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March 6, 2015

Mr. Peter Hugh
U.S. Army Corps of Engineers
New England District
696 Virginia Rd.
Concord, MA 01742-2751

CONTRACT NO. W912WJ-12-D-0004
TASK ORDER: 10
SUBMITTAL OF DELIVERABLE: Draft Final Sawyer Street 2014 Semi-annual Groundwater Monitoring Technical Memorandum, *Environmental Monitoring, Sampling and Analysis, New Bedford Harbor Superfund Site, New Bedford, Massachusetts*

Dear Mr. Hugh:

Enclosed please find three copies (CD and paper copies) of the Draft Final Sawyer Street 2014 Semi-annual Groundwater Monitoring Technical Memorandum, which is a deliverable prepared under Task 10 of Task Order No. 10, *Environmental Monitoring, Sampling and Analysis at the New Bedford Harbor Superfund Site, New Bedford, Massachusetts*. There were no USACE or EPA comments to the Draft Technical Memorandum; however, the Draft Final Technical Memorandum has been updated to include an appendix (Appendix D) with USACE's inter-laboratory comparison results from the quality assurance split sample. This deliverable has been reviewed by Battelle's Quality Assurance Unit to verify the accuracy and completeness of the report, and by a senior scientist for technical accuracy.

Please contact Deirdre Dahlen (781 681-5522, dahlend@battelle.org) if you have any technical questions regarding this submittal.

Sincerely,

Deirdre Dahlen
Project Manager

Lisa Lefkovitz
Program Manager

encl.

cc: P. L'Heureux (USACE New Bedford Resident Office, 1 copy)
G. Lombardo (EPA Region I, 1 copy)
E. Stanley (EPA Region I, 1 copy)

Sawyer Street 2014 Semi-annual Groundwater Monitoring Technical Memorandom

Environmental Monitoring, Sampling, and Analysis New Bedford Harbor Superfund Site New Bedford, Massachusetts

Contract No. W912WJ-12-D-0004

DRAFT FINAL

Prepared for
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Prepared by
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March 2015

US ARMY CORPS OF ENGINEERS
New England District

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DATE: March 6, 2015

TO: Peter Hugh/U.S. Army Corps of Engineers New England District

FROM: Deirdre Dahlen/Battelle

SUBJECT: Draft Final Technical Memorandum, Sawyer Street 2014 Semi-annual Groundwater Monitoring Results

Introduction

This Technical Memorandum summarizes the groundwater monitoring activities conducted at the Sawyer Street Confined Disposal Facility (CDF) in New Bedford, Massachusetts during the 2014 semi-annual monitoring period. The 2014 monitoring study is a continuation of a multi-year groundwater sampling program to sample six groundwater monitoring wells located at the perimeter of the CDF. Results from the monitoring study are used to evaluate the integrity of the CDF and assess potential trends in concentrations of polychlorinated biphenyls (PCBs) as Aroclors, selected metals (cadmium, chromium, copper, and lead), and volatile organic compounds (VOCs). Total suspended solids (TSS) concentrations are also measured.

Field Activity Summary

Well soundings and water level measurements were taken in all monitoring wells in the spring and fall of 2014. Groundwater samples were collected from the following six wells located at the perimeter of the CDF in the spring of 2014: MW-1, MW-3, MW-4A, MW-5, MW-6, and MW-7A (Figure 1). All field activities were conducted according to the Field Sampling Plan (FSP) developed for this investigation (AECOM, 2014). All field activities were performed by AECOM.

Prior to sampling, the CDF wells were developed on May 7, 2014 using a combination of mechanical agitation and pumping to remove accumulated sediment and debris from the wells and the gravel pack around the well perimeter. Groundwater sampling was performed on May 29, 2014 according to the procedures in the United States Environmental Protection Agency (EPA) Region 1 Low Stress (flow) Purging and Sampling Groundwater Procedure for the Collection of Groundwater Samples from Monitoring Wells, Rev. 3 (EPA, 2010). A bladder pump (equipped with dedicated Teflon® bladders) was used for sampling all wells except MW-3. The bladder pump could not be lowered into MW-3 because of an apparent obstruction in the well casing, and a peristaltic pump was used instead to sample the well. Dedicated sample tubing was used to collect groundwater samples to minimize the risk of cross contamination between wells. Upon arrival for sample collection, the water level in each well was measured with a cleaned water level tape and the well volume was calculated. The water level tape was cleaned between wells following decontamination procedures described in the FSP (AECOM, 2014). The well was purged and *in situ* water quality parameters (i.e., temperature, specific conductivity, dissolved oxygen [DO], pH, Oxidation Reduction Potential [ORP], and turbidity) were monitored until they achieved a steady state. All measurements were recorded on field log sheets. After purging, groundwater samples were collected for PCBs (as Aroclors), metals, VOC, and TSS analysis.

Field-based quality assurance/quality control (QA/QC) samples included one field duplicate sample (from MW-4A), one equipment blank, and one trip blank (the trip blank was analyzed for VOCs only). Additional groundwater was collected from one well (MW-5) for the preparation of laboratory-based QC samples (i.e., matrix spike and matrix spike duplicate). An inter-laboratory QA/QC sample was collected from one well (MW-1). Field measurements and sample collection details were recorded on field logs sheets, which are provided in Appendix A.

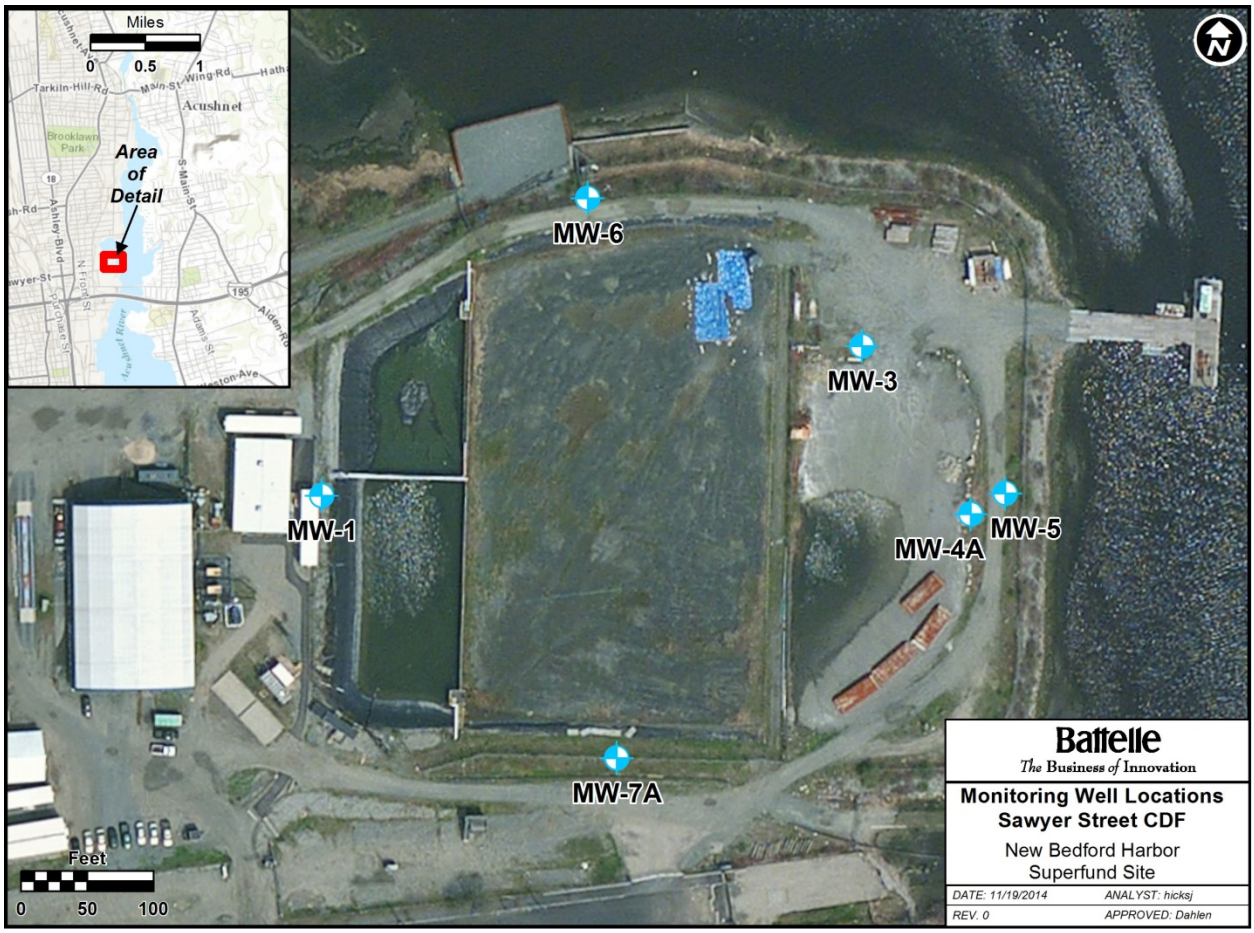

Figure 1. Sawyer Street CDF Monitoring Well Locations

In situ Water Quality Summary

Water quality parameters were measured during the initial pumping of groundwater from the wells before groundwater sample collection. *In situ* measurements were made using an YSI® (Yellow Springs Instruments) multi-meter sonde and a flow-thru cell. The YSI® sonde was calibrated and used according to the manufacturer's specifications. Once the diagnostic parameters had stabilized, sample collection was initiated. *In situ* measurements are summarized in Table 1.

Table 1: Summary of *In situ* Groundwater Data Collected Immediately Prior to Sampling

Parameter	Units	Well ID					
		MW-1	MW-3	MW-4A	MW-5	MW-6	MW-7A
May 2014 Event							
Sample Date/Time	—	5/29/2014 13:20	5/29/2014 18:45	5/29/2014 10:30	5/29/2014 9:55	5/29/2014 15:10	5/29/2014 15:50
Depth to Water	ft	15.67	14.38	9.18	8.21	13.08	10.86
pH	—	6.92	7.24	7.37	7.73	7.13	8.19
Specific Conductivity	µS/cm	701	1867	2284	1527	1005	535
Temperature	°C	13.15	11.19	14.88	11.4	11.84	13.5
DO	mg/L	8.26	0.98	2.1	0.93	0.46	0.48
Turbidity	NTU	1.18	6.57	3.26	2.91	3.42	0.65
ORP	mV	-59.1	-125.1	-275.2	-156.1	-113.2	834.6
Purge Volume	gal	4.5	2.25	4.5	3.25	3.0	1.3
Flow Rate	mL/min	200	100	100	100	100	50
Color/Odor	—	clear	clear	NA	clear	NA	clear
October 2014 Event							
Sample Date/Time	—	10/29/2014 11:00	10/29/2014 13:15	10/29/2014 12:30	10/29/2014 12:45	10/29/2014 11:30	10/29/2014 12:00
Depth to Water	ft	15.59	13.56	7.84	6.80	12.28	10.25
pH	—	NA	NA	NA	NA	NA	NA
Specific Conductivity	µS/cm	NA	NA	NA	NA	NA	NA
Temperature	°C	NA	NA	NA	NA	NA	NA
DO	mg/L	NA	NA	NA	NA	NA	NA
Turbidity	NTU	NA	NA	NA	NA	NA	NA
ORP	mV	NA	NA	NA	NA	NA	NA
Purge Volume	gal	NA	NA	NA	NA	NA	NA
Flow Rate	mL/min	NA	NA	NA	NA	NA	NA
Color/Odor	—	NA	NA	NA	NA	NA	NA

Key:
ft: feet
µS/cm: microsiemens per centimeter
mg/L: milligrams per liter
NTU: nephelometric turbidity unit
mV: millivolts
gal: gallons
mL/min: milliliter per minute

Chemistry Water Quality Summary

Chemical analyses were performed according to the project Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) Addendum (Battelle, 2014). Groundwater samples were analyzed for PCBs (as Aroclors), metals, VOCs, and TSS. PCB Aroclor and VOC analyses were performed by Katahdin Analytical in Scarborough, Maine. Metals and TSS analyses were performed by Alpha Analytical in Mansfield, Massachusetts.

Sample results are summarized in Table 2, and are compared to the Massachusetts Contingency Plan (MCP) Method 1 Category GW-3 criteria for groundwater that has a potential to discharge to a surface water body (MADEP, 2014). Complete test results are provided in Appendix B.

Consistent with results from previous monitoring years, total PCB and metals concentrations in all groundwater samples collected in May 2014 were well below the applicable MCP GW-3 criteria (Table 2). Individual PCB Aroclors were undetected in all groundwater samples except Aroclor 1242 in the sample from MW-3 (0.11 µg/L) (Appendix B). Copper was detected in the samples from all wells, and chromium was detected in samples from four of the six wells. Cadmium and lead were not detected in any sample.

With the exception of naphthalene and carbon disulfide, target VOCs were not detected in the groundwater samples collected in May 2014 (Appendix B). Naphthalene was detected at a concentration of 2.8 µg/L in the sample from MW-1; this concentration is four orders of magnitude lower than the MCP GW-3 criteria (Table 2). Carbon disulfide was detected at a concentration of 0.36 J µg/L in the sample from MW-5 (Table 2). There is no MCP GW-3 criterion for carbon disulfide.

Table 2: PCB, Metal, VOC and TSS Groundwater Results, May 2014 Sampling Event

Parameter	Units	Well ID						MCP GW-3 Criteria (c)	Equip-ment Blank	Trip Blank
		MW-1	MW-3	MW-4A	MW-5	MW-6	MW-7A			
Total PCB (a)	µg/L	— UJ (b)	0.11J	— UJ (b)	— U (b)	— U (b)	— U (b)	10	— UJ (b)	NA
Cadmium	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	4	0.5 U	NA
Chromium	µg/L	1.21	1.65	1.36	2.73	1 U	1 U	300	1 U	NA
Copper	µg/L	4.06	5.24	3.72	4.62	1.3	1.9	NA	1 U	NA
Lead	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	10	1 U	NA
Naphthalene	µg/L	2.8	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	20000	0.5 U	0.5 U
Carbon Disulfide	µg/L	0.5 U	0.5 U	0.5 U	0.36 J	0.5 U	0.5 U	NA	0.5 U	0.5 U
TSS	mg/L	6	14	1 U	2.2	4.7	1 U	NA	NA	NA

Notes:
(a) Total PCB calculated as the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254 and 1260; a value of zero (0) used in summation for non-detects.
(b) PCB Aroclors undetected in the study samples at concentrations above the laboratory reporting limit (see Appendix B).
(c) MCP: Massachusetts Contingency Plan, Method 1 MCP GW-3 standard from 310 CMR 40.0974(2).

Key:
µg/L: micrograms per liter
mg/L: milligrams per liter
U: Chemical not detected at concentration above the laboratory reporting limit.
J: Estimated value.
NA: Not applicable.

Quality Control

Analytical data received third party validation at the Tier 1+ level and the data were qualified according to EPA Data Validation guidelines (Appendix C). Qualifiers reported with the data represent the final qualifier assigned by the data validator. Results from the field QC samples were also evaluated to assess data quality in terms of precision (field replicate) and potential contamination (equipment blank) that may contribute to contaminant concentrations measured in the field samples. Results from the field replicate samples are summarized in Table 3 and results for the equipment blanks are presented with the sample data in Table 2.

Only chromium and copper were detected in both field replicates. Relative percent difference (RPD) values were 17 percent and 51 percent for chromium and copper, respectively (Table 3). The relatively high RPD for copper may be due to the relatively low sample concentrations (i.e., between two and four times the reporting limit). None of the target analytes were detected in either the equipment blank or the trip blank.

The results of the inter-laboratory comparison samples are evaluated independently by the USACE Project Chemist and are provided in Appendix D.

Table 3: Field Replicate Results, May 2014 Sampling Event

Well ID	Parameter	Units	Result		RPD
			Sample	Replicate	
Well MW-4A	Total PCB (a)	µg/L	— U (b)	— U (b)	NA
	Cadmium		0.5 U	0.64	NA
	Chromium		1.36	1.62	17%
	Copper		3.72	2.22	51%
	Lead		1 U	1 U	NA
	Naphthalene		0.5 U	0.5 U	NA
	Carbon Disulfide		0.5 U	0.5 U	NA
	TSS	mg/L	1 U	1 U	NA

Notes:
(a) Total PCB calculated as the sum of Aroclors 1016, 1221, 1232, 1242, 1248, 1254 and 1260; a value of zero (0) used in summation for non-detects.
(b) PCB Aroclors undetected in the study samples at concentrations above the laboratory reporting limit (see Appendix B).

Key:
µg/L: micrograms per liter
mg/L: milligrams per liter
U: Chemical not detected at concentration above the laboratory reporting limit.
NA: Not applicable
RPD: relative percent difference

Summary

Semi-annual monitoring was performed in 2014 at the Sawyer Street CDF as part of the ongoing groundwater monitoring program. Groundwater levels, water quality parameters, organic contaminants, and metals were monitored in all six wells at the facility. Analysis of groundwater samples collected in May 2014 indicates that low-level concentrations of PCB Aroclor, metals, and VOCs were observed in some samples; however, concentrations were all well below applicable MCP GW-3 criteria. Overall, the groundwater data collected during the 2014 semi-annual monitoring suggest that the integrity of the CDF is currently maintained.

References

AECOM. 2014. Draft Final 2014 Field Sampling Plan, Sawyer Street CDF Groundwater Monitoring, New Bedford Harbor, Massachusetts. April.

Battelle. 2014. Environmental Monitoring, Sampling, and Analysis Quality Assurance Project Plan Addendum Revision 7, New Bedford Harbor Superfund Site, New Bedford, Massachusetts. April.

United States Environmental Protection Agency (EPA). 2010. EPA Region 1 Low Stress (flow) Purging and Sampling Groundwater Procedure for the Collection of Groundwater Samples from Monitoring Wells, Rev. 3, January 19.

Massachusetts Department of Environmental Protection (MADEP). 2014. MCP Method 1 Groundwater Standards. 310 CMR 40.0974(2). http://www.mass.gov/eea/agencies/massdep/cleanup/regulations/mcp-method-1-groundwater-standards.html

Appendices

Appendix A, Field Summary and Log Sheets
Appendix B, Laboratory Data Packages (provided on CD)
Appendix C, Data Validation Report
Appendix D, Inter-laboratory Comparison Results

Appendix A

Field Summary and Log Sheets

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AECOM

250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100 phone
(978) 905-2101 fax

Memorandum

To: Deirdre Dahlen, Jessica Tenzar

CC: Maura Surprenant

Subject: New Bedford Harbor Groundwater Monitoring – May 2014 Summary

From: Ryan McCarthy

Date: 6/19/2014 Project Number: 60317716

This DRAFT Technical Report presents a summary of the groundwater monitoring activities conducted at the Sawyer Street Confined Disposal Facility (CDF) in New Bedford, Massachusetts during the Spring 2014 monitoring period. The six groundwater wells that are located around the perimeter of the CDF were sampled on May 29, 2014, continuing the monitoring program that has been ongoing since 2001.

The objective of the monitoring program is to provide data that can be used to evaluate the integrity of the Sawyer Street CDF, as well as assess trends in groundwater concentrations of polychlorinated biphenyls (PCBs) as Aroclors, selected metals (cadmium, chromium, copper, and lead), volatile organic compounds (VOCs), and total suspended solids (TSS). Results from the sampling will be used to support compliance of ongoing remediation activities at the Site.

Prior to the sampling, the CDF wells were developed on May 7, 2014 using a combination of mechanical agitation and pumping to remove accumulated sediment and debris from the wells and from the gravel pack around the well perimeter. Turbidity was monitored as part of this effort to ensure that loose sediment has been adequately removed during development. Well development logs are included as Attachment A.

The Spring groundwater sampling took place on May 29, 2014 at the six monitoring well locations around the perimeter of the CDF, including MW-1, MW-3, MW-4A, MW-5, MW-6, and MW-7A (Figure 1). Groundwater was removed from the six monitoring wells using a bladder pump system and dedicated Teflon bladders/ tubing. Groundwater was slowly purged from each of the wells prior to sampling until it was representative of groundwater within the aquifer. This determination was made by taking successive measurements of water quality parameters (dissolved oxygen [DO], temperature, conductivity, ORP, pH, and turbidity) to ensure that the groundwater had reached a steady state condition prior to sampling. Groundwater levels were measured throughout the purging and sampling of the wells to ensure that drawdown was minimized during the pumping and water was withdrawn from approximately the middle of the well screen or the middle of the water column (if the screened interval was not identifiable). Sampling logs are included as Attachment B.

Upon arrival for sample collection, the water level in each well was measured with a decontaminated water level tape and the well volume was calculated. The bladder pump was then connected to the dedicated tubing, placed in the well, and activated for pumping at a low rate. The pumping rate was

adjusted intermittently when required to ensure that the drawdown in the well was minimized. In-situ measurements were made using a calibrated YSI® multi-meter with a flow-thru cell, used in accordance with the manufacturer's specifications. The flow-thru cell was disconnected from the discharge line during sample collection. Certified clean sample containers were provided by the analytical laboratories. Sample bottles were pre-preserved by the analytical lab using a preservative type and volume suitable to the analysis performed. Cross-contamination was avoided by using dedicated Teflon bladders and tubing in each of the wells. In this way, the water samples never came in contact with a bladder or piece of tubing that had contact with water from any other well. Decontamination procedures were followed for the bladder pumps and water level tape which were used on more than one well to remove any potential contaminants.

There was one deviation from the Field Sampling Plan (FSP) at MW-3. The bladder pump could not be lowered into the water column within the well casing. It was suspected that a well joint may have shifted, thereby creating an obstruction that the bladder pump could not bypass. This was communicated to the USACE and the determination was made to sample the well via peristaltic pump. The tubing was able to bypass the obstruction and a sample was successfully collected. All other procedures relative to sample collection were followed.

Representative water samples were collected from each of the wells, and sample integrity was maintained until the samples were received by the analytical laboratories. A Field Replicate was collected from MW-4A. A MS/MSD sample was collected from MW-5. An inter-laboratory QA sample was collected from MW-1. VOC and PCB Aroclor samples were sent via courier to Katahdin Analytical in Scarborough, ME. Metals and TSS samples were sent via courier to Alpha Analytical in Mansfield, MA. The inter-laboratory QA sample was sent via FedEx to Test America in Burlington, VT. All sampling was conducted in accordance with the FSP (AECOM, 2014) and Uniform Federal Policy Quality Assurance Project Plan (UFP-QAPP) Addendum (Battelle, 2014a).

AECOM

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Chelmsford, MA 01824
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Memorandum

Figure 1

N
W E
S

0 50 100 200 Feet

Monitoring Well Locations

New Bedford Harbor
Sawyer Street CDF
New Bedford, MA

SCALE	DATE	PROJECT NO.
1:1300	06/14	60317716

AECOM

Figure Number

1

AECOM

250 Apollo Drive
Chelmsford, MA 01824
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Memorandum

Attachment A

Well Development Logs

AECOM

Sample ID MW-1

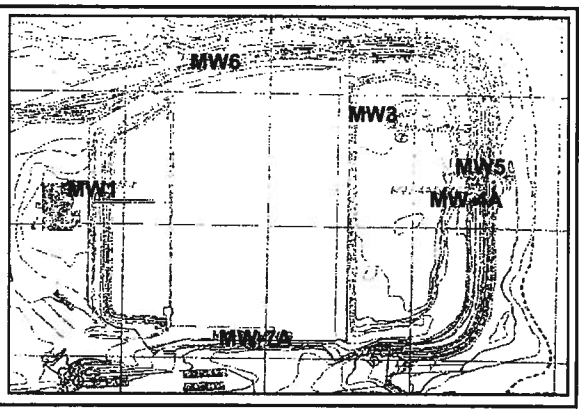
Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/7/14 Time: Start 1430 am/pm
Project No: 60317716 Finish 1540 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 60°F Collector(s): Helen Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Groundwater monitoring well development

Depth to Well Bottom	=	24.25	feet
Initial depth to Water	=	14.5	feet
Calculated Water Column Height	=	9.75	feet
Calculated Water Column Volume	=	1.59	gallons
1 foot of water in a 2" well	=	0.1631	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

	Make	Model	Serial Number
	HF Scientific	MicroTPW	20120207
	whale pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed ~~Gal~~ (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1440						378.5	1		20.1	rust
1450						152.0	2.5		dry	slightly cloudy
1500						64.71	3.5		dry	clear
1505						33.24	4		dry	clear
1510						23.53	4.5		dry	clear
1520						14.21	5		dry	clear
1530						8.22	6		dry	clear
1540						6.89	7		dry	clear

3. SAMPLE COLLECTION: Method: NA

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time

Notes:

Signature Helen A. Jones Date 5/7/14

AECOM

Sample ID MW-3

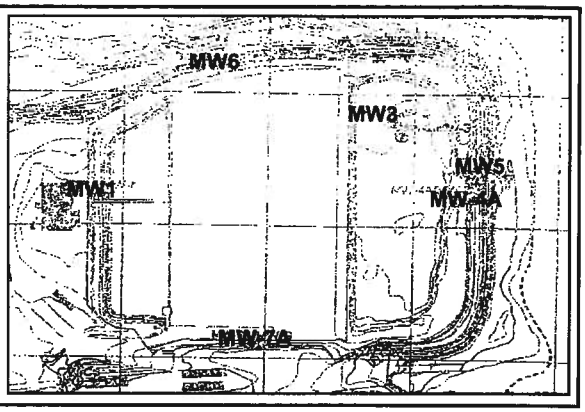
Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/7/14 Time: Start 1030 am/pm
Project No: 60317716 Finish 1150 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 60°F Collector(s): H. Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Well development

Depth to Well Bottom	=	24	feet
Initial depth to Water	=	13.91	feet
Calculated Water Column Height	=	10.09	feet
Calculated Water Column Volume	=	1.65	gallons
1 foot of water in a 2" well	=	0.1631	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

	Make	Model	Serial Number
	HF Scientific	MicroTPW	20120216 7
	whale pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed ~~gal~~ Liters	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1045						780	0.5		22	grey
1050						297	2.5		24 - dry	clear
1110						111.3	3.5		24-dry	clear
1125						57.31	4.0		24 -dry	clear
1130						19.47	5.0		24 - dry	clear
1145						8.97	6.0		24 - dry	clear

3. SAMPLE COLLECTION: Method: NA

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time

Notes:

Signature [signature] Date 5/7/14

AECOM

Sample ID MW-4A

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 05/07/14 Time: Start 1030 am/pm
Project No: 60317716 Finish 1122 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~60°F Collector(s): Rachel MacPhee

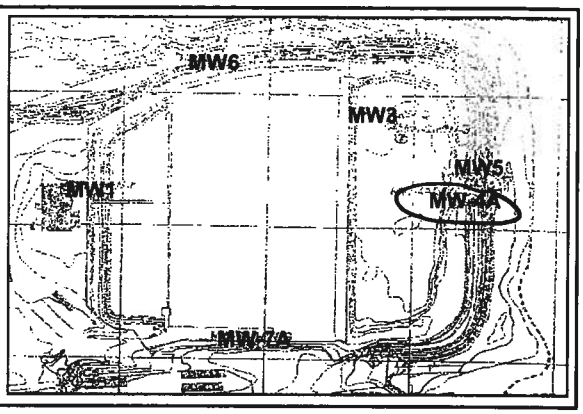
1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Groundwater Monitoring well development

OM PVC
OM PVC

Depth to Well Bottom	=	23.89	feet
Initial depth to Water	=	7.91	feet
Calculated Water Column Height	=	15.98	feet
Calculated Water Column Volume	=		gallons
1 foot of water in a 2" well 0.1632	=	2.61	gallons

Total Volume removed: 8 gal



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Whale pump		
HF Scientific	MicroTPW	701202167

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (~~Liters~~ gal)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1047						64.11	2.7		8.7	None/None
1055						7.93	4.3		9.5	none/none
1057						13.91	5.9		9.8	none/none
1130						6.53	8		9.8	none/none

3. SAMPLE COLLECTION: Method: Surge & purge

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time

Expansion cap fitting poorly

Notes:

Signature _____ Date 05/07/14

AECOM

Sample ID MW-5

Groundwater Sample Collection Record

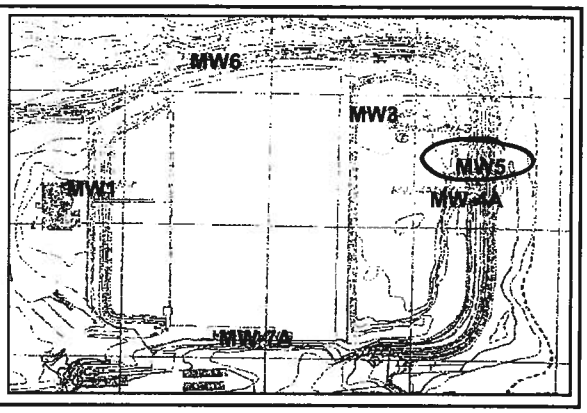
Client: U.S. Army Corps of Engineers Date: 05/07/14 Time: Start 1130 am/pm
Project No: 60317716 Finish 1222 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny, ~60s°F Collector(s): Rachel MacPhee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Groundwater well Development

Depth to Well Bottom	=	18.57	feet
Initial depth to Water	=	6.97	feet
Calculated Water Column Height	=	11.6	feet
Calculated Water Column Volume	=	well volume	gallons
1 foot of water in a 2" well 0.1632	=	1.89	gallons

Total Volume removed: 6 gal



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
	whale Pump	
HF Scientific	MicroTPW	20120167

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1132						9.73	2.9		7.39	light brown / none
1145						4.74	5.6		7.98	clear / clear
1220						3.74	6		7.98	clear / clear

3. SAMPLE COLLECTION: Method: Surge & Purge

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
			No expansion cap		

Notes:

Signature [signature] Date 05/07/14

AECOM

Sample ID MW-06

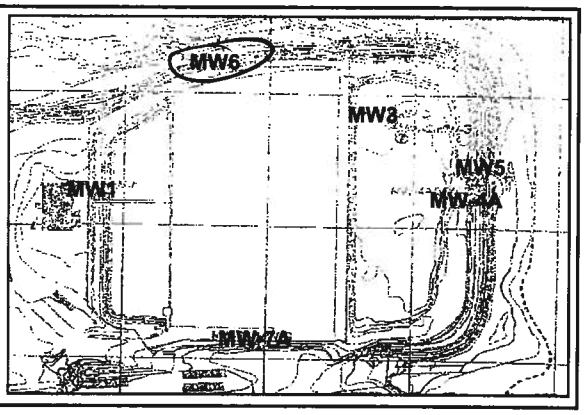
Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 05/07/14 Time: Start 1230 am/pm
Project No: 60317716 Finish 1330 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny, ~65°F Collector(s): Rachel MacPhee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	19.03	feet
Initial depth to Water	=	12.66	feet
Calculated Water Column Height	=	6.37	feet
Calculated Water Column Volume	=		gallons
1 foot of water in a 2" well 0.1632	=	1.03	gallons

Total Volume removed: 4 gal



2. SAMPLE COLLECTION

a. Method:

b. Field Testing Equipment used

Make	Model	Serial Number
whale pump		
Hf Scientific	Micro TPW	20120216

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1240						308.6	1.5 gal		14.89	dark rust/none
1250						73.96	2.99		19.03 dry	orange
1255						58.63	3.5 gal		18.03	pale orange/none
1300						31.74	3.75 gal		18.00	pale orange/none
1312						3.26	4 gal		19.03 dry	clear/none
										clear/none

3. SAMPLE COLLECTION: Method: Surge & Purge

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
2 gallons purged, then went dry.					
1.5 more gallons purged, then went dry.					
1.5 more gallons purged, then went dry.					

Notes:

Signature Date 05/07/14

AECOM

Sample ID MW-7q

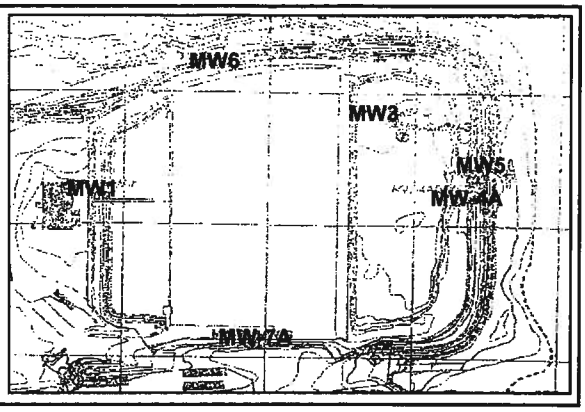
Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/7/14 Time: Start 1220 am/pm
Project No: 60317716 Finish 1320 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 60°F Collector(s): Helen Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Groundwater well development

Depth to Well Bottom	=	14.40	feet
Initial depth to Water	=	10.36	feet
Calculated Water Column Height	=	4.04	feet
Calculated Water Column Volume	=	0.66	gallons
1 foot of water in a 2" well	=	0.1631	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
HF Scientific	MicroTPW	20120 2167
whale pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed gal (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1230						141.4	0.5		10.9	clear
1240						41.97	2		10.4	clear
1250						24.87	4		11.4	clear
1255						13.61	5		14 - dry	clear
1305						9.71	6.5		14 - dry	clear
1315						8.64	7.5		14 - dry	clear

3. SAMPLE COLLECTION: Method: NA

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time

Notes:

Signature Helen Jones Date 5/7/14

AECOM

250 Apollo Drive
Chelmsford, MA 01824
(978) 905-2100 phone
(978) 905-2101 fax

Memorandum

Attachment B

Monitoring Well Sampling Logs

AECOM

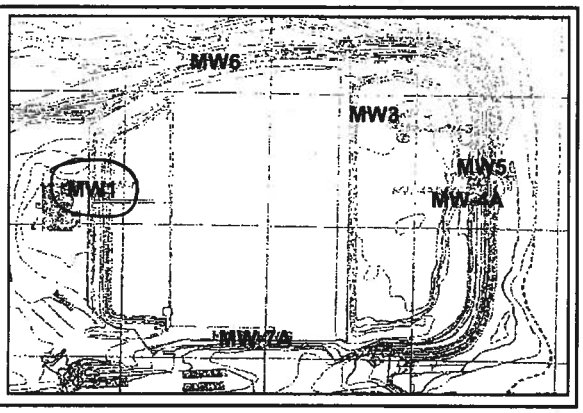
Sample ID MW-1

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/29/14 Time: Start 1215 am/pm
Project No: 60317716 Finish 1410 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 55°F Collector(s): H. Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	24	feet
Initial depth to Water	=	15.67	feet
Calculated Water Column Height	=	8.33	feet
Calculated Water Column Volume	=	1.359	gallons
1 foot of water in a 2" well	=	0.1632	gallons



2. SAMPLE COLLECTION

a. Method: low flow

b. Field Testing Equipment used

	Make	Model	Serial Number
	YSI	556 MPS	09F101281
	Hach	2100Q	13110C029620
	bladder pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed gal (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
~~1240~~	13.20	748	1.36	7.00	-141.6	33.1	0.5	200	18.50	slightly cloudy, no odor
1245	12.99	741	2.11	7.00	-82.0	15.7	1.0		19.59	clear
1250	12.97	737	3.67	7.01	-58.1	12.8	1.5		>20	
1255	13.06	723	5.40	7.04	-66.6	9.67	2.0		>20	
1300	13.33	717	7.10	7.05	-67.7	8.72	~~2.5~~		>20	
1305	13.23	711	7.71	7.00	-63.1	2.87	3.0		>20	
1310	13.10	704	7.85	6.95	-62.2	1.19	3.5		>20	
1315	13.14	702	8.17	6.93	-60.2	1.21	4.0		>20	
1320	13.15	701	8.26	6.92	-59.1	1.18	4.5		>20	

3. SAMPLE COLLECTION: Method: low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-001-052914					1330
MW-001-052914-QA	(Army Corps split)				1330

Notes:
Flow rate is as low as possible
water level meter doesn't fit past pump

Signature Helen A. Jones Date 5/29/14

AECOM

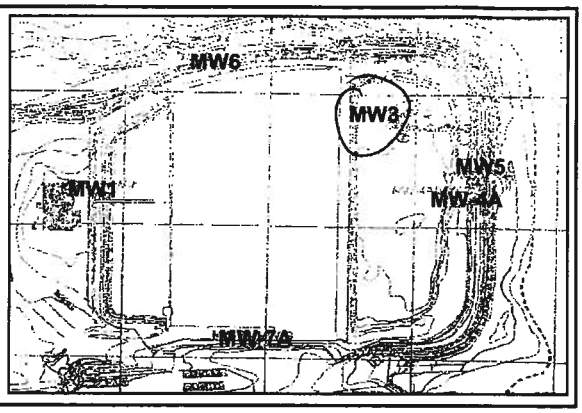
Sample ID MW-3 (MW-6)

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/29/14 Time: Start 1750 am/pm
Project No: 60317716 Finish 1915 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 60°F Collector(s): H. Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	23.92	feet
Initial depth to Water	=	14.38	feet
Calculated Water Column Height	=	9.54	feet
Calculated Water Column Volume	=	1.557	gallons
1 foot of water in a 2" well	=	0.1632	gallons



2. SAMPLE COLLECTION

a. Method: low flow

b. Field Testing Equipment used

Make	Model	Serial Number
YSI 556 MPS		09F101281
Hach 2100Q		13110C029620
Geopump peristaltic pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed gal (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1805	11.29	1691	0.57	7.48	-73.3	33.1	0.25	160	16.45	clear, no odor
1810	11.24	1692	0.52	7.39	-74.9	27.6	0.5		16.81	
1815	11.39	1653	0.74	7.28	-84.9	20.6	0.75		17.45	
1820	11.25	1637	0.94	7.24	-98.9	13.2	1.0		18.05	
1825	11.17	1646	1.21	7.22	-109.2	8.15	1.25		18.60	
1830	11.19	1692	1.22	7.22	-114.0	8.31	1.5		18.96	
1835	11.21	1778	1.05	7.22	-117.3	8.27	1.75		19.24	
1840	11.20	1821	1.01	7.24	-120.4	7.11	2.0		19.37	
1845	11.19	1867	0.98	7.24	-125.1	6.57	2.25	↓	19.50	↓

3. SAMPLE COLLECTION: Method: low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-006-052914 (003)					1855

Notes: Used peristaltic pump because bladder pump won't go down well.

Signature Helen A. Jones Date 5/29/14

AECOM

Sample ID MW-04A

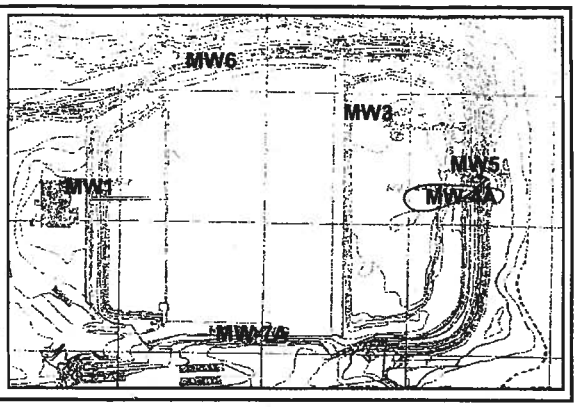
1 of 2

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 05/29/14 Time: Start 0844 am/pm
Project No: 60317716 Finish 1030 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny, 60°F Collector(s): RM

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	23.89	feet
Initial depth to Water	=	9.18	feet
Calculated Water Column Height	=	14.71	feet
Calculated Water Column Volume	=	2.40	gallons
1 foot of water in a 2" well	=	0.1632	gallons



2. SAMPLE COLLECTION

a. Method: Low flow

b. Field Testing Equipment used

	Make	Model	Serial Number
	YSI 556 MPS		09F101281
	Hach 2100 Q		13110C029620
	Geopump peristaltic		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters/gal)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
844	11.19	8830	2.2	7.08	-93.7	-	0.5	200	11.7	
905	11.36	2538	4.0	7.16	-170.7	-	1.0	150	12.4	
906	11.39	2639	3.7	7.19	-184.2	-	1.5	125	13.45	
911	11.82	2077	1.8	7.26	-208.7	7.91	2.0	100	14.4	
918	12.08	2116	1.6	7.27	-209.7	7.84	2.5	100	14.7	
924	12.94	2138	1.9	7.30	-249.8	7.00	3.0	100	14.8	
930	12.17	2181	2.7	7.29	-228.0	6.88	-	100	14.9	
939	14.40	2093	7.2	7.34	-241.9	6.38	3.5	100	14.5	

3. SAMPLE COLLECTION: Method: Low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-04A-052914-	7	1L Amber 250 ml plastic VOA vial 500 ml plastic	none HNO3 HCl none	PCB Metals VOCs TSS	1045
MW-04A-052914-REP	7	1L Amber 250 ml Plastic 500 ml Plastic VOA vial)	none HNO3 none HCl	PCB Metals TSS VOA	1046

Notes:

Signature [signature] Date 05/29/14

AECOM

Sample ID MW-04A

Groundwater Sample Collection Record

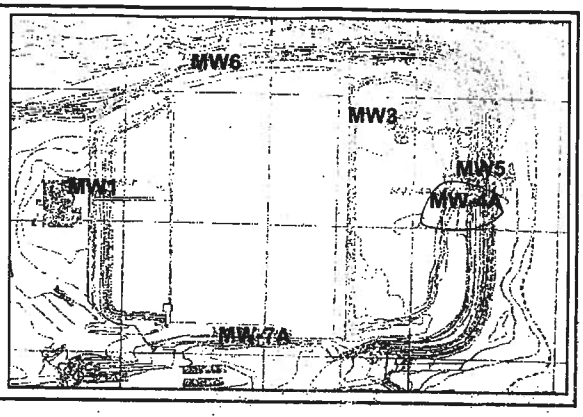
2 of 2

Client: U.S. Army Corps of Engineers
Project No: 60317716
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny, 60°F

Date: 05/29/14
Time: Start 0944 am/pm
Finish 1030 am/pm
Collector(s): RM

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	23.89	feet
Initial depth to Water	=	9.18	feet
Calculated Water Column Height	=	14.71	feet
Calculated Water Column Volume	=	2.40	gallons
1 foot of water in a 2" well	=	0.1632	gallons



2. SAMPLE COLLECTION

a. Method: Low Flow

b. Field Testing Equipment used

Make	Model	Serial Number
See page 1 of 2		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0943	14.55	7029	1.9	7.35	-243.4	5.18	—	100	14.16	
0953	14.40	2193	2.0	7.33	-251.7	4.29	—	100	13.85	
1002	14.68	2271	1.7	7.33	-262.8	4.13	4.0	100	13.59	
1011	14.84	2305	2.3	7.34	-268.6	3.89		100	13.45	
1018	14.93	2319	2.0	7.35	-271.3	3.26		100	13.30	
1025	14.94	2285	1.9	7.36	-273.9		4.3	100	13.20	
1030	14.88	2284	2.1	7.37	-275.2		4.5	100	13.18	

3. SAMPLE COLLECTION:

Method: Low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
See page 1 of 2					

Notes:

Signature [signature] Date 05/29/14

AECOM

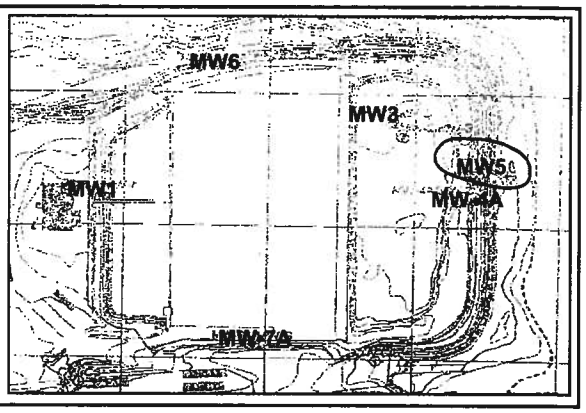
Sample ID MW-05
MW-05-052914

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/29/14 Time: Start 0900 am/pm
Project No: 60317716 Finish 1115 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 50°F Collector(s): Helen Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	= 18.4	feet	
Initial depth to Water	= 8.21	feet	
Calculated Water Column Height	= 10.19	feet	
Calculated Water Column Volume	= 1.663	gallons	
1 foot of water in a 2" well	= 0.1632	gallons	



2. SAMPLE COLLECTION

a. Method: Low flow

b. Field Testing Equipment used

Make	Model	Serial Number
YSI 556 MPS		09F101281
Hach 2100Q		13110C029620

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
0910	10.72	930	1.20	7.92	-146.3	4.68	0.5	100 mL/min	9.80	clear, no odor
0915	10.72	921	1.03	7.90	-150.9	3.06	0.75		10.73	
0925	10.71	956	0.85	7.88	-147.1	2.91	1.75		11.66	
0935	10.84	1066	0.89	7.82	-134.3	2.83	2.0		12.0	
0940	10.99	1294	0.84	7.78	-129.7	3.30	2.5		12.05	
0945	11.26	~~1487~~ 1487	0.97	7.74	-145.4	2.87	2.75		12.08	
0950	11.19	1483	1.01	7.75	-148.9	2.93	3.0		12.1	
0955	11.40	1527	0.93	7.73	-156.1	2.91	3.25		12.09	

3. SAMPLE COLLECTION: Method: low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-05-052914				VOC, PCB, metals, TSS	1010
MS/MSD					

Notes:

Signature [signature] Date 5/29/14

AECOM

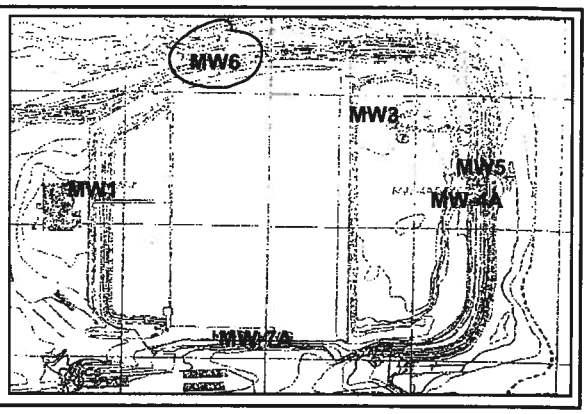
Sample ID MW-6

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 05/29/14 Time: Start 1400 am/pm
Project No: 60317716 Finish 1515 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~60°F Collector(s): RM

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	18.85	feet
Initial depth to Water	=	13.08	feet
Calculated Water Column Height	=	5.77	feet
Calculated Water Column Volume	=	0.942	gallons
1 foot of water in a 2" well	=	0.1632	gallons



2. SAMPLE COLLECTION

a. Method: Low Flow

b. Field Testing Equipment used

	Make	Model	Serial Number
	YSI	556 MPS	09F1012B1
	Hach	2100Q	13110C029620
	Geopump peristaltic pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
									13.09	
1415	1909	706	112.2	7.96	1.0	17.2	0.2	100	13.50	
1421	13.46	709	1.57	7.23	-35.1	12.2	0.9	100	13.55	
1429	12.97	796	0.88	7.13	-76.1	9.42	1.2	90	13.71	
1435	1901	835	0.94	7.13	-90.9	9.64	1.5	100	13.52	
1444	12.09	934	0.66	7.14	-102.7	4.51	1.6	100	13.71	
1448	12.30	897	0.53	7.12	-104.6	4.01	1.8	100	13.71	
1455	12.20	972	0.65	7.13	-106.5	3.80	2.0	100	13.74	
1505	11.99	995	0.54	7.13	-111.5	3.76	2.3	100	13.74	
1510	11.84	1005	0.46	7.13	-113.2	3.42	2.0	100	13.75	

3. SAMPLE COLLECTION: Method: Low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-006-052914	7	1L amber glass, plastic, VOA vials, some plastic	none, HNO3, HCl, none	PCB, metals, VOCs, TSS	1515

Sample time: 1515

Notes:

Signature _____ Date 05/29/14

AECOM

See revised well log - pdf page #20
Well log updated to report pH as positive values

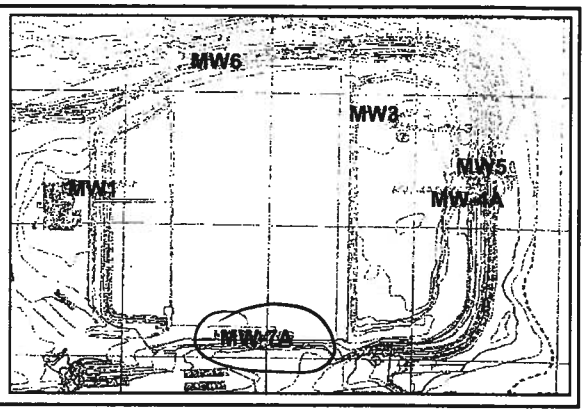
Sample ID MW-7A

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/29/14 Time: Start 1450 am/pm
Project No: 60317716 Finish 1715 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny 60°F Collector(s): D. Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	= 14.22	feet	
Initial depth to Water	= 10.86	feet	
Calculated Water Column Height	= 3.36	feet	
Calculated Water Column Volume	= 0.548	gallons	
1 foot of water in a 2" well	= 0.1632	gallons	



2. SAMPLE COLLECTION

a. Method: Low flow

b. Field Testing Equipment used

	Make	Model	Serial Number
	YSI 556 MPS		09F101281
	Hach 2100Q		13110C029620
	bladder pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed gal (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1505	15.58	521	1.08	-7.90	863.3	5.85	0.4	75	<11	clear, no odor
1510	13.84	504	0.75	-8.20	863.5	2.11	0.5	50	<11	
1515	13.38	492	0.67	-8.28	859.5	0.86	0.6		<11	
1520	13.64	496	0.61	-8.27	841.1	1.07	0.7		<11	
1525	13.91	503	0.64	-8.24	838.4	1.82	0.8		<11	
1530	13.93	516	0.53	-8.21	835.6	0.53	0.9		<11	
1535	13.68	526	0.45	-8.21	835.7	0.53	1.0		<11	
1540	13.36	527	0.47	-8.20	835.5	0.46	1.1		<11	
1545	13.64	534	0.46	-8.19	834.5	0.64	1.2		<11	
1550	13.50	535	0.48	-8.19	834.6	0.65	1.3		<11	

3. SAMPLE COLLECTION: Method: Low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-07A-052914					1600

Notes: water level meter doesn't fit past pump
Flow rate is very low to prevent well from going dry

Signature Helen A. Jones Date 5/29/14

AECOM

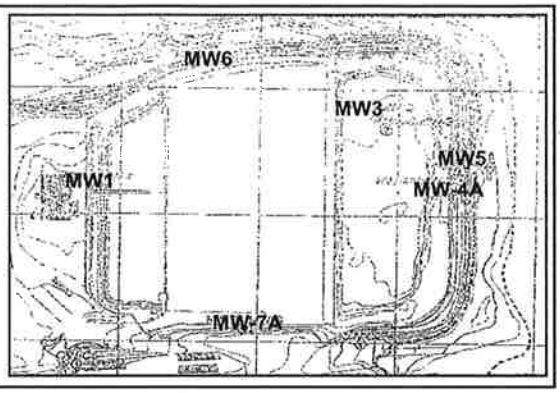
Sample ID MW-7A

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 5/29/14 Time: Start 1450 am/pm
Project No: 60317716 Finish 1715 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny, 60°F Collector(s): H. Jones

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	14.22	feet
Initial depth to Water	=	10.86	feet
Calculated Water Column Height	=	3.36	feet
Calculated Water Column Volume	=	0.548	gallons
1 foot of water in a 2" well	=	0.1632	gallons



2. SAMPLE COLLECTION

a. Method: low flow

b. Field Testing Equipment used

	Make	Model	Serial Number
	YSI 556 MPS		09F101281
	Hach 2100Q		13110C029620
	bladder pump		

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed ~~gal~~ (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1505	15.58	521	1.08	7.90	-863.3	5.85	0.4	75	<11	cl. clear, no odor
1510	13.84	504	0.75	8.20	-863.5	2.11	0.5	50	<11	
1515	13.38	492	0.67	8.28	-859.5	0.86	0.6		<11	
1520	13.64	496	0.61	8.27	-841.1	1.07	0.7		<11	
1525	13.91	503	0.64	8.24	-838.4	1.82	0.8		<11	
1530	13.93	516	0.53	8.21	-835.6	0.53	0.9		<11	
1535	13.68	526	0.45	8.21	-835.7	0.53	1.0		<11	
1540	13.36	527	0.47	8.20	-835	0.46	1.1		<11	
1545	13.64	534	0.46	8.19	-834.5	0.64	1.2		<11	
1550	13.50	535	0.48	8.19	-834.6	0.65	1.3		<11	

3. SAMPLE COLLECTION: Method: low flow

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
MW-07A-052914					1600

Notes: Water level meter doesn't fit past pump
Flow rate is very low to prevent well from going dry

Signature Helen Abr Date 11/9/14

AECOM

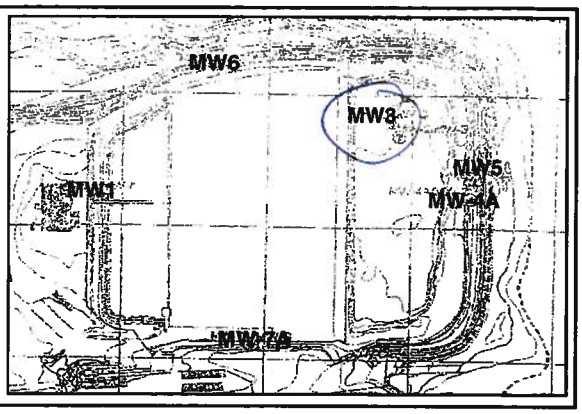
Sample ID MW-3

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 10/29/14 Time: Start 11:06 am/pm
Project No: 60317716 Finish 13:30 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~65°F Collector(s): Rachel MacPhee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	24.06	feet
Initial depth to Water	=	13.56	feet
Calculated Water Column Height	=	10.5	feet
Calculated Water Column Volume	=	1.71	gallons
1 foot of water in a 2" well	=	0.163	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Heron Dipper	Water level	Meter

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
					NA					
			—							

3. SAMPLE COLLECTION: Method:

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
		NA			

Notes:

Signature [signature] Date 10/29/14

AECOM

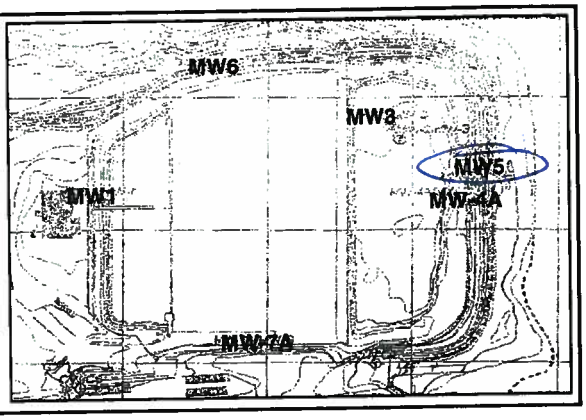
Sample ID MW-5

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 10/29/14 Time: Start 11:00 am/pm
Finish 13:30 am/pm
Project No: 60317716
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~ 65°F Collector(s): Rachel Macphee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	18.55	feet
Initial depth to Water	=	6.80	feet
Calculated Water Column Height	=	11.75	feet
Calculated Water Column Volume	=	1.92	gallons
1 foot of water in a 2" well	=	0.163	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Heron Dipper	Water level	Meter

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
						NA	—			

3. SAMPLE COLLECTION: Method:

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
		NA			

Notes:

Signature [signature] Date 10/29/14

AECOM

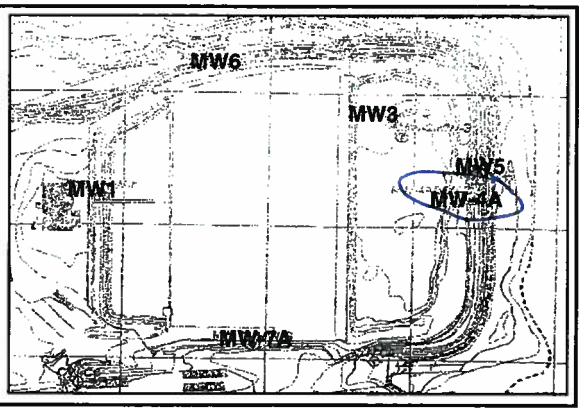
Sample ID MW-4A

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 10/29/14 Time: Start 11:00 am/pm
Project No: 60317716 Finish 13:30 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~65°F Collector(s): Rachel MacDuff

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	23.95	feet
Initial depth to Water	=	7.89	feet
Calculated Water Column Height	=	16.06	feet
Calculated Water Column Volume	=	2.62	gallons
1 foot of water in a 2" well	=	0.163	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Horiba	Dipper Water level	Meter

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
			-	NA		-				

3. SAMPLE COLLECTION: Method:

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
			- NA -		

Notes:

Signature [signature] Date 10/29/14

AECOM

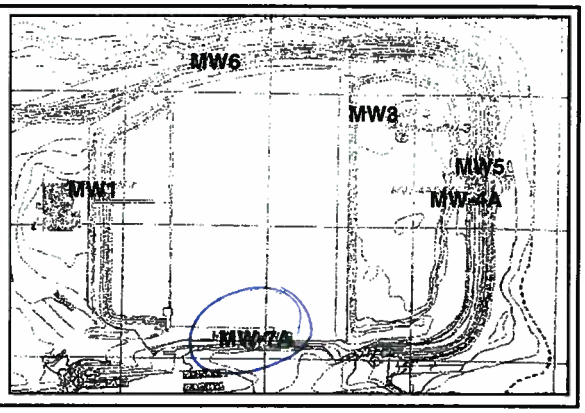
Sample ID MW-7A

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 10/29/14 Time: Start 11:00 am/pm
Project No: 60317716 Finish 13:30 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~65°F Collector(s): Rachel MacPhee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	14.40	feet
Initial depth to Water	=	10.25	feet
Calculated Water Column Height	=	4.15	feet
Calculated Water Column Volume	=	0.68	gallons
1 foot of water in a 2" well	=	0.163	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Horiba	U-22 Water Quality Meter	

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
					NA					

3. SAMPLE COLLECTION: Method:

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
			NA		

Notes:

Signature [signature] Date 10/29/14

AECOM

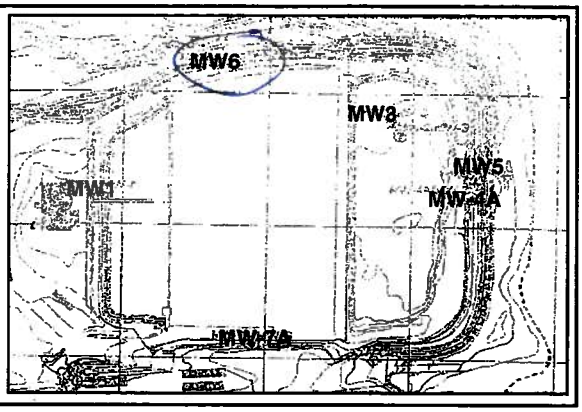
Sample ID MW-6

Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers Date: 10/29/14 Time: Start 11:00 am/pm
Project No: 60317716 Finish 13:30 am/pm
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~69°F Collector(s): Rachel MacPhee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	19.07	feet
Initial depth to Water	=	12.28	feet
Calculated Water Column Height	=	6.79	feet
Calculated Water Column Volume	=	1.11	gallons
1 foot of water in a 2" well	=	0.163	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Horiba	Dipper Water level meter	

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
			—	NA	—					

3. SAMPLE COLLECTION: Method:

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
		— NA —			

Notes:

Signature [signature] Date 10/29/14

AECOM

Sample ID MW-1

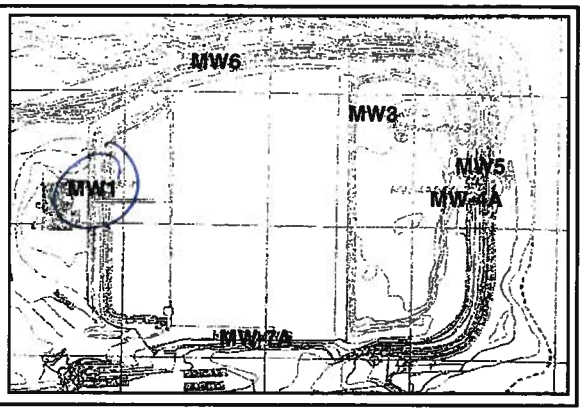
Groundwater Sample Collection Record

Client: U.S. Army Corps of Engineers
Project No: 60317716
Site Location: New Bedford, MA - Sawyer Street
Weather Conds: Sunny ~65°F

Date: 10/29/14
Time: Start 11:00 am/pm
Finish 13:30 am/pm
Collector(s): Rachel MacPhee

1. GROUNDWATER WELL LOCATION SKETCH/DESCRIPTION

Depth to Well Bottom	=	24.14	feet
Initial depth to Water	=	15.59	feet
Calculated Water Column Height	=	8.55	feet
Calculated Water Column Volume	=	1.39	gallons
1 foot of water in a 2" well	=	0.163	gallons



2. SAMPLE COLLECTION

a. Method: NA

b. Field Testing Equipment used

Make	Model	Serial Number
Heron Dipper	water level Meter	

Time (24hr)	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/l)	pH	ORP (mV)	Turbidity (NTU)	Volume Removed (Liters)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
		—		NA		—				

3. SAMPLE COLLECTION: Method:

Sample ID	No. of Containers	Container type	Preservation	Analysis Req.	Time
			— NA —		

Notes:

Signature [signature] Date 10/29/14

Appendix B

Laboratory Data Packages (provided on CD)

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BATTELLE
NEW BEDFORD HARBOR
SUPERFUND SITE
SH3734

KATAHDIN ANALYTICAL SERVICES, INC.
600 TECHNOLOGY WAY
SCARBOROUGH, ME 04074

TABLE OF CONTENTS

Total number of pages: 407

SAMPLE DATA PACKAGE

CQ00001

SDG NARRATIVE
KATAHDIN ANALYTICAL SERVICES
BATTELLE
NEW BEDFORD HARBOR SUPERFUND SITE
SH3734

Sample Receipt

The following samples were received on May 30, 2014 were logged in under Katahdin Analytical Services work order number SH3734 for a hardcopy due date of June 12, 2014.

KATAHDIN Sample No.	BATTELLE Sample Identification
SH3734-1	MW-005-052914
SH3734-2	MW-04A-052914
SH3734-3	MW-04A-052914-REP
SH3734-4	MW-001-052914
SH3734-5	MW-006-052914
SH3734-6	MW-07A-052914
SH3734-7	EB-052914
SH3734-8	MW-003-052914
SH3734-9	TRIP BLANK

The samples were logged in for the analyses specified on the chain of custody form. All non-conformances noted during sample receipt have been documented on the applicable chain of custody or laboratory cooler receipt form.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in this narrative or in the Report of Analysis.

Sample analyses have been performed by the methods as noted herein.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact your Katahdin Analytical Services Project Manager, **Mrs. Jennifer Obrin**. This narrative is an integral part of the Report of Analysis.

Organics Analysis

The samples of Work Order SH3734 were analyzed in accordance with "Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods." SW-846, 2nd edition, 1982 (revised 1984), 3rd edition, 1986, and Updates I, II, IIA, III, IIIA, and IIIB 1996, 1998 & 2004, Office of Solid Waste and Emergency Response, U.S. EPA and/or for the specific methods listed below or on the Report of Analysis.

Sample SH3734-1 was used for the matrix spike (MS) and matrix spike duplicate (MSD) sample, per client request.

8082A Analysis

All samples and associated QC were put through a sulfur cleanup according to SW-846 method 3660 using the copper powder technique.

Samples SH3734-3RA, 5RA, 6RA, and 8RA were manually integrated for the target analyte Aroclor 1242 and/or the extraction surrogate TCX. The specific reasons for the manual integrations are indicated on the raw data by the manual integration codes (M1-M11). These codes are further explained in the attachment following this narrative.

Samples SH3734-2RA and 4RA had low recoveries for the extraction surrogates TCX and DCB on both channels, which were outside of the DoD QSM acceptance limits. The client was e-mailed on 6/11/14 and informed the laboratory that the samples did not need to be reextracted since the hold times had expired and to proceed with narration.

Sample SH3734-5RA and the method blank, WG144065-1RA, had low recoveries for TCX on channel B which were outside the laboratory established acceptance limits. Since the recoveries were acceptable on the confirmation channel, no further action was taken.

Sample SH3734-7RA and the LCS, WG144065-2RA, had low recoveries for the extraction surrogate TCX on both channels, which were outside of the laboratory established acceptance limits. Since the recoveries for the method required surrogate DCB were within the acceptance limits, no further action was taken.

The opening/closing calibration verification standard (CV) (file 7HF174) had high responses for Aroclors 1016 and 1260 on channel A, which resulted in %D's that were outside of the DoD QSM acceptance limits of 20%. Since the responses were acceptable on the confirmation channel, the associated samples were not reanalyzed.

The closing CV (file 7HF188) had high responses for Aroclors 1016 and 1260 and TCX on channel A, which resulted in %D's that were outside of the DoD QSM acceptance limits of 20%. Since the responses were acceptable on the confirmation channel, the associated samples were not reanalyzed.

The closing CV (file 7HF189) had a high response for Aroclor 1242 on channel A, which resulted in a %D that was outside of the DoD QSM acceptance limits of 20%. Since the response was acceptable on the confirmation channel, the associated samples were not reanalyzed.

8260B Analysis

The initial calibration analyzed on the W instrument on 6/10/14 had %RSD values for some target analytes that exceeded the method acceptance limit of 15%. For these analytes, either a linear or quadratic model was used for quantitation instead of an average response factor. The analyte 1,4-dioxane failed for both the linear and quadratic models in the initial calibration curve due to the correlation coefficient and the coefficient of determination being less than the method acceptance criteria of 0.995 and 0.990, respectively. This is a known problematic compound that was calibrated using the average model. The corresponding independent check standard (file W0217A) had high concentrations for the target analytes acetone, 2-butanone and 2-hexanone,

and a low concentration for the analyte 1,4-dioxane, which exceeded the DoD QSM acceptance limit of ±20% of the expected value from the ICAL.

The reported percent recovery acceptance limits for the Laboratory Control Samples (LCSs) are based on DoD QSM acceptance limits for the full list of spiked compounds and laboratory established acceptance limits for all other analytes. The recoveries of the spiked analytes in the LCS, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are compared to these acceptance limits. Katahdin standard operating procedure is to take corrective action only if the number of spiked analytes in the LCS that are outside of the QC limits is greater than the DoD QSM allowable number of exceedances. If the associated MS/MSD has greater than the allowable number of exceedances, no corrective action is taken, as long as the LCS is acceptable.

There were no other protocol deviations or observations noted by the organics laboratory staff.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Operations Manager or the Quality Assurance Officer as verified by the following signature.

Leslie Dimond
061214
Leslie Dimond
Quality Assurance Officer

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Jennifer Obrin

From: Dahlen, Deirdre T [DahlenD@battelle.org]
Sent: Wednesday, June 11, 2014 3:40 PM
To: Jennifer Obrin
Subject: RE: COC for the samples received 5/30- New Bedford Harbor - SH3734

Regarding the surrogate recoveries – I don't think it makes sense to re-extract because the sample holding time has expired (7-days according to QAPP Worksheet #19). Please document the exceedence and the potential impact on data quality (e.g., sample data may be biased low).

Thanks,
Deirdre

From: Jennifer Obrin [mailto:jobrin@katahdinlab.com]
Sent: Wednesday, June 11, 2014 9:37 AM
To: Dahlen, Deirdre T; KoenigM@battelle.org
Subject: RE: COC for the samples received 5/30- New Bedford Harbor - SH3734

Good Morning,

The PCB group has come to me with a non-conformance. Samples SH3734-2RA and 4RA had low surrogate recoveries on both channels A and B. There were no hits in the samples and all of the QC was acceptable including surrogates. The samples had to be copper cleaned due to very high sulfur interference. Please let me know if you would like the lab to re-extract or if they can proceed with narration.

I also wanted to notify you that the CV 7HF174 had high recoveries for AR1016 and 1260 in channel A however channel B was acceptable. The CV 7HF189 had a high recovery for AR1242 in channel A however channel B was acceptable. We will narrate these issues but wanted to make you aware of them. Please let me know if you have any questions or if you would like us to take a different form of action.

Have a wonderful day!

Jennifer Obrin
Federal Programs Project Manager
Katahdin Analytical Services
A Woman-Owned Small Business Enterprise
DoD ELAP Accredited
600 Technology Way
Scarborough, Maine 04074
Direct - 207.874.2400 x17
Cell - 207.333.7469
Fax - 207.775.4029

000006

From: Jennifer Obrin [mailto:jobrin@katahdinlab.com]
Sent: Monday, June 02, 2014 11:12 AM
To: 'Dahlen, Deirdre T'; 'KoenigM@battelle.org'
Subject: COC for the samples received 5/30- New Bedford Harbor - SH3734

Good Morning,

Please find attached the COC for the samples received 5/30 for the project New Bedford Harbor under the work order SH3734. Please let me know if you have any questions.

Jennifer Obrin
Federal Programs Project Manager
Katahdin Analytical Services
A Woman-Owned Small Business Enterprise
DoD ELAP Accredited
600 Technology Way
Scarborough, Maine 04074
Direct - 207.874.2400 x17
Cell - 207.333.7469
Fax - 207.775.4029

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

Katahdin Analytical Services, Inc. — Sample Receipt Condition Report

Client:	AECOM	KAS PM:	JO	Sampled By:	Client
Project:		KIMS Entry By:	GN	Delivered By:	KAS
KAS Work Order#:	SH3734	KIMS Review By:	JP	Received By:	DM
SDG #:		Cooler: 1 of 2		Date/Time Rec.:	5/30/14 17:10

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 4.2
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles:					
Aqueous: No bubble larger than a pea?				✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?				✓	
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved?					
Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Katahdin Analytical Services, Inc. — Sample Receipt Condition Report

Client:	AECOM	KAS PM:	JO	Sampled By:	Client
Project:		KIMS Entry By:	GW	Delivered By:	KAS
KAS Work Order#:	SH3734	KIMS Review By:	JO	Received By:	DM
SDG #:		Cooler: 2 of 2		Date/Time Rec.:	5/30/14 17:10

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	✓				
2. Chain of Custody present in cooler?	✓				
3. Chain of Custody signed by client?	✓				
4. Chain of Custody matches samples?	✓				
5. Temperature Blanks present? If not, take temperature of any sample w/ IR gun.	✓				Temp (°C): 3.9
Samples received at <6 °C w/o freezing?	✓				Note: Not required for metals analysis.
Ice packs or ice present?	✓				The lack of ice or ice packs (i.e. no attempt to begin cooling process) or insufficient ice may not meet certain regulatory requirements and may invalidate certain data.
If yes, was there sufficient ice to meet temperature requirements?	✓				
If temp. out, has the cooling process begun (i.e. ice or packs present) and sample collection times <6hrs., but samples are not yet cool?				✓	Note: No cooling process required for metals analysis.
6. Volatiles: **Aqueous:** No bubble larger than a pea?	✓			✓	
Soil/Sediment:					
Received in airtight container?				✓	
Received in methanol?				✓	
Methanol covering soil?				✓	
D.I. Water - Received within 48 hour HT?				✓	
Air: Refer to KAS COC for canister/flow controller requirements.	√ if air included				
7. Trip Blank present in cooler?	✓				
8. Proper sample containers and volume?	✓				
9. Samples within hold time upon receipt?	✓				
10. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				✓	
Sulfide - >9				✓	
Cyanide – pH >12				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Katahdin ANALYTICAL SERVICES
600 Technology Way
Scarborough, ME 04074
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client	Contact	Phone #	Fax #
AECOM	Ryan McCarthy	(978) 905-2312	( )

Address	City	State	Zip Code
250 Apollo Dr.	Chelmsford	MA	01824

Purchase Order #	Proj. Name / No.	Katahdin Quote #
	New Bedford Harbor Sawyer Street CDF	

Bill (if different than above) Address

Sampler (Print / Sign) Helen Jones / Helen Jones

Copies To:

LAB USE ONLY

WORK ORDER #: SH3734

KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE PRESERVATIVES: VOC (Filt. ☐Y ☐N)	PCBs (Filt. ☐Y ☐N)
MS MSD	MW-005-052914	5/29/14/ 1010	GW	15	X	X
	MW-04A-052914	5/29/14/ 1045	GW	5	X	X
	MW-04A-052914-REP	5/29/14/ 1046	GW	5	X	X
	MW-001-052914	5/29/14/ 1330	GW	5	X	X
	MW-006-052914	5/29/14/ 1515	GW	5	X	X
	MW-07A-052914	5/29/14/ 1600	GW	5	X	X
	EB-052914	5/29/14/ 1845	GW	5	X	X
	MW-003-052914	05/29/14/ 1855	GW	5	X	X
	Trip Blank	/	WQ	3	X	
		/				
		/				
		/				
		/				
		/				
		/				
		/				

COMMENTS MW-005-052914 is MS/MSD
Report to Deirdre Dahlen at Batelle

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Helen Jones	5/30/14 1200				
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

000016

ORIGINAL

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Jun. 02, 2014
11:03 AM

Quote/Incoming: BATT-NBH

Login Number: SH3734

Account: BATTEL001 NoWeb
Battelle

Project: BATT-NBH
New Bedford Harbor Superfund Site

Primary Report Address:
Deirdre Dahlen
Battelle- Applied Coastal Engineering
397 Washington Avenue

Duxbury,MA 02332
dahlend@battelle.org

Primary Invoice Address:
Accounts Payable
Battelle
505 King Avenue

Columbus,OH 43201

Report CC Addresses:
Invoice CC Addresses:

Login Information:

ANALYSIS INSTRUCTIONS	:	Follow DoD QSM 4.2 through 2016-then 5.0. EPA Region 1 data validation. "U" LOD. "J" flag between DL and LOQ. AQ and SL PCBs FV=1ml. Percent solids for sediments must be greater than 50% prior to ext.Sediments for PCBs will need to be air dried to achive this. Both the original and air-dried %solids need to be reported. Low & High level surrogate spiking may be used for OU-1 sediment samples to alleviate surrogates being diluted out
CHECK NO.	:	
CLIENT PO#	:	US001-0000413140
CLIENT PROJECT MANAGE	:	Deirdre Dahlen
CONTRACT	:	W912WJ-12-D-0004 TO#10
COOLER TEMPERATURE	:	4.2, 3.9
DELIVERY SERVICES	:	KAS
EDD FORMAT	:	KAS089QC-XLS
LOGIN INITIALS	:	GN
PM	:	JO
PROJECT NAME	:	New Bedford Harbor Superfund Site
QC LEVEL	:	IV
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Email PDF and EDD to Deirdre. Send HC and CD.
SDG ID	:	
SDG STATUS	:	

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SH3734-1	MW-005-052914	29-MAY-14 10:10	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		MS/MSD
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-2	MW-04A-052914	29-MAY-14 10:45	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-3	MW-04A-052914-REP	29-MAY-14 10:46	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-4	MW-001-052914	29-MAY-14 13:30	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-5	MW-006-052914	29-MAY-14 15:15	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-6	MW-07A-052914	29-MAY-14 16:00	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-7	EB-052914	29-MAY-14 18:45	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

06.02.14

0000011

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Jun. 02, 2014
11:03 AM

Login Number: SH3734

Quote/Incoming: BATT-NBH

Account: BATTEL001 NoWeb
Battelle

Project: BATT-NBH
New Bedford Harbor Superfund Site

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Mailed
SH3734-8	MW-003-052914	29-MAY-14 18:55	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14	1L N-Amber Glass		
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-9	TRIP BLANK	29-MAY-14 00:00	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8260-S	12-JUN-14	40mL Vial+HCl		

SH3734-10	MW-005-052914MS	29-MAY-14 10:10	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14			**Not a sample. MS charge only.**
Aqueous	S	SW8260-S	12-JUN-14			

SH3734-11	MW-005-052914MSD	29-MAY-14 10:10	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Aqueous	S	SW8082-S	28-JUN-14			**Not a sample. MSD charge only.**
Aqueous	S	SW8260-S	12-JUN-14			

SH3734-12	QAPP INPUT	29-MAY-14 00:00	30-MAY-14			12-JUN-14	

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count	Comments
Service	S	QAPP-PREP				

Total Samples: 12 ***Total Analyses: 22***

06.02.14

0000012

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0222.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	UMM	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	0.36	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	ULMM	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	UM	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	UMM	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0222.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	UMM	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	UMM	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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http://www.katahdinlab.com

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0222.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	UMM	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		96.6	%					
Toluene-d8		94.7	%					
1,2-Dichloroethane-d4		88.9	%					
Dibromofluoromethane		93.8	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0223.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0223.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

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Lab ID: SH3734-2
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0223.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		98.2	%					
Toluene-d8		96.4	%					
1,2-Dichloroethane-d4		95.0	%					
Dibromofluoromethane		98.0	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0224.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0224.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0224.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		96.9	%					
Toluene-d8		96.2	%					
1,2-Dichloroethane-d4		95.1	%					
Dibromofluoromethane		96.6	%					

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Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0225.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0225.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene		2.8	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0225.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		101.	%					
Toluene-d8		101.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		100.	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0226.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0226.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0226.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		104.	%					
Toluene-d8		104.	%					
1,2-Dichloroethane-d4		105.	%					
Dibromofluoromethane		104.	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0227.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0227.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0227.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		105.	%					
Toluene-d8		107.	%					
1,2-Dichloroethane-d4		112.	%					
Dibromofluoromethane		108.	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0228.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0228.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0228.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		106.	%					
Toluene-d8		108.	%					
1,2-Dichloroethane-d4		113.	%					
Dibromofluoromethane		107.	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0229.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0229.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0229.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		107.	%					
Toluene-d8		108.	%					
1,2-Dichloroethane-d4		117.	%					
Dibromofluoromethane		111.	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-9
Client ID: TRIP BLANK
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0221.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-9
Client ID: TRIP BLANK
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0221.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-9
Client ID: TRIP BLANK
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0221.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		98.2	%					
Toluene-d8		94.8	%					
1,2-Dichloroethane-d4		87.8	%					
Dibromofluoromethane		93.5	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1RA
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF168.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.052	0.016	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.052	0.0093	0.026
Aroclor-1242	U	0.026	ug/L	1	.5	0.052	0.019	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.052	0.0085	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.052	0.018	0.026
Total PCBs	U	0.23	ug/L	1	4.5	0.47	0.0069	0.23
Tetrachloro-M-Xylene		81.3	%					
Decachlorobiphenyl		69.8	%					

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Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2RA
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF169.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.048	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.048	0.0085	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.048	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.048	0.0078	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.048	0.016	0.024
Total PCBs	U	0.21	ug/L	1	4.5	0.43	0.0063	0.21
Tetrachloro-M-Xylene	*	56.8	%					
Decachlorobiphenyl	*	36.6	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3RA
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF170.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.048	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.048	0.0085	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.048	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.048	0.0078	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.048	0.016	0.024
Total PCBs	U	0.21	ug/L	1	4.5	0.43	0.0063	0.21
Tetrachloro-M-Xylene		75.6	%					
Decachlorobiphenyl		52.9	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4RA
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF171.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.052	0.016	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.052	0.0093	0.026
Aroclor-1242	U	0.026	ug/L	1	.5	0.052	0.019	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.052	0.0085	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.052	0.018	0.026
Total PCBs	U	0.23	ug/L	1	4.5	0.47	0.0069	0.23
Tetrachloro-M-Xylene	*	43.9	%					
Decachlorobiphenyl	*	37.1	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5RA
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF172.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.047	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.047	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.047	0.0084	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.047	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.047	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.047	0.0077	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.047	0.016	0.024
Total PCBs	U	0.21	ug/L	1	4.5	0.42	0.0062	0.21
Tetrachloro-M-Xylene		65.3	%					
Decachlorobiphenyl		45.4	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6RA
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF178.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.053	0.016	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.053	0.021	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.053	0.0094	0.026
Aroclor-1242	U	0.026	ug/L	1	.5	0.053	0.019	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.053	0.021	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.053	0.0086	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.053	0.018	0.026
Total PCBs	U	0.24	ug/L	1	4.5	0.47	0.0069	0.24
Tetrachloro-M-Xylene		101.	%					
Decachlorobiphenyl		76.3	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7RA
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF179.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 10-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.048	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.048	0.0086	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.048	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.048	0.0080	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.048	0.016	0.024
Total PCBs	U	0.22	ug/L	1	4.5	0.44	0.0064	0.22
Tetrachloro-M-Xylene	*	46.0	%					
Decachlorobiphenyl		41.3	%					

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8RA
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF180.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 10-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.051	0.015	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.051	0.020	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.051	0.0091	0.026
Aroclor-1242		0.11	ug/L	1	.5	0.051	0.018	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.051	0.020	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.051	0.0084	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.051	0.017	0.026
Total PCBs	J	0.11	ug/L	1	4.5	0.46	0.0067	0.23
Tetrachloro-M-Xylene		78.1	%					
Decachlorobiphenyl		60.0	%					

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VOLATILES DATA

QC Summary Section

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** New Bedford Harbor Superfund Site **Matrix:** AQ
Lab Code: KAS **SDG:** SH3734

Client Sample ID	Lab Sample ID	Col. ID	BFB	#	DBF	#	DCA	#	TOL	#
MW-005-052914	SH3734-1		96.6		93.8		88.9		94.7	
MW-04A-052914	SH3734-2		98.2		98.0		95.0		96.4	
MW-04A-052914-REP	SH3734-3		96.9		96.6		95.1		96.2	
MW-001-052914	SH3734-4		101.		100.		101.		101.	
MW-006-052914	SH3734-5		104.		104.		105.		104.	
MW-07A-052914	SH3734-6		105.		108.		112.		107.	
EB-052914	SH3734-7		106.		107.		113.		108.	
MW-003-052914	SH3734-8		107.		111.		117.		108.	
TRIP BLANK	SH3734-9		98.2		93.5		87.8		94.8	
Matrix Spike	WG144443-11		114.		106.		110.		111.	
Matrix Spike Duplica	WG144443-12		115.		108.		111.		113.	
Laboratory Control S	WG144443-8		100.		92.2		83.6		94.8	
Method Blank Sample	WG144443-9		98.3		93.8		89.4		94.6	

		QC Limits
DCA	1,2-DICHLOROETHANE-D4	70-120
BFB	P-BROMOFLUOROBENZENE	75-120
DBF	DIBROMOFLUOROMETHANE	85-115
TOL	TOLUENE-D8	85-120

= Column to be used to flag recovery limits.
* = Values outside of contract required QC limits.
D= System Monitoring Compound diluted out.

