:56 pm
Net	28,980	lb	14.49 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-02-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	CM	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRASNPORTATION ANALYST	H R Blankenship	02.21.11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JAN M. PRUITT DRIVER	Jan M. Pruitt	02 21 11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
N-36.33.791
Cell IIA W 079.15.1685 EL 533

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Tenina Valentine	Tenina Valentine	2-23-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 294705
Date: 02/21/2011
Account No: 1261756
Service Order No: 508432

PO/Release No: -001

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 239 JAN PRUITT

Gross	67,380	lb	Inbound	4:53 pm
Tare	40,500	lb	Outbound	4:55 pm
Net	26,880	lb	13.44 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-03-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7668

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	3483	6T	15 CU YDS
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title: H. R. BLANKENSHIP, TRANSPORTATION ANALYST
Signature: H R Blankenship
Month Day Year: 2 - 22 - 11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title: JACK KENNETH TALLEY / DRIVER
Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211
Signature: Jack Kenneth Talley
Month Day Year: 2. 22- 11

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title
Address and telephone no.
Signature
Month Day Year

DISPOSAL SITE

12. Discrepancy indication space
N 36:33.796
Cell III A W 079.18.1084 EL 539

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title: Tenisha Valentine
Signature: Tenisha Valentine
Month Day Year: 2-23-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 294968
Date: 02/22/2011
Account No: 1261756
Service Order No: 508514

PO/Release No: -001

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 239 KEN TALLEY

Gross	72,060	lb	Inbound	3:45 pm
Tare	40,500	lb	Outbound	3:47 pm
Net	31,560	lb	15.78 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-04-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7698

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address ~~P. O. BOX 1069~~ ~~CHATHAM, VA 24531~~
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No. / Type	7. Total quantity ~~m³~~ (yd³)
FRIABLE ASBESTOS ~~RQ ASBESTOS 9 NA2212 PG III~~	1 OT	15

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	02.23.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN	Otis L Martin	02/23/11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
N36°33.793
W079°18.681

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates ~~East~~ ~~North~~ El 581

Printed/typed name & title	Signature	Month Day Year
Tom Weele Landfill Mgr	Tom Weele	2/28/11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295031
Date: 02/23/2011
Account No: 1261756
Service Order No: 508624

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 260 LEE MARTIN

Gross	74,080	lb	Inbound	3:58 pm
Tare	40,380	lb	Outbound	4:21 pm
Net	33,500	lb	16.750 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-05-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE, SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	3473	OT	~15 ton
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	02 24 11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Isaac Gray Driver	Isaac Gray	2-24-11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy Indication space
N3633.788
W079°18.682

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 568

Printed/typed name & title	Signature	Month Day Year
Tom Wade Landfill Mgr	Tom Wade	02/28/11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295198
Date: 03/01/2011
Account No: 1261756
Service Order No: 508856

PO/Release No: -001

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 260 Isaac Gray

Gross	69,820	lb	Inbound	4:24 pm
Tare	40,580	lb	Outbound	12:43 pm
Net	29,240	lb	14.62 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-08-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-8547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	CAT	15 YD
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H. R. Blankenship	02. 28. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Isaac Foley 2-28-11	Isaac Foley	2. 28. 11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
T1-36.33.T190
Cell III A W-079.18.1687 EL 533

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Unitha Valentine	Unitha Valentine	3-2-11

OPERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295522
Date: 03/01/2011
Account No: 1261756
Service Order No: 509087

PO/Release No: 0

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 268 Isaac Gray

Gross	69,360	lb	Inbound	7:22 am
Tare	32,800	lb	Outbound	7:25 am
Net	36,560	lb	18.28 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-08-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~ ~~RQ ASBESTOS 9 NA2212 PG III~~	1	OT	13 yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	01	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
JACK KENNETH TALLEY DRIVER	Jack Kenneth Talley	3	1	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N - 86, 33, 858
Cell III A W-079, 18, 1005 EL 534

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenitha Valentine	Tenitha D. Valentine	3	2	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295656
Date: 03/01/2011
Account No: 1261756
Service Order No: 509244

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: 0
Vehicle No: 239 KEN TALLEY

Gross	75,940	lb	Inbound	1:07 pm
Tare	40,500	lb	Outbound	4:08 pm
Net	35,440	lb	17.720 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-09-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7698

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~	1	01	15 yd
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	01	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Isaac Bibey Driver		3	01	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space n-30,33,193 Cell III A W-009,18,1689 EL 534

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenisha Valentine	Tenisha G. Valentine	3	2	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295657
Date: 03/01/2011
Account No: 1261756
Service Order No: 509245

PO/Release No: 0

Billing Status: ACTIVE

Vehicle No: 260 Isaac Gray

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	76,680	lb	Inbound	4:09 pm
Tare	40,580	lb	Outbound	4:10 pm
Net	36,100	lb	18.05 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

*MANIFEST NUMBER FPC4233-10-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7888

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~	1	01	154
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03	02	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
ISAAC GRAY JR	Isaac Gray	3	2	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36°33.792 079°18.675 063

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows	Audrie Meadows	3	3	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295802
Date: 03/02/2011
Account No: 1261756
Service Order No: 509376

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 260 Isaac Gray

Gross	72,120	lb	Inbound	3:23 pm
Tare	40,580	lb	Outbound	3:24 pm
Net	31,540	lb	15.770 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-11-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	1	OT	15 yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title: H. R. BLANKENSHIP, TRANSPORTATION ANALYST
Signature: H R Blankenship
Month Day Year: 03 02 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)
Printed/typed name & title: JAN M. Pruitt Driver
Signature: Jan M. Pruitt
Month Day Year: 03 02 11
Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)
Printed/typed name & title
Signature
Month Day Year
Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36°33.793 079°18.67 5 56

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
Grid Coordinates East ____ North ____ El ____
Printed/typed name & title: Audrie Meadows
Signature
Month Day Year: 3 3 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295804
Date: 03/02/2011
Account No: 1261756
Service Order No: 509377

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 239 JAN PRUITT

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	68,460	lb	Inbound	3:24 pm
Tare	34,540	lb	Outbound	3:25 pm
Net	33,920	lb	16.96 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-12-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7686

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
~~FRIABLE ASBESTOS~~	3466	07	15 Quads
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H .R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	3	3	11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
JACK KENNETH TALLEY DRIVER	Jack Kenneth Talley	3	3	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N 36.53.1016 Cell III A W 19.18.1615 EL 514

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenitha Valentine	Tenitha Valentine	3	4	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295964
Date: 03/03/2011
Account No: 1261756
Service Order No: 509516

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 239 KEN TALLEY

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	61,620	lb	Inbound	3:02 pm
Tare	40,500	lb	Outbound	3:02 pm
Net	21,120	lb	10.56 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER .FPC4233-13-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	R/O	15
RQ ASBESTOS 9 NA2212 PG III	3478		

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN JR. DRIVER	Otis L. Martin	03/03/11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N 36.83.7004 Cell IIE A W 79.18.6075 EL 544

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East North El

Printed/typed name & title	Signature	Month Day Year
Tenisha Valentine	Tenisha Valentine	3-4-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295965
Date: 03/03/2011
Account No: 1261756
Service Order No: 509514

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 260 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	66,560	lb	Inbound	3:03 pm
Tare	40,580	lb	Outbound	3:04 pm
Net	25,980	lb	12.99 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-14-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
~~FRIABLE ASBESTOS~~ ~~RQ ASBESTOS 9 NA2212 PG III~~	1	CY	15

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	03	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Isaac Gray Driver	Isaac Gray	3	3	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
n - 36, 33, 76, 6
Cell III. A W - 79, 19, 1075 EL 550

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenika Valentine	Tenika D. Valentine	3	4	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 295966
Date: 03/03/2011
Account No: 1261756
Service Order No: 509515

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 279 Isaac Gray

Gross	73,320	lb	Inbound	3:04 pm
Tare	40,300	lb	Outbound	3:05 pm
Net	33,020	lb	16.510 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-15-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.6 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~	1	07	15 yd
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03	04	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
ISAAC CORNEY driver		3	4	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N - 36.33.104 Call TTA W- 79.18.1645 EL 585

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenitha Valentine	Tenitha Valentine	3	4	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296120
Date: 03/04/2011
Account No: 1261756
Service Order No: 509674

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 260 Isaac Gray

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	63,760	lb	Inbound	3:32 pm
Tare	40,580	lb	Outbound	3:33 pm
Net	23,180	lb	11.59 tn	

Qty	Unit/$	Materials	Totals

Material

WASTE SHIPMENT RECORD

REPORT DATE

A. MANIFEST NUMBER FPC4233-16-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	07	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	04	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
JAN M. PRUITT DRIVER	Jan M. Pruitt	03	04	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N-36.33.909 Cell III A W-79.18.671 EL 537

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tasha Valentine	Tasha D. Valentine	3	4	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296118
Date: 03/04/2011
Account No: 1261756
Service Order No: 509675

PO/Release No: -001

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 239 JAN PRUITT

Gross	64,420	lb	Inbound	3:27 pm
Tare	40,500	lb	Outbound	3:29 pm
Net	23,920	lb	11.96 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-17-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	07	16 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title: H. R. BLANKENSHIP, TRANSPORTATION ANALYST
Signature: H R Blankenship
Month Day Year: 03 05 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)
Printed/typed name & title: ISAAC GRAY DRIVER
Signature: Isaac Gray
Month Day Year: 3-5-11
Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)
Printed/typed name & title
Signature
Month Day Year
Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
Cell III A N 36.33.793 W 79.18.1625 BL535

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.
Grid Coordinates East ____ North ____ El ____
Printed/typed name & title: Tenitha Valentine
Signature: Tenitha D. Valentine
Month Day Year: 3-7-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296178
Date: 03/05/2011
Account No: 1261756
Service Order No: 509898

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -005
Vehicle No: 260 Isaac Gray

Gross	68,680	lb	Inbound	7:16 am
Tare	40,580	lb	Outbound	7:17 am
Net	28,100	lb	14.050 tn	

Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-18-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7888

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	B/O	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	05	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
OTIS L MARTIN JR. DRIVER	O L Martin	03	05	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell IIIA N 36°33.798 W 79.18.1616 EL 576

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenisha Valentine	Tenisha Valentine			

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296179
Date: 03/05/2011
Account No: 126756
Service Order No: 509897

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 239 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	67,900	lb	Inbound	7:17 am
Tare	35,500	lb	Outbound	7:18 am
Net	32,400	lb	16.20 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-19-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~	1	07	15 yd
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	07	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
OTIS L. MABRY JR	Otis L. Mabry	03	07	2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.795 079° 18.684 548

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows	Audrie Meadows	3	11	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296341
Date: 03/07/2011
Account No: 1261756
Service Order No: 509893

PO/Release No: -301

Billing Status: ACTIVE

CAPITOLENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 239 LEE MARTIN

Gross	70,280	lb	Inbound	4:30 pm
Tare	40,500	lb	Outbound	4:31 pm
Net	29,780	lb	14.89 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-20-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	R/O	15
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.08.11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN JR.	Otis L. Martin	03-08-11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.799 079° 18.657 563

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 11 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296536
Date: 03/09/2011
Account No: 1261756
Service Order No: 510002

PC/Release No: -001

Billing Status: ACTIVE

Vehicle No: 92 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	60,580	lb	Inbound	7:23 am
Tare	34,580	lb	Outbound	7:25 am
Net	26,000	lb	13.00 tn	

Material	Qty	Unit/$	Materials	Totals

weight 64740

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-21-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	3494	0.T	15 Cu yds
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	3	8	11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
JACK KENNETH TALLEY DRIVER	Jack Kenneth Talley	3	8	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.793 079° 18.659 540

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows	Audrie Meadows	3	11	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296536
Date: 03/09/2011
Account No: 1261756
Service Order No: 510003

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 239 KEN TALLEY

Gross	64,740	lb	Inbound	7:26 am
Tare	40,500	lb	Outbound	8:19 am
Net	24,240	lb	12.120 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-22-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	DF	15
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03. 09. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN/J.D. DRIVER		03.09.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36°33.794 079°18.658 556

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 11 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296696
Date: 03/10/2011
Account No: 1261756
Service Order No: 510152

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 239 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	65,080	lb	Inbound	7:14 am
Tare	40,500	lb	Outbound	7:15 am
Net	24,580	lb	12.29 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-23-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~	1	07	15 yd
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
~~IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING~~

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03.09.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
ISAAC BRAY Observer	Isaac Bray	03.09.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.796 079° 18.659 548

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 11 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296694
Date: 03/10/2011
Account No: 1261756
Service Order No: 510150

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 92 Isaac Gray

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	58,300	lb	Inbound	7:05 am
Tare	34,580	lb	Outbound	7:08 am
Net	23,720	lb	11.86 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-24-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7666

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	OT	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03 10 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
BENNY TERRY DRIVER	Benny Terry	03 10 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.795 079° 18.640 554

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 11 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296851
Date: 03/10/2011
Account No: 1261756
Service Order No: 510323

PO/Release No: -001

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 239 Senny Terry

Gross	65,200	lb	Inbound	4:16 pm
Tare	40,500	lb	Outbound	4:18 pm
Net	24,700	lb	12.35 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-25-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
~~FRIABLE ASBESTOS~~	1	DT	15
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST		03	10	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
OTIS L. MARSH DRIVER		03.	10	2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.798 079° 18.661 558

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows		3	11	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 296850
Date: 03/10/2011
Account No: 1261756
Service Order No: 510324

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 92 LEE MARTIN

Gross	70,140	lb	Inbound	4:15 pm
Tare	34,580	lb	Outbound	4:16 pm
Net	35,560	lb	17.780 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-26-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	OT	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03. 11. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Wayne Landrum Jr. Driver	Wayne Landrum	03. 11. 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell III A TI-36.83.790 W-009.18.16MM 552

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Tenitha Valentine	Tenitha Valentine	3-16-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297012
Date: 03/11/2011
Account No: 1261756
Service Order No: 510456

PO/Release No: W.E.L.