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Form 4
Method Blank Summary - VOA

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
Lab File ID : W0220.D
Instrument ID : GCMS-W
Heated Purge : No

SDG : SH3734
Lab Sample ID : WG144443-9
Date Analyzed : 10-JUN-14
Time Analyzed : 16:30

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG144443-8	W0217.D	06/10/14	14:43
TRIP BLANK	SH3734-9	W0221.D	06/10/14	17:01
MW-005-052914	SH3734-1	W0222.D	06/10/14	17:33
MW-04A-052914	SH3734-2	W0223.D	06/10/14	18:04
MW-04A-052914-REP	SH3734-3	W0224.D	06/10/14	18:35
MW-001-052914	SH3734-4	W0225.D	06/10/14	19:06
MW-006-052914	SH3734-5	W0226.D	06/10/14	19:38
MW-07A-052914	SH3734-6	W0227.D	06/10/14	20:09
EB-052914	SH3734-7	W0228.D	06/10/14	20:41
MW-003-052914	SH3734-8	W0229.D	06/10/14	21:12
Matrix Spike	WG144443-11	W0230.D	06/10/14	21:44
Matrix Spike Duplica	WG144443-12	W0231.D	06/10/14	22:15

Form 5
Volatile Organic Instrument Performance Check

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
Lab File ID : WB013.D
Instrument ID : GCMS-W

SDG : SH3734
Date Analyzed : 10-JUN-14
Time Analyzed : 10:20
Heated Purge : No

m/e	Ion Abundance Criteria	% Relative Abundance		
50	15.0 - 40.0% of mass 95	18.9		
75	30.0 - 60.0% of mass 95	51.9		
95	Base Peak, 100% relative abundance	100		
96	5.0 - 9.0% of mass 95	6.5		
173	Less than 2.0% of mass 174	0.0	0.0	1
174	Greater than 50.0% of mass 95	64.6		
175	5.0 - 9.0% of mass 174	5.6	8.72	1
176	95.0 - 101.0% of mass 174	63.8	98.80	1
177	5.0 - 9.0% of mass 176	4.0	6.26	2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following samples, LCS, MS, MSD and standards:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Initial Calibration	WG144443-5	W0211.D	06/10/14	11:14
Initial Calibration	WG144443-4	W0212.D	06/10/14	11:45
Initial Calibration	WG144443-3	W0213.D	06/10/14	12:16
Initial Calibration	WG144443-2	W0214.D	06/10/14	12:47
Initial Calibration	WG144443-1	W0215.D	06/10/14	13:18
Initial Calibration	WG144443-6	W0216.D	06/10/14	14:12
Laboratory Control S	WG144443-8	W0217.D	06/10/14	14:43
Independent Source	WG144443-7	W0217A.D	06/10/14	14:43
Method Blank Sample	WG144443-9	W0220.D	06/10/14	16:30
TRIP BLANK	SH3734-9	W0221.D	06/10/14	17:01
MW-005-052914	SH3734-1	W0222.D	06/10/14	17:33
MW-04A-052914	SH3734-2	W0223.D	06/10/14	18:04
MW-04A-052914-REP	SH3734-3	W0224.D	06/10/14	18:35
MW-001-052914	SH3734-4	W0225.D	06/10/14	19:06
MW-006-052914	SH3734-5	W0226.D	06/10/14	19:38
MW-07A-052914	SH3734-6	W0227.D	06/10/14	20:09
EB-052914	SH3734-7	W0228.D	06/10/14	20:41
MW-003-052914	SH3734-8	W0229.D	06/10/14	21:12
Matrix Spike	WG144443-11	W0230.D	06/10/14	21:44
Matrix Spike Duplica	WG144443-12	W0231.D	06/10/14	22:15

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund
Lab ID : WG144443-4
Lab File ID : W0212.D

SDG: SH3734
Analytical Date: 06/10/14 11:45
Instrument ID: GCMS-W

		PENTAFLUOROBENZENE			1,4-DIFLUOROBENZENE			CHLOROBENZENE-D5		
		Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
	Std .	860359		8.59		1436965		9.58		1390910		14.33	
	Upper Limit	1720718		9.09		2873930		10.08		2781820		14.83	
	Lower Limit	430179.5		8.09		718482.5		9.08		695455		13.83	
Client Sample ID	Lab Sample ID												
Laboratory Control S	WG144443-8	887154		8.59		1477138		9.57		1417481		14.32	
Method Blank Sample	WG144443-9	802658		8.58		1370598		9.57		1282991		14.32	
TRIP BLANK	SH3734-9	791211		8.59		1342810		9.57		1250983		14.33	
MW-005-052914	SH3734-1	778327		8.59		1326616		9.58		1225313		14.33	
MW-04A-052914	SH3734-2	765965		8.58		1321430		9.58		1211714		14.33	
MW-04A-052914-REP	SH3734-3	750641		8.61		1278418		9.60		1184080		14.35	
MW-001-052914	SH3734-4	712966		8.62		1219412		9.61		1120057		14.35	
MW-006-052914	SH3734-5	689548		8.61		1170918		9.60		1078678		14.34	
MW-07A-052914	SH3734-6	670947		8.62		1161537		9.60		1073000		14.34	
EB-052914	SH3734-7	670269		8.61		1154118		9.60		1063529		14.34	
MW-003-052914	SH3734-8	661740		8.61		1158614		9.60		1068431		14.34	
Matrix Spike	WG144443-11	711250		8.62		1191188		9.61		1121666		14.35	
Matrix Spike Duplica	WG144443-12	749934		8.62		1255645		9.61		1182973		14.35	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Form 8
Internal Standard Area and RT Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund
Lab ID : WG144443-4
Lab File ID : W0212.D

SDG: SH3734
Analytical Date: 06/10/14 11:45
Instrument ID: GCMS-W

		1,4-DICHLOROBENZENE-D4			
		Area	#	RT	#
	Std .	809001		18.17	
	Upper Limit	1618002		18.67	
	Lower Limit	404500.5		17.67	
Client Sample ID	Lab Sample ID				
Laboratory Control S	WG144443-8	840691		18.17	
Method Blank Sample	WG144443-9	704239		18.16	
TRIP BLANK	SH3734-9	690776		18.16	
MW-005-052914	SH3734-1	672965		18.16	
MW-04A-052914	SH3734-2	666688		18.18	
MW-04A-052914-REP	SH3734-3	648370		18.19	
MW-001-052914	SH3734-4	617743		18.19	
MW-006-052914	SH3734-5	595312		18.18	
MW-07A-052914	SH3734-6	587563		18.18	
EB-052914	SH3734-7	582921		18.18	
MW-003-052914	SH3734-8	578431		18.18	
Matrix Spike	WG144443-11	668998		18.19	
Matrix Spike Duplica	WG144443-12	708433		18.19	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area
RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Sample Data Section

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0222.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	UMM	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	J	0.36	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	ULMM	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	UM	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	UMM	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0222.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	UMM	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	UMM	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0222.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	UMM	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		96.6	%					
Toluene-d8		94.7	%					
1,2-Dichloroethane-d4		88.9	%					
Dibromofluoromethane		93.8	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0222.D
Report Date: 12-Jun-2014 10:32

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0222.D
Lab Smp Id: SH3734-1 Client Smp ID: MW-005-052914
Inj Date : 10-JUN-2014 17:33
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-1
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

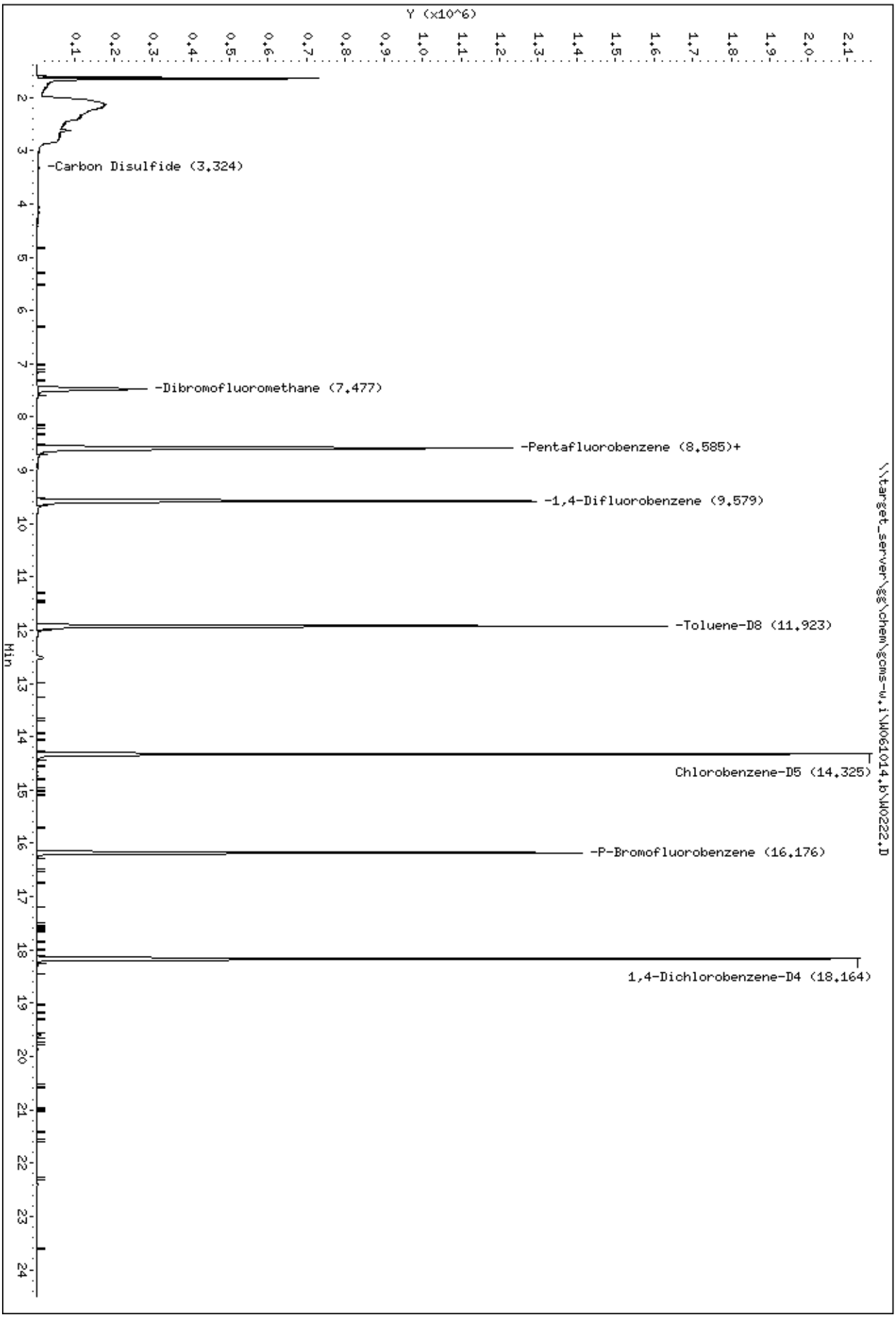
Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
10 Carbon Disulfide	76	3.324	3.323	(0.387)	6460	0.36052	0.36(a)	
$ 37 Dibromofluoromethane	113	7.470	7.461	(0.870)	285238	46.9078	46.9	
* 42 Pentafluorobenzene	168	8.585	8.576	(1.000)	778327	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.585	8.576	(1.000)	368790	44.4323	44.4	
* 49 1,4-Difluorobenzene	114	9.578	9.563	(1.000)	1326616	50.0000		
$ 55 Toluene-D8	98	11.923	11.914	(1.245)	1286899	47.3700	47.4	
* 66 Chlorobenzene-D5	117	14.325	14.323	(1.000)	1225313	50.0000		
$ 77 P-Bromofluorobenzene	95	16.176	16.175	(1.689)	569360	48.3219	48.3	
* 92 1,4-Dichlorobenzene-D4	152	18.163	18.169	(1.000)	672965	50.0000		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).


Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
-Carbon Disulfide (3.324)
-Dibromofluoromethane (7.477)
-Pentafluorobenzene (8.585)+
-1,4-Difluorobenzene (9.579)
-Toluene-D8 (11.923)
Chlorobenzene-D5 (14.325)
-P-Bromofluorobenzene (16.176)
1,4-Dichlorobenzene-D4 (18.164)
Min
2
3
4
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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0222.D
Date : 10-JUN-2014 17:33
Client ID: MW-005-052914
Sample Info: SH3734-1
Instrument: gcms-w.i
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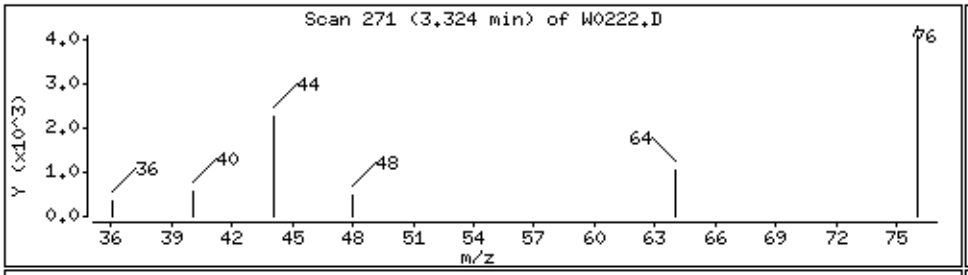
Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0222.D

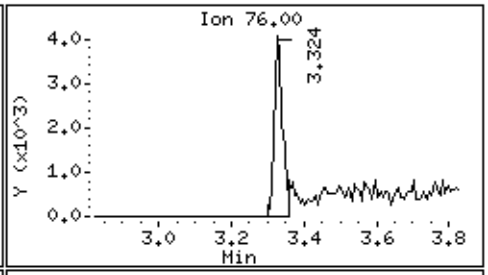
Date : 10-JUN-2014 17:33

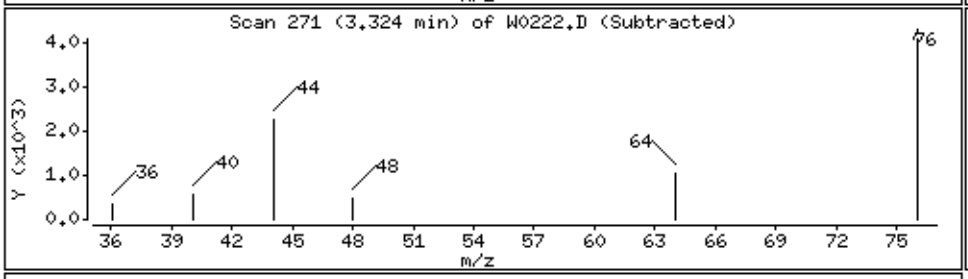
Client ID: MW-005-052914 Instrument: gcms-w.i

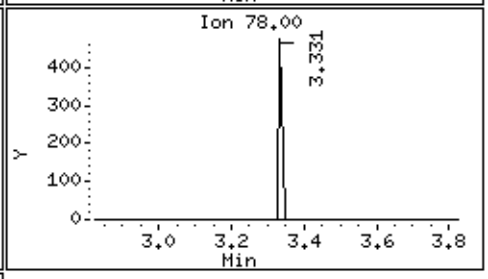
Sample Info: SH3734-1

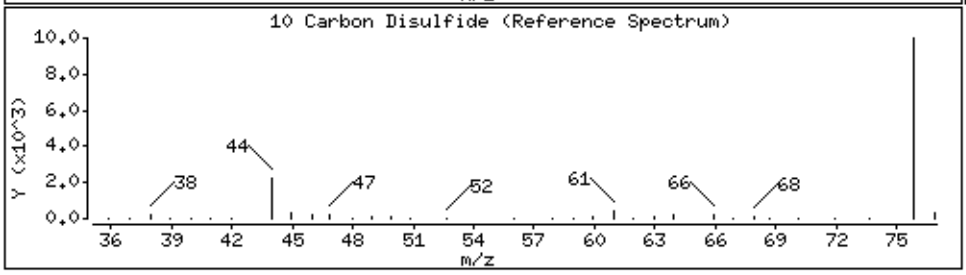
10 Carbon Disulfide Concentration: 0.36 ug/l











Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0223.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0223.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0223.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		98.2	%					
Toluene-d8		96.4	%					
1,2-Dichloroethane-d4		95.0	%					
Dibromofluoromethane		98.0	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0223.D
Report Date: 12-Jun-2014 10:32

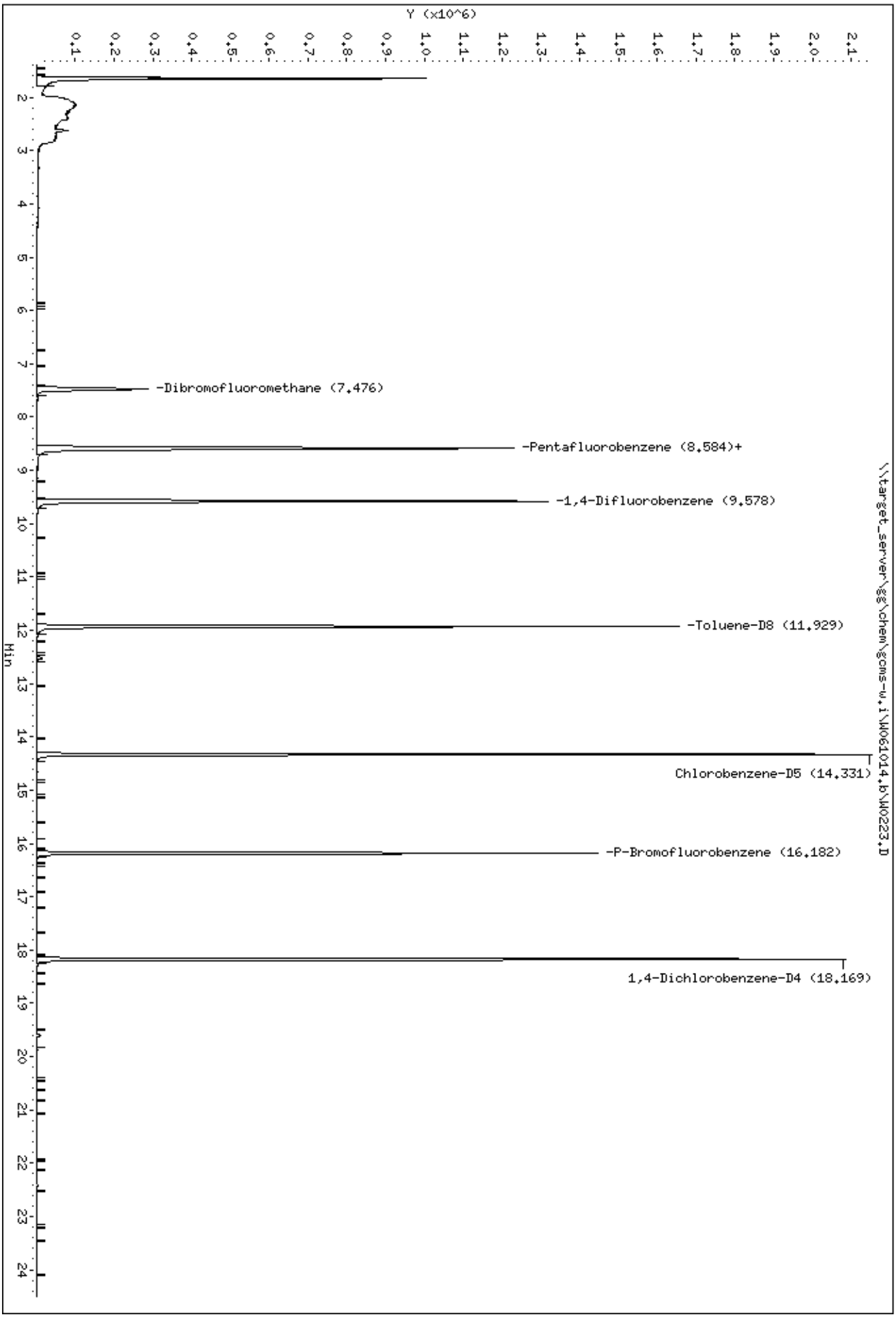
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0223.D
Lab Smp Id: SH3734-2 Client Smp ID: MW-04A-052914
Inj Date : 10-JUN-2014 18:04
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-2
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.476	7.461	(0.871)	293096	48.9780	49.0	
* 42 Pentafluorobenzene	168	8.584	8.576	(1.000)	765965	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.584	8.576	(1.000)	387816	47.4786	47.5	
* 49 1,4-Difluorobenzene	114	9.577	9.563	(1.000)	1321430	50.0000		
$ 55 Toluene-D8	98	11.929	11.914	(1.246)	1304402	48.2027	48.2	
* 66 Chlorobenzene-D5	117	14.331	14.323	(1.000)	1211714	50.0000		
$ 77 P-Bromofluorobenzene	95	16.182	16.175	(1.690)	576583	49.1270	49.1	
* 92 1,4-Dichlorobenzene-D4	152	18.176	18.169	(1.000)	666688	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0223.D
Date : 10-JUN-2014 18:04
Client ID: MW-04A-052914
Sample Info: SH3734-2
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0223.D
Y (x10^6)
Min
-Dibromofluoromethane (7.476)
-Pentafluorobenzene (8.584)+
-1,4-Difluorobenzene (9.578)
-Toluene-D8 (11.929)
Chlorobenzene-D5 (14.331)
-P-Bromofluorobenzene (16.182)
1,4-Dichlorobenzene-D4 (18.169)

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0224.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0224.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0224.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		96.9	%					
Toluene-d8		96.2	%					
1,2-Dichloroethane-d4		95.1	%					
Dibromofluoromethane		96.6	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0224.D
Report Date: 12-Jun-2014 10:33

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0224.D
Lab Smp Id: SH3734-3 Client Smp ID: MW-04A-052914-REP
Inj Date : 10-JUN-2014 18:35
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-3
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.506	7.461	(0.871)	283315	48.3101	48.3	
* 42 Pentafluorobenzene	168	8.614	8.576	(1.000)	750641	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.614	8.576	(1.000)	380525	47.5371	47.5	
* 49 1,4-Difluorobenzene	114	9.601	9.563	(1.000)	1278418	50.0000		
$ 55 Toluene-D8	98	11.945	11.914	(1.244)	1258906	48.0867	48.1	
* 66 Chlorobenzene-D5	117	14.347	14.323	(1.000)	1184080	50.0000		
$ 77 P-Bromofluorobenzene	95	16.191	16.175	(1.686)	550191	48.4555	48.4	
* 92 1,4-Dichlorobenzene-D4	152	18.186	18.169	(1.000)	648370	50.0000		

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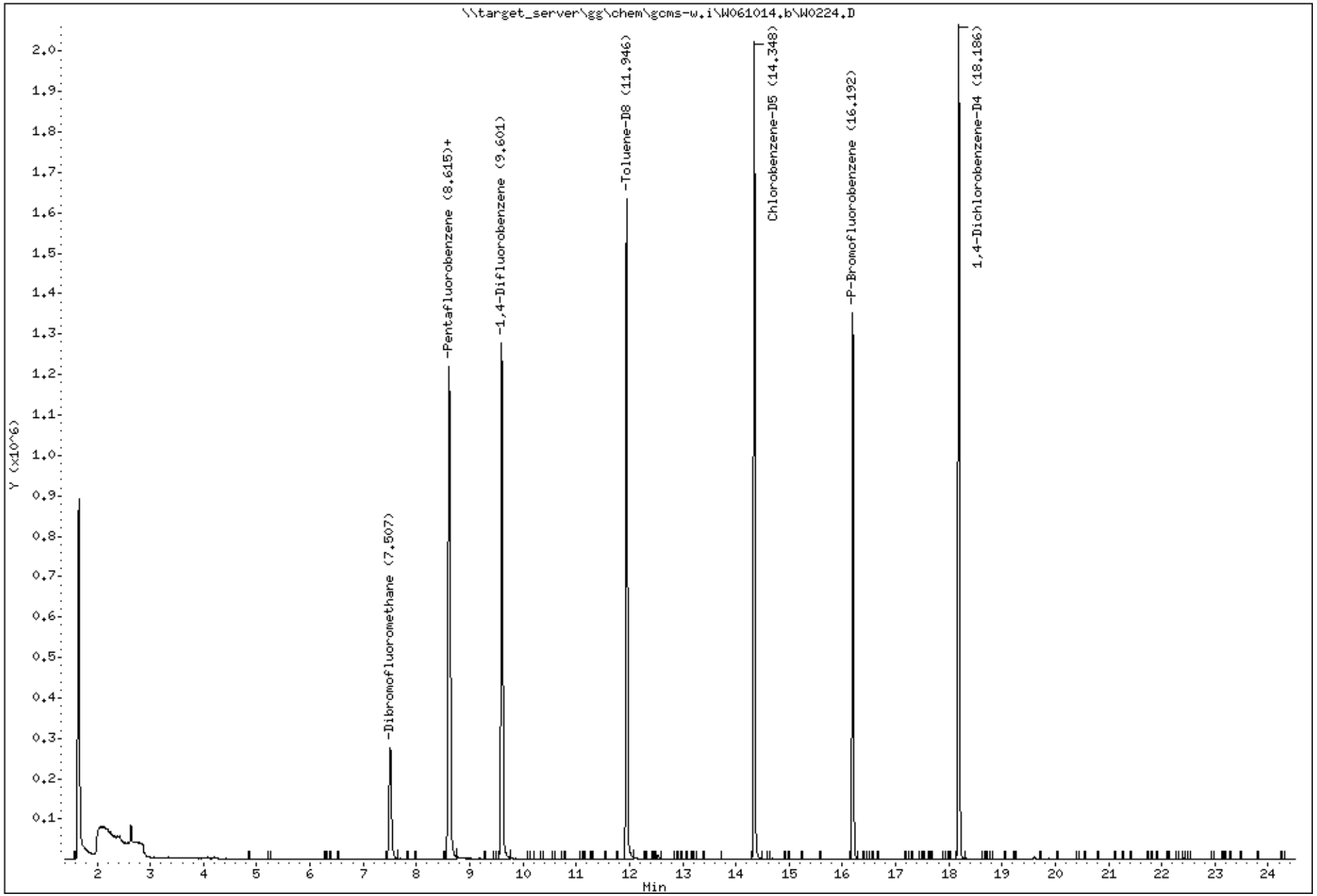
Date : 10-JUN-2014 18:35
Client ID: MW-04A-052914-REP
Instrument: gcms-w.i
Sample Info: SH3734-3



Katahdin Analytical Services 1000026

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0225.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0225.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene		2.8	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0225.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		101.	%					
Toluene-d8		101.	%					
1,2-Dichloroethane-d4		101.	%					
Dibromofluoromethane		100.	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0225.D
Report Date: 12-Jun-2014 10:33

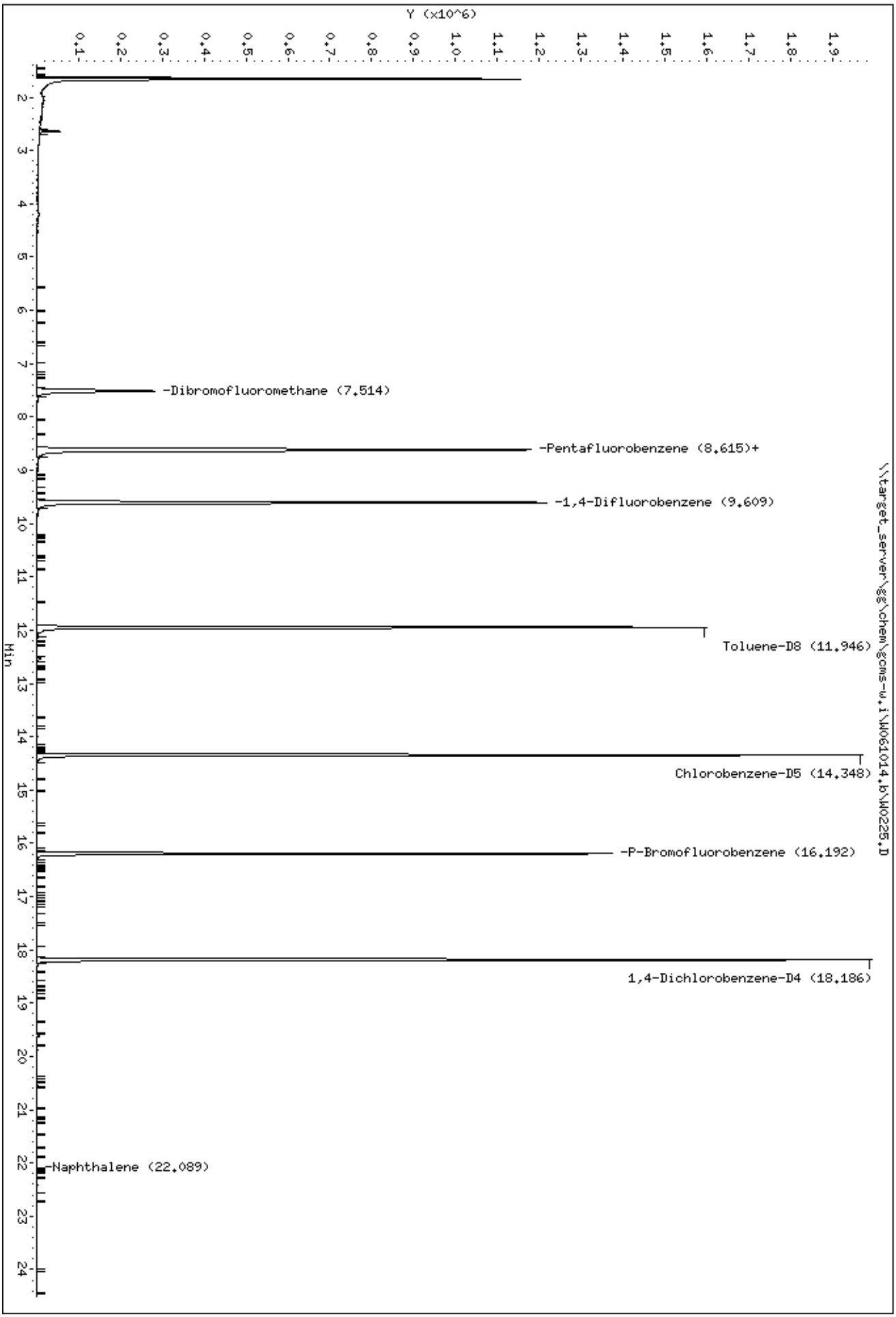
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0225.D
Lab Smp Id: SH3734-4 Client Smp ID: MW-001-052914
Inj Date : 10-JUN-2014 19:06
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-4
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.514	7.461	(0.872)	279919	50.2532	50.2	
* 42 Pentafluorobenzene	168	8.615	8.576	(1.000)	712966	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.615	8.576	(1.000)	383172	50.3972	50.4	
* 49 1,4-Difluorobenzene	114	9.608	9.563	(1.000)	1219412	50.0000		
$ 55 Toluene-D8	98	11.946	11.914	(1.243)	1266571	50.7205	50.7	
* 66 Chlorobenzene-D5	117	14.347	14.323	(1.000)	1120057	50.0000		
$ 77 P-Bromofluorobenzene	95	16.192	16.175	(1.685)	549188	50.7076	50.7	
* 92 1,4-Dichlorobenzene-D4	152	18.186	18.169	(1.000)	617743	50.0000		
102 Naphthalene	128	22.003	21.986	(1.210)	1578	2.76222	2.8	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Date : 10-JUN-2014 19:06
Client ID: MW-001-052914
Sample Info: SH3734-4
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0225.D
Y (x10^6)
Min
-Dibromofluoromethane (7.514)
-Pentafluorobenzene (8.615)+
-1,4-Difluorobenzene (9.609)
Toluene-D8 (11.946)
Chlorobenzene-D5 (14.348)
-P-Bromofluorobenzene (16.192)
1,4-Dichlorobenzene-D4 (18.186)
Naphthalene (22.089)

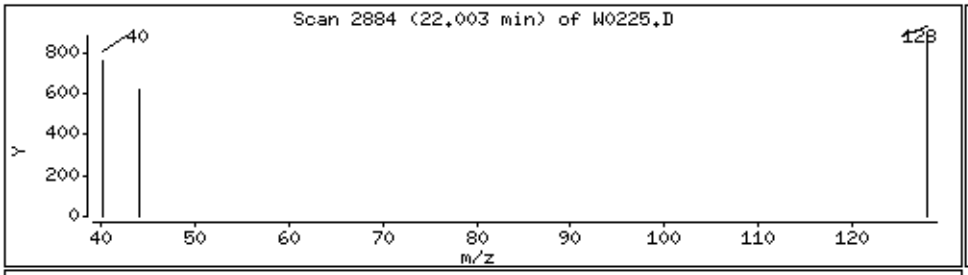
Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0225.D

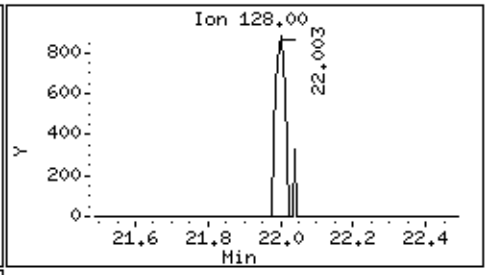
Date : 10-JUN-2014 19:06

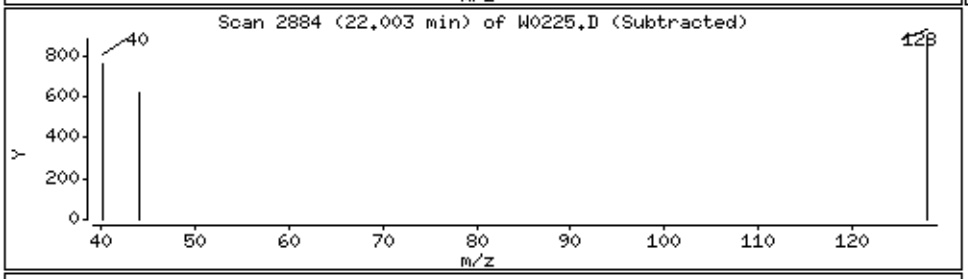
Client ID: MW-001-052914 Instrument: gcms-w.i

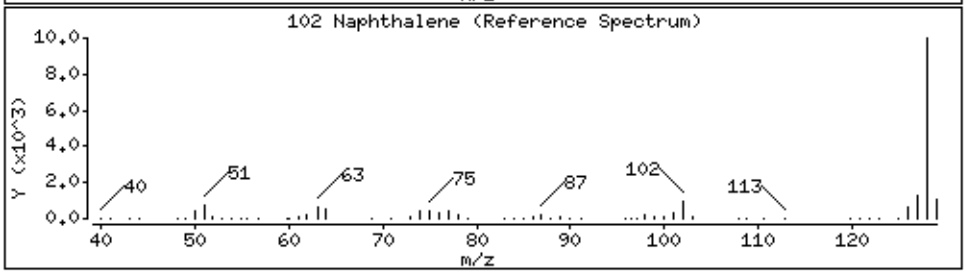
Sample Info: SH3734-4

102 Naphthalene Concentration: 2.8 ug/l









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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0226.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0226.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0226.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		104.	%					
Toluene-d8		104.	%					
1,2-Dichloroethane-d4		105.	%					
Dibromofluoromethane		104.	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0226.D
Report Date: 12-Jun-2014 10:33

Katahdin Analytical Services

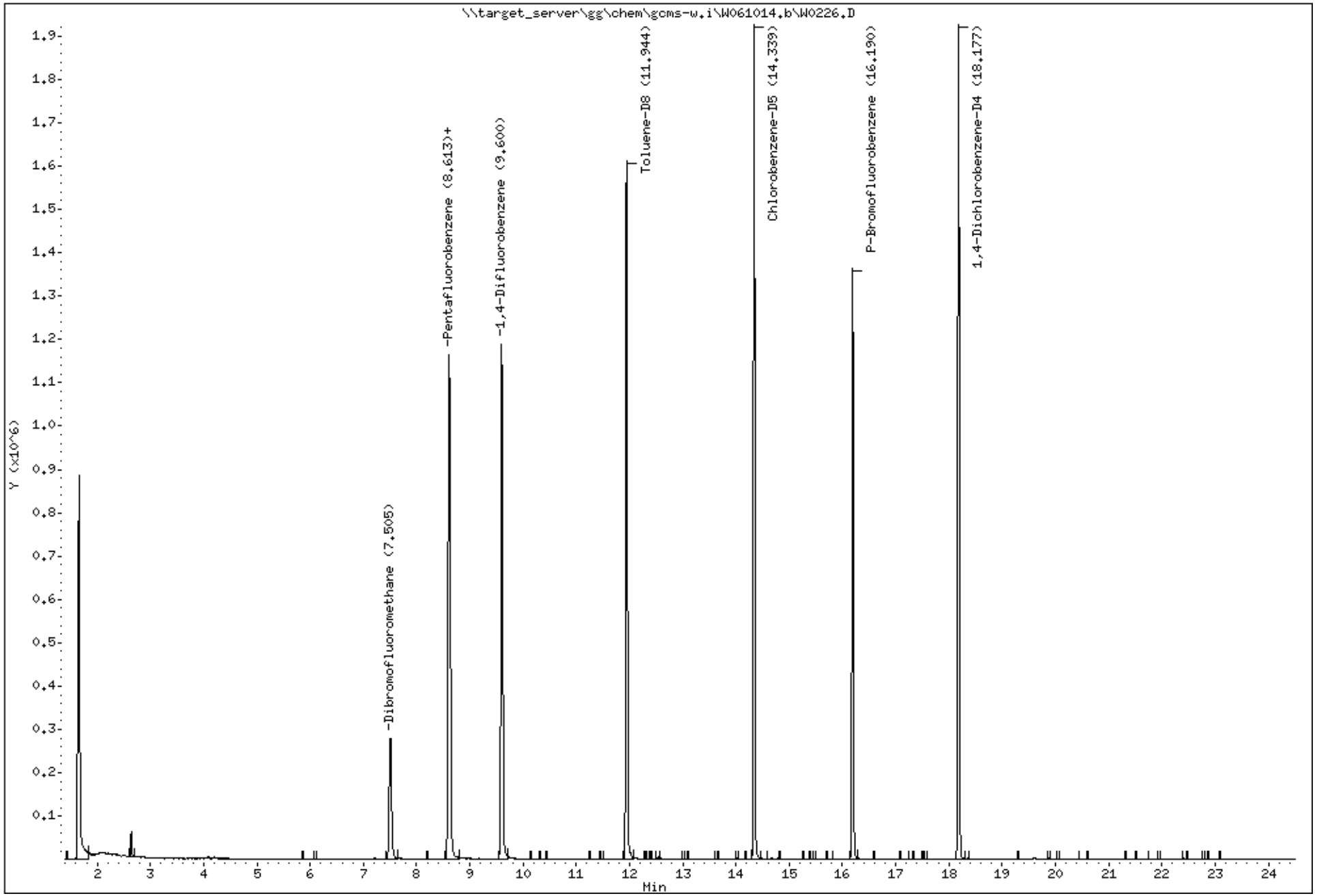
Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0226.D
Lab Smp Id: SH3734-5 Client Smp ID: MW-006-052914
Inj Date : 10-JUN-2014 19:38
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-5
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.512	7.461	(0.872)	279677	51.9150	51.9	
* 42 Pentafluorobenzene	168	8.613	8.576	(1.000)	689548	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.613	8.576	(1.000)	386198	52.5203	52.5	
* 49 1,4-Difluorobenzene	114	9.599	9.563	(1.000)	1170918	50.0000		
$ 55 Toluene-D8	98	11.944	11.914	(1.244)	1249415	52.1056	52.1	
* 66 Chlorobenzene-D5	117	14.338	14.323	(1.000)	1078678	50.0000		
$ 77 P-Bromofluorobenzene	95	16.190	16.175	(1.687)	541571	52.0752	52.1	
* 92 1,4-Dichlorobenzene-D4	152	18.177	18.169	(1.000)	595312	50.0000		

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0226.D
Date : 10-JUN-2014 19:38
Client ID: MW-006-052914
Instrument: gcms-w.i
Sample Info: SH3734-5



Katahdin Analytical Services 1000037

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0227.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0227.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0227.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		105.	%					
Toluene-d8		107.	%					
1,2-Dichloroethane-d4		112.	%					
Dibromofluoromethane		108.	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0227.D
Report Date: 12-Jun-2014 10:33

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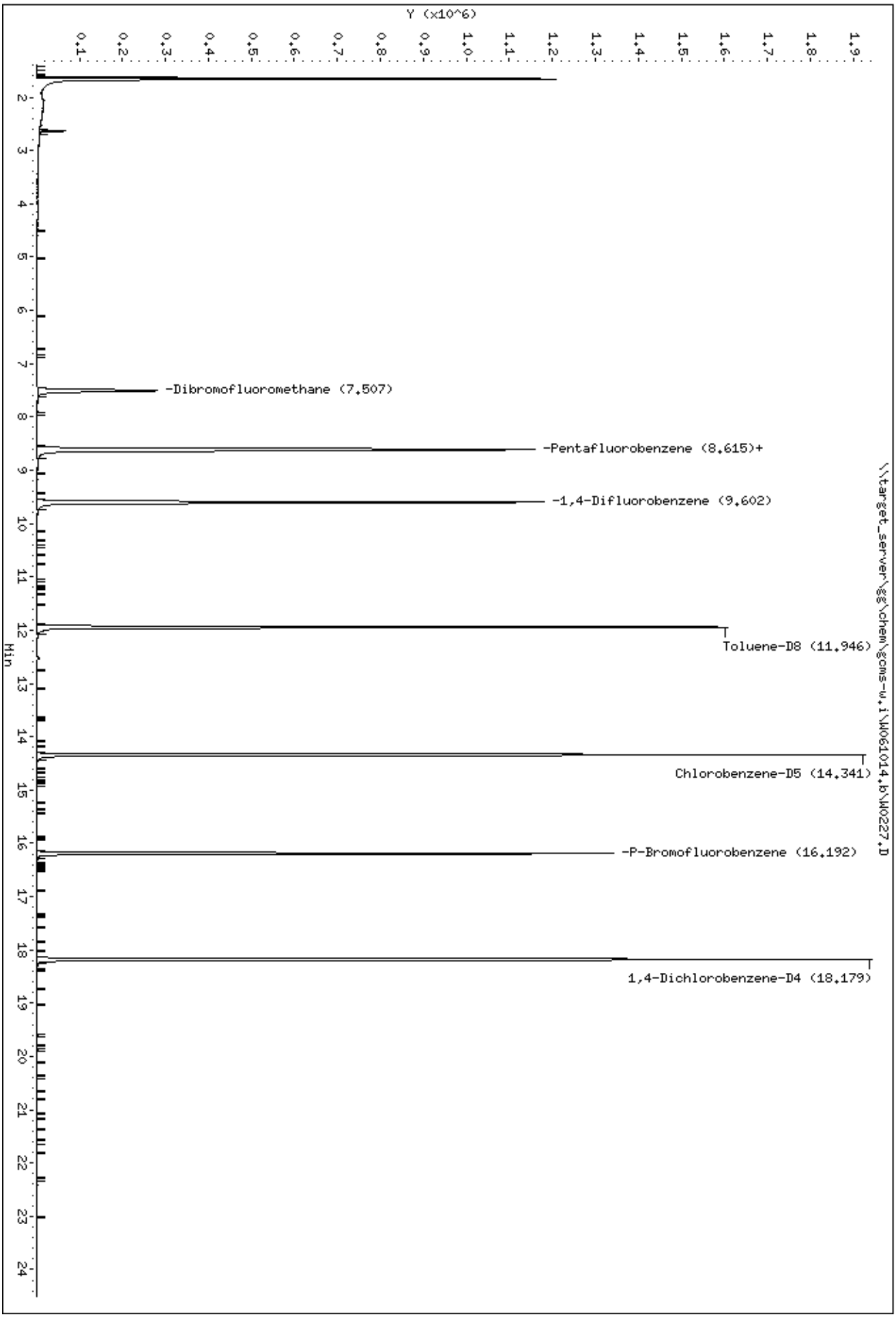
Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0227.D
Lab Smp Id: SH3734-6 Client Smp ID: MW-07A-052914
Inj Date : 10-JUN-2014 20:09
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-6
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	37 Dibromofluoromethane	113	7.507	7.461	(0.871)	283176	54.0217	54.0	
*	42 Pentafluorobenzene	168	8.615	8.576	(1.000)	670947	50.0000		
$	45 1,2-Dichloroethane-D4	65	8.615	8.576	(1.000)	402743	56.2887	56.3	
*	49 1,4-Difluorobenzene	114	9.601	9.563	(1.000)	1161537	50.0000		
$	55 Toluene-D8	98	11.946	11.914	(1.244)	1271795	53.4673	53.5	
*	66 Chlorobenzene-D5	117	14.340	14.323	(1.000)	1073000	50.0000		
$	77 P-Bromofluorobenzene	95	16.192	16.175	(1.686)	541372	52.4765	52.5	
*	92 1,4-Dichlorobenzene-D4	152	18.179	18.169	(1.000)	587563	50.0000		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Date : 10-JUN-2014 20:09
Client ID: MW-07A-052914
Sample Info: SH3734-6
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0227.D
Y (x10^6)
Min
-Dibromofluoromethane (7.507)
-Pentafluorobenzene (8.615)+
-1,4-Difluorobenzene (9.602)
Toluene-D8 (11.946)
Chlorobenzene-D5 (14.341)
-P-Bromofluorobenzene (16.192)
1,4-Dichlorobenzene-D4 (18.179)

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0228.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0228.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0228.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		106.	%					
Toluene-d8		108.	%					
1,2-Dichloroethane-d4		113.	%					
Dibromofluoromethane		107.	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0228.D
Report Date: 12-Jun-2014 10:33

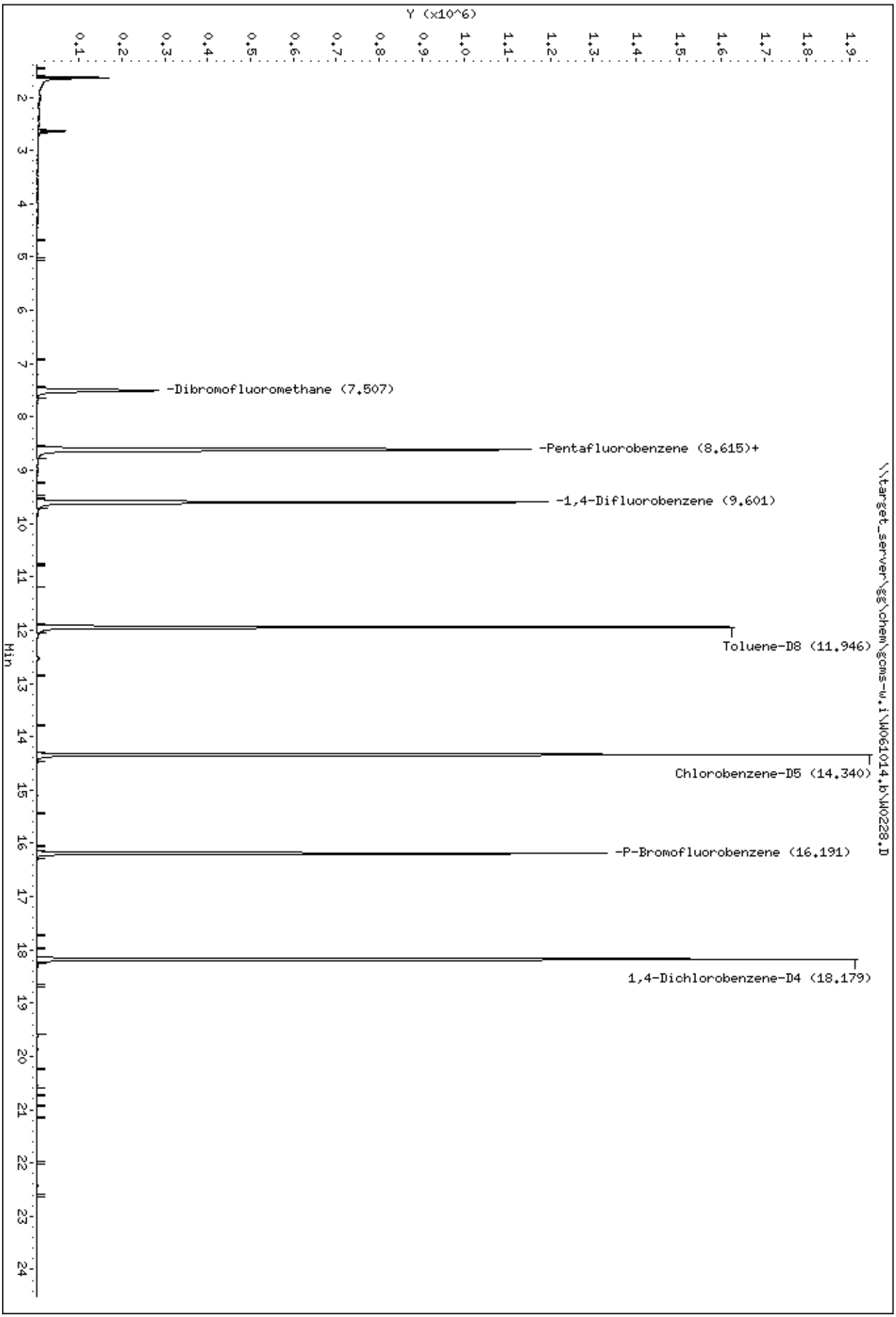
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0228.D
Lab Smp Id: SH3734-7 Client Smp ID: EB-052914
Inj Date : 10-JUN-2014 20:41
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-7
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.506	7.461	(0.871)	280005	53.4708	53.5	
* 42 Pentafluorobenzene	168	8.614	8.576	(1.000)	670269	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.607	8.576	(0.999)	403442	56.4434	56.4	
* 49 1,4-Difluorobenzene	114	9.600	9.563	(1.000)	1154118	50.0000		
$ 55 Toluene-D8	98	11.945	11.914	(1.244)	1274333	53.9184	53.9	
* 66 Chlorobenzene-D5	117	14.340	14.323	(1.000)	1063529	50.0000		
$ 77 P-Bromofluorobenzene	95	16.184	16.175	(1.686)	543193	52.9915	53.0	
* 92 1,4-Dichlorobenzene-D4	152	18.178	18.169	(1.000)	582921	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0228.D
Date : 10-JUN-2014 20:41
Client ID: EB-052914
Sample Info: SH3734-7
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0228.D
Y (x10^6)
Min
-Dibromofluoromethane (7.507)
-Pentafluorobenzene (8.615)+
-1,4-Difluorobenzene (9.601)
Toluene-D8 (11.946)
Chlorobenzene-D5 (14.340)
-P-Bromofluorobenzene (16.191)
1,4-Dichlorobenzene-D4 (18.179)

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ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0229.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0229.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0229.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		107.	%					
Toluene-d8		108.	%					
1,2-Dichloroethane-d4		117.	%					
Dibromofluoromethane		111.	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0229.D
Report Date: 12-Jun-2014 10:33

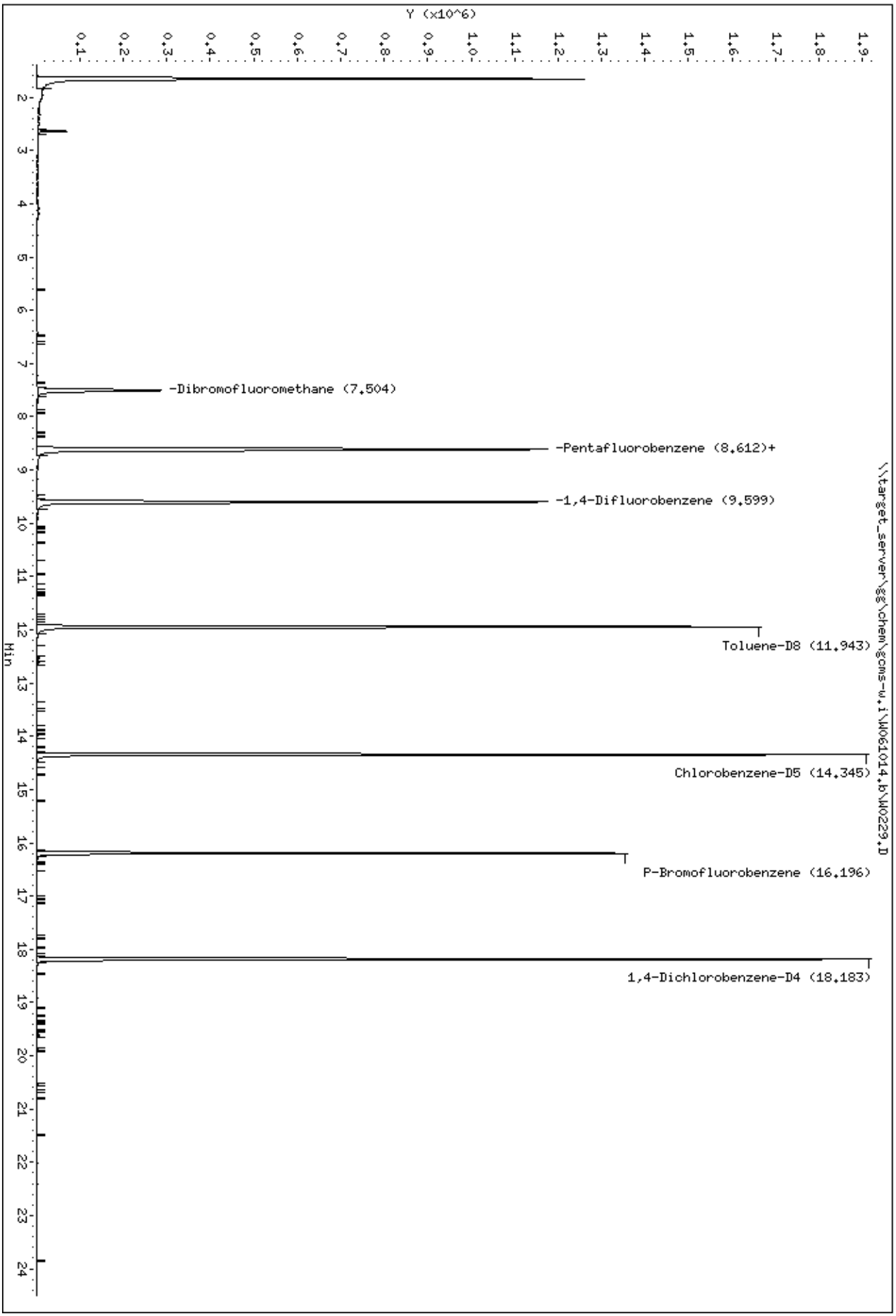
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0229.D
Lab Smp Id: SH3734-8 Client Smp ID: MW-003-052914
Inj Date : 10-JUN-2014 21:12
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-8
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.504	7.461	(0.871)	286485	55.4134	55.4	
* 42 Pentafluorobenzene	168	8.612	8.576	(1.000)	661740	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.612	8.576	(1.000)	412807	58.4980	58.5	
* 49 1,4-Difluorobenzene	114	9.598	9.563	(1.000)	1158614	50.0000		
$ 55 Toluene-D8	98	11.943	11.914	(1.244)	1287437	54.2614	54.3	
* 66 Chlorobenzene-D5	117	14.344	14.323	(1.000)	1068431	50.0000		
$ 77 P-Bromofluorobenzene	95	16.196	16.175	(1.687)	550225	53.4692	53.5	
* 92 1,4-Dichlorobenzene-D4	152	18.183	18.169	(1.000)	578431	50.0000		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Date : 10-JUN-2014 21:12
Client ID: MW-003-052914
Sample Info: SH3734-8
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0229.D
Y (x10^6)
Min
-Dibromofluoromethane (7.504)
-Pentafluorobenzene (8.612)+
-1,4-Difluorobenzene (9.599)
Toluene-D8 (11.943)
Chlorobenzene-D5 (14.345)
P-Bromofluorobenzene (16.196)
1,4-Dichlorobenzene-D4 (18.183)

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-9
Client ID: TRIP BLANK
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0221.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	UL	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-9
Client ID: TRIP BLANK
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0221.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client: Battelle
Lab ID: SH3734-9
Client ID: TRIP BLANK
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: W0221.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		98.2	%					
Toluene-d8		94.8	%					
1,2-Dichloroethane-d4		87.8	%					
Dibromofluoromethane		93.5	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0221.D
Report Date: 12-Jun-2014 10:32

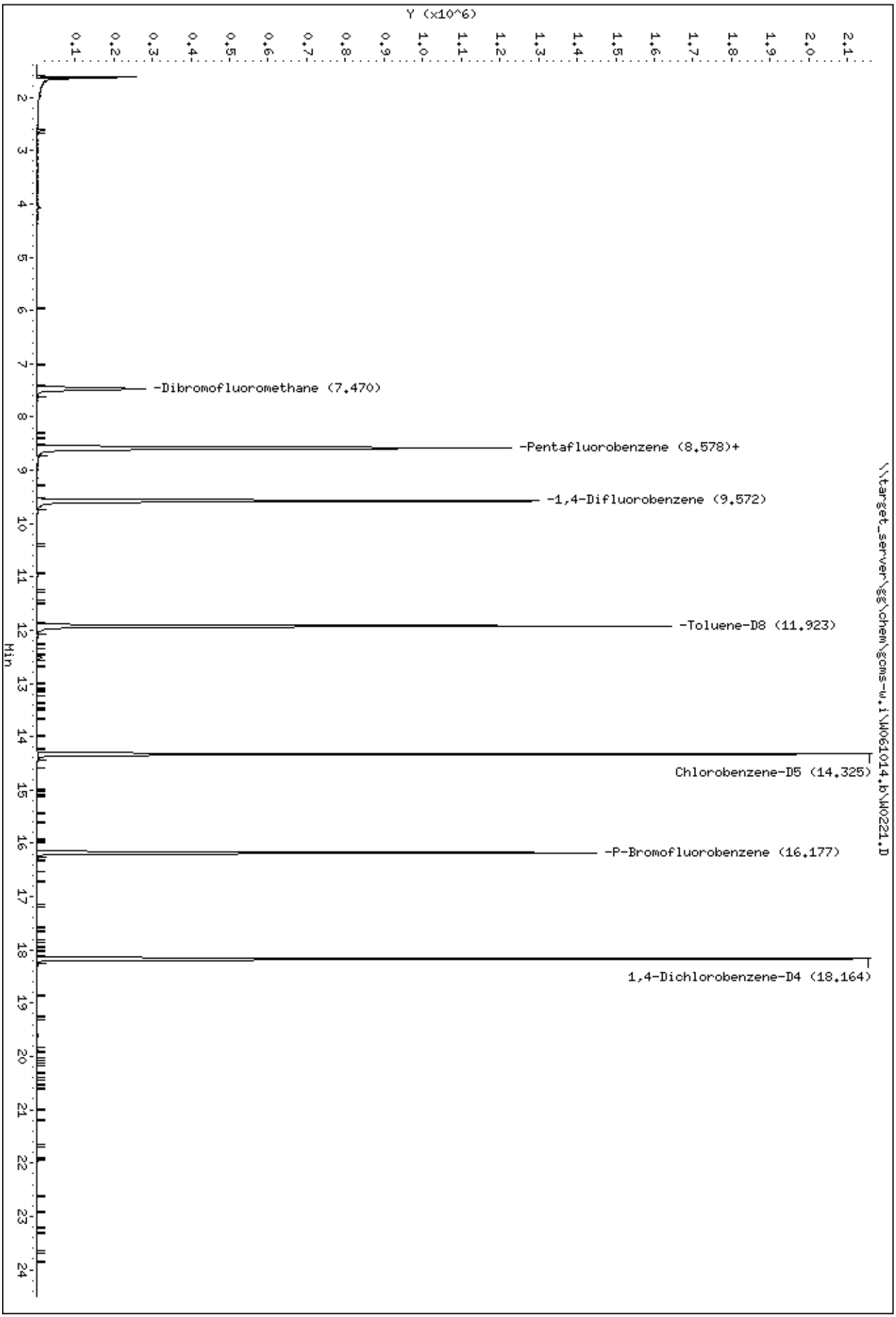
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0221.D
Lab Smp Id: SH3734-9 Client Smp ID: TRIP BLANK
Inj Date : 10-JUN-2014 17:01
Operator : REC Inst ID: gcms-w.i
Smp Info : SH3734-9
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
$ 37 Dibromofluoromethane	113	7.477	7.461	(0.871)	289114	46.7710	46.8	
* 42 Pentafluorobenzene	168	8.585	8.576	(1.000)	791211	50.0000		
$ 45 1,2-Dichloroethane-D4	65	8.578	8.576	(0.999)	370567	43.9193	43.9	
* 49 1,4-Difluorobenzene	114	9.571	9.563	(1.000)	1342810	50.0000		
$ 55 Toluene-D8	98	11.923	11.914	(1.246)	1303782	47.4127	47.4	
* 66 Chlorobenzene-D5	117	14.325	14.323	(1.000)	1250983	50.0000		
$ 77 P-Bromofluorobenzene	95	16.176	16.175	(1.690)	585440	49.0874	49.1	
* 92 1,4-Dichlorobenzene-D4	152	18.163	18.169	(1.000)	690776	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0221.D
Date : 10-JUN-2014 17:01
Client ID: TRIP BLANK
Sample Info: SH3734-9
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0221.D
Y (x10^6)
Min
-Dibromofluoromethane (7.470)
-Pentafluorobenzene (8.578)+
-1,4-Difluorobenzene (9.572)
-Toluene-D8 (11.923)
Chlorobenzene-D5 (14.325)
-P-Bromofluorobenzene (16.177)
1,4-Dichlorobenzene-D4 (18.164)

Standards Data Section

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SH3734
Project : New Bedford Harbor Superfund Site
Instrument ID: GCMS-W
Lab File IDs : W0215.D W0214.D W0213.D W0212.D W0211.D W0216.D
Column ID:
Calibration Date(s): 10-JUN-14 10:43 10-JUN-14 14:12

	1.0000 Level 1	5.0000 Level 2	20.0000 Level 3	50.0000 Level 4	100.0000 Level 5	200.0000 Level 6	New Crv	b	m1	m2	%RSD	Max %RSD	
Dichlorodifluoromethane	0.47731	0.55752	0.52574	0.55001	0.51832	0.44098	AVG		0.51165		8.73703	15.00000	O
Chloromethane	0.67277	0.67518	0.64651	0.63717	0.60531	0.47192	AVG		0.61814		12.31007	15.00000	O
Vinyl chloride	0.57715	0.61777	0.62123	0.58771	0.57669	0.46104	AVG		0.57360		10.19855	15.00000	O
Bromomethane	0.30772	0.28733	0.28639	0.23438	0.24728	0.25332	AVG		0.26940		10.56783	15.00000	O
Chloroethane	0.39944	0.32810	0.34768	0.28861	0.28086	+++++	AVG		0.32894		14.62701	15.00000	O
Trichlorofluoromethane	0.72158	0.74886	0.72515	0.65718	0.65391	0.59327	AVG		0.68333		8.57474	15.00000	O
Diethyl Ether	0.38280	0.38794	0.37954	0.36775	0.34894	0.29722	AVG		0.36070		9.44426	15.00000	O
1,1-Dichloroethene	0.45202	0.46321	0.45778	0.41343	0.40655	0.35990	AVG		0.42548		9.38639	15.00000	O
Carbon Disulfide	1.22723	1.18563	1.25841	1.16068	1.14914	0.92557	AVG		1.15111		10.23931	15.00000	O
Methylene Chloride	24897	52926	189854	449515	890079	1634160	QUA	-0.00562	1.63331	0.40839	0.99967	0.99000	O
Acetone	9199	34927	148248	373311	732563	1422861	LNR	-0.27675	0.07542		0.99671	0.99000	O
trans-1,2-Dichloroethene	0.50935	0.51066	0.53918	0.48468	0.48918	0.42356	AVG		0.49277		7.92045	15.00000	O
Methyl tert-butyl ether	1.50339	1.48732	1.50708	1.50461	1.34173	1.02667	AVG		1.39513		13.72610	15.00000	O
Di-isopropyl ether	1.23958	1.32475	1.33513	1.33893	1.26001	1.06342	AVG		1.26030		8.33148	15.00000	O
1,1-Dichloroethane	0.90372	0.88626	0.91454	0.87335	0.85025	0.73676	AVG		0.86081		7.53463	15.00000	O
Ethyl tertiary-butyl ether	1.41249	1.52146	1.50952	1.53550	1.44346	1.24317	AVG		1.44427		7.58401	15.00000	O
cis-1,2-Dichloroethene	0.53906	0.52168	0.52042	0.49943	0.49080	0.45298	AVG		0.50406		6.02383	15.00000	O
2,2-Dichloropropane	0.79783	0.77255	0.79651	0.73619	0.74244	0.67444	AVG		0.75333		6.18358	15.00000	O
Bromochloromethane	0.19312	0.20582	0.20906	0.20368	0.19929	0.18635	AVG		0.19955		4.26604	15.00000	O
Chloroform	0.86095	0.88621	0.88428	0.83373	0.82855	0.74641	AVG		0.84002		6.17752	15.00000	O
Carbon Tetrachloride	5199	31191	156159	398321	860445	1829936	LNR	0.02928	0.30503		0.99958	0.99000	O
Tetrahydrofuran	0.10576	0.08654	0.09434	0.10517	0.09987	0.06926	AVG		0.09349		14.85041	15.00000	O
1,1,1-Trichloroethane	0.76819	0.77510	0.80012	0.76001	0.76012	0.69793	AVG		0.76024		4.46330	15.00000	O
1,1-Dichloropropene	0.42539	0.41754	0.43256	0.41158	0.42053	0.38235	AVG		0.41499		4.21653	15.00000	O
2-Butanone	0.14395	0.13592	0.14755	0.16475	0.15635	0.11470	AVG		0.14387		12.11622	15.00000	O
Benzene	1.25331	1.26278	1.28712	1.21791	1.20765	1.04207	AVG		1.21181		7.27473	15.00000	O
Tertiary-amyl methyl ether	1.40326	1.44886	1.48255	1.53574	1.45919	1.24572	AVG		1.42922		6.98425	15.00000	O
1,2-Dichloroethane	0.36618	0.37219	0.37706	0.37709	0.37390	0.33973	AVG		0.36769		3.88248	15.00000	O
Trichloroethene	0.31834	0.31279	0.31238	0.29376	0.29954	0.28000	AVG		0.30280		4.77398	15.00000	O
Dibromomethane	0.16724	0.15905	0.17104	0.16889	0.17141	0.16105	AVG		0.16645		3.13501	15.00000	O
1,2-Dichloropropane	0.28516	0.27930	0.29097	0.28890	0.29527	0.26817	AVG		0.28463		3.41152	15.00000	O
Bromodichloromethane	0.35539	0.35952	0.39276	0.39202	0.40276	0.37734	AVG		0.37996		5.07228	15.00000	O
cis-1,3-dichloropropene	0.43570	0.48612	0.52659	0.52081	0.53607	0.49175	AVG		0.49951		7.40198	15.00000	O
1,4-Dioxane	0.02266	0.00998	0.00451	0.00367	0.00224	0.00054	AVG		0.00727		113	15.00000	W
Toluene	0.84450	0.78582	0.80337	0.77276	0.79024	0.69583	AVG		0.78209		6.25239	15.00000	O
4-methyl-2-pentanone	0.17500	0.17965	0.20091	0.21799	0.20419	0.14328	AVG		0.18684		14.27847	15.00000	O
Tetrachloroethene	0.22749	0.22608	0.23338	0.21867	0.22492	0.21677	AVG		0.22455		2.70252	15.00000	O

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SH3734
Project : New Bedford Harbor Superfund Site
Instrument ID: GCMS-W
Lab File IDs : W0215.D W0214.D W0213.D W0212.D W0211.D W0216.D
Column ID:
Calibration Date(s): 10-JUN-14 10:43 10-JUN-14 14:12

trans-1,3-Dichloropropene	0.43570	0.48612	0.52659	0.52081	0.53607	0.49175	AVG		0.49951		7.40198	15.00000	O
1,1,2-Trichloroethane	0.18506	0.20978	0.21812	0.22280	0.22838	0.21340	AVG		0.21292		7.12242	15.00000	O
Dibromochloromethane	0.23510	0.24782	0.27558	0.28121	0.29177	0.27112	AVG		0.26710		8.01469	15.00000	O
1,3-Dichloropropane	0.51217	0.53029	0.53967	0.53921	0.52816	0.45655	AVG		0.51768		6.09874	15.00000	O
1,2-Dibromoethane	0.22888	0.23000	0.24964	0.25509	0.26767	0.25086	AVG		0.24702		6.09072	15.00000	O
2-Hexanone	0.11903	0.12830	0.14402	0.15564	0.14608	0.10302	AVG		0.13268		14.77152	15.00000	O
Chlorobenzene	0.80956	0.80457	0.81298	0.77137	0.77449	0.65763	AVG		0.77177		7.60785	15.00000	O
Ethylbenzene	0.48437	0.49967	0.50388	0.47823	0.49959	0.45313	AVG		0.48648		3.93594	15.00000	O
1,1,1,2-Tetrachloroethane	0.25605	0.25792	0.28095	0.27879	0.29659	0.28408	AVG		0.27573		5.72549	15.00000	O
m+p-Xylenes	0.57138	0.58337	0.60311	0.57282	0.56624	0.43336	AVG		0.55505		10.99655	15.00000	O
o-Xylene	0.50429	0.53022	0.55703	0.52531	0.55059	0.49697	AVG		0.52740		4.55696	15.00000	O
Styrene	0.86094	0.93769	1.01043	0.97969	0.98707	0.79021	AVG		0.92767		9.21411	15.00000	O
Bromoform	3186	19019	95226	270566	606290	1230750	LNR	0.00896	0.20108		0.99820	0.99000	O
Isopropylbenzene	35523	191458	820096	1971431	3895512	6233580	QUA	0.03799	0.22305	0.05476	0.99729	0.99000	O
Bromobenzene	0.54684	0.56322	0.57720	0.56892	0.58959	0.57648	AVG		0.57038		2.55329	15.00000	O
N-Propylbenzene	45392	247244	1042636	2443148	4665026	7052308	QUA	0.05067	0.11924	0.05235	0.99467	0.99000	O
1,1,2,2-Tetrachloroethane	0.61435	0.62844	0.65860	0.67853	0.66423	0.56944	AVG		0.63560		6.32125	15.00000	O
1,3,5-Trimethylbenzene	2.41590	2.52510	2.63809	2.43550	2.29964	1.70820	AVG		2.33707		14.04554	15.00000	O
2-Chlorotoluene	2.00166	2.01100	2.03197	1.88044	1.80110	1.44910	AVG		1.86254		11.88793	15.00000	O
1,2,3-Trichloropropane	0.55380	0.54884	0.57259	0.59622	0.57076	0.47179	AVG		0.55233		7.75654	15.00000	O
4-Chlorotoluene	2.03627	2.08027	2.08771	1.94574	1.86223	1.50165	AVG		1.91898		11.56690	15.00000	O
tert-Butylbenzene	2.03343	2.14817	2.26239	2.14581	2.11208	1.71389	AVG		2.06929		9.13819	15.00000	O
1,2,4-Trimethylbenzene	2.40474	2.57163	2.62008	2.44390	2.30252	1.77701	AVG		2.35331		12.95007	15.00000	O
P-Isopropyltoluene	2.37539	2.50517	2.65055	2.49478	2.30795	1.77058	AVG		2.35074		13.09100	15.00000	O
1,3-Dichlorobenzene	1.14385	1.10766	1.14826	1.10077	1.11389	1.01251	AVG		1.10449		4.44242	15.00000	O
1,4-Dichlorobenzene	1.32464	1.23063	1.26283	1.22520	1.22767	1.09671	AVG		1.22795		6.07267	15.00000	O
N-Butylbenzene	36166	200295	891642	2155354	4117963	6539302	QUA	0.03960	0.19022	0.05297	0.99758	0.99000	O
sec-Butylbenzene	2.95271	3.04130	3.10936	2.84258	2.63821	1.98423	AVG		2.76140		15.03436	15.00000	WC
1,2-Dichlorobenzene	1.00286	1.04225	1.08549	1.06514	1.05808	0.96287	AVG		1.03611		4.37456	15.00000	O
1,2-Dibromo-3-Chloropropane	0.10731	0.11438	0.11615	0.14128	0.12997	0.10397	AVG		0.11884		11.95143	15.00000	O
Hexachlorobutadiene	0.33500	0.35568	0.41584	0.42855	0.42470	0.41634	AVG		0.39602		10.12439	15.00000	O
1,2,4-Trichlorobenzene	0.81567	0.76247	0.80990	0.83958	0.81415	0.77061	AVG		0.80206		3.68034	15.00000	O
Naphthalene	29846	148589	686651	1837756	3414271	5276964	QUA	0.05479	0.17921	0.09045	0.99622	0.99000	O
1,2,3-Trichlorobenzene	0.74745	0.72589	0.73638	0.77434	0.74784	0.68374	AVG		0.73594		4.11001	15.00000	O
Dibromofluoromethane	0.37831	0.41803	0.39878	0.39698	0.38435	0.36735	AVG		0.39063		4.56580	15.00000	
1,2-Dichloroethane-D4	0.55635	0.57631	0.54627	0.53897	0.51916	0.46213	AVG		0.53320		7.42976	15.00000	
Toluene-D8	0.95327	1.10074	1.11092	1.06189	1.04481	0.87190	AVG		1.02392		9.10400	15.00000	
P-Bromofluorobenzene	0.40300	0.43590	0.44878	0.44952	0.47786	0.44946	AVG		0.44409		5.49404	15.00000	

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SH3734
Project : New Bedford Harbor Superfund Site
Instrument ID: GCMS-W
Lab File IDs : W0215.D W0214.D W0213.D W0212.D W0211.D W0216.D
Column ID:
Calibration Date(s): 10-JUN-14 10:43
10-JUN-14 14:12

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217A.D
Report Date: 11-Jun-2014 11:24

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: WG144443
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: WG144443-7 Client Smp ID: Independent Source
Level: LOW Operator: REC
Data Type: MS DATA SampleType: LCS
SpikeList File: IND_CHECK4.1.spk Quant Type: ISTD
Sublist File: SW8260-S.sub
Method File: \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Misc Info: WG144443,WG144443-4

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	1	Dichlorodifluorome	50.0	54.1	108.29	80-120
	2	Chloromethane	50.0	48.3	96.70	80-120
	3	Vinyl chloride	50.0	50.0	99.99	80-120
	4	Bromomethane	50.0	48.0	95.93	80-120
	5	Chloroethane	50.0	44.1	88.19	80-120
	6	Trichlorofluoromet	50.0	48.5	96.97	80-120
	7	Diethyl Ether	50.0	49.9	99.84	80-120
	8	Tertiary-butyl alc	250	215	86.16	80-120
	9	1,1-Dichloroethene	50.0	49.7	99.39	80-120
	10	Carbon Disulfide	50.0	56.2	112.49	80-120
	11	Freon-113	50.0	51.0	101.90	80-120
	12	Iodomethane	50.0	53.7	107.39	80-120
	13	Acrolein	250	249	99.69	80-120
	14	Methylene Chloride	50.0	47.1	94.18	80-120
	15	Acetone	50.0	86.8	173.71*	80-120
	16	Isobutyl Alcohol	1000	999	99.87	80-120
	17	trans-1,2-Dichloro	50.0	49.4	98.81	80-120
	18	Allyl Chloride	50.0	48.6	97.19	80-120
	19	Methyl tert-butyl	100	106	106.53	80-120
	20	Acetonitrile	500	376	75.26*	80-120
	21	Di-isopropyl ether	50.0	50.1	100.29	80-120
	22	Chloroprene	50.0	49.7	99.35	80-120
	23	Propionitrile	500	482	96.49	80-120
	24	Methacrylonitrile	500	509	101.86	80-120
	25	1,1-Dichloroethane	50.0	50.9	101.82	80-120
	26	Acrylonitrile	250	242	96.90	80-120
	27	Ethyl tertiary-but	50.0	50.9	101.85	80-120
	28	Vinyl Acetate	50.0	54.8	109.60	80-120
	29	cis-1,2-Dichloroet	50.0	50.1	100.16	80-120
M	30	1,2-Dichloroethyle	100	99.5	99.49	80-120
	31	Methyl Methacrylat	50.0	51.5	103.03	80-120
	32	2,2-Dichloropropan	50.0	49.9	99.76	80-120
	33	Bromochloromethane	50.0	53.2	106.34	80-120
	34	Chloroform	50.0	50.2	100.38	80-120
	35	Carbon Tetrachlori	50.0	51.1	102.25	80-120
	36	Tetrahydrofuran	50.0	58.7	117.37	80-120
	38	1,1,1-Trichloroeth	50.0	50.8	101.52	80-120
	39	1,1-Dichloropropen	50.0	48.9	97.82	80-120
	40	2-Butanone	50.0	67.5	135.06*	80-120
	41	Benzene	50.0	50.4	100.81	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217A.D
Report Date: 11-Jun-2014 11:24

	SPIKE	COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
	43	Cyclohexane	50.0	48.2	96.36	80-120
	44	Ethyl Methacrylate	50.0	54.1	108.13	80-120
	46	Tertiary-amyl meth	50.0	51.8	103.60	80-120
	47	1,2-Dichloroethane	50.0	51.0	102.02	80-120
	48	Trichloroethene	50.0	50.1	100.20	80-120
	50	Dibromomethane	50.0	50.9	101.87	80-120
	51	1,2-Dichloropropan	50.0	51.2	102.43	80-120
	52	Bromodichlorometha	50.0	53.8	107.67	80-120
	53	cis-1,3-dichloropr	50.0	51.8	103.54	80-120
	54	1,4-Dioxane	1000	484	48.38*	80-120
	56	2-Chloroethylvinyl	50.0	45.7	91.38	80-120
	57	Toluene	50.0	49.8	99.61	80-120
	58	4-methyl-2-pentano	50.0	57.3	114.62	80-120
	59	Tetrachloroethene	50.0	51.4	102.81	80-120
	60	trans-1,3-Dichloro	50.0	51.8	103.54	80-120
	61	1,1,2-Trichloroeth	50.0	52.7	105.40	80-120
	62	Dibromochlorometha	50.0	53.9	107.84	80-120
	63	1,3-Dichloropropan	50.0	53.5	107.02	80-120
	64	1,2-Dibromoethane	50.0	53.1	106.22	80-120
	65	2-Hexanone	50.0	64.6	129.14*	80-120
	67	Chlorobenzene	50.0	54.5	109.08	80-120
	68	1-Chlorohexane	50.0	54.5	108.94	80-120
	69	Ethylbenzene	50.0	50.3	100.60	80-120
	70	1,1,1,2-Tetrachlor	50.0	52.9	105.90	80-120
M	71	Xylenes (total)	150	163	108.97	80-120
	72	m+p-Xylenes	100	108	108.20	80-120
	73	o-Xylene	50.0	55.2	110.49	80-120
	74	Styrene	50.0	53.8	107.52	80-120
	75	Bromoform	50.0	48.3	96.67	80-120
	76	Isopropylbenzene	50.0	49.7	99.48	80-120
	78	cis-1,4-Dichloro-2	50.0	52.4	104.73	80-120
	79	trans-1,4-Dichloro	50.0	52.0	103.93	80-120
	80	Bromobenzene	50.0	51.0	101.99	80-120
	81	N-Propylbenzene	50.0	50.3	100.54	80-120
	82	1,1,2,2-Tetrachlor	50.0	51.1	102.14	80-120
	83	1,3,5-Trimethylben	50.0	51.0	101.98	80-120
	84	2-Chlorotoluene	50.0	53.9	107.83	80-120
	85	1,2,3-Trichloropro	50.0	51.5	102.93	80-120
	86	4-Chlorotoluene	50.0	55.8	111.68	80-120
	87	tert-Butylbenzene	50.0	55.3	110.53	80-120
	88	Pentachloroethane	50.0	54.2	108.35	80-120
	89	1,2,4-Trimethylben	50.0	51.4	102.80	80-120
	90	P-Isopropyltoluene	50.0	56.5	112.92	80-120
	91	1,3-Dichlorobenzen	50.0	55.1	110.14	80-120
	93	1,4-Dichlorobenzen	50.0	50.6	101.16	80-120
	94	N-Butylbenzene	50.0	45.7	91.47	80-120
	95	sec-Butylbenzene	50.0	55.7	111.41	80-120
	96	1,2-Dichlorobenzen	50.0	56.2	112.49	80-120
	97	1,2-Dibromo-3-Chlo	50.0	54.6	109.19	80-120
	98	1,3,5-Trichloroben	50.0	52.5	105.01	80-120
	99	Hexachlorobutadien	50.0	54.3	108.60	80-120
	100	1,2,4-Trichloroben	50.0	51.0	102.00	80-120
	101	1,2,3-Trimethylben	50.0	52.8	105.52	80-120
	102	Naphthalene	50.0	42.4	84.86	80-120

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217A.D
Report Date: 11-Jun-2014 11:24

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
103 1,2,3-Trichloroben	50.0	51.5	102.95	80-120
104 Methyl Acetate	50.0	51.7	103.35	80-120
105 Methylcyclohexane	50.0	51.9	103.77	80-120
M 106 Total Alkylbenzene	350	366	104.52	80-120

SURROGATE COMPOUND	AMOUNT ADDED ug/l	AMOUNT RECOVERED ug/l	% RECOVERED	LIMITS
$ 37 Dibromofluorometha	50.0	46.1	92.24	68-128
$ 45 1,2-Dichloroethane	50.0	41.8	83.64	67-135
$ 55 Toluene-D8	50.0	47.4	94.79	65-128
$ 77 P-Bromofluorobenze	50.0	50.3	100.57	56-133

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0211.D
Report Date: 11-Jun-2014 11:22

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0211.D
Lab Smp Id: WG144443-5 Client Smp ID: Initial Calibration
Inj Date : 10-JUN-2014 11:14
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-5
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 11:14 Cal File: W0211.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.779	1.779	(0.207)	921247	100.000	101	
2	Chloromethane	50	1.993	1.993	(0.232)	1075853	100.000	97.9	
3	Vinyl chloride	62	2.072	2.072	(0.242)	1024986	100.000	100	
4	Bromomethane	94	2.422	2.422	(0.282)	439510	100.000	91.8	
5	Chloroethane	64	2.551	2.551	(0.297)	499188	100.000	85.4	
6	Trichlorofluoromethane	101	2.708	2.708	(0.316)	1162248	100.000	95.7	
7	Diethyl Ether	59	3.065	3.065	(0.357)	620196	100.000	96.7	
8	Tertiary-butyl alcohol	59	4.681	4.681	(0.546)	250169	500.000	412	
9	1,1-Dichloroethene	96	3.294	3.294	(0.384)	722593	100.000	95.6	
10	Carbon Disulfide	76	3.323	3.323	(0.387)	2042442	100.000	99.8	
11	Freon-113	151	3.344	3.344	(0.390)	448257	100.000	98.7	
12	Iodomethane	142	3.473	3.473	(0.405)	849723	100.000	105	
13	Acrolein	56	3.737	3.737	(0.436)	664721	500.000	513	
14	Methylene Chloride	84	4.066	4.066	(0.474)	890079	100.000	102	
15	Acetone	43	4.159	4.159	(0.485)	732563	500.000	533	
16	Isobutyl Alcohol	43	8.991	8.991	(1.048)	358348	2000.00	1910	
17	trans-1,2-Dichloroethene	96	4.295	4.295	(0.501)	869452	100.000	99.3	
18	Allyl Chloride	41	3.916	3.916	(0.457)	803768	100.000	97.8	
19	Methyl tert-butyl ether	73	4.473	4.473	(0.522)	4769517	200.000	192	
20	Acetonitrile	39	4.888	4.888	(0.570)	110245	1000.00	885	
21	Di-isopropyl ether	45	5.110	5.110	(0.596)	2239512	100.000	100	
22	Chloroprene	53	5.253	5.253	(0.612)	1154083	100.000	97.0	
23	Propionitrile	54	8.419	8.419	(0.982)	975115	1000.00	1000	
24	Methacrylonitrile	41	8.448	8.448	(0.985)	3505802	1000.00	975	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0211.D
Report Date: 11-Jun-2014 11:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 1,1-Dichloroethane	63	5.303	5.303	(0.618)	1511209	100.000	98.8	
	26 Acrylonitrile	52	5.253	5.253	(0.612)	282318	500.000	487	
	27 Ethyl tertiary-butyl ether	59	5.803	5.803	(0.677)	2565567	100.000	99.9	
	28 Vinyl Acetate	43	5.839	5.839	(0.611)	1632236	100.000	108	
	29 cis-1,2-Dichloroethene	96	6.375	6.375	(0.743)	872326	100.000	97.4	
	31 Methyl Methacrylate	41	10.914	10.914	(1.141)	566833	100.000	114	
	32 2,2-Dichloropropane	77	6.596	6.596	(0.769)	1319595	100.000	98.6	
	33 Bromochloromethane	128	6.811	6.811	(0.794)	354213	100.000	99.9	
	34 Chloroform	83	7.040	7.040	(0.821)	1472634	100.000	98.6	
	35 Carbon Tetrachloride	117	7.268	7.268	(0.760)	860445	100.000	100	
	36 Tetrahydrofuran	42	7.383	7.383	(0.861)	887495	500.000	534	
$	37 Dibromofluoromethane	113	7.461	7.461	(0.870)	683129	100.000	98.4	
	38 1,1,1-Trichloroethane	97	7.447	7.447	(0.868)	1351012	100.000	100	
	39 1,1-Dichloropropene	75	7.733	7.733	(0.809)	1200247	100.000	101	
	40 2-Butanone	43	7.797	7.797	(0.909)	1389484	500.000	543	
	41 Benzene	78	8.269	8.269	(0.865)	3446802	100.000	99.6	
*	42 Pentafluorobenzene	168	8.576	8.576	(1.000)	888686	50.0000		
	43 Cyclohexane	56	6.754	6.754	(0.787)	1426290	100.000	101	
	44 Ethyl Methacrylate	69	13.022	13.022	(1.362)	1314050	100.000	114	
$	45 1,2-Dichloroethane-D4	65	8.576	8.576	(1.000)	922745	100.000	97.4	
	46 Tertiary-amyl methyl ether	73	8.605	8.605	(1.003)	2593517	100.000	102	
	47 1,2-Dichloroethane	62	8.712	8.712	(0.911)	1067178	100.000	102	
	48 Trichloroethene	95	9.448	9.448	(0.988)	854942	100.000	98.9	
*	49 1,4-Difluorobenzene	114	9.563	9.563	(1.000)	1427072	50.0000		
	50 Dibromomethane	93	10.206	10.206	(1.067)	489225	100.000	103	
	51 1,2-Dichloropropane	63	10.392	10.392	(1.087)	842753	100.000	104	
	52 Bromodichloromethane	83	10.549	10.549	(1.103)	1149537	100.000	106	
	53 cis-1,3-dichloropropene	75	11.629	11.629	(1.216)	1530018	100.000	107	
	54 1,4-Dioxane	88	10.935	10.935	(1.144)	127654	2000.00	616(M)	M9
$	55 Toluene-D8	98	11.914	11.914	(1.246)	2982024	100.000	102	
	56 2-Chloroethylvinylether	63	11.593	11.593	(1.212)	454714	100.000	107	
	57 Toluene	92	12.000	12.000	(1.255)	2255466	100.000	101	
	58 4-methyl-2-pentanone	43	12.679	12.679	(1.326)	2913881	500.000	546	
	59 Tetrachloroethene	164	12.579	12.579	(0.878)	638939	100.000	100	
	60 trans-1,3-Dichloropropene	75	11.629	11.629	(1.216)	1530018	100.000	107	
	61 1,1,2-Trichloroethane	83	12.944	12.944	(1.354)	651832	100.000	107	
	62 Dibromochloromethane	129	13.194	13.194	(0.921)	828851	100.000	109	
	63 1,3-Dichloropropane	76	13.351	13.351	(0.932)	1500405	100.000	102	
	64 1,2-Dibromoethane	107	13.516	13.516	(1.413)	763958	100.000	108	
	65 2-Hexanone	43	13.980	13.980	(0.976)	2074910	500.000	550	
*	66 Chlorobenzene-D5	117	14.323	14.323	(1.000)	1420396	50.0000		
	67 Chlorobenzene	112	14.345	14.345	(1.001)	2200168	100.000	100	
	68 1-Chlorohexane	91	14.366	14.366	(1.003)	1339611	100.000	101	
	69 Ethylbenzene	106	14.423	14.423	(1.007)	1419235	100.000	103	
	70 1,1,1,2-Tetrachloroethane	131	14.466	14.466	(1.010)	842547	100.000	108	
	72 m+p-Xylenes	106	14.652	14.652	(1.023)	3217139	200.000	204	
	73 o-Xylene	106	15.288	15.288	(1.067)	1564101	100.000	104	
	74 Styrene	104	15.374	15.374	(1.073)	2804070	100.000	106	
	75 Bromoform	173	15.381	15.381	(1.074)	606290	100.000	106	
	76 Isopropylbenzene	105	15.767	15.767	(0.868)	3895512	100.000	107	
$	77 P-Bromofluorobenzene	95	16.175	16.175	(1.691)	1363895	100.000	108	
	78 cis-1,4-Dichloro-2-Butene	53	16.318	16.318	(0.898)	366942	100.000	110	
	79 trans-1,4-Dichloro-2-Butene	53	16.847	16.847	(0.927)	346453	100.000	109	
	80 Bromobenzene	156	16.310	16.310	(0.898)	1025637	100.000	103	

DJP

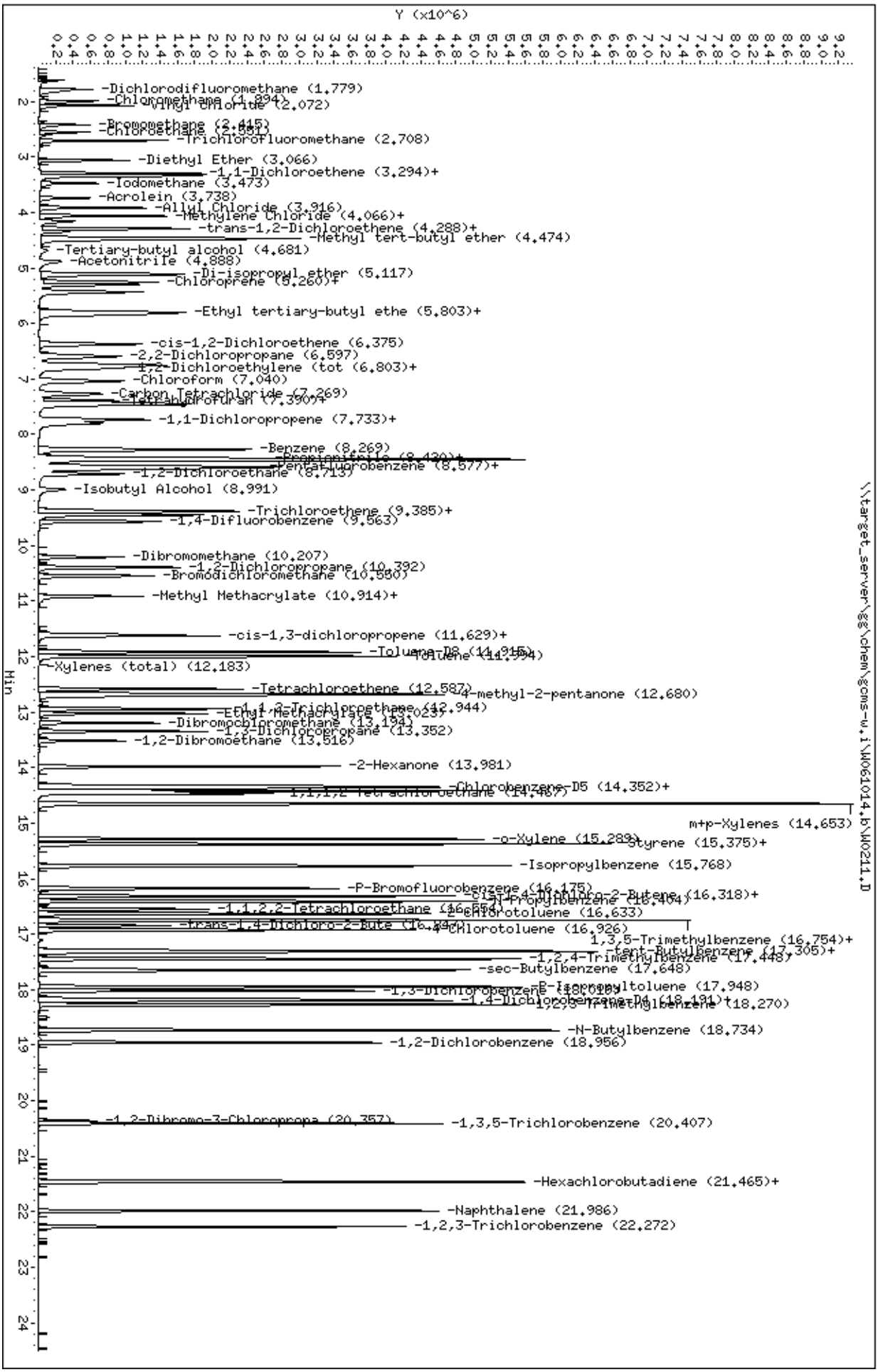
11:47 am, Jun 12, 2014

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0211.D
Report Date: 11-Jun-2014 11:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
81	N-Propylbenzene	91	16.403	16.403	(0.903)	4665026	100.000	110	
82	1,1,2,2-Tetrachloroethane	83	16.554	16.554	(0.911)	1155466	100.000	104	
83	1,3,5-Trimethylbenzene	105	16.754	16.754	(0.922)	4000368	100.000	98.4	
84	2-Chlorotoluene	91	16.632	16.632	(0.915)	3133121	100.000	96.7	
85	1,2,3-Trichloropropane	75	16.747	16.747	(0.922)	992873	100.000	103	
86	4-Chlorotoluene	91	16.925	16.925	(0.932)	3239470	100.000	97.0	
87	tert-Butylbenzene	119	17.304	17.304	(0.952)	3674095	100.000	102	
88	Pentachloroethane	117	17.318	17.318	(0.953)	784756	100.000	113	
89	1,2,4-Trimethylbenzene	105	17.447	17.447	(0.960)	4005386	100.000	97.8	
90	P-Isopropyltoluene	119	17.947	17.947	(0.988)	4014833	100.000	98.2	
91	1,3-Dichlorobenzene	146	18.019	18.019	(0.992)	1937677	100.000	101	
* 92	1,4-Dichlorobenzene-D4	152	18.169	18.169	(1.000)	869782	50.0000		
93	1,4-Dichlorobenzene	146	18.198	18.198	(1.002)	2135613	100.000	100	
94	N-Butylbenzene	91	18.734	18.734	(1.031)	4117963	100.000	106	
95	sec-Butylbenzene	105	17.647	17.647	(0.971)	4589339	100.000	95.5	
96	1,2-Dichlorobenzene	146	18.955	18.955	(1.043)	1840596	100.000	102	
97	1,2-Dibromo-3-Chloropropane	75	20.356	20.356	(1.120)	226083	100.000	109	
98	1,3,5-Trichlorobenzene	180	20.406	20.406	(1.123)	1570276	100.000	101	
99	Hexachlorobutadiene	225	21.450	21.450	(1.181)	738789	100.000	107	
100	1,2,4-Trichlorobenzene	180	21.471	21.471	(1.182)	1416269	100.000	102	
101	1,2,3-Trimethylbenzene	105	18.269	18.269	(1.006)	3914611	100.000	96.5	
102	Naphthalene	128	21.986	21.986	(1.210)	3414271	100.000	108	
103	1,2,3-Trichlorobenzene	180	22.272	22.272	(1.226)	1300917	100.000	102	
104	Methyl Acetate	43	4.345	4.345	(0.507)	442332	100.000	95.3	
105	Methylcyclohexane	83	9.384	9.384	(1.094)	1562507	100.000	102	

QC Flag Legend

M - Compound response manually integrated.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Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
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Y (x10^6)
Min
-Dichlorodifluoromethane (1.779)
-Chloromethane (1.894)
-Vinyl Chloride (2.072)
-Bromomethane (2.415)
-Chloroethane (2.551)
-Trichlorofluoromethane (2.708)
-Diethyl Ether (3.066)
-1,1-Dichloroethene (3.294)+
-Iodomethane (3.473)
-Acrolein (3.738)
-Allyl Chloride (3.916)
-Methylene Chloride (4.066)+
-trans-1,2-Dichloroethene (4.288)+
-Methyl tert-butyl ether (4.474)
-Tertiary-butyl alcohol (4.681)
-Acetonitrile (4.888)
-Di-isopropyl ether (5.117)
-Chloroprene (5.260)+
-Ethyl tertiary-butyl ethe (5.803)+
-cis-1,2-Dichloroethene (6.375)
-2,2-Dichloropropane (6.597)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.040)
-Carbon Tetrachloride (7.269)
-Tetrahydrofuran (7.390)+
-1,1-Dichloropropene (7.733)+
-Benzene (8.269)
-Propionitrile (8.430)+
-Pentafluorobenzene (8.577)+
-1,2-Dichloroethane (8.713)
-Isobutyl Alcohol (8.991)
-Trichloroethene (9.385)+
-1,4-Difluorobenzene (9.563)
-Dibromomethane (10.207)
-1,2-Dichloropropane (10.392)
-Bromodichloromethane (10.550)
-Methyl Methacrylate (10.914)+
-cis-1,3-dichloropropene (11.629)+
-Toluene-D8 (11.915)
-Toluene (11.994)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.587)
4-methyl-2-pentanone (12.680)
-1,1,2-Trichloroethane (12.944)
-Ethyl Methacrylate (13.023)
-Dibromochloromethane (13.194)
-1,3-Dichloropropane (13.352)
-1,2-Dibromoethane (13.516)
-2-Hexanone (13.981)
-Chlorobenzene-D5 (14.352)+
1,1,1,2-Tetrachloroethane (14.467)
m+p-Xylenes (14.653)
-o-Xylene (15.289)
Styrene (15.375)+
-Isopropylbenzene (15.768)
-P-Bromofluorobenzene (16.175)
-cis-1,4-Dichloro-2-Butene (16.318)+
-Bromobenzene (16.404)
-1,1,2,2-Tetrachloroethane (16.554)
-n-Propylbenzene (16.633)
-trans-1,4-Dichloro-2-Bute (16.842)
2-Chlorotoluene (16.926)
1,3,5-Trimethylbenzene (16.754)+
-tert-Butylbenzene (17.305)+
-1,2,4-Trimethylbenzene (17.448)
-sec-Butylbenzene (17.648)
-1,3-Dichlorobenzene (17.810)
-P-Isopropyltoluene (17.948)
-1,4-Dichlorobenzene-D4 (18.101)+
1,2,3-Trimethylbenzene (18.270)
-N-Butylbenzene (18.734)
-1,2-Dichlorobenzene (18.956)
-1,2-Dibromo-3-Chloropropa (20.357)
-1,3,5-Trichlorobenzene (20.407)
-Hexachlorobutadiene (21.465)+
-Naphthalene (21.986)
-1,2,3-Trichlorobenzene (22.272)

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0212.D
Report Date: 11-Jun-2014 11:22

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0212.D
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Inj Date : 10-JUN-2014 11:45
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-4
Misc Info :
Comment : SW846 5030
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Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 11:45 Cal File: W0212.D
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.787	1.779	(0.208)	473204	50.0000	53.7(M)	M9
2	Chloromethane	50	2.001	1.993	(0.233)	548193	50.0000	51.5	
3	Vinyl chloride	62	2.073	2.072	(0.241)	505643	50.0000	51.2	
4	Bromomethane	94	2.423	2.422	(0.282)	201652	50.0000	43.5	
5	Chloroethane	64	2.559	2.551	(0.298)	248311	50.0000	43.9	
6	Trichlorofluoromethane	101	2.709	2.708	(0.315)	565413	50.0000	48.1	
7	Diethyl Ether	59	3.074	3.065	(0.358)	316401	50.0000	51.0	
8	Tertiary-butyl alcohol	59	4.703	4.681	(0.547)	145433	250.000	247	
9	1,1-Dichloroethene	96	3.302	3.294	(0.384)	355700	50.0000	48.6	
10	Carbon Disulfide	76	3.331	3.323	(0.388)	998601	50.0000	50.4	
11	Freon-113	151	3.352	3.344	(0.390)	222197	50.0000	50.5	
12	Iodomethane	142	3.481	3.473	(0.405)	397258	50.0000	50.8	
13	Acrolein	56	3.753	3.737	(0.437)	333780	250.000	266	
14	Methylene Chloride	84	4.074	4.066	(0.474)	449515	50.0000	48.0	
15	Acetone	43	4.174	4.159	(0.486)	373311	250.000	274	
16	Isobutyl Alcohol	43	9.013	8.991	(1.049)	202005	1000.00	1110	
17	trans-1,2-Dichloroethene	96	4.303	4.295	(0.501)	416999	50.0000	49.2	
18	Allyl Chloride	41	3.924	3.916	(0.457)	391516	50.0000	49.2	
19	Methyl tert-butyl ether	73	4.489	4.473	(0.522)	2589010	100.000	108	
20	Acetonitrile	39	4.911	4.888	(0.572)	60787	500.000	504	
21	Di-isopropyl ether	45	5.132	5.110	(0.597)	1151957	50.0000	53.1	
22	Chloroprene	53	5.268	5.253	(0.613)	590774	50.0000	51.3	
23	Propionitrile	54	8.435	8.419	(0.982)	516800	500.000	548	
24	Methacrylonitrile	41	8.463	8.448	(0.985)	1930877	500.000	555	

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0212.D
Report Date: 11-Jun-2014 11:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	25 1,1-Dichloroethane	63	5.318	5.303	(0.619)	751395	50.0000	50.7	
	26 Acrylonitrile	52	5.268	5.253	(0.613)	142110	250.000	253	
	27 Ethyl tertiary-butyl ether	59	5.825	5.803	(0.678)	1321079	50.0000	53.2	
	28 Vinyl Acetate	43	5.861	5.839	(0.612)	842714	50.0000	55.3	
	29 cis-1,2-Dichloroethene	96	6.390	6.375	(0.744)	429693	50.0000	49.5	
	31 Methyl Methacrylate	41	10.929	10.914	(1.141)	286553	50.0000	57.5	
	32 2,2-Dichloropropane	77	6.619	6.596	(0.770)	633387	50.0000	48.9	
	33 Bromochloromethane	128	6.833	6.811	(0.795)	175238	50.0000	51.0	
	34 Chloroform	83	7.062	7.040	(0.822)	717309	50.0000	49.6	
	35 Carbon Tetrachloride	117	7.291	7.268	(0.761)	398321	50.0000	46.9	
	36 Tetrahydrofuran	42	7.412	7.383	(0.863)	452400	250.000	281	
$	37 Dibromofluoromethane	113	7.484	7.461	(0.871)	341542	50.0000	50.8	
	38 1,1,1-Trichloroethane	97	7.470	7.447	(0.869)	653883	50.0000	50.0	
	39 1,1-Dichloropropene	75	7.755	7.733	(0.810)	591424	50.0000	49.6	
	40 2-Butanone	43	7.827	7.797	(0.911)	708725	250.000	286	
	41 Benzene	78	8.284	8.269	(0.865)	1750093	50.0000	50.2	
*	42 Pentafluorobenzene	168	8.592	8.576	(1.000)	860359	50.0000		
	43 Cyclohexane	56	6.776	6.754	(0.789)	680535	50.0000	49.8	
	44 Ethyl Methacrylate	69	13.038	13.022	(1.361)	659042	50.0000	56.9	
$	45 1,2-Dichloroethane-D4	65	8.592	8.576	(1.000)	463707	50.0000	50.5	
	46 Tertiary-amyl methyl ether	73	8.628	8.605	(1.004)	1321291	50.0000	53.7	
	47 1,2-Dichloroethane	62	8.728	8.712	(0.911)	541862	50.0000	51.3	
	48 Trichloroethene	95	9.464	9.448	(0.988)	422121	50.0000	48.5	
*	49 1,4-Difluorobenzene	114	9.578	9.563	(1.000)	1436965	50.0000		
	50 Dibromomethane	93	10.222	10.206	(1.067)	242691	50.0000	50.7	
	51 1,2-Dichloropropane	63	10.407	10.392	(1.087)	415138	50.0000	50.8	
	52 Bromodichloromethane	83	10.565	10.549	(1.103)	563312	50.0000	51.6	
	53 cis-1,3-dichloropropene	75	11.644	11.629	(1.216)	748386	50.0000	52.1	
	54 1,4-Dioxane	88	10.951	10.935	(1.143)	105375	1000.00	505(M)	M9
$	55 Toluene-D8	98	11.930	11.914	(1.246)	1525898	50.0000	51.8	
	56 2-Chloroethylvinylether	63	11.608	11.593	(1.212)	210426	50.0000	49.5	
	57 Toluene	92	12.009	12.000	(1.254)	1110436	50.0000	49.4	
	58 4-methyl-2-pentanone	43	12.688	12.679	(1.325)	1566203	250.000	292	
	59 Tetrachloroethene	164	12.595	12.579	(0.879)	304154	50.0000	48.7	
	60 trans-1,3-Dichloropropene	75	11.644	11.629	(1.216)	748386	50.0000	52.1	
	61 1,1,2-Trichloroethane	83	12.952	12.944	(1.352)	320149	50.0000	52.3	
	62 Dibromochloromethane	129	13.202	13.194	(0.921)	391137	50.0000	52.6	
	63 1,3-Dichloropropane	76	13.359	13.351	(0.932)	749997	50.0000	52.1	
	64 1,2-Dibromoethane	107	13.524	13.516	(1.412)	366561	50.0000	51.6	
	65 2-Hexanone	43	13.989	13.980	(0.976)	1082438	250.000	293	
*	66 Chlorobenzene-D5	117	14.332	14.323	(1.000)	1390910	50.0000		
	67 Chlorobenzene	112	14.353	14.345	(1.001)	1072906	50.0000	50.0	
	68 1-Chlorohexane	91	14.374	14.366	(1.003)	643142	50.0000	49.5	
	69 Ethylbenzene	106	14.432	14.423	(1.007)	665177	50.0000	49.2	
	70 1,1,1,2-Tetrachloroethane	131	14.475	14.466	(1.010)	387774	50.0000	50.6	
	72 m+p-Xylenes	106	14.660	14.652	(1.023)	1593481	100.000	103	
	73 o-Xylene	106	15.297	15.288	(1.067)	730657	50.0000	49.8	
	74 Styrene	104	15.382	15.374	(1.073)	1362660	50.0000	52.8	
	75 Bromoform	173	15.390	15.381	(1.074)	270566	50.0000	48.8	
	76 Isopropylbenzene	105	15.776	15.767	(0.868)	1971431	50.0000	45.3	
$	77 P-Bromofluorobenzene	95	16.183	16.175	(1.690)	645941	50.0000	50.6	
	78 cis-1,4-Dichloro-2-Butene	53	16.326	16.318	(0.899)	173969	50.0000	56.4	
	79 trans-1,4-Dichloro-2-Butene	53	16.848	16.847	(0.927)	167177	50.0000	56.6	
	80 Bromobenzene	156	16.319	16.310	(0.898)	460260	50.0000	49.9	

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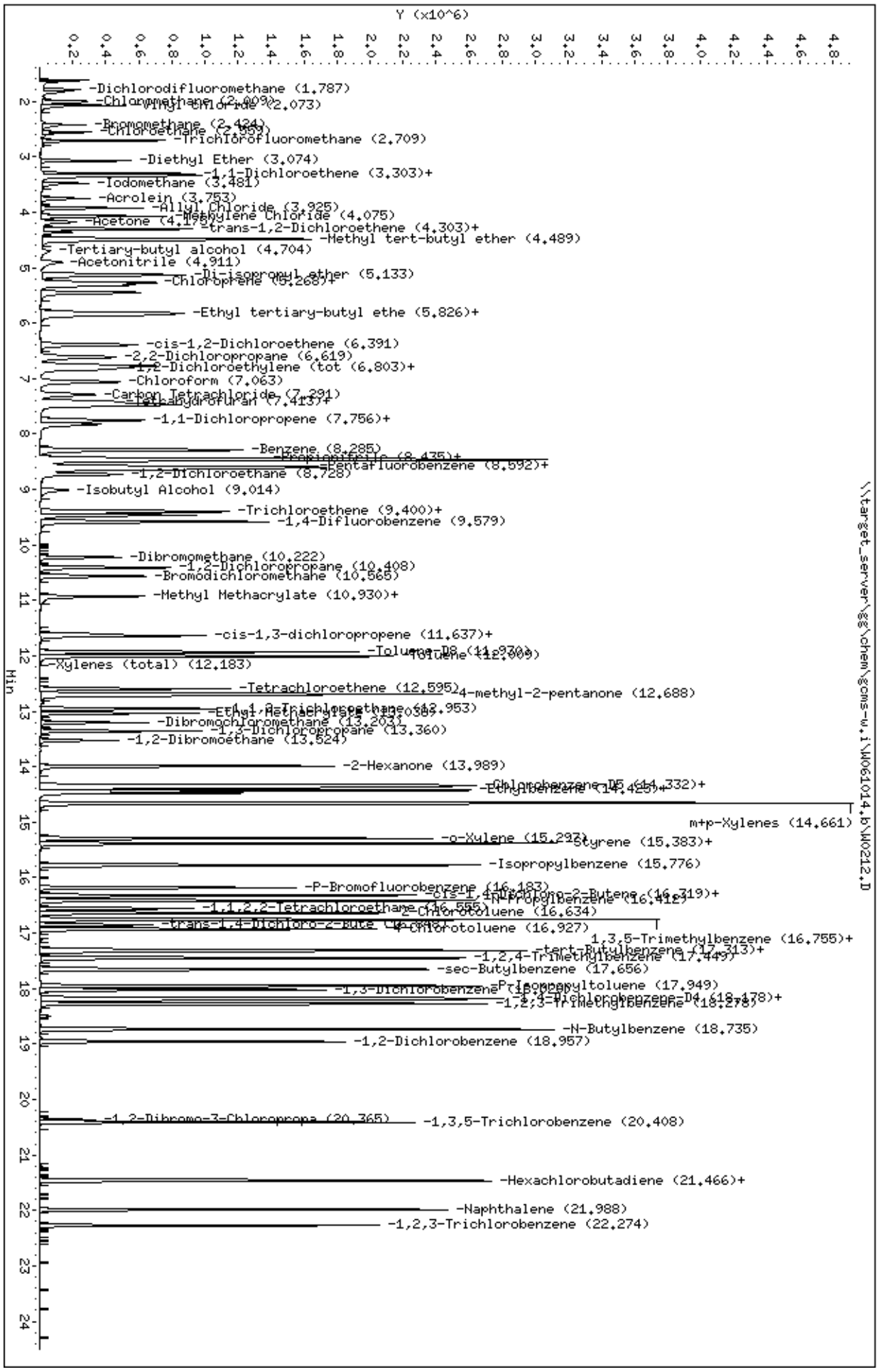
11:47 am, Jun 12, 2014

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0212.D
Report Date: 11-Jun-2014 11:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
81	N-Propylbenzene	91	16.412	16.403	(0.903)	2443148	50.0000	44.4	
82	1,1,2,2-Tetrachloroethane	83	16.555	16.554	(0.911)	548929	50.0000	53.4	
83	1,3,5-Trimethylbenzene	105	16.755	16.754	(0.922)	1970318	50.0000	52.1	
84	2-Chlorotoluene	91	16.633	16.632	(0.915)	1521276	50.0000	50.5	
85	1,2,3-Trichloropropane	75	16.748	16.747	(0.922)	482341	50.0000	54.0	
86	4-Chlorotoluene	91	16.926	16.925	(0.932)	1574104	50.0000	50.7	
87	tert-Butylbenzene	119	17.305	17.304	(0.952)	1735963	50.0000	51.8	
88	Pentachloroethane	117	17.319	17.318	(0.953)	342800	50.0000	53.0	
89	1,2,4-Trimethylbenzene	105	17.448	17.447	(0.960)	1977117	50.0000	51.9	
90	P-Isopropyltoluene	119	17.948	17.947	(0.988)	2018281	50.0000	53.1	
91	1,3-Dichlorobenzene	146	18.020	18.019	(0.992)	890524	50.0000	49.8	
* 92	1,4-Dichlorobenzene-D4	152	18.170	18.169	(1.000)	809001	50.0000		
93	1,4-Dichlorobenzene	146	18.199	18.198	(1.002)	991192	50.0000	49.9	
94	N-Butylbenzene	91	18.735	18.734	(1.031)	2155354	50.0000	46.1	
95	sec-Butylbenzene	105	17.655	17.647	(0.972)	2299647	50.0000	51.5	
96	1,2-Dichlorobenzene	146	18.956	18.955	(1.043)	861703	50.0000	51.4	
97	1,2-Dibromo-3-Chloropropane	75	20.365	20.356	(1.121)	114296	50.0000	59.4	
98	1,3,5-Trichlorobenzene	180	20.415	20.406	(1.124)	775414	50.0000	53.7	
99	Hexachlorobutadiene	225	21.451	21.450	(1.181)	346696	50.0000	54.1	
100	1,2,4-Trichlorobenzene	180	21.472	21.471	(1.182)	679218	50.0000	52.3	
101	1,2,3-Trimethylbenzene	105	18.277	18.269	(1.006)	2010991	50.0000	53.3	
102	Naphthalene	128	21.987	21.986	(1.210)	1837756	50.0000	46.4	
103	1,2,3-Trichlorobenzene	180	22.273	22.272	(1.226)	626442	50.0000	52.6	
104	Methyl Acetate	43	4.360	4.345	(0.508)	258730	50.0000	57.6	
105	Methylcyclohexane	83	9.399	9.384	(1.094)	775519	50.0000	52.1	

QC Flag Legend

M - Compound response manually integrated.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Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
Y (x10^6)
Min
-Dichlorodifluoromethane (1.787)
-Chloromethane (2.009)
-Vinyl Chloride (2.073)
-Bromomethane (2.424)
-Chloroethane (2.569)
-Trichlorofluoromethane (2.709)
-Diethyl Ether (3.074)
-1,1-Dichloroethene (3.303)+
-Iodomethane (3.481)
-Acrolein (3.753)
-Allyl Chloride (3.925)
-Methylene Chloride (4.075)
-Acetone (4.179)
-trans-1,2-Dichloroethene (4.303)+
-Methyl tert-butyl ether (4.489)
-Tertiary-butyl alcohol (4.704)
-Acetonitrile (4.911)
-Di-isopropyl ether (5.133)
-Chloroprene (5.268)+
-Ethyl tertiary-butyl ethe (5.826)+
-cis-1,2-Dichloroethene (6.391)
-2,2-Dichloropropane (6.619)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.063)
-Carbon Tetrachloride (7.291)
-Tetrahydrofuran (7.413)+
-1,1-Dichloropropene (7.756)+
-Benzene (8.285)
-Propionitrile (8.435)+
-Pentafluorobenzene (8.592)+
-1,2-Dichloroethane (8.728)
-Isobutyl Alcohol (9.014)
-Trichloroethene (9.400)+
-1,4-Difluorobenzene (9.579)
-Dibromomethane (10.222)
-1,2-Dichloropropane (10.408)
-Bromodichloromethane (10.565)
-Methyl Methacrylate (10.930)+
-cis-1,3-dichloropropene (11.637)+
-Toluene-D8 (11.970)
-Toluene (12.009)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.595)
4-methyl-2-pentanone (12.688)
-Ethyl Methacrylate (12.953)
-1,1,2-Trichloroethane (13.038)
-Dibromochloromethane (13.203)
-1,3-Dichloropropane (13.360)
-1,2-Dibromoethane (13.524)
-2-Hexanone (13.989)
-Chlorobenzene-D5 (14.332)+
-Ethylbenzene (14.425)+
m+p-Xylenes (14.661)
-o-Xylene (15.297)
-Styrene (15.383)+
-Isopropylbenzene (15.776)
-P-Bromofluorobenzene (16.183)
-cis-1,4-Dichloro-2-Butene (16.319)+
-1,1,2,2-Tetrachloroethane (16.555)
-N-Propylbenzene (16.415)
2-Chlorotoluene (16.634)
-trans-1,4-Dichloro-2-Bute
4-Chlorotoluene (16.927)
1,3,5-Trimethylbenzene (16.755)+
-tert-Butylbenzene (17.313)+
-1,2,4-Trimethylbenzene (17.449)
-sec-Butylbenzene (17.656)
-1,3-Dichlorobenzene
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-1,4-Dichlorobenzene-D4 (18.178)+
-1,2,3-Trimethylbenzene (18.278)
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-1,2-Dichlorobenzene (18.957)
-1,2-Dibromo-3-Chloropropa (20.365)
-1,3,5-Trichlorobenzene (20.408)
-Hexachlorobutadiene (21.466)+
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Report Date: 11-Jun-2014 11:23

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Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0213.D
Lab Smp Id: WG144443-3 Client Smp ID: Initial Calibration
Inj Date : 10-JUN-2014 12:16
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-3
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 12:16 Cal File: W0213.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.782	1.779	(0.208)	176212	20.0000	20.6	
2	Chloromethane	50	1.989	1.993	(0.232)	216688	20.0000	20.9	
3	Vinyl chloride	62	2.068	2.072	(0.241)	208215	20.0000	21.7	
4	Bromomethane	94	2.418	2.422	(0.282)	95988	20.0000	21.3	
5	Chloroethane	64	2.554	2.551	(0.298)	116530	20.0000	21.1	
6	Trichlorofluoromethane	101	2.711	2.708	(0.316)	243046	20.0000	21.2	
7	Diethyl Ether	59	3.061	3.065	(0.357)	127210	20.0000	21.0	
8	Tertiary-butyl alcohol	59	4.698	4.681	(0.548)	47019	100.000	82.1(M)	M6
9	1,1-Dichloroethene	96	3.297	3.294	(0.384)	153434	20.0000	21.5	
10	Carbon Disulfide	76	3.326	3.323	(0.388)	421777	20.0000	21.9	
11	Freon-113	151	3.347	3.344	(0.390)	87305	20.0000	20.4	
12	Iodomethane	142	3.469	3.473	(0.404)	145789	20.0000	19.0	
13	Acrolein	56	3.740	3.737	(0.436)	128771	100.000	105	
14	Methylene Chloride	84	4.069	4.066	(0.474)	189854	20.0000	19.3	
15	Acetone	43	4.162	4.159	(0.485)	148248	100.000	103	
16	Isobutyl Alcohol	43	9.001	8.991	(1.049)	60566	400.000	342	
17	trans-1,2-Dichloroethene	96	4.298	4.295	(0.501)	180714	20.0000	21.9	
18	Allyl Chloride	41	3.919	3.916	(0.457)	166753	20.0000	21.5	
19	Methyl tert-butyl ether	73	4.477	4.473	(0.522)	1010248	40.0000	43.2	
20	Acetonitrile	39	4.891	4.888	(0.570)	20022	200.000	170	
21	Di-isopropyl ether	45	5.120	5.110	(0.597)	447493	20.0000	21.2	
22	Chloroprene	53	5.256	5.253	(0.613)	241292	20.0000	21.5	
23	Propionitrile	54	8.415	8.419	(0.981)	180638	200.000	197	
24	Methacrylonitrile	41	8.444	8.448	(0.984)	742246	200.000	219	

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11:47 am, Jun 12, 2014

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0213.D
Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 1,1-Dichloroethane	63	5.306	5.303	(0.618)	306525	20.0000	21.2	
	26 Acrylonitrile	52	5.263	5.253	(0.613)	57768	100.000	106	
	27 Ethyl tertiary-butyl ether	59	5.806	5.803	(0.677)	505940	20.0000	20.9	
	28 Vinyl Acetate	43	5.849	5.839	(0.611)	316498	20.0000	21.0	
	29 cis-1,2-Dichloroethene	96	6.378	6.375	(0.743)	174427	20.0000	20.6	
	31 Methyl Methacrylate	41	10.917	10.914	(1.140)	101388	20.0000	20.6	
	32 2,2-Dichloropropane	77	6.607	6.596	(0.770)	266964	20.0000	21.1	
	33 Bromochloromethane	128	6.814	6.811	(0.794)	70070	20.0000	21.0	
	34 Chloroform	83	7.050	7.040	(0.822)	296382	20.0000	21.0	
	35 Carbon Tetrachloride	117	7.279	7.268	(0.760)	156159	20.0000	19.5	
	36 Tetrahydrofuran	42	7.400	7.383	(0.863)	158101	100.000	101	
$	37 Dibromofluoromethane	113	7.465	7.461	(0.870)	133659	20.0000	20.4	
	38 1,1,1-Trichloroethane	97	7.450	7.447	(0.868)	268174	20.0000	21.0	
	39 1,1-Dichloropropene	75	7.736	7.733	(0.808)	245631	20.0000	20.8	
	40 2-Butanone	43	7.808	7.797	(0.910)	247268	100.000	102	
	41 Benzene	78	8.272	8.269	(0.864)	730895	20.0000	21.2	
*	42 Pentafluorobenzene	168	8.580	8.576	(1.000)	837918	50.0000		
	43 Cyclohexane	56	6.757	6.754	(0.788)	279050	20.0000	21.0	
	44 Ethyl Methacrylate	69	13.026	13.022	(1.361)	238417	20.0000	20.8	
$	45 1,2-Dichloroethane-D4	65	8.580	8.576	(1.000)	183091	20.0000	20.5	
	46 Tertiary-amyl methyl ether	73	8.608	8.605	(1.003)	496901	20.0000	20.7	
	47 1,2-Dichloroethane	62	8.715	8.712	(0.910)	214113	20.0000	20.5	
	48 Trichloroethene	95	9.452	9.448	(0.987)	177383	20.0000	20.6	
*	49 1,4-Difluorobenzene	114	9.573	9.563	(1.000)	1419631	50.0000		
	50 Dibromomethane	93	10.209	10.206	(1.066)	97125	20.0000	20.6	
	51 1,2-Dichloropropane	63	10.395	10.392	(1.086)	165230	20.0000	20.4	
	52 Bromodichloromethane	83	10.552	10.549	(1.102)	223027	20.0000	20.7	
	53 cis-1,3-dichloropropene	75	11.632	11.629	(1.215)	299025	20.0000	21.1	
	54 1,4-Dioxane	88	10.946	10.935	(1.143)	51204	400.000	248(M)	M9
$	55 Toluene-D8	98	11.918	11.914	(1.245)	630836	20.0000	21.7	
	56 2-Chloroethylvinylether	63	11.596	11.593	(1.211)	72125	20.0000	17.4	
	57 Toluene	92	11.996	12.000	(1.253)	456197	20.0000	20.5	
	58 4-methyl-2-pentanone	43	12.675	12.679	(1.324)	570430	100.000	108	
	59 Tetrachloroethene	164	12.583	12.579	(0.879)	125494	20.0000	20.8	
	60 trans-1,3-Dichloropropene	75	11.632	11.629	(1.215)	299025	20.0000	21.1	
	61 1,1,2-Trichloroethane	83	12.940	12.944	(1.352)	123859	20.0000	20.5	
	62 Dibromochloromethane	129	13.197	13.194	(0.922)	148187	20.0000	20.6	
	63 1,3-Dichloropropane	76	13.347	13.351	(0.932)	290198	20.0000	20.8	
	64 1,2-Dibromoethane	107	13.519	13.516	(1.412)	141759	20.0000	20.2	
	65 2-Hexanone	43	13.984	13.980	(0.977)	387229	100.000	108	
*	66 Chlorobenzene-D5	117	14.319	14.323	(1.000)	1344319	50.0000		
	67 Chlorobenzene	112	14.348	14.345	(1.002)	437160	20.0000	21.1	
	68 1-Chlorohexane	91	14.370	14.366	(1.003)	266098	20.0000	21.2	
	69 Ethylbenzene	106	14.420	14.423	(1.007)	270952	20.0000	20.7	
	70 1,1,1,2-Tetrachloroethane	131	14.462	14.466	(1.010)	151072	20.0000	20.4	
	72 m+p-Xylenes	106	14.648	14.652	(1.023)	648621	40.0000	43.5	
	73 o-Xylene	106	15.284	15.288	(1.067)	299529	20.0000	21.1	
	74 Styrene	104	15.370	15.374	(1.073)	543335	20.0000	21.8	
	75 Bromoform	173	15.385	15.381	(1.074)	95226	20.0000	18.1	
	76 Isopropylbenzene	105	15.771	15.767	(0.868)	820096	20.0000	16.8	
$	77 P-Bromofluorobenzene	95	16.171	16.175	(1.689)	254840	20.0000	20.2	
	78 cis-1,4-Dichloro-2-Butene	53	16.314	16.318	(0.898)	61656	20.0000	21.0	
	79 trans-1,4-Dichloro-2-Butene	53	16.843	16.847	(0.927)	58122	20.0000	20.6	
	80 Bromobenzene	156	16.314	16.310	(0.898)	178055	20.0000	20.2	

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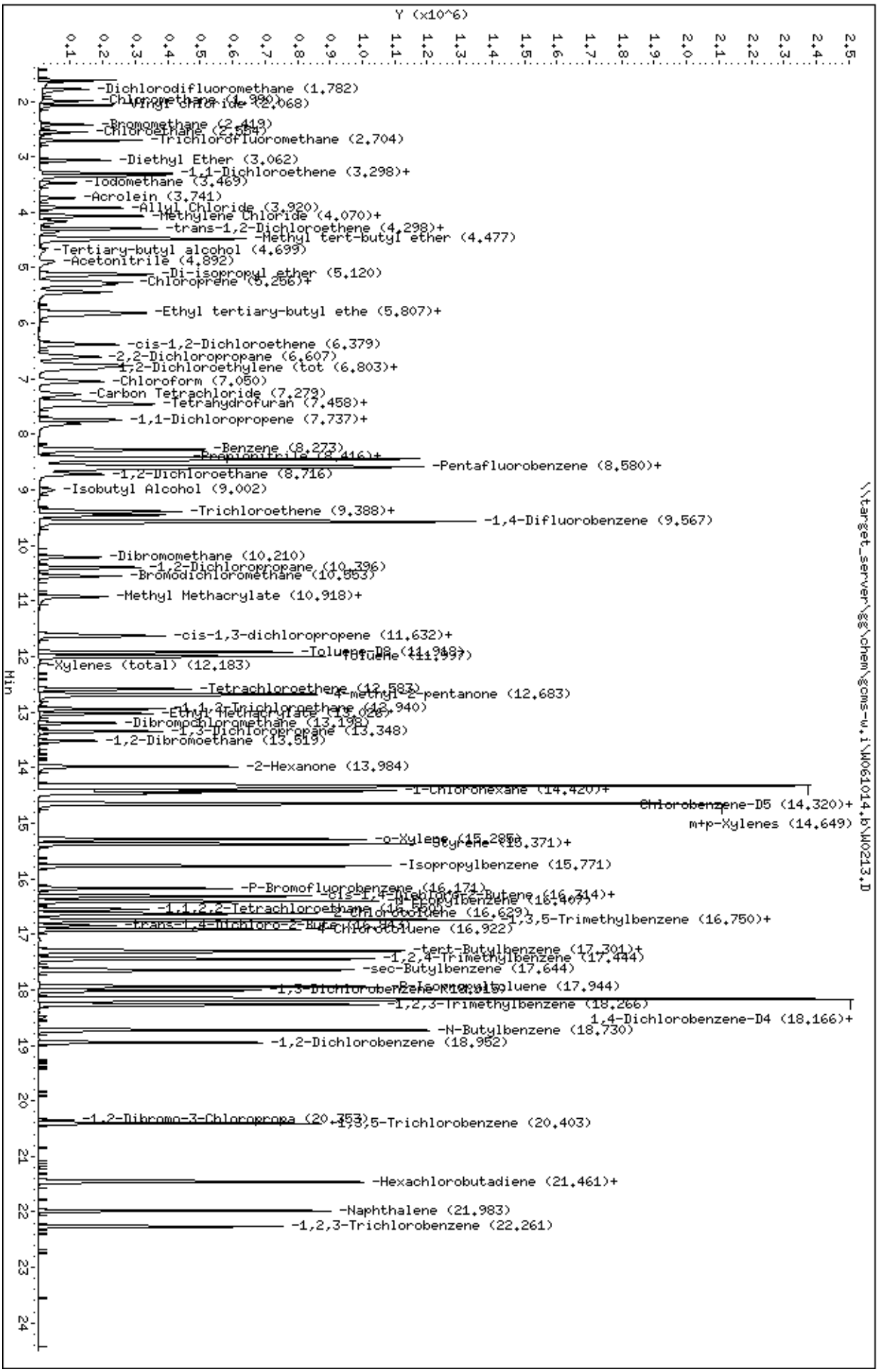
Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
81	N-Propylbenzene	91	16.407	16.403	(0.903)	1042636	20.0000	15.4	
82	1,1,2,2-Tetrachloroethane	83	16.550	16.554	(0.911)	203163	20.0000	20.7	
83	1,3,5-Trimethylbenzene	105	16.750	16.754	(0.922)	813796	20.0000	22.6	
84	2-Chlorotoluene	91	16.628	16.632	(0.915)	626819	20.0000	21.8	
85	1,2,3-Trichloropropane	75	16.743	16.747	(0.922)	176633	20.0000	20.7	
86	4-Chlorotoluene	91	16.921	16.925	(0.932)	644016	20.0000	21.8	
87	tert-Butylbenzene	119	17.300	17.304	(0.952)	697900	20.0000	21.9	
88	Pentachloroethane	117	17.314	17.318	(0.953)	127200	20.0000	20.6	
89	1,2,4-Trimethylbenzene	105	17.443	17.447	(0.960)	808240	20.0000	22.3	
90	P-Isopropyltoluene	119	17.944	17.947	(0.988)	817639	20.0000	22.6	
91	1,3-Dichlorobenzene	146	18.015	18.019	(0.992)	354213	20.0000	20.8	
* 92	1,4-Dichlorobenzene-D4	152	18.165	18.169	(1.000)	771198	50.0000		
93	1,4-Dichlorobenzene	146	18.187	18.198	(1.001)	389557	20.0000	20.6	
94	N-Butylbenzene	91	18.730	18.734	(1.031)	891642	20.0000	16.5	
95	sec-Butylbenzene	105	17.643	17.647	(0.971)	959174	20.0000	22.5	
96	1,2-Dichlorobenzene	146	18.951	18.955	(1.043)	334851	20.0000	21.0	
97	1,2-Dibromo-3-Chloropropane	75	20.352	20.356	(1.120)	35829	20.0000	19.5	
98	1,3,5-Trichlorobenzene	180	20.402	20.406	(1.123)	286808	20.0000	20.8	
99	Hexachlorobutadiene	225	21.446	21.450	(1.181)	128278	20.0000	21.0	
100	1,2,4-Trichlorobenzene	180	21.467	21.471	(1.182)	249837	20.0000	20.2	
101	1,2,3-Trimethylbenzene	105	18.265	18.269	(1.006)	798558	20.0000	22.2	
102	Naphthalene	128	21.982	21.986	(1.210)	686651	20.0000	14.3	
103	1,2,3-Trichlorobenzene	180	22.268	22.272	(1.226)	227159	20.0000	20.0	
104	Methyl Acetate	43	4.348	4.345	(0.507)	79605	20.0000	18.2	
105	Methylcyclohexane	83	9.387	9.384	(1.094)	300102	20.0000	20.7	

QC Flag Legend

M - Compound response manually integrated.



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Date : 10-JUN-2014 12:16
Client ID: Initial Calibration
Sample Info: WG144443-3
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0214.D
Report Date: 11-Jun-2014 11:23

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0214.D
Lab Smp Id: WG144443-2 Client Smp ID: Initial Calibration
Inj Date : 10-JUN-2014 12:47
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-2
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 12:47 Cal File: W0214.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.781	1.779	(0.208)	45093	5.00000	5.4	
2	Chloromethane	50	1.989	1.993	(0.232)	54610	5.00000	5.5	
3	Vinyl chloride	62	2.074	2.072	(0.242)	49966	5.00000	5.4	
4	Bromomethane	94	2.417	2.422	(0.282)	23240	5.00000	5.3	
5	Chloroethane	64	2.553	2.551	(0.297)	26537	5.00000	5.0	
6	Trichlorofluoromethane	101	2.710	2.708	(0.316)	60569	5.00000	5.5	
7	Diethyl Ether	59	3.068	3.065	(0.357)	31377	5.00000	5.4	
8	Tertiary-butyl alcohol	59	4.690	4.681	(0.546)	17424	25.0000	31.5(M)	M9
9	1,1-Dichloroethene	96	3.297	3.294	(0.384)	37465	5.00000	5.4	
10	Carbon Disulfide	76	3.325	3.323	(0.387)	95896	5.00000	5.1	
11	Freon-113	151	3.347	3.344	(0.390)	22330	5.00000	5.4	
12	Iodomethane	142	3.475	3.473	(0.405)	27189	5.00000	3.5	
13	Acrolein	56	3.754	3.737	(0.437)	30451	25.0000	25.8	
14	Methylene Chloride	84	4.069	4.066	(0.474)	52926	5.00000	5.2	
15	Acetone	43	4.176	4.159	(0.486)	34927	25.0000	14.8	
16	Isobutyl Alcohol	43	9.001	8.991	(1.048)	19444	100.000	114	
17	trans-1,2-Dichloroethene	96	4.297	4.295	(0.501)	41303	5.00000	5.2	
18	Allyl Chloride	41	3.918	3.916	(0.456)	38319	5.00000	5.1	
19	Methyl tert-butyl ether	73	4.483	4.473	(0.522)	240594	10.0000	10.7	
20	Acetonitrile	39	4.898	4.888	(0.570)	5868	50.0000	51.8(M)	M9
21	Di-isopropyl ether	45	5.126	5.110	(0.597)	107148	5.00000	5.2	
22	Chloroprene	53	5.262	5.253	(0.613)	58795	5.00000	5.4	
23	Propionitrile	54	8.429	8.419	(0.982)	41977	50.0000	47.4	
24	Methacrylonitrile	41	8.450	8.448	(0.984)	179199	50.0000	54.8	

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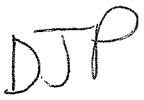
Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0214.D
Report Date: 11-Jun-2014 11:23

							AMOUNTS		
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 1,1-Dichloroethane	63	5.312	5.303	(0.619)	71682	5.00000	5.1	
	26 Acrylonitrile	52	5.262	5.253	(0.613)	14387	25.0000	27.3	
	27 Ethyl tertiary-butyl ether	59	5.813	5.803	(0.677)	123058	5.00000	5.3	
	28 Vinyl Acetate	43	5.856	5.839	(0.612)	71011	5.00000	4.8	
	29 cis-1,2-Dichloroethene	96	6.385	6.375	(0.744)	42194	5.00000	5.2	
	31 Methyl Methacrylate	41	10.924	10.914	(1.141)	21991	5.00000	4.6	
	32 2,2-Dichloropropane	77	6.606	6.596	(0.769)	62485	5.00000	5.1	
	33 Bromochloromethane	128	6.821	6.811	(0.794)	16647	5.00000	5.2	
	34 Chloroform	83	7.049	7.040	(0.821)	71678	5.00000	5.3	
	35 Carbon Tetrachloride	117	7.278	7.268	(0.760)	31191	5.00000	5.1	
	36 Tetrahydrofuran	42	7.414	7.383	(0.863)	34996	25.0000	23.1	
$	37 Dibromofluoromethane	113	7.471	7.461	(0.870)	33811	5.00000	5.4	
	38 1,1,1-Trichloroethane	97	7.457	7.447	(0.868)	62691	5.00000	5.1	
	39 1,1-Dichloropropene	75	7.743	7.733	(0.809)	57997	5.00000	5.0	
	40 2-Butanone	43	7.821	7.797	(0.911)	54968	25.0000	23.6	
	41 Benzene	78	8.279	8.269	(0.865)	175404	5.00000	5.2	
*	42 Pentafluorobenzene	168	8.586	8.576	(1.000)	808816	50.0000		
	43 Cyclohexane	56	6.763	6.754	(0.788)	64986	5.00000	5.0	
	44 Ethyl Methacrylate	69	13.032	13.022	(1.361)	52450	5.00000	4.7	
$	45 1,2-Dichloroethane-D4	65	8.586	8.576	(1.000)	46613	5.00000	5.4	
	46 Tertiary-amyl methyl ether	73	8.622	8.605	(1.004)	117186	5.00000	5.1	
	47 1,2-Dichloroethane	62	8.722	8.712	(0.911)	51699	5.00000	5.1	
	48 Trichloroethene	95	9.458	9.448	(0.988)	43447	5.00000	5.2	
*	49 1,4-Difluorobenzene	114	9.573	9.563	(1.000)	1389033	50.0000		
	50 Dibromomethane	93	10.216	10.206	(1.067)	22093	5.00000	4.8	
	51 1,2-Dichloropropane	63	10.402	10.392	(1.087)	38796	5.00000	4.9	
	52 Bromodichloromethane	83	10.559	10.549	(1.103)	49939	5.00000	4.7	
	53 cis-1,3-dichloropropene	75	11.638	11.629	(1.216)	67523	5.00000	4.9	
	54 1,4-Dioxane	88	10.945	10.935	(1.143)	27732	100.000	137(M)	M9
$	55 Toluene-D8	98	11.924	11.914	(1.246)	152896	5.00000	5.4	
	56 2-Chloroethylvinylether	63	11.603	11.593	(1.212)	14475	5.00000	3.9	
	57 Toluene	92	12.003	12.000	(1.254)	109153	5.00000	5.0	
	58 4-methyl-2-pentanone	43	12.682	12.679	(1.325)	124773	25.0000	24.0	
	59 Tetrachloroethene	164	12.589	12.579	(0.879)	29410	5.00000	5.0	
	60 trans-1,3-Dichloropropene	75	11.638	11.629	(1.216)	67523	5.00000	4.9	
	61 1,1,2-Trichloroethane	83	12.946	12.944	(1.352)	29139	5.00000	4.9	
	62 Dibromochloromethane	129	13.197	13.194	(0.921)	32238	5.00000	4.6	
	63 1,3-Dichloropropane	76	13.354	13.351	(0.932)	68983	5.00000	5.1	
	64 1,2-Dibromoethane	107	13.525	13.516	(1.413)	31948	5.00000	4.6	
	65 2-Hexanone	43	13.990	13.980	(0.977)	83449	25.0000	24.2	
*	66 Chlorobenzene-D5	117	14.326	14.323	(1.000)	1300846	50.0000		
	67 Chlorobenzene	112	14.347	14.345	(1.001)	104662	5.00000	5.2	
	68 1-Chlorohexane	91	14.369	14.366	(1.003)	57735	5.00000	4.8	
	69 Ethylbenzene	106	14.426	14.423	(1.007)	64999	5.00000	5.1	
	70 1,1,1,2-Tetrachloroethane	131	14.469	14.466	(1.010)	33551	5.00000	4.7	
	72 m+p-Xylenes	106	14.655	14.652	(1.023)	151774	10.0000	10.5	
	73 o-Xylene	106	15.291	15.288	(1.067)	68974	5.00000	5.0	
	74 Styrene	104	15.377	15.374	(1.073)	121979	5.00000	5.0	
	75 Bromoform	173	15.384	15.381	(1.074)	19019	5.00000	4.1	
	76 Isopropylbenzene	105	15.777	15.767	(0.869)	191458	5.00000	5.0	
$	77 P-Bromofluorobenzene	95	16.177	16.175	(1.690)	60548	5.00000	4.9	
	78 cis-1,4-Dichloro-2-Butene	53	16.327	16.318	(0.899)	13665	5.00000	4.9	
	79 trans-1,4-Dichloro-2-Butene	53	16.849	16.847	(0.928)	12215	5.00000	4.6	
	80 Bromobenzene	156	16.313	16.310	(0.898)	40985	5.00000	4.9	



11:48 am, Jun 12, 2014

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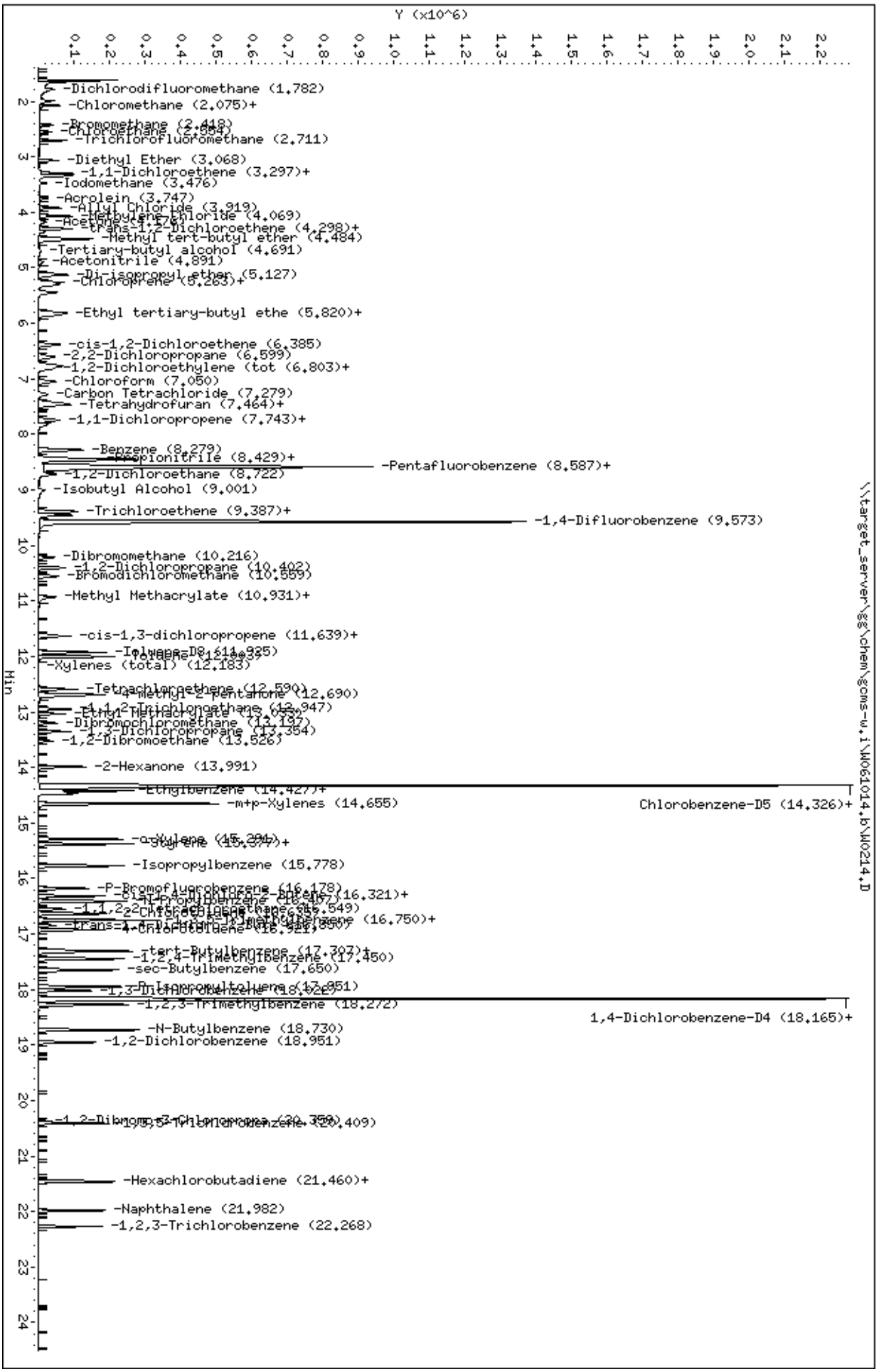
Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
81	N-Propylbenzene	91	16.406	16.403	(0.903)	247244	5.00000	4.9	
82	1,1,2,2-Tetrachloroethane	83	16.556	16.554	(0.911)	45731	5.00000	4.9	
83	1,3,5-Trimethylbenzene	105	16.749	16.754	(0.922)	183748	5.00000	5.4	
84	2-Chlorotoluene	91	16.635	16.632	(0.916)	146338	5.00000	5.4	
85	1,2,3-Trichloropropane	75	16.742	16.747	(0.922)	39938	5.00000	5.0	
86	4-Chlorotoluene	91	16.921	16.925	(0.932)	151378	5.00000	5.4	
87	tert-Butylbenzene	119	17.307	17.304	(0.953)	156319	5.00000	5.2	
88	Pentachloroethane	117	17.321	17.318	(0.954)	27641	5.00000	4.7	
89	1,2,4-Trimethylbenzene	105	17.450	17.447	(0.961)	187134	5.00000	5.5	
90	P-Isopropyltoluene	119	17.950	17.947	(0.988)	182298	5.00000	5.3	
91	1,3-Dichlorobenzene	146	18.021	18.019	(0.992)	80603	5.00000	5.0	
* 92	1,4-Dichlorobenzene-D4	152	18.164	18.169	(1.000)	727686	50.0000		
93	1,4-Dichlorobenzene	146	18.193	18.198	(1.002)	89551	5.00000	5.0	
94	N-Butylbenzene	91	18.729	18.734	(1.031)	200295	5.00000	4.8	
95	sec-Butylbenzene	105	17.650	17.647	(0.972)	221311	5.00000	5.5	
96	1,2-Dichlorobenzene	146	18.951	18.955	(1.043)	75843	5.00000	5.0	
97	1,2-Dibromo-3-Chloropropane	75	20.359	20.356	(1.121)	8323	5.00000	4.8	
98	1,3,5-Trichlorobenzene	180	20.409	20.406	(1.124)	66227	5.00000	5.1	
99	Hexachlorobutadiene	225	21.445	21.450	(1.181)	25882	5.00000	4.5	
100	1,2,4-Trichlorobenzene	180	21.467	21.471	(1.182)	55484	5.00000	4.8	
101	1,2,3-Trimethylbenzene	105	18.272	18.269	(1.006)	187637	5.00000	5.5	
102	Naphthalene	128	21.981	21.986	(1.210)	148589	5.00000	4.8	
103	1,2,3-Trichlorobenzene	180	22.267	22.272	(1.226)	52822	5.00000	4.9	
104	Methyl Acetate	43	4.355	4.345	(0.507)	21698	5.00000	5.1	
105	Methylcyclohexane	83	9.394	9.384	(1.094)	76509	5.00000	5.5	

QC Flag Legend

M - Compound response manually integrated.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Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W061014.b\W0214.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.782)
-Chloromethane (2.075)+
-Bromomethane (2.418)
-Chloroethane (2.554)
-Trichlorofluoromethane (2.711)
-Diethyl Ether (3.068)
-1,1-Dichloroethene (3.297)+
-Iodomethane (3.476)
-Acrolein (3.747)
-Allyl Chloride (3.919)
-Methylene Chloride (4.069)
-Acetone (4.276)
-trans-1,2-Dichloroethene (4.298)+
-Methyl tert-butyl ether (4.484)
-Tertiary-butyl alcohol (4.691)
-Acetonitrile (4.891)
-Di-isopropyl ether (5.127)
-Chloroprene (5.263)+
-Ethyl tertiary-butyl ethe (5.820)+
-cis-1,2-Dichloroethene (6.385)
-2,2-Dichloropropane (6.599)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.050)
-Carbon Tetrachloride (7.279)
-Tetrahydrofuran (7.464)+
-1,1-Dichloropropene (7.743)+
-Benzene (8.279)
-Propionitrile (8.429)+
-Pentafluorobenzene (8.587)+
-1,2-Dichloroethane (8.722)
-Isobutyl Alcohol (9.001)
-Trichloroethene (9.387)+
-1,4-Difluorobenzene (9.573)
-Dibromomethane (10.216)
-1,2-Dichloropropane (10.402)
-Bromodichloromethane (10.559)
-Methyl Methacrylate (10.931)+
-cis-1,3-dichloropropene (11.639)+
-Toluene-D8 (11.935)
-Toluene (12.068)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.590)
-4-Methyl-2-Pentanone (12.690)
-1,1,2-Trichloroethane (12.947)
-Ethyl Methacrylate (13.059)
-Dibromochloromethane (13.197)
-1,3-Dichloropropane (13.354)
-1,2-Dibromoethane (13.526)
-2-Hexanone (13.991)
-Ethylbenzene (14.427)+
-m+p-Xylenes (14.655)
Chlorobenzene-D5 (14.326)+
-o-Xylene (15.204)
-Styrene (15.377)+
-Isopropylbenzene (15.778)
-P-Bromofluorobenzene (16.178)
-n-Propylbenzene (16.407)
-1,1,2,2-Tetrachloroethane (16.549)
-Bromobenzene (16.750)+
-trans-1,4-Dichlorobutene (16.921)+
-tert-Butylbenzene (17.307)+
-1,2,4-Trimethylbenzene (17.450)
-sec-Butylbenzene (17.650)
-p-Isopropyltoluene (17.851)
-1,3-Dichlorobenzene (18.026)
-1,2,3-Trimethylbenzene (18.272)
1,4-Dichlorobenzene-D4 (18.165)+
-N-Butylbenzene (18.730)
-1,2-Dichlorobenzene (18.951)
-1,2-Dibromo-3-Chloropropa (20.359)
-1,3,5-Trichlorobenzene (20.409)
-Hexachlorobutadiene (21.460)+
-Naphthalene (21.982)
-1,2,3-Trichlorobenzene (22.268)

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Report Date: 11-Jun-2014 11:23

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
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Inj Date : 10-JUN-2014 13:18
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Misc Info :
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Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 13:18 Cal File: W0215.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.787	1.779	(0.208)	7343	1.00000	0.93(aM)	M9
2	Chloromethane	50	1.987	1.993	(0.232)	10350	1.00000	1.1	
3	Vinyl chloride	62	2.073	2.072	(0.242)	8879	1.00000	1.0	
4	Bromomethane	94	2.423	2.422	(0.282)	4734	1.00000	1.1	
5	Chloroethane	64	2.559	2.551	(0.298)	6145	1.00000	1.2	
6	Trichlorofluoromethane	101	2.709	2.708	(0.316)	11101	1.00000	1.0	
7	Diethyl Ether	59	3.066	3.065	(0.357)	5889	1.00000	1.1	
8	Tertiary-butyl alcohol	59	4.710	4.681	(0.549)	4680	5.00000	8.9(M)	M9
9	1,1-Dichloroethene	96	3.302	3.294	(0.385)	6954	1.00000	1.1	
10	Carbon Disulfide	76	3.324	3.323	(0.387)	18880	1.00000	1.1	
11	Freon-113	151	3.359	3.344	(0.391)	3893	1.00000	0.99(a)	
12	Iodomethane	142	3.474	3.473	(0.405)	4969	1.00000	0.48(a)	
13	Acrolein	56	3.745	3.737	(0.436)	5788	5.00000	5.2	
14	Methylene Chloride	84	4.067	4.066	(0.474)	24897	1.00000	2.4(a)	
16	Isobutyl Alcohol	43	9.014	8.991	(1.050)	5109	20.0000	31.4	
17	trans-1,2-Dichloroethene	96	4.303	4.295	(0.501)	7836	1.00000	1.0	
18	Allyl Chloride	41	3.924	3.916	(0.457)	7961	1.00000	1.1	
19	Methyl tert-butyl ether	73	4.482	4.473	(0.522)	46257	2.00000	2.2	
20	Acetonitrile	39	4.911	4.888	(0.572)	1315	10.0000	12.2(aM)	M9
21	Di-isopropyl ether	45	5.125	5.110	(0.597)	19070	1.00000	0.98(a)	
22	Chloroprene	53	5.261	5.253	(0.613)	10213	1.00000	0.99(a)	
23	Propionitrile	54	8.420	8.419	(0.981)	8178	10.0000	9.7(aM)	M9
24	Methacrylonitrile	41	8.456	8.448	(0.985)	31851	10.0000	10.2	
25	1,1-Dichloroethane	63	5.311	5.303	(0.619)	13903	1.00000	1.0	

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Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
	26 Acrylonitrile	52	5.268	5.253	(0.614)	2503	5.00000	5.0	
	27 Ethyl tertiary-butyl ether	59	5.811	5.803	(0.677)	21730	1.00000	0.98(a)	
	28 Vinyl Acetate	43	5.854	5.839	(0.612)	12821	1.00000	0.90(a)	
	29 cis-1,2-Dichloroethene	96	6.383	6.375	(0.744)	8293	1.00000	1.1	
	31 Methyl Methacrylate	41	10.929	10.914	(1.142)	3849	1.00000	0.83(a)	
	32 2,2-Dichloropropane	77	6.612	6.596	(0.770)	12274	1.00000	1.0(M)	M9
	33 Bromochloromethane	128	6.826	6.811	(0.795)	2971	1.00000	0.97(aM)	M9
	34 Chloroform	83	7.048	7.040	(0.821)	13245	1.00000	1.0	
	35 Carbon Tetrachloride	117	7.277	7.268	(0.760)	5199	1.00000	2.1(M)	M9
	36 Tetrahydrofuran	42	7.441	7.383	(0.867)	8135	5.00000	5.6(M)	M9
$	37 Dibromofluoromethane	113	7.470	7.461	(0.870)	5820	1.00000	0.97(a)	
	38 1,1,1-Trichloroethane	97	7.462	7.447	(0.869)	11818	1.00000	1.0	
	39 1,1-Dichloropropene	75	7.741	7.733	(0.809)	11436	1.00000	1.0(M)	M9
	40 2-Butanone	43	7.834	7.797	(0.913)	11073	5.00000	5.0	
	41 Benzene	78	8.284	8.269	(0.866)	33693	1.00000	1.0	
*	42 Pentafluorobenzene	168	8.585	8.576	(1.000)	769210	50.0000		
	43 Cyclohexane	56	6.762	6.754	(0.788)	12836	1.00000	1.0	
	44 Ethyl Methacrylate	69	13.038	13.022	(1.362)	8026	1.00000	0.74(a)	
$	45 1,2-Dichloroethane-D4	65	8.585	8.576	(1.000)	8559	1.00000	1.0	
	46 Tertiary-amyl methyl ether	73	8.620	8.605	(1.004)	21588	1.00000	0.98(a)	
	47 1,2-Dichloroethane	62	8.720	8.712	(0.911)	9844	1.00000	1.00	
	48 Trichloroethene	95	9.457	9.448	(0.988)	8558	1.00000	1.0	
*	49 1,4-Difluorobenzene	114	9.571	9.563	(1.000)	1344166	50.0000		
	50 Dibromomethane	93	10.214	10.206	(1.067)	4496	1.00000	1.0	
	51 1,2-Dichloropropane	63	10.400	10.392	(1.087)	7666	1.00000	1.0(M)	M6
	52 Bromodichloromethane	83	10.558	10.549	(1.103)	9554	1.00000	0.94(a)	
	53 cis-1,3-dichloropropene	75	11.630	11.629	(1.215)	11713	1.00000	0.87(a)	
	54 1,4-Dioxane	88	10.951	10.935	(1.144)	12185	20.0000	62.4(M)	M9
$	55 Toluene-D8	98	11.923	11.914	(1.246)	25627	1.00000	0.93(a)	
	56 2-Chloroethylvinylether	63	11.615	11.593	(1.214)	2432	1.00000	1.0	
	57 Toluene	92	12.001	12.000	(1.254)	22703	1.00000	1.1	
	58 4-methyl-2-pentanone	43	12.688	12.679	(1.326)	23523	5.00000	4.7(a)	
	59 Tetrachloroethene	164	12.588	12.579	(0.879)	5712	1.00000	1.0	
	60 trans-1,3-Dichloropropene	75	11.630	11.629	(1.215)	11713	1.00000	0.87(a)	
	61 1,1,2-Trichloroethane	83	12.945	12.944	(1.352)	4975	1.00000	0.87(a)	
	62 Dibromochloromethane	129	13.202	13.194	(0.922)	5903	1.00000	0.88(a)	
	63 1,3-Dichloropropane	76	13.352	13.351	(0.932)	12860	1.00000	0.99(a)	
	64 1,2-Dibromoethane	107	13.524	13.516	(1.413)	6153	1.00000	0.93(aM)	M6
	65 2-Hexanone	43	13.989	13.980	(0.977)	14943	5.00000	4.5(a)	
*	66 Chlorobenzene-D5	117	14.325	14.323	(1.000)	1255433	50.0000		
	67 Chlorobenzene	112	14.353	14.345	(1.002)	20327	1.00000	1.0	
	68 1-Chlorohexane	91	14.367	14.366	(1.003)	12334	1.00000	1.0	
	69 Ethylbenzene	106	14.425	14.423	(1.007)	12162	1.00000	1.00	
	70 1,1,1,2-Tetrachloroethane	131	14.467	14.466	(1.010)	6429	1.00000	0.93(a)	
	72 m+p-Xylenes	106	14.653	14.652	(1.023)	28693	2.00000	2.0	
	73 o-Xylene	106	15.290	15.288	(1.067)	12662	1.00000	0.96(a)	
	74 Styrene	104	15.375	15.374	(1.073)	21617	1.00000	0.93(a)	
	75 Bromoform	173	15.382	15.381	(1.074)	3186	1.00000	1.1(T)	
	76 Isopropylbenzene	105	15.768	15.767	(0.868)	35523	1.00000	2.5	
$	77 P-Bromofluorobenzene	95	16.176	16.175	(1.690)	10834	1.00000	0.91(a)	
	78 cis-1,4-Dichloro-2-Butene	53	16.319	16.318	(0.898)	2160	1.00000	0.80(a)	
	79 trans-1,4-Dichloro-2-Butene	53	16.848	16.847	(0.928)	2313	1.00000	0.90(a)	
	80 Bromobenzene	156	16.319	16.310	(0.898)	7695	1.00000	0.96(a)	
	81 N-Propylbenzene	91	16.405	16.403	(0.903)	45392	1.00000	2.9	