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 538 Unassigned

Gross	58,180	lb	Inbound	4:15 pm
Tare	34,860	lb	Outbound	4:39 pm
Net	23,320	lb	11.66 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-27-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	BO	15
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03. 11. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN	Otis L. Martin	03. 11. 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
Cell III A N 36.33.745 W 079.19.645 EL 537

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Tenitha Valentine	Tenitha Valentine	3-15-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297011
Date: 03/11/2011
Account No: 1261756
Service Order No: 510455

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 239 Unassigned

Gross	63,480	lb	Inbound	4:13 pm
Tare	35,500	lb	Outbound	4:14 pm
Net	27,980	lb	13.990 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-28-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
~~FRIABLE ASBESTOS~~	1	RO	15
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H. R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03 - 12 - 11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN JR. DRIVER	Otis L Martin	03 - 12 - 11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell III A N 36.33.791 W 079.18.1650 EL 560

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Jenika Valentine	Jenika D. Valentine	3-15-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297458
Date: 03/12/2011
Account No: 1261756
Service Order No: 510529

PO/Release No: -001

Billing Status: SUSPENDED

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 92 LEE MARTIN

Gross	62,960	lb	Inbound	9:24 am
Tare	34,580	lb	Outbound	9:25 am
Net	28,380	lb	14.19 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-29-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7689

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
300 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	15 yds.	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	3 - 12 - 11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
BENNY TERRY	Benny Terry	3 - 12 - 11
Address and telephone no. FIRST PIEDMONT CORPORATION P. O. BOX 1069 CHATHAM, VA 24531 (434)432-0211		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

DISPOSAL SITE

12. Discrepancy indication space
N 36.33.
Cell III A W 079.18.647 EL 548

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Teasha Valentine	Teasha G. Valentine	3-15-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297455
Date: 03/12/2011
Account No: 1261756
Service Order No: 510531

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 239 Benny Terry

Gross	68,380	lb	Inbound	9:15 am
Tare	40,500	lb	Outbound	9:17 am
Net	27,880	lb	13.940 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-30-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	OT	15yd
RQ ASBESTOS 9 NA2212 PG III	3993		

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03	14	2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Wayne Landrum Sr Driver	Wayne Landrum	03	14	2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space
T 36.33.198
Cell III A W 0-19.18.1649 EL 556

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Tenina Valentine	Tenina Valentine	3	15	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297222
Date: 03/14/2011
Account No: 1261756
Service Order No: 510604

PO/Release No: W.E.L.

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 0 Unassigned

Gross	66,200	lb	Inbound	3:33 pm
Tare	34,740	lb	Outbound	4:19 pm
Net	31,460	lb	15.73 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-31-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1089 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	CY	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title: H.R.BLANKENSHIP, TRANSPORTATION ANALYST
Signature: H R Blankenship
Month Day Year: 03 14 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)
Printed/typed name & title: BENNY TERRY DRIVER
Address and telephone no.: FIRST PIEDMONT CORPORATION, P. O. BOX 1089, CHATHAM, VA 24531 (434)432-0211
Signature: Benny Terry
Month Day Year: 03 14 2011

11. Transporter 2 (Acknowledgment of receipt of materials)
Printed/typed name & title
Address and telephone no.
Signature
Month Day Year

DISPOSAL SITE

12. Discrepancy indication space
N 36 33. 799 Cell III. A W. 079. 18. 1049 EL 534

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates: East ____ North ____ El ____

Printed/typed name & title: Tenika Valentine
Signature: Tenika D. Valentine
Month Day Year: 3-15-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297221
Date: 03/14/2011
Account No: 1261756
Service Order No: 510597
PO/Release No: -001
Billing Status: ACTIVE
Vehicle No: 239 Unassigned

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	69,300	lb	Inbound	3:31 pm
Tare	40,500	lb	Outbound	3:33 pm
Net	28,800	lb	14.40 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

*MANIFEST NUMBER FPC4233-32-11 3466 → 3476

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	1	OT	15yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03-15-2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Wayne Landrum Sr Driver	Wayne Landrum	03-15-2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.793 79.18.686 537

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 18 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297323
Date: 03/15/2011
Account No: 1261756
Service Order No: 510693

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 0 Unassigned

Gross	57,700	lb	Inbound	11:04 am
Tare	35,000	lb	Outbound	11:22 am
Net	22,700	lb	11.350 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-33-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name: 540-639-7688

Owner's telephone no.

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	346	O.T	15 cu. yds

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month	Day	Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	3	15	11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Jack KENNETH TALLEY DRIVER	Jack Kenneth Talley	3	15	11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.797 79.18.679 597

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month	Day	Year
Audrie Meadows		3	28	11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297380
Date: 03/15/2011
Account No: 1261756
Service Order No: 510692

PO/Release No: -001

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 239 KEN TALLEY

Gross	60,580	lb	Inbound	1:39 pm
Tare	40,500	lb	Outbound	1:39 pm
Net	20,080	lb	10.04 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-34-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	07	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03. 16. 2011 15

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Wayne Lowdorm Sr Driver	Wayne Lowdorm	03-16-2011 15

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.795 79.18.676 578

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 18 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297427
Date: 03/16/2011
Account No: 1261756
Service Order No: 510933

PO/Release No: WEL

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 536 Unassigned

Gross	63,700	lb	Inbound	7:10 am
Tare	34,820	lb	Outbound	7:27 am
Net	28,880	lb	14.44 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-35-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7698

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS / Soil	1	OT	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	3-16-2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN JR.	Otis L Martin	3-16-2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.794 79.18.686 541

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ Et ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 18 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297576
Date: 03/16/2011
Account No: 1261756
Service Order No: 516933
PO/Release No: -001
Billing Status: ACTIVE
Vehicle No: 239 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	75,820	lb	Inbound	3:53 pm
Tare	40,500	lb	Outbound	3:54 pm
Net	35,320	lb	17.66 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-36-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS / SOIL	1	OT	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	3-16-2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Wayne Lawson Jr DRIVER	Wayne Lawson Jr	3-16-2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.794 079.18.671 578

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 28 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297577
Date: 03/16/2011
Account No: 1261756
Service Order No: 510941

PO/Release No: WEL

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 538 Unassigned

Name : wel

Gross	61,820	lb	Inbound	3:54 pm
Tare	34,840	lb	Outbound	3:55 pm
Net	26,980	lb	13.49 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-37-11 3451

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS / Soil RQ ASBESTOS 9 NA2212 PG III	01	OT	15yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	3-17-2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Wayne Laudam Sr Driver	Wayne Laudam	3-17-2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.791 79.18.686 585

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 18 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297675
Date: 03/17/2011
Account No: 1261756
Service Order No: 511082

PO/Release No: WEL

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: ACTIVE

Vehicle No: 538 Unassigned

Gross	56,500	lb	Inbound	11:24 am
Tare	34,840	lb	Outbound	11:25 am
Net	21,660	lb	10.83 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-38-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7888

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS 150.1	1	DT	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R. BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	3 - 17 - 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTS L-MART DRIVER	OTS L-Mart	3 - 17 - 2011
Address and telephone no. FIRST PIEDMONT CORPORATION P. O. BOX 1069 CHATHAM, VA 24531 (434)432-0211		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

DISPOSAL SITE

12. Discrepancy indication space 36.33.794 079.18.689 560

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 18 11

OPERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 297776
Date: 03/17/2011
Account No: 1261756
Service Order No: 1521087

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No:

Vehicle No: 239 JOE MARTIN

Gross	58,760	lb	Inbound	7:58 am
Tare	40,500	lb	Outbound	7:59 am
Net	18,260	lb	9.130 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

1. MANIFEST NUMBER FPC4233-40-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address ~~P. O. BOX 1069 CHATHAM, VA 24531~~
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	01	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03.21.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARRS	Otis L Marrs	03.21.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.795 079.18.675 563

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298204
Date: 03/22/2011
Account No: 1261756
Service Order No: 511326

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 260 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	65,620	lb	Inbound	8:07 am
Tare	40,580	lb	Outbound	8:08 am
Net	25,040	lb	12.52 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-41-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1090 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	1	OT	15 yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.21.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
ISAAC GRAY DRIVER	Isaac Gray	03-21-2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.795 79.18.675 588

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 28 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298207
Date: 03/22/2011
Account No: 1261756
Service Order No: 511332

PO/Release No: -001

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 211 Isaac Gray

Gross	63,360	lb	Inbound	8:09 am
Tare	38,420	lb	Outbound	8:11 am
Net	24,940	lb	12.47 Tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-42-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1089 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	1	DT	15.0

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.21.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
BENNY TERRY DRIVER	Benny Terry	03.21.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1089
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.797 079.18.681 560

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298195
Date: 03/22/2011
Account No: 1261756
Service Order No: 511329

CAPITOLENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: 901

Vehicle No: 239 Benny Terry

Gross	64,500	lb	Inbound	7:44 am
Tare	40,500	lb	Outbound	7:46 am
Net	24,000	lb	12.000 Ln	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-43-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7689

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1089 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	OT	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03.21.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JAN M. TRUITT DRIVER	Jan M. Truitt	03.21.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1089
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.799 079.18.681 552

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298209
Date: 03/22/2011
Account No: 1261756
Service Order No: 511331

PO/Release No: -00-

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 279 JAN PRUITT

Gross	67,980	lb	Inbound	8:16 am
Tare	40,300	lb	Outbound	8:17 am
Net	27,680	lb	13.84 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-44-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name ~~FIRST PIEDMONT CORPORATION~~
Mailing Address ~~P. O. BOX 1069 CHATHAM, VA 24531~~
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	01	15
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03. 22. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
O.T.S L. Moore	O T S L Moore	03.22.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.792 79.18.681 SS9

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows		3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298362
Date: 03/22/2011
Account No: I261756
Service Order No: 511555

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 260 LEE MARTIN

Gross	63,380	lb	Inbound	7:10 am
Tare	22,300	lb	Outbound	7:13 am
Net	41,080	lb	20.540 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-45-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.6 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	07	15,d
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.22.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Edward Lewis Rolands	Edward Lewis Rolands	03.22.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.794 79.18.680 551

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298364
Date: 03/23/2011
Account No: 1261756
Service Order No: 511523

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 211 Unassigned

Gross	67,040	lb	Inbound	7:17 am
Tare	38,340	lb	Outbound	7:19 am
Net	28,700	lb	14.350 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-46-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	07	15yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R.Blankenship	03. 22. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JAN M. Pruitt Driver	Jan M. Pruitt	03 22 11
Address and telephone no. FIRST PIEDMONT CORPORATION P. O. BOX 1069 CHATHAM, VA 24531 (434)432-0211		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

DISPOSAL SITE

12. Discrepancy indication space 36.33.793 79.18.682 SSV

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298363
Date: 03/23/2011
Account No: 126756
Service Order No: 511521
PO/Release No: -001
Billing Status: ACTIVE
Vehicle No: 279 JAN PRUITT

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	65,180	lb	Inbound	7:14 am
Tare	40,300	lb	Outbound	7:16 am
Net	24,880	lb	12.44 tn	

Material	Qty	Unit/s	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-47-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1089 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RQ ASBESTOS 9 NA2212 PG III	1	OT	15 yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.24.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Edward Lewis Roland SR DRIVER	Edward Lewis Roland	03.24.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1089
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.793 79.19.683 555

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 25 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298696
Date: 03/24/2011
Account No: 1261756
Service Order No: 511635

PO/Release No: -001

Billing Status: ACTIVE

Vehicle No: 279 Eddie Roland

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	67,700	lb	Inbound	4:14 pm
Tare	40,300	lb	Outbound	4:15 pm
Net	27,400	lb	13.70 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-48-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name: 540-639-7688

Owner's telephone no.