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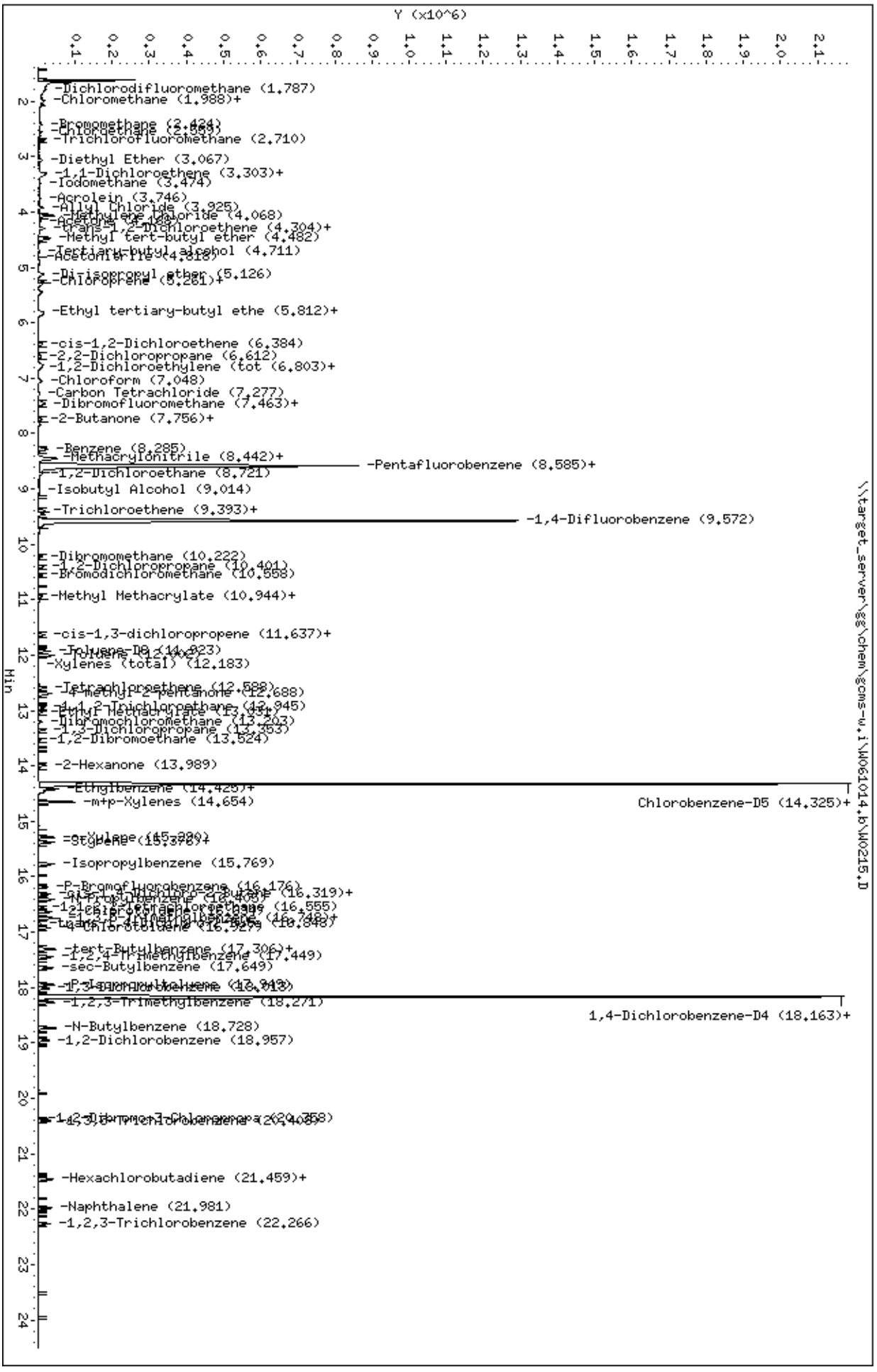
11:48 am, Jun 12, 2014

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
82	1,1,2,2-Tetrachloroethane	83	16.548	16.554	(0.911)	8645	1.00000	0.97(a)	
83	1,3,5-Trimethylbenzene	105	16.755	16.754	(0.922)	33996	1.00000	1.0	
84	2-Chlorotoluene	91	16.633	16.632	(0.916)	28167	1.00000	1.1	
85	1,2,3-Trichloropropane	75	16.748	16.747	(0.922)	7793	1.00000	1.0	
86	4-Chlorotoluene	91	16.926	16.925	(0.932)	28654	1.00000	1.1	
87	tert-Butylbenzene	119	17.305	17.304	(0.953)	28614	1.00000	0.98(a)	
89	1,2,4-Trimethylbenzene	105	17.448	17.447	(0.961)	33839	1.00000	1.0	
90	P-Isopropyltoluene	119	17.949	17.947	(0.988)	33426	1.00000	1.0	
91	1,3-Dichlorobenzene	146	18.020	18.019	(0.992)	16096	1.00000	1.0	
* 92	1,4-Dichlorobenzene-D4	152	18.163	18.169	(1.000)	703590	50.0000		
93	1,4-Dichlorobenzene	146	18.192	18.198	(1.002)	18640	1.00000	1.1	
94	N-Butylbenzene	91	18.728	18.734	(1.031)	36166	1.00000	2.5	
95	sec-Butylbenzene	105	17.648	17.647	(0.972)	41550	1.00000	1.1	
96	1,2-Dichlorobenzene	146	18.956	18.955	(1.044)	14112	1.00000	0.97(a)	
97	1,2-Dibromo-3-Chloropropane	75	20.357	20.356	(1.121)	1510	1.00000	0.90(a)	
98	1,3,5-Trichlorobenzene	180	20.400	20.406	(1.123)	11298	1.00000	0.90(a)	
99	Hexachlorobutadiene	225	21.451	21.450	(1.181)	4714	1.00000	0.84(a)	
100	1,2,4-Trichlorobenzene	180	21.465	21.471	(1.182)	11478	1.00000	1.0	
101	1,2,3-Trimethylbenzene	105	18.270	18.269	(1.006)	33314	1.00000	1.0	
102	Naphthalene	128	21.987	21.986	(1.211)	29846	1.00000	3.1	
103	1,2,3-Trichlorobenzene	180	22.266	22.272	(1.226)	10518	1.00000	1.0	
104	Methyl Acetate	43	4.353	4.345	(0.507)	4579	1.00000	1.1	
105	Methylcyclohexane	83	9.392	9.384	(1.094)	11528	1.00000	0.87(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.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Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
Y (x10^6)
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-Dichlorodifluoromethane (1.787)
-Chloromethane (1.988)+
-Bromomethane (2.424)
-Chloroethane (2.563)
-Trichlorofluoromethane (2.710)
-Diethyl Ether (3.067)
-1,1-Dichloroethene (3.303)+
-Iodomethane (3.474)
-Acrolein (3.746)
-Allyl Chloride (3.925)
-Methylene Chloride (4.068)
-Acetone (4.168)
-trans-1,2-Dichloroethene (4.304)+
-Methyl tert-butyl ether (4.482)
-Tertiary-butyl alcohol (4.711)
-Acetonitrile (4.815)
-Di-isopropyl ether (5.126)
-Chloroprene (5.261)+
-Ethyl tertiary-butyl ethe (5.812)+
-cis-1,2-Dichloroethene (6.384)
-2,2-Dichloropropane (6.612)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.048)
-Carbon Tetrachloride (7.277)
-Dibromofluoromethane (7.463)+
-2-Butanone (7.756)+
-Benzene (8.285)
-Methacrylonitrile (8.442)+
-Pentafluorobenzene (8.585)+
-1,2-Dichloroethane (8.721)
-Isobutyl Alcohol (9.014)
-Trichloroethene (9.393)+
-1,4-Difluorobenzene (9.572)
-Dibromomethane (10.222)
-1,2-Dichloropropane (10.401)
-Bromodichloromethane (10.558)
-Methyl Methacrylate (10.944)+
-cis-1,3-dichloropropene (11.637)+
-Toluene-D8 (11.823)
-Toluene (12.042)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.588)
-4-Methyl-2-pentanone (12.688)
-1,1,2-Trichloroethane (12.945)
-Ethyl Methacrylate (13.031)+
-Dibromochloromethane (13.203)
-1,3-Dichloropropane (13.353)
-1,2-Dibromoethane (13.524)
-2-Hexanone (13.989)
-Ethylbenzene (14.425)+
-m+p-Xylenes (14.654)
Chlorobenzene-D5 (14.325)+
-o-Xylene (15.099)
-Styrene (15.378)+
-Isopropylbenzene (15.769)
-P-Bromofluorobenzene (16.176)
-cis-1,4-Dichloro-2-Butene (16.319)+
-N-Propylbenzene (16.408)
-1,1,2,2-Tetrachloroethane (16.555)
-2-Chlorotoluene (16.748)+
-1,3,5-Trimethylbenzene (16.848)
-4-Chlorotoluene (16.929)
-tert-Butylbenzene (17.306)+
-1,2,4-Trimethylbenzene (17.449)
-sec-Butylbenzene (17.649)
-P-Isopropyltoluene (17.913)
-1,3-Dichlorobenzene (18.013)
-1,2,3-Trimethylbenzene (18.271)
1,4-Dichlorobenzene-D4 (18.163)+
-N-Butylbenzene (18.728)
-1,2-Dichlorobenzene (18.957)
-1,2-Dibromo-3-Chloropropa (20.358)
-1,3,5-Trichlorobenzene (20.408)
-Hexachlorobutadiene (21.459)+
-Naphthalene (21.981)
-1,2,3-Trichlorobenzene (22.266)
\\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0216.D
Report Date: 11-Jun-2014 11:23

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0216.D
Lab Smp Id: WG144443-6 Client Smp ID: Initial Calibration
Inj Date : 10-JUN-2014 14:12
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-6
Misc Info :
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.780	1.779	(0.207)	1682820	200.000	172	
2	Chloromethane	50	1.988	1.993	(0.231)	1800866	200.000	153	
3	Vinyl chloride	62	2.073	2.072	(0.241)	1759357	200.000	161	
4	Bromomethane	94	2.424	2.422	(0.282)	966678	200.000	188	
5	Chloroethane	64	2.559	2.551	(0.298)	1007543	200.000	160	
6	Trichlorofluoromethane	101	2.710	2.708	(0.315)	2263965	200.000	174	
7	Diethyl Ether	59	3.067	3.065	(0.357)	1134232	200.000	165	
8	Tertiary-butyl alcohol	59	4.690	4.681	(0.546)	211419	1000.00	324	
9	1,1-Dichloroethene	96	3.296	3.294	(0.384)	1373420	200.000	169	
10	Carbon Disulfide	76	3.324	3.323	(0.387)	3532054	200.000	161	
11	Freon-113	151	3.353	3.344	(0.390)	889879	200.000	182	
12	Iodomethane	142	3.474	3.473	(0.404)	1702177	200.000	197	
13	Acrolein	56	3.746	3.737	(0.436)	1096819	1000.00	789	
14	Methylene Chloride	84	4.068	4.066	(0.473)	1634160	200.000	200	
15	Acetone	43	4.168	4.159	(0.485)	1422861	1000.00	975	
16	Isobutyl Alcohol	43	9.000	8.991	(1.047)	299192	4000.00	1480	
17	trans-1,2-Dichloroethene	96	4.296	4.295	(0.500)	1616347	200.000	172	
18	Allyl Chloride	41	3.918	3.916	(0.456)	1438177	200.000	163	
19	Methyl tert-butyl ether	73	4.475	4.473	(0.521)	7835659	400.000	294	
20	Acetonitrile	39	4.890	4.888	(0.569)	142624	2000.00	1070	
21	Di-isopropyl ether	45	5.118	5.110	(0.596)	4058087	200.000	169	
22	Chloroprene	53	5.261	5.253	(0.612)	2171490	200.000	170	
23	Propionitrile	54	8.435	8.419	(0.982)	1365829	2000.00	1310	
24	Methacrylonitrile	41	8.471	8.448	(0.986)	5422814	2000.00	1400	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0216.D
Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
	25 1,1-Dichloroethane	63	5.311	5.303	(0.618)	2811526	200.000	171	
	26 Acrylonitrile	52	5.261	5.253	(0.612)	538770	1000.00	866	
	27 Ethyl tertiary-butyl ether	59	5.812	5.803	(0.676)	4744042	200.000	172	
	28 Vinyl Acetate	43	5.855	5.839	(0.611)	2870379	200.000	180	
	29 cis-1,2-Dichloroethene	96	6.384	6.375	(0.743)	1728590	200.000	180	
	31 Methyl Methacrylate	41	10.923	10.914	(1.140)	975166	200.000	187	
	32 2,2-Dichloropropane	77	6.605	6.596	(0.769)	2573725	200.000	179	
	33 Bromochloromethane	128	6.827	6.811	(0.795)	711138	200.000	187	
	34 Chloroform	83	7.056	7.040	(0.821)	2848361	200.000	178	
	35 Carbon Tetrachloride	117	7.284	7.268	(0.760)	1829936	200.000	200(A)	
	36 Tetrahydrofuran	42	7.391	7.383	(0.860)	1321471	1000.00	741	
$	37 Dibromofluoromethane	113	7.477	7.461	(0.870)	1401852	200.000	188	
	38 1,1,1-Trichloroethane	97	7.463	7.447	(0.869)	2663352	200.000	184	
	39 1,1-Dichloropropene	75	7.749	7.733	(0.809)	2303815	200.000	184	
	40 2-Butanone	43	7.813	7.797	(0.909)	2188548	1000.00	797	
	41 Benzene	78	8.285	8.269	(0.865)	6278856	200.000	172	
*	42 Pentafluorobenzene	168	8.592	8.576	(1.000)	954018	50.0000		
	43 Cyclohexane	56	6.770	6.754	(0.788)	2687147	200.000	177	
	44 Ethyl Methacrylate	69	13.031	13.022	(1.360)	2416460	200.000	199	
$	45 1,2-Dichloroethane-D4	65	8.592	8.576	(1.000)	1763513	200.000	173	
	46 Tertiary-amyl methyl ether	73	8.621	8.605	(1.003)	4753764	200.000	174	
	47 1,2-Dichloroethane	62	8.728	8.712	(0.911)	2047004	200.000	185	
	48 Trichloroethene	95	9.457	9.448	(0.987)	1687128	200.000	185	
*	49 1,4-Difluorobenzene	114	9.579	9.563	(1.000)	1506340	50.0000		
	50 Dibromomethane	93	10.215	10.206	(1.066)	970365	200.000	194	
	51 1,2-Dichloropropane	63	10.401	10.392	(1.086)	1615804	200.000	188	
	52 Bromodichloromethane	83	10.558	10.549	(1.102)	2273629	200.000	199	
	53 cis-1,3-dichloropropene	75	11.637	11.629	(1.215)	2962995	200.000	197	
	54 1,4-Dioxane	88	10.944	10.935	(1.143)	64983	4000.00	297(M)	
$	55 Toluene-D8	98	11.923	11.914	(1.245)	5253533	200.000	170	
	56 2-Chloroethylvinylether	63	11.602	11.593	(1.211)	879615	200.000	196	
	57 Toluene	92	12.009	12.000	(1.254)	4192646	200.000	178	
	58 4-methyl-2-pentanone	43	12.688	12.679	(1.325)	4316514	1000.00	767	
	59 Tetrachloroethene	164	12.588	12.579	(0.879)	1350596	200.000	193	
	60 trans-1,3-Dichloropropene	75	11.637	11.629	(1.215)	2962995	200.000	197	
	61 1,1,2-Trichloroethane	83	12.953	12.944	(1.352)	1285788	200.000	200(A)	
	62 Dibromochloromethane	129	13.203	13.194	(0.922)	1689219	200.000	203(A)	
	63 1,3-Dichloropropane	76	13.353	13.351	(0.932)	2844535	200.000	176	
	64 1,2-Dibromoethane	107	13.524	13.516	(1.412)	1511534	200.000	203(A)	
	65 2-Hexanone	43	13.989	13.980	(0.977)	3209484	1000.00	776	
*	66 Chlorobenzene-D5	117	14.325	14.323	(1.000)	1557632	50.0000		
	67 Chlorobenzene	112	14.354	14.345	(1.002)	4097390	200.000	170	
	68 1-Chlorohexane	91	14.375	14.366	(1.003)	2730805	200.000	188	
	69 Ethylbenzene	106	14.432	14.423	(1.007)	2823261	200.000	186	
	70 1,1,1,2-Tetrachloroethane	131	14.468	14.466	(1.010)	1769970	200.000	206(A)	
	72 m+p-Xylenes	106	14.661	14.652	(1.023)	5400163	400.000	312	
	73 o-Xylene	106	15.290	15.288	(1.067)	3096370	200.000	188	
	74 Styrene	104	15.383	15.374	(1.074)	4923450	200.000	170	
	75 Bromoform	173	15.390	15.381	(1.074)	1230750	200.000	197	
	76 Isopropylbenzene	105	15.776	15.767	(0.868)	6233580	200.000	198	
$	77 P-Bromofluorobenzene	95	16.176	16.175	(1.689)	2708149	200.000	202(A)	
	78 cis-1,4-Dichloro-2-Butene	53	16.319	16.318	(0.898)	664621	200.000	186	
	79 trans-1,4-Dichloro-2-Butene	53	16.848	16.847	(0.927)	631877	200.000	185	
	80 Bromobenzene	156	16.319	16.310	(0.898)	2158168	200.000	202(A)	

DJP

11:49 am, Jun 12, 2014

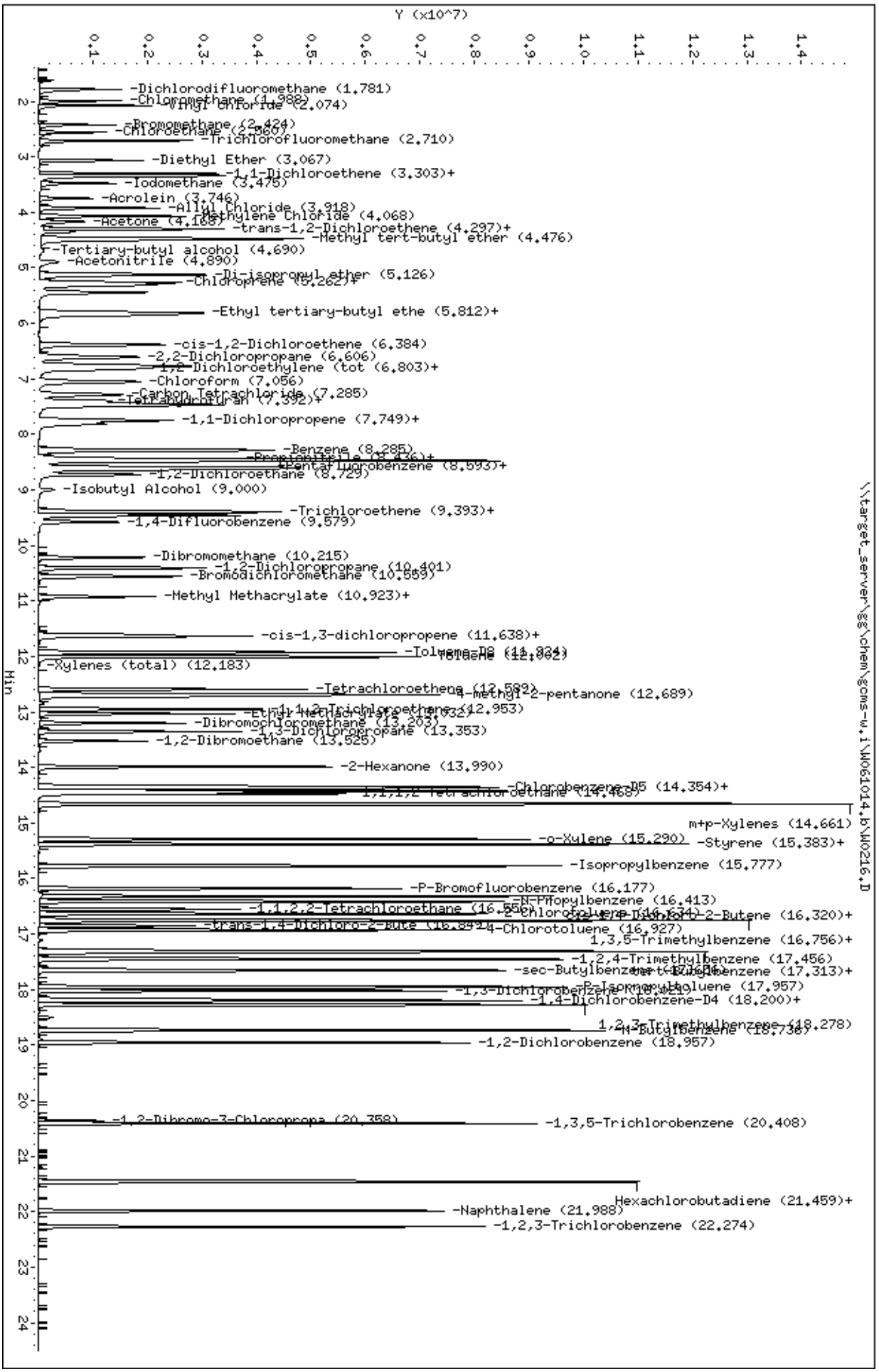
M9

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0216.D
Report Date: 11-Jun-2014 11:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)	REVIEW CODE
81	N-Propylbenzene	91	16.412	16.403	(0.903)	7052308	200.000	196	
82	1,1,2,2-Tetrachloroethane	83	16.555	16.554	(0.911)	2131815	200.000	179	
83	1,3,5-Trimethylbenzene	105	16.762	16.754	(0.923)	6395000	200.000	146	
84	2-Chlorotoluene	91	16.634	16.632	(0.915)	5425022	200.000	156	
85	1,2,3-Trichloropropane	75	16.748	16.747	(0.922)	1766255	200.000	171	
86	4-Chlorotoluene	91	16.927	16.925	(0.932)	5621737	200.000	156	
87	tert-Butylbenzene	119	17.306	17.304	(0.952)	6416336	200.000	166	
88	Pentachloroethane	117	17.320	17.318	(0.953)	1612907	200.000	215(A)	
89	1,2,4-Trimethylbenzene	105	17.456	17.447	(0.961)	6652626	200.000	151	
90	P-Isopropyltoluene	119	17.956	17.947	(0.988)	6628556	200.000	151	
91	1,3-Dichlorobenzene	146	18.028	18.019	(0.992)	3790542	200.000	183	
* 92	1,4-Dichlorobenzene-D4	152	18.171	18.169	(1.000)	935929	50.0000		
93	1,4-Dichlorobenzene	146	18.199	18.198	(1.002)	4105779	200.000	179	
94	N-Butylbenzene	91	18.735	18.734	(1.031)	6539302	200.000	198	
95	sec-Butylbenzene	105	17.656	17.647	(0.972)	7428388	200.000	144	
96	1,2-Dichlorobenzene	146	18.957	18.955	(1.043)	3604701	200.000	186	
97	1,2-Dibromo-3-Chloropropane	75	20.358	20.356	(1.120)	389234	200.000	175	
98	1,3,5-Trichlorobenzene	180	20.415	20.406	(1.124)	3188425	200.000	191	
99	Hexachlorobutadiene	225	21.452	21.450	(1.181)	1558649	200.000	210(A)	
100	1,2,4-Trichlorobenzene	180	21.473	21.471	(1.182)	2884947	200.000	192	
101	1,2,3-Trimethylbenzene	105	18.278	18.269	(1.006)	6463761	200.000	148	
102	Naphthalene	128	21.988	21.986	(1.210)	5276964	200.000	197	
103	1,2,3-Trichlorobenzene	180	22.274	22.272	(1.226)	2559739	200.000	186	
104	Methyl Acetate	43	4.354	4.345	(0.507)	813252	200.000	163	
105	Methylcyclohexane	83	9.393	9.384	(1.093)	3108694	200.000	188	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.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Client ID: Initial Calibration
Sample Info: WG144443-6
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W061014.b\W0216.D
Y (x10^7)
Min
-Dichlorodifluoromethane (1.781)
-Chloromethane (1.988)
-Vinyl Chloride (2.074)
-Bromomethane (2.424)
-Chloroethane (2.560)
-Trichlorofluoromethane (2.710)
-Diethyl Ether (3.067)
-1,1-Dichloroethene (3.303)+
-Iodomethane (3.475)
-Acrolein (3.746)
-Allyl Chloride (3.918)
-Methylene Chloride (4.068)
-Acetone (4.168)
-trans-1,2-Dichloroethene (4.297)+
-Methyl tert-butyl ether (4.476)
-Tertiary-butyl alcohol (4.690)
-Acetonitrile (4.890)
-Di-isopropyl ether (5.126)
-Chloroprene (5.262)+
-Ethyl tertiary-butyl ethe (5.812)+
-cis-1,2-Dichloroethene (6.384)
-2,2-Dichloropropane (6.606)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.056)
-Carbon Tetrachloride (7.285)
-Tetrahydrofuran (7.392)+
-1,1-Dichloropropene (7.749)+
-Benzene (8.285)
-Pentafluorobenzene (8.593)+
-1,2-Dichloroethane (8.729)
-Isobutyl Alcohol (9.000)
-Trichloroethene (9.393)+
-1,4-Difluorobenzene (9.579)
-Dibromomethane (10.215)
-1,2-Dichloropropane (10.401)
-Bromodichloromethane (10.559)
-Methyl Methacrylate (10.923)+
-cis-1,3-dichloropropene (11.638)+
-Toluene-D8 (11.804)
Toluene (11.962)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.589)
4-methyl-2-pentanone (12.689)
-Ethyl Methacrylate (12.953)
-Dibromochloromethane (13.203)
-1,3-Dichloropropane (13.353)
-1,2-Dibromoethane (13.525)
-2-Hexanone (13.990)
-Chlorobenzene-D5 (14.354)+
1,1,1,2-Tetrachloroethane (14.468)
m+p-Xylenes (14.661)
-o-Xylene (15.290)
-Styrene (15.383)+
-Isopropylbenzene (15.777)
-P-Bromofluorobenzene (16.177)
-N-Propylbenzene (16.413)
-1,1,2,2-Tetrachloroethane (16.556)
-2-Chlorotoluene (16.644)
-trans-1,4-Dichloro-2-Butene (16.320)+
-trans-1,4-Dichloro-2-Bute (16.894)
4-Chlorotoluene (16.927)
1,3,5-Trimethylbenzene (16.756)+
-1,2,4-Trimethylbenzene (17.456)
-sec-Butylbenzene (17.313)+
-P-Isopropyltoluene (17.957)
-1,3-Dichlorobenzene (18.021)
-1,4-Dichlorobenzene-D4 (18.200)+
1,2,3-Trimethylbenzene (18.278)
-N-Butylbenzene (18.736)
-1,2-Dichlorobenzene (18.957)
-1,2-Dibromo-3-Chloropropa (20.358)
-1,3,5-Trichlorobenzene (20.408)
Hexachlorobutadiene (21.459)+
-Naphthalene (21.988)
-1,2,3-Trichlorobenzene (22.274)

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Report Date: 11-Jun-2014 11:24

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0217A.D
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Inj Date : 10-JUN-2014 14:43
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-7
Misc Info : WG144443,WG144443-4
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12
Processing Host: D2400TARGET-1

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.787	1.779	(0.208)	491521	54.1431	54.1	
2	Chloromethane	50	1.987	1.993	(0.231)	530281	48.3492	48.3	
3	Vinyl chloride	62	2.073	2.072	(0.241)	508814	49.9946	50.0	
4	Bromomethane	94	2.423	2.422	(0.282)	229269	47.9638	48.0	
5	Chloroethane	64	2.559	2.551	(0.298)	257367	44.0973	44.1	
6	Trichlorofluoromethane	101	2.709	2.708	(0.316)	587846	48.4849	48.5	
7	Diethyl Ether	59	3.066	3.065	(0.357)	319497	49.9221	49.9	
8	Tertiary-butyl alcohol	59	4.696	4.681	(0.547)	130599	215.408	215	
9	1,1-Dichloroethene	96	3.295	3.294	(0.384)	375182	49.6970	49.7	
10	Carbon Disulfide	76	3.324	3.323	(0.387)	1148764	56.2451	56.2	
11	Freon-113	151	3.352	3.344	(0.391)	231020	50.9510	51.0	
12	Iodomethane	142	3.474	3.473	(0.405)	432811	53.6965	53.7	
13	Acrolein	56	3.745	3.737	(0.436)	322252	249.219	249	
14	Methylene Chloride	84	4.067	4.066	(0.474)	455992	47.0892	47.1	
15	Acetone	43	4.167	4.159	(0.485)	134738	86.8556	86.8(R)	
16	Isobutyl Alcohol	43	8.999	8.991	(1.048)	187238	998.674	999	
17	trans-1,2-Dichloroethene	96	4.296	4.295	(0.500)	431942	49.4030	49.4	
18	Allyl Chloride	41	3.917	3.916	(0.456)	398482	48.5951	48.6	
19	Methyl tert-butyl ether	73	4.482	4.473	(0.522)	2636983	106.528	106	
20	Acetonitrile	39	4.889	4.888	(0.570)	46797	376.304	376(R)	
21	Di-isopropyl ether	45	5.125	5.110	(0.597)	1121328	50.1451	50.1	
22	Chloroprene	53	5.261	5.253	(0.613)	589901	49.6750	49.7	
23	Propionitrile	54	8.420	8.419	(0.981)	468902	482.456	482	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217A.D
Report Date: 11-Jun-2014 11:24

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Methacrylonitrile	41	8.449	8.448	(0.984)	1828213	509.322	509	
	25 1,1-Dichloroethane	63	5.311	5.303	(0.619)	777585	50.9108	50.9	
	26 Acrylonitrile	52	5.261	5.253	(0.613)	140142	242.250	242	
	27 Ethyl tertiary-butyl ether	59	5.811	5.803	(0.677)	1305025	50.9264	50.9	
	28 Vinyl Acetate	43	5.854	5.839	(0.612)	858077	54.7986	54.8	
	29 cis-1,2-Dichloroethene	96	6.383	6.375	(0.744)	447916	50.0824	50.1	
M	30 1,2-Dichloroethylene (total)	96				879858	99.4854	99.5	
	31 Methyl Methacrylate	41	10.922	10.914	(1.141)	263777	51.5165	51.5	
	32 2,2-Dichloropropane	77	6.605	6.596	(0.769)	666723	49.8807	49.9	
	33 Bromochloromethane	128	6.819	6.811	(0.794)	188260	53.1703	53.2	
	34 Chloroform	83	7.048	7.040	(0.821)	748038	50.1885	50.2	
	35 Carbon Tetrachloride	117	7.284	7.268	(0.761)	447534	51.1274	51.1	
	36 Tetrahydrofuran	42	7.412	7.383	(0.863)	97344	58.6849	58.7	
$	37 Dibromofluoromethane	113	7.477	7.461	(0.871)	319649	46.1184	46.1	
	38 1,1,1-Trichloroethane	97	7.462	7.447	(0.869)	684707	50.7601	50.8	
	39 1,1-Dichloropropene	75	7.748	7.733	(0.810)	599657	48.9117	48.9	
	40 2-Butanone	43	7.820	7.797	(0.911)	172388	67.5310	67.5(R)	
	41 Benzene	78	8.277	8.269	(0.865)	1804571	50.4069	50.4	
*	42 Pentafluorobenzene	168	8.585	8.576	(1.000)	887154	50.0000		
	43 Cyclohexane	56	6.769	6.754	(0.789)	679321	48.1791	48.2	
	44 Ethyl Methacrylate	69	13.031	13.022	(1.361)	643192	54.0664	54.1	
$	45 1,2-Dichloroethane-D4	65	8.585	8.576	(1.000)	395642	41.8201	41.8	
	46 Tertiary-amyl methyl ether	73	8.613	8.605	(1.003)	1313600	51.8007	51.8	
	47 1,2-Dichloroethane	62	8.720	8.712	(0.911)	554097	51.0095	51.0	
	48 Trichloroethene	95	9.457	9.448	(0.988)	448174	50.1000	50.1	
*	49 1,4-Difluorobenzene	114	9.571	9.563	(1.000)	1477138	50.0000		
	50 Dibromomethane	93	10.214	10.206	(1.067)	250474	50.9373	50.9	
	51 1,2-Dichloropropane	63	10.400	10.392	(1.087)	430649	51.2145	51.2	
	52 Bromodichloromethane	83	10.557	10.549	(1.103)	604308	53.8350	53.8	
	53 cis-1,3-dichloropropene	75	11.637	11.629	(1.216)	763946	51.7691	51.8	
	54 1,4-Dioxane	88	10.943	10.935	(1.143)	103849	483.790	484(RM)	M9
$	55 Toluene-D8	98	11.923	11.914	(1.246)	1433668	47.3949	47.4	
	56 2-Chloroethylvinylether	63	11.601	11.593	(1.212)	199351	45.6920	45.7	
	57 Toluene	92	12.001	12.000	(1.254)	1150745	49.8049	49.8	
	58 4-methyl-2-pentanone	43	12.680	12.679	(1.325)	316331	57.3100	57.3	
	59 Tetrachloroethene	164	12.587	12.579	(0.879)	327250	51.4062	51.4	
	60 trans-1,3-Dichloropropene	75	11.637	11.629	(1.216)	763946	51.7691	51.8	
	61 1,1,2-Trichloroethane	83	12.945	12.944	(1.352)	331490	52.6987	52.7	
	62 Dibromochloromethane	129	13.195	13.194	(0.921)	408274	53.9177	53.9	
	63 1,3-Dichloropropane	76	13.352	13.351	(0.932)	785288	53.5084	53.5	
	64 1,2-Dibromoethane	107	13.524	13.516	(1.413)	387582	53.1097	53.1	
	65 2-Hexanone	43	13.988	13.980	(0.977)	242878	64.5691	64.6(R)	
*	66 Chlorobenzene-D5	117	14.324	14.323	(1.000)	1417481	50.0000		
	67 Chlorobenzene	112	14.346	14.345	(1.001)	1193295	54.5399	54.5	
	68 1-Chlorohexane	91	14.374	14.366	(1.003)	721183	54.4700	54.5	
	69 Ethylbenzene	106	14.424	14.423	(1.007)	693722	50.3006	50.3	
	70 1,1,1,2-Tetrachloroethane	131	14.467	14.466	(1.010)	413894	52.9493	52.9	
M	71 Xylenes (total)	106				2528644	163.450	163	
	72 m+p-Xylenes	106	14.653	14.652	(1.023)	1702630	108.204	108	
	73 o-Xylene	106	15.289	15.288	(1.067)	826014	55.2459	55.2	
	74 Styrene	104	15.375	15.374	(1.073)	1413905	53.7624	53.8	
	75 Bromoform	173	15.382	15.381	(1.074)	272971	48.3332	48.3	
	76 Isopropylbenzene	105	15.775	15.767	(0.868)	2196911	49.7423	49.7	
$	77 P-Bromofluorobenzene	95	16.176	16.175	(1.690)	659692	50.2831	50.3	

DJP

11:49 am, Jun 12, 2014

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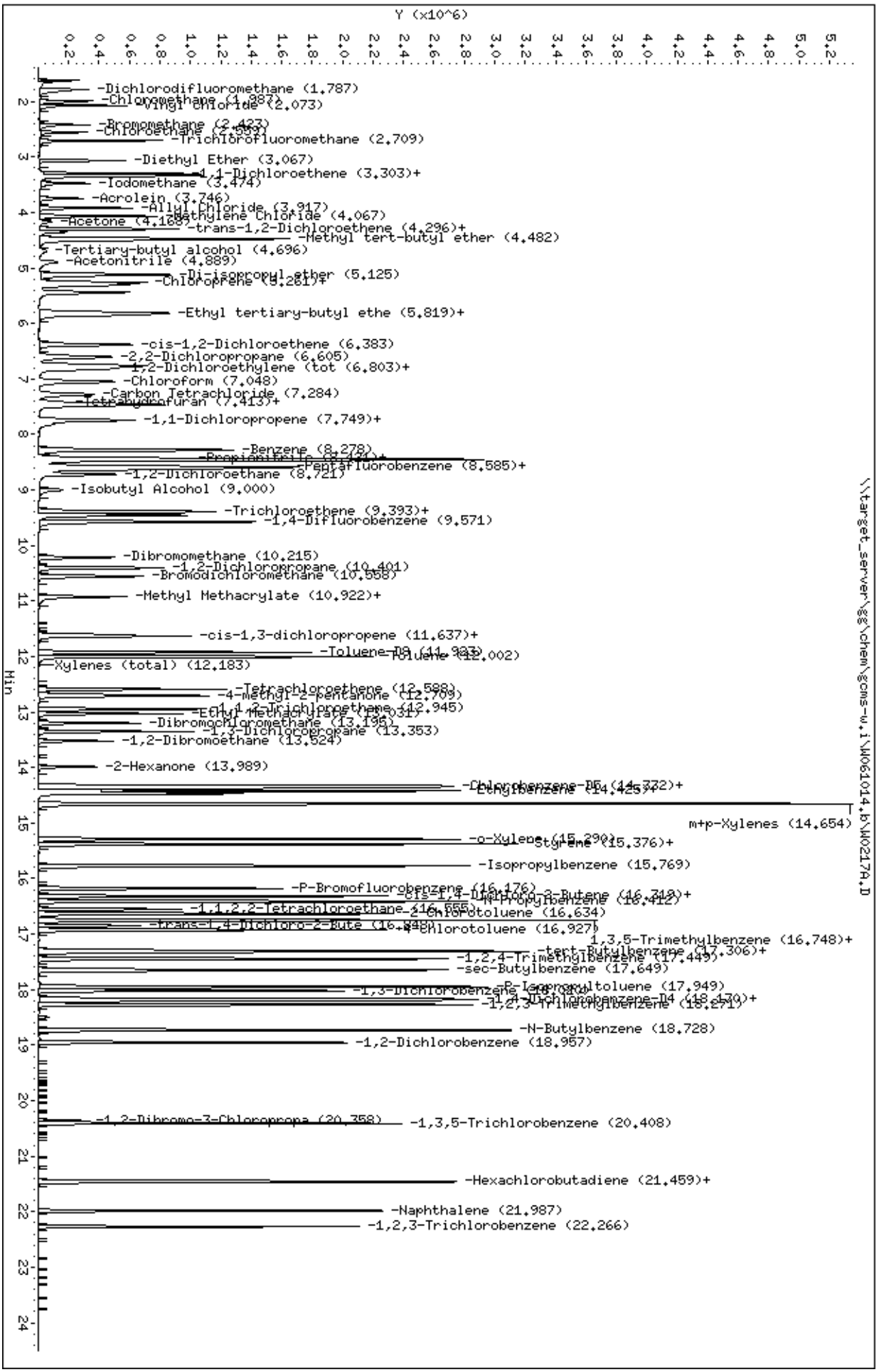
Report Date: 11-Jun-2014 11:24

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	78 cis-1,4-Dichloro-2-Butene	53	16.319	16.318	(0.898)	167967	52.3636	52.4	
	79 trans-1,4-Dichloro-2-Butene	53	16.848	16.847	(0.927)	159490	51.9649	52.0	
	80 Bromobenzene	156	16.319	16.310	(0.898)	489062	50.9960	51.0	
	81 N-Propylbenzene	91	16.412	16.403	(0.903)	2758218	50.2705	50.3	
	82 1,1,2,2-Tetrachloroethane	83	16.555	16.554	(0.911)	545802	51.0725	51.1	
	83 1,3,5-Trimethylbenzene	105	16.755	16.754	(0.922)	2003652	50.9899	51.0	
	84 2-Chlorotoluene	91	16.633	16.632	(0.915)	1688354	53.9126	53.9	
	85 1,2,3-Trichloropropane	75	16.748	16.747	(0.922)	477933	51.4635	51.5	
	86 4-Chlorotoluene	91	16.926	16.925	(0.932)	1801703	55.8402	55.8	
	87 tert-Butylbenzene	119	17.305	17.304	(0.952)	1922885	55.2668	55.3	
	88 Pentachloroethane	117	17.319	17.318	(0.953)	364238	54.1742	54.2	
	89 1,2,4-Trimethylbenzene	105	17.448	17.447	(0.960)	2033722	51.3979	51.4	
	90 P-Isopropyltoluene	119	17.948	17.947	(0.988)	2231652	56.4619	56.5	
	91 1,3-Dichlorobenzene	146	18.020	18.019	(0.992)	1022686	55.0700	55.1	
*	92 1,4-Dichlorobenzene-D4	152	18.170	18.169	(1.000)	840691	50.0000		
	93 1,4-Dichlorobenzene	146	18.191	18.198	(1.001)	1044295	50.5798	50.6	
	94 N-Butylbenzene	91	18.735	18.734	(1.031)	2226110	45.7356	45.7	
	95 sec-Butylbenzene	105	17.648	17.647	(0.971)	2586460	55.7071	55.7	
	96 1,2-Dichlorobenzene	146	18.956	18.955	(1.043)	979842	56.2447	56.2	
	97 1,2-Dibromo-3-Chloropropane	75	20.357	20.356	(1.120)	109089	54.5944	54.6	
	98 1,3,5-Trichlorobenzene	180	20.407	20.406	(1.123)	788028	52.5074	52.5	
	99 Hexachlorobutadiene	225	21.451	21.450	(1.181)	361547	54.2982	54.3	
	100 1,2,4-Trichlorobenzene	180	21.465	21.471	(1.181)	687765	50.9994	51.0	
	101 1,2,3-Trimethylbenzene	105	18.270	18.269	(1.006)	2069478	52.7594	52.8	
	102 Naphthalene	128	21.987	21.986	(1.210)	1793164	42.4281	42.4	
	103 1,2,3-Trichlorobenzene	180	22.266	22.272	(1.225)	636956	51.4754	51.5	
	104 Methyl Acetate	43	4.353	4.345	(0.507)	239329	51.6763	51.7	
	105 Methylcyclohexane	83	9.392	9.384	(1.094)	795668	51.8847	51.9	
M	106 Total Alkylbenzenes	100				15762699	365.830	366	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.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Sample Info: WG144443-7
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Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
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-Chloromethane (1.987)
-Vinyl Chloride (2.073)
-Bromomethane (2.427)
-Chloroethane (2.559)
-Trichlorofluoromethane (2.709)
-Diethyl Ether (3.067)
-1,1-Dichloroethene (3.303)+
-Iodomethane (3.474)
-Acrolein (3.746)
-Allyl Chloride (3.917)
-Methylene Chloride (4.067)
-Acetone (4.168)
-trans-1,2-Dichloroethene (4.296)+
-Methyl tert-butyl ether (4.482)
-Tertiary-butyl alcohol (4.696)
-Acetonitrile (4.889)
-Di-isopropyl ether (5.125)
-Chloroprene (5.261)+
-Ethyl tertiary-butyl ethe (5.819)+
-cis-1,2-Dichloroethene (6.383)
-2,2-Dichloropropane (6.605)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.048)
-Carbon Tetrachloride (7.284)
-Tetrahydrofuran (7.413)+
-1,1-Dichloropropene (7.749)+
-Benzene (8.278)
-Propionitrile (8.404)+
-Pentafluorobenzene (8.585)+
-1,2-Dichloroethane (8.721)
-Isobutyl Alcohol (9.000)
-Trichloroethene (9.393)+
-1,4-Difluorobenzene (9.571)
-Dibromomethane (10.215)
-1,2-Dichloropropane (10.401)
-Bromodichloromethane (10.558)
-Methyl Methacrylate (10.922)+
-cis-1,3-dichloropropene (11.637)+
-Toluene-D8 (11.983)
Toluene (12.002)
Xylenes (total) (12.183)
-Tetrachloroethene (12.598)
-4-Methyl-2-pentanone (12.709)
-1,1,2-Trichloroethane (12.945)
-Ethyl Methacrylate (13.031)
-Dibromochloromethane (13.195)
-1,3-Dichloropropane (13.353)
-1,2-Dibromoethane (13.524)
-2-Hexanone (13.989)
-Chlorobenzene-D5 (14.372)+
Ethylbenzene (14.425)+
m+p-Xylenes (14.654)
-o-Xylene (15.290)
Styrene (15.376)+
-Isopropylbenzene (15.769)
-P-Bromofluorobenzene (16.176)
-cis-1,4-Dichloro-2-Butene (16.218)+
N-Propylbenzene (16.412)
-1,1,2,2-Tetrachloroethane (16.555)
2-Chlorotoluene (16.634)
-trans-1,4-Dichloro-2-Bute (16.848)+
4-Chlorotoluene (16.927)
1,3,5-Trimethylbenzene (16.748)+
-tert-Butylbenzene (17.306)+
-1,2,4-Trimethylbenzene (17.449)
-sec-Butylbenzene (17.649)
-1,3-Dichlorobenzene (17.808)
-P-Isopropyltoluene (17.949)
-1,4-Dichlorobenzene-D4 (18.170)+
-1,2,3-Trimethylbenzene (18.271)
-N-Butylbenzene (18.728)
-1,2-Dichlorobenzene (18.957)
-1,2-Dibromo-3-Chloroprop (20.358)
-1,3,5-Trichlorobenzene (20.408)
-Hexachlorobutadiene (21.459)+
-Naphthalene (21.987)
-1,2,3-Trichlorobenzene (22.266)

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Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

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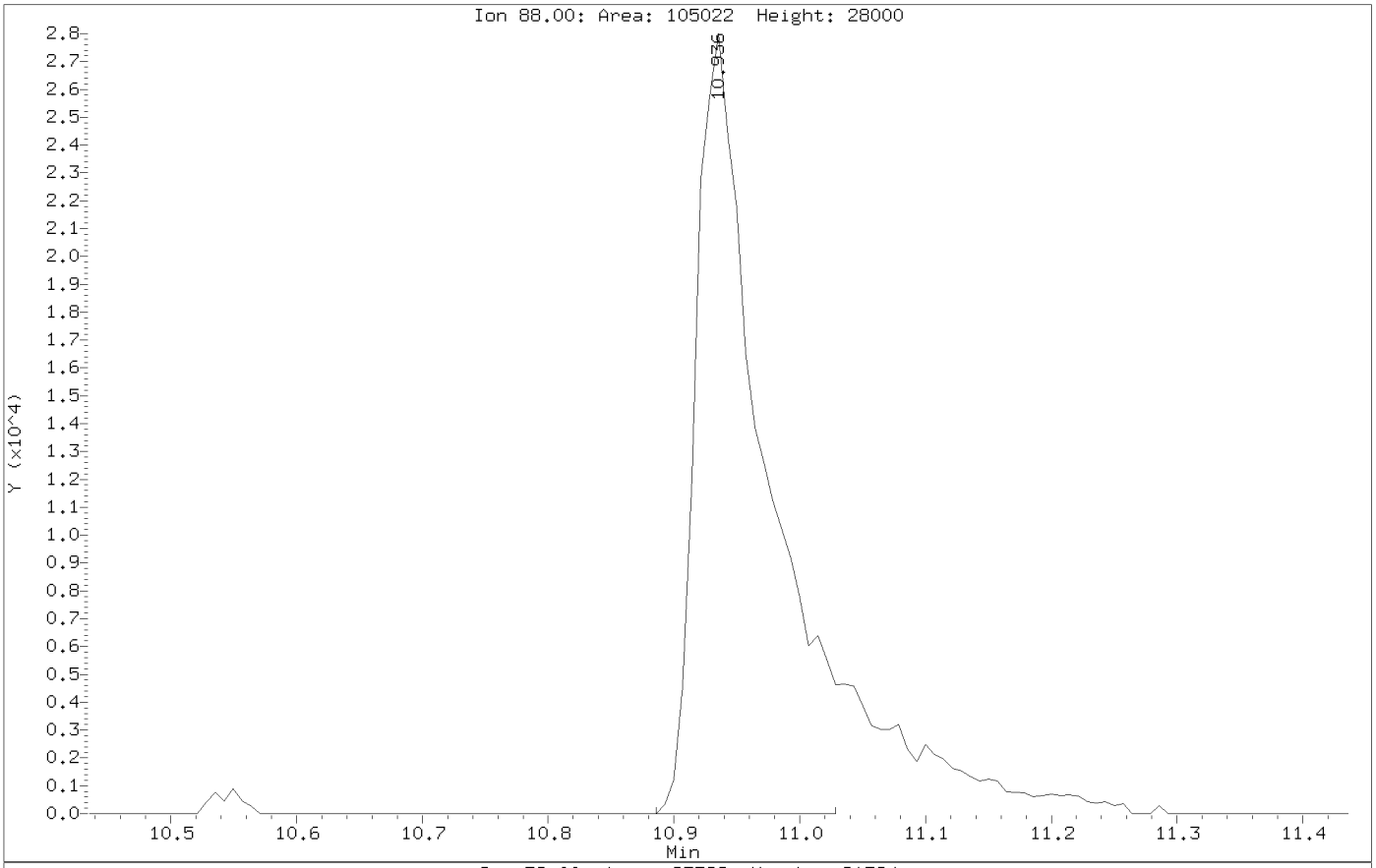

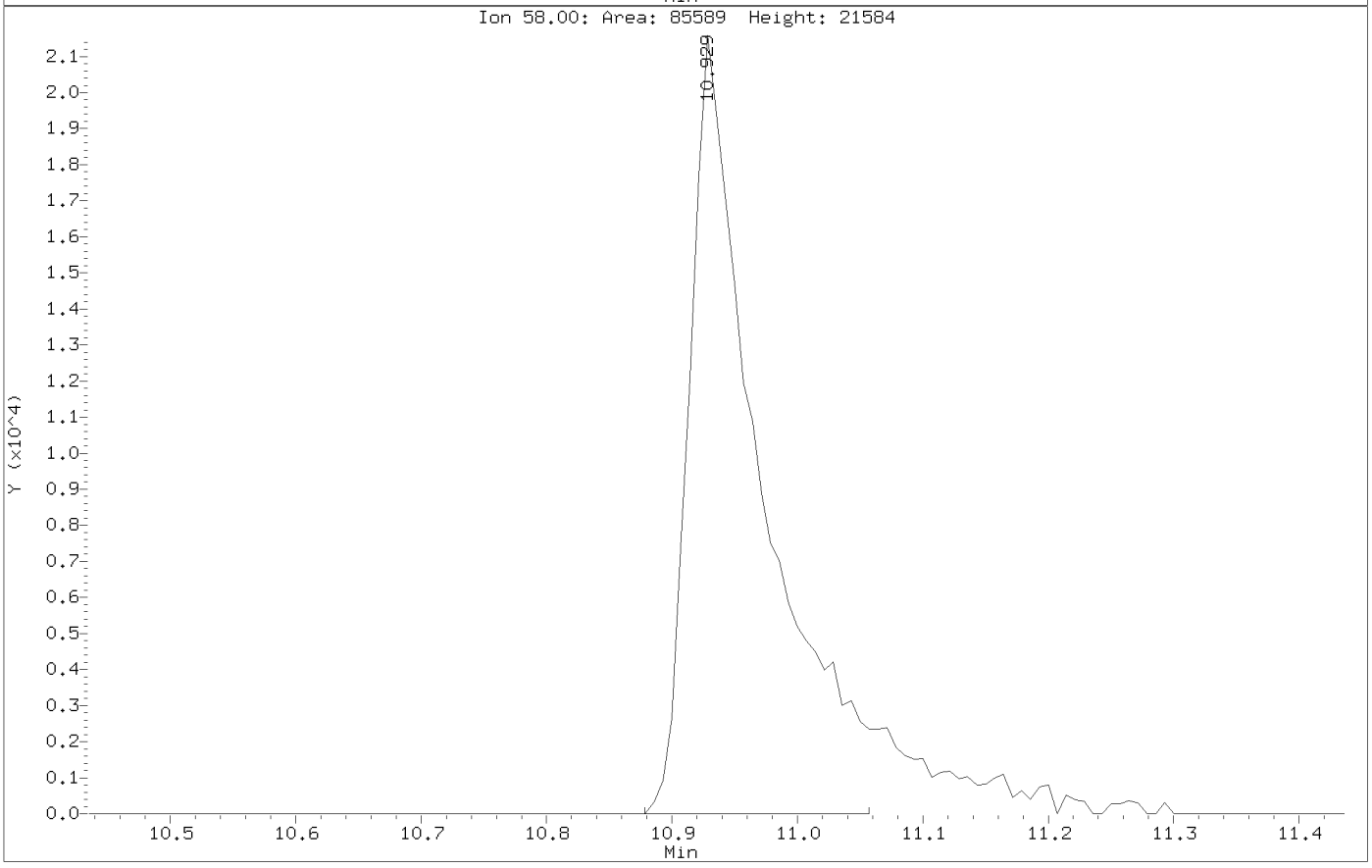

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Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

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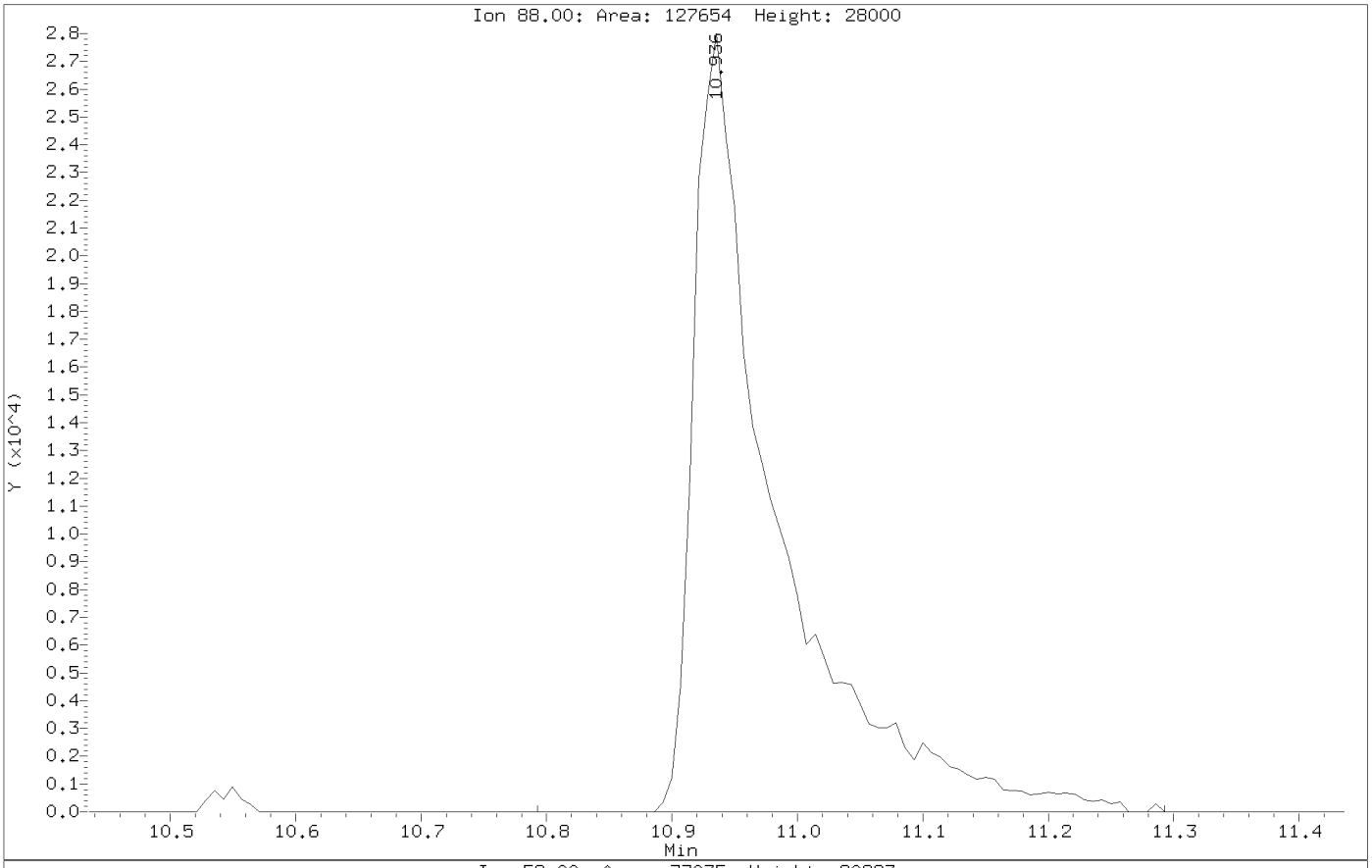

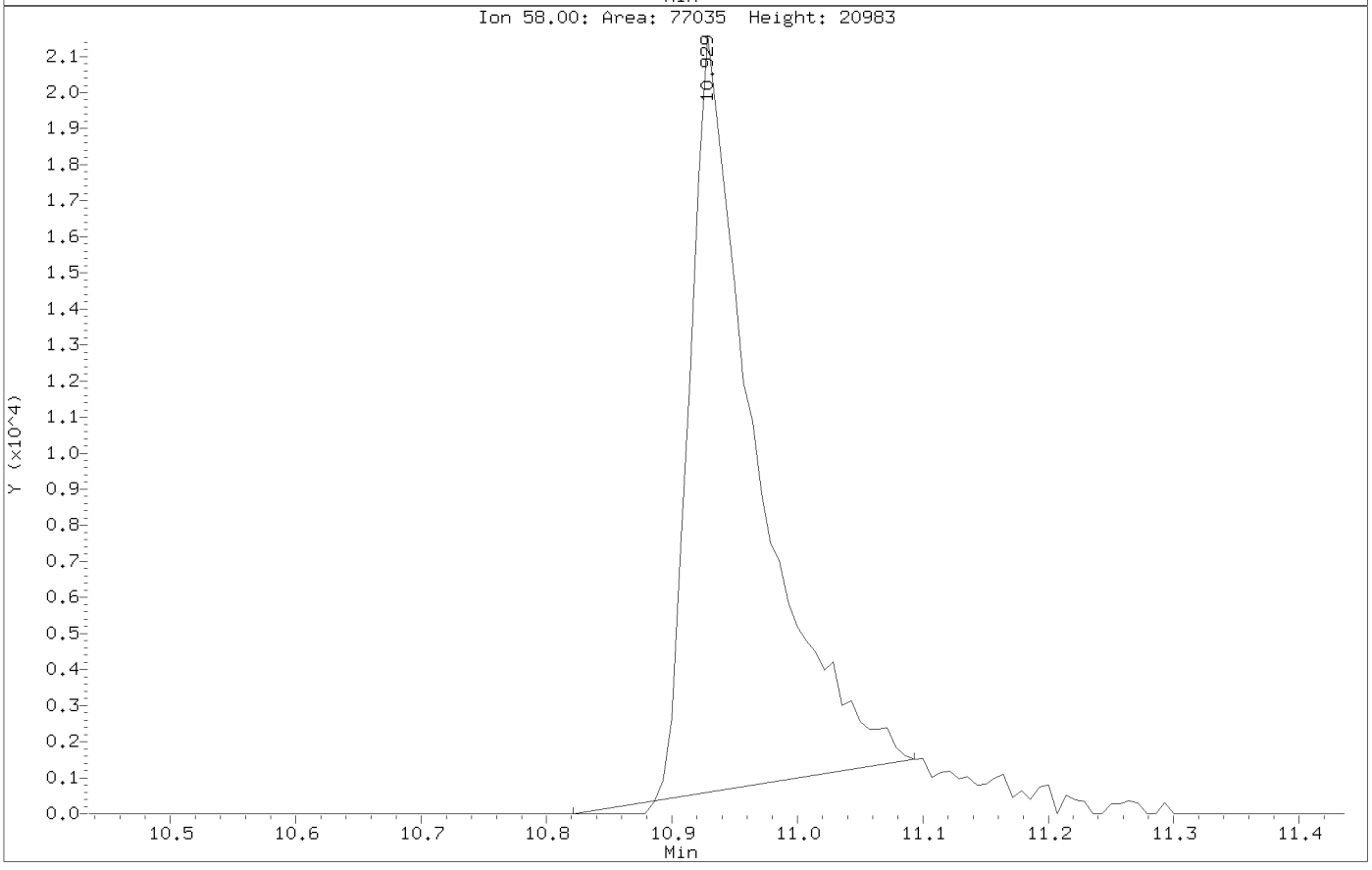

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Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

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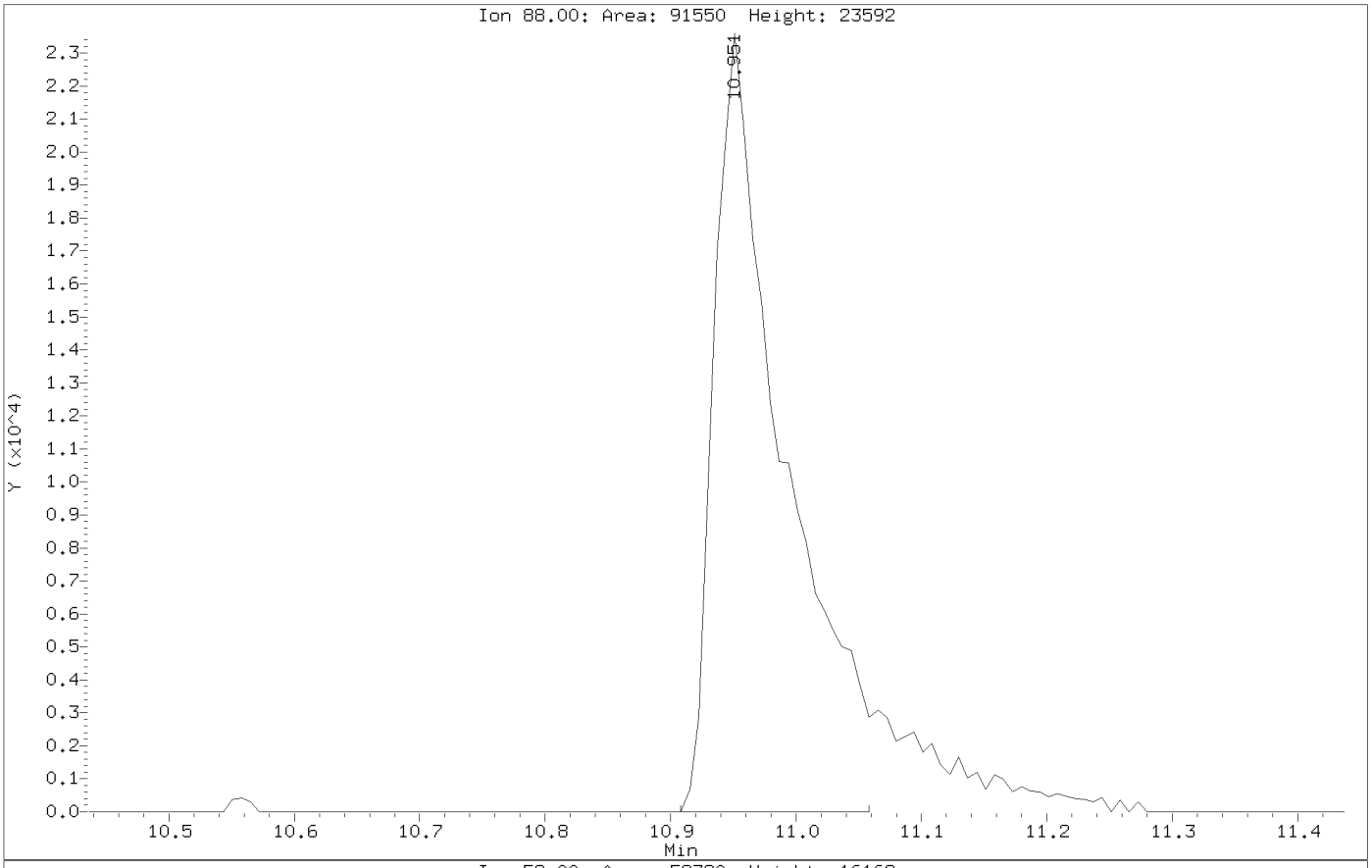

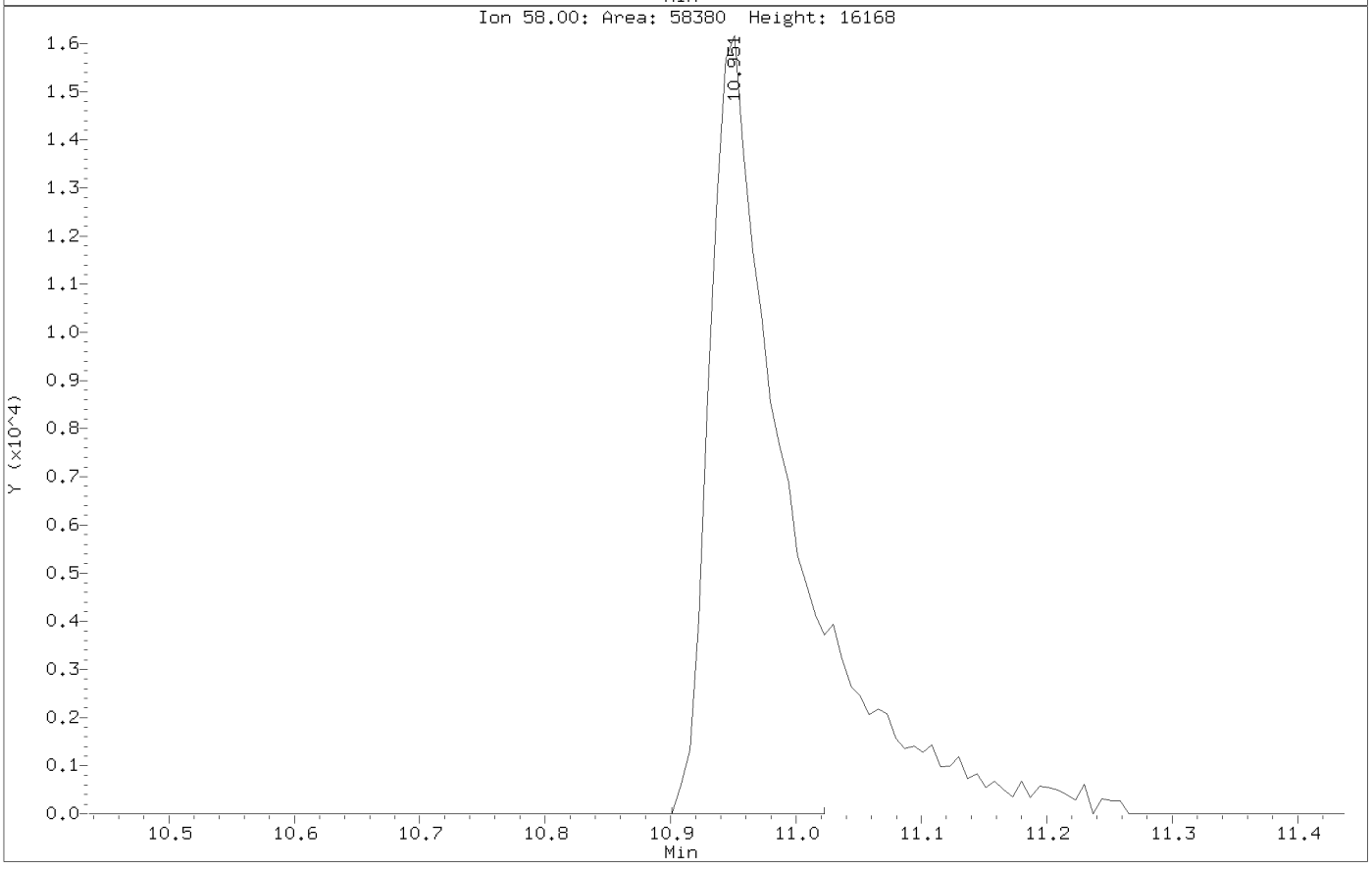

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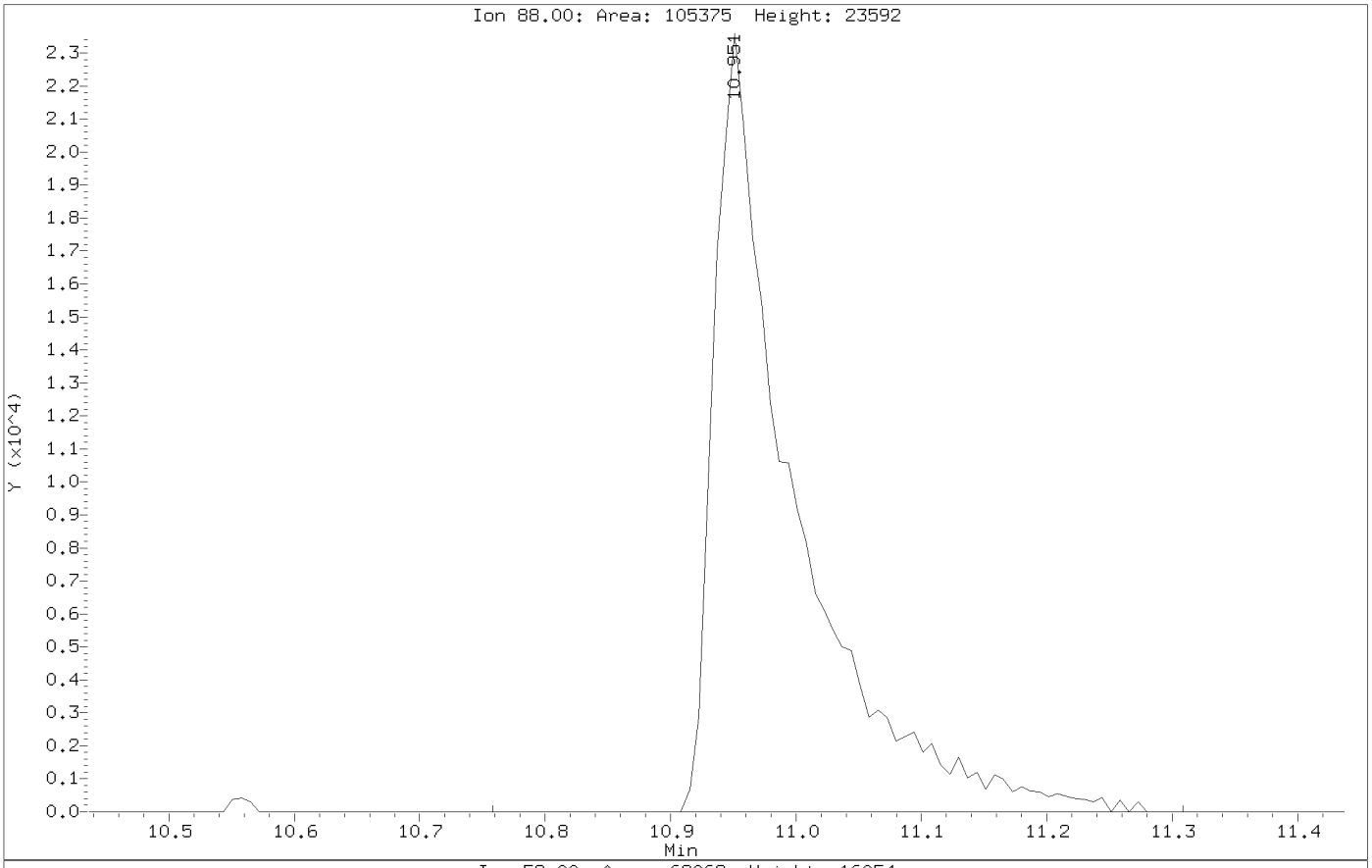
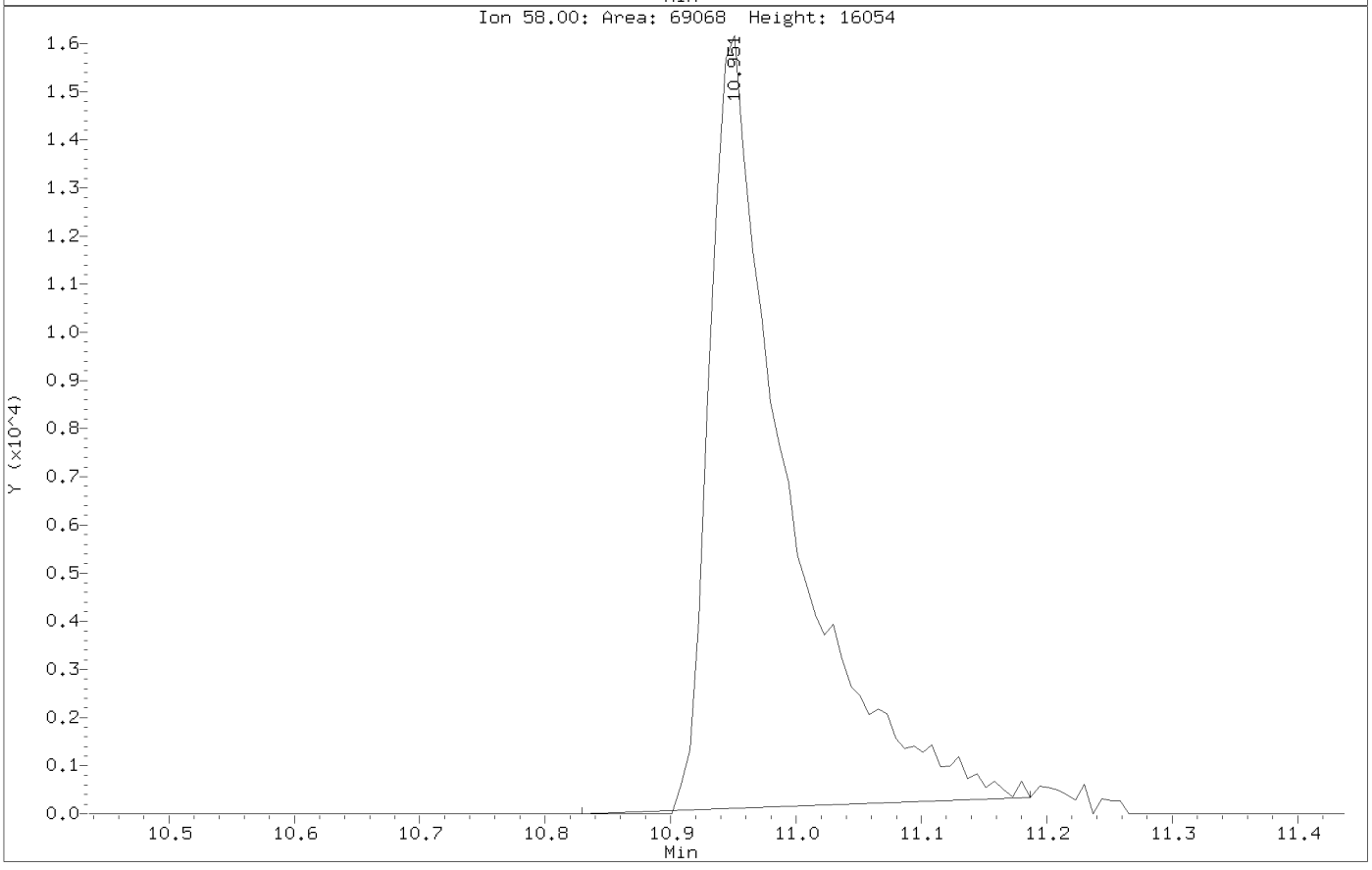
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

AFTER MANUAL INTEGRATION





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Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8

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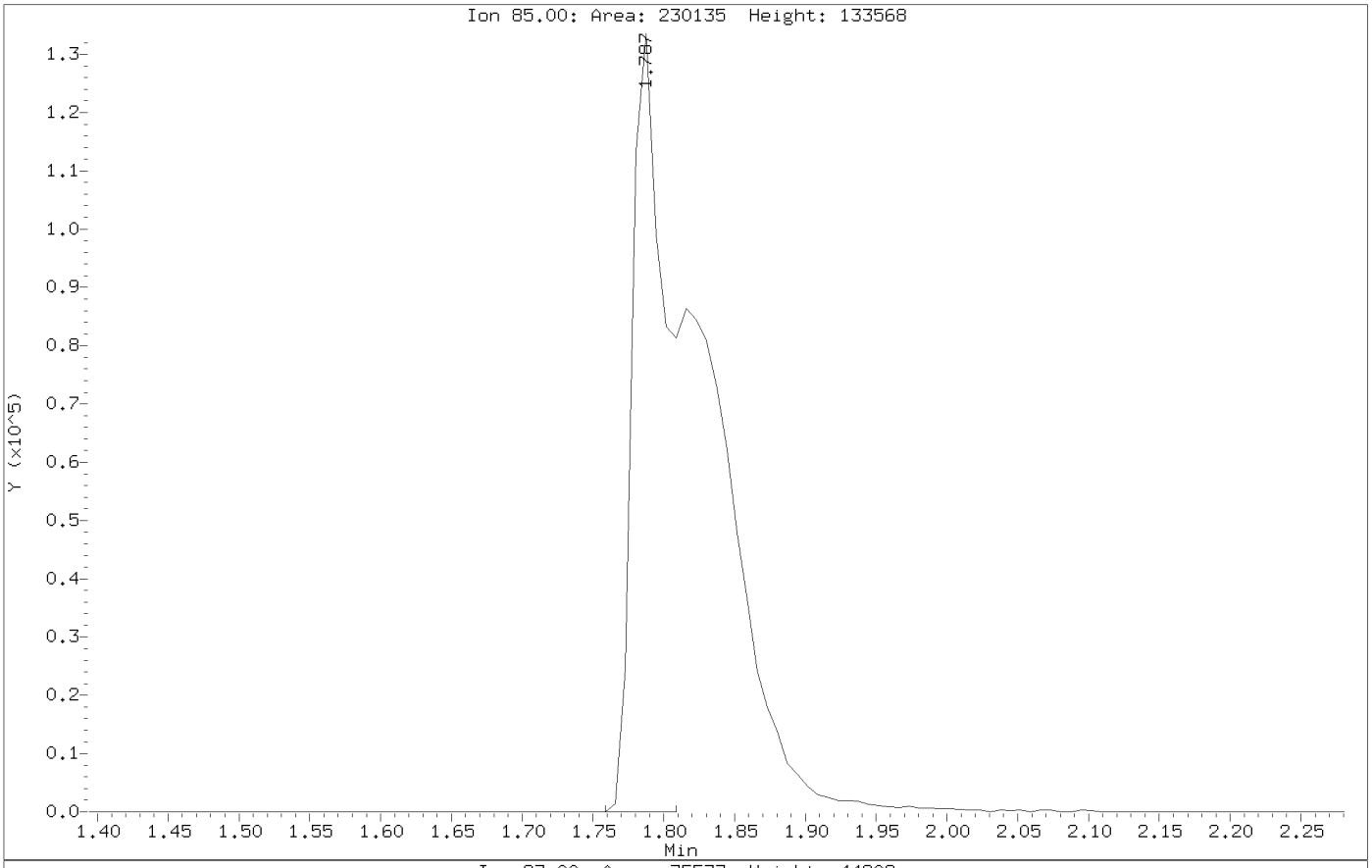

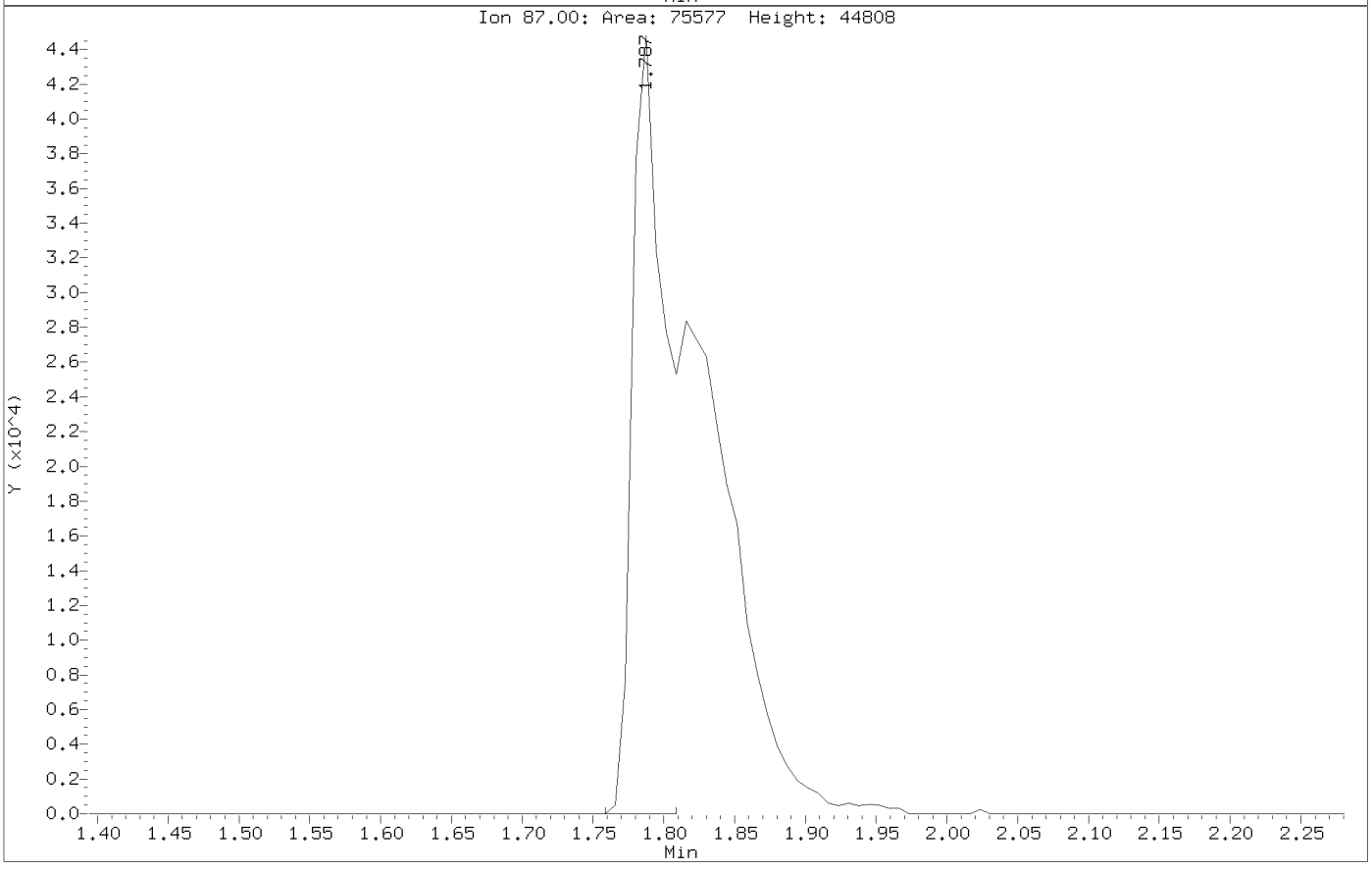

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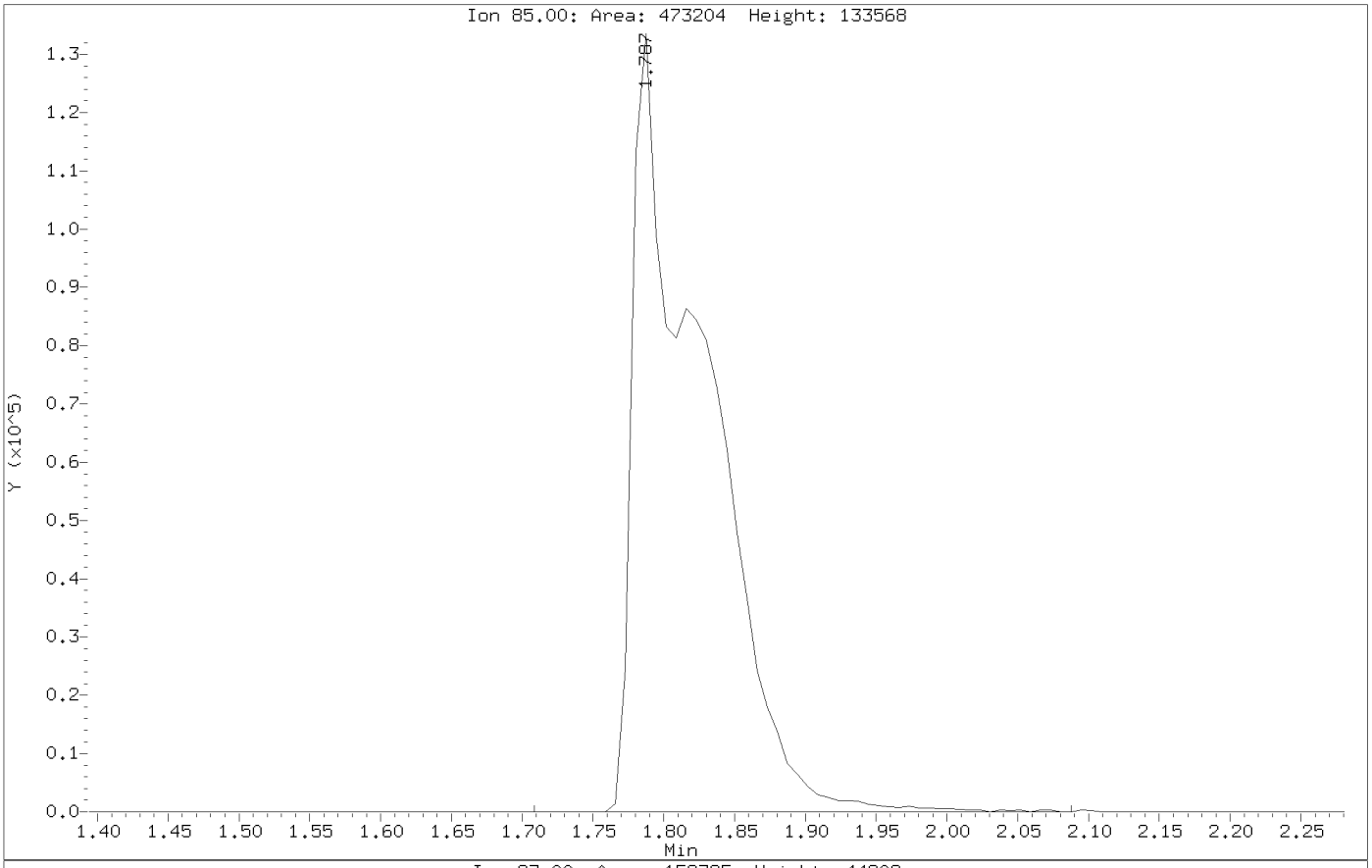
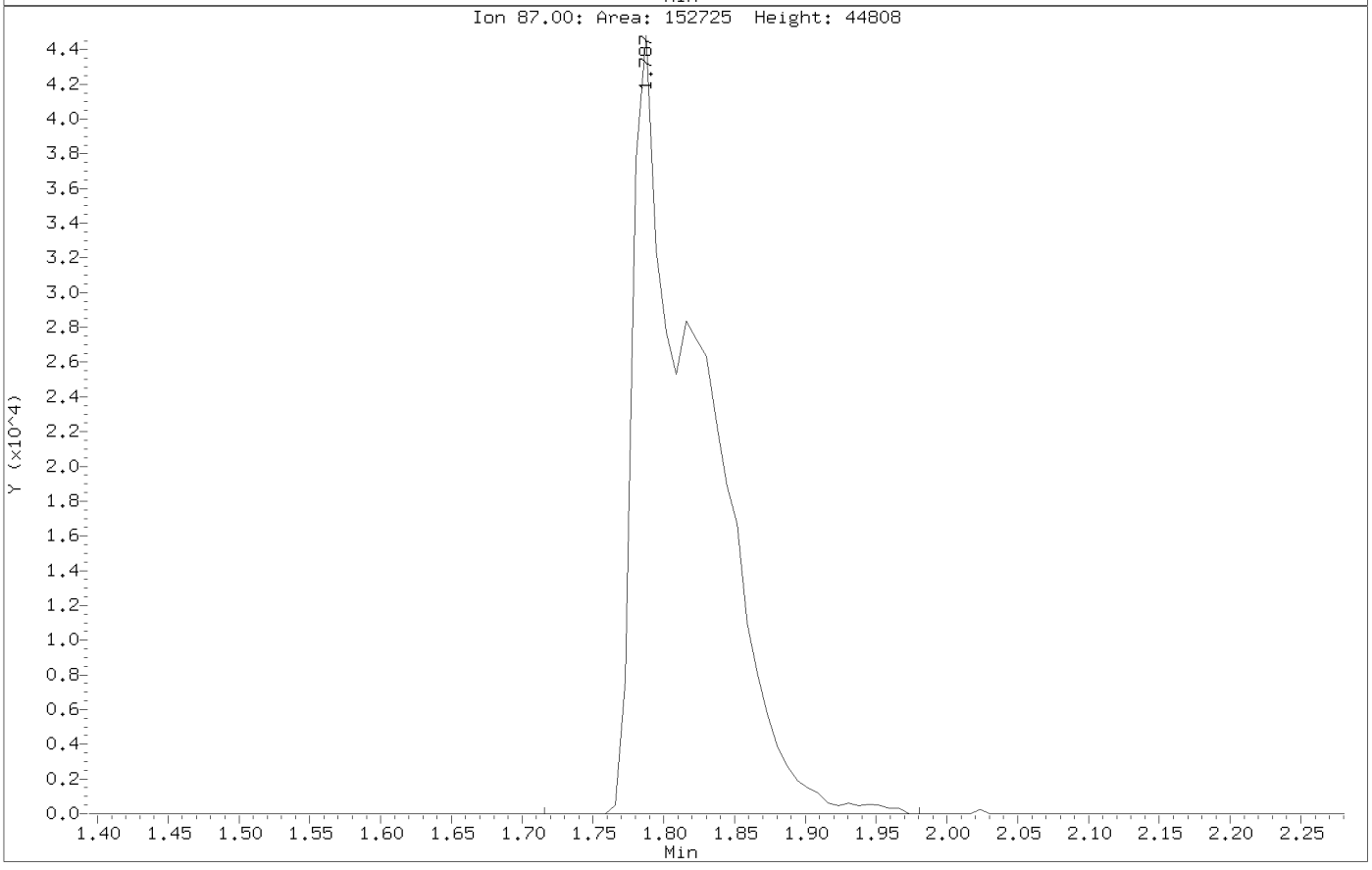
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8

AFTER MANUAL INTEGRATION





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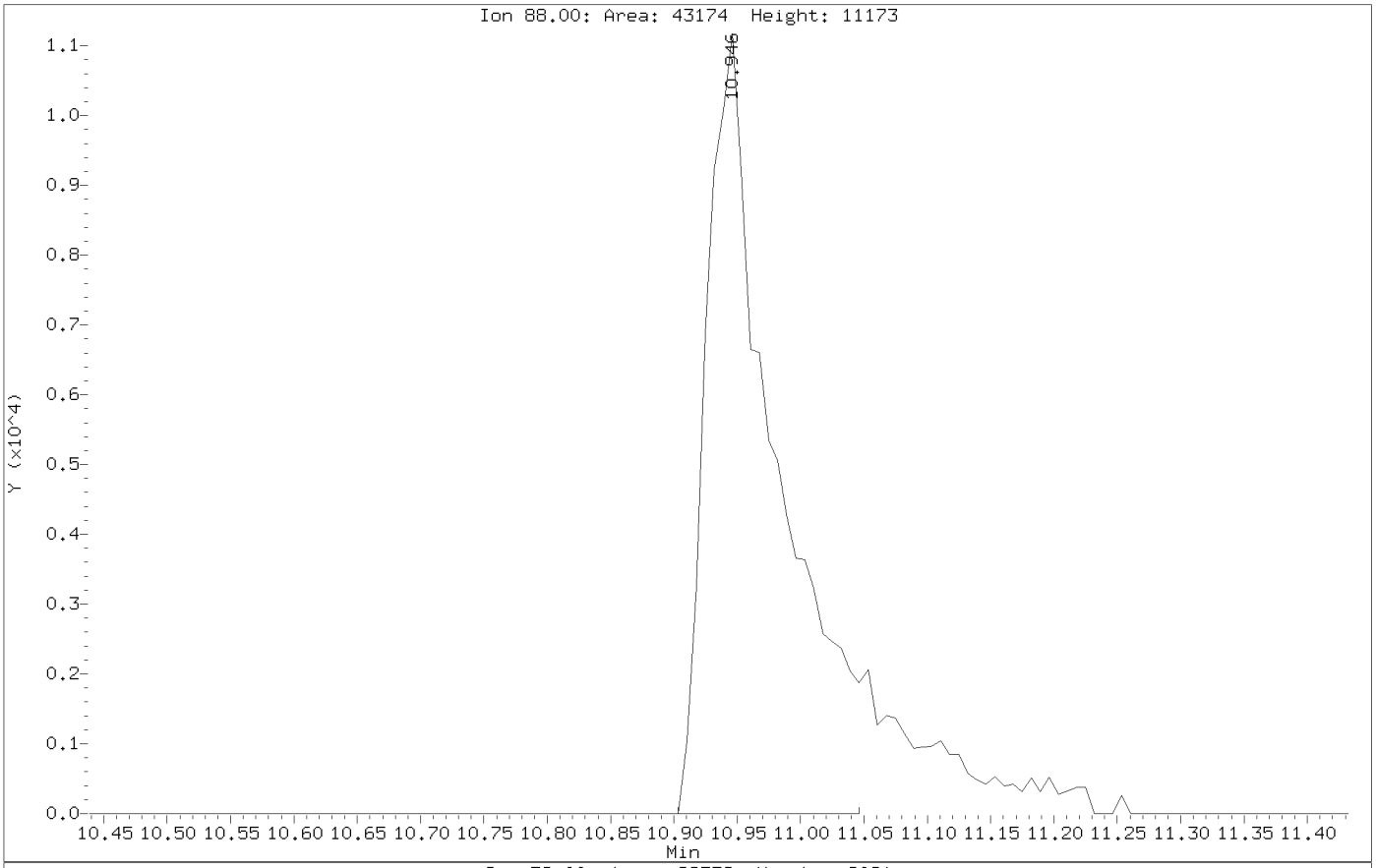
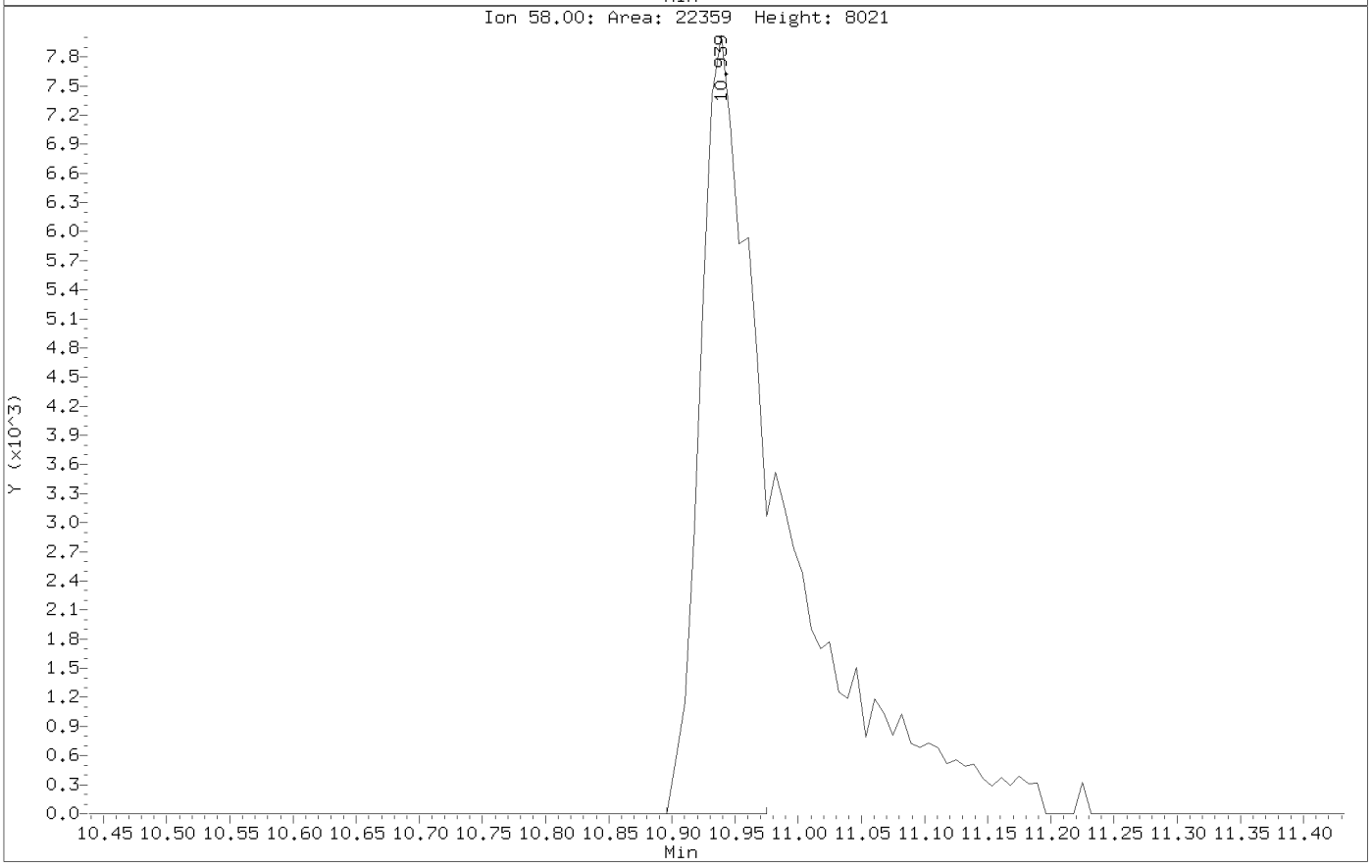
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

BEFORE MANUAL INTEGRATION





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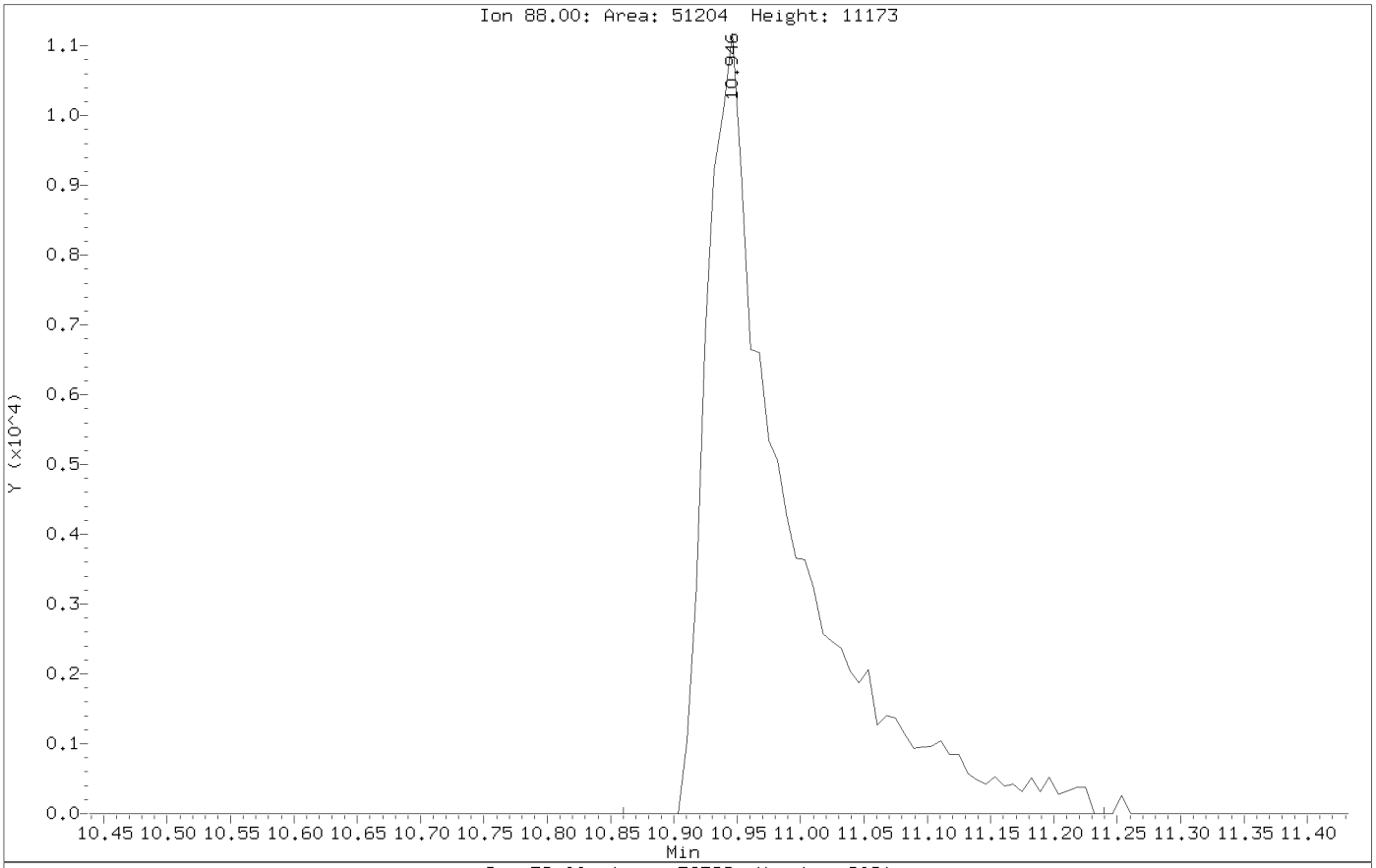
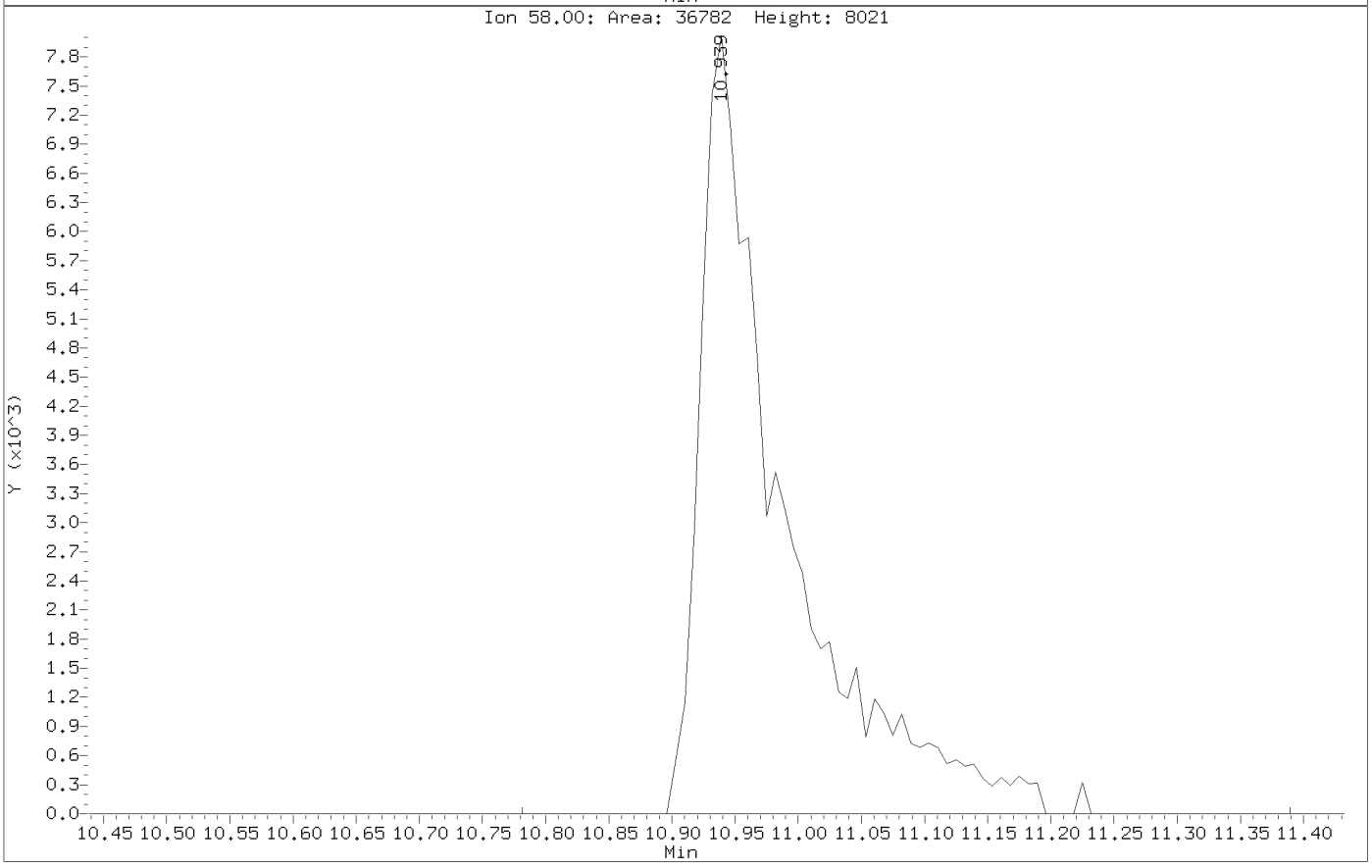
Injection Date: 10-JUN-2014 12:16
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

AFTER MANUAL INTEGRATION





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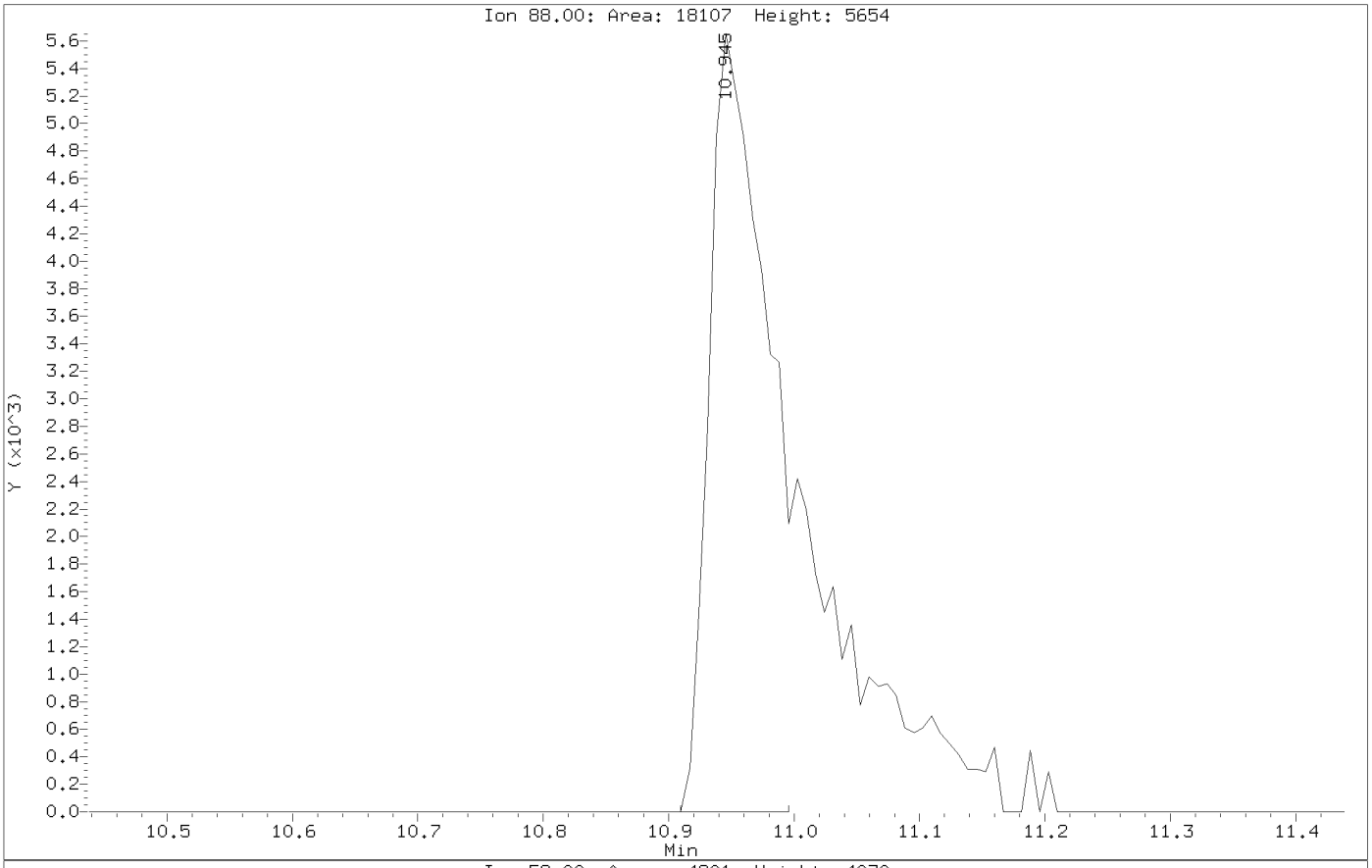
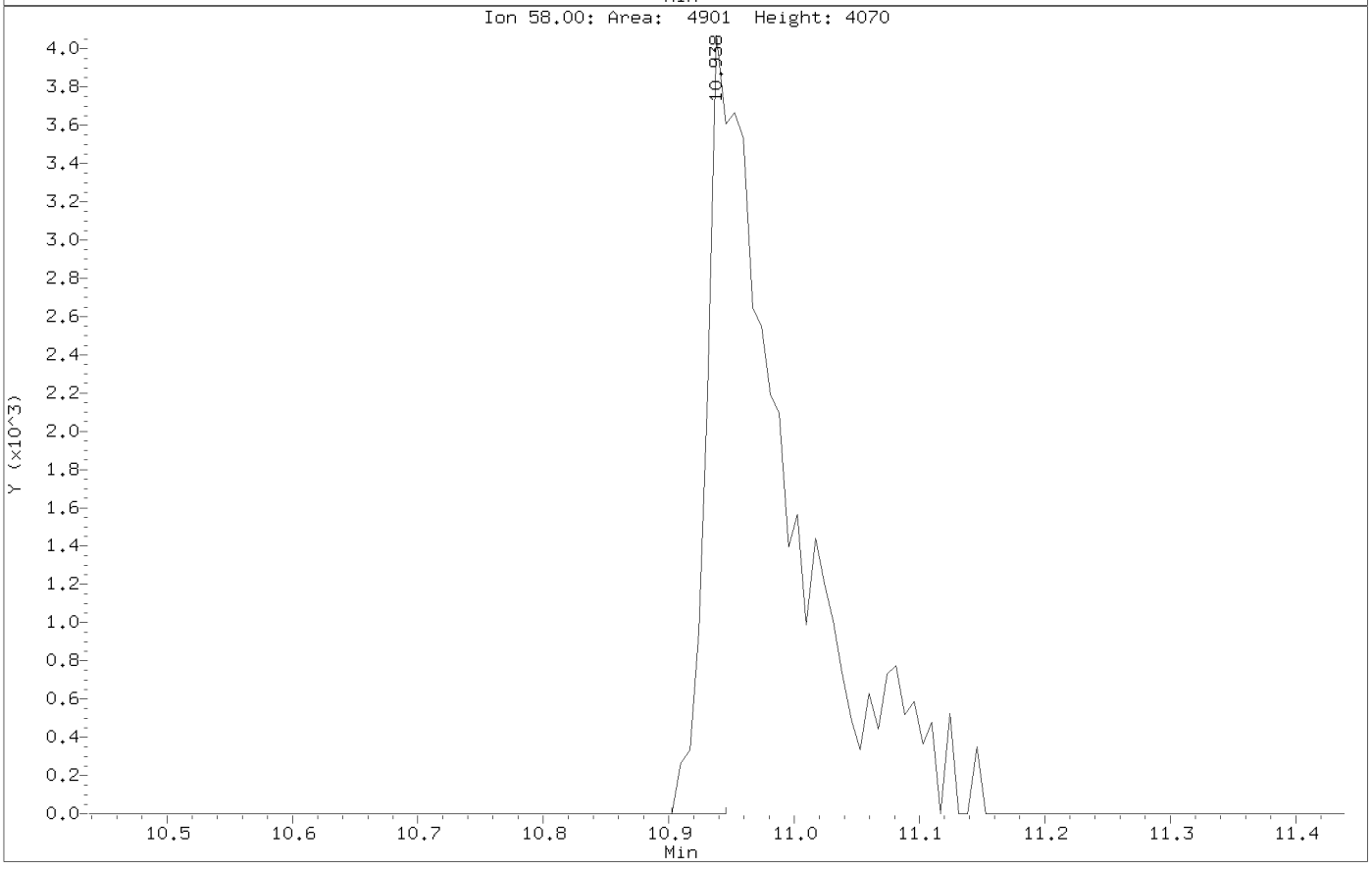
Injection Date: 10-JUN-2014 12:47
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

BEFORE MANUAL INTEGRATION





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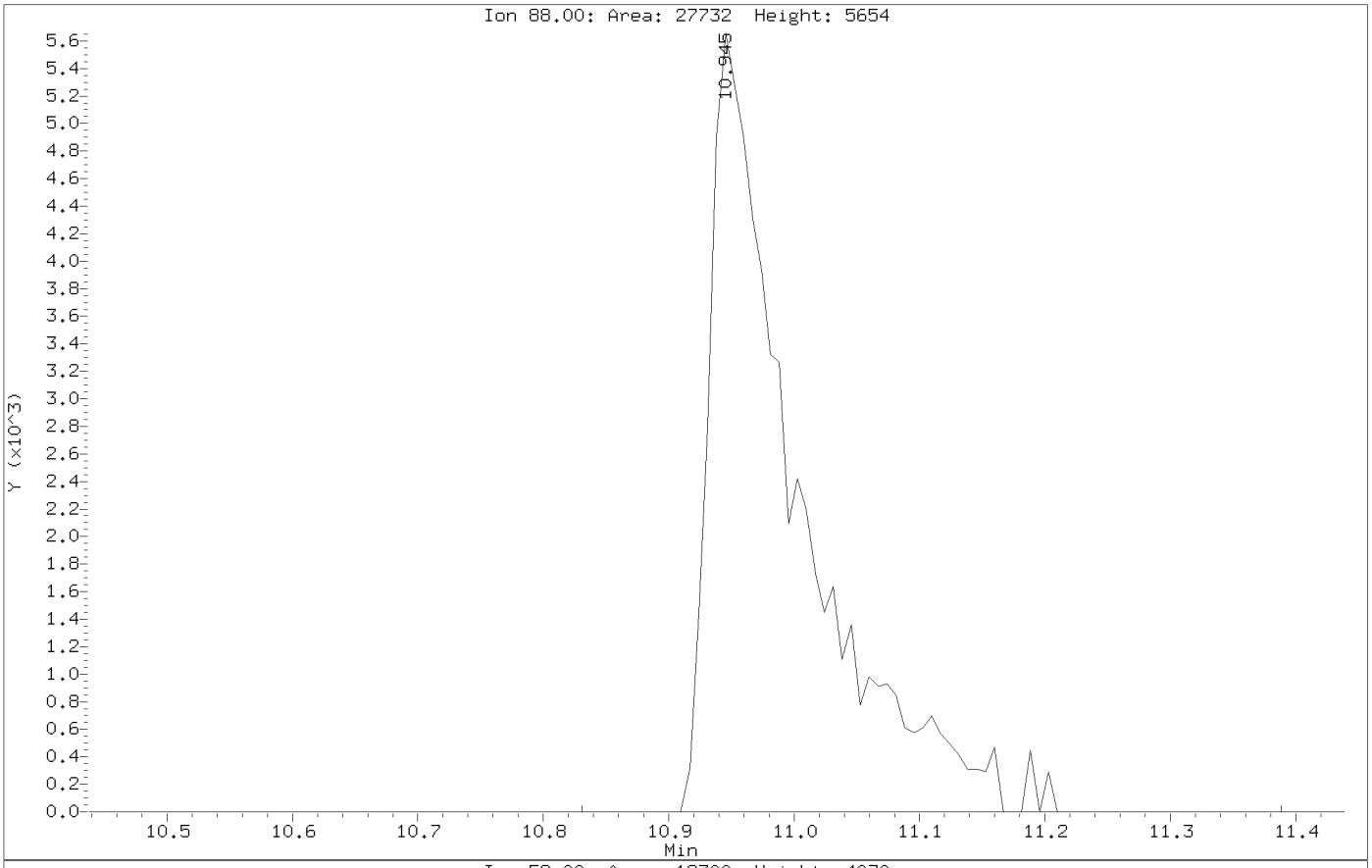
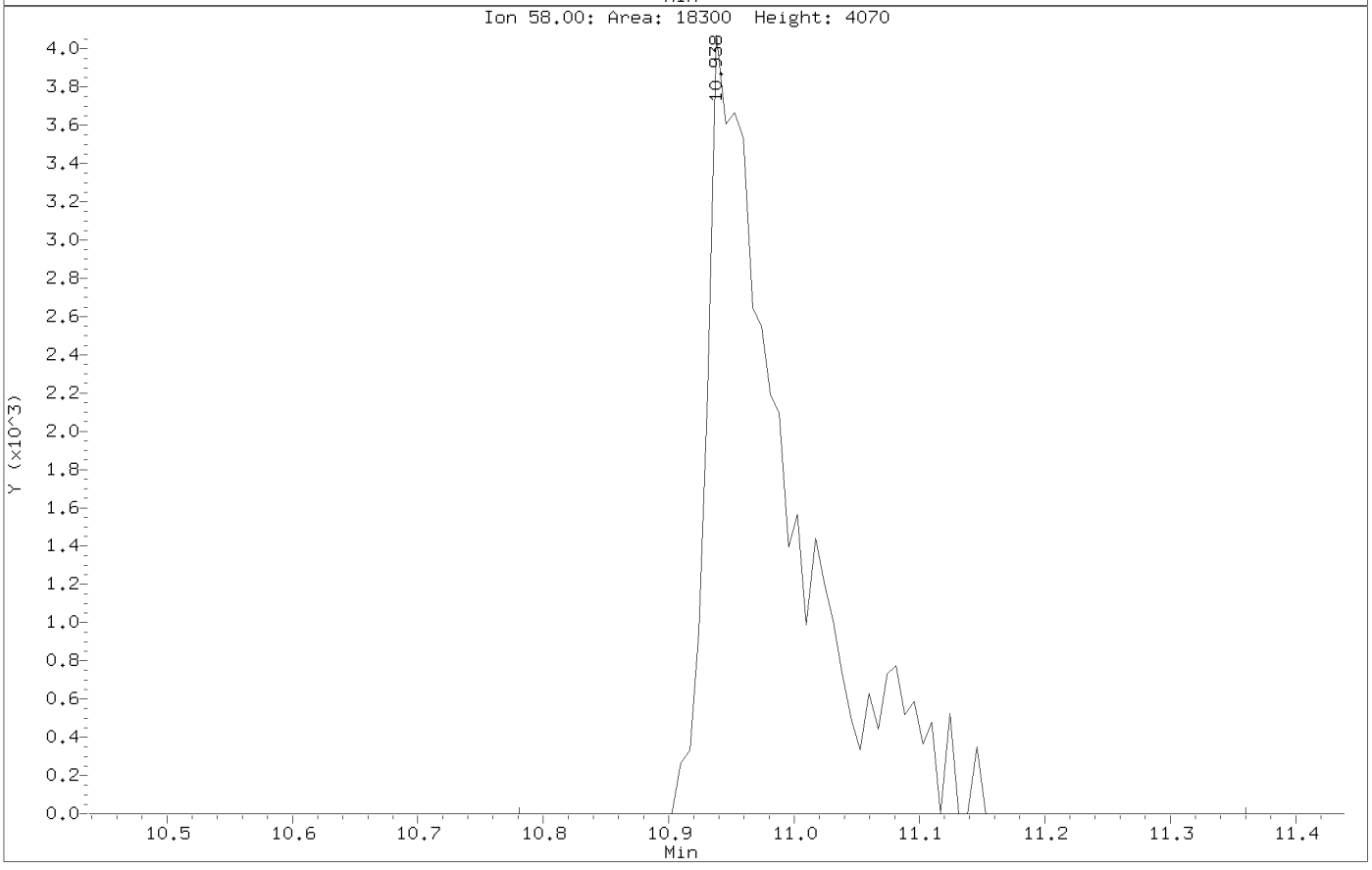
Injection Date: 10-JUN-2014 12:47
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

AFTER MANUAL INTEGRATION

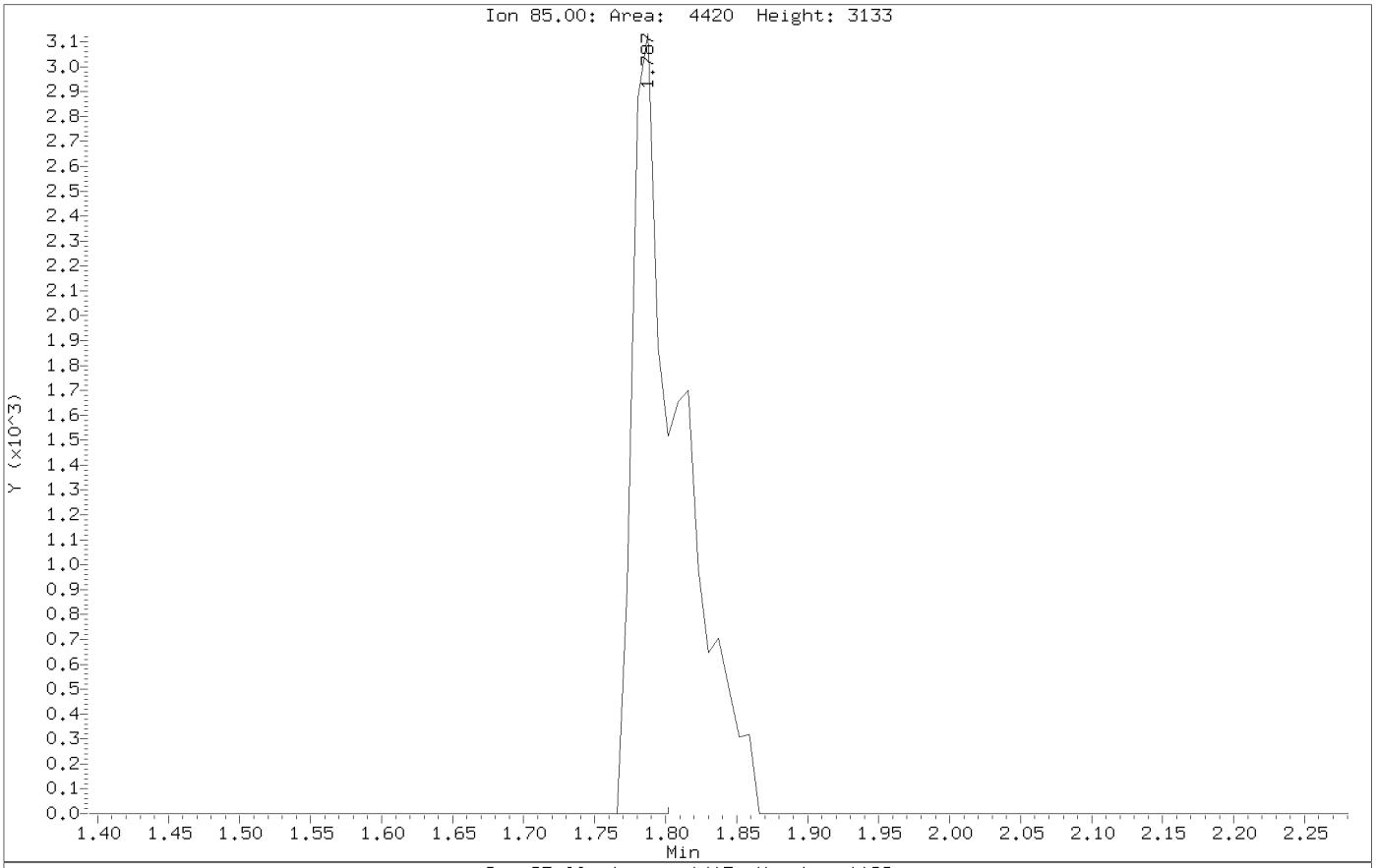


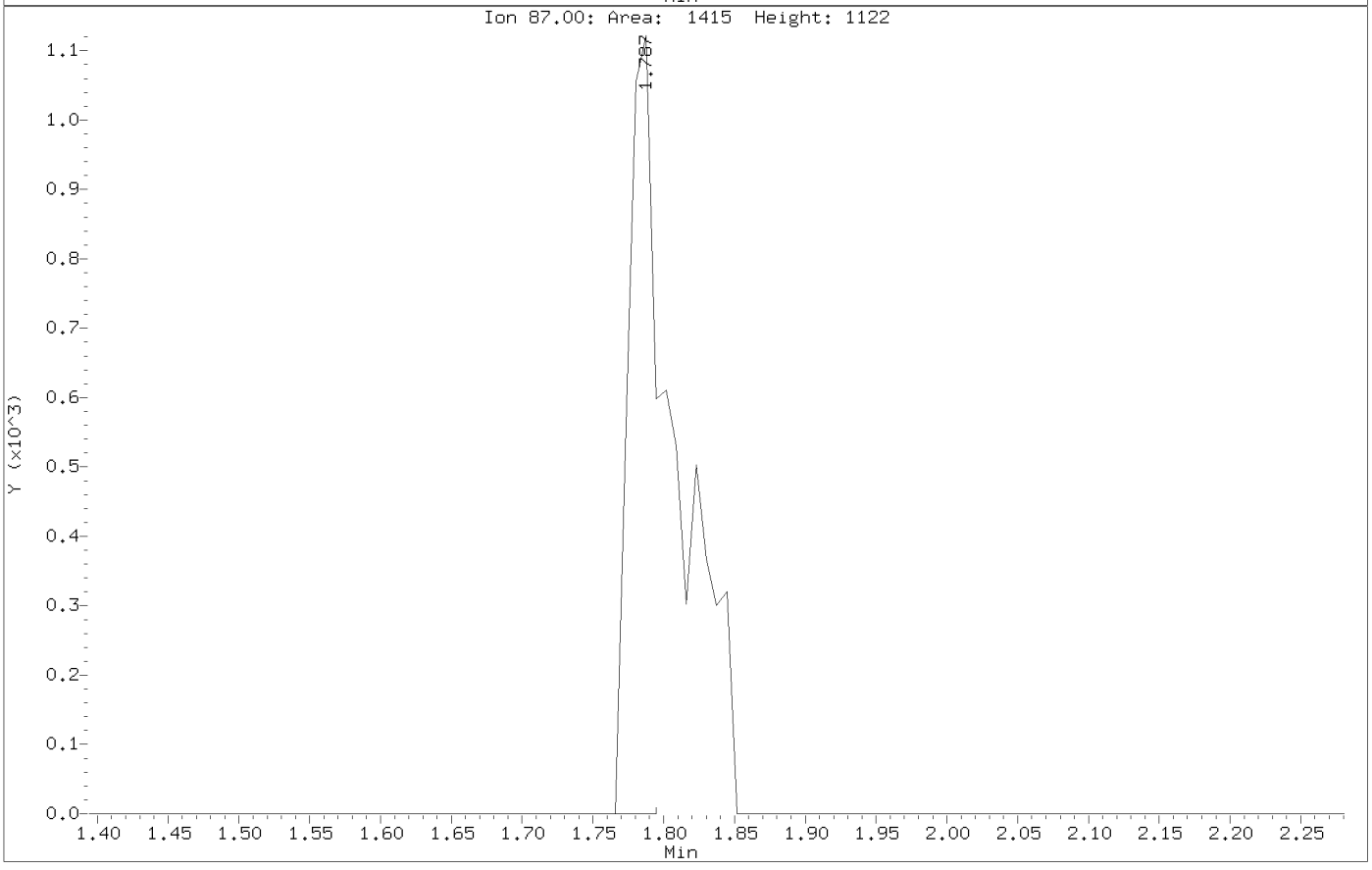


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8

BEFORE MANUAL INTEGRATION





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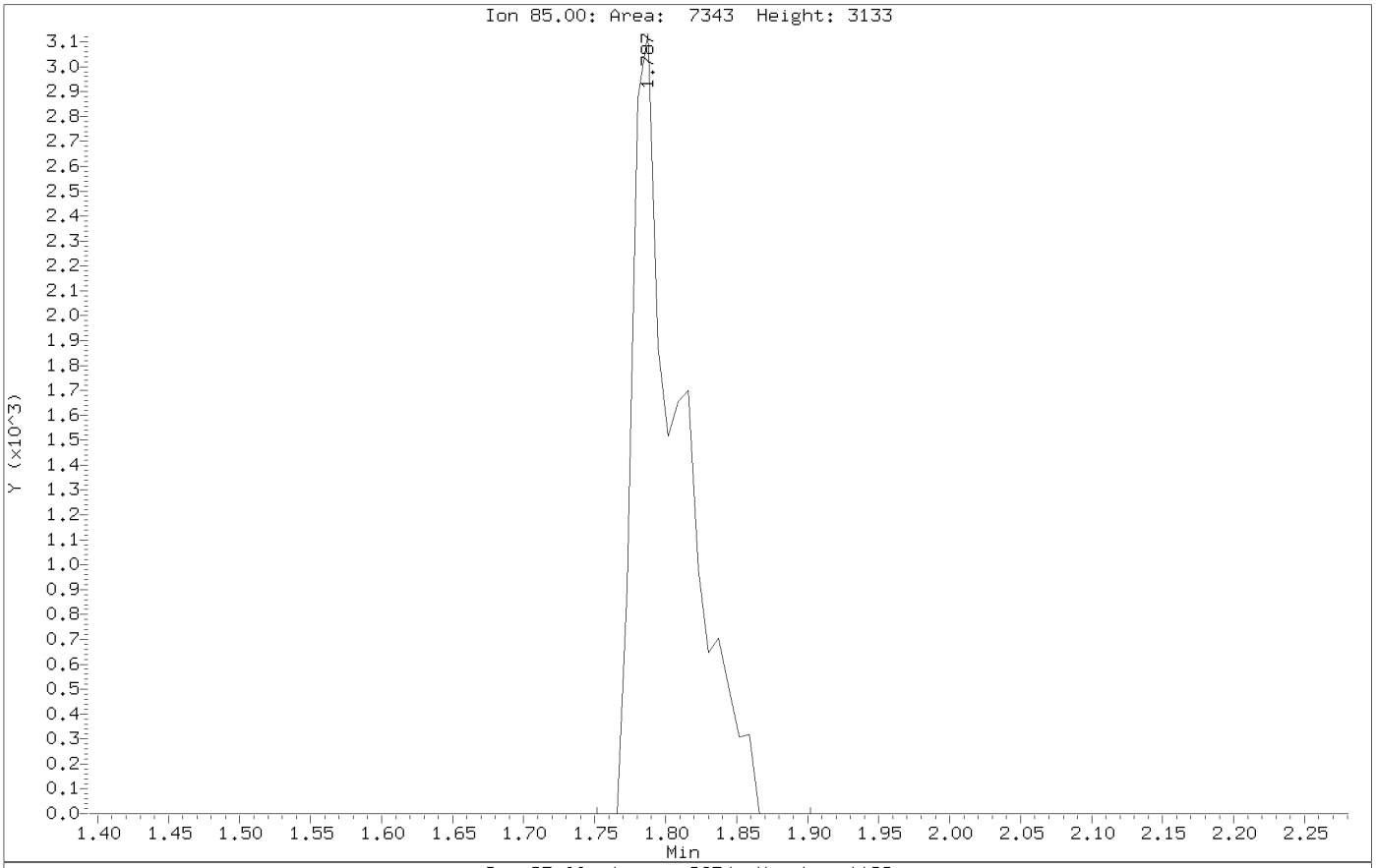
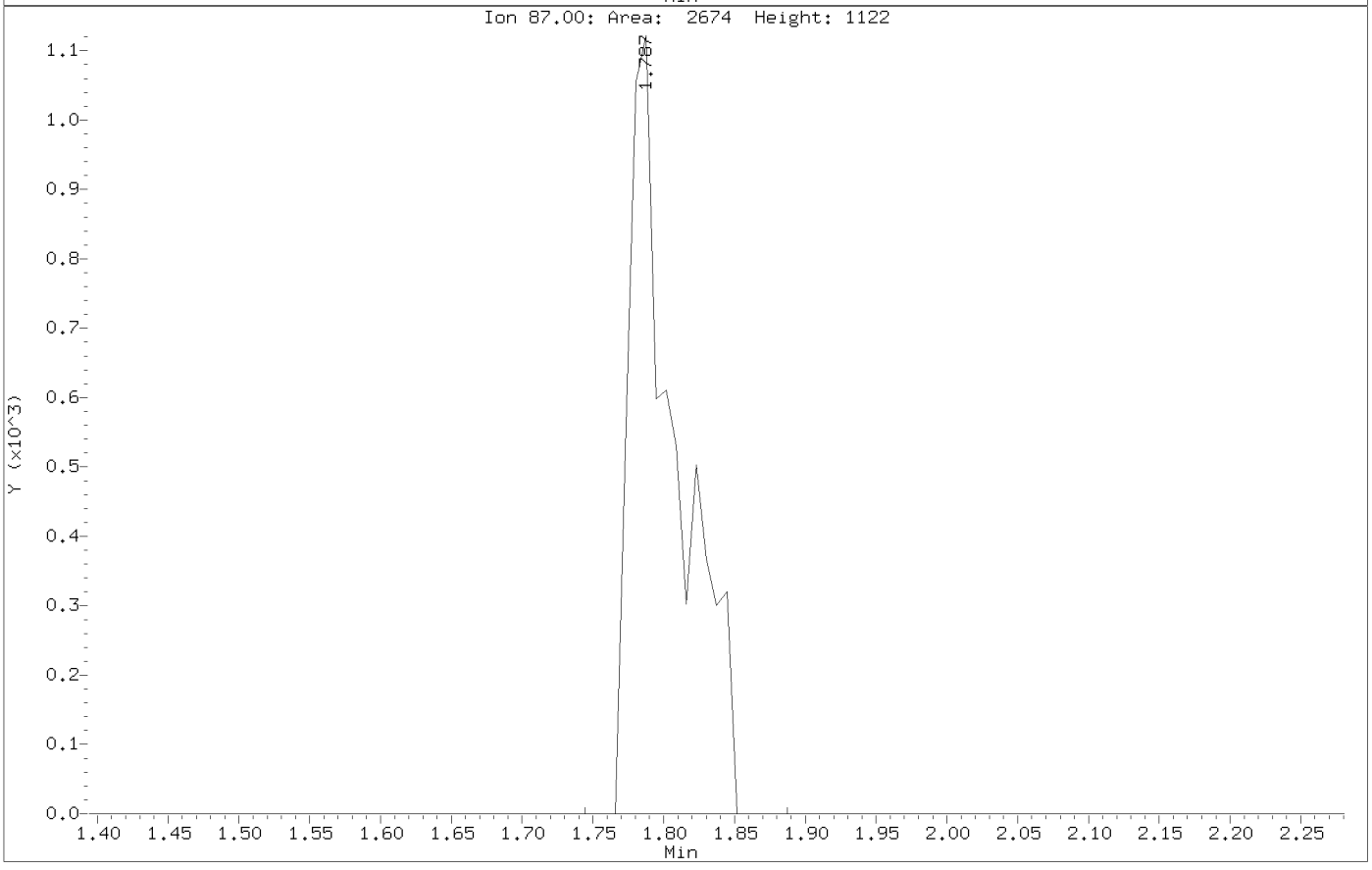
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Dichlorodifluoromethane
CAS Number: 75-71-8

AFTER MANUAL INTEGRATION





Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Injection Date: 10-JUN-2014 13:18
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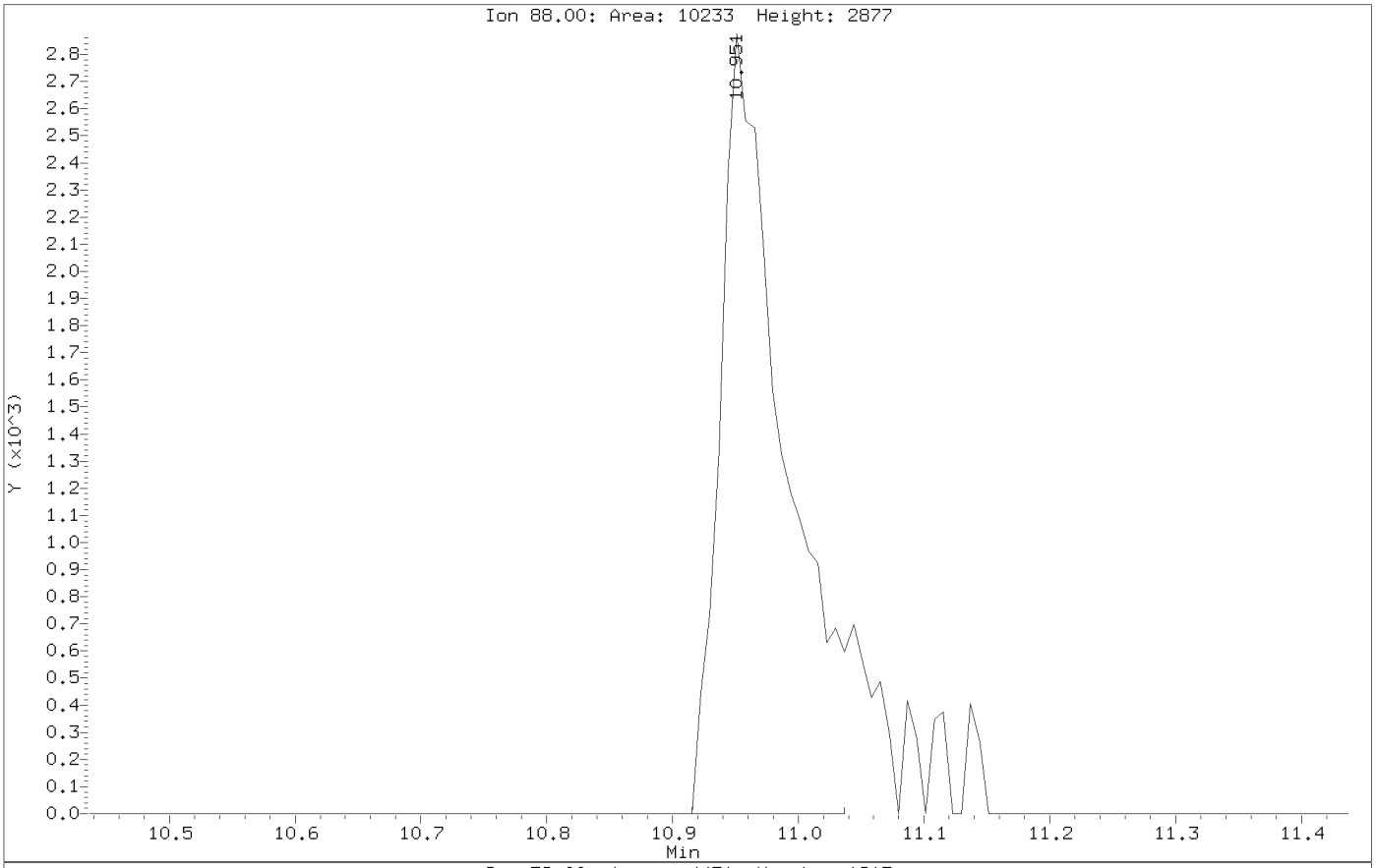
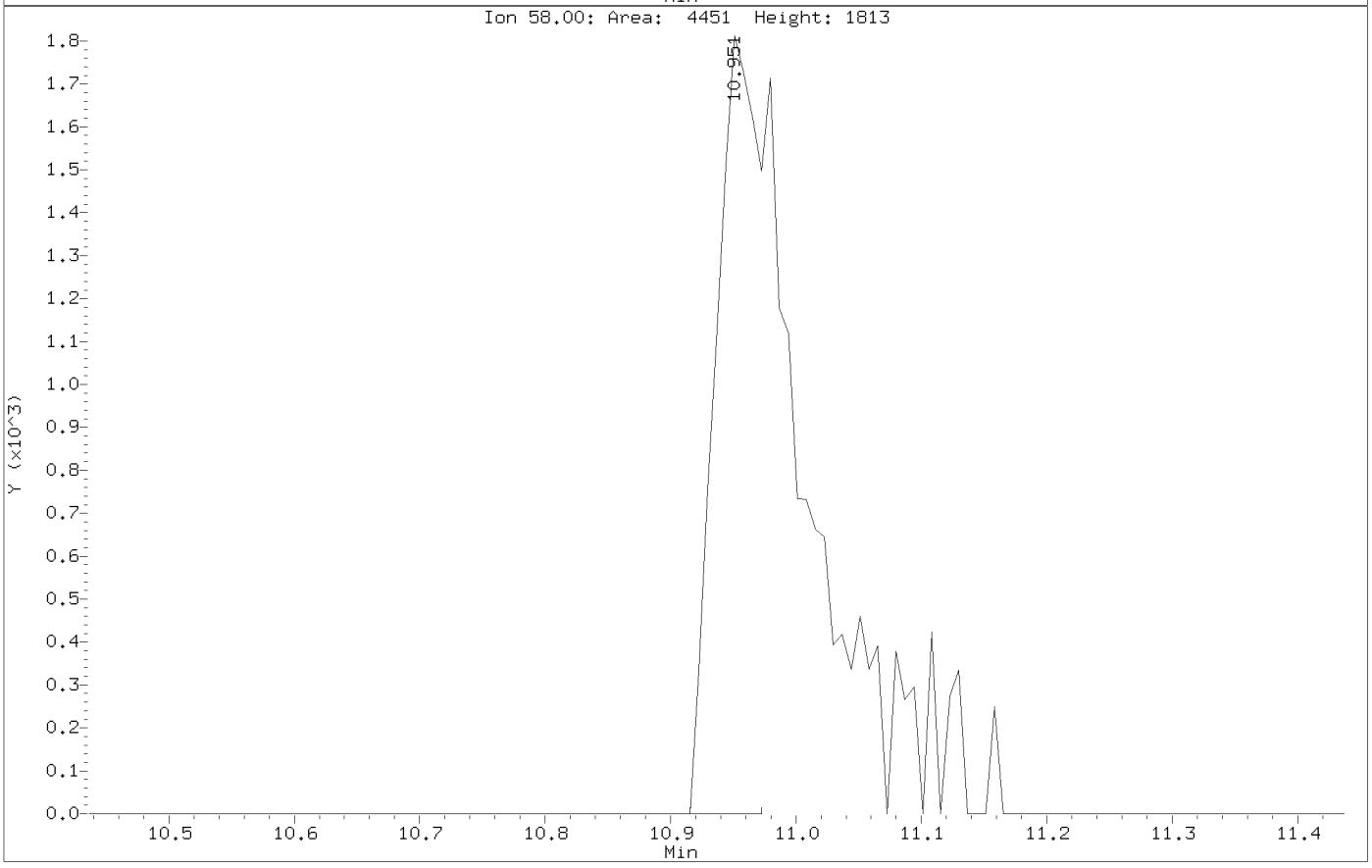
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

BEFORE MANUAL INTEGRATION





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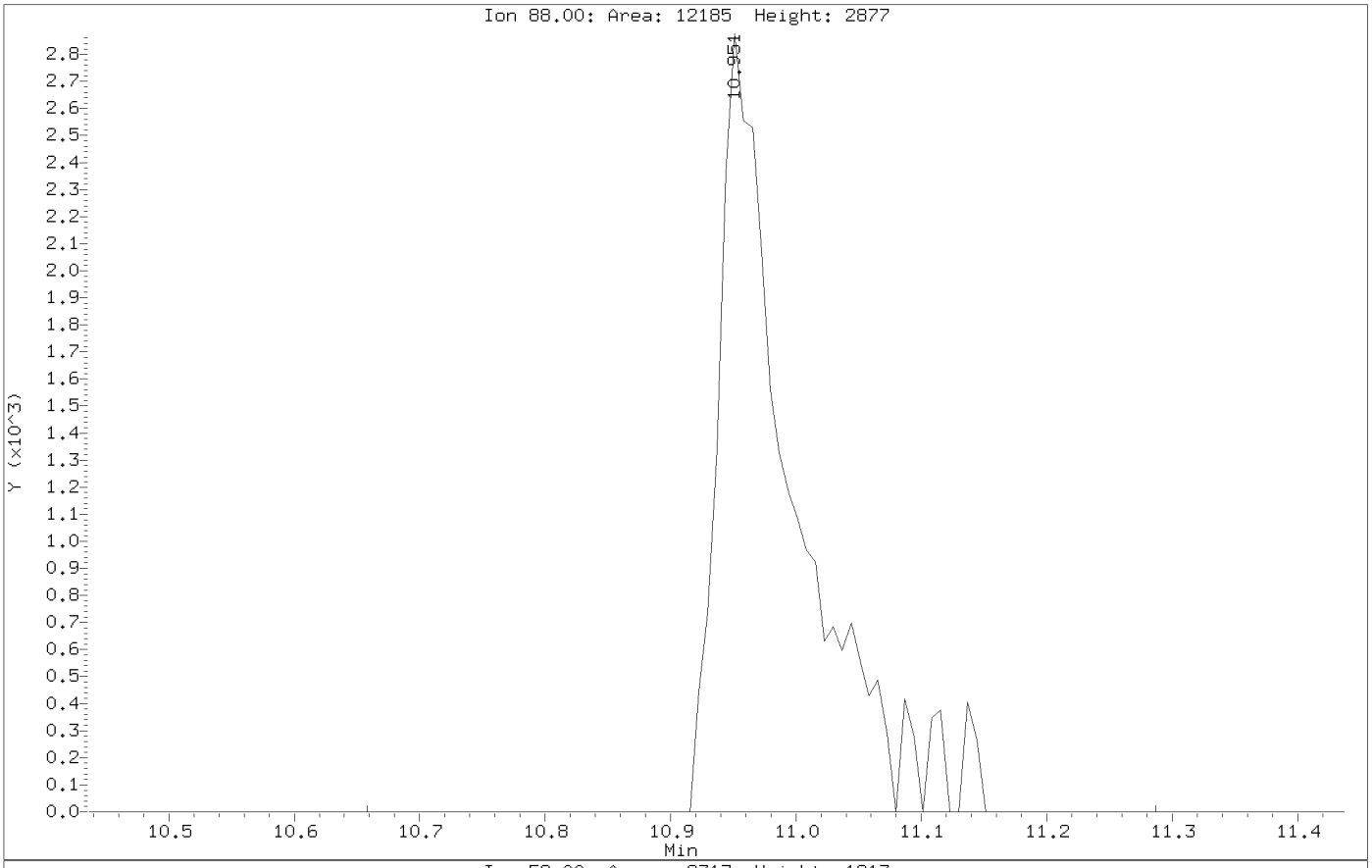
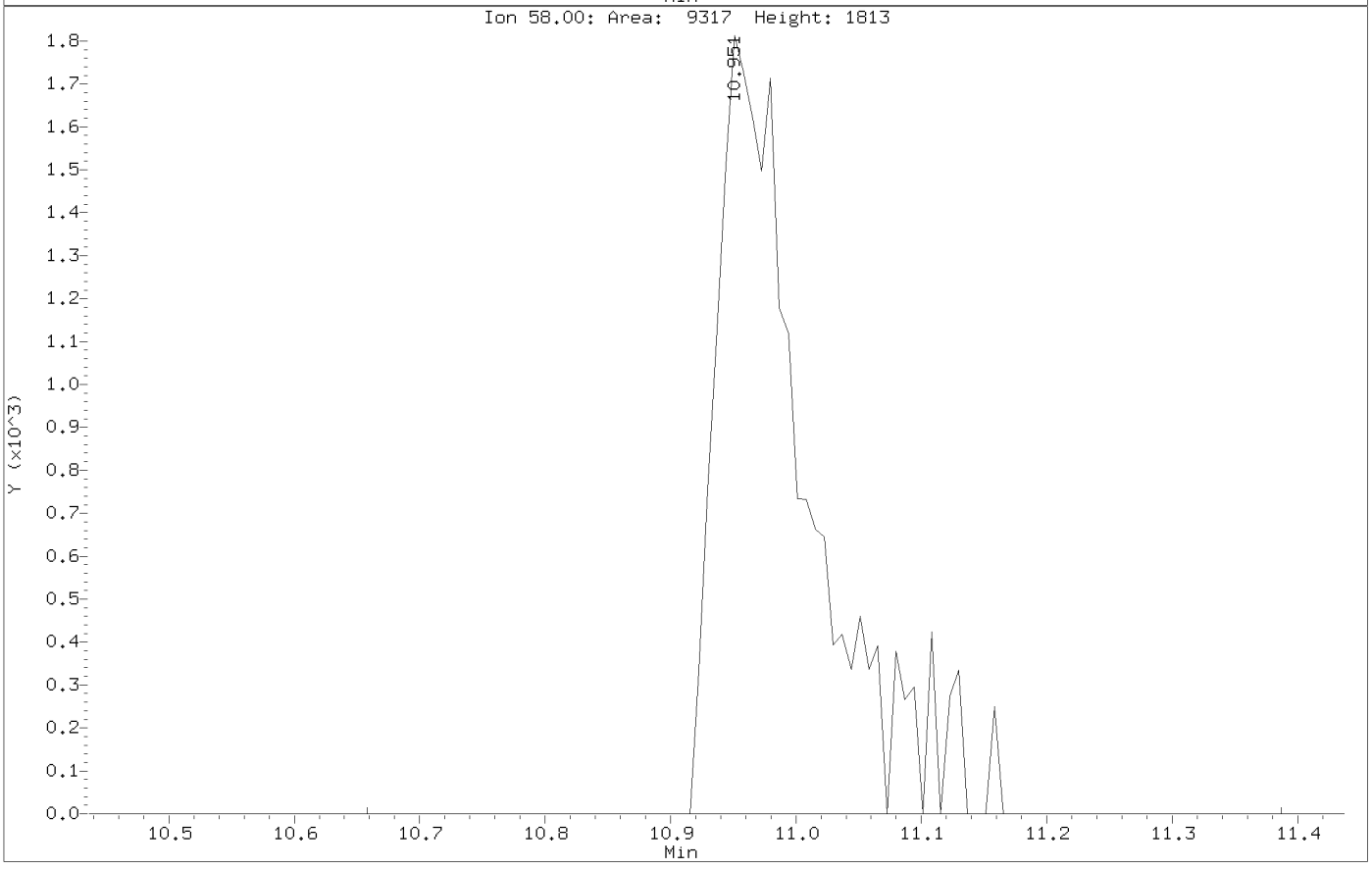
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

AFTER MANUAL INTEGRATION





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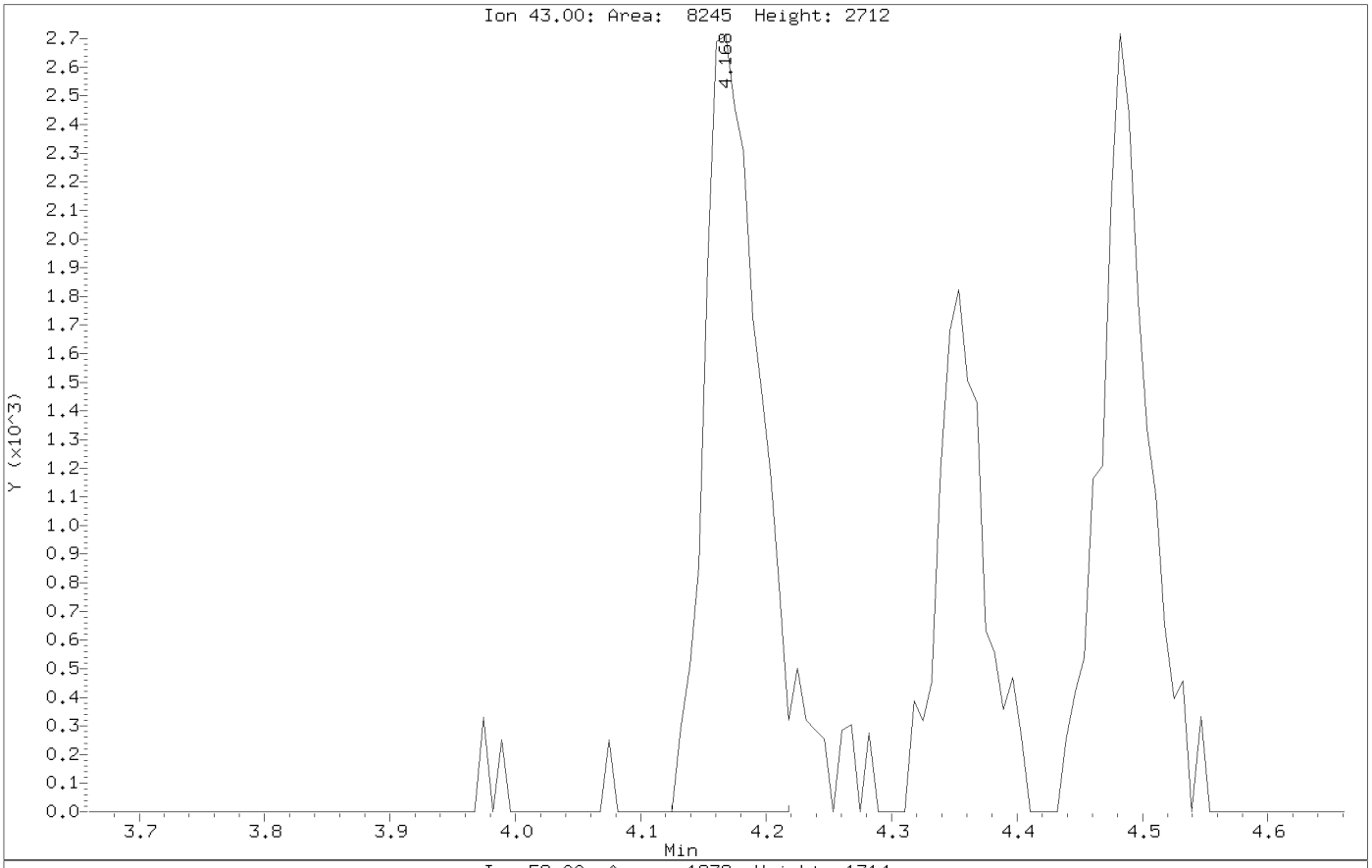
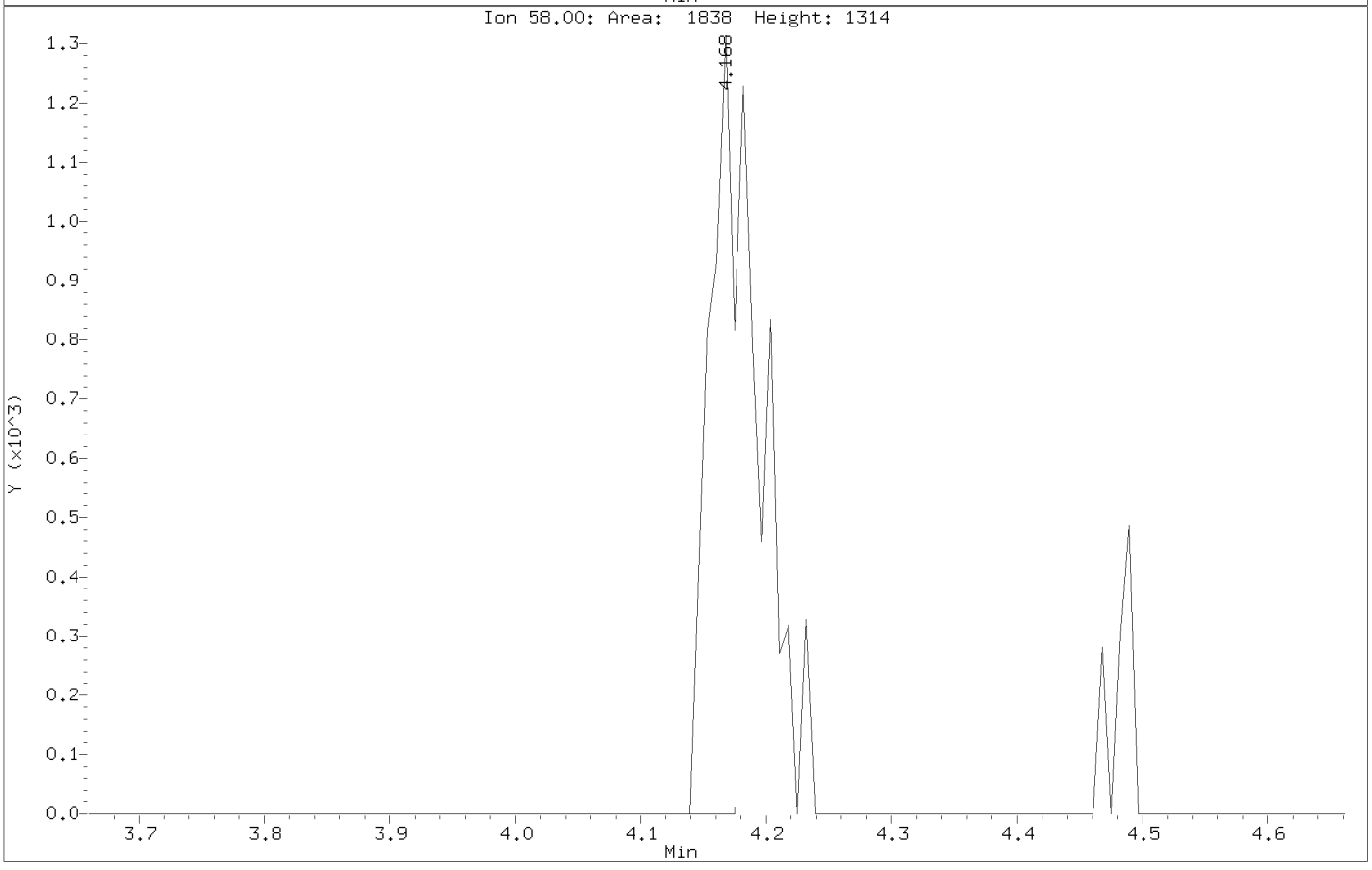
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Acetone
CAS Number: 67-64-1