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069 CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS RG ASBESTOS 9 NA2212 PG III	1	OT	15yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.24.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MARTIN DRIVER		03.24.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36.33.796 79.18.683 570

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	3 23 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298695
Date: 03/24/2011
Account No: 1261756
Service Order No: 511524
PO/Release No: -001
Billing Status: ACTIVE
Vehicle No: 260 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	73,480	lb	Inbound	4:12 pm
Tare	40,580	lb	Outbound	4:13 pm
Net	32,900	lb	16.45 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-49-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
~~FRIABLE ASBESTOS~~ ~~RQ ASBESTOS 9 NA2212 PG III~~	1	DT	15 yd

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.25.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L MARTIN JR. DRIVER	Otis L Martin	03.25.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell III A
N 36° 33.900'
W 079° 18.675'

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates East ____ North ____ El 556

Printed/typed name & title	Signature	Month Day Year
Tenitha Valentine	Tenitha Valentine	3-31-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 298872
Date: 03/25/2011
Account No: 1261756
Service Order No: 511952
PO/Release No: 001
Billing Status: SUSPENDED
Vehicle No: 260 LEE MARTIN

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	61,860	lb	Inbound	3:42 pm
Tare	40,580	lb	Outbound	3:43 pm
Net	21,280	lb	10.64 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-50-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	01	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03.25.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Edward Lewis Roland SR	Edward Lewis Roland SR	03-25-2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell ### A

N36°33.798
W079°18.673

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 558

Printed/typed name & title	Signature	Month Day Year
Tenitha Valentine	Tenitha Valentine	3-31-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 290873
Date: 03/25/2011
Account No: 1261756
Service Order No: 511636

PO/Release No: -001

Billing Status: SUSPENDED

Vehicle No: 279 Eddie Roland

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	64,040	lb	Inbound	3:44 pm
Tare	40,300	lb	Outbound	3:45 pm
Net	23,740	lb	11.87 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-51-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7686

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
~~FRIABLE ASBESTOS~~	1	07	15yd
~~RQ ASBESTOS 9 NA2212 PG III~~			

8. Special handling instructions and additional information
~~IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING~~

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	03-28-2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JAN M. PRUITT DRIVER	Jan M. Pruitt	03 28 11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell III-A N 36° 33, 798' W 079° 18. 675'

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 552

Printed/typed name & title	Signature	Month Day Year
Tenitha Valentine	Tenitha G. Valentine	3-31-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 239044
Date: 03/28/2011
Account No: 1261756
Service Order No: 512199

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 279 JAN PRUITT

Gross	68,480	lb	Inbound	3:12 pm
Tare	41,580	lb	Outbound	3:13 pm
Net	26,900	lb	13.450 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-52-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	01	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	03. 28. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no. FIRST PIEDMONT CORPORATION P. O. BOX 1069 CHATHAM, VA 24531 (434)432-0211		

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Edward Lewis Roland Sr	Edward Lewis Roland Sr	03.28.11
Address and telephone no.		

DISPOSAL SITE

12. Discrepancy Indication space
Cell III A
N36° 33. 800'
W079° 18. 678'

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 554

Printed/typed name & title	Signature	Month Day Year
Tenika Valentine	Tenika Valentine	3-31-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 299045
Date: 03/28/2011
Account No: 1261756
Service Order No: 512200

PO/Release No: -001

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Billing Status: SUSPENDED

Vehicle No: 211 Eddie Roland

Gross	65,920	lb	Inbound	3:14 pm
Tare	38,420	lb	Outbound	3:15 pm
Net	27,500	lb	13.75 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-53-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	OT	15 yd³
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY. MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	04.04.11

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JAN M. PRUITT DRIVER	Jan M. Pruitt	04.04.11

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.795 079° 18.670 560

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	04 15 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 299670
Date: 04/05/2011
Account No: 1261756
Service Order No: 512802

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 279 JAN PRUITT

Gross	66,840	lb	Inbound	7:27 am
Tare	40,300	lb	Outbound	7:28 am
Net	26,540	lb	13.270 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-54-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	07	15 yd^3
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF BELLED CONTAIN IMMEDIATELY MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	04.04.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Grace Gray driver	Grace Gray	04.04.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.795 079° 18.674 566

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	4 15 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 299876
Date: 04/05/2011
Account No: 1261756
Service Order No: 512807

PO/Release No: 001

Billing Status: ACTIVE

Vehicle No: 260 Isaac Gray

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Gross	65,160	lb	Inbound	7:43 am
Tare	39,300	lb	Outbound	7:44 am
Net	25,860	lb	12.93 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-55-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS	1	OT	15 yd³
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	04. 13. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JAN M. Pruitt DRIVER	Jan M. Pruitt	04. 13. 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.796 079° 18.669 582

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	4 15 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 301022
Date: 04/13/2011
Account No: 1261756
Service Order No: 513857

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 279 JAN PRUITT

Gross	82,480	lb	Inbound	4:37 pm
Tare	40,300	lb	Outbound	4:37 pm
Net	42,180	lb	21.090 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-56-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
FRIABLE ASBESTOS	1	07	15 yd
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	04. 13. 2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
ISAAC GRAY Driver	Isaac Gray	04. 13. 2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space 36° 33.797 79°18.672 557

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El ____

Printed/typed name & title	Signature	Month Day Year
Audrie Meadows	Audrie Meadows	04 15 11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 301023
Date: 04/13/2011
Account No: 1261756
Service Order No: 513958

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 260 Isaac Gray

Gross	71,180	lb	Inbound	4:38 pm
Tare	40,580	lb	Outbound	4:39 pm
Net	30,600	lb	15.30C tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-59-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7668

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. O. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd, RINGGOLD, VA 24586

WDS telephone no. 434-432-0211
Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
FRIABLE ASBESTOS / Soil RQ ASBESTOS 9 NA2212 PG III	1	OT	15 yd³

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H.R. Blankenship	04.18.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L. MORTON JR.		04.18.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space Cell WT A N 36.34.417 W 79.15.180

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El SOT

Printed/typed name & title	Signature	Month Day Year
Tenisha Valentine	Tenisha Valentine	4-28-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 301582
Date: 04/18/2011
Account No: 1261756
Service Order No: 514354

PO/Release No: -001

Billing Status: ACTIVE

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

Vehicle No: 260 LEE MARTIN

Gross	80,460	lb	Inbound	3:46 pm
Tare	40,580	lb	Outbound	3:47 pm
Net	39,880	lb	19.94 tn	

Material	Qty	Unit/$	Materials	Totals

WASTE SHIPMENT RECORD

REPORT DATE

MANIFEST NUMBER FPC4233-57-11

GENERATOR

1. Work site name and mailing address
NEW RIVER STORAGE UNIT
0.8 MI SOUTH OF RT. 1030 & RT 747
DUBLIN, VA 24084

Owner's Name

Owner's telephone no. 540-639-7688

2. Operator's name and address
CAPITOL ENVIRONMENTAL SERVICES, INC.
200 BIDDLE AVE. SUITE 205
NEWARK, DE 19702

Operator's telephone no. 540-777-6547

3. Waste Disposal Site (WDS)
Name FIRST PIEDMONT CORPORATION
Mailing Address P. BOX 1069
CHATHAM, VA 24531
Physical Site Location 1224 Clarks Mill Rd. RINGGOLD, VA 24586

WDS telephone no. 434-432-0211

Additional Information
FPC-4233

4. Name and address of responsible agency
DEPARTMENT OF LABOR & INDUSTRY
13 SOUTH 13TH STREET
RICHMOND, VA 23219-4101

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
	1	OT	15 yd³
FRIABLE ASBESTOS	Bagged		
RQ ASBESTOS 9 NA2212 PG III			

8. Special handling instructions and additional information
IF SPILLED, CONTAIN IMMEDIATELY, MUST WEAR RESPIRATOR & PROTECTIVE CLOTHING.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
H.R.BLANKENSHIP, TRANSPORTATION ANALYST	H R Blankenship	04.27.2011

TRANSPORTER

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
OTIS L MARTIN JR DRIVER		04.27.2011

Address and telephone no.
FIRST PIEDMONT CORPORATION
P. O. BOX 1069
CHATHAM, VA 24531 (434)432-0211

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year

Address and telephone no.

DISPOSAL SITE

12. Discrepancy indication space N 36° 33' 800 Cell III A W 79° 18' 16166

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in Item 12.

Grid Coordinates East ____ North ____ El 513

Printed/typed name & title	Signature	Month Day Year
Tenika Valentine	Tenika Valentine	4-28-11

ORIGINAL RETURN TO GENERATOR

First Piedmont Corporation

P.O. BOX 1069
Chatham, VA 24531

Ticket No: 302774
Date: 04/27/2011
Account No: 1261756
Service Order No: 515173

CAPITOL ENVIRONMENTAL
NRU Bagging Plant Road
DUBLIN VA

PO/Release No: -001
Vehicle No: 260 LEE MARTIN

Gross	65,400	lb	Inbound	3:47 pm
Tare	40,580	lb	Outbound	3:48 pm
Net	24,820	lb	12.410 tn	

Qty	Unit/$	Materials	Totals

Appendix G

Photo Log for WBG Response Action

ARCADIS

Project Photos

BLA and IAA Response Action Photos
RFAAP-NRU

WBG pre-excavation activities. May 2011.

WBG pre-excavation activities. May 2011.

Construction of sediment stabilization pad. May 2011.

Construction of sediment stabilization pad from gravel road. May 2011

Installed gravel road. May 2011.

Completed sediment stabilization pad. May 2011.

Dredging the WBG site. May 2011.

Moving sediment to adjacent stabilization pad. May 2011.

Dredging the WBG site. May 2011.

Sediment on stabilization pad. May 2011.

Adding cement kiln dust to stabilize sediment. May 2011.

Erosion control installed. May 2011.

Stabilization pad has been removed and site re-graded. Area has been seeded and covered with straw. May 2011.

Straw laid to stabilize dirt road. May 2011.

Straw stabilization near site. May 2011.

Straw laid to stabilize dirt road. May 2011.

Appendix H

Waste Disposal Manifests and Weigh Tickets for WBG Sediment Disposal

First Piedmont CORP

INDUSTRIAL/SHIPPING MANIFEST

020838

Chatham, Virginia 24531
434-432-0211

MANIFEST NO. _____

GENERATOR IDENTIFICATION:
Business Name: New River Storage Unit
Mailing Address: P.O. Box 1, Radford State: VA 24141
Shipment Origin: .8 miles South rt. 1003 & 747 City/State:
Authorized Agent: Jeremy Flint Title:
Emergency Tel #: 540-639-7688
Type of Process Generating Waste: Pond sediment

WASTE CHARACTERIZATION: Analysis Attached: On File **FPC Code #: FPC-4279**
PHYSICAL STATE: Solid _____ pH _____

BULK VOLUME: Gallons _____ Tons _____ Cubic Yards _____ Other _____

CONTAINERS: DRUMS: No. _____ Size: _____ BAGS: No. _____ Size: _____

Special Handling Instructions: Non-hazardous
Fire or Spill Instructions: Non-flammable
Hauler Identification: Thompson Trucking
Disposal Site Destination: First Piedmont Landfill

The wastes described above were consigned to the carrier designated below.
I certify the foregoing is true to the best of my knowledge.

JR Hankenship 05.12.11
Signature of Generator or Authorized Agent **Date of Shipment Release**

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3100 Trailer No: Tank No: Box No: Other:
I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

X Christopher Cook
Signature of Hauler

Date Received 5-12-11 Time: 8:00 (AM) PM
Date Delivered 5-12-11 Time: 12:23 AM (PM)

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC4879
Quantity Measured at Site:
21.88 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.
Signature of Authorized Agent and Title: Timothy G Vickers
Received: 5-12-11

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 304576
Date: 05/12/2011
Account No: 1261757
Service Order No: 0

CAPITOL ENVIRONMENTAL
RADFORD
DUBLIN VA

PO/Release No: -001
Vehicle No: 160 Unassigned

Name : thompson

Gross	67,980	lb	Inbound	12:23 pm
Tare	25,540	lb	Outbound	12:29 pm
Net	42,440	lb	21.220 tn	

Material		Qty	Unit/$	Materials	Totals
33000	SPECIAL WASTE-TONS	21.22			
	ENERGY SURCHARGE -				

Indemnification. Customer agrees to indemnify, hold harmless, and defend First Piedmont Corporation, its Subsidiaries, affiliates, employees, officers, and directors from and against any and all liabilities, claims, penalties, forfeitures, suits and the costs and expenses incident thereto, including costs of defense, settlement, and reasonable attorneys fees, which may be incurred, as a result of death or injuries to any person, or damage to any property, contamination of or adverse effects on the environment, caused in whole or in art by the Customer, its employees, or subcontractors in disposing waste at this Facility. In the event Customer delivers Unacceptable Waste (as determined by First Piedmont Corporation) Customer Agrees to assume all expenses and obligations with the removal and/or resolution of any effects caused by the delivery of such Unacceptable Waste. Customer agrees to abide by any and all Facility Safety Protocols and procedures.

TJV

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3160 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

X Christopher Cook
Signature of Hauler

Date Received 5-12-11 Time: 8:00 (AM) PM
Date Delivered 5-12-11 Time: 12:23 AM (PM)

DISPOSAL SITE IDENTIFICATION:

Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4079
Quantity Measured at Site: 21.22 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION

I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.

Signature of Authorized Agent and Title: Jeffrey A. Hebert
Received: 5-12-11

First Piedmont CORP

Chatham, Virginia 24531
434-432-0211

INDUSTRIAL/SHIPPING MANIFEST

020839

MANIFEST NO. _____

GENERATOR IDENTIFICATION:
Business Name: New River Storage Unit
Mailing Address: P.O. Box 1, Radford State: VA 24141
Shipment Origin: .8 miles South rt. 1003 & 747 City/State:
Authorized Agent: Jeremy Flint Title:
Emergency Tel #: 540-639-7688
Type of Process Generating Waste: Pond sediment

WASTE CHARACTERIZATION: Analysis Attached: On File **FPC Code #: FPC-4279**
PHYSICAL STATE: Solid _____ pH _____

BULK VOLUME: Gallons _____ Tons _____ Cubic Yards _____ Other _____

CONTAINERS: DRUMS: No. _____ Size: _____ BAGS: No. _____ Size: _____

Special Handling Instructions: Non-hazardous
Fire or Spill Instructions: Non-flammable
Hauler Identification: Thompson Trucking
Disposal Site Destination: First Piedmont Landfill

The wastes described above were consigned to the carrier designated below.
I certify the foregoing is true to the best of my knowledge.

H.R. Blankenship
Signature of Generator or Authorized Agent

05.12.11
Date of Shipment Release

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 387 Trailer No: Tank No: Box No: Other:
I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

x Walter Hunt Jr
Signature of Hauler

Date Received 05.12.11 Time: 8:00 (AM) PM
Date Delivered 5-12-11 Time: 12:24 AM (PM)

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4879
Quantity Measured at Site: 19.44 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.

Signature of Authorized Agent and Title: Michael Valent
Received: 5-12-11

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 304578
Date: 05/12/2011
Account No: 1261757
Service Order No: 0

CAPITOL ENVIRONMENTAL
RADFORD
DUBLIN VA

PO/Release No: -001
Vehicle No: 3187 Unassigned

Gross	65,000	lb	Inbound	12:24 pm
Tare	26,120	lb	Outbound	12:34 pm
Net	38,880	lb	19.440 tn	

Material		Qty	Unit/$	Materials	Totals
33000	SPECIAL WASTE-TONS	19.44			
	ENERGY SURCHARGE -				

Indemnification. Customer agrees to indemnify, hold harmless, and defend First Piedmont Corporation, its Subsidiaries, affiliates, employees, officers, and directors from and against any and all liabilities, claims, penalties, forfeitures, suits and the costs and expenses incident thereto, including costs of defense, settlement, and reasonable attorneys fees, which may be incurred, as a result of death or injuries to any person, or damage to any property, contamination of or adverse effects on the environment, caused in whole or in art by the Customer, its employees, or subcontractors in disposing waste at this Facility. In the event Customer delivers Unacceptable Waste (as determined by First Piedmont Corporation) Customer agrees to assume all expenses and obligations with the removal and/or resolution of any effects caused by the delivery of such Unacceptable Waste. Customer agrees to abide by any and all Facility Safety Protocols and procedures.

TJV

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3187 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

x Walter Thompson
Signature of Hauler

Date Received 05.12.11 Time: 8:00 AM PM
Date Delivered 5-12-11 Time: 12:34 AM PM

DISPOSAL SITE IDENTIFICATION:

Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 49-19
Quantity Measured at Site: 19.44 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.
Signature of Authorized Agent and Title: Mike G Valent
Received: 5-12-11

First Piedmont CORP

Chatham, Virginia 24531
434-432-0211

INDUSTRIAL/SHIPPING MANIFEST

020840

MANIFEST NO. _____

GENERATOR IDENTIFICATION:
Business Name: New River Storage Unit
Mailing Address: P.O. Box 1, Radford State: VA 24141
Shipment Origin: .8 miles South rt. 1003 & 747 City/State:
Authorized Agent: Jeremy Flint Title:
Emergency Tel #: 540-639-7688
Type of Process Generating Waste: Pond sediment

WASTE CHARACTERIZATION: Analysis Attached: On File **FPC Code #: FPC-4279**
PHYSICAL STATE: Solid _____ pH _____

BULK VOLUME: Gallons _____ Tons _____ Cubic Yards _____ Other _____

CONTAINERS: DRUMS: No. _____ Size: _____ BAGS: No. _____ Size: _____

Special Handling Instructions: Non-hazardous
Fire or Spill Instructions: Non-flammable
Hauler Identification: Thompson Trucking
Disposal Site Destination: First Piedmont Landfill

The wastes described above were consigned to the carrier designated below.
I certify the foregoing is true to the best of my knowledge.

H. Glenn Lawson Jr. 05-12-11
Signature of Generator or Authorized Agent **Date of Shipment Release**

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3089 Trailer No: Tank No: Box No: Other:
I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

x Mark Litchford Sr.
Signature of Hauler

Date Received 05.12.11 Time: 9:00 (AM) PM
Date Delivered 5-12-11 Time: 12:35 AM (PM)

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4879
Quantity Measured at Site:
80.65 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.
Signature of Authorized Agent and Title: Linda G Valentine
Received: 5-12-11

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 304579
Date: 05/12/2011
Account No: 1261757
Service Order No: 0

CAPITOL ENVIRONMENTAL
RADFORD
DUBLIN VA

PO/Release No: -001
Vehicle No: 3089 Unassigned

Gross	66,820	lb	Inbound	12:25 pm
Tare	25,520	lb	Outbound	12:41 pm
Net	41,300	lb	20.650 tn	

Material		Qty	Unit/$	Materials	Totals
33000	SPECIAL WASTE-TONS	20.65			
	ENERGY SURCHARGE -				

Indemnification: Customer agrees to indemnify, hold harmless, and defend First Piedmont Corporation, its Subsidiaries, affiliates, employees, officers, and directors from and against any and all liabilities, claims, penalties, forfeitures, suits and the costs and expenses incident thereto, including costs of defense, settlement, and reasonable attorneys fees, which may be incurred, as a result of death or injuries to any person, or damage to any property, contamination of or adverse effects on the environment, caused in whole or in art by the Customer, its employees, or subcontractors in disposing waste at this Facility. In the event Customer delivers Unacceptable Waste (as determined by First Piedmont Corporation) Customer agrees to assume all expenses and obligations with the removal and/or resolution of any effects caused by the delivery of such Unacceptable Waste. Customer agrees to abide by any and all Facility Safety Protocols and procedures.

TJV

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3089 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

x Mark Litchford SR.
Signature of Hauler

Date Received 05.12.11 Time: 9:00 AM PM
Date Delivered 5-12-11 Time: 12:25 AM PM

DISPOSAL SITE IDENTIFICATION:

Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4079
Quantity Measured at Site: 20.65 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION

I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.

Signature of Authorized Agent and Title: Jerry G. Valentine
Received: 5-12-11

First Piedmont CORP

INDUSTRIAL/SHIPPING MANIFEST

020841

MANIFEST NO. _____

GENERATOR IDENTIFICATION: Chatham, Virginia 24531 434-432-0211
Business Name: New River Storage Unit
Mailing Address: P.O. Box 1, Radford State: VA 24141
Shipment Origin: .8 miles South rt. 1003 & 747 City/State:
Authorized Agent: Jeremy Flint Title:
Emergency Tel #: 540-639-7688
Type of Process Generating Waste: Pond sediment

WASTE CHARACTERIZATION: Analysis Attached: On File **FPC Code #: FPC-4279**
PHYSICAL STATE: Solid _____ pH _____

BULK VOLUME: Gallons _____ Tons _____ Cubic Yards _____ Other _____

CONTAINERS: DRUMS: No. _____ Size: _____ BAGS: No. _____ Size: _____

Special Handling Instructions: Non-hazardous
Fire or Spill Instructions: Non-flammable
Hauler Identification: Thompson Trucking
Disposal Site Destination: First Piedmont Landfill

The wastes described above were consigned to the carrier designated below.
I certify the foregoing is true to the best of my knowledge.

_____ 05.12.11
Signature of Generator or Authorized Agent **Date of Shipment Release**

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3192 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

Date Received 05.12.11 Time: 9:15 (AM) PM
Date Delivered 5-12-11 Time: 12:25 AM (PM)

x Pat Hansen
Signature of Hauler

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4279
Quantity Measured at Site: 20.35 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility has received a permit and approval for such disposal.
Signature of Authorized Agent and Title: _____
Received: 5-12-11

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 304580
Date: 05/12/2011
Account No: 1261757
Service Order No: 0

CAPITOL ENVIRONMENTAL
RADFORD
DUBLIN VA

PO/Release No: -001
Vehicle No: 3192 Unassigned

Gross	66,060	lb	Inbound	12:25 pm
Tare	25,360	lb	Outbound	12:45 pm
Net	40,700	lb	20.350 tn	

Material		Qty	Unit/$	Materials	Totals
33000	SPECIAL WASTE-TONS	20.35			
	ENERGY SURCHARGE -				

Indemnification. Customer agrees to indemnify, hold harmless, and defend First Piedmont Corporation, its Subsidiaries, affiliates, employees, officers, and directors from and against any and all liabilities, claims, penalties, forfeitures, suits and the costs and expenses incident thereto, including costs of defense, settlement, and reasonable attorneys fees, which may be incurred, as a result of death or injuries to any person, or damage to any property, contamination of or adverse effects on the environment, caused in whole or in art by the Customer, its employees, or subcontractors in disposing waste at this Facility. In the event Customer delivers Unacceptable Waste(as determined by First Piedmont Corporation) Customer agrees to assume all expenses and obligations with the removal and/or resolution of any effects caused by the delivery of such Unacceptable Waste. Customer agrees to abide by any and all Facility Safety Protocols and procedures.