BEFORE MANUAL INTEGRATION





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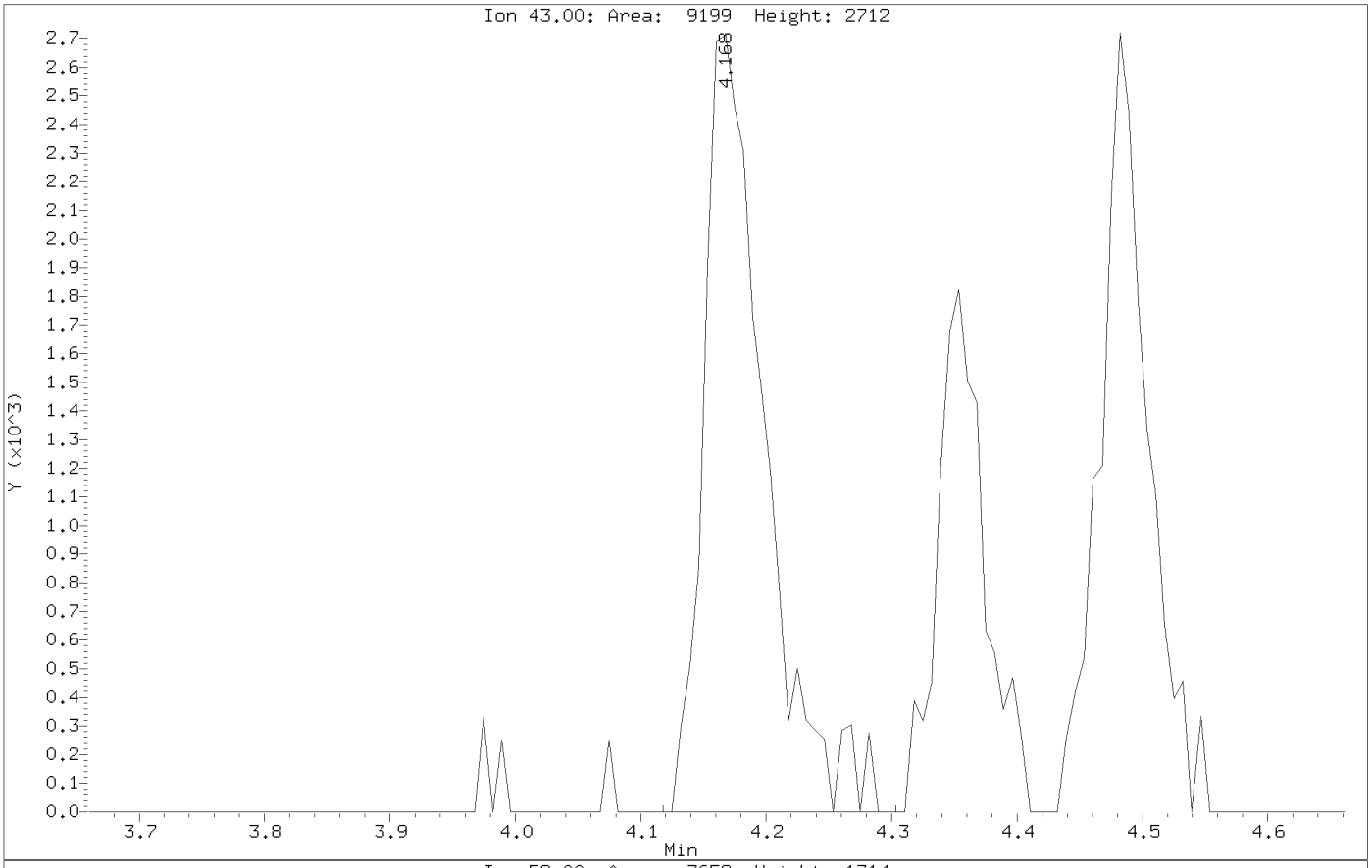
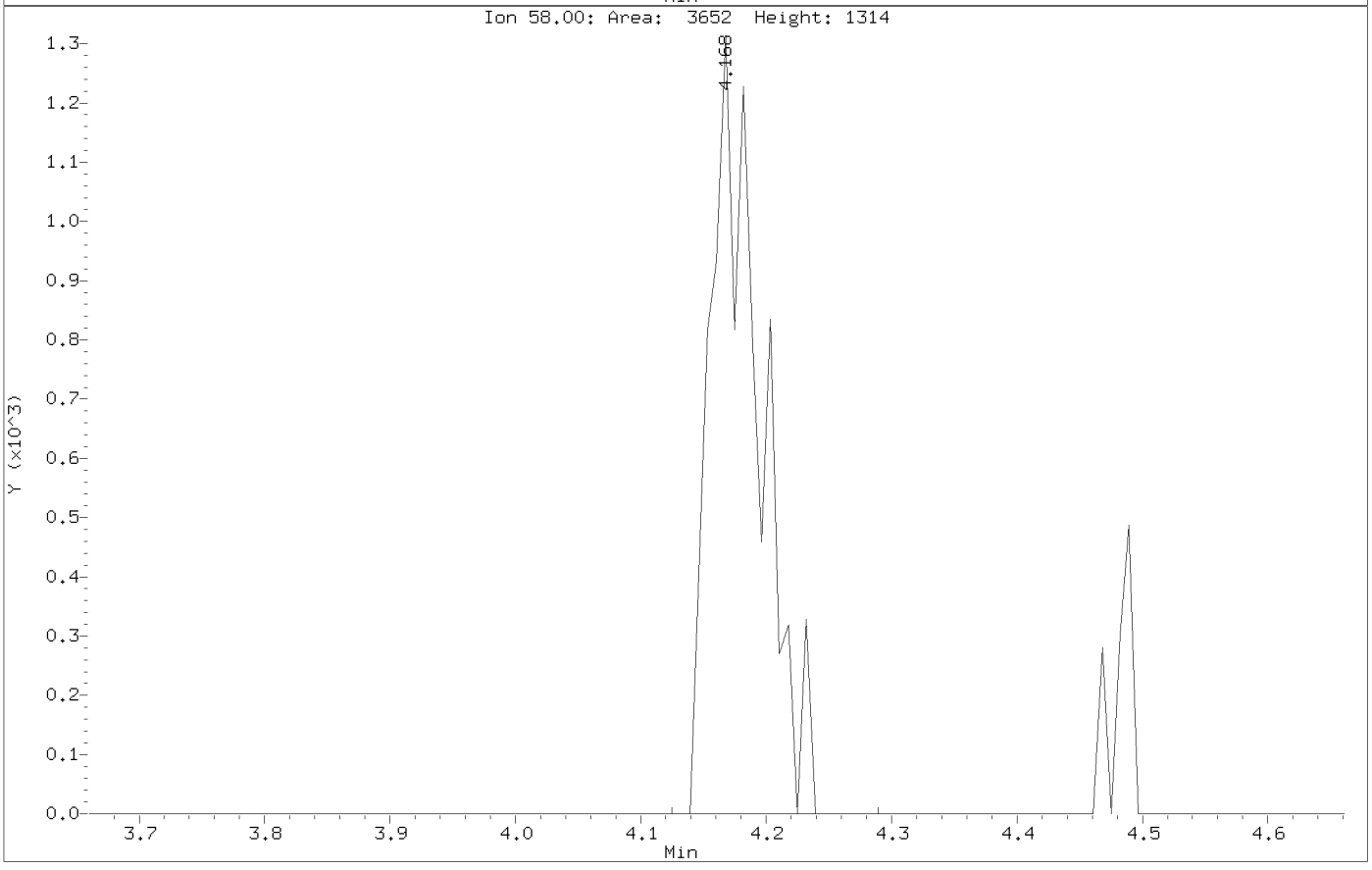
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Acetone
CAS Number: 67-64-1

AFTER MANUAL INTEGRATION





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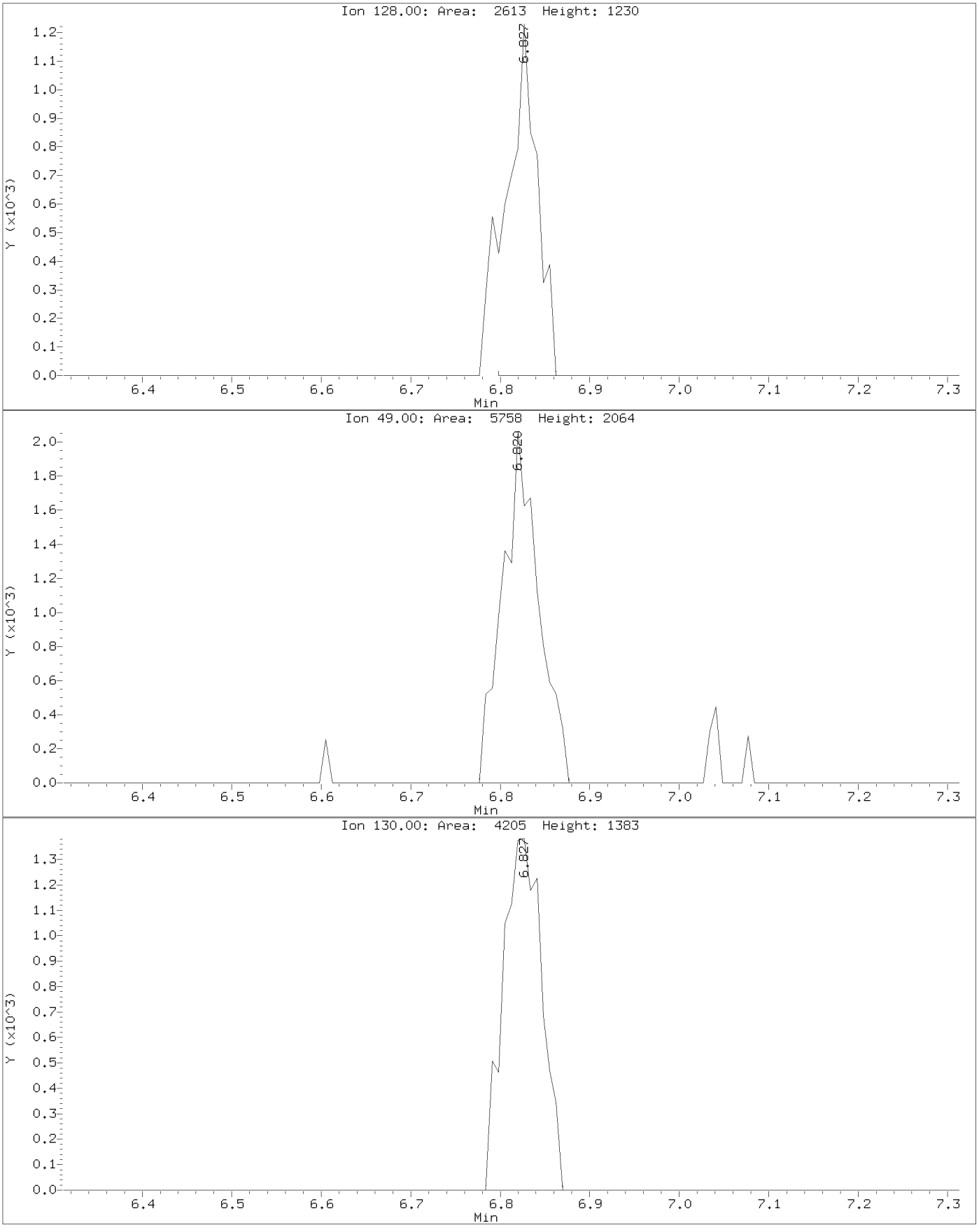
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Bromochloromethane
CAS Number: 74-97-5

BEFORE MANUAL INTEGRATION



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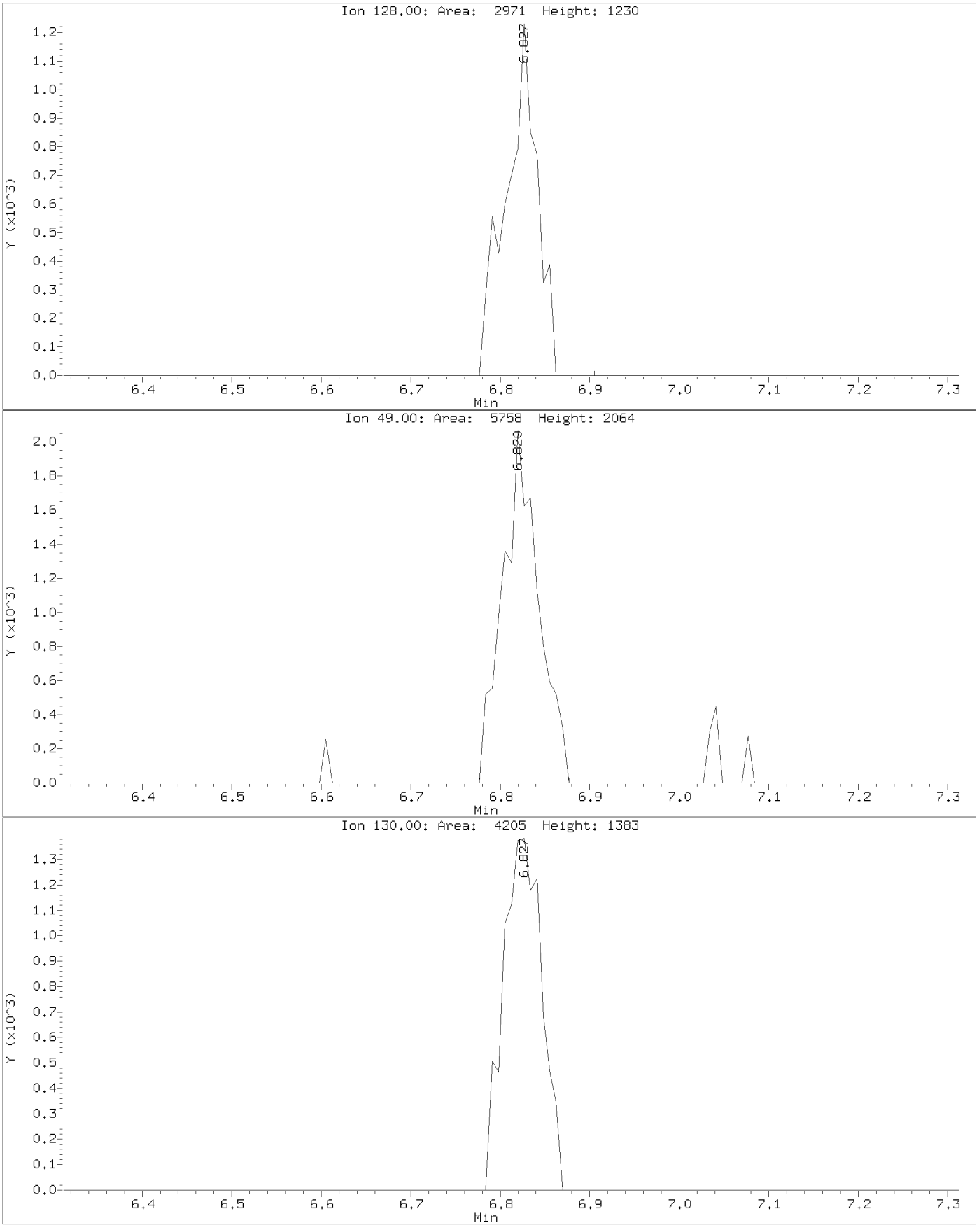
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Bromochloromethane
CAS Number: 74-97-5

AFTER MANUAL INTEGRATION



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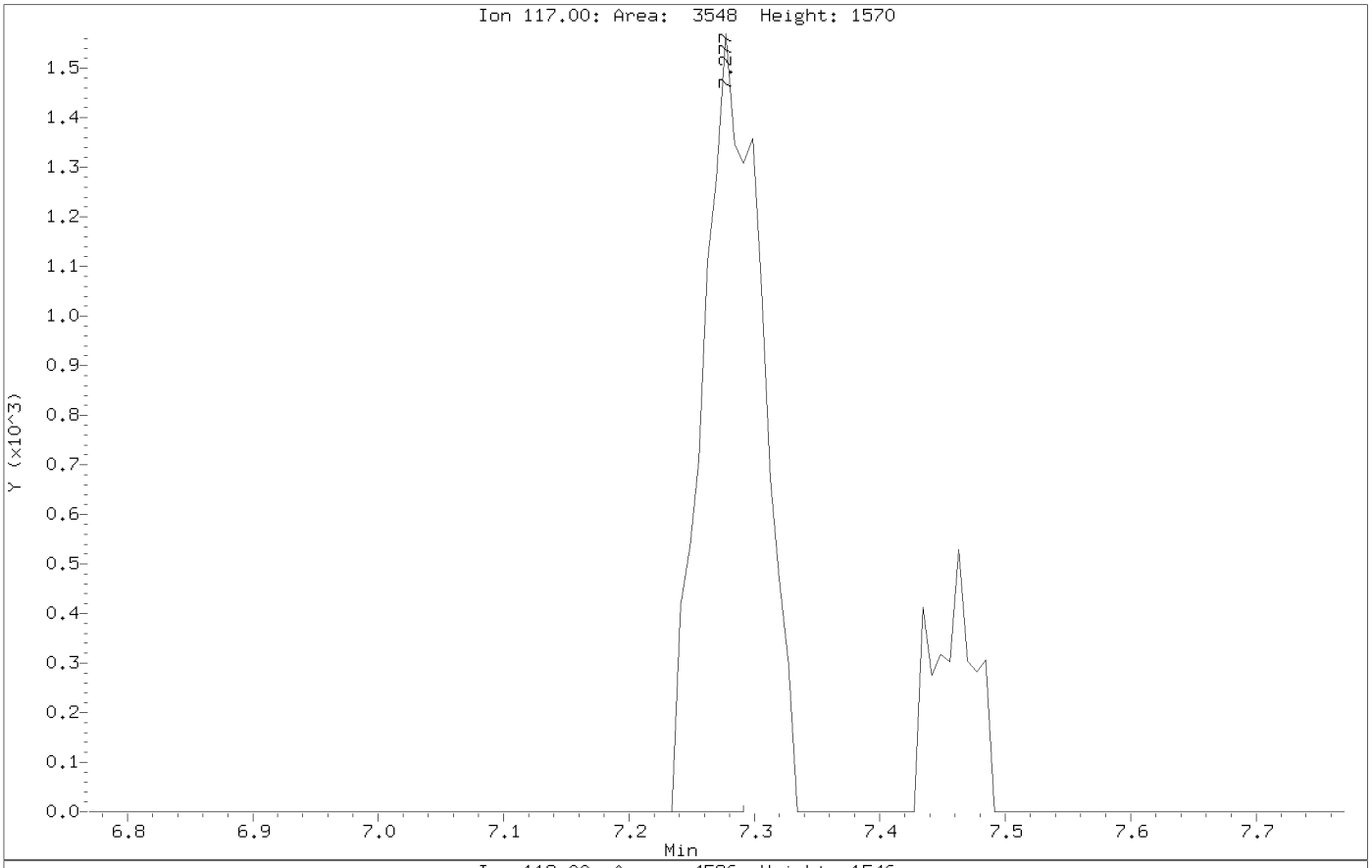
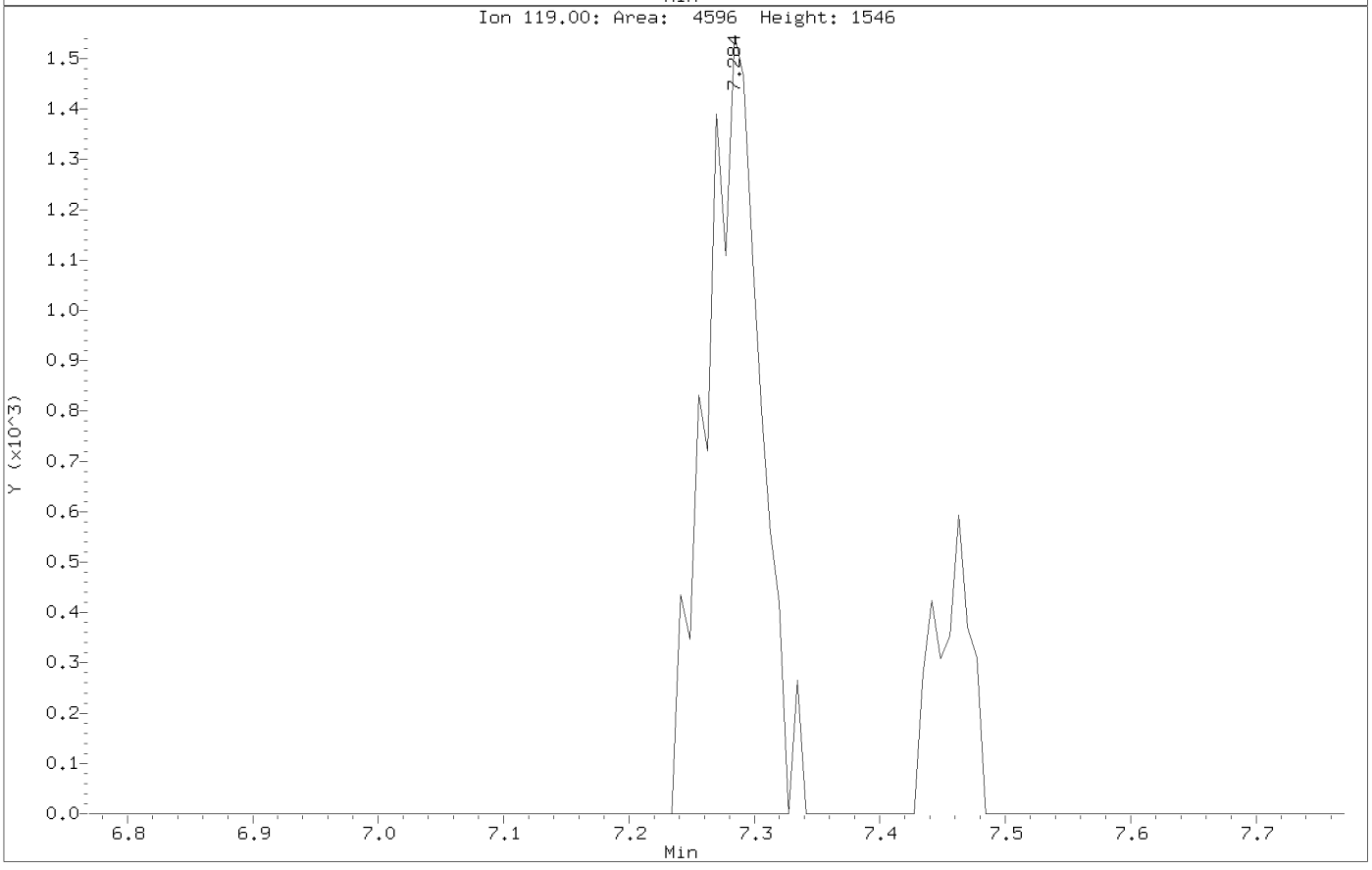
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Carbon Tetrachloride
CAS Number: 56-23-5

BEFORE MANUAL INTEGRATION





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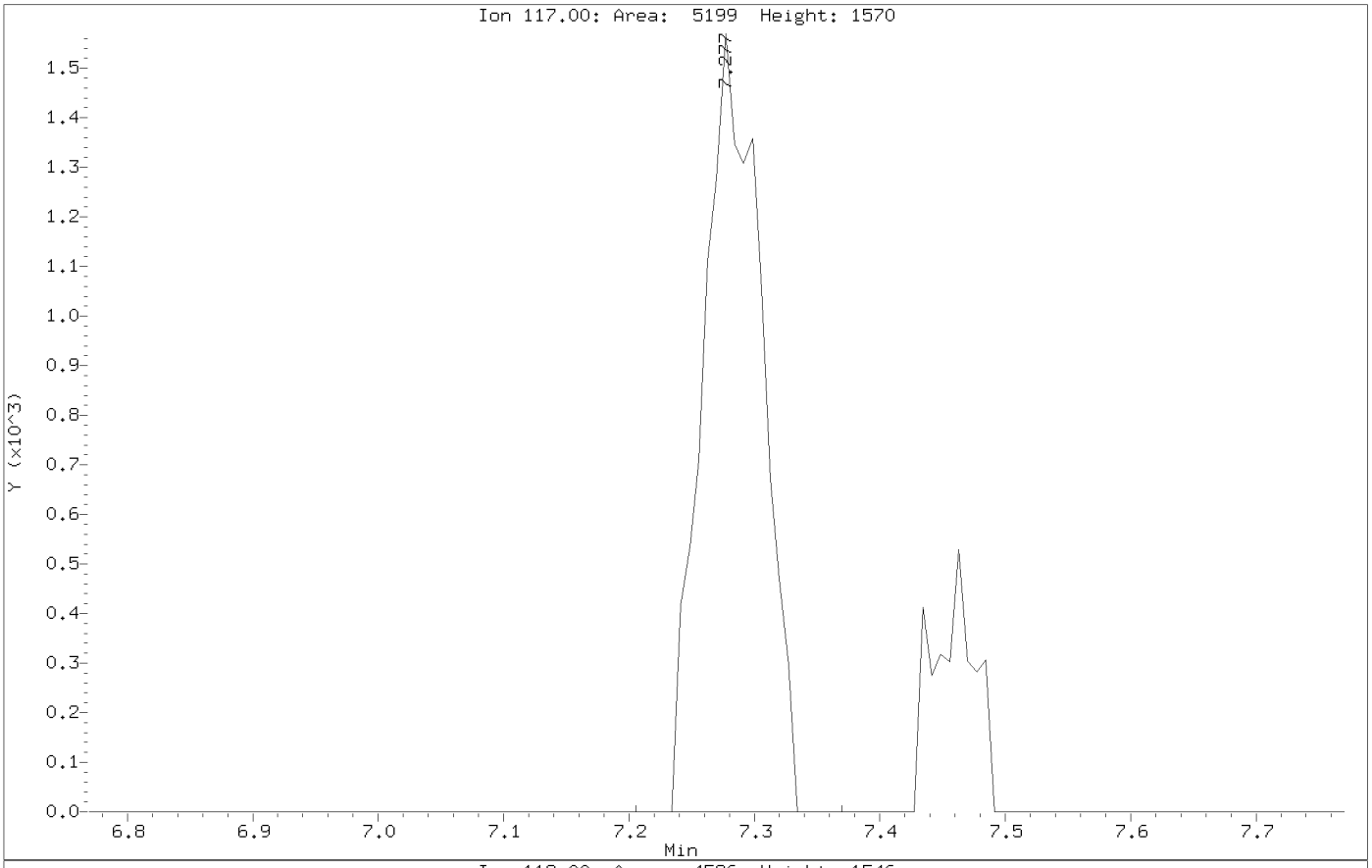
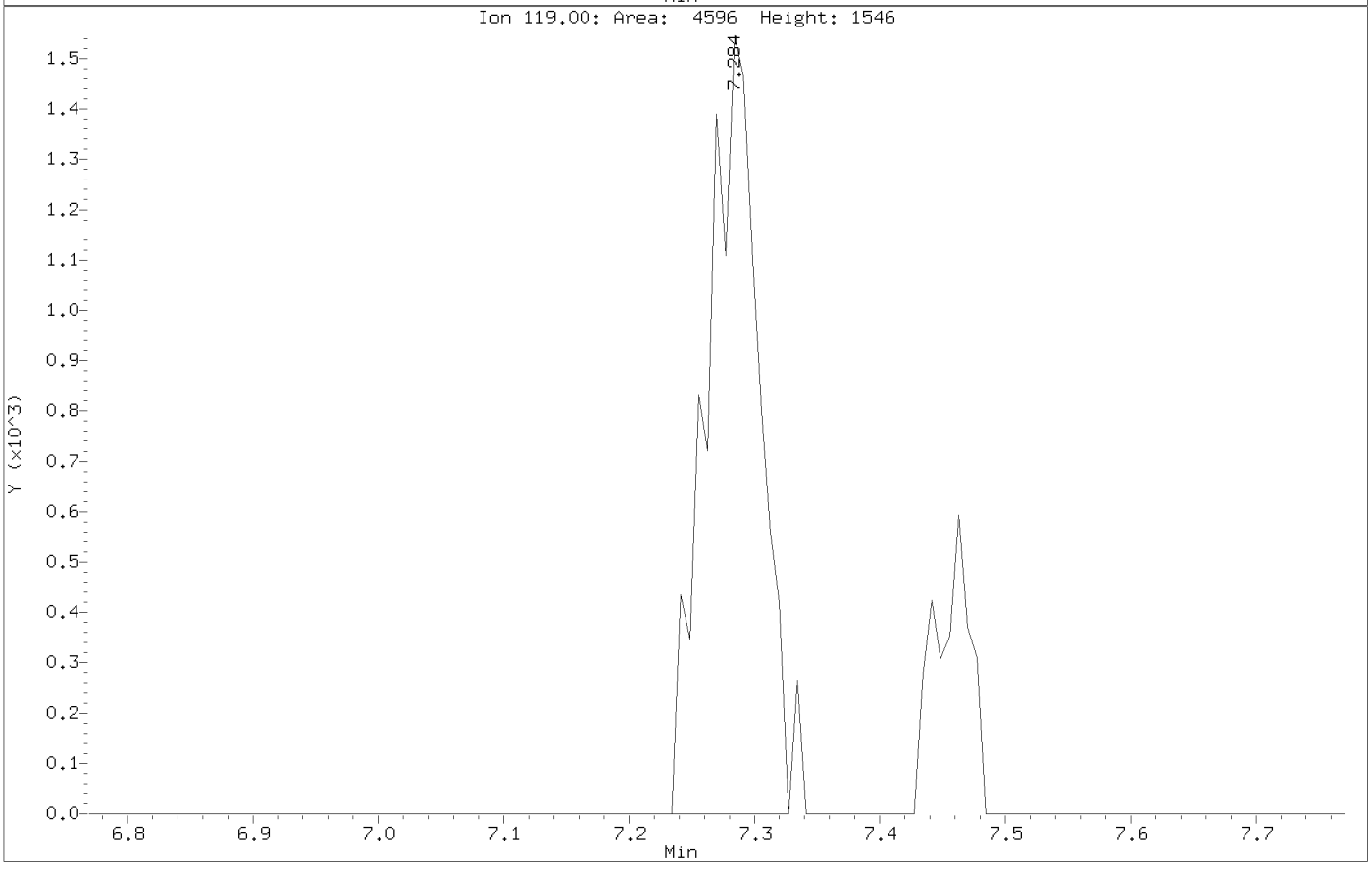
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Carbon Tetrachloride
CAS Number: 56-23-5

AFTER MANUAL INTEGRATION





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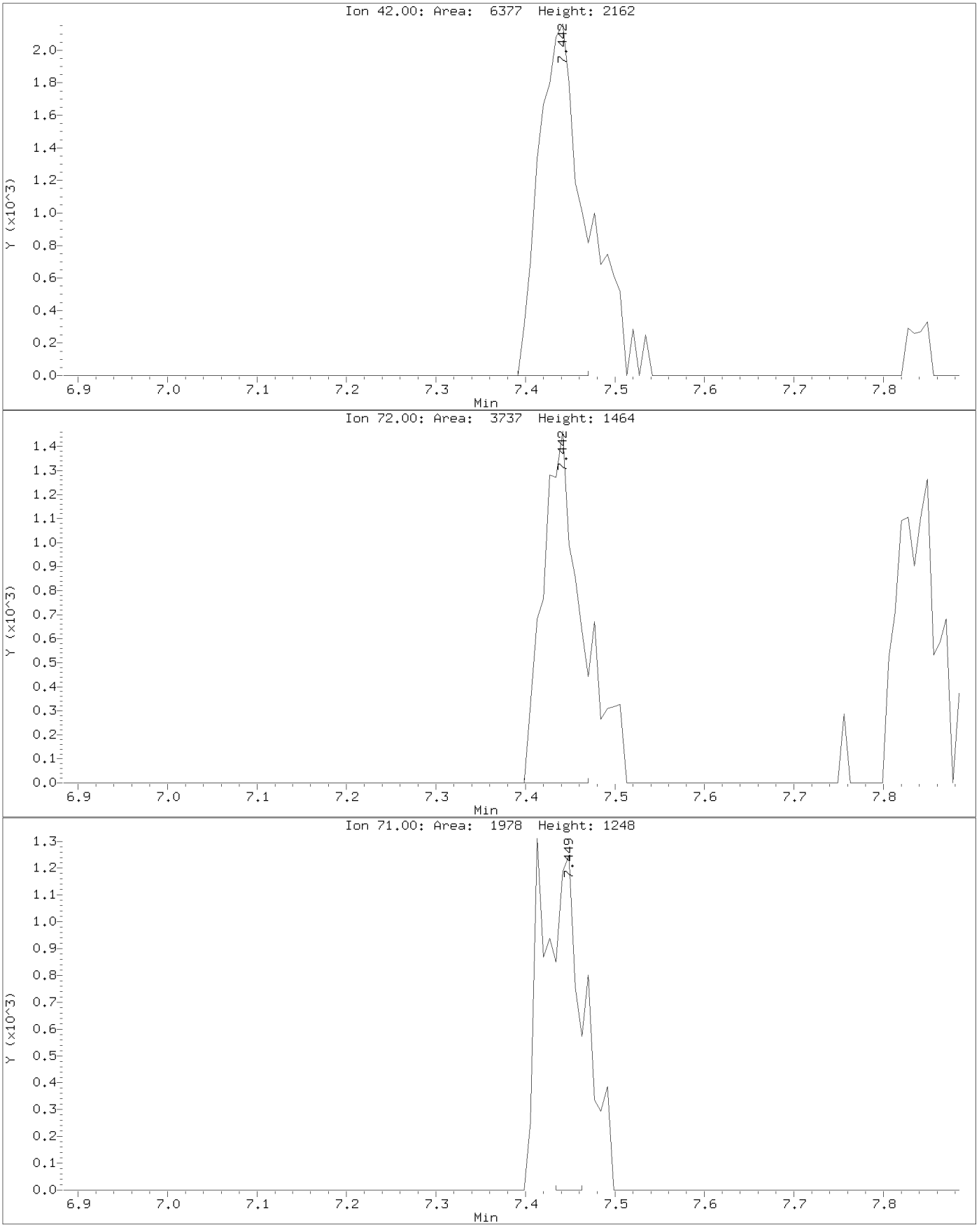
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Tetrahydrofuran
CAS Number: 109-99-9

BEFORE MANUAL INTEGRATION



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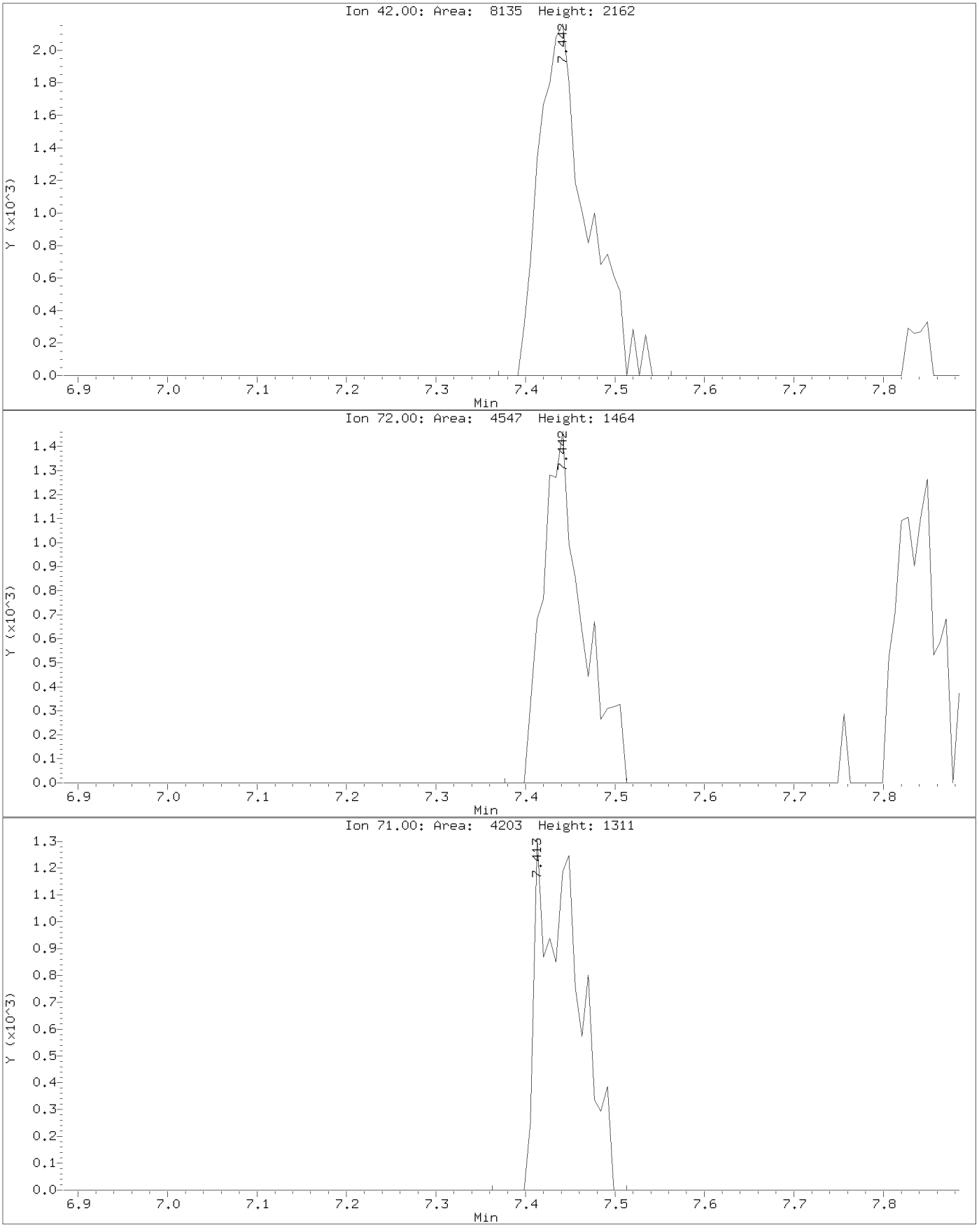
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: Tetrahydrofuran
CAS Number: 109-99-9

AFTER MANUAL INTEGRATION



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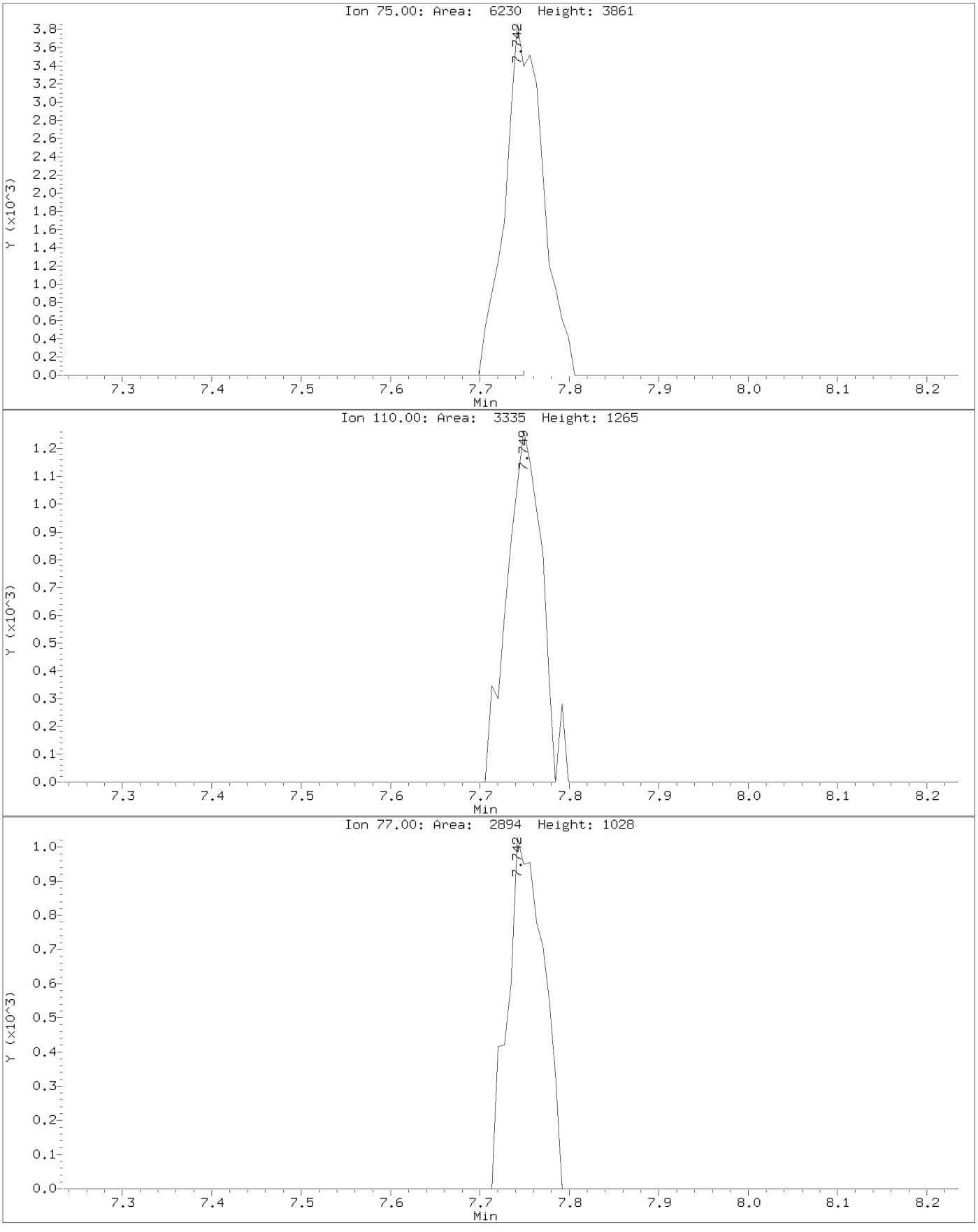
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,1-Dichloropropene
CAS Number: 563-58-6

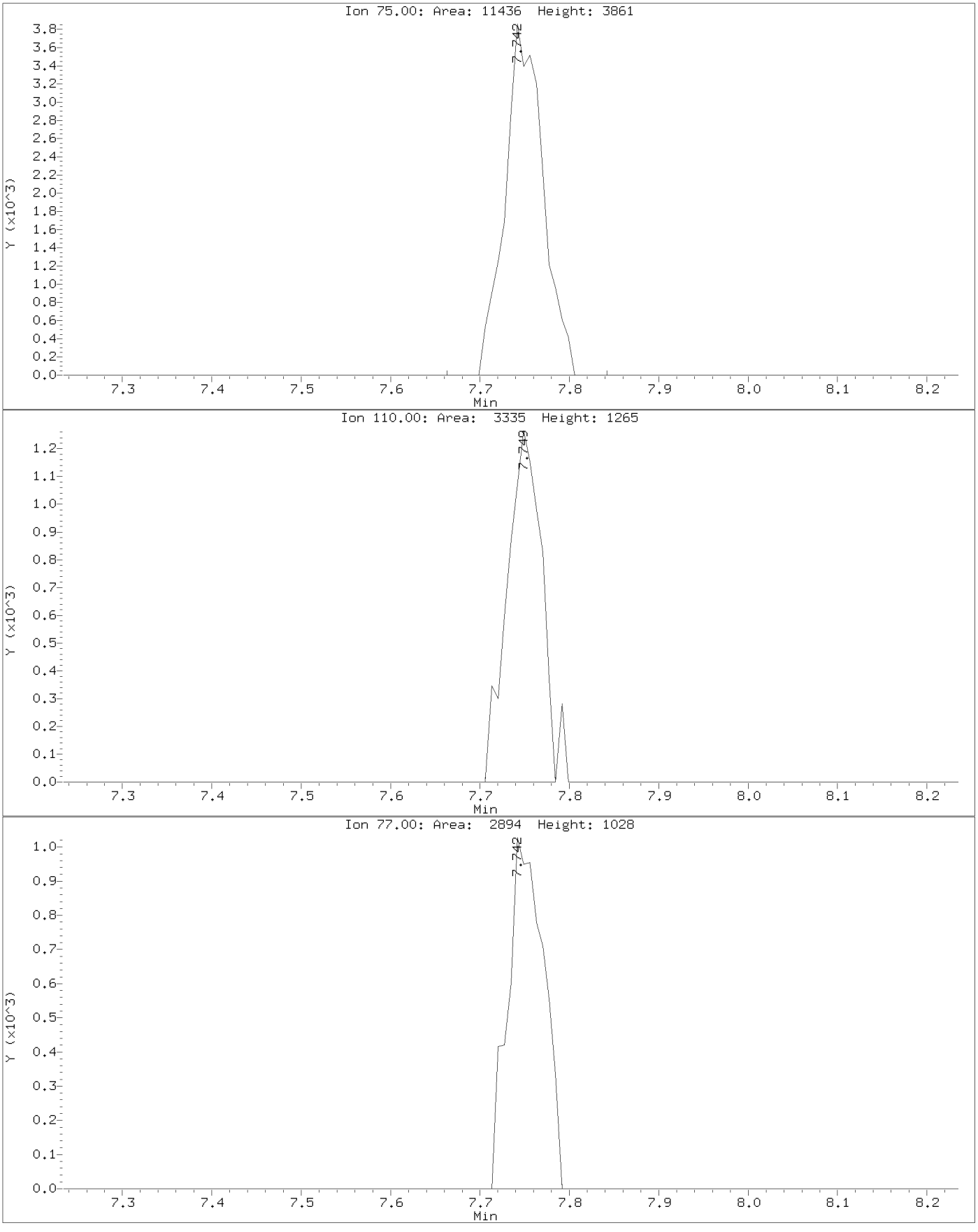
BEFORE MANUAL INTEGRATION



Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,1-Dichloropropene
CAS Number: 563-58-6

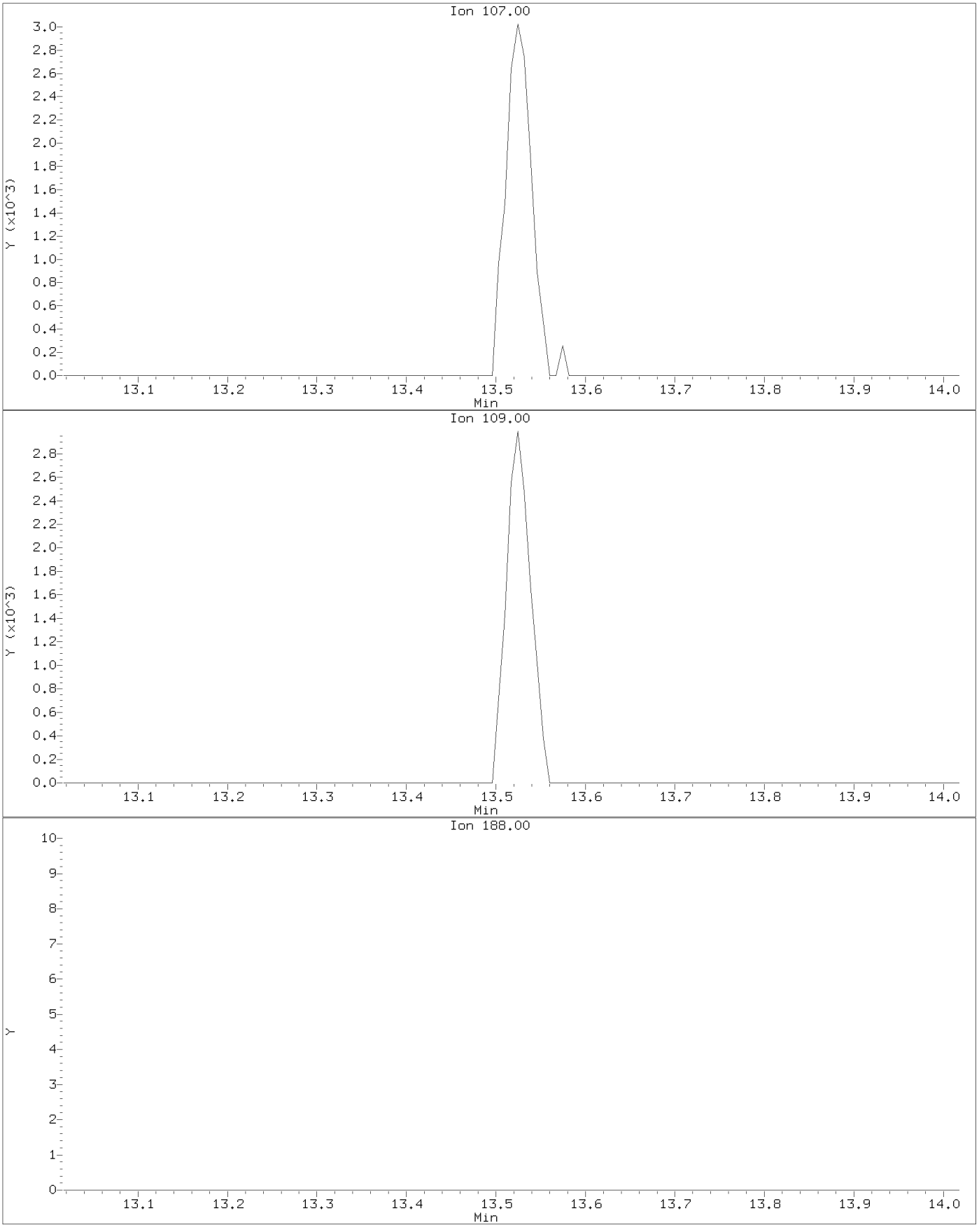
AFTER MANUAL INTEGRATION



Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,2-Dibromoethane
CAS Number: 106-93-4

BEFORE MANUAL INTEGRATION



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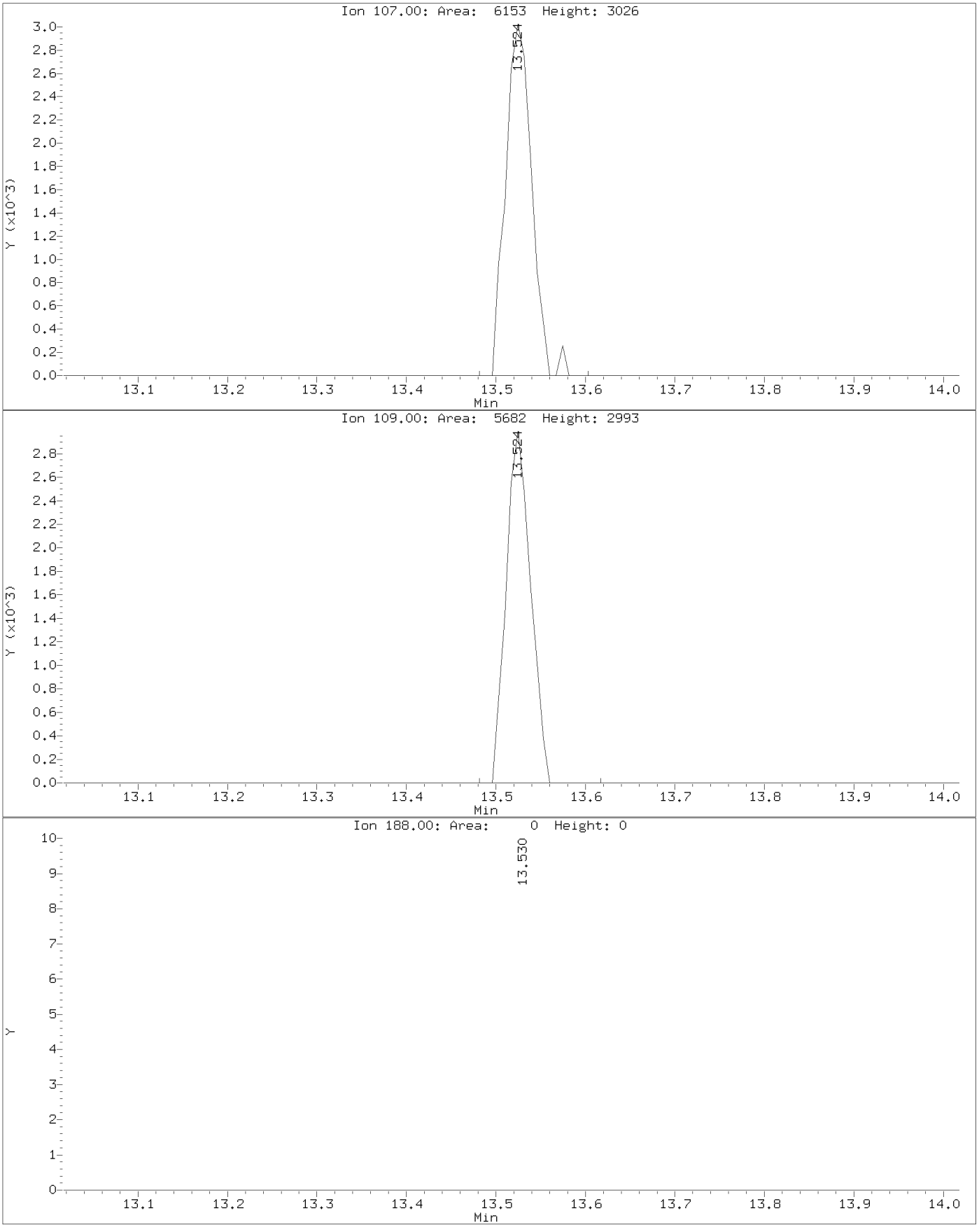
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,2-Dibromoethane
CAS Number: 106-93-4

AFTER MANUAL INTEGRATION



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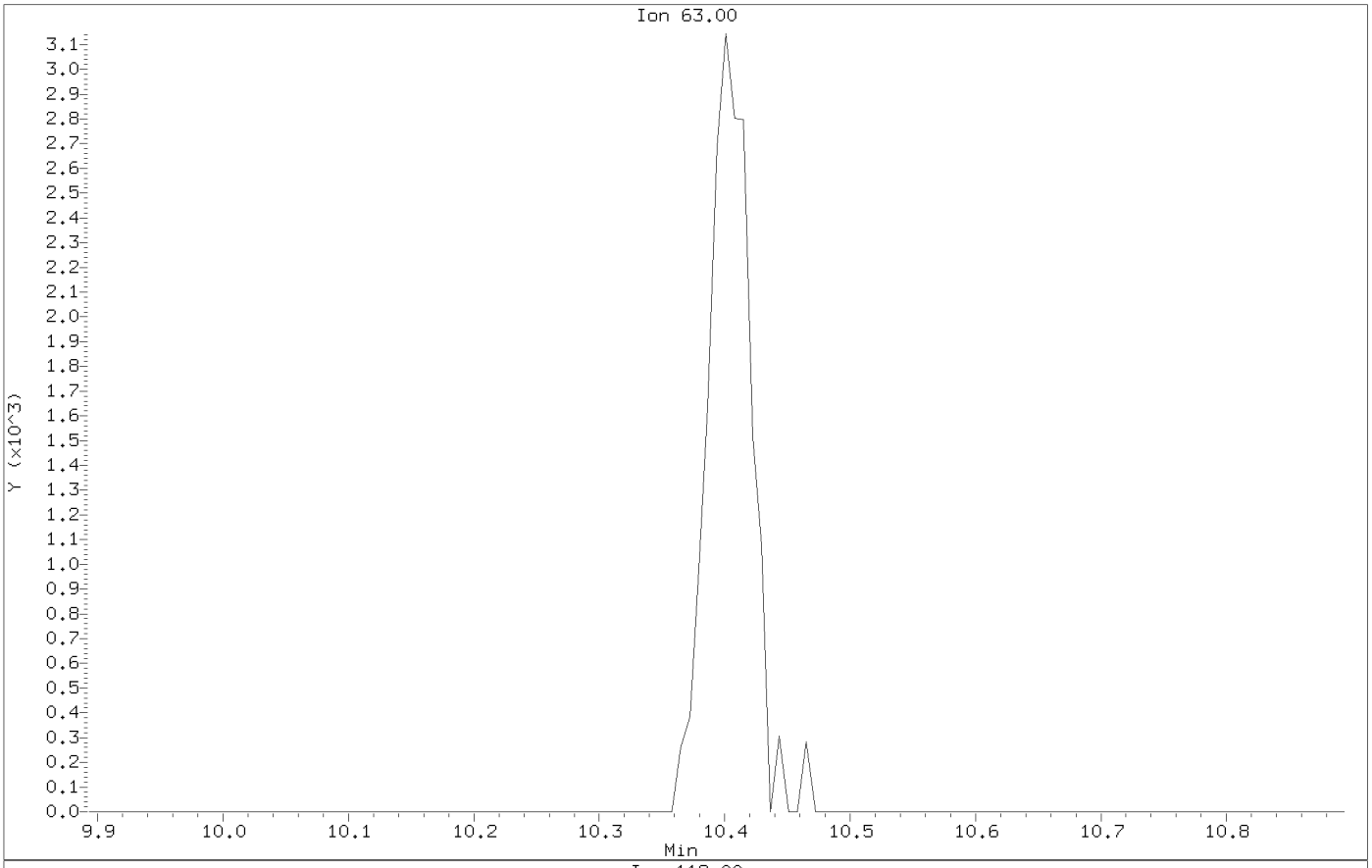
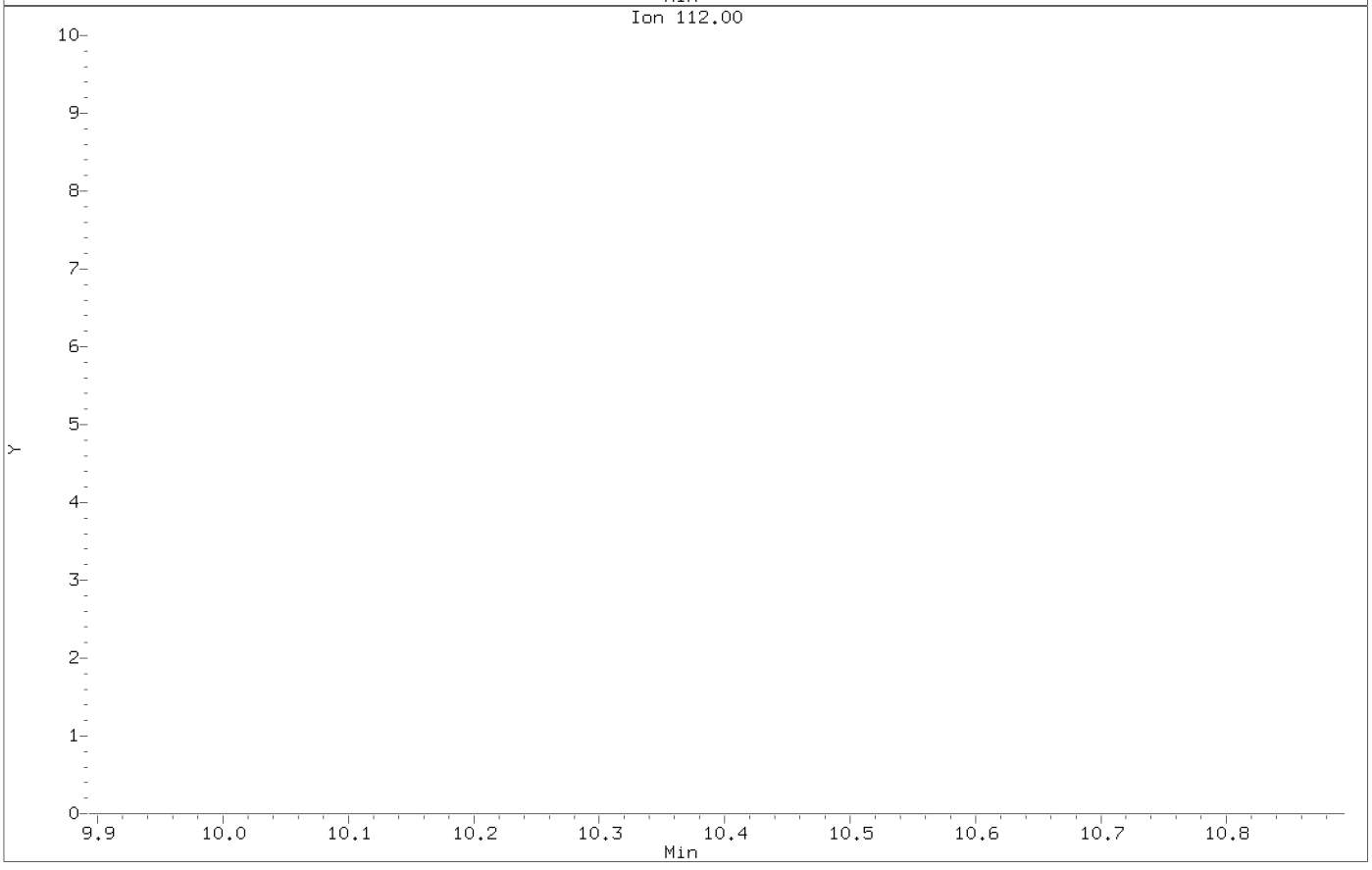
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

BEFORE MANUAL INTEGRATION

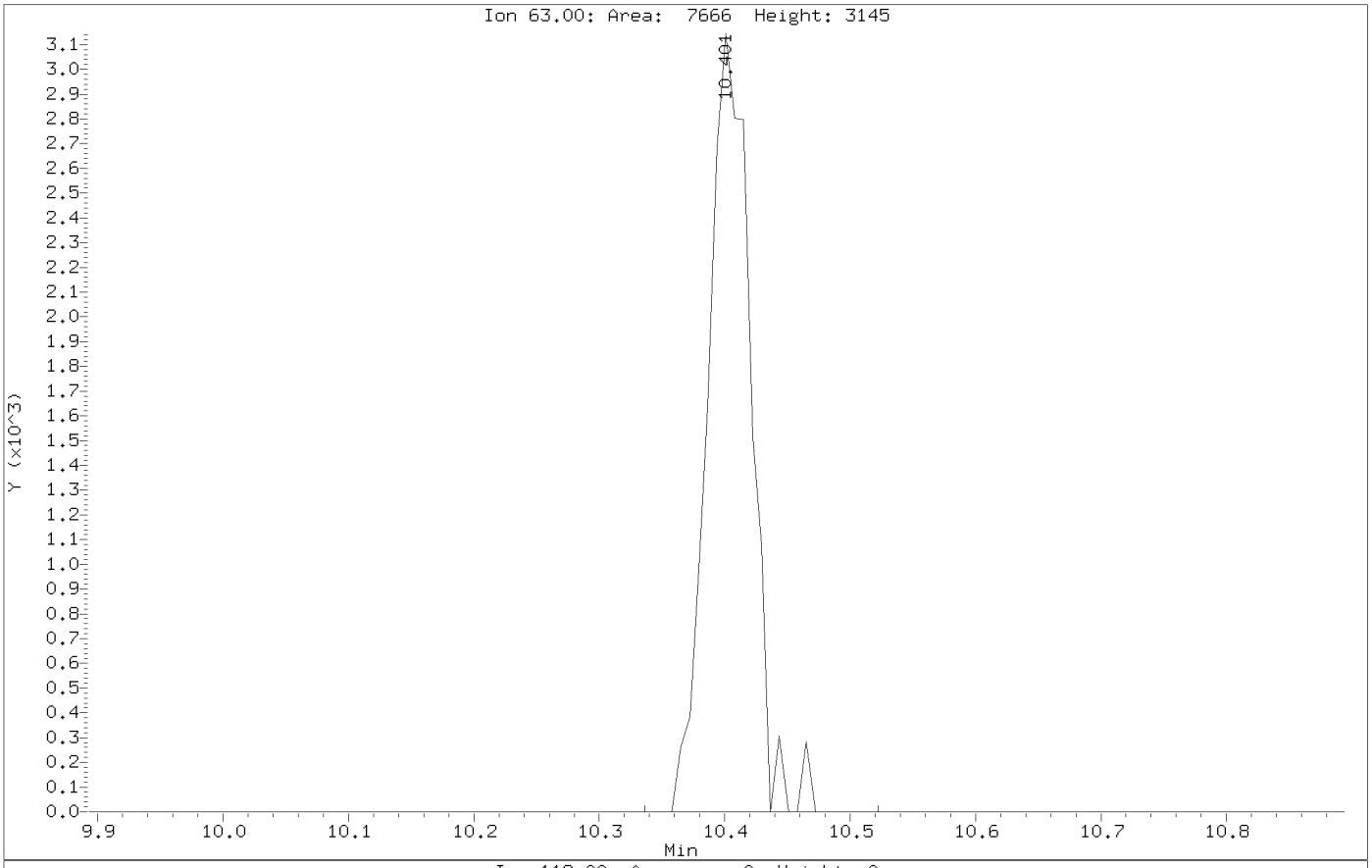


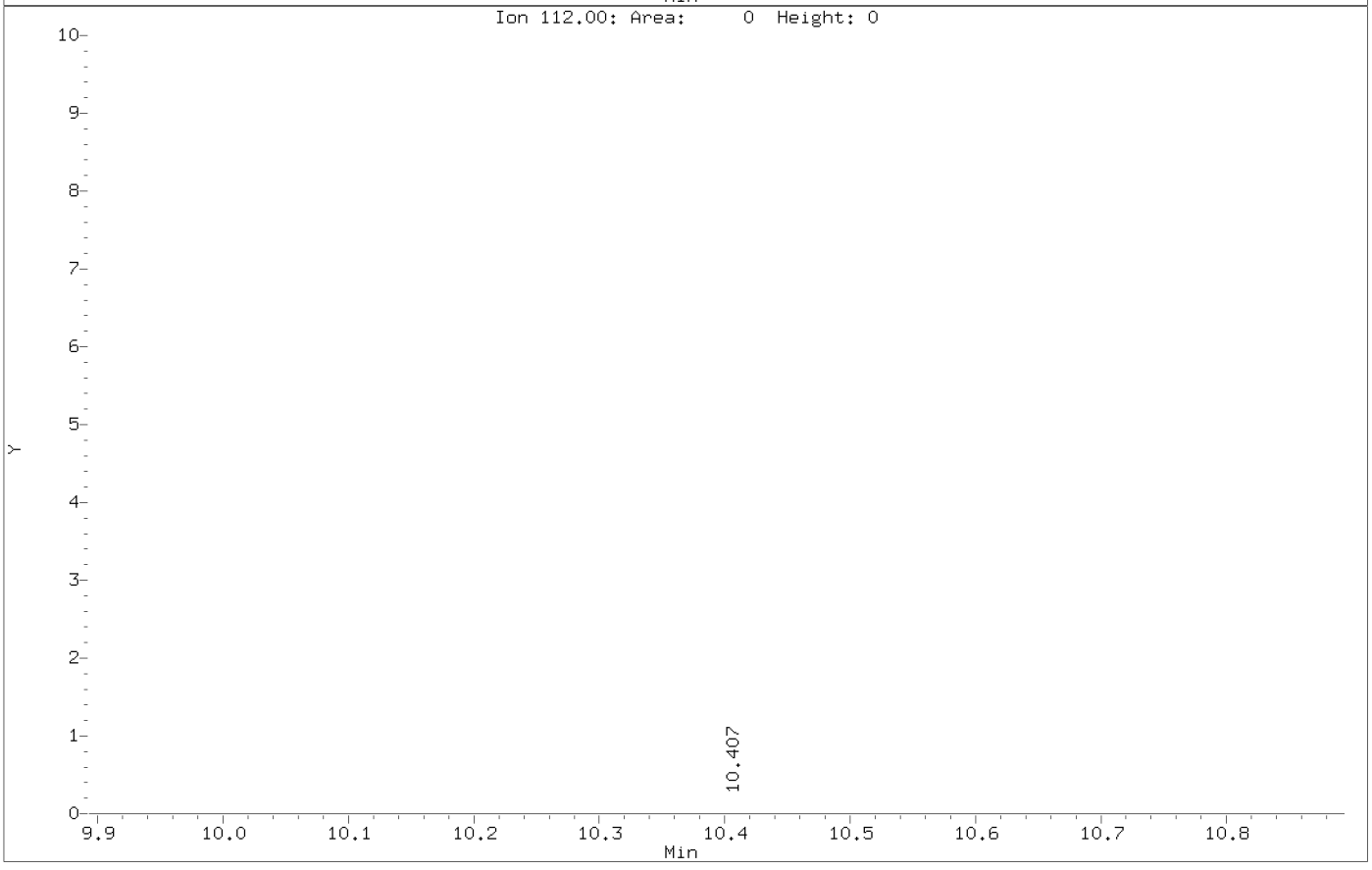


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,2-Dichloropropane
CAS Number: 78-87-5

AFTER MANUAL INTEGRATION

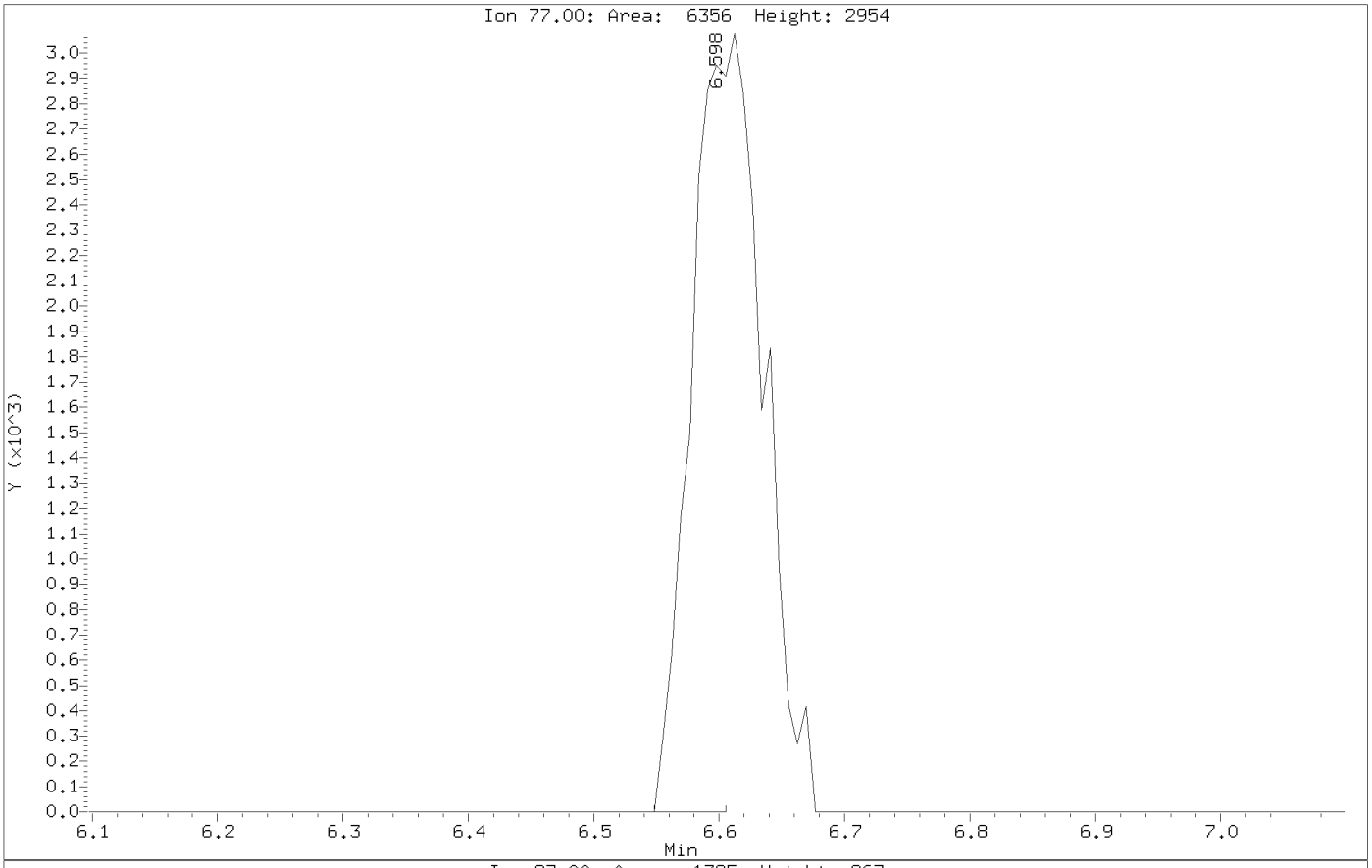


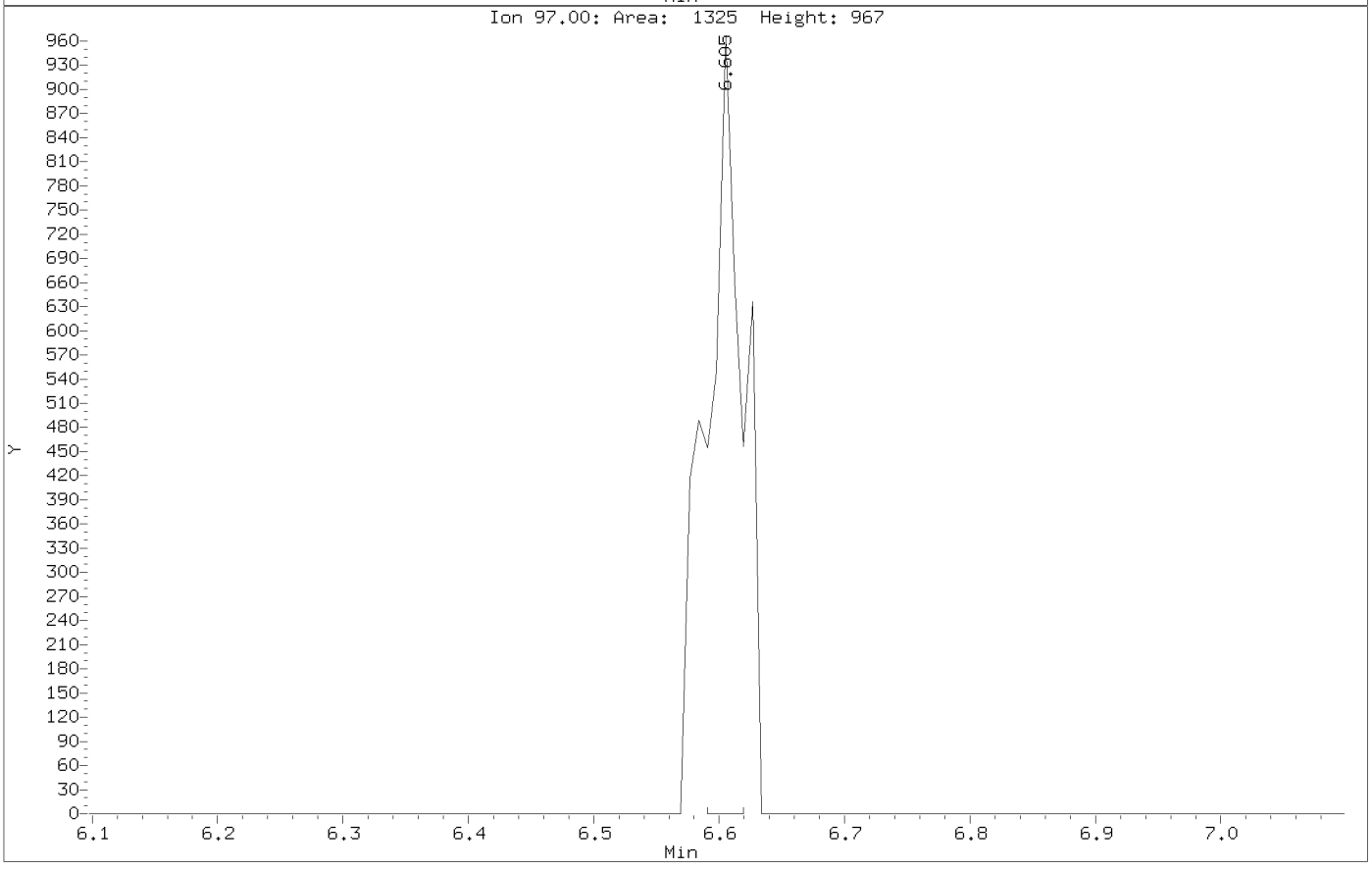


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0215.D
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 2,2-Dichloropropane
CAS Number: 594-20-7

BEFORE MANUAL INTEGRATION





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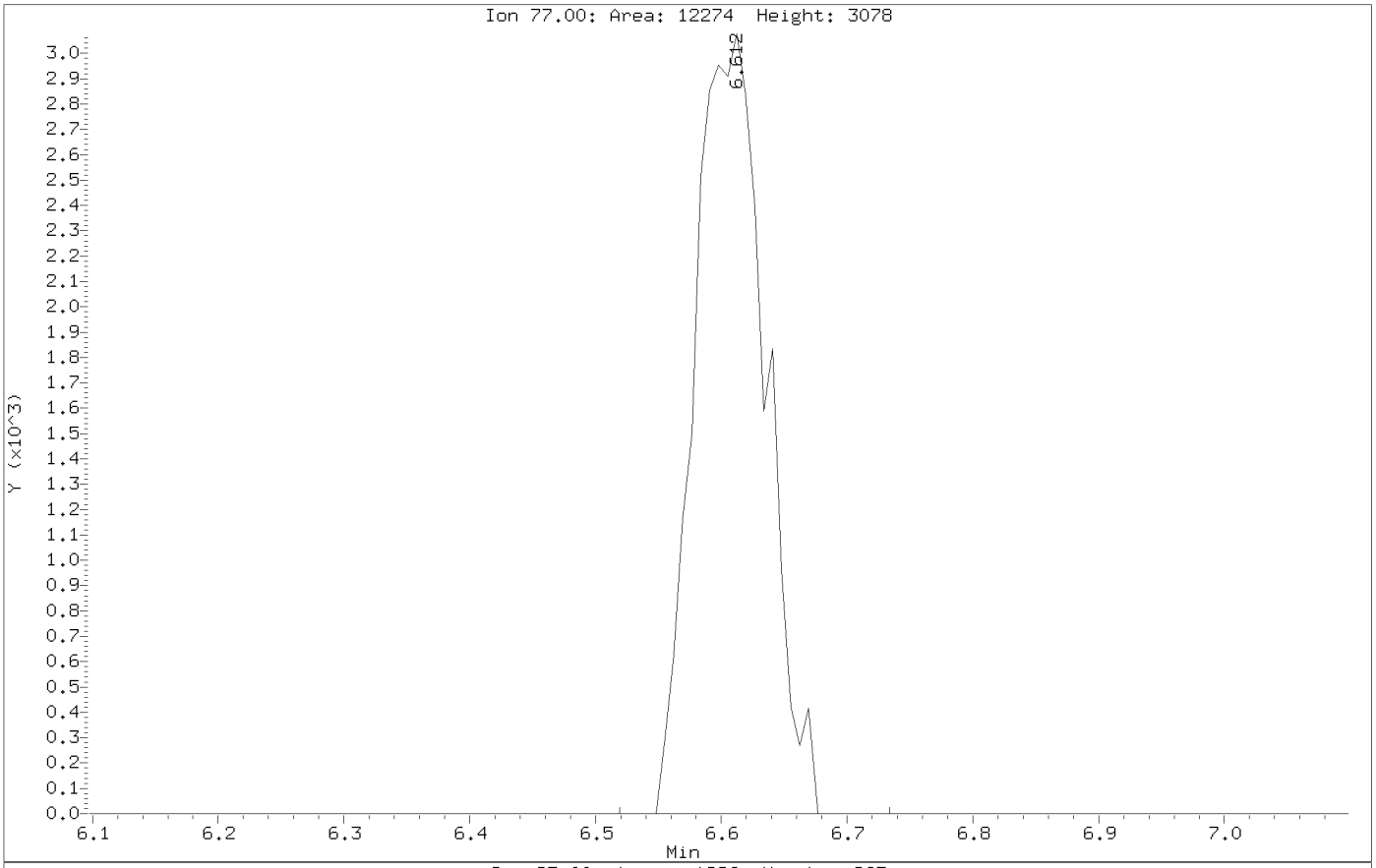
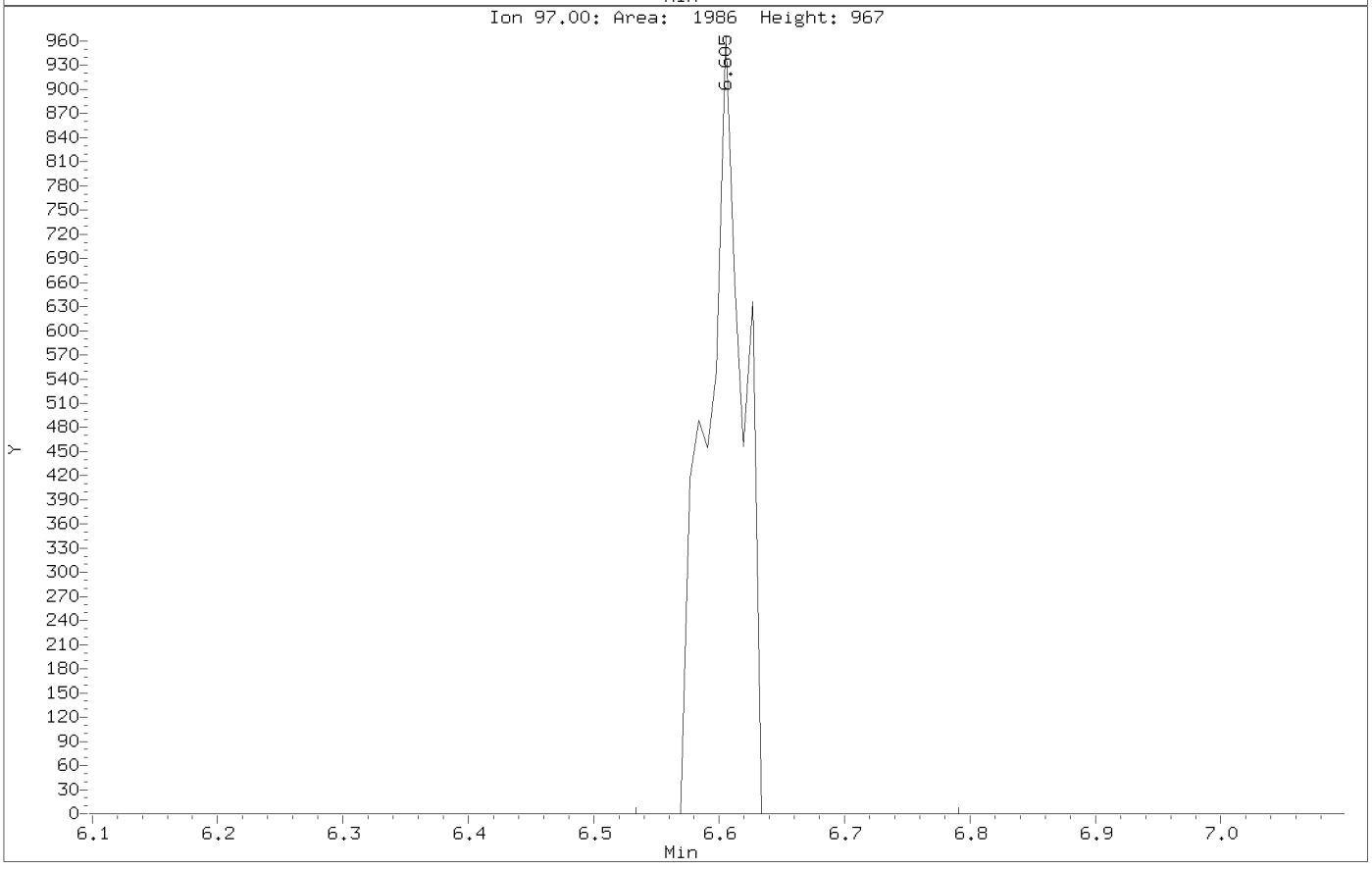
Injection Date: 10-JUN-2014 13:18
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 2,2-Dichloropropane
CAS Number: 594-20-7