TJV

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3192 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

x Pat Hansen
Signature of Hauler

Date Received 05.12.11 Time: 9:15 AM PM
Date Delivered 5-12-11 Time: 12:25 AM PM

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586 FPC 4879
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.:
Quantity Measured at Site: 20.35 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.
Signature of Authorized Agent and Title:
Received: 5-12-11

First Piedmont CORP

INDUSTRIAL/SHIPPING MANIFEST

020842

MANIFEST NO. _____

GENERATOR IDENTIFICATION: Chatham, Virginia 24531 434-432-0211

Business Name: New River Storage Unit

Mailing Address: P.O. Box 1, Radford State: VA 24141

Shipment Origin: .8 miles South rt. 1003 & 747 City/State:

Authorized Agent: Jeremy Flint Title:

Emergency Tel #: 540-639-7688

Type of Process Generating Waste: Pond sediment

WASTE CHARACTERIZATION: Analysis Attached: On File **FPC Code #: FPC-4279**

PHYSICAL STATE: Solid _____ pH _____

BULK VOLUME: Gallons _____ Tons _____ Cubic Yards _____ Other _____

CONTAINERS: DRUMS: No. _____ Size: _____ BAGS: No. _____ Size _____

Special Handling Instructions: Non-hazardous

Fire or Spill Instructions: Non-flammable

Hauler Identification: Thompson Trucking

Disposal Site Destination: First Piedmont Landfill

The wastes described above were consigned to the carrier designated below.
I certify the foregoing is true to the best of my knowledge.

H.K. Hankins
Signature of Generator or Authorized Agent

05.12.11
Date of Shipment Release

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA

Telephone No: Waste Hauler Registration No: State:

Tractor No: 3199 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

X _____
Signature of Hauler

Date Received 05.12.11 Time: 9:30 (AM) PM

Date Delivered 5-12-11 Time: 1:15 AM (PM)

DISPOSAL SITE IDENTIFICATION:

Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586

Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC .4279

Quantity Measured at Site: 92.89 tons

HANDLING PROCEDURE

Describe In Detail:

FINAL ON-SITE LOCATION

I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.

Signature of Authorized Agent and Title: Linda G. Vincent

Received: 5-12-11

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 304596
Date: 05/12/2011
Account No: 1261757
Service Order No: 0

CAPITOL ENVIRONMENTAL
RADFORD
DUBLIN VA

PO/Release No: -001
Vehicle No: 3199 Unassigned

Gross	69,460	lb	Inbound	1:19	pm
Tare	24,880	lb	Outbound	1:27	pm
Net	44,580	lb	22.290	tn	

Material		Qty	Unit/$	Materials	Totals
33000	SPECIAL WASTE-TONS	22.29			
	ENERGY SURCHARGE -				

Indemnification. Customer agrees to indemnify, hold harmless, and defend First Piedmont Corporation, its Subsidiaries, affiliates, employees, officers, and directors from and against any and all liabilities, claims, penalties, forfeitures, suits and the costs and expenses incident thereto, including costs of defense, settlement, and reasonable attorneys fees, which may be incurred, as a result of death or injuries to any person, or damage to any property, contamination of or adverse effects on the environment, caused in whole or in art by the Customer, its employees, or subcontractors in disposing waste at this Facility. In the event Customer delivers Unacceptable Waste (as determined by First Piedmont Corporation) Customer agrees to assume all expenses and obligations with the removal and/or resolution of any effects caused by the delivery of such Unacceptable Waste. Customer agrees to abide by any and all Facility Safety Protocols and procedures.

TJV

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No:
Waste Hauler Registration No: State:
Tractor No: 3199 Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

Date Received 05.12.11 Time: 9:30 AM PM Signature of Hauler
Date Delivered 5-12-11 Time: 1:15 AM PM

DISPOSAL SITE IDENTIFICATION:

Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586 FPC 4979
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.:
Quantity Measured at Site: 22,29 tons

HANDLING PROCEDURE

Describe In Detail:

FINAL ON-SITE LOCATION

I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.

Signature of Authorized Agent and Title:
Received: 5-12-11

First Piedmont CORP

INDUSTRIAL/SHIPPING MANIFEST

020843

MANIFEST NO. _____

GENERATOR IDENTIFICATION: Chatham, Virginia 24531
Business Name: New River Storage 434-432-0211
Mailing Address: P.O. Box 1, Radford State: VA 24141
Shipment Origin: .8 miles South rt. 1003 & 747 City/State:
Authorized Agent: Jeremy Flint Title:
Emergency Tel #: 540-639-7688
Type of Process Generating Waste: Pond sediment

WASTE CHARACTERIZATION: Analysis Attached: On File **FPC Code #: FPC-4279**
PHYSICAL STATE: Solid _____ pH _____

BULK VOLUME: Gallons _____ Tons _____ Cubic Yards _____ Other _____

CONTAINERS: DRUMS: No. _____ Size: _____ BAGS: No. _____ Size: _____

Special Handling Instructions: Non-hazardous
Fire or Spill Instructions: Non-flammable
Hauler Identification: Thompson Trucking
Disposal Site Destination: First Piedmont Landfill

The wastes described above were consigned to the carrier designated below.
I certify the foregoing is true to the best of my knowledge.

_____ 05.12.11
Signature of Generator or Authorized Agent **Date of Shipment Release**

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: Waste Hauler Registration No: State:
Tractor No: 3716 Trailer No: Tank No: Box No: Other:
I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

X _____
Signature of Hauler

Date Received 05.12.11 Time: 9:30 (AM) PM
Date Delivered 5-12-11 Time: 1:21 AM (PM)

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4079
Quantity Measured at Site: 18.45 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility ha received a permit and approval for such disposal.
Signature of Authorized Agent and Title: Tewtha D. Valentine
Received: 5-12-11

First Piedmont Corporation
P.O. BOX 1069
Chatham, VA 24531

Ticket No: 304597
Date: 05/12/2011
Account No: 1261757
Service Order No: 0

CAPITOL ENVIRONMENTAL
RADFORD
DUBLIN VA

PO/Release No: -001
Vehicle No: 3176 Unassigned

Gross	62,920	lb	Inbound	1:21 pm
Tare	26,020	lb	Outbound	1:30 pm
Net	36,900	lb	18.450 tn	

Material		Qty	Unit/$	Materials	Totals
33000	SPECIAL WASTE-TONS	18.45			
	ENERGY SURCHARGE -				

Indemnification. Customer agrees to indemnify, hold harmless, and defend First Piedmont Corporation, its Subsidiaries, affiliates, employees, officers, and directors from and against any and all liabilities, claims, penalties, forfeitures, suits and the costs and expenses incident thereto, including costs of defense, settlement, and reasonable attorneys fees, which may be incurred, as a result of death or injuries to any person, or damage to any property, contamination of or adverse effects on the environment, caused in whole or in art by the Customer, its employees, or subcontractors in disposing waste at this Facility. In the event Customer delivers Unacceptable Waste (as determined by First Piedmont Corporation) Customer agrees to assume all expenses and obligations with the removal and/or resolution of any effects caused by the delivery of such Unacceptable Waste. Customer agrees to abide by any and all Facility Safety Protocols and procedures.

WASTE HAULER IDENTIFICATION:

Name & Address: Thompson Trucking Concord, VA
Telephone No: 30-10 Waste Hauler Registration No: State:
Tractor No: Trailer No: Tank No: Box No: Other:

I certify that the wastes in quantity described above were received by me for shipment and delivered to the destination indicated below.

X _____ Signature of Hauler

Date Received 05.12.11 Time: 9:30 AM PM
Date Delivered 5-12-11 Time: 1:21 AM PM

DISPOSAL SITE IDENTIFICATION:
Name & Address: First Piedmont Landfill 1224 Clarks Mill Road Ringgold, VA 24586
Telephone No: 434-432-0211 Site Permit No: 65 Waste Approval No.: FPC 4079
Quantity Measured at Site: 18.45 tons

HANDLING PROCEDURE
Describe In Detail:

FINAL ON-SITE LOCATION
I certify that the wastes described above were received by me for disposal. I further certify that this facility has received a permit and approval for such disposal.
Signature of Authorized Agent and Title: Aleisha D. Valentine
Received: 5-12-11

Appendix I

Laboratory Analytical Data and Data Validation Reports for WBG Confirmation Samples

(On CD – See Appendix E)

DATA VALIDATION CHECKLIST Radford

ARCADIS, Inc.
3850 N. Causeway Blvd.
Suite 1600
Metairie, LA 70002
Tel. (504) 832-4174
Fax. (504) 832-2145

Sample Team:	ARCADIS
Sample Matrix:	Soil and Water
Analytical Laboratory;	Emperical
Laboratory Work Order No.:	1105131
Lab Project Manager:	Rick Davis
Analyses:	Metals – 6010B
QA Reporting Level:	Level IV
ARCADIS Project Manager:	Jace'que Powell

Environmental Project: Radford

Project Number:

Analytical data was evaluated in accordance with applicable USEPA SW-846 method requirements, "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" (July 2002), "USEPA Region III National Functional Guidelines for Organic Data Review" (September 1994), "USEPA Region III National Functional Guidelines for Inorganic Data Review" (June 1995), site-specific requirements defined in *Radford Master Work Plan* (URS, 2003), and site-specific requirements defined in the *Quality Assurance Plan Addendum* (Arcadis, 2008). The validation presented in this review was performed at the RAAP defined Level I.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The following samples were included in this data validation:

SDG Number	Sample ID	Sample Date	Parent Sample
1105131	WBG-SD1	05/12/11	
1105131	WBG-SD4	05/12/11	
1105131	WBG-SD6	05/12/11	
1105131	WBG-SD8	05/12/11	
1105131	WBG-SD9	05/12/11	
1105131	WBG-SWOF1	05/12/11	
1105131	WBG-SWEP01	05/12/11	

I. GENERAL INFORMATION

ITEMS REVIEWED	REPORTED/REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Chain of Custody		X	X		X		
2. Sampling dates and times		X	X		X		
3. Sample type on COC		X	X		X		
4. Field QC samples		X	X		X		
5. Case Narrative		X	X		X		
6. Sample Receipt Condition		X	X		X		

"Exceptions Noted" = If an exception was noted in the Case Narrative this will be checked in the affirmative.
"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the Case Narrative) this will be checked in the affirmative.

II. METALS

ITEMS REVIEWED	REPORTED/REVIEWED		EXCEPTIONS NOTED		GENERAL COMMENTS NOTED		ITEM NOT REQUIRED
	NO	YES	NO	YES	NO	YES	
1. Holding times		X	X		X		
2. Reporting limits		X	X		X		
3. Blanks							
A. Method Blanks		X	X		X		
B. Equipment Blanks		X	X		X		
4. Laboratory control sample (LCS) (%R)		X	X		X		
5. Matrix spike (MS) (%R)		X	X			X	
6. MSD (%R)		X	X			X	
7. MS/MSD (RPD)		X	X			X	
8. Field/Lab Duplicate Comparison (RPD)	X						X

%R - percent recovery RPD - relative percent difference MSD- Matrix Spike Duplicate

"Exceptions Noted" = If an exception was noted in the accompanying case narrative or by the validator this will be checked in the affirmative where data qualification was applied.

"General Comments Noted" = If there are other comments associated with Data Quality (not necessarily noted in the case narrative) this will be checked in the affirmative where data qualification was not warranted.

COMMENTS: The samples were analyzed for Metals by Method 6010B. Performance was acceptable, with the following exceptions and notes.

5-7. Sample location WBG-SWEP01 was used as the MS/MSD. The recoveries and RPDs were acceptable.

Qualifier Definitions:

J – Result is considered to be estimated at the value reported.
UJ – Result is considered not detected but estimated due to QC deficiencies.
UB – Non-detect at the Reporting Limit or at the concentration reported if greater than the RL due to associated blank contamination.
R – Result is qualified as unusable, data point is rejected.

VALIDATION PERFORMED BY: Rachelle Borne

SIGNATURE:

DATE: 07/15/11

PEER REVIEW: Jace'que Powell

DATE: 07/16/11

ANALYTICAL SUMMARY DATA PACKAGE
SDG # 1105131

PROJECT NAME: Radford Army Ammunition Plant
PROJECT LOCATION: Pulaski and Montgomery Counties, Virginia

SUBMITTAL TO:
Jace'que Powell
Arcadis
2929 Briarpark Dr., Suite 300
Houston, TX 77042

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Sonya Gordon
Tel (615)345-1115
Fax (866)417-0548
Email: sgordon@empirlabs.com

Original Report Date: May 24, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 49

THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. No samples were subcontracted for this SDG.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW6010B:
No anomalies or deviations are noted.

Data Qualifiers

As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL), also known as Reporting Limit **(RL),** is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. Empirical Laboratories defines the EQL to be at or near the lowest standard of the calibration curve.

*****: An exceeding quality control criteria is associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard failed criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the MDL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

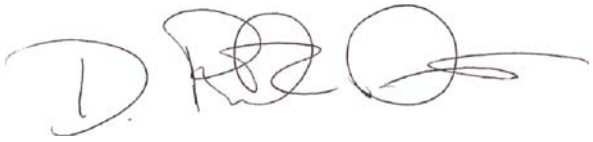
BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified

concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.



Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Sample Receipt Information

ARCADIS

Laboratory Task Order No./P.O. No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name 6P08RAAP.4 WBG.XG WBG
Project Location NRU Dublin, Va (RAAP)
Laboratory Empirical Laboratories
Project Manager Chris Kalinowski
Sampler(s)/Affiliation W. Keith Carr / ARCADIS

1105131

	Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	ANALYSIS / METHOD / SIZE: Lead/Chromium (USEPA6010)	Metals (USEPA6010)					Remarks	Total
-01	WBG-SD1	SO	05.12.11 1415		2							2
-02	WBG-SD4		05.12.11 1420		2							2
-03	WBG-SD6		05.12.11 1425		2							2
-04	WBG-SD8		05.12.11 1430		2							2
-05	WBG-SD9		05.12.11 1435		2							2
-06	WBG-SWOF1	L	05.12.11 1505		2 WKC 05.12.11	2						2
-07	WBG-SWEP01	L	05.12.11 1515		2	2						2

Sample Matrix: L = Liquid; S = Solid; A = Air SO = soil

Total No. of Bottles/ Containers: 14

Relinquished by: W. Keith Carr	Organization: ARCADIS	Date 05/12/11	Time _____	Seal Intact?		
Received by: _____	Organization: Fed Ex # 8757 0206 7403	Date 05/12/11	Time _____	Yes	No	N/A
Relinquished by: _____	Organization: _____	Date / /	Time _____	Seal Intact?		
Received by: [signature]	Organization: Empirical	Date 5/13/11	Time 09:00	(Yes)	No	N/A

Special Instructions/Remarks:
Please contact Chris Kalinowski with any questions
919.656.7731

Delivery Method: ☐ In Person ☒ Common Carrier Fed Ex SPECIFY ☐ Lab Courier ☐ Other _____ SPECIFY

AG 05-12/01

8

1105131 Summ Package

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1105131 Number of Coolers: 1 of 1

Client: Arcadis Project: GP08RAAP.4WBG.KGWBG

Date/Time Received: 5-13-11/09:00 Date cooler(s) opened: 5-13-11

Opened By (print): (signature):

Circle response below as appropriate

1. How did the samples arrive? (FedEx) UPS DHL Hand Delivered

EL Courier Other: _____

If applicable, enter airbill number here: 7403

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 1 Seal date: 5-12-11 Seal Initials: _____

3. Were custody seals unbroken and intact at the date and time of arrival?	(Yes)	No	N/A
4. Were custody papers sealed in a plastic bag included in the sample cooler?	(Yes)	No	N/A
5. Were custody papers filled out properly (ink, signed, etc.)?	(Yes)	No	N/A
6. Did you sign custody papers in the appropriate place for acceptance?	(Yes)	No	N/A
7. Was project identifiable from custody papers?	(Yes)	No	N/A
8. If required, was enough ice present in the cooler(s)?	(Yes)	No	N/A

Type of Coolant: (WET) DRY BLUE NONE

Temperature of Samples upon Receipt: Initial Value: 0.4 °C Correction Factor: +1.4 °C Final Value: 1.8 °C

Dates samples were logged-in: 5-13-11

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____

10. Were all bottle lids intact and sealed tightly?	(Yes)	No	N/A
11. Did all bottles arrive unbroken?	(Yes)	No	N/A
12. Was all required bottle label information complete?	(Yes)	No	N/A
13. Did all bottle labels agree with custody papers?	(Yes)	No	N/A
14. Were correct containers used for the analyses indicated?	(Yes)	No	N/A
15. Were preservative levels correct in all applicable sample containers?	(Yes)	No	N/A
16. Was residual chlorine present in any applicable sample containers?	Yes	No	(N/A)
17. Was sufficient amount of sample sent for the analyses required?	(Yes)	No	N/A
18. Was headspace present in any included VOA vials?	Yes	No	(N/A)

If Non-Conformance issues were present, list by sample ID: _____

1105131

Empirical Laboratories, LLC

Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010

Project Manager: Sonya Gordon
Project Number: ARC_Radford

Report To:
Arcadis (A285)
Jace'que Powell
2929 Briarpark Dr., Suite 300
Houston, TX 77042
Phone: (281) 497-6900
Fax: (000) 000-0000

Invoice To:
Arcadis (A285)
Joyce Williams
630 Plaza Drive Suite 600
Highlands Ranch, CO 80129
Phone :(720) 344-3764
Fax: (000) 000-0000

Date Due: 05/20/2011 16:00 (5 day TAT)

Received By: Chris Donald
Date Received: 05/13/2011 09:00

Logged In By: Chris Donald
Date Logged In: 05/13/2011 13:53

Samples Received at: **1.8°C**
Custody Seals Yes Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confirme Yes

Method	Test Code	Due	TAT	Expires	Comments
1105131-01 WBG-SD1 [Solid] Sampled 05/12/2011 14:15 Eastern					
SM2540B	WC_PERCENT_SOLIDS_2540B	05/19/2011 14:00	5	05/19/2011 13:15	
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 13:15	Pb & Cu
1105131-02 WBG-SD4 [Solid] Sampled 05/12/2011 14:20 Eastern					
SM2540B	WC_PERCENT_SOLIDS_2540B	05/19/2011 14:00	5	05/19/2011 13:20	
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 13:20	Pb & Cu
1105131-03 WBG-SD6 [Solid] Sampled 05/12/2011 14:25 Eastern					
SM2540B	WC_PERCENT_SOLIDS_2540B	05/19/2011 14:00	5	05/19/2011 13:25	
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 13:25	Pb & Cu
1105131-04 WBG-SD8 [Solid] Sampled 05/12/2011 14:30 Eastern					
SM2540B	WC_PERCENT_SOLIDS_2540B	05/19/2011 14:00	5	05/19/2011 13:30	
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 13:30	Pb & Cu
1105131-05 WBG-SD9 [Solid] Sampled 05/12/2011 14:35 Eastern					
SM2540B	WC_PERCENT_SOLIDS_2540B	05/19/2011 14:00	5	05/19/2011 13:35	
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 13:35	Pb & Cu
1105131-06 WBG-SWOF1 [Water] Sampled 05/12/2011 15:05 Eastern					
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 14:05	
1105131-07 WBG-SWEP01 [Water] Sampled 05/12/2011 15:15 Eastern					
SW6010B	MET_ICP_6010B_FULL	05/19/2011 14:00	5	11/08/2011 14:15	

Reviewed By

Date

1105131

Empirical Laboratories, LLC

Client:	**Arcadis (A285)**	**Project Manager:**	**Sonya Gordon**
Project:	**Radford Army Ammunition Plant2010**	**Project Number:**	**ARC_Radford**

Method	Test Code	Due	TAT	Expires	Comments

Sample Delivery Group Assignment Form

CLIENT: Arcadis (A285)
PROJECT NAME: Radford Army Ammunition Plant2010
SDG #: 1105131
MATRIX: Water

QC LEVEL: Level IV
Report Due: 5/20/2011
Client Sample Count:

Sample Type	Sampled	Received	Lab ID	Client ID	SM2540B	SW6010B
Client Sample	5/12/2011	5/13/2011	1105131-01	WBG-SD1	X	X
Client Sample	5/12/2011	5/13/2011	1105131-02	WBG-SD4	X	X
Client Sample	5/12/2011	5/13/2011	1105131-03	WBG-SD6	X	X
Client Sample	5/12/2011	5/13/2011	1105131-04	WBG-SD8	X	X
Client Sample	5/12/2011	5/13/2011	1105131-05	WBG-SD9	X	X
Client Sample	5/12/2011	5/13/2011	1105131-06	WBG-SWOF1		X
Client Sample	5/12/2011	5/13/2011	1105131-07	WBG-SWEP01		X

Data for SW6010B Forms

ANALYSIS DATA SHEET

WBG-SD1

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 05/12/11 14:15
% Solids: 76.30

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-01
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	36.1	0.530	2.65	1		SW6010B	1E17002	05/18/11 19:43
7439-92-1	Lead	25.8	0.397	0.794	1		SW6010B	1E17002	05/18/11 19:43

ANALYSIS DATA SHEET

WBG-SD4

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 05/12/11 14:20
% Solids: 74.00

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-02
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	27.9	0.505	2.53	1		SW6010B	1E17002	05/18/11 19:47
7439-92-1	Lead	24.7	0.379	0.758	1		SW6010B	1E17002	05/18/11 19:47

ANALYSIS DATA SHEET

WBG-SD6

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 05/12/11 14:25
% Solids: 76.40

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-03
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	63.0	0.503	2.52	1		SW6010B	1E17002	05/18/11 19:52
7439-92-1	Lead	34.6	0.378	0.755	1		SW6010B	1E17002	05/18/11 19:52

ANALYSIS DATA SHEET

WBG-SD8

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 05/12/11 14:30
% Solids: 87.70

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-04
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	33.8	0.434	2.17	1		SW6010B	1E17002	05/18/11 19:57
7439-92-1	Lead	30.0	0.326	0.652	1		SW6010B	1E17002	05/18/11 19:57

ANALYSIS DATA SHEET

WBG-SD9

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Soil
Sampled: 05/12/11 14:35
% Solids: 80.00

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-05
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (mg/Kg dry)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	33.5	0.500	2.50	1		SW6010B	1E17002	05/18/11 20:01
7439-92-1	Lead	26.4	0.375	0.750	1		SW6010B	1E17002	05/18/11 20:01

ANALYSIS DATA SHEET

WBG-SWOF1

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Water
Sampled: 05/12/11 15:05
% Solids: 0.00

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-06
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	0.778	0.500	1.25	1	J	SW6010B	1E17011	05/18/11 14:25
7439-92-1	Lead	8.89	0.375	0.750	1		SW6010B	1E17011	05/18/11 14:25

ANALYSIS DATA SHEET

WBG-SWEP01

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Water
Sampled: 05/12/11 15:15
% Solids: 0.00

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1105131-07
Received: 05/13/11 09:00

CAS NO.	Analyte	Conc. (ug/L)	MDL	RL	D.F.	Q	Method	Batch	Analyzed
7440-47-3	Chromium	0.916	0.500	1.25	1	J	SW6010B	1E17011	05/18/11 14:30
7439-92-1	Lead	16.9	0.375	0.750	1		SW6010B	1E17011	05/18/11 14:30

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Instrument ID: ME-ICP
SDG: 1105131
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Sequence: 1E13915

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
1E13915-ICV1	Chromium	1000	941.4	94.1	ug/L	+/- 10.00%
	Lead	1000	978.7	97.9	ug/L	+/- 10.00%
1E13915-CCV1	Chromium	1000	1002	100	ug/L	+/- 10.00%
	Lead	1000	985.0	98.5	ug/L	+/- 10.00%
1E13915-CCV2	Chromium	1000	996.3	99.6	ug/L	+/- 10.00%
	Lead	1000	983.6	98.4	ug/L	+/- 10.00%
1E13915-CCV3	Chromium	1000	972.9	97.3	ug/L	+/- 10.00%
	Lead	1000	976.5	97.7	ug/L	+/- 10.00%
1E13915-CCV4	Chromium	1000	982.0	98.2	ug/L	+/- 10.00%
	Lead	1000	951.4	95.1	ug/L	+/- 10.00%
1E13915-CCV5	Chromium	1000	1005	101	ug/L	+/- 10.00%
	Lead	1000	975.3	97.5	ug/L	+/- 10.00%
1E13915-CCV6	Chromium	1000	965.2	96.5	ug/L	+/- 10.00%
	Lead	1000	994.4	99.4	ug/L	+/- 10.00%
1E13915-CCV7	Chromium	1000	949.9	95.0	ug/L	+/- 10.00%
	Lead	1000	994.7	99.5	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: 1105131

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Instrument ID: ME-ICP

Calibration: 1140006

Sequence: 1E13915

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
1E13915-CRL1	Chromium	4.000	4.037	101	ug/L	80 - 120
	Lead	3.000	3.227	108	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Instrument ID: ME-ICP
Project: Radford Army Ammunition Plant2010
Sequence: 1E13915
Calibration: 1140006