AFTER MANUAL INTEGRATION





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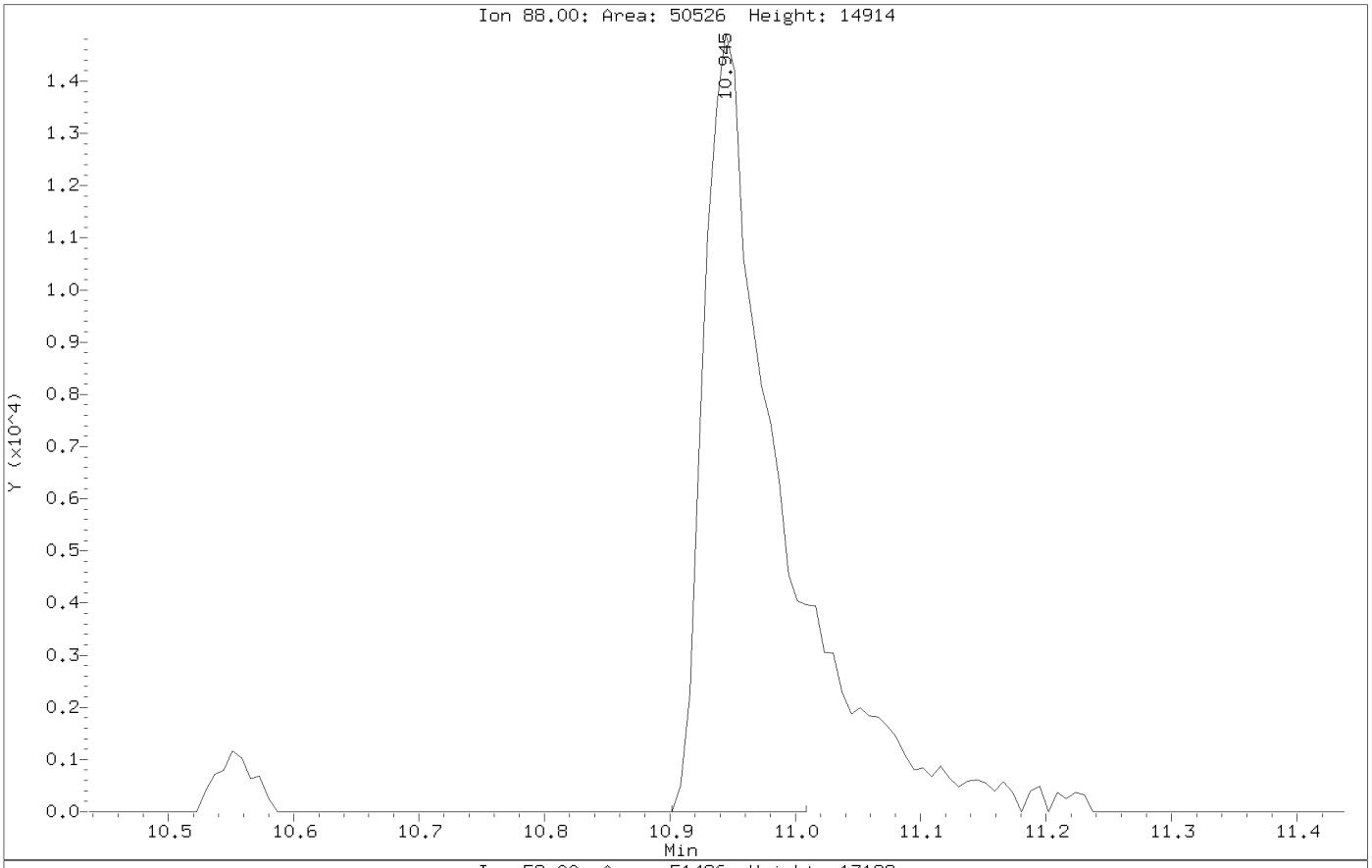
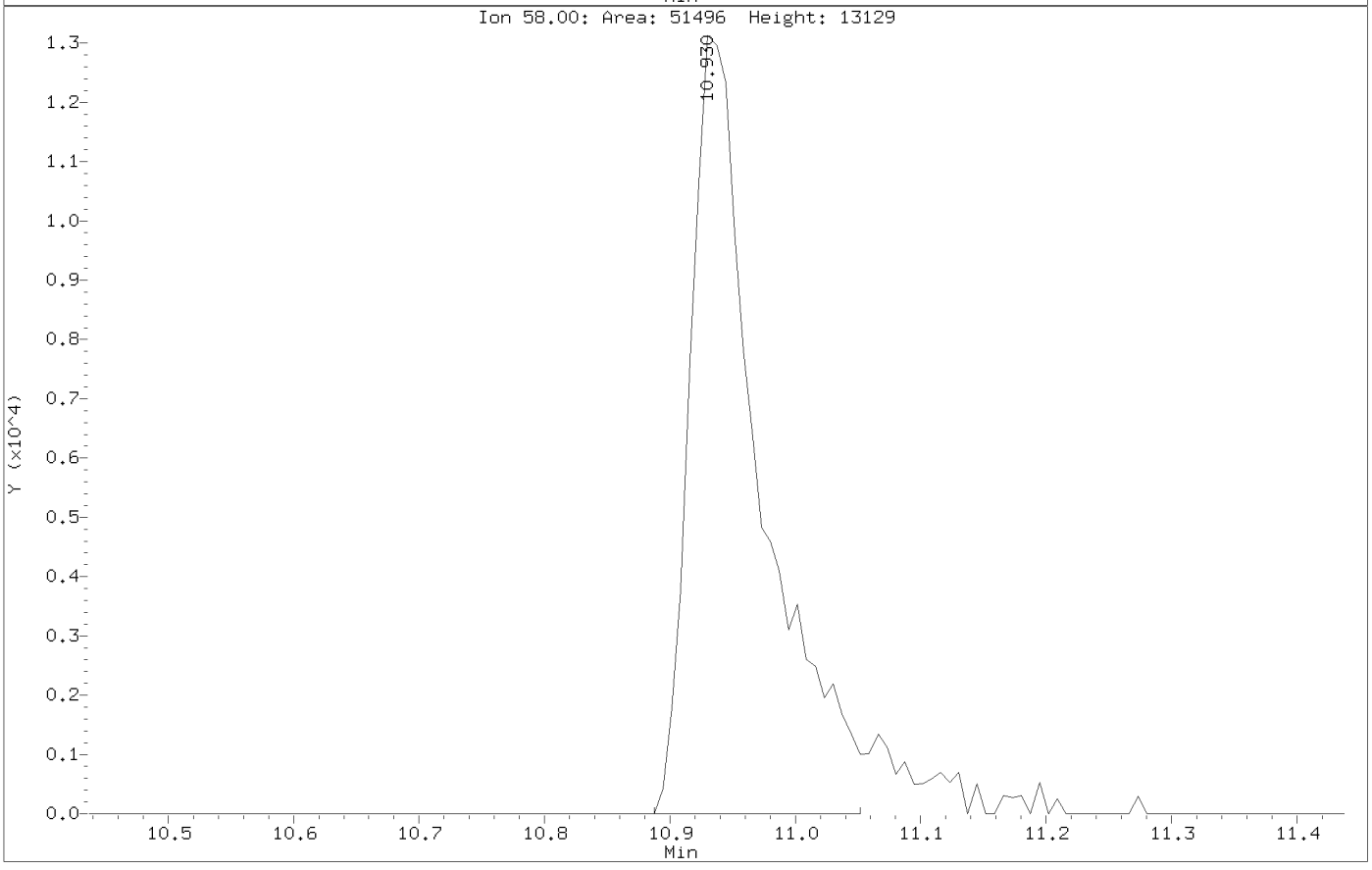
Injection Date: 10-JUN-2014 14:12
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

BEFORE MANUAL INTEGRATION





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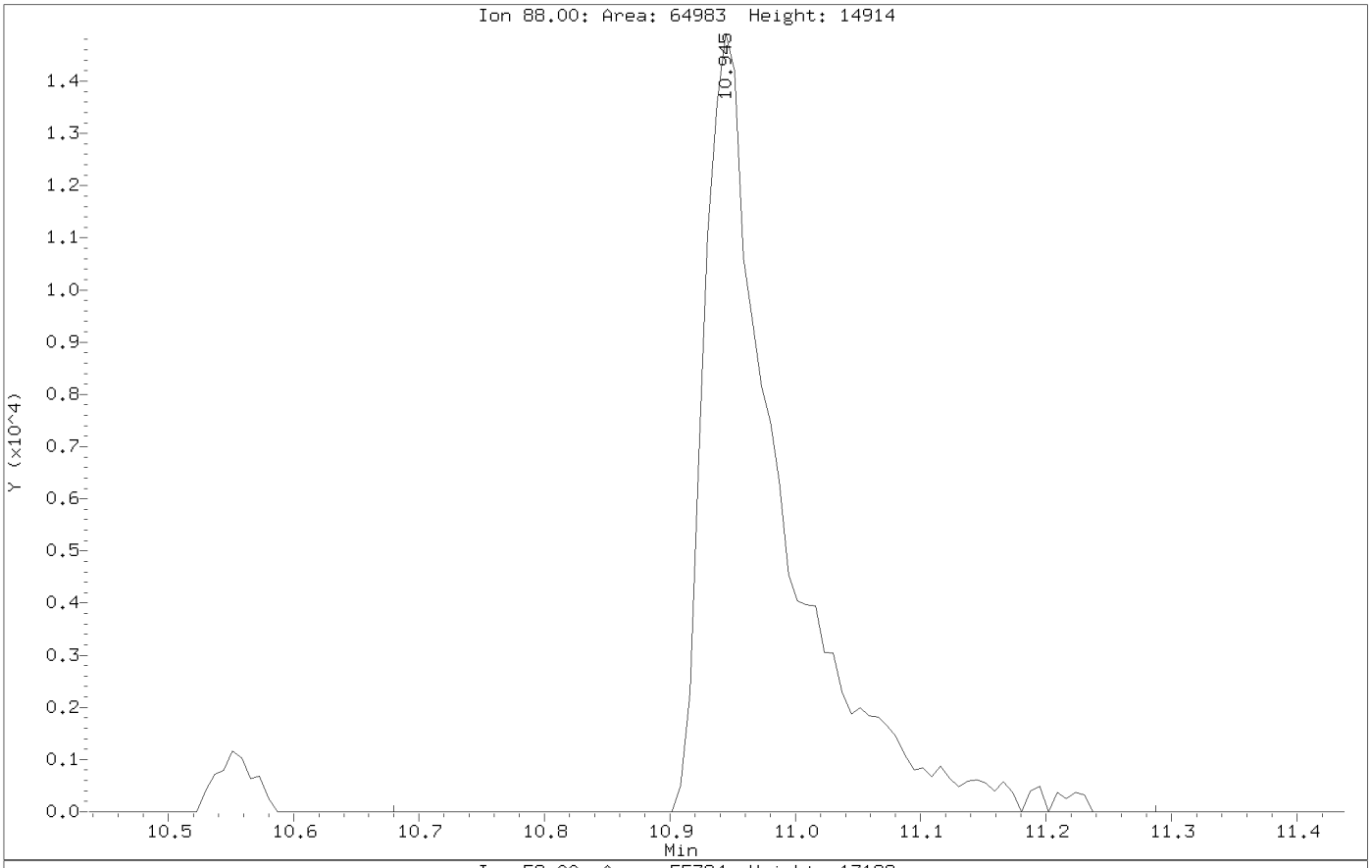
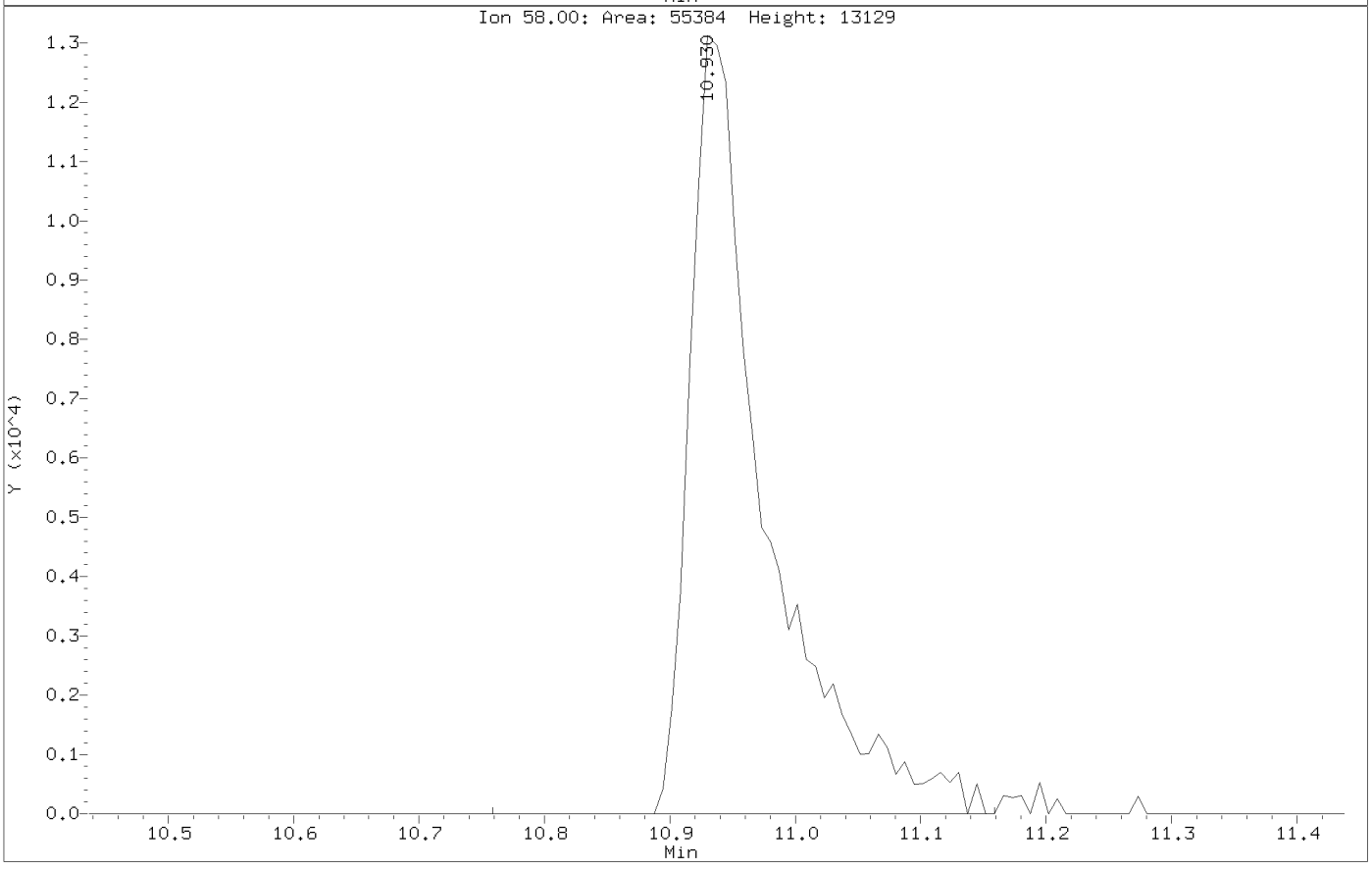
Injection Date: 10-JUN-2014 14:12
Instrument: gcms-w.i
Client Sample ID: Initial Calibration

Compound: 1,4-Dioxane
CAS Number: 123-91-1

AFTER MANUAL INTEGRATION





Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\WB013.D

Date : 10-JUN-2014 10:20

Client ID:

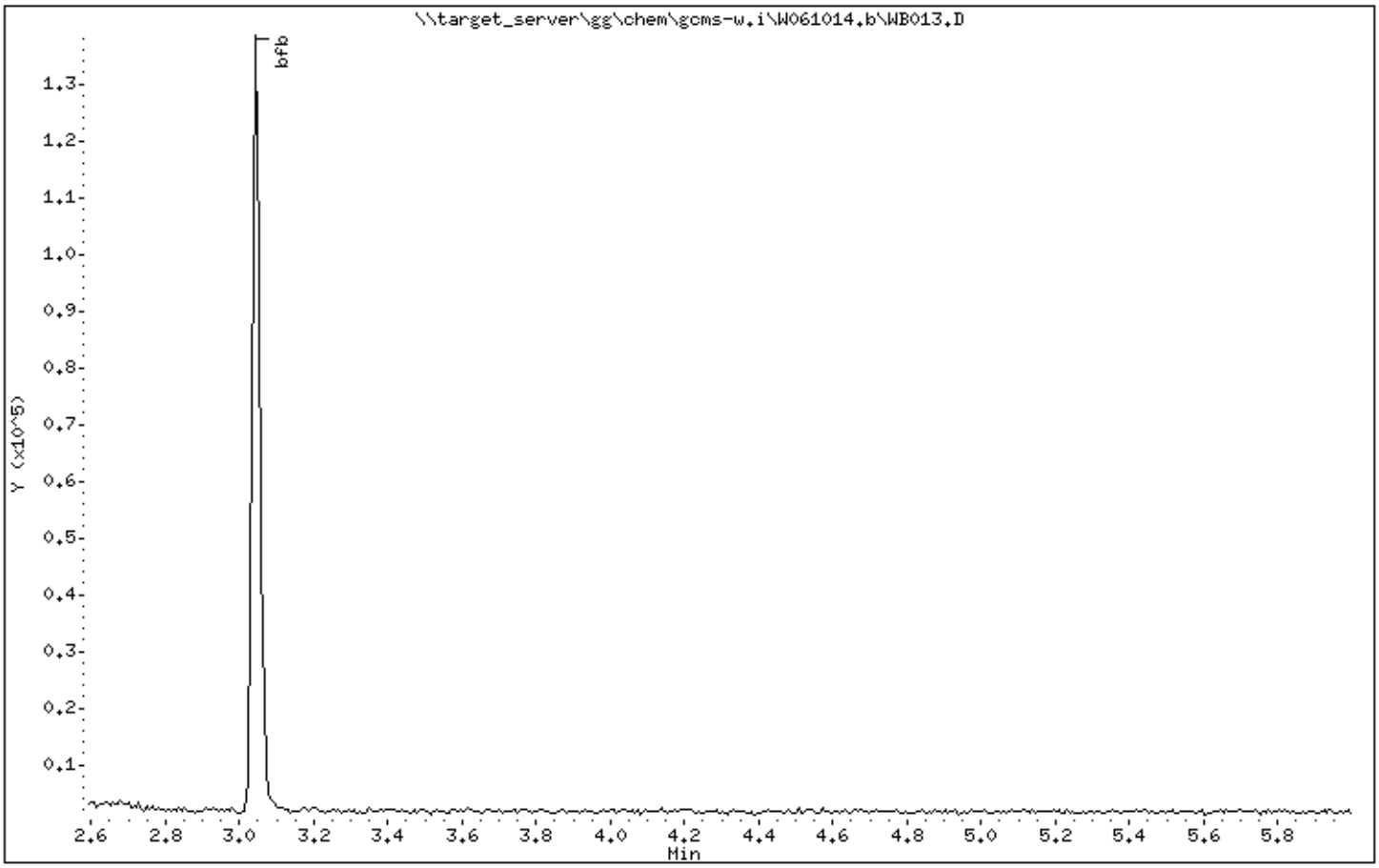
Instrument: gcms-w.i

Sample Info: WG144443-10,SH3734

Operator: REC

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\WB013.D

Date : 10-JUN-2014 10:20

Client ID:

Instrument: gcms-w.i

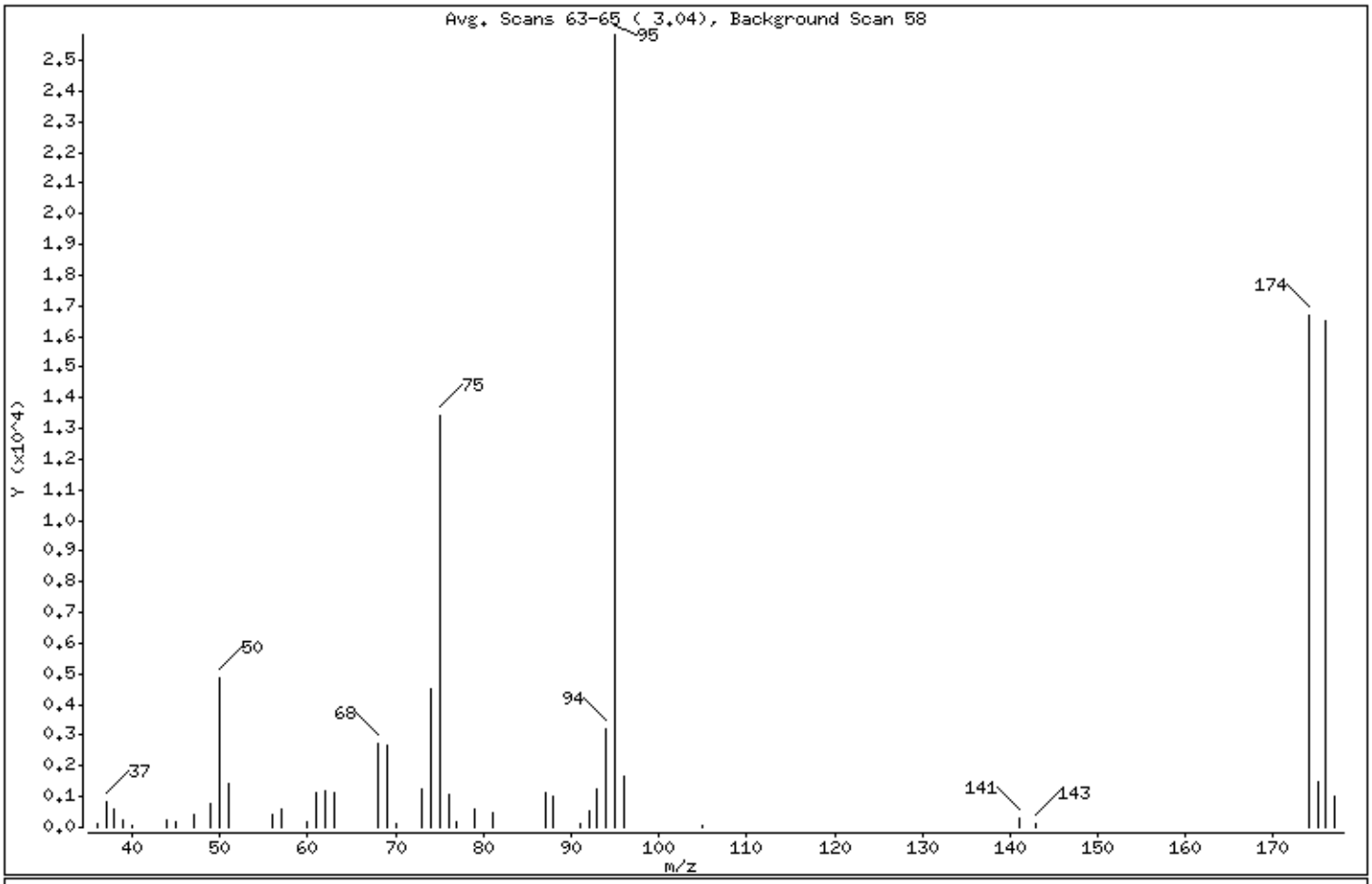
Sample Info: WG144443-10,SH3734

Operator: REC

Column phase: RTX-VMS

Column diameter: 0.18

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	18.85
75	30.00 - 60.00% of mass 95	51.95
96	5.00 - 9.00% of mass 95	6.53
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	64.58
175	5.00 - 9.00% of mass 174	5.63 (8.72)
176	95.00 - 101.00% of mass 174	63.81 (98.80)
177	5.00 - 9.00% of mass 176	3.99 (6.26)

Date : 10-JUN-2014 10:20

Client ID:

Instrument: gcms-w.i

Sample Info: WG144443-10,SH3734

Operator: REC

Column phase: RTX-VMS

Column diameter: 0.18

Data File: WB013.D
Spectrum: Avg. Scans 63-65 (3.04), Background Scan 58
Location of Maximum: 95.00
Number of points: 42

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	114	56.00	445	75.00	13423	95.00	25840
37.00	841	57.00	597	76.00	1067	96.00	1687
38.00	569	60.00	198	77.00	191	105.00	86
39.00	246	61.00	1129	79.00	623	141.00	270
40.00	89	62.00	1197	81.00	459	143.00	94
44.00	253	63.00	1101	87.00	1134	174.00	16688
45.00	190	68.00	2703	88.00	1032	175.00	1456
47.00	434	69.00	2696	91.00	97	176.00	16488
49.00	751	70.00	106	92.00	560	177.00	1032
50.00	4871	73.00	1225	93.00	1239		
51.00	1412	74.00	4501	94.00	3206		

Raw QC Data Section

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client:
Lab ID: WG144443-9
Client ID: Method Blank Sample
Project:
SDG: SH3734
Lab File ID: W0220.D

Sample Date:
Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Dichlorodifluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
Chloromethane	U	1.0	ug/L	1	2	2.0	0.36	1.0
Vinyl Chloride	U	1.0	ug/L	1	2	2.0	0.25	1.0
Bromomethane	U	1.0	ug/L	1	2	2.0	0.49	1.0
Chloroethane	U	1.0	ug/L	1	2	2.0	0.55	1.0
Trichlorofluoromethane	U	1.0	ug/L	1	2	2.0	0.24	1.0
1,1-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.35	0.50
Carbon Disulfide	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methylene Chloride	U	2.5	ug/L	1	5	5.0	1.1	2.5
Acetone	U	2.5	ug/L	1	5	5.0	2.2	2.5
trans-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.25	0.50
Methyl tert-butyl Ether	U	0.50	ug/L	1	1	1.0	0.36	0.50
1,1-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
cis-1,2-Dichloroethene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Chloroform	U	0.50	ug/L	1	1	1.0	0.32	0.50
1,1,1-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
2-Butanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
Carbon Tetrachloride	U	0.50	ug/L	1	1	1.0	0.22	0.50
Benzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,2-Dichloroethane	U	0.50	ug/L	1	1	1.0	0.20	0.50
Trichloroethene	U	0.50	ug/L	1	1	1.0	0.28	0.50
1,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromodichloromethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
cis-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.19	0.50
Toluene	U	0.50	ug/L	1	1	1.0	0.27	0.50
4-Methyl-2-Pentanone	U	2.5	ug/L	1	5	5.0	1.3	2.5
trans-1,3-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,1,2-Trichloroethane	U	0.50	ug/L	1	1	1.0	0.33	0.50
Tetrachloroethene	U	0.50	ug/L	1	1	1.0	0.40	0.50
Dibromochloromethane	U	0.50	ug/L	1	1	1.0	0.30	0.50
1,2-Dibromoethane	U	0.50	ug/L	1	1	1.0	0.22	0.50
Chlorobenzene	U	0.50	ug/L	1	1	1.0	0.22	0.50
Ethylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
Styrene	U	0.50	ug/L	1	1	1.0	0.23	0.50

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Report of Analytical Results

Client:
Lab ID: WG144443-9
Client ID: Method Blank Sample
Project:
SDG: SH3734
Lab File ID: W0220.D

Sample Date:
Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Bromoform	U	0.50	ug/L	1	1	1.0	0.23	0.50
Isopropylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
1,1,2,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.38	0.50
1,3-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
1,4-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
1,2-Dichlorobenzene	U	0.50	ug/L	1	1	1.0	0.15	0.50
1,2-Dibromo-3-Chloropropane	U	1.0	ug/L	1	2	2.0	0.50	1.0
1,2,4-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.37	0.50
1,1,1,2-Tetrachloroethane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,1-Dichloropropene	U	0.50	ug/L	1	1	1.0	0.21	0.50
1,2,3-Trichlorobenzene	U	0.50	ug/L	1	1	1.0	0.27	0.50
1,2,3-Trichloropropane	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,2,4-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.19	0.50
1,3,5-Trimethylbenzene	U	0.50	ug/L	1	1	1.0	0.20	0.50
1,3-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.22	0.50
2-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.20	0.50
2,2-Dichloropropane	U	0.50	ug/L	1	1	1.0	0.25	0.50
Bromobenzene	U	0.50	ug/L	1	1	1.0	0.24	0.50
Bromochloromethane	U	0.50	ug/L	1	1	1.0	0.21	0.50
Dibromomethane	U	0.50	ug/L	1	1	1.0	0.46	0.50
Hexachlorobutadiene	U	0.75	ug/L	1	1	1.0	0.52	0.75
m+p-Xylenes	U	1.0	ug/L	1	2	2.0	0.59	1.0
Naphthalene	U	0.50	ug/L	1	1	1.0	0.30	0.50
n-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.23	0.50
n-Propylbenzene	U	0.50	ug/L	1	1	1.0	0.26	0.50
o-xylene	U	0.50	ug/L	1	1	1.0	0.25	0.50
p-Isopropyltoluene	U	0.50	ug/L	1	1	1.0	0.25	0.50
sec-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.21	0.50
tert-Butylbenzene	U	0.50	ug/L	1	1	1.0	0.31	0.50
1,4-Dioxane	U	50	ug/L	1	100	100	8.8	50.
2-Hexanone	U	2.5	ug/L	1	5	5.0	1.7	2.5
4-Chlorotoluene	U	0.50	ug/L	1	1	1.0	0.26	0.50
Diethyl Ether	U	0.50	ug/L	1	1	1.0	0.40	0.50
Di-Isopropyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50

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Report of Analytical Results

Client:
Lab ID: WG144443-9
Client ID: Method Blank Sample
Project:
SDG: SH3734
Lab File ID: W0220.D

Sample Date:
Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Ethyl Tertiary-Butyl Ether	U	0.50	ug/L	1	1	1.0	0.23	0.50
Tertiary-Amyl Methyl Ether	U	0.50	ug/L	1	1	1.0	0.21	0.50
Tetrahydrofuran	U	5.0	ug/L	1	10	10.	1.7	5.0
P-Bromofluorobenzene		98.3	%					
Toluene-d8		94.6	%					
1,2-Dichloroethane-d4		89.4	%					
Dibromofluoromethane		93.8	%					

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0220.D
Report Date: 12-Jun-2014 10:27

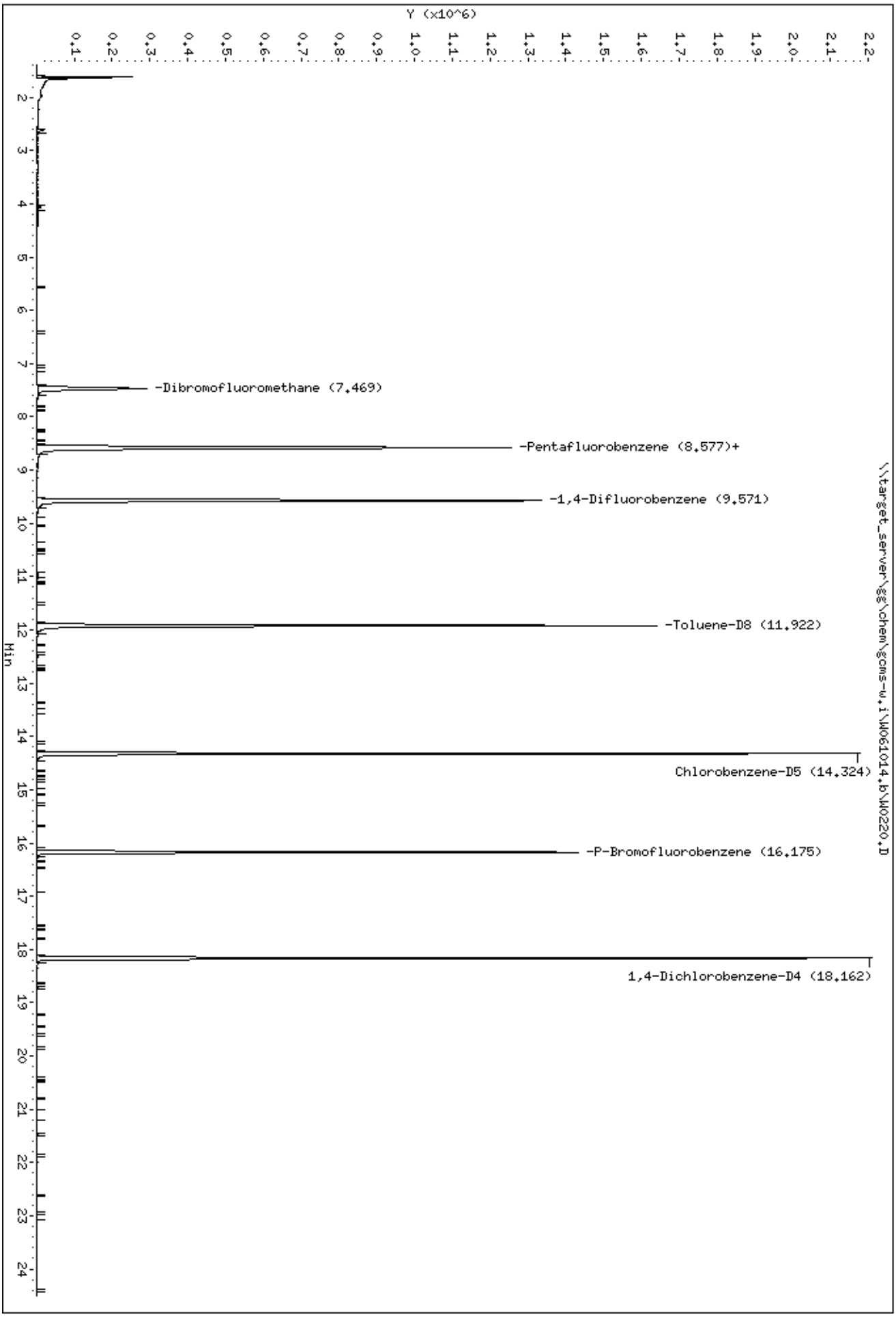
Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0220.D
Lab Smp Id: WG144443-9 Client Smp ID: WG144443-Blank
Inj Date : 10-JUN-2014 16:30
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-9,SH3734
Misc Info : WG144443,WG144443-4,SH3734-9
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
$	37 Dibromofluoromethane	113	7.469	7.461	(0.871)	294108	46.9004	46.9	
*	42 Pentafluorobenzene	168	8.577	8.576	(1.000)	802658	50.0000		
$	45 1,2-Dichloroethane-D4	65	8.577	8.576	(1.000)	382860	44.7292	44.7	
*	49 1,4-Difluorobenzene	114	9.570	9.563	(1.000)	1370598	50.0000		
$	55 Toluene-D8	98	11.922	11.914	(1.246)	1327791	47.3068	47.3	
*	66 Chlorobenzene-D5	117	14.324	14.323	(1.000)	1282991	50.0000		
$	77 P-Bromofluorobenzene	95	16.175	16.175	(1.690)	598306	49.1491	49.1	
*	92 1,4-Dichlorobenzene-D4	152	18.162	18.169	(1.000)	704239	50.0000		


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0220.D
Date : 10-JUN-2014 16:30
Client ID: WG144443-Blank
Sample Info: WG144443-9,SH3734
Instrument: gcms-w.i
\\target_server\gg\chem\gcms-w.i\W061014.b\W0220.D
Y (x10^6)
Min
-Dibromofluoromethane (7.469)
-Pentafluorobenzene (8.577)+
-1,4-Difluorobenzene (9.571)
-Toluene-D8 (11.922)
Chlorobenzene-D5 (14.324)
-P-Bromofluorobenzene (16.175)
1,4-Dichlorobenzene-D4 (18.162)

LCS Recovery Report

Client:
Lab ID: WG144443-8
Client ID: LCS
Project:
SDG: SH3734
LCS File ID: W0217.D

Sample Date:
Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Dichlorodifluoromethane	108.	50.0	54.1	ug/L	30-155
Chloromethane	96.6	50.0	48.3	ug/L	40-125
Vinyl Chloride	100.	50.0	50.0	ug/L	50-145
Bromomethane	96.0	50.0	48.0	ug/L	30-145
Chloroethane	88.2	50.0	44.1	ug/L	60-135
Trichlorofluoromethane	97.0	50.0	48.5	ug/L	60-145
1,1-Dichloroethene	99.4	50.0	49.7	ug/L	70-130
Carbon Disulfide	112.	50.0	56.2	ug/L	35-160
Methylene Chloride	94.2	50.0	47.1	ug/L	55-140
Acetone	* 174.	50.0	86.8	ug/L	40-140
trans-1,2-Dichloroethene	98.8	50.0	49.4	ug/L	60-140
Methyl tert-butyl Ether	106.	100.	106.	ug/L	65-125
1,1-Dichloroethane	102.	50.0	50.9	ug/L	70-135
cis-1,2-Dichloroethene	100.	50.0	50.1	ug/L	70-125
Chloroform	100.	50.0	50.2	ug/L	65-135
1,1,1-Trichloroethane	102.	50.0	50.8	ug/L	65-130
2-Butanone	135.	50.0	67.5	ug/L	30-150
Carbon Tetrachloride	102.	50.0	51.1	ug/L	65-140
Benzene	101.	50.0	50.4	ug/L	80-120
1,2-Dichloroethane	102.	50.0	51.0	ug/L	70-130
Trichloroethene	100.	50.0	50.1	ug/L	70-125
1,2-Dichloropropane	102.	50.0	51.2	ug/L	75-125
Bromodichloromethane	108.	50.0	53.8	ug/L	75-120
cis-1,3-Dichloropropene	104.	50.0	51.8	ug/L	70-130
Toluene	99.6	50.0	49.8	ug/L	75-120
4-Methyl-2-Pentanone	115.	50.0	57.3	ug/L	60-135
trans-1,3-Dichloropropene	104.	50.0	51.8	ug/L	55-140
1,1,2-Trichloroethane	105.	50.0	52.7	ug/L	75-125
Tetrachloroethene	103.	50.0	51.4	ug/L	45-150
Dibromochloromethane	108.	50.0	53.9	ug/L	60-135
1,2-Dibromoethane	106.	50.0	53.1	ug/L	80-120
Chlorobenzene	109.	50.0	54.5	ug/L	80-120
Ethylbenzene	101.	50.0	50.3	ug/L	75-125
Styrene	108.	50.0	53.8	ug/L	65-135
Bromoform	96.6	50.0	48.3	ug/L	70-130

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

LCS Recovery Report

Client:
Lab ID: WG144443-8
Client ID: LCS
Project:
SDG: SH3734
LCS File ID: W0217.D

Sample Date:
Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Isopropylbenzene	99.4	50.0	49.7	ug/L	75-125
1,1,2,2-Tetrachloroethane	102.	50.0	51.1	ug/L	65-130
1,3-Dichlorobenzene	110.	50.0	55.1	ug/L	75-125
1,4-Dichlorobenzene	101.	50.0	50.6	ug/L	75-125
1,2-Dichlorobenzene	112.	50.0	56.2	ug/L	70-120
1,2-Dibromo-3-Chloropropane	109.	50.0	54.6	ug/L	50-130
1,2,4-Trichlorobenzene	102.	50.0	51.0	ug/L	65-135
1,1,1,2-Tetrachloroethane	106.	50.0	52.9	ug/L	80-130
1,1-Dichloropropene	97.8	50.0	48.9	ug/L	75-130
1,2,3-Trichlorobenzene	103.	50.0	51.5	ug/L	55-140
1,2,3-Trichloropropane	103.	50.0	51.5	ug/L	75-125
1,2,4-Trimethylbenzene	103.	50.0	51.4	ug/L	75-130
1,3,5-Trimethylbenzene	102.	50.0	51.0	ug/L	75-130
1,3-Dichloropropane	107.	50.0	53.5	ug/L	75-125
2-Chlorotoluene	108.	50.0	53.9	ug/L	75-125
2,2-Dichloropropane	99.8	50.0	49.9	ug/L	70-135
Bromobenzene	102.	50.0	51.0	ug/L	75-125
Bromochloromethane	106.	50.0	53.2	ug/L	65-130
Dibromomethane	102.	50.0	50.9	ug/L	75-125
Hexachlorobutadiene	109.	50.0	54.3	ug/L	50-140
m+p-Xylenes	108.	100.	108.	ug/L	75-130
Naphthalene	84.8	50.0	42.4	ug/L	55-140
n-Butylbenzene	91.4	50.0	45.7	ug/L	70-135
n-Propylbenzene	101.	50.0	50.3	ug/L	70-130
o-xylene	110.	50.0	55.2	ug/L	80-120
p-Isopropyltoluene	113.	50.0	56.5	ug/L	75-130
sec-Butylbenzene	111.	50.0	55.7	ug/L	70-125
tert-Butylbenzene	111.	50.0	55.3	ug/L	70-130
1,4-Dioxane	48.4	1000	484.	ug/L	10-149
2-Hexanone	129.	50.0	64.6	ug/L	55-130
4-Chlorotoluene	112.	50.0	55.8	ug/L	75-130
Diethyl Ether	99.8	50.0	49.9	ug/L	78-124
Di-Isopropyl Ether	100.	50.0	50.1	ug/L	81-123
Ethyl Tertiary-Butyl Ether	102.	50.0	50.9	ug/L	85-119
Tertiary-Amyl Methyl Ether	104.	50.0	51.8	ug/L	80-121

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SDG: SH3734
LCS File ID: W0217.D

Sample Date:
Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Recovery (%)	Conc Added	Conc Recovered	Conc Units	Limits
Tetrahydrofuran	117.	50.0	58.7	ug/L	74-123
P-Bromofluorobenzene	100.				75-120
Toluene-d8	94.8				85-120
1,2-Dichloroethane-d4	83.6				70-120
Dibromofluoromethane	92.2				85-115

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217.D
Report Date: 12-Jun-2014 10:27

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0217.D
Lab Smp Id: WG144443-8 Client Smp ID: WG144443-LCS
Inj Date : 10-JUN-2014 14:43
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-8,SH3734
Misc Info : WG144443,WG144443-4,SH3734-9
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SW8260-S.sub
Target Version: 4.12

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.787	1.779	(0.208)	491521	54.1431	54.1	
2	Chloromethane	50	1.987	1.993	(0.231)	530281	48.3492	48.3	
3	Vinyl chloride	62	2.073	2.072	(0.241)	508814	49.9946	50.0	
4	Bromomethane	94	2.423	2.422	(0.282)	229269	47.9638	48.0	
5	Chloroethane	64	2.559	2.551	(0.298)	257367	44.0973	44.1	
6	Trichlorofluoromethane	101	2.709	2.708	(0.316)	587846	48.4849	48.5	
7	Diethyl Ether	59	3.066	3.065	(0.357)	319497	49.9221	49.9	
8	Tertiary-butyl alcohol	59	4.696	4.681	(0.547)	130599	215.408	215	
9	1,1-Dichloroethene	96	3.295	3.294	(0.384)	375182	49.6970	49.7	
10	Carbon Disulfide	76	3.324	3.323	(0.387)	1148764	56.2451	56.2	
11	Freon-113	151	3.352	3.344	(0.391)	231020	50.9510	51.0	
12	Iodomethane	142	3.474	3.473	(0.405)	432811	53.6965	53.7	
13	Acrolein	56	3.745	3.737	(0.436)	322252	249.219	249	
14	Methylene Chloride	84	4.067	4.066	(0.474)	455992	47.0892	47.1	
15	Acetone	43	4.167	4.159	(0.485)	134738	86.8556	86.8(R)	
16	Isobutyl Alcohol	43	8.999	8.991	(1.048)	187238	998.674	999	
17	trans-1,2-Dichloroethene	96	4.296	4.295	(0.500)	431942	49.4030	49.4	
18	Allyl Chloride	41	3.917	3.916	(0.456)	398482	48.5951	48.6	
19	Methyl tert-butyl ether	73	4.482	4.473	(0.522)	2636983	106.528	106	
20	Acetonitrile	39	4.889	4.888	(0.570)	46797	376.304	376	
21	Di-isopropyl ether	45	5.125	5.110	(0.597)	1121328	50.1451	50.1	
22	Chloroprene	53	5.261	5.253	(0.613)	589901	49.6750	49.7	
23	Propionitrile	54	8.420	8.419	(0.981)	468902	482.456	482	
24	Methacrylonitrile	41	8.449	8.448	(0.984)	1828213	509.322	509	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217.D
Report Date: 12-Jun-2014 10:27

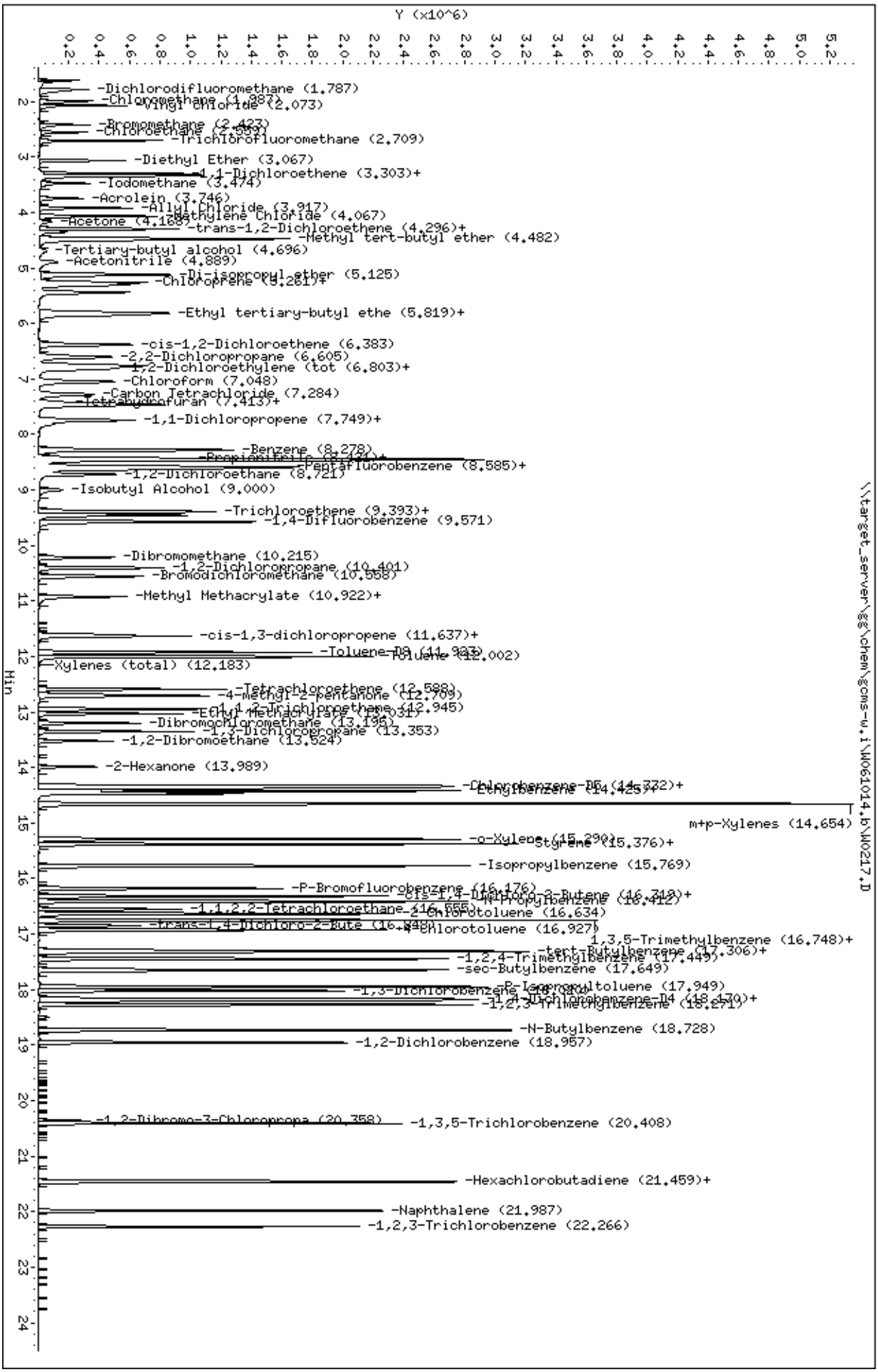
		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	25	1,1-Dichloroethane	63	5.311	5.303	(0.619)	777585	50.9108	50.9	
	26	Acrylonitrile	52	5.261	5.253	(0.613)	140142	242.250	242	
	27	Ethyl tertiary-butyl ether	59	5.811	5.803	(0.677)	1305025	50.9264	50.9	
	28	Vinyl Acetate	43	5.854	5.839	(0.612)	858077	54.7986	54.8	
	29	cis-1,2-Dichloroethene	96	6.383	6.375	(0.744)	447916	50.0824	50.1	
M	30	1,2-Dichloroethylene (total)	96				879858	99.4854	99.5	
	31	Methyl Methacrylate	41	10.922	10.914	(1.141)	263777	51.5165	51.5	
	32	2,2-Dichloropropane	77	6.605	6.596	(0.769)	666723	49.8807	49.9	
	33	Bromochloromethane	128	6.819	6.811	(0.794)	188260	53.1703	53.2	
	34	Chloroform	83	7.048	7.040	(0.821)	748038	50.1885	50.2	
	35	Carbon Tetrachloride	117	7.284	7.268	(0.761)	447534	51.1274	51.1	
	36	Tetrahydrofuran	42	7.412	7.383	(0.863)	97344	58.6849	58.7	
$	37	Dibromofluoromethane	113	7.477	7.461	(0.871)	319649	46.1184	46.1	
	38	1,1,1-Trichloroethane	97	7.462	7.447	(0.869)	684707	50.7601	50.8	
	39	1,1-Dichloropropene	75	7.748	7.733	(0.810)	599657	48.9117	48.9	
	40	2-Butanone	43	7.820	7.797	(0.911)	172388	67.5310	67.5	
	41	Benzene	78	8.277	8.269	(0.865)	1804571	50.4069	50.4	
*	42	Pentafluorobenzene	168	8.585	8.576	(1.000)	887154	50.0000		
	43	Cyclohexane	56	6.769	6.754	(0.789)	679321	48.1791	48.2	
	44	Ethyl Methacrylate	69	13.031	13.022	(1.361)	643192	54.0664	54.1	
$	45	1,2-Dichloroethane-D4	65	8.585	8.576	(1.000)	395642	41.8201	41.8	
	46	Tertiary-amyl methyl ether	73	8.613	8.605	(1.003)	1313600	51.8007	51.8	
	47	1,2-Dichloroethane	62	8.720	8.712	(0.911)	554097	51.0095	51.0	
	48	Trichloroethene	95	9.457	9.448	(0.988)	448174	50.1000	50.1	
*	49	1,4-Difluorobenzene	114	9.571	9.563	(1.000)	1477138	50.0000		
	50	Dibromomethane	93	10.214	10.206	(1.067)	250474	50.9373	50.9	
	51	1,2-Dichloropropane	63	10.400	10.392	(1.087)	430649	51.2145	51.2	
	52	Bromodichloromethane	83	10.557	10.549	(1.103)	604308	53.8350	53.8	
	53	cis-1,3-dichloropropene	75	11.637	11.629	(1.216)	763946	51.7691	51.8	
	54	1,4-Dioxane	88	10.943	10.935	(1.143)	103849	483.790	484(M)	
$	55	Toluene-D8	98	11.923	11.914	(1.246)	1433668	47.3949	47.4	
	56	2-Chloroethylvinylether	63	11.601	11.593	(1.212)	199351	45.6920	45.7	
	57	Toluene	92	12.001	12.000	(1.254)	1150745	49.8049	49.8	
	58	4-methyl-2-pentanone	43	12.680	12.679	(1.325)	316331	57.3100	57.3	
	59	Tetrachloroethene	164	12.587	12.579	(0.879)	327250	51.4062	51.4	
	60	trans-1,3-Dichloropropene	75	11.637	11.629	(1.216)	763946	51.7691	51.8	
	61	1,1,2-Trichloroethane	83	12.945	12.944	(1.352)	331490	52.6987	52.7	
	62	Dibromochloromethane	129	13.195	13.194	(0.921)	408274	53.9177	53.9	
	63	1,3-Dichloropropane	76	13.352	13.351	(0.932)	785288	53.5084	53.5	
	64	1,2-Dibromoethane	107	13.524	13.516	(1.413)	387582	53.1097	53.1	
	65	2-Hexanone	43	13.988	13.980	(0.977)	242878	64.5691	64.6	
*	66	Chlorobenzene-D5	117	14.324	14.323	(1.000)	1417481	50.0000		
	67	Chlorobenzene	112	14.346	14.345	(1.001)	1193295	54.5399	54.5	
	68	1-Chlorohexane	91	14.374	14.366	(1.003)	721183	54.4700	54.5	
	69	Ethylbenzene	106	14.424	14.423	(1.007)	693722	50.3006	50.3	
	70	1,1,1,2-Tetrachloroethane	131	14.467	14.466	(1.010)	413894	52.9493	52.9	
M	71	Xylenes (total)	106				2528644	163.450	163	
	72	m+p-Xylenes	106	14.653	14.652	(1.023)	1702630	108.204	108	
	73	o-Xylene	106	15.289	15.288	(1.067)	826014	55.2459	55.2	
	74	Styrene	104	15.375	15.374	(1.073)	1413905	53.7624	53.8	
	75	Bromoform	173	15.382	15.381	(1.074)	272971	48.3332	48.3	
	76	Isopropylbenzene	105	15.775	15.767	(0.868)	2196911	49.7423	49.7	
$	77	P-Bromofluorobenzene	95	16.176	16.175	(1.690)	659692	50.2831	50.3	
	78	cis-1,4-Dichloro-2-Butene	53	16.319	16.318	(0.898)	167967	52.3636	52.4	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217.D
Report Date: 12-Jun-2014 10:27

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	79 trans-1,4-Dichloro-2-Butene	53	16.848	16.847	(0.927)	159490	51.9649	52.0	
	80 Bromobenzene	156	16.319	16.310	(0.898)	489062	50.9960	51.0	
	81 N-Propylbenzene	91	16.412	16.403	(0.903)	2758218	50.2705	50.3	
	82 1,1,2,2-Tetrachloroethane	83	16.555	16.554	(0.911)	545802	51.0725	51.1	
	83 1,3,5-Trimethylbenzene	105	16.755	16.754	(0.922)	2003652	50.9899	51.0	
	84 2-Chlorotoluene	91	16.633	16.632	(0.915)	1688354	53.9126	53.9	
	85 1,2,3-Trichloropropane	75	16.748	16.747	(0.922)	477933	51.4635	51.5	
	86 4-Chlorotoluene	91	16.926	16.925	(0.932)	1801703	55.8402	55.8	
	87 tert-Butylbenzene	119	17.305	17.304	(0.952)	1922885	55.2668	55.3	
	88 Pentachloroethane	117	17.319	17.318	(0.953)	364238	54.1742	54.2	
	89 1,2,4-Trimethylbenzene	105	17.448	17.447	(0.960)	2033722	51.3979	51.4	
	90 P-Isopropyltoluene	119	17.948	17.947	(0.988)	2231652	56.4619	56.5	
	91 1,3-Dichlorobenzene	146	18.020	18.019	(0.992)	1022686	55.0700	55.1	
*	92 1,4-Dichlorobenzene-D4	152	18.170	18.169	(1.000)	840691	50.0000		
	93 1,4-Dichlorobenzene	146	18.191	18.198	(1.001)	1044295	50.5798	50.6	
	94 N-Butylbenzene	91	18.735	18.734	(1.031)	2226110	45.7356	45.7	
	95 sec-Butylbenzene	105	17.648	17.647	(0.971)	2586460	55.7071	55.7	
	96 1,2-Dichlorobenzene	146	18.956	18.955	(1.043)	979842	56.2447	56.2	
	97 1,2-Dibromo-3-Chloropropane	75	20.357	20.356	(1.120)	109089	54.5944	54.6	
	98 1,3,5-Trichlorobenzene	180	20.407	20.406	(1.123)	788028	52.5074	52.5	
	99 Hexachlorobutadiene	225	21.451	21.450	(1.181)	361547	54.2982	54.3	
	100 1,2,4-Trichlorobenzene	180	21.465	21.471	(1.181)	687765	50.9994	51.0	
	101 1,2,3-Trimethylbenzene	105	18.270	18.269	(1.006)	2069478	52.7594	52.8	
	102 Naphthalene	128	21.987	21.986	(1.210)	1793164	42.4281	42.4	
	103 1,2,3-Trichlorobenzene	180	22.266	22.272	(1.225)	636956	51.4754	51.5	
	104 Methyl Acetate	43	4.353	4.345	(0.507)	239329	51.6763	51.7	
	105 Methylcyclohexane	83	9.392	9.384	(1.094)	795668	51.8847	51.9	
M	106 Total Alkylbenzenes	100				15762699	365.830	366	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.


Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0217.D
Date : 10-JUN-2014 14:43
Client ID: WG144443-LCS
Sample Info: WG144443-8,SH3734
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
\\target_server\gg\chem\gcms-w.i\W061014.b\W0217.D
Y (x10^6)
Min
-Dichlorodifluoromethane (1.787)
-Chloromethane (1.987)
-Vinyl Chloride (2.073)
-Bromomethane (2.427)
-Chloroethane (2.559)
-Trichlorofluoromethane (2.709)
-Diethyl Ether (3.067)
-1,1-Dichloroethene (3.303)+
-Iodomethane (3.474)
-Acrolein (3.746)
-Allyl Chloride (3.917)
-Methylene Chloride (4.067)
-Acetone (4.168)
-trans-1,2-Dichloroethene (4.296)+
-Methyl tert-butyl ether (4.482)
-Tertiary-butyl alcohol (4.696)
-Acetonitrile (4.889)
-Di-isopropyl ether (5.125)
-Chloroprene (5.261)+
-Ethyl tertiary-butyl ethe (5.819)+
-cis-1,2-Dichloroethene (6.383)
-2,2-Dichloropropane (6.605)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.048)
-Carbon Tetrachloride (7.284)
-Tetrahydrofuran (7.413)+
-1,1-Dichloropropene (7.749)+
-Benzene (8.278)
-Perfluorobenzene (8.585)+
-1,2-Dichloroethane (8.721)
-Isobutyl Alcohol (9.000)
-Trichloroethene (9.393)+
-1,4-Difluorobenzene (9.571)
-Dibromomethane (10.215)
-1,2-Dichloropropane (10.401)
-Bromodichloromethane (10.558)
-Methyl Methacrylate (10.922)+
-cis-1,3-dichloropropene (11.637)+
-Toluene-D8 (11.937)
-Toluene (12.002)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.598)
-4-Methyl-2-pentanone (12.709)
-1,1,2-Trichloroethane (12.945)
-Ethyl Methacrylate (13.031)+
-Dibromochloromethane (13.195)
-1,3-Dichloropropane (13.353)
-1,2-Dibromoethane (13.524)
-2-Hexanone (13.989)
-Chlorobenzene-D5 (14.372)+
-Ethylbenzene (14.425)+
m+p-Xylenes (14.654)
-o-Xylene (15.290)
-Styrene (15.376)+
-Isopropylbenzene (15.769)
-P-Bromofluorobenzene (16.176)
-cis-1,4-Dichloro-2-Butene (16.218)+
-N-Propylbenzene (16.412)
-1,1,2,2-Tetrachloroethane (16.555)
-2-Chlorotoluene (16.634)
-trans-1,4-Dichloro-2-Bute (16.848)+
-4-Chlorotoluene (16.927)
-1,3,5-Trimethylbenzene (16.748)+
-tert-Butylbenzene (17.306)+
-1,2,4-Trimethylbenzene (17.449)
-sec-Butylbenzene (17.649)
-P-Isopropyltoluene (17.949)
-1,3-Dichlorobenzene (18.020)
-1,4-Dichlorobenzene-D4 (18.170)+
-1,2,3-Trimethylbenzene (18.271)
-N-Butylbenzene (18.728)
-1,2-Dichlorobenzene (18.957)
-1,2-Dibromo-3-Chloropropa (20.358)
-1,3,5-Trichlorobenzene (20.408)
-Hexachlorobutadiene (21.459)+
-Naphthalene (21.987)
-1,2,3-Trichlorobenzene (22.266)

MS/MSD Recovery Report

MS ID: WG144443-11
MSD ID: WG144443-12
Sample ID: SH3734-1
Client ID: MW-005-052914
Project:
SDG: SH3734
MS File ID: W0230.D

Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443
Report Date: 12-JUN-14
MSD File ID: W0231.D

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Dichlorodifluoromethane	50.0	50.0	ug/L	U1.0	62.5	66.1	125.	132.	6	30	30-155
Chloromethane	50.0	50.0	ug/L	U1.0	44.9	44.2	89.8	88.4	2	30	40-125
Vinyl Chloride	50.0	50.0	ug/L	U1.0	56.6	60.3	113.	121.	6	30	50-145
Bromomethane	50.0	50.0	ug/L	UMM1.0	9.50	9.60	19.0*	19.2*	1	30	30-145
Chloroethane	50.0	50.0	ug/L	U1.0	46.5	55.0	93.0	110.	17	30	60-135
Trichlorofluoromethane	50.0	50.0	ug/L	U1.0	62.5	63.3	125.	127.	1	30	60-145
1,1-Dichloroethene	50.0	50.0	ug/L	U0.50	55.1	58.0	110.	116.	5	30	70-130
Carbon Disulfide	50.0	50.0	ug/L	J0.36	64.7	70.0	129.	139.	8	30	35-160
Methylene Chloride	50.0	50.0	ug/L	U2.5	47.6	48.9	95.2	97.8	3	30	55-140
Acetone	50.0	50.0	ug/L	ULMM2.	83.2	80.2	166.*	160.*	4	30	40-140
trans-1,2-Dichloroethene	50.0	50.0	ug/L	U0.50	48.7	54.1	97.4	108.	10	30	60-140
Methyl tert-butyl Ether	100.	100.	ug/L	U0.50	105.	116.	105.	116.	10	30	65-125
1,1-Dichloroethane	50.0	50.0	ug/L	U0.50	55.0	57.2	110.	114.	4	30	70-135
cis-1,2-Dichloroethene	50.0	50.0	ug/L	U0.50	50.3	51.6	101.	103.	2	30	70-125
Chloroform	50.0	50.0	ug/L	U0.50	52.6	53.6	105.	107.	2	30	65-135
1,1,1-Trichloroethane	50.0	50.0	ug/L	U0.50	54.6	55.6	109.	111.	2	30	65-130
2-Butanone	50.0	50.0	ug/L	UM2.5	70.0	76.2	140.	152.*	8	30	30-150
Carbon Tetrachloride	50.0	50.0	ug/L	U0.50	61.6	61.1	123.	122.	1	30	65-140
Benzene	50.0	50.0	ug/L	U0.50	51.6	53.4	103.	107.	3	30	80-120
1,2-Dichloroethane	50.0	50.0	ug/L	U0.50	54.8	55.9	110.	112.	2	30	70-130
Trichloroethene	50.0	50.0	ug/L	U0.50	51.2	53.6	102.	107.	4	30	70-125
1,2-Dichloropropane	50.0	50.0	ug/L	U0.50	54.3	56.1	109.	112.	3	30	75-125
Bromodichloromethane	50.0	50.0	ug/L	U0.50	54.2	55.3	108.	111.	2	30	75-120
cis-1,3-Dichloropropene	50.0	50.0	ug/L	U0.50	50.5	51.9	101.	104.	3	30	70-130
Toluene	50.0	50.0	ug/L	U0.50	50.7	53.0	101.	106.	4	30	75-120
4-Methyl-2-Pentanone	50.0	50.0	ug/L	UMM2.5	71.0	74.8	142.*	150.*	5	30	60-135
trans-1,3-Dichloropropene	50.0	50.0	ug/L	U0.50	50.5	51.9	101.	104.	3	30	55-140
1,1,2-Trichloroethane	50.0	50.0	ug/L	U0.50	52.0	54.9	104.	110.	5	30	75-125
Tetrachloroethene	50.0	50.0	ug/L	U0.50	52.2	54.0	104.	108.	3	30	45-150
Dibromochloromethane	50.0	50.0	ug/L	U0.50	52.6	53.4	105.	107.	2	30	60-135
1,2-Dibromoethane	50.0	50.0	ug/L	U0.50	51.2	54.0	102.	108.	5	30	80-120
Chlorobenzene	50.0	50.0	ug/L	U0.50	56.5	57.9	113.	116.	2	30	80-120
Ethylbenzene	50.0	50.0	ug/L	U0.50	51.8	53.7	104.	107.	4	30	75-125

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MS/MSD Recovery Report

MS ID: WG144443-11
MSD ID: WG144443-12
Sample ID: SH3734-1
Client ID: MW-005-052914
Project:
SDG: SH3734
MS File ID: W0230.D

Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443
Report Date: 12-JUN-14
MSD File ID: W0231.D

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Styrene	50.0	50.0	ug/L	U0.50	54.2	56.2	108.	112.	4	30	65-135
Bromoform	50.0	50.0	ug/L	U0.50	46.8	47.6	93.6	95.2	2	30	70-130
Isopropylbenzene	50.0	50.0	ug/L	U0.50	54.4	55.8	109.	112.	2	30	75-125
1,1,2,2-Tetrachloroethane	50.0	50.0	ug/L	U0.50	55.9	58.5	112.	117.	4	30	65-130
1,3-Dichlorobenzene	50.0	50.0	ug/L	U0.50	54.9	56.9	110.	114.	4	30	75-125
1,4-Dichlorobenzene	50.0	50.0	ug/L	U0.50	50.8	51.8	102.	104.	2	30	75-125
1,2-Dichlorobenzene	50.0	50.0	ug/L	U0.50	56.0	57.8	112.	116.	3	30	70-120
1,2-Dibromo-3-Chloropropane	50.0	50.0	ug/L	UMM1.0	70.1	75.6	140.*	151.*	8	30	50-130
1,2,4-Trichlorobenzene	50.0	50.0	ug/L	U0.50	53.8	54.0	108.	108.	0	30	65-135
1,1,1,2-Tetrachloroethane	50.0	50.0	ug/L	U0.50	53.1	54.9	106.	110.	3	30	80-130
1,1-Dichloropropene	50.0	50.0	ug/L	U0.50	52.6	54.2	105.	108.	3	30	75-130
1,2,3-Trichlorobenzene	50.0	50.0	ug/L	U0.50	53.2	54.4	106.	109.	2	30	55-140
1,2,3-Trichloropropane	50.0	50.0	ug/L	U0.50	59.0	61.6	118.	123.	4	30	75-125
1,2,4-Trimethylbenzene	50.0	50.0	ug/L	U0.50	53.7	55.0	107.	110.	2	30	75-130
1,3,5-Trimethylbenzene	50.0	50.0	ug/L	U0.50	53.6	55.0	107.	110.	2	30	75-130
1,3-Dichloropropane	50.0	50.0	ug/L	U0.50	55.6	57.2	111.	114.	3	30	75-125
2-Chlorotoluene	50.0	50.0	ug/L	U0.50	56.3	57.6	113.	115.	2	30	75-125
2,2-Dichloropropane	50.0	50.0	ug/L	U0.50	50.0	52.0	100.	104.	4	30	70-135
Bromobenzene	50.0	50.0	ug/L	U0.50	50.0	51.4	100.	103.	3	30	75-125
Bromochloromethane	50.0	50.0	ug/L	U0.50	50.0	49.3	100.	98.6	1	30	65-130
Dibromomethane	50.0	50.0	ug/L	U0.50	49.5	52.0	99.0	104.	5	30	75-125
Hexachlorobutadiene	50.0	50.0	ug/L	U0.75	62.7	64.4	125.	129.	3	30	50-140
m+p-Xylenes	100.	100.	ug/L	U1.0	114.	116.	114.	116.	2	30	75-130
Naphthalene	50.0	50.0	ug/L	U0.50	50.0	52.4	100.	105.	5	30	55-140
n-Butylbenzene	50.0	50.0	ug/L	U0.50	50.4	52.0	101.	104.	3	30	70-135
n-Propylbenzene	50.0	50.0	ug/L	U0.50	56.4	57.3	113.	115.	2	30	70-130
o-xylene	50.0	50.0	ug/L	U0.50	56.5	58.8	113.	118.	4	30	80-120
p-Isopropyltoluene	50.0	50.0	ug/L	U0.50	59.2	60.6	118.	121.	2	30	75-130
sec-Butylbenzene	50.0	50.0	ug/L	U0.50	59.1	60.8	118.	122.	3	30	70-125
tert-Butylbenzene	50.0	50.0	ug/L	U0.50	58.0	59.8	116.	120.	3	30	70-130
1,4-Dioxane	1000	1000	ug/L	U50	203.	242.	20.3	24.2	18	30	10-149
2-Hexanone	50.0	50.0	ug/L	UMM2.5	74.9	80.7	150.*	161.*	7	30	55-130
4-Chlorotoluene	50.0	50.0	ug/L	U0.50	58.0	59.4	116.	119.	2	30	75-130

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MS/MSD Recovery Report

MS ID: WG144443-11
MSD ID: WG144443-12
Sample ID: SH3734-1
Client ID: MW-005-052914
Project:
SDG: SH3734
MS File ID: W0230.D

Received Date:
Extract Date: 10-JUN-14
Extracted By: REC
Extraction Method: SW846 5030
Lab Prep Batch: WG144443
Report Date: 12-JUN-14
MSD File ID: W0231.D

Analysis Date: 10-JUN-14
Analyst: REC
Analysis Method: SW846 8260B
Matrix: AQ
% Solids: NA

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Diethyl Ether	50.0	50.0	ug/L	U0.50	51.2	56.6	102.	113.	10	30	78-124
Di-Isopropyl Ether	50.0	50.0	ug/L	U0.50	54.2	59.0	108.	118.	8	30	81-123
Ethyl Tertiary-Butyl Ether	50.0	50.0	ug/L	U0.50	51.0	56.4	102.	113.	10	30	85-119
Tertiary-Amyl Methyl Ether	50.0	50.0	ug/L	U0.50	51.2	56.3	102.	113.	9	30	80-121
Tetrahydrofuran	50.0	50.0	ug/L	UMM5.0	72.8	79.0	146.*	158.*	8	30	74-123
P-Bromofluorobenzene							114.	115.			75-120
Toluene-d8							111.	113.			85-120
1,2-Dichloroethane-d4							110.	111.			70-120
Dibromofluoromethane							106.	108.			85-115

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Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0230.D
Report Date: 12-Jun-2014 10:33

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0230.D
Lab Smp Id: WG144443-11 Client Smp ID: MW-005-052914MS
Inj Date : 10-JUN-2014 21:44
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-11,SH3734
Misc Info : WG144443,WG144443-4,SH3734-1
Comment : SW846 5030
Method : \\target_server\gg\chem\gcms-w.i\W061014.b\W826A01.m
Meth Date : 11-Jun-2014 11:22 gcms-w.i Quant Type: ISTD
Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.794	1.779	(0.208)	455227	62.5469	62.5	
2	Chloromethane	50	2.016	1.993	(0.234)	394751	44.8935	44.9	
3	Vinyl chloride	62	2.087	2.072	(0.242)	461856	56.6040	56.6	
4	Bromomethane	94	2.430	2.422	(0.282)	36325	9.47874	9.5(R)	
5	Chloroethane	64	2.566	2.551	(0.298)	217653	46.5158	46.5	
6	Trichlorofluoromethane	101	2.724	2.708	(0.316)	607380	62.4856	62.5	
7	Diethyl Ether	59	3.088	3.065	(0.358)	262997	51.2570	51.2	
8	Tertiary-butyl alcohol	59	4.739	4.681	(0.550)	127817	262.958	263	
9	1,1-Dichloroethene	96	3.317	3.294	(0.385)	333365	55.0789	55.1	
10	Carbon Disulfide	76	3.345	3.323	(0.388)	1060033	64.7366	64.7	
11	Freon-113	151	3.367	3.344	(0.391)	202382	55.6739	55.7	
12	Iodomethane	142	3.495	3.473	(0.406)	205396	31.6904	31.7	
13	Acrolein	56	3.774	3.737	(0.438)	288189	277.997	278	
14	Methylene Chloride	84	4.096	4.066	(0.475)	368819	47.5573	47.6	
15	Acetone	43	4.203	4.159	(0.488)	104099	83.1985	83.2(R)	
16	Isobutyl Alcohol	43	9.035	8.991	(1.048)	195907	1303.34	1300	
17	trans-1,2-Dichloroethene	96	4.325	4.295	(0.502)	341185	48.6737	48.7	
18	Allyl Chloride	41	3.946	3.916	(0.458)	365017	55.5231	55.5	
19	Methyl tert-butyl ether	73	4.511	4.473	(0.523)	2085452	105.083	105	
20	Acetonitrile	39	4.925	4.888	(0.571)	61058	612.407	612	
21	Di-isopropyl ether	45	5.161	5.110	(0.599)	972269	54.2324	54.2	
22	Chloroprene	53	5.297	5.253	(0.614)	524219	55.0615	55.1	
23	Propionitrile	54	8.463	8.419	(0.982)	541658	695.148	695(R)	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0230.D
Report Date: 12-Jun-2014 10:33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Methacrylonitrile	41	8.492	8.448	(0.985)	1853110	643.937	644(R)	
	25 1,1-Dichloroethane	63	5.340	5.303	(0.619)	673854	55.0306	55.0	
	26 Acrylonitrile	52	5.290	5.253	(0.614)	127705	275.346	275	
	27 Ethyl tertiary-butyl ether	59	5.854	5.803	(0.679)	1046812	50.9529	51.0	
	28 Vinyl Acetate	43	5.890	5.839	(0.613)	771196	61.0729	61.1	
	29 cis-1,2-Dichloroethene	96	6.426	6.375	(0.745)	360427	50.2670	50.3	
M	30 1,2-Dichloroethylene (total)	96				701612	98.9407	98.9	
	31 Methyl Methacrylate	41	10.951	10.914	(1.140)	262140	63.4868	63.5(R)	
	32 2,2-Dichloropropane	77	6.641	6.596	(0.770)	535629	49.9837	50.0	
	33 Bromochloromethane	128	6.869	6.811	(0.797)	141953	50.0072	50.0	
	34 Chloroform	83	7.091	7.040	(0.823)	628858	52.6272	52.6	
	35 Carbon Tetrachloride	117	7.327	7.268	(0.763)	436776	61.5689	61.6	
	36 Tetrahydrofuran	42	7.455	7.383	(0.865)	96785	72.7783	72.8(R)	
$	37 Dibromofluoromethane	113	7.513	7.461	(0.871)	294043	52.9162	52.9	
	38 1,1,1-Trichloroethane	97	7.498	7.447	(0.870)	590256	54.5802	54.6	
	39 1,1-Dichloropropene	75	7.784	7.733	(0.810)	520287	52.6251	52.6	
	40 2-Butanone	43	7.863	7.797	(0.912)	143213	69.9770	70.0	
	41 Benzene	78	8.313	8.269	(0.865)	1491058	51.6477	51.6	
*	42 Pentafluorobenzene	168	8.621	8.576	(1.000)	711250	50.0000		
	43 Cyclohexane	56	6.805	6.754	(0.789)	656671	58.0909	58.1	
	44 Ethyl Methacrylate	69	13.052	13.022	(1.359)	542688	56.5689	56.6	
$	45 1,2-Dichloroethane-D4	65	8.621	8.576	(1.000)	418424	55.1665	55.2	
	46 Tertiary-amyl methyl ether	73	8.649	8.605	(1.003)	1040574	51.1825	51.2	
	47 1,2-Dichloroethane	62	8.756	8.712	(0.911)	480372	54.8382	54.8	
	48 Trichloroethene	95	9.486	9.448	(0.987)	369148	51.1720	51.2	
*	49 1,4-Difluorobenzene	114	9.607	9.563	(1.000)	1191188	50.0000		
	50 Dibromomethane	93	10.243	10.206	(1.066)	196328	49.5104	49.5	
	51 1,2-Dichloropropane	63	10.429	10.392	(1.086)	367994	54.2689	54.3	
	52 Bromodichloromethane	83	10.586	10.549	(1.102)	490706	54.2086	54.2	
	53 cis-1,3-dichloropropene	75	11.659	11.629	(1.214)	600680	50.4769	50.5	
	54 1,4-Dioxane	88	10.972	10.935	(1.142)	35111	202.833	203	
$	55 Toluene-D8	98	11.944	11.914	(1.243)	1357938	55.6678	55.7	
	57 Toluene	92	12.030	12.000	(1.252)	945428	50.7413	50.7	
	58 4-methyl-2-pentanone	43	12.709	12.679	(1.323)	316094	71.0143	71.0(R)	
	59 Tetrachloroethene	164	12.609	12.579	(0.879)	262978	52.2046	52.2	
	60 trans-1,3-Dichloropropene	75	11.659	11.629	(1.214)	600680	50.4769	50.5	
	61 1,1,2-Trichloroethane	83	12.967	12.944	(1.350)	263557	51.9571	52.0	
	62 Dibromochloromethane	129	13.224	13.194	(0.922)	315358	52.6304	52.6	
	63 1,3-Dichloropropane	76	13.374	13.351	(0.932)	646272	55.6496	55.6	
	64 1,2-Dibromoethane	107	13.546	13.516	(1.410)	301473	51.2271	51.2	
	65 2-Hexanone	43	14.003	13.980	(0.976)	223005	74.9213	74.9(R)	
*	66 Chlorobenzene-D5	117	14.346	14.323	(1.000)	1121666	50.0000		
	67 Chlorobenzene	112	14.368	14.345	(1.001)	977513	56.4603	56.5	
	68 1-Chlorohexane	91	14.389	14.366	(1.003)	579743	55.3352	55.3	
	69 Ethylbenzene	106	14.446	14.423	(1.007)	565443	51.8120	51.8	
	70 1,1,1,2-Tetrachloroethane	131	14.489	14.466	(1.010)	328520	53.1113	53.1	
M	71 Xylenes (total)	106				2086408	170.377	170	
	72 m+p-Xylenes	106	14.675	14.652	(1.023)	1417714	113.859	114	
	73 o-Xylene	106	15.311	15.288	(1.067)	668694	56.5189	56.5	
	74 Styrene	104	15.397	15.374	(1.073)	1129087	54.2549	54.2	
	75 Bromoform	173	15.404	15.381	(1.074)	209294	46.8456	46.8	
	76 Isopropylbenzene	105	15.790	15.767	(0.868)	1867320	54.3614	54.4	
$	77 P-Bromofluorobenzene	95	16.190	16.175	(1.685)	601940	56.8951	56.9	
	78 cis-1,4-Dichloro-2-Butene	53	16.333	16.318	(0.898)	147290	57.7020	57.7	

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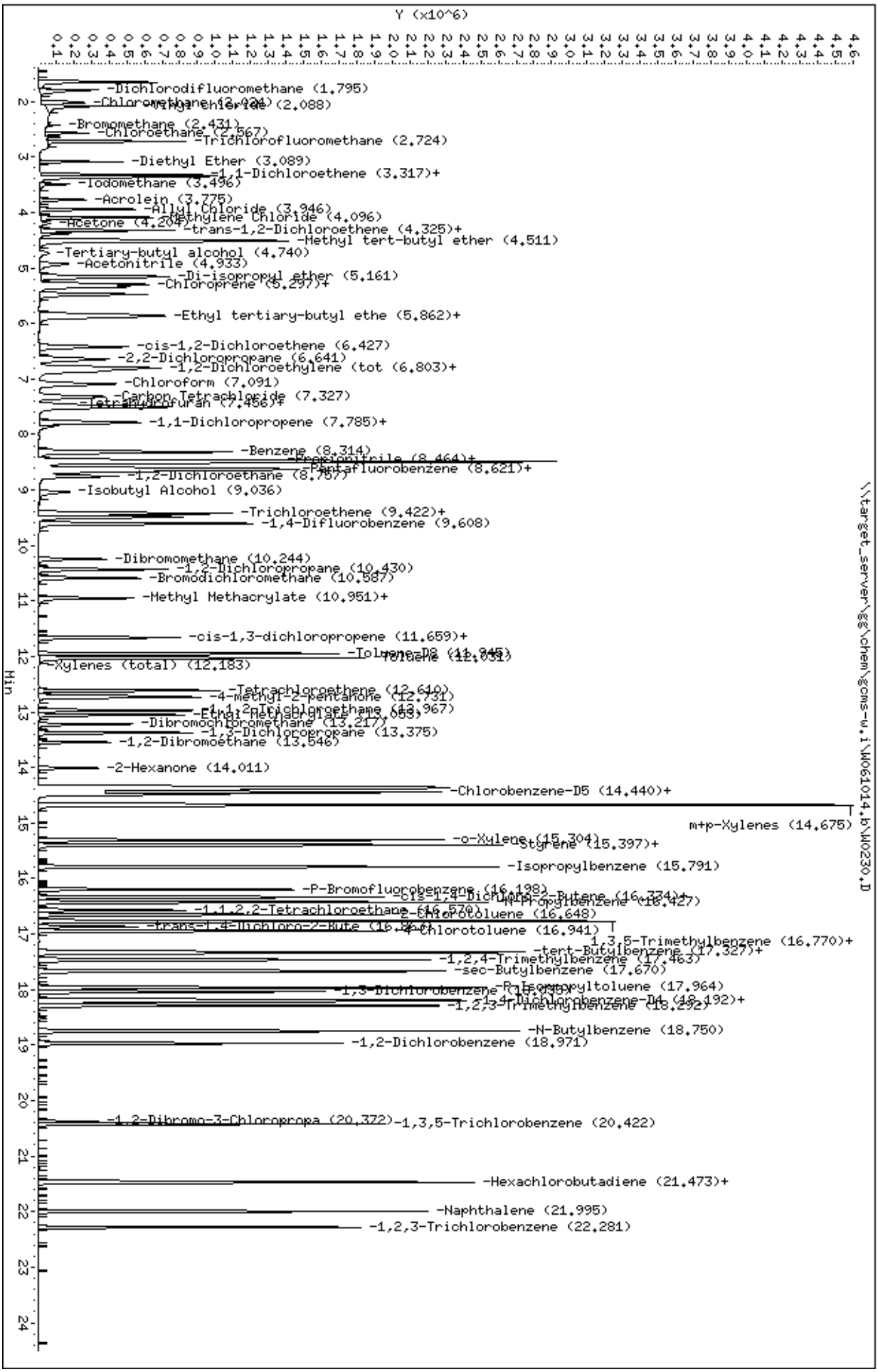
Report Date: 12-Jun-2014 10:33