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
1E13915-ICB1	Chromium	0.02094	2.00	10.0	ug/L	U	SW6010B
	Chromium	0.02094	2.00	5.00	ug/L	U	SW6010B
	Lead	-0.3104	1.50	3.00	ug/L	U	SW6010B
1E13915-CCB1	Chromium	0.162	2.00	10.0	ug/L	U	SW6010B
	Chromium	0.162	2.00	5.00	ug/L	U	SW6010B
	Lead	-0.471	1.50	3.00	ug/L	U	SW6010B
1E13915-CCB2	Chromium	-0.0240	2.00	10.0	ug/L	U	SW6010B
	Chromium	-0.0240	2.00	5.00	ug/L	U	SW6010B
	Lead	-0.0197	1.50	3.00	ug/L	U	SW6010B
1E17011-BLK1	Chromium	0.0134	0.500	1.25	ug/L	U	SW6010B
	Lead	-0.0771	0.375	0.750	ug/L	U	SW6010B
1E13915-CCB3	Chromium	0.116	2.00	10.0	ug/L	U	SW6010B
	Chromium	0.116	2.00	5.00	ug/L	U	SW6010B
	Lead	-0.389	1.50	3.00	ug/L	U	SW6010B
1E13915-CCB4	Chromium	0.0863	2.00	5.00	ug/L	U	SW6010B
	Chromium	0.0863	2.00	10.0	ug/L	U	SW6010B
	Lead	-0.156	1.50	3.00	ug/L	U	SW6010B
1E13915-CCB5	Chromium	0.151	2.00	10.0	ug/L	U	SW6010B
	Chromium	0.151	2.00	5.00	ug/L	U	SW6010B
	Lead	0.238	1.50	3.00	ug/L	U	SW6010B
1E17002-BLK1	Chromium	0.0191	0.400	2.00	mg/Kg wet	U	SW6010B
	Lead	0.0215	0.300	0.600	mg/Kg wet	U	SW6010B
1E13915-CCB6	Chromium	-0.0117	2.00	10.0	ug/L	U	SW6010B
	Chromium	-0.0117	2.00	5.00	ug/L	U	SW6010B
	Lead	-0.320	1.50	3.00	ug/L	U	SW6010B
1E13915-CCB7	Chromium	0.167	2.00	10.0	ug/L	U	SW6010B
	Chromium	0.167	2.00	5.00	ug/L	U	SW6010B
	Lead	-0.497	1.50	3.00	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1140006
Sequence: 1E13915

Lab Sample ID	Analyte	True	Found	%R	Units
1E13915-IFA1	Aluminum	500000	515,300.00	103	ug/L
	Antimony		-1.91		ug/L
	Arsenic		-2.53		ug/L
	Barium		1.63		ug/L
	Beryllium		-0.01		ug/L
	Boron		22.01		ug/L
	Cadmium		1.31		ug/L
	Calcium	500000	480,360.00	96.1	ug/L
	Chromium		-1.35		ug/L
	Cobalt		-1.87		ug/L
	Copper		-5.48		ug/L
	Iron	200000	204,100.00	102	ug/L
	Lead		7.56		ug/L
	Magnesium	500000	498,950.00	99.8	ug/L
	Manganese		4.32		ug/L
	Molybdenum		0.97		ug/L
	Nickel		-4.41		ug/L
	Potassium		-76.96		ug/L
	Selenium		-4.24		ug/L
	Silver		-0.19		ug/L
	Sodium		41.96		ug/L
	Strontium		-5.33		ug/L
	Thallium		0.02		ug/L
	Tin		0.48		ug/L
	Titanium		-5.40		ug/L
	Vanadium		0.46		ug/L
	Zinc		6.96		ug/L
1E13915-IFB1	Aluminum	500000	522,430.00	104	ug/L
	Antimony	600.0	658.15	110	ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Instrument ID: ME-ICP
Calibration: 1140006
Sequence: 1E13915

Lab Sample ID	Analyte	True	Found	%R	Units
1E13915-IFB1	Arsenic	100.0	113.50	114	ug/L
	Barium	500.0	540.71	108	ug/L
	Beryllium	500.0	530.88	106	ug/L
	Boron		67.32		ug/L
	Cadmium	1000	1,052.20	105	ug/L
	Calcium	500000	487,150.00	97.4	ug/L
	Chromium	500.0	460.29	92.1	ug/L
	Cobalt	500.0	496.43	99.3	ug/L
	Copper	500.0	523.78	105	ug/L
	Iron	200000	205,950.00	103	ug/L
	Lead	50.00	57.35	115	ug/L
	Magnesium	500000	507,970.00	102	ug/L
	Manganese	500.0	480.54	96.1	ug/L
	Molybdenum		0.54		ug/L
	Nickel	1000	983.27	98.3	ug/L
	Potassium		-83.84		ug/L
	Selenium	50.00	50.37	101	ug/L
	Silver	200.0	202.89	101	ug/L
	Sodium		80.69		ug/L
	Strontium		-5.41		ug/L
	Thallium	100.0	102.09	102	ug/L
	Tin		0.36		ug/L
	Titanium		-4.88		ug/L
	Vanadium	500.0	475.75	95.2	ug/L
	Zinc	1000	1,016.50	102	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

WBG-SWEP01

Laboratory: Empirical Laboratories, LLC

SDG: 1105131

Client: Arcadis (A285)

Project: Radford Army Ammunition Plant2010

Matrix: Water

Batch: 1E17011

% Solids:

Source Sample Name: **1105131-07**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Chromium	50.00	0.9159	43.66	85.5		80 - 120
Lead	125.0	16.93	145.9	103		80 - 120

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Chromium	50.00	47.47	93.1	8.37		20	80 - 120
Lead	125.0	138.9	97.6	4.86		20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

WBG-SWEP01

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Matrix: Water
Laboratory ID: 1E17011-PS1
Batch: 1E17011
Lab Source ID: 1105131-07
Preparation: MET_3005A_LOW
Initial/Final: 100 mL / 25 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Chromium	198.1	3.664	200.0	97.2	80 - 120
Lead	332.0	67.72	250.0	106	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1105131
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Solid		
Batch:	1E17002	Laboratory ID:	1E17002-BS1
Preparation:	MET_3050B	Initial/Final:	1 g / 200 mL

ANALYTE	SPIKE ADDED (mg/Kg wet)	LCS CONCENTRATION (mg/Kg wet)	LCS % REC.	QC LIMITS REC.
Chromium	40.00	42.36	106	80 - 120
Lead	50.00	50.57	101	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1105131
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Matrix:	Water		
Batch:	1E17011	Laboratory ID:	1E17011-BS1
Preparation:	MET_3005A_LOW	Initial/Final:	100 mL / 25 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Chromium	4.000	3.850	96.2	80 - 120
Lead	5.000	4.854	97.1	80 - 120

SERIAL DILUTION

SW6010B

WBG-SWEP01

Laboratory: Empirical Laboratories, LLC
Client: Arcadis (A285)
Matrix: Water
Sequence: 1E13915
Preparation: MET_3005A_LOW

SDG: 1105131
Project: Radford Army Ammunition Plant2010
Laboratory ID: 1E17011-DUP1
Lab Source ID: 1105131-07
Initial/Final: 100 / 25

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Chromium	3.6636	ND			SW6010B	10.00
Lead	67.722	72.725	7.39		SW6010B	10.00

METHOD DETECTION AND REPORTING LIMITS

Laboratory: Empirical Laboratories, LLC **SDG:** 1105131

Client: Arcadis (A285) **Project:** Radford Army Ammunition Plant2010

Matrix: Solid **Instrument:** ME-ICP

Analyte	MDL	MRL	Units	Method
Chromium	0.400	2.00	mg/Kg	SW6010B
	2.00	10.0	ug/L	SW6010B
	0.500	1.25	ug/L	SW6010B
Lead	0.300	0.600	mg/Kg	SW6010B
	1.50	3.00	ug/L	SW6010B
	0.375	0.750	ug/L	SW6010B

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1105131

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Chromium	267.7	0.0000000	0.0000000	0.0000040	0.0056080	0.0000000
Lead	220.3	0.0002980	0.0000000	0.0000080	0.0003250	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1105131

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		As	B	Ba	Be	Cd
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1105131

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Co	Cr	Cu	K	Mn
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0002500
Lead	220.3	0.0000000	0.0000000	0.0022600	0.0000000	0.0000990

Comments:

FORM XA-IN

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1105131

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Mo	Na	Ni	Pb	Sb
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	-0.0026440	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1105131

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Chromium	267.7	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000700
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000360

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Arcadis (A285)

SDG No.: 1105131

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Chromium	267.7	0.0000000				
Lead	220.3	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Arcadis (A285) SDG: 1105131

Project: Radford Army Ammunition Plant2010

ICP Instrument ID: ME-ICP Date: 09/11/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Chromium	15	10000	P
Lead	15	10000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1105131

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1E17002 Batch Matrix: Solid Preparation: MET_3050B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
WBG-SD1	1105131-01	05/17/11 08:00	0.99	200.00
WBG-SD4	1105131-02	05/17/11 08:00	1.07	200.00
WBG-SD6	1105131-03	05/17/11 08:00	1.04	200.00
WBG-SD8	1105131-04	05/17/11 08:00	1.05	200.00
WBG-SD9	1105131-05	05/17/11 08:00	1.00	200.00
Blank	1E17002-BLK1	05/17/11 08:00	1.00	200.00
LCS	1E17002-BS1	05/17/11 08:00	1.00	200.00

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: 1105131

Client: Arcadis (A285) Project: Radford Army Ammunition Plant2010

Batch: 1E17011 Batch Matrix: Water Preparation: MET_3005A_LOW

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
WBG-SWOF1	1105131-06	05/17/11 10:30	100.00	25.00
WBG-SWEP01	1105131-07	05/17/11 10:30	100.00	25.00
Blank	1E17011-BLK1	05/17/11 10:30	100.00	25.00
LCS	1E17011-BS1	05/17/11 10:30	100.00	25.00
WBG-SWEP01	1E17011-DUP1	05/17/11 10:30	100.00	25.00
WBG-SWEP01	1E17011-MS1	05/17/11 10:30	100.00	25.00
WBG-SWEP01	1E17011-MSD1	05/17/11 10:30	100.00	25.00
WBG-SWEP01	1E17011-PS1	05/17/11 10:30	100.00	25.00

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ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Sequence: 1E13915
Instrument: ME-ICP
Calibration: 1140006

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1E13915-CAL1	051811A-001	05/18/11 10:27
Cal Standard	1E13915-CAL2	051811A-002	05/18/11 10:32
Cal Standard	1E13915-CAL3	051811A-003	05/18/11 10:36
Cal Standard	1E13915-CAL4	051811A-004	05/18/11 10:45
Cal Standard	1E13915-CAL5	051811A-005	05/18/11 10:50
Cal Standard	1E13915-CAL6	051811A-006	05/18/11 10:55
Cal Standard	1E13915-CAL7	051811A-007	05/18/11 11:00
Cal Standard	1E13915-CAL8	051811A-008	05/18/11 11:04
Initial Cal Check	1E13915-ICV1	051811B-001	05/18/11 11:34
Initial Cal Blank	1E13915-ICB1	051811B-002	05/18/11 11:41
Instrument RL Check	1E13915-CRL1	051811B-004	05/18/11 11:51
Interference Check A	1E13915-IFA1	051811B-008	05/18/11 12:12
Interference Check B	1E13915-IFB1	051811B-009	05/18/11 12:17
Calibration Check	1E13915-CCV1	051811B-011	05/18/11 12:29
Calibration Blank	1E13915-CCB1	051811B-012	05/18/11 12:36
Calibration Check	1E13915-CCV2	051811B-025	05/18/11 13:39
Calibration Blank	1E13915-CCB2	051811B-026	05/18/11 13:46
Blank	1E17011-BLK1	051811B-027	05/18/11 13:51
LCS	1E17011-BS1	051811B-028	05/18/11 13:56
WBG-SWOF1	1105131-06	051811B-034	05/18/11 14:25
WBG-SWEP01	1105131-07	051811B-035	05/18/11 14:30
WBG-SWEP01	1E17011-MS1	051811B-036	05/18/11 14:35
WBG-SWEP01	1E17011-MSD1	051811B-037	05/18/11 14:40
WBG-SWEP01	1E17011-PS1	051811B-038	05/18/11 14:44
WBG-SWEP01	1E17011-DUP1	051811B-039	05/18/11 14:50
Calibration Check	1E13915-CCV3	051811B-042	05/18/11 15:05
Calibration Blank	1E13915-CCB3	051811B-043	05/18/11 15:12
Calibration Check	1E13915-CCV4	051811C-017	05/18/11 16:41
Calibration Blank	1E13915-CCB4	051811C-018	05/18/11 16:48
Calibration Check	1E13915-CCV5	051811C-026	05/18/11 17:27
Calibration Blank	1E13915-CCB5	051811C-027	05/18/11 17:34
Blank	1E17002-BLK1	051811C-028	05/18/11 17:39

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	1105131
Client:	Arcadis (A285)	Project:	Radford Army Ammunition Plant2010
Sequence:	1E13915	Instrument:	ME-ICP
Calibration:	1140006		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	1E17002-BS1	051811C-029	05/18/11 17:44
Calibration Check	1E13915-CCV6	051811C-044	05/18/11 18:54
Calibration Blank	1E13915-CCB6	051811C-045	05/18/11 19:01
WBG-SD1	1105131-01	051811C-054	05/18/11 19:43
WBG-SD4	1105131-02	051811C-055	05/18/11 19:47
WBG-SD6	1105131-03	051811C-056	05/18/11 19:52
WBG-SD8	1105131-04	051811C-057	05/18/11 19:57
WBG-SD9	1105131-05	051811C-058	05/18/11 20:01
Calibration Check	1E13915-CCV7	051811C-059	05/18/11 20:06
Calibration Blank	1E13915-CCB7	051811C-060	05/18/11 20:14

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 5/18/11 10:27 5/18/11 11:04

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	1.927E-05	10100	1.936931E-05			500000	1.97634E-05		
Antimony	0	0	100	0.0008167	1010	8.508911E-04					10000	9.0085E-04
Arsenic	0	0	100	0.0003989	1010	4.200693E-04					10000	4.2246E-04
Barium	0	0	50	0.0130726	1010	1.294059E-02	5000	0.0134606				
Beryllium	0	0	100	0.0027832	1010	2.708317E-03					10000	0.0026131
Boron	0	0	50	0.000015	1010	1.543564E-05					5000	1.4858E-05
Cadmium	0	0	100	0.01483	1010	1.449109E-02					10000	0.014978
Calcium	0	0	1100	4.239091E-05	50500	4.06396E-05					10000	
Chromium	0	0	100	0.0000394	1010	3.744554E-05					10000	3.8163E-05
Cobalt	0	0	100	0.0065801	1010	6.427228E-03					10000	0.0069396
Copper	0	0	100	0.0000878	1010	8.30396E-05					10000	8.3562E-05
Iron	0	0	5100	0.0000145	10100	1.362475E-05			500000	1.36102E-05	10000	
Lead	0	0	100	0.0014636	1010	1.437624E-03					10000	0.0015242
Magnesium	0	0	5100		50500	1.562574E-06			500000	1.6997E-06	10000	
Manganese	0	0	100	0.0002607	1010	2.507525E-04	10000	2.4156E-04			10000	
Molybdenum	0	0	100	0.0046215	1010	4.629109E-03					10000	0.0047394
Nickel	0	0	100	0.0039315	1010	3.739109E-03					10000	0.0038351
Potassium	0	0	1000	1.084E-05	10100	1.03901E-05						
Selenium	0	0	100	0.0005356	1010	5.255148E-04					10000	5.3153E-04
Silver	0	0	20	0.000057	505	5.489109E-05	2000	5.577E-05				
Sodium	0	0	1000		50500	4.408911E-05						
Strontium	0	0	100	0.001729	1010	1.664356E-03					10000	0.001656
Thallium	0	0	100	0.0008277	1010	8.316832E-04					10000	9.0296E-04
Tin	0	0	50	0.001406	10	0.14245					5000	1.45782E-03
Titanium	0	0	100	0.0002226	1010	2.116139E-04					10000	0.0002184
Vanadium	0	0	100	0.0000481	1010	4.612871E-05					10000	4.5638E-05
Zinc	0	0	100	0.006254	1010	6.150495E-03					10000	0.0062998
Aluminum	0	0	5000	1.927E-05	10100	1.936931E-05			500000	1.97634E-05		
Antimony	0	0	100	0.0008167	1010	8.508911E-04					10000	9.0085E-04
Arsenic	0	0	100	0.0003989	1010	4.200693E-04					10000	4.2246E-04
Barium	0	0	50	0.0130726	1010	1.294059E-02	5000	0.0134606				

INITIAL CALIBRATION DATA

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 5/18/11 10:27 5/18/11 11:04

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Beryllium	0	0	100	0.0027832	1010	2.708317E-03					10000	0.0026131
Boron	0	0	50	0.000015	1010	1.543564E-05					5000	1.4858E-05
Cadmium	0	0	100	0.01483	1010	1.449109E-02					10000	0.014978
Calcium	0	0	1100	4.239091E-05	50500	4.06396E-05					10000	
Chromium	0	0	100	0.0000394	1010	3.744554E-05					10000	3.8163E-05
Cobalt	0	0	100	0.0065801	1010	6.427228E-03					10000	0.0069396
Copper	0	0	100	0.0000878	1010	8.30396E-05					10000	8.3562E-05
Iron	0	0	5100	0.0000145	10100	1.362475E-05			500000	1.36102E-05	10000	
Lead	0	0	100	0.0014636	1010	1.437624E-03					10000	0.0015242
Magnesium	0	0	5100		50500	1.562574E-06			500000	1.6997E-06	10000	
Manganese	0	0	100	0.0002607	1010	2.507525E-04	10000	2.4156E-04			10000	
Molybdenum	0	0	100	0.0046215	1010	4.629109E-03					10000	0.0047394
Nickel	0	0	100	0.0039315	1010	3.739109E-03					10000	0.0038351
Potassium	0	0	1000	1.084E-05	10100	1.03901E-05						
Selenium	0	0	100	0.0005356	1010	5.255148E-04					10000	5.3153E-04
Silver	0	0	20	0.000057	505	5.489109E-05	2000	5.577E-05				
Sodium	0	0	1000		50500	4.408911E-05						
Thallium	0	0	100	0.0008277	1010	8.316832E-04					10000	9.0296E-04
Tin	0	0	50	0.001406	10	0.14245					5000	1.45782E-03
Titanium	0	0	100	0.0002226	1010	2.116139E-04					10000	0.0002184
Vanadium	0	0	100	0.0000481	1010	4.612871E-05					10000	4.5638E-05
Zinc	0	0	100	0.006254	1010	6.150495E-03					10000	0.0062998
Strontium	0	0	100	0.001729	1010	1.664356E-03					10000	0.001656

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 5/18/11 10:27 5/18/11 11:04

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	3.9946E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.6926E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.0875E-05										
Selenium												
Silver												
Sodium	100000	4.6037E-05	500000	4.6486E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												
Aluminum												
Antimony												
Arsenic												
Barium												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 5/18/11 10:27 5/18/11 11:04

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	3.9946E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.6926E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.0875E-05										
Selenium												
Silver												
Sodium	100000	4.6037E-05	500000	4.6486E-05								
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												
Strontium												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 5/18/11 10:27 5/18/11 11:04

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.460068E-05	66.68262	4.708358	165.9758	0.9999999		0.998	
Antimony	6.421103E-04	66.88351	4.425747	176.7464	0.9999735		0.998	
Arsenic	3.103573E-04	66.7539	10.45045	184.8416	0.9999999		0.998	
Barium	9.868449E-03	66.70417	0.8760675	108.8466	0.999935		0.998	
Beryllium	2.026154E-03	66.75514	10.23465	177.4395	0.9999881		0.998	
Boron	1.132341E-05	66.70199	6.978672	172.9489	0.9999341		0.998	
Cadmium	1.107477E-02	66.69207	6.165125	178.9768	0.9999894		0.998	
Calcium	3.074413E-05	66.75059	2.076707	143.3648	0.9999971		0.998	
Chromium	2.875214E-05	66.72575	3.48275	162.8067	0.9999958		0.998	
Cobalt	4.986732E-03	66.80564	2.764173	149.8082	0.999947		0.998	
Copper	6.36004E-05	66.75087	0.9068575	43.96667	0.9999986		0.998	
Iron	1.043374E-05	66.78582	10.04696	186.1137	0.9999996		0.998	
Lead	1.106356E-03	66.74724	13.31951	185.4268	0.9999686		0.998	
Magnesium	1.238719E-06	66.86057	45.23493	197.3626	0.999935		0.998	
Manganese	1.882531E-04	66.79583	2.21099	137.0646	0.9999873		0.998	
Molybdenum	3.497502E-03	66.68446	8.763705	183.2978	0.9999949		0.998	
Nickel	2.876427E-03	66.72257	1.6896	135.0387	0.9999924		0.998	
Potassium	8.026275E-06	66.72339	4.371425	174.3219	0.9999825		0.998	
Selenium	3.981612E-04	66.67479	5.261545	162.7649	0.9999981		0.998	
Silver	4.191527E-05	66.6986	9.201243	177.2905	0.9999803		0.998	
Sodium	3.415303E-05	66.73622	2.84481	116.1663	0.9999755		0.998	
Strontium	1.262339E-03	66.71674	4.06155	152.2626	0.9999997		0.998	
Thallium	6.405858E-04	66.88483	2.672808	149.0586	0.999943		0.998	
Tin	3.632845E-02	194.7535	33.72267	196.4422	0.9630608		0.998	*
Titanium	1.631535E-04	66.72435	5.171132	154.6983	0.9999892		0.998	
Vanadium	3.496668E-05	66.73607	1.767007	113.6357	0.9999993		0.998	
Zinc	4.676074E-03	66.68004	120.9962	198.9396	0.9999944		0.998	
Aluminum	1.460068E-05	66.68262	4.708358	165.9758	0.9999999		0.998	
Antimony	6.421103E-04	66.88351	4.425747	176.7464	0.9999735		0.998	
Arsenic	3.103573E-04	66.7539	10.45045	184.8416	0.9999999		0.998	
Barium	9.868449E-03	66.70417	0.8760675	108.8466	0.999935		0.998	
Beryllium	2.026154E-03	66.75514	10.23465	177.4395	0.9999881		0.998	

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: 1105131
Client: Arcadis (A285)
Project: Radford Army Ammunition Plant2010
Calibration: 1140006
Instrument: ME-ICP
Matrix: Water
Calibration Dates: 5/18/11 10:27 5/18/11 11:04

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
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Calcium	3.074413E-05	66.75059	2.076707	143.3648	0.9999971		0.998	
Chromium	2.875214E-05	66.72575	3.48275	162.8067	0.9999958		0.998	
Cobalt	4.986732E-03	66.80564	2.764173	149.8082	0.999947		0.998	
Copper	6.36004E-05	66.75087	0.9068575	43.96667	0.9999986		0.998	
Iron	1.043374E-05	66.78582	10.04696	186.1137	0.9999996		0.998	
Lead	1.106356E-03	66.74724	13.31951	185.4268	0.9999686		0.998	
Magnesium	1.238719E-06	66.86057	45.23493	197.3626	0.999935		0.998	
Manganese	1.882531E-04	66.79583	2.21099	137.0646	0.9999873		0.998	
Molybdenum	3.497502E-03	66.68446	8.763705	183.2978	0.9999949		0.998	
Nickel	2.876427E-03	66.72257	1.6896	135.0387	0.9999924		0.998	
Potassium	8.026275E-06	66.72339	4.371425	174.3219	0.9999825		0.998	
Selenium	3.981612E-04	66.67479	5.261545	162.7649	0.9999981		0.998	
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Sodium	3.415303E-05	66.73622	2.84481	116.1663	0.9999755		0.998	
Thallium	6.405858E-04	66.88483	2.672808	149.0586	0.999943		0.998	
Tin	3.632845E-02	194.7535	33.72267	196.4422	0.9630608		0.998	*
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Zinc	4.676074E-03	66.68004	120.9962	198.9396	0.9999944		0.998	
Strontium	1.262339E-03	66.71674	4.06155	152.2626	0.9999997		0.998	