							CONCENTRATIONS		
		QUANT SIG					ON-COLUMN	FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)	REVIEW CODE
	79 trans-1,4-Dichloro-2-Butene	53	16.862	16.847	(0.927)	139373	57.0646	57.1	
	80 Bromobenzene	156	16.333	16.310	(0.898)	381993	50.0540	50.0	
	81 N-Propylbenzene	91	16.426	16.403	(0.903)	2366853	56.3902	56.4	
	82 1,1,2,2-Tetrachloroethane	83	16.569	16.554	(0.911)	475655	55.9314	55.9	
	83 1,3,5-Trimethylbenzene	105	16.769	16.754	(0.922)	1677694	53.6521	53.6	
	84 2-Chlorotoluene	91	16.648	16.632	(0.915)	1403299	56.3104	56.3	
	85 1,2,3-Trichloropropane	75	16.762	16.747	(0.922)	436328	59.0414	59.0	
	86 4-Chlorotoluene	91	16.941	16.925	(0.932)	1488431	57.9701	58.0	
	87 tert-Butylbenzene	119	17.327	17.304	(0.953)	1606064	58.0077	58.0	
	88 Pentachloroethane	117	17.334	17.318	(0.953)	287522	53.7390	53.7	
	89 1,2,4-Trimethylbenzene	105	17.463	17.447	(0.960)	1690862	53.6999	53.7	
	90 P-Isopropyltoluene	119	17.963	17.947	(0.988)	1863386	59.2439	59.2	
	91 1,3-Dichlorobenzene	146	18.035	18.019	(0.992)	811882	54.9385	54.9	
*	92 1,4-Dichlorobenzene-D4	152	18.185	18.169	(1.000)	668998	50.0000		
	93 1,4-Dichlorobenzene	146	18.213	18.198	(1.002)	834733	50.8058	50.8	
	94 N-Butylbenzene	91	18.749	18.734	(1.031)	1902361	50.4420	50.4	
	95 sec-Butylbenzene	105	17.670	17.647	(0.972)	2182336	59.0660	59.1	
	96 1,2-Dichlorobenzene	146	18.971	18.955	(1.043)	775683	55.9528	56.0	
	97 1,2-Dibromo-3-Chloropropane	75	20.372	20.356	(1.120)	111478	70.1081	70.1(R)	
	98 1,3,5-Trichlorobenzene	180	20.422	20.406	(1.123)	635407	53.2038	53.2	
	99 Hexachlorobutadiene	225	21.458	21.450	(1.180)	332417	62.7359	62.7	
	100 1,2,4-Trichlorobenzene	180	21.480	21.471	(1.181)	576886	53.7559	53.8	
	101 1,2,3-Trimethylbenzene	105	18.292	18.269	(1.006)	1684109	53.9537	54.0	
	102 Naphthalene	128	21.995	21.986	(1.210)	1600351	50.0554	50.0	
	103 1,2,3-Trichlorobenzene	180	22.280	22.272	(1.225)	524126	53.2277	53.2	
	104 Methyl Acetate	43	4.382	4.345	(0.508)	250142	67.3689	67.4(R)	
	105 Methylcyclohexane	83	9.421	9.384	(1.093)	698388	56.8042	56.8	
M	106 Total Alkylbenzenes	100				13289556	390.502	390	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.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Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
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Y (x10^6)
Min
-Dichlorodifluoromethane (1.795)
-Chloromethane (2.024)
-Vinyl chloride (2.088)
-Bromomethane (2.431)
-Chloroethane (2.567)
-Trichlorofluoromethane (2.724)
-Diethyl Ether (3.089)
-1,1-Dichloroethene (3.317)+
-Iodomethane (3.496)
-Acrolein (3.775)
-Allyl Chloride (3.946)
-Methylene Chloride (4.096)
-Acetone (4.204)
-trans-1,2-Dichloroethene (4.325)+
-Methyl tert-butyl ether (4.511)
-Tertiary-butyl alcohol (4.740)
-Acetonitrile (4.933)
-Di-isopropyl ether (5.161)
-Chloroprene (5.297)+
-Ethyl tertiary-butyl ethe (5.862)+
-cis-1,2-Dichloroethene (6.427)
-2,2-Dichloropropane (6.641)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.091)
-Carbon Tetrachloride (7.327)
-Tetrahydrofuran (7.456)+
-1,1-Dichloropropene (7.785)+
-Benzene (8.314)
-Propionitrile (8.464)+
-Pentafluorobenzene (8.621)+
-1,2-Dichloroethane (8.757)
-Isobutyl Alcohol (9.036)
-Trichloroethene (9.422)+
-1,4-Difluorobenzene (9.608)
-Dibromomethane (10.244)
-1,2-Dichloropropane (10.430)
-Bromodichloromethane (10.587)
-Methyl Methacrylate (10.951)+
-cis-1,3-dichloropropene (11.659)+
-Toluene-D8 (11.945)
-Toluene (12.051)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.640)
-4-Methyl-2-pentanone (12.731)
-1,1,2-Trichloroethane (13.067)
-Ethyl Methacrylate (13.163)
-Dibromochloromethane (13.217)
-1,3-Dichloropropane (13.375)
-1,2-Dibromoethane (13.546)
-2-Hexanone (14.011)
-Chlorobenzene-D5 (14.440)+
m+p-Xylenes (14.675)
-o-Xylene (15.304)
-Styrene (15.397)+
-Isopropylbenzene (15.791)
-P-Bromofluorobenzene (16.198)
-cis-1,4-Dichloro-2-Butene (16.324)+
-n-Propylbenzene (16.427)
-1,1,2,2-Tetrachloroethane (16.570)
-2-Chlorotoluene (16.648)
-trans-1,4-Dichloro-2-Bute (16.861)
-4-Chlorotoluene (16.941)
-1,3,5-Trimethylbenzene (16.770)+
-tert-Butylbenzene (17.327)+
-1,2,4-Trimethylbenzene (17.463)
-sec-Butylbenzene (17.670)
-P-Isopropyltoluene (17.964)
-1,3-Dichlorobenzene (18.039)
-1,4-Dichlorobenzene-D4 (18.192)+
-1,2,3-Trimethylbenzene (18.292)
-N-Butylbenzene (18.750)
-1,2-Dichlorobenzene (18.971)
-1,2-Dibromo-3-Chloropropa (20.372)
-1,3,5-Trichlorobenzene (20.422)
-Hexachlorobutadiene (21.473)+
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-1,2,3-Trichlorobenzene (22.281)

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Report Date: 12-Jun-2014 10:33

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gcms-w.i\W061014.b\W0231.D
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Inj Date : 10-JUN-2014 22:15
Operator : REC Inst ID: gcms-w.i
Smp Info : WG144443-12,SH3734
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Cal Date : 10-JUN-2014 14:12 Cal File: W0216.D
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.12
Processing Host: T6-O360

Concentration Formula: Amt * DF * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	REVIEW CODE
1	Dichlorodifluoromethane	85	1.794	1.779	(0.208)	506995	66.0664	66.1	
2	Chloromethane	50	2.023	1.993	(0.235)	410284	44.2531	44.2	
3	Vinyl chloride	62	2.087	2.072	(0.242)	518674	60.2885	60.3	
4	Bromomethane	94	2.430	2.422	(0.282)	38623	9.55851	9.6(R)	
5	Chloroethane	64	2.566	2.551	(0.298)	271299	54.9900	55.0	
6	Trichlorofluoromethane	101	2.723	2.708	(0.316)	648980	63.3213	63.3	
7	Diethyl Ether	59	3.088	3.065	(0.358)	306152	56.5899	56.6	
8	Tertiary-butyl alcohol	59	4.732	4.681	(0.549)	169430	330.588	330	
9	1,1-Dichloroethene	96	3.317	3.294	(0.385)	369849	57.9547	58.0	
10	Carbon Disulfide	76	3.345	3.323	(0.388)	1209048	70.0283	70.0	
11	Freon-113	151	3.367	3.344	(0.391)	225926	58.9448	58.9	
12	Iodomethane	142	3.495	3.473	(0.406)	183120	26.7604	26.8(R)	
13	Acrolein	56	3.774	3.737	(0.438)	331611	303.382	303	
14	Methylene Chloride	84	4.096	4.066	(0.475)	398403	48.8668	48.9	
15	Acetone	43	4.196	4.159	(0.487)	106374	80.2043	80.2(R)	
16	Isobutyl Alcohol	43	9.035	8.991	(1.048)	245068	1546.29	1550(R)	
17	trans-1,2-Dichloroethene	96	4.324	4.295	(0.502)	399609	54.0679	54.1	
18	Allyl Chloride	41	3.946	3.916	(0.458)	404278	58.3230	58.3	
19	Methyl tert-butyl ether	73	4.510	4.473	(0.523)	2417300	115.521	116	
20	Acetonitrile	39	4.925	4.888	(0.571)	72307	687.824	688(R)	
21	Di-isopropyl ether	45	5.154	5.110	(0.598)	1114347	58.9511	59.0	
22	Chloroprene	53	5.297	5.253	(0.614)	586217	58.3973	58.4	
23	Propionitrile	54	8.463	8.419	(0.982)	631173	768.245	768(R)	

Data File: \\target_server\gg\chem\gcms-w.i\W061014.b\W0231.D
Report Date: 12-Jun-2014 10:33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	24 Methacrylonitrile	41	8.492	8.448	(0.985)	2081504	685.991	686(R)	
	25 1,1-Dichloroethane	63	5.340	5.303	(0.619)	738584	57.2055	57.2	
	26 Acrylonitrile	52	5.289	5.253	(0.614)	140118	286.526	286	
	27 Ethyl tertiary-butyl ether	59	5.854	5.803	(0.679)	1221993	56.4116	56.4	
	28 Vinyl Acetate	43	5.890	5.839	(0.613)	853100	64.0910	64.1	
	29 cis-1,2-Dichloroethene	96	6.419	6.375	(0.745)	389760	51.5540	51.6	
M	30 1,2-Dichloroethylene (total)	96				789369	105.622	106	
	31 Methyl Methacrylate	41	10.951	10.914	(1.140)	303804	69.8002	69.8(R)	
	32 2,2-Dichloropropane	77	6.648	6.596	(0.771)	587568	52.0021	52.0	
	33 Bromochloromethane	128	6.862	6.811	(0.796)	147493	49.2786	49.3	
	34 Chloroform	83	7.098	7.040	(0.823)	675229	53.5930	53.6	
	35 Carbon Tetrachloride	117	7.319	7.268	(0.762)	456684	61.0824	61.1	
	36 Tetrahydrofuran	42	7.448	7.383	(0.864)	110715	78.9586	79.0(R)	
$	37 Dibromofluoromethane	113	7.512	7.461	(0.871)	317583	54.2044	54.2	
	38 1,1,1-Trichloroethane	97	7.498	7.447	(0.870)	633480	55.5554	55.6	
	39 1,1-Dichloropropene	75	7.784	7.733	(0.810)	564933	54.2077	54.2	
	40 2-Butanone	43	7.863	7.797	(0.912)	164452	76.2099	76.2(R)	
	41 Benzene	78	8.313	8.269	(0.865)	1624418	53.3787	53.4	
*	42 Pentafluorobenzene	168	8.620	8.576	(1.000)	749934	50.0000		
	43 Cyclohexane	56	6.805	6.754	(0.789)	715973	60.0698	60.1	
	44 Ethyl Methacrylate	69	13.052	13.022	(1.359)	630328	62.3315	62.3	
$	45 1,2-Dichloroethane-D4	65	8.620	8.576	(1.000)	444158	55.5387	55.5	
	46 Tertiary-amyl methyl ether	73	8.649	8.605	(1.003)	1207056	56.3087	56.3	
	47 1,2-Dichloroethane	62	8.756	8.712	(0.911)	515809	55.8609	55.9	
	48 Trichloroethene	95	9.485	9.448	(0.987)	408001	53.6546	53.6	
*	49 1,4-Difluorobenzene	114	9.607	9.563	(1.000)	1255645	50.0000		
	50 Dibromomethane	93	10.243	10.206	(1.066)	217290	51.9838	52.0	
	51 1,2-Dichloropropane	63	10.429	10.392	(1.086)	401104	56.1153	56.1	
	52 Bromodichloromethane	83	10.586	10.549	(1.102)	527414	55.2729	55.3	
	53 cis-1,3-dichloropropene	75	11.658	11.629	(1.214)	651303	51.9213	51.9	
	54 1,4-Dioxane	88	10.972	10.935	(1.142)	44155	241.985	242	
$	55 Toluene-D8	98	11.951	11.914	(1.244)	1448051	56.3146	56.3	
	57 Toluene	92	12.030	12.000	(1.252)	1040485	52.9764	53.0	
	58 4-methyl-2-pentanone	43	12.709	12.679	(1.323)	351155	74.8414	74.8(R)	
	59 Tetrachloroethene	164	12.616	12.579	(0.879)	287037	54.0276	54.0	
	60 trans-1,3-Dichloropropene	75	11.658	11.629	(1.214)	651303	51.9213	51.9	
	61 1,1,2-Trichloroethane	83	12.974	12.944	(1.350)	293795	54.9450	54.9	
	62 Dibromochloromethane	129	13.224	13.194	(0.922)	337756	53.4472	53.4	
	63 1,3-Dichloropropane	76	13.374	13.351	(0.932)	701187	57.2492	57.2	
	64 1,2-Dibromoethane	107	13.545	13.516	(1.410)	335027	54.0063	54.0	
	65 2-Hexanone	43	14.010	13.980	(0.977)	253380	80.7145	80.7(R)	
*	66 Chlorobenzene-D5	117	14.346	14.323	(1.000)	1182973	50.0000		
	67 Chlorobenzene	112	14.367	14.345	(1.001)	1057352	57.9067	57.9	
	68 1-Chlorohexane	91	14.389	14.366	(1.003)	666711	60.3382	60.3(R)	
	69 Ethylbenzene	106	14.446	14.423	(1.007)	618226	53.7127	53.7	
	70 1,1,1,2-Tetrachloroethane	131	14.489	14.466	(1.010)	358177	54.9050	54.9	
M	71 Xylenes (total)	106				2263912	175.322	175(R)	
	72 m+p-Xylenes	106	14.675	14.652	(1.023)	1530592	116.553	116	
	73 o-Xylene	106	15.311	15.288	(1.067)	733320	58.7690	58.8	
	74 Styrene	104	15.397	15.374	(1.073)	1234573	56.2493	56.2	
	75 Bromoform	173	15.404	15.381	(1.074)	224568	47.6516	47.6	
	76 Isopropylbenzene	105	15.790	15.767	(0.868)	2015686	55.7985	55.8	
$	77 P-Bromofluorobenzene	95	16.197	16.175	(1.686)	642116	57.5770	57.6	
	78 cis-1,4-Dichloro-2-Butene	53	16.340	16.318	(0.898)	114964	42.5310	42.5	

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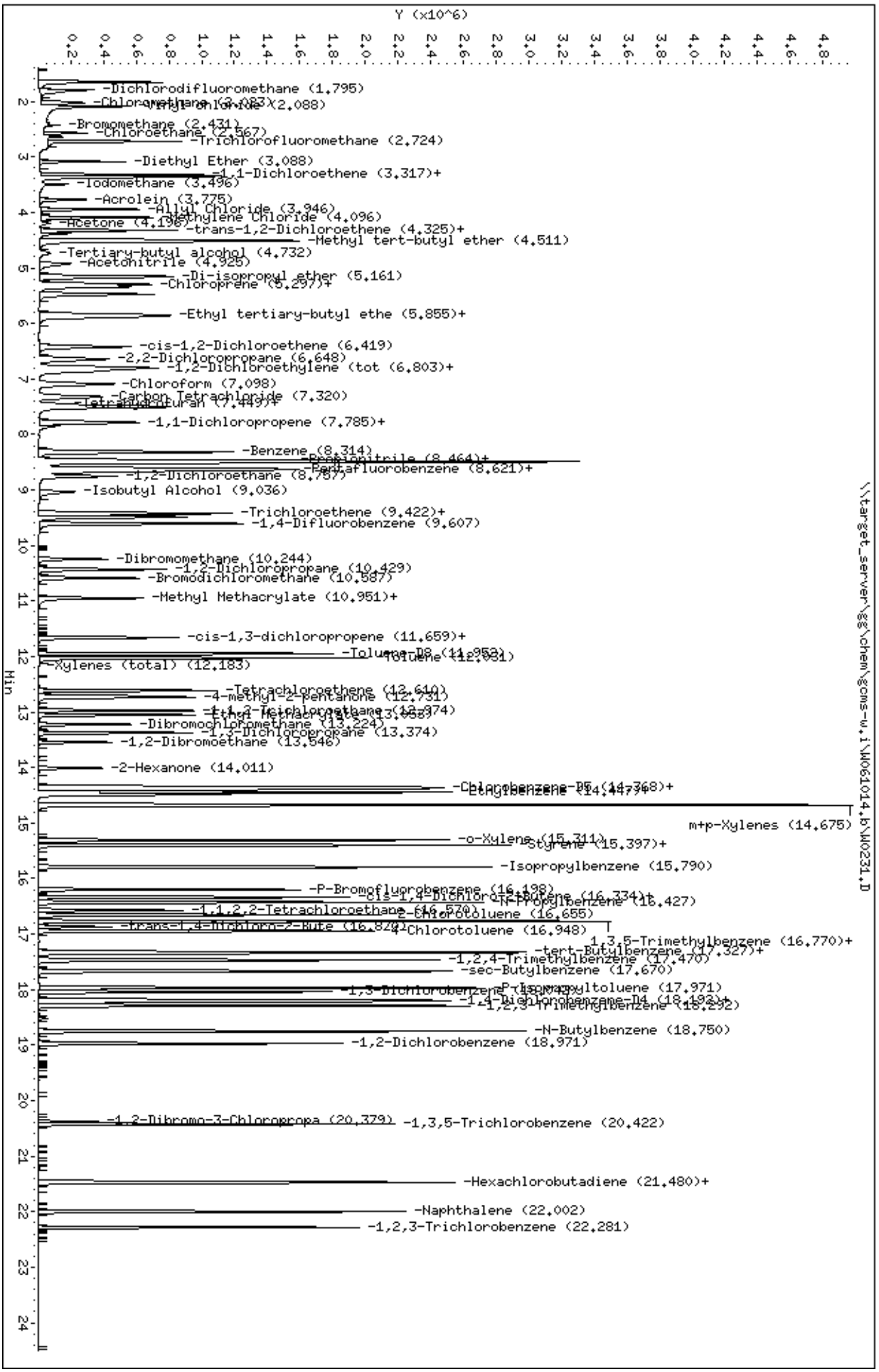
Report Date: 12-Jun-2014 10:33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)	REVIEW CODE
	79 trans-1,4-Dichloro-2-Butene	53	16.869	16.847	(0.927)	109992	42.5280	42.5	
	80 Bromobenzene	156	16.333	16.310	(0.898)	415591	51.4251	51.4	
	81 N-Propylbenzene	91	16.426	16.403	(0.903)	2532204	57.2864	57.3	
	82 1,1,2,2-Tetrachloroethane	83	16.569	16.554	(0.911)	526920	58.5105	58.5	
	83 1,3,5-Trimethylbenzene	105	16.769	16.754	(0.922)	1821033	54.9943	55.0	
	84 2-Chlorotoluene	91	16.655	16.632	(0.916)	1521181	57.6429	57.6	
	85 1,2,3-Trichloropropane	75	16.769	16.747	(0.922)	481958	61.5856	61.6	
	86 4-Chlorotoluene	91	16.948	16.925	(0.932)	1616662	59.4594	59.4	
	87 tert-Butylbenzene	119	17.327	17.304	(0.952)	1751901	59.7528	59.8	
	88 Pentachloroethane	117	17.341	17.318	(0.953)	320205	56.5162	56.5	
	89 1,2,4-Trimethylbenzene	105	17.470	17.447	(0.960)	1835810	55.0578	55.0	
	90 P-Isopropyltoluene	119	17.970	17.947	(0.988)	2017997	60.5881	60.6	
	91 1,3-Dichlorobenzene	146	18.042	18.019	(0.992)	890969	56.9341	56.9	
*	92 1,4-Dichlorobenzene-D4	152	18.192	18.169	(1.000)	708433	50.0000		
	93 1,4-Dichlorobenzene	146	18.213	18.198	(1.001)	900690	51.7687	51.8	
	94 N-Butylbenzene	91	18.749	18.734	(1.031)	2060402	52.0454	52.0	
	95 sec-Butylbenzene	105	17.670	17.647	(0.971)	2377827	60.7746	60.8	
	96 1,2-Dichlorobenzene	146	18.971	18.955	(1.043)	848553	57.8020	57.8	
	97 1,2-Dibromo-3-Chloropropane	75	20.379	20.356	(1.120)	127252	75.5735	75.6(R)	
	98 1,3,5-Trichlorobenzene	180	20.422	20.406	(1.123)	709153	56.0733	56.1	
	99 Hexachlorobutadiene	225	21.465	21.450	(1.180)	361469	64.4213	64.4	
	100 1,2,4-Trichlorobenzene	180	21.480	21.471	(1.181)	614304	54.0562	54.0	
	101 1,2,3-Trimethylbenzene	105	18.292	18.269	(1.006)	1905692	57.6540	57.6	
	102 Naphthalene	128	22.001	21.986	(1.209)	1748749	52.4168	52.4	
	103 1,2,3-Trichlorobenzene	180	22.280	22.272	(1.225)	567063	54.3825	54.4	
	104 Methyl Acetate	43	4.382	4.345	(0.508)	254427	64.9883	65.0	
	105 Methylcyclohexane	83	9.421	9.384	(1.093)	768799	59.3056	59.3	
M	106 Total Alkylbenzenes	100				14397174	400.500	400	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.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Instrument: gcms-w.i
Operator: REC
Column diameter: 0.18
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Min
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-Chloromethane (2.083)
-Vinyl Chloride (2.088)
-Bromomethane (2.431)
-Chloroethane (2.567)
-Trichlorofluoromethane (2.724)
-Diethyl Ether (3.088)
-1,1-Dichloroethene (3.317)+
-Iodomethane (3.496)
-Acrolein (3.775)
-Allyl Chloride (3.946)
-Methylene Chloride (4.096)
-Acetone (4.196)
-trans-1,2-Dichloroethene (4.325)+
-Methyl tert-butyl ether (4.511)
-Tertiary-butyl alcohol (4.732)
-Acetonitrile (4.925)
-Di-isopropyl ether (5.161)
-Chloroprene (5.297)+
-Ethyl tertiary-butyl ethe (5.855)+
-cis-1,2-Dichloroethene (6.419)
-2,2-Dichloropropane (6.648)
-1,2-Dichloroethylene (tot (6.803)+
-Chloroform (7.098)
-Carbon Tetrachloride (7.320)
-Tetrahydrofuran (7.449)+
-1,1-Dichloropropene (7.785)+
-Benzene (8.314)
-Pentafluorobenzene (8.621)+
-1,2-Dichloroethane (8.787)
-Isobutyl Alcohol (9.036)
-Trichloroethene (9.422)+
-1,4-Difluorobenzene (9.607)
-Dibromomethane (10.244)
-1,2-Dichloropropane (10.429)
-Bromodichloromethane (10.587)
-Methyl Methacrylate (10.951)+
-cis-1,3-dichloropropene (11.659)+
-Toluene-D8 (11.952)
-Toluene (12.031)
-Xylenes (total) (12.183)
-Tetrachloroethene (12.640)
-4-methyl-2-pentanone (12.731)
-1,1,2-Trichloroethane (13.374)
-Dibromochloromethane (13.224)
-1,3-Dichloropropane (13.374)
-1,2-Dibromoethane (13.546)
-2-Hexanone (14.011)
-Chlorobenzene-D5 (14.368)+
Ethylbenzene (14.447)+
m+p-Xylenes (14.675)
-o-Xylene (15.311)
-Styrene (15.397)+
-Isopropylbenzene (15.790)
-P-Bromofluorobenzene (16.198)
-cis-1,4-Dichloro-2-Butene (16.334)+
-n-Propylbenzene (16.427)
-1,1,2,2-Tetrachloroethane (16.570)
-2-Chlorotoluene (16.655)
-trans-1,4-Dichloro-2-Bute (16.820)+
-4-Chlorotoluene (16.948)
-1,3,5-Trimethylbenzene (16.770)+
-tert-Butylbenzene (17.327)+
-1,2,4-Trimethylbenzene (17.470)
-sec-Butylbenzene (17.670)
-1,3-Dichlorobenzene (17.830)
-P-Isopropyltoluene (17.971)
-1,4-Dichlorobenzene-D4 (18.193)+
-1,2,3-Trimethylbenzene (18.292)
-N-Butylbenzene (18.750)
-1,2-Dichlorobenzene (18.971)
-1,2-Dibromo-3-Chloropropa (20.379)
-1,3,5-Trichlorobenzene (20.422)
-Hexachlorobutadiene (21.480)+
-Naphthalene (22.002)
-1,2,3-Trichlorobenzene (22.281)

Logbooks and Supporting Documents

KATAHDIN ANALYTICAL SERVICES

GCMS-W INSTRUMENT RUNLOG

DATE/TIME OF BFB INJECTION: 06/10/14 10:20

SAMPLE NAME	DATAFILE	DF	ALS #	METHOD	PREP METHOD 5030	5035	1311	Criteria KAS	DoD	QAPP	Y/N	ANALYST	PH	COMMENTS
50 ng BFB -10	WB013	1	-1	V0ABFBAQ							Y	REC		
VSTD200W10A	W0210	1	1	W826A01							N			W6144443
100W10A	11	1	2								Y			-5
050W10A	12	1	3								Y			-4
020W10A	13	1	4								Y			-3
005W10A	14	1	5								Y			-2
001W10A	15	1	6								Y			-1
200W10B	16	1	7								Y			-6
LCSA -8	17	1	8								Y			END -7
VBLKA	18	1	9								N			Acetone + bisf
VBLKB	19	1	10								N			
VBLKC -9	20	1	11								Y			
SH 3734-9 A	21	1	12		X				X		Y		<2	
-1 A	22	1	13								Y		<2	
-2 B	23	1	14								Y		<2	
-3 B	24	1	15								Y		<2	
-4 B	25	1	16								Y		<2	
-5 B	26	1	17								Y		<2	
-6 B	27	1	18								Y		<2	
-7 A	28	1	19								Y		<2	
-8 B	29	1	20								Y		<2	
-1MS -11 B	30	1	21								Y		<2	
-1MSD -12C	31	1	22		↓				↓		Y		<2	22:14
Rinse	32	1	23								N			
Rinse	33	1	24	↓							N	↓		
Rinse	34	1	25								N		2	

STANDARD	CODE
BFB	V9381
CAL. STD.	V9400 V9399
LCS/MS MIX	V9396
EXTRAS MIX	V9392

STANDARD	CODE
IS MIX	V9401
SS MIX	V9398

Circle Methods:

(SW846 8260)	OLM 04.2
SW846 8260 SIM	OLC 03.2
SW846 8260 SIM (heated purge)	EPA 624
	EPA 524

QAMS544

KATAHDIN ANALYTICAL SERVICES, INC. – ORGANICS NON-CONFORMANCE REPORT

Problem Identification (Person discovering problem) Name: Diane Paul Date: 6-12-14

Affected Method: 8260

☐ LCS Failure	☐ Prep Error	☑ ICAL Failure	☐ Discrepancy between results
☐ Blank Contamination	☐ Hold Time Missed	☐ Independent Std Failure	☐ Chromatographic Interference
☐ Poor Precision (RPD)	☐ Surrogate Failure	☐ CV Failure	☐ Internal Standard Failure
☐ Sample out of clock	☐ Tune Failure	☐ Matrix Spike Failure	☐ Sample Contamination
☐ Retention Time Window	☐ Lab Accident	☐ Spiking Error	☐ Other

Details:

(Problematic compound) 1,4-dioxane did not pass % Avg, Linear or Quadratic in curve. All other analytes of interest pass criteria.

Work Orders/Samples Affected →	SH3734				
Client	Battelle				
Requirements and/or Procedures Not Met: Project QAPP(Q) / Method(M) / SOP(S) / DoD QSM(D) / Client (C) / Other:	M, D				
Significance of Non-Conforming Work:	---	---	---	---	---
Corrective Action can be taken within holding time					
Corrective Action cannot be taken within holding time	X				
Non-Conformance not related to holding time	X				
Approval of Significance (Dept. Mgr., Ops. Mgr. or QAO) – Initials & Date	PLC-12-14				
Client Contacted: PM initials & Date	JP 6-12-14				
Corrective Action:	---	---	---	---	---
Reanalyze with compliant QC					
Re-Extract/Re-Prep					
Report non-compliance w/Cover Letter/Narrative and/or flagging	✓				
Date Corrective Action Completed					
By Whom?					
Re-analysis or Re-extraction results indicate?					
Approval of Corrective Action (Dept. Mgr., Ops. Mgr. or QAO) – Initials & Date	DP 6/12/14				

Is Further Corrective Action including root cause analysis warranted (i.e.recurring problems)? NO

By Whom? Date: 6/12/14

PCB DATA

QC Summary Section

Form 2
System Monitoring Compound Recovery

Lab Name: Katahdin Analytical Services **Project:** New Bedford Harbor Superfund Site **Matrix:** AQ
Lab Code: KAS **SDG:** SH3734

Client Sample ID	Lab Sample ID	Col. ID	DCB	#	TCX	#
MW-005-052914	SH3734-1RA	B	69.8		73.2	
MW-005-052914	SH3734-1RA	A	68.5		81.3	
MW-04A-052914	SH3734-2RA	B	36.6	*	53.5	*
MW-04A-052914	SH3734-2RA	A	35.7	*	56.8	*
MW-04A-052914-REP	SH3734-3RA	B	52.9		72.0	
MW-04A-052914-REP	SH3734-3RA	A	52.7		75.6	
MW-001-052914	SH3734-4RA	B	37.1	*	43.9	*
MW-001-052914	SH3734-4RA	A	36.3	*	31.7	*
MW-006-052914	SH3734-5RA	B	45.4		55.9	*
MW-006-052914	SH3734-5RA	A	44.8		65.3	
MW-07A-052914	SH3734-6RA	B	73.4		80.7	
MW-07A-052914	SH3734-6RA	A	76.3		101.	
EB-052914	SH3734-7RA	B	40.3		40.4	*
EB-052914	SH3734-7RA	A	41.3		46.0	*
MW-003-052914	SH3734-8RA	B	59.0		75.2	
MW-003-052914	SH3734-8RA	A	60.0		78.1	
Method Blank Sample	WG144065-1RA	B	79.9		55.8	*
Method Blank Sample	WG144065-1RA	A	81.6		69.4	
Laboratory Control S	WG144065-2RA	B	68.9		53.5	*
Laboratory Control S	WG144065-2RA	A	69.9		58.5	*
Laboratory Control S	WG144065-3RA	B	80.3		80.6	
Laboratory Control S	WG144065-3RA	A	82.6		74.4	
Matrix Spike	WG144065-4RA	B	100.		87.3	
Matrix Spike	WG144065-4RA	A	102.		97.6	
Matrix Spike Duplica	WG144065-5RA	B	90.6		90.8	
Matrix Spike Duplica	WG144065-5RA	A	93.4		106.	

		QC Limits
TCX	TETRACHLORO-M-XYLENE	62-111
DCB	DECACHLOROBIPHENYL	40-135

= Column to be used to flag recovery limits.
* = Values outside of contract required QC limits.
D= System Monitoring Compound diluted out.

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Form 4
Method Blank Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
Lab File ID : 7HF163.D
Matrix : AQ

Column A
Instrument ID : GC07
Date Analyzed : 09-JUN-14
Time Analyzed : 14:26

SDG : SH3734
Lab Sample ID : WG144065-1RA
Date Extracted : 05-JUN-14
Extraction Method : SW846 3510

Column B
Instrument ID : GC07
Date Analyzed : 09-JUN-14
Time Analyzed : 14:26

This Method Blank applies to the following samples, LCS, MS and MSD:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Laboratory Control S	WG144065-2RA	7HF164.D	06/09/14	15:02
Laboratory Control S	WG144065-3RA	7HF165.D	06/09/14	15:38
Matrix Spike	WG144065-4RA	7HF166.D	06/09/14	16:14
Matrix Spike Duplica	WG144065-5RA	7HF167.D	06/09/14	16:50
MW-005-052914	SH3734-1RA	7HF168.D	06/09/14	17:26
MW-04A-052914	SH3734-2RA	7HF169.D	06/09/14	18:02
MW-04A-052914-REP	SH3734-3RA	7HF170.D	06/09/14	18:39
MW-001-052914	SH3734-4RA	7HF171.D	06/09/14	19:15
MW-006-052914	SH3734-5RA	7HF172.D	06/09/14	19:51
MW-07A-052914	SH3734-6RA	7HF178.D	06/09/14	23:28
EB-052914	SH3734-7RA	7HF179.D	06/10/14	00:04
MW-003-052914	SH3734-8RA	7HF180.D	06/10/14	00:40

Form 8
GC Analytical Sequence

Lab Name : Katahdin Analytical Services
SDG : SH3734
Project : New Bedford Harbor Superfund Site
Column ID : A
Instrument ID : GC07

Client Sample ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCX	DCB	
Initial Calibration	WG143481-1	05/23/14	14:59	5.549	26.75	
Initial Calibration	WG143481-3	05/23/14	15:36	5.553	26.75	
Initial Calibration	WG143481-5	05/23/14	16:12	5.551	26.75	
Initial Calibration	WG143481-7	05/23/14	16:48	5.552	26.75	
Initial Calibration	WG143481-9	05/23/14	17:24	5.552	26.75	
Initial Calibration	WG143481-11	05/23/14	18:00	5.552	26.74	
Independent Source	WG143481-13	05/23/14	18:36			
Independent Source	WG143481-14	05/23/14	19:12			
Initial Calibration	WG143481-15	05/23/14	19:48			
Initial Calibration	WG143481-17	05/23/14	20:24			
Initial Calibration	WG143481-19	05/23/14	21:00			
Initial Calibration	WG143481-21	05/23/14	21:37			
Initial Calibration	WG143481-23	05/23/14	22:13			
Initial Calibration	WG143481-25	05/23/14	22:49			
Initial Calibration	WG143481-27	05/23/14	23:25			
Initial Calibration	WG143481-39	05/24/14	03:01			
Initial Calibration	WG143481-51	05/24/14	06:38			
Initial Calibration	WG143481-53	05/24/14	07:14			
Continuing Calibrati	WG144334-1	06/09/14	12:01	5.39	26.49	
Method Blank Sample	WG144065-1RA	06/09/14	14:26	5.396	26.49	
Laboratory Control S	WG144065-2RA	06/09/14	15:02	5.392	26.49	
Laboratory Control S	WG144065-3RA	06/09/14	15:38	5.395	26.49	
Matrix Spike	WG144065-4RA	06/09/14	16:14	5.391	26.49	
Matrix Spike Duplica	WG144065-5RA	06/09/14	16:50	5.397	26.50	
MW-005-052914	SH3734-1RA	06/09/14	17:26	5.392	26.49	
MW-04A-052914	SH3734-2RA	06/09/14	18:02	5.391	26.49	
MW-04A-052914-REP	SH3734-3RA	06/09/14	18:39	5.388	26.48	
MW-001-052914	SH3734-4RA	06/09/14	19:15	5.394	26.48	
MW-006-052914	SH3734-5RA	06/09/14	19:51	5.386	26.49	
Continuing Calibrati	WG144334-3	06/09/14	21:03	5.385	26.48	
Continuing Calibrati	WG144334-11	06/09/14	21:39			
MW-07A-052914	SH3734-6RA	06/09/14	23:28	5.389	26.48	
EB-052914	SH3734-7RA	06/10/14	00:04	5.387	26.48	
MW-003-052914	SH3734-8RA	06/10/14	00:40	5.383	26.48	
Continuing Calibrati	WG144334-7	06/10/14	05:28	5.379	26.48	
Continuing Calibrati	WG144334-13	06/10/14	06:05			

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Form 8
GC Analytical Sequence

Lab Name : Katahdin Analytical Services
SDG : SH3734
Project : New Bedford Harbor Superfund Site
Column ID : B
Instrument ID : GC07

Client Sample ID	Lab Sample ID	Date Analyzed	Time Analyzed	TCX	DCB	
Initial Calibration	WG143481-2	05/23/14	14:59	5.772	27.75	
Initial Calibration	WG143481-4	05/23/14	15:36	5.787	27.77	
Initial Calibration	WG143481-6	05/23/14	16:12	5.787	27.77	
Initial Calibration	WG143481-8	05/23/14	16:48	5.788	27.77	
Initial Calibration	WG143481-10	05/23/14	17:24	5.79	27.76	
Initial Calibration	WG143481-12	05/23/14	18:00	5.787	27.75	
Independent Source	WG143481-13	05/23/14	18:36			
Independent Source	WG143481-14	05/23/14	19:12			
Initial Calibration	WG143481-16	05/23/14	19:48			
Initial Calibration	WG143481-18	05/23/14	20:24			
Initial Calibration	WG143481-20	05/23/14	21:00			
Initial Calibration	WG143481-22	05/23/14	21:37			
Initial Calibration	WG143481-24	05/23/14	22:13			
Initial Calibration	WG143481-26	05/23/14	22:49			
Initial Calibration	WG143481-28	05/23/14	23:25			
Initial Calibration	WG143481-40	05/24/14	03:01			
Initial Calibration	WG143481-52	05/24/14	06:38			
Initial Calibration	WG143481-54	05/24/14	07:14			
Continuing Calibrati	WG144334-2	06/09/14	12:01	5.6	27.47	
Method Blank Sample	WG144065-1RA	06/09/14	14:26	5.62	27.48	
Laboratory Control S	WG144065-2RA	06/09/14	15:02	5.617	27.48	
Laboratory Control S	WG144065-3RA	06/09/14	15:38	5.621	27.48	
Matrix Spike	WG144065-4RA	06/09/14	16:14	5.616	27.49	
Matrix Spike Duplica	WG144065-5RA	06/09/14	16:50	5.622	27.49	
MW-005-052914	SH3734-1RA	06/09/14	17:26	5.617	27.49	
MW-04A-052914	SH3734-2RA	06/09/14	18:02	5.615	27.48	
MW-04A-052914-REP	SH3734-3RA	06/09/14	18:39	5.612	27.47	
MW-001-052914	SH3734-4RA	06/09/14	19:15	5.614	27.47	
MW-006-052914	SH3734-5RA	06/09/14	19:51	5.61	27.47	
Continuing Calibrati	WG144334-4	06/09/14	21:03	5.61	27.47	
Continuing Calibrati	WG144334-12	06/09/14	21:39			
MW-07A-052914	SH3734-6RA	06/09/14	23:28	5.614	27.46	
EB-052914	SH3734-7RA	06/10/14	00:04	5.61	27.47	
MW-003-052914	SH3734-8RA	06/10/14	00:40	5.608	27.46	
Continuing Calibrati	WG144334-8	06/10/14	05:28	5.602	27.46	
Continuing Calibrati	WG144334-14	06/10/14	06:05			

Sample Data Section

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the specified level. This level may be the Limit of Quantitation (LOQ)(previously called Practical Quantitation Level (PQL)), the Limit of Detection (LOD) or Method Detection Limit (MDL) as required by the client.

Note: All results reported as "U" MDL have a 50% rate for false negatives compared to those results reported as "U" PQL/LOQ or "U" LOD, where the rate of false negatives is <1%.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Limit of Quantitation (LOQ)(previously called Practical Quantitation Limit (PQL)), but above the Method Detection Limit (MDL).

or

J Used for Pesticides, PCBs, Herbicides, Formaldehyde, Explosives and Method 504.1 analytes when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

C Indicates that the flagged compound did not meet DoD criteria in the corresponding daily calibration verification (CV).

L Indicates that the flagged compound did not meet DoD criteria in the corresponding Laboratory Control Sample (LCS) and/or Laboratory Control Sample Duplicate (LCSD) prepared and/or analyzed concurrently with the sample.

M Indicates that the flagged compound did not meet DoD criteria in the Matrix Spike and/or Matrix Spike Duplicate prepared and/or analyzed concurrently with the native sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

Katahdin Analytical Services, Inc.

Manual Integration Codes For GC/MS, GC, HPLC and/or IC

M1	Peak splitting.
M2	Well defined peaks on the shoulders of the other peaks.
M3	There is additional area due to a coeluting interferant.
M4	There are negative spikes in the baseline.
M5	There are rising or falling baselines.
M6	The software has failed to detect a peak or misidentified a peak.
M7	Excessive peak tailing.
M8	Analysis such as GRO, DRO and TPH require a baseline hold.
M9	Peak was not completely integrated as in GC/MS.
M10	Primary ion was correctly integrated, but secondary or tertiary ion needed manual integration as in GC/MS.
M11	For GC analysis, when a sample is diluted by 1:10 or more, the surrogate is set to undetected and then the area under the surrogate is manually integrated.
M12	Manual integration saved in method due to TurboChrom floating point error.

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-1RA
Client ID: MW-005-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF168.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.052	0.016	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.052	0.0093	0.026
Aroclor-1242	U	0.026	ug/L	1	.5	0.052	0.019	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.052	0.0085	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.052	0.018	0.026
Total PCBs	U	0.23	ug/L	1	4.5	0.47	0.0069	0.23
Tetrachloro-M-Xylene		81.3	%					
Decachlorobiphenyl		69.8	%					

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF168.D
Report Date: 12-Jun-2014 10:56

Katahdin Analytical Services

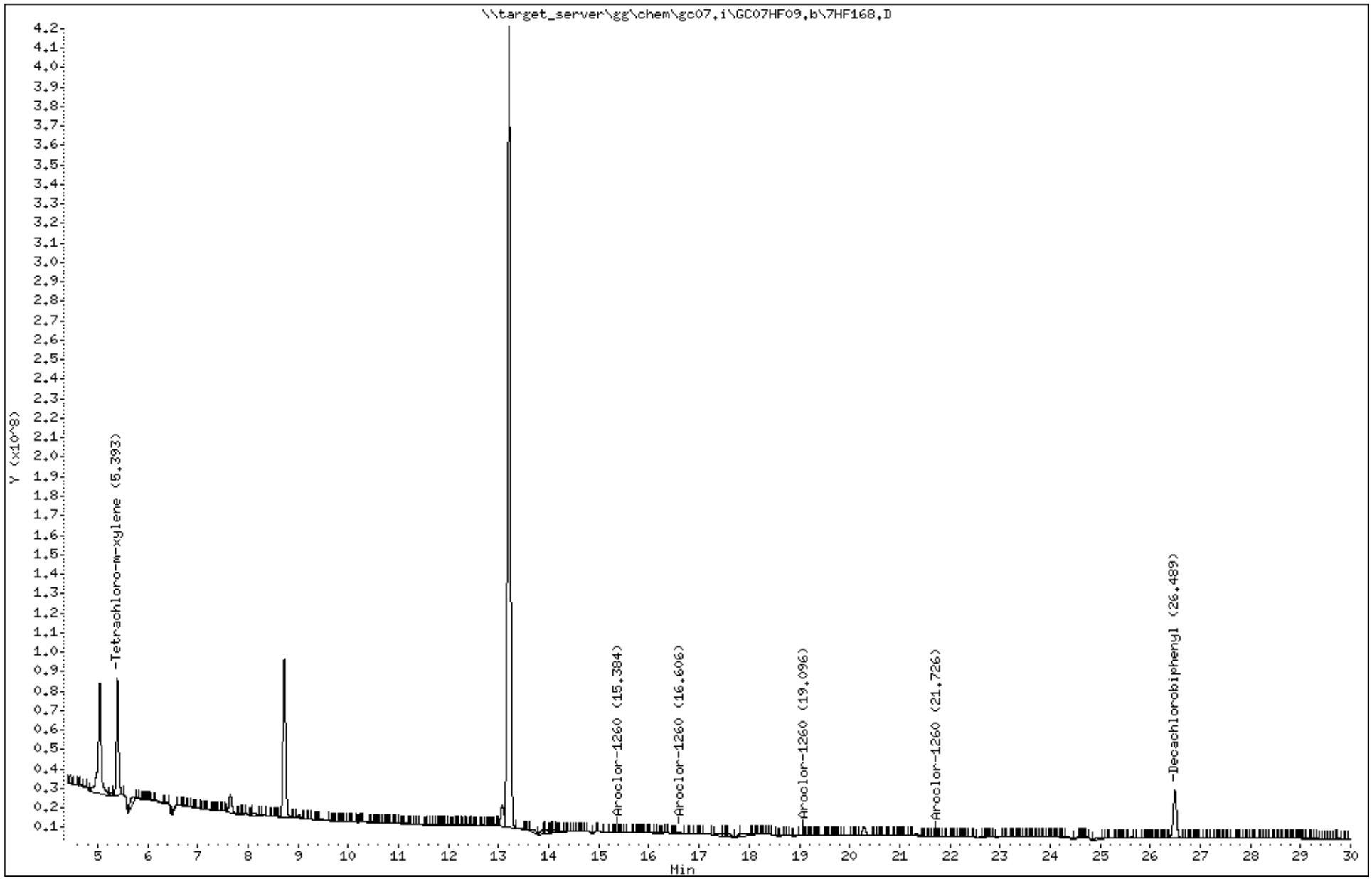
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF168.D
Lab Smp Id: SH3734-1RA Client Smp ID: MW-005-052914
Inj Date : 09-JUN-2014 17:26
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-1RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.96000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)			
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene							CAS #: 877-09-8	
5.392	5.379	0.013	60267560	0.08125	0.0846			
$ 12 Decachlorobiphenyl							CAS #: 2051-24-3	
26.489	26.476	0.013	24474593	0.06831	0.0712			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF168.D
Date : 09-JUN-2014 17:26
Client ID: MW-005-052914
Instrument: gc07.i
Sample Info: SH3734-1RA
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HF168.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

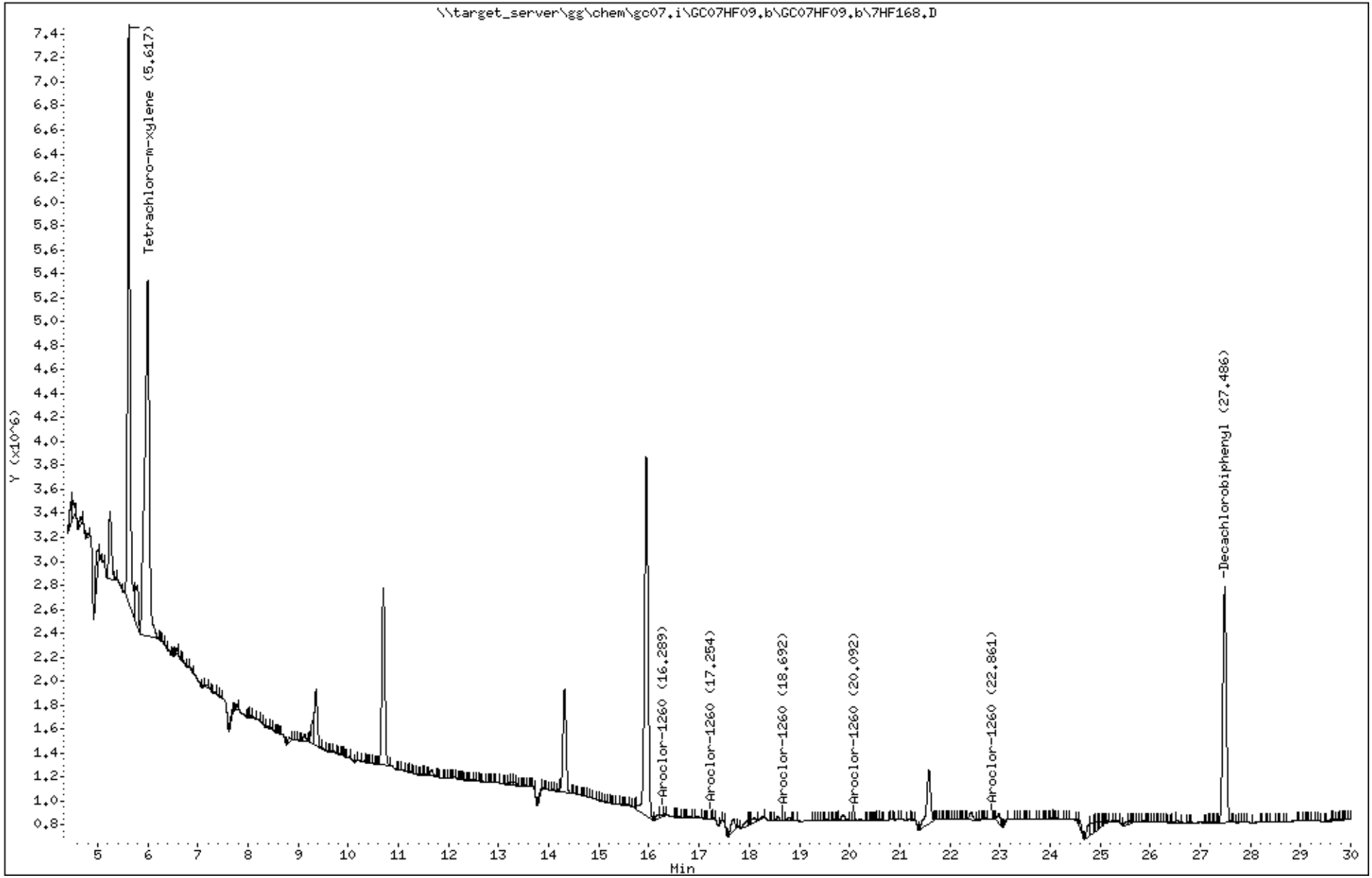
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF168.D
Lab Smp Id: SH3734-1RA Client Smp ID: MW-005-052914
Inj Date : 09-JUN-2014 17:26
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-1RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.96000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.617	5.602	0.015	4826624	0.07305	0.0761			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.485	27.461	0.024	1964089	0.06966	0.0726			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF168.D
Date : 09-JUN-2014 17:26
Client ID: MW-005-052914 Instrument: gc07.i
Sample Info: SH3734-1RA
Purge Volume: 1.0 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin Analytical Services 2000014

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-2RA
Client ID: MW-04A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF169.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.048	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.048	0.0085	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.048	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.048	0.0078	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.048	0.016	0.024
Total PCBs	U	0.21	ug/L	1	4.5	0.43	0.0063	0.21
Tetrachloro-M-Xylene	*	56.8	%					
Decachlorobiphenyl	*	36.6	%					

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF169.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF169.D
Lab Smp Id: SH3734-2RA Client Smp ID: MW-04A-052914
Inj Date : 09-JUN-2014 18:02
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-2RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.050	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.391	5.379	0.012	43355761	0.05684	0.0541		(R)	
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.487	26.476	0.011	12589225	0.03567	0.0340		(aR)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gc\chem\gc07.i\GC07HF09.b\7HF169.D
Date : 09-JUN-2014 18:02
Client ID: MW-04A-052914
Sample Info: SH3734-2RA
Purge Volume: 1.1
Column phase: ZB-MultiResidue-1

Instrument: gc07.i
Operator: CB
Column diameter: 0.53

Data File: 7HF169.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF169.D
Lab Smp Id: SH3734-2RA Client Smp ID: MW-04A-052914
Inj Date : 09-JUN-2014 18:02
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-2RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

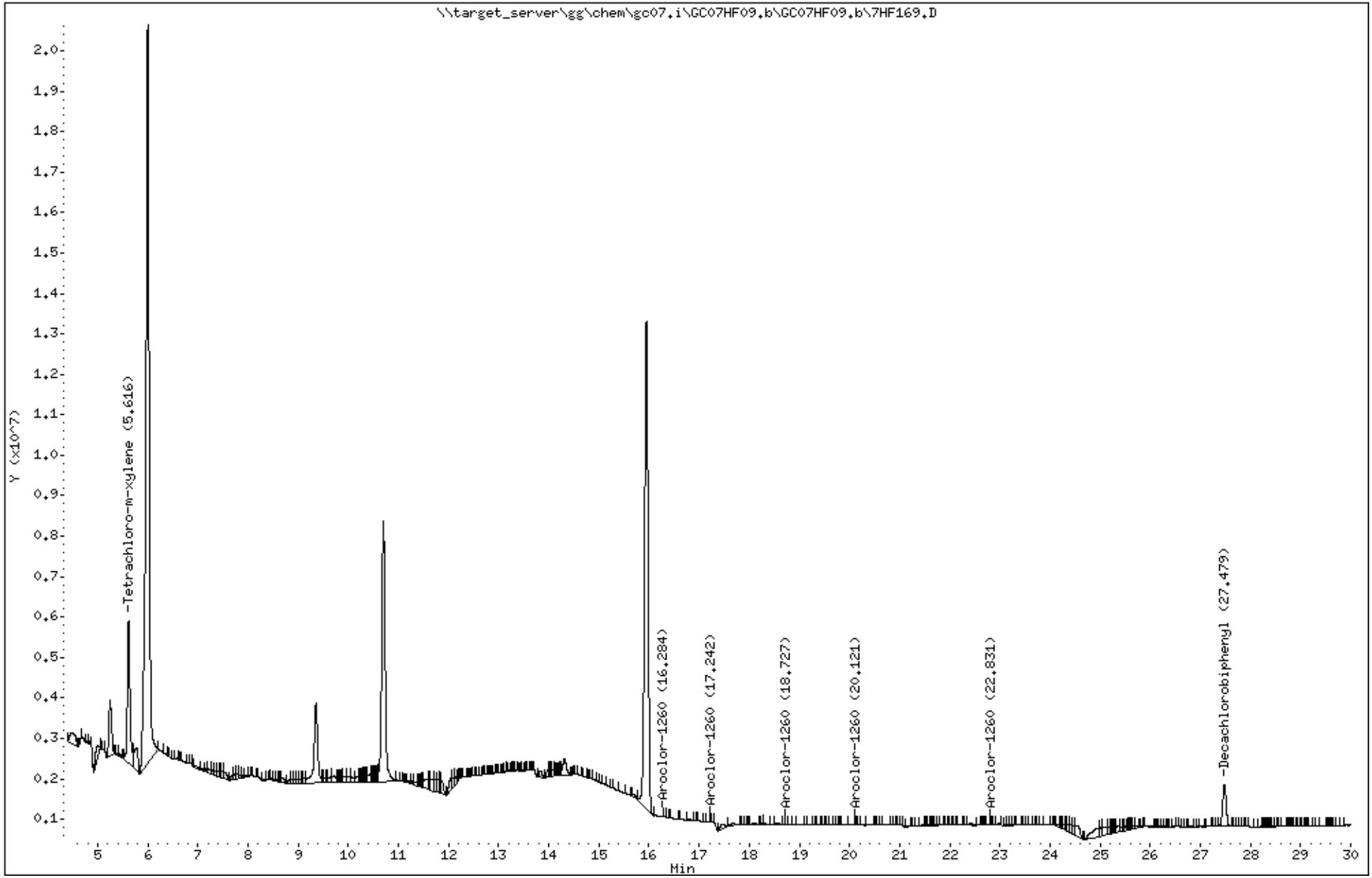
Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.050	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.615	5.602	0.013	3541724	0.05348	0.0509			(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
27.479	27.461	0.018	1037046	0.03653	0.0348			(aR)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF169.D
Date : 09-JUN-2014 18:02
Client ID: MW-04A-052914 Instrument: gc07.i
Sample Info: SH3734-2RA
Purge Volume: 1.1 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin Analytical Services 2000019

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-3RA
Client ID: MW-04A-052914-REP
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF170.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.048	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.048	0.0085	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.048	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.048	0.0078	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.048	0.016	0.024
Total PCBs	U	0.21	ug/L	1	4.5	0.43	0.0063	0.21
Tetrachloro-M-Xylene		75.6	%					
Decachlorobiphenyl		52.9	%					

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF170.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF170.D
Lab Smp Id: SH3734-3RA Client Smp ID: MW-04A-052914-REP
Inj Date : 09-JUN-2014 18:39
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-3RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.050	Sample Volume (L)
Cpnd Variable		Local Compound Variable

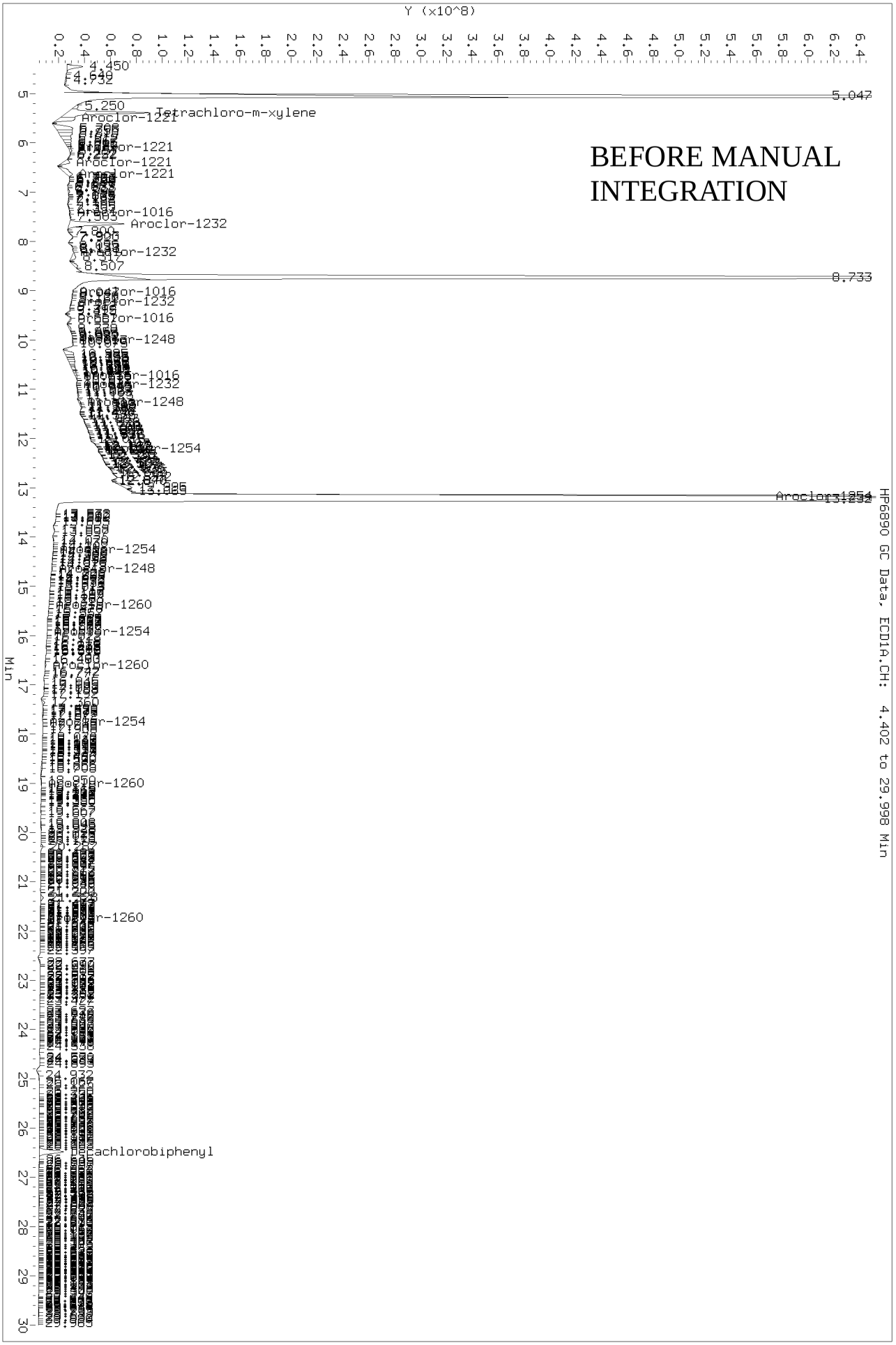
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.388	5.379	0.009	56425647	0.07560	0.0720			(M)
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.481	26.476	0.005	18737292	0.05268	0.0502			

11:55 am, Jun 12, 2014

QC Flag Legend

M - Compound response manually integrated.

M3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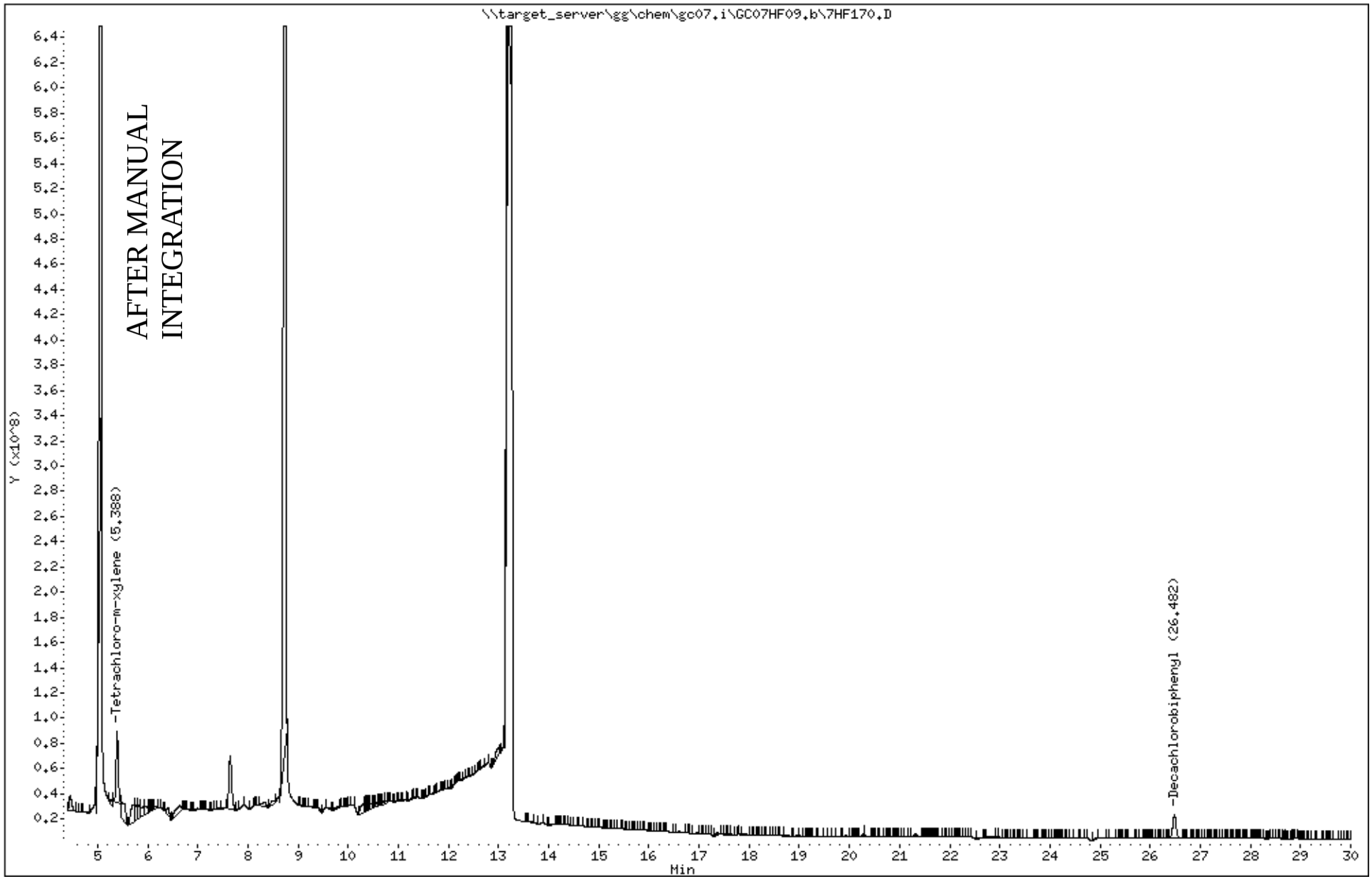
Injection Date: 09-JUN-2014 18:39
Instrument: gc07.i
Client Sample ID: MW-04A-052914-REP
Y (x10^8)
BEFORE MANUAL INTEGRATION
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
HP6890 GC Data, ECD1A.CH: 4.402 to 29.998 Min
Min

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF170.D
Date : 09-JUN-2014 18:39
Client ID: MW-04A-052914-REP
Instrument: gc07.i
Sample Info: SH3734-3RA
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000023

Data File: 7HF170.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

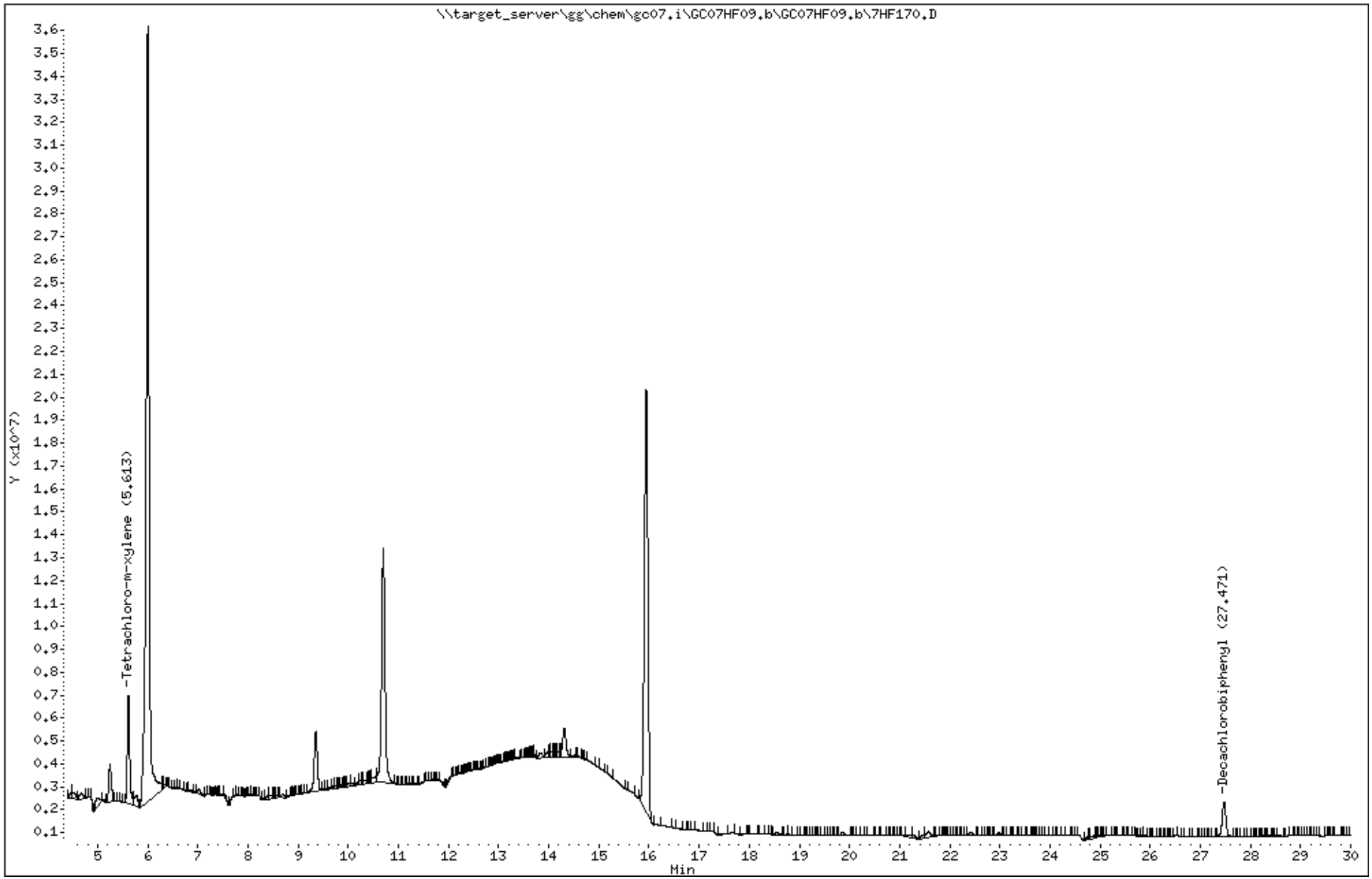
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF170.D
Lab Smp Id: SH3734-3RA Client Smp ID: MW-04A-052914-REP
Inj Date : 09-JUN-2014 18:39
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-3RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.050	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.612	5.602	0.010	4753353	0.07193	0.0685			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.471	27.461	0.010	1495908	0.05290	0.0504			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF170.D
Date : 09-JUN-2014 18:39
Client ID: MW-04A-052914-REP
Instrument: gc07.i
Sample Info: SH3734-3RA
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000025

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-4RA
Client ID: MW-001-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF171.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.052	0.016	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.052	0.0093	0.026
Aroclor-1242	U	0.026	ug/L	1	.5	0.052	0.019	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.052	0.021	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.052	0.0085	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.052	0.018	0.026
Total PCBs	U	0.23	ug/L	1	4.5	0.47	0.0069	0.23
Tetrachloro-M-Xylene	*	43.9	%					
Decachlorobiphenyl	*	37.1	%					

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P.O. Box 540, Scarborough, ME 04070
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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF171.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF171.D
Lab Smp Id: SH3734-4RA Client Smp ID: MW-001-052914
Inj Date : 09-JUN-2014 19:15
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-4RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

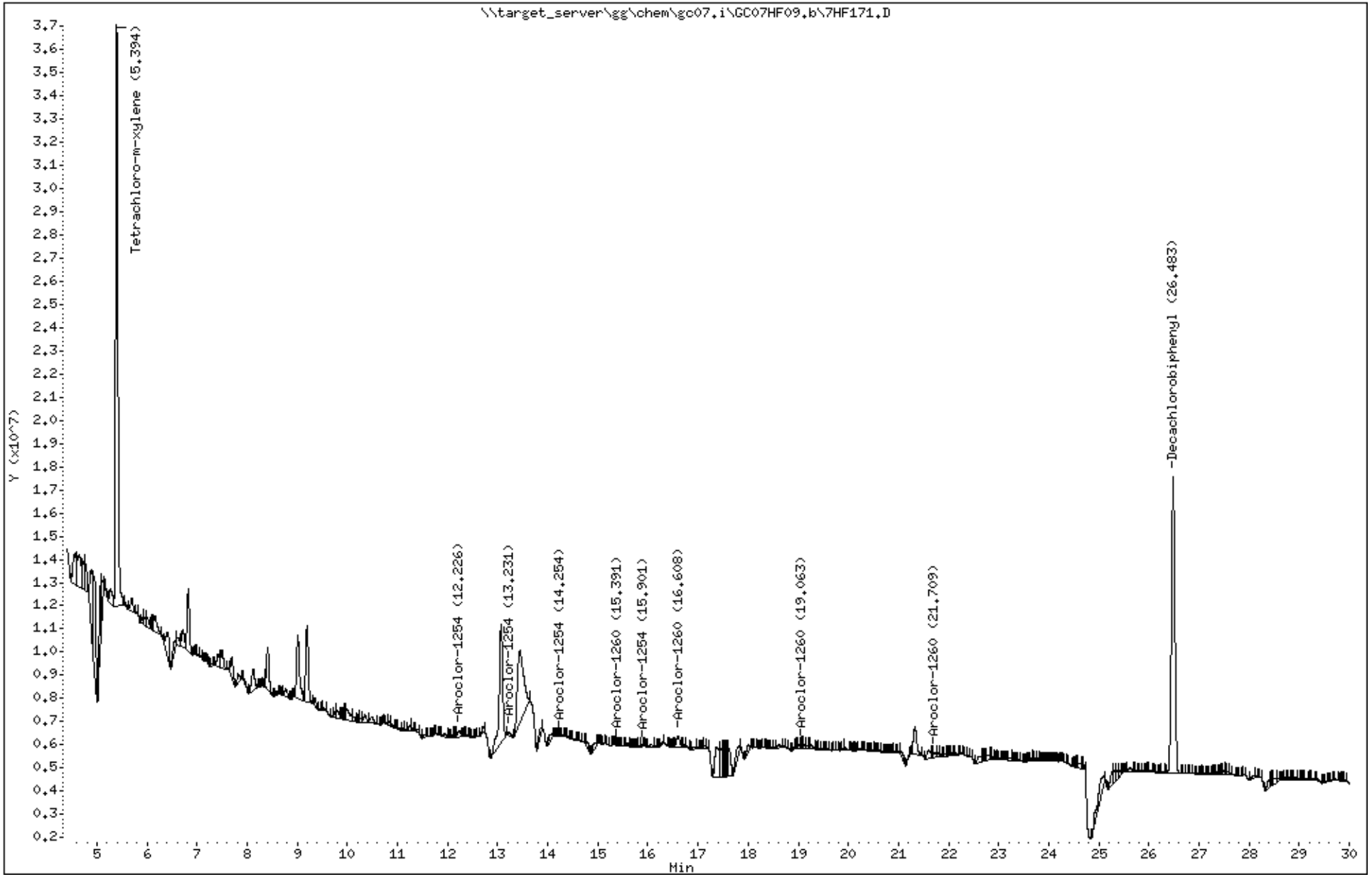
Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.96000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene			CAS #: 877-09-8					
5.394	5.379	0.015	25053274	0.03171	0.0330		(aR)	
$ 12 Decachlorobiphenyl			CAS #: 2051-24-3					
26.482	26.476	0.006	12807371	0.03628	0.0378		(aR)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF171.D
Date : 09-JUN-2014 19:15
Client ID: MW-001-052914
Instrument: gc07.i
Sample Info: SH3734-4RA
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000028

Data File: 7HF171.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF171.D
Lab Smp Id: SH3734-4RA Client Smp ID: MW-001-052914
Inj Date : 09-JUN-2014 19:15
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-4RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

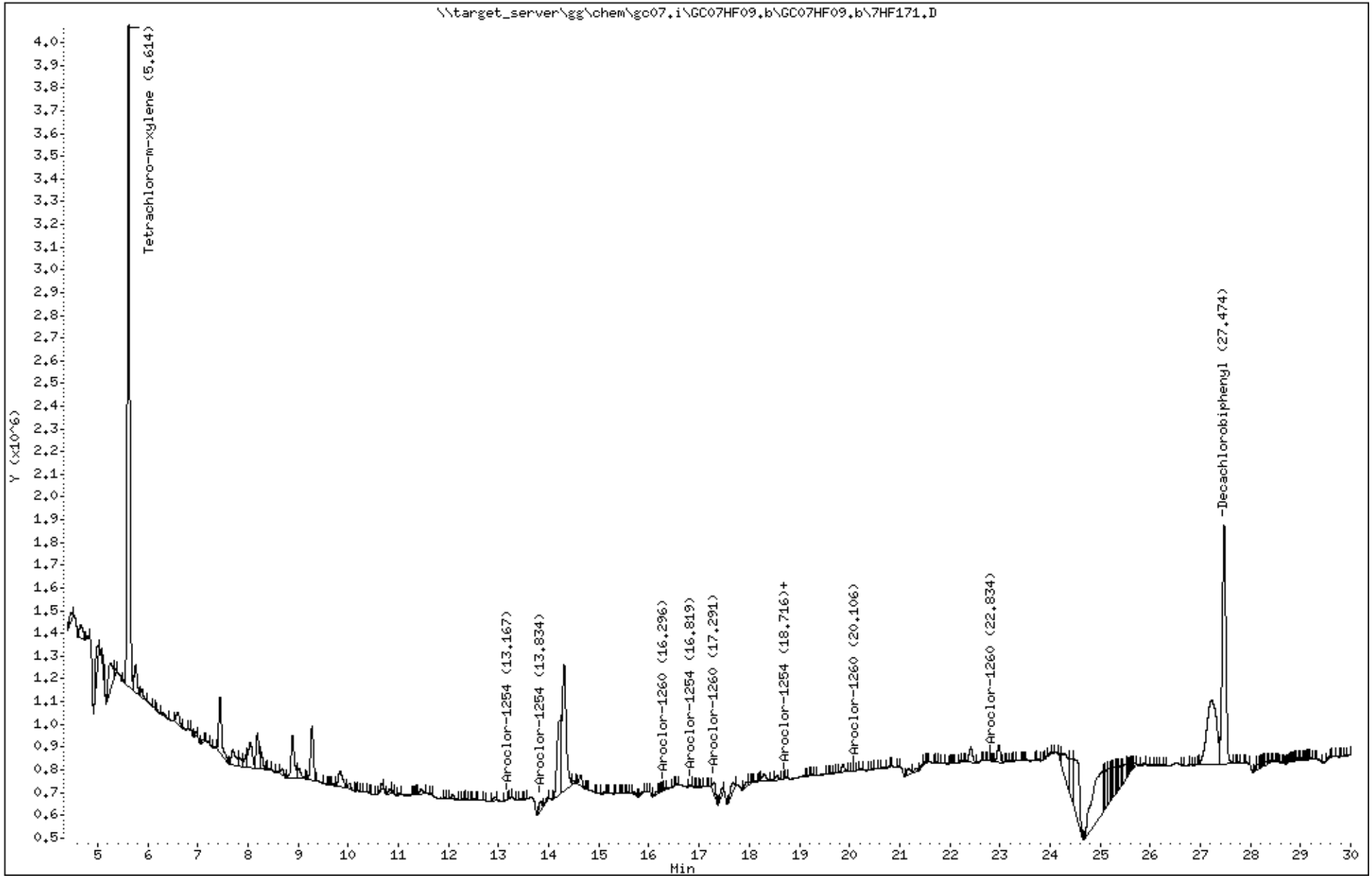
Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.96000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.614	5.602	0.012	2911798	0.04388	0.0457		(aR)	
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.474	27.461	0.013	1050594	0.03701	0.0386		(aR)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF171.D
Date : 09-JUN-2014 19:15
Client ID: MW-001-052914 Instrument: gc07.i
Sample Info: SH3734-4RA
Purge Volume: 1.0 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin Analytical Services 2000030

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-5RA
Client ID: MW-006-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF172.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.047	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.047	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.047	0.0084	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.047	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.047	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.047	0.0077	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.047	0.016	0.024
Total PCBs	U	0.21	ug/L	1	4.5	0.42	0.0062	0.21
Tetrachloro-M-Xylene		65.3	%					
Decachlorobiphenyl		45.4	%					

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P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF172.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF172.D
Lab Smp Id: SH3734-5RA Client Smp ID: MW-006-052914
Inj Date : 09-JUN-2014 19:51
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-5RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.060	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.386	5.379	0.007	49339027	0.06534	0.0616			(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.486	26.476	0.010	15839914	0.04470	0.0422			(a)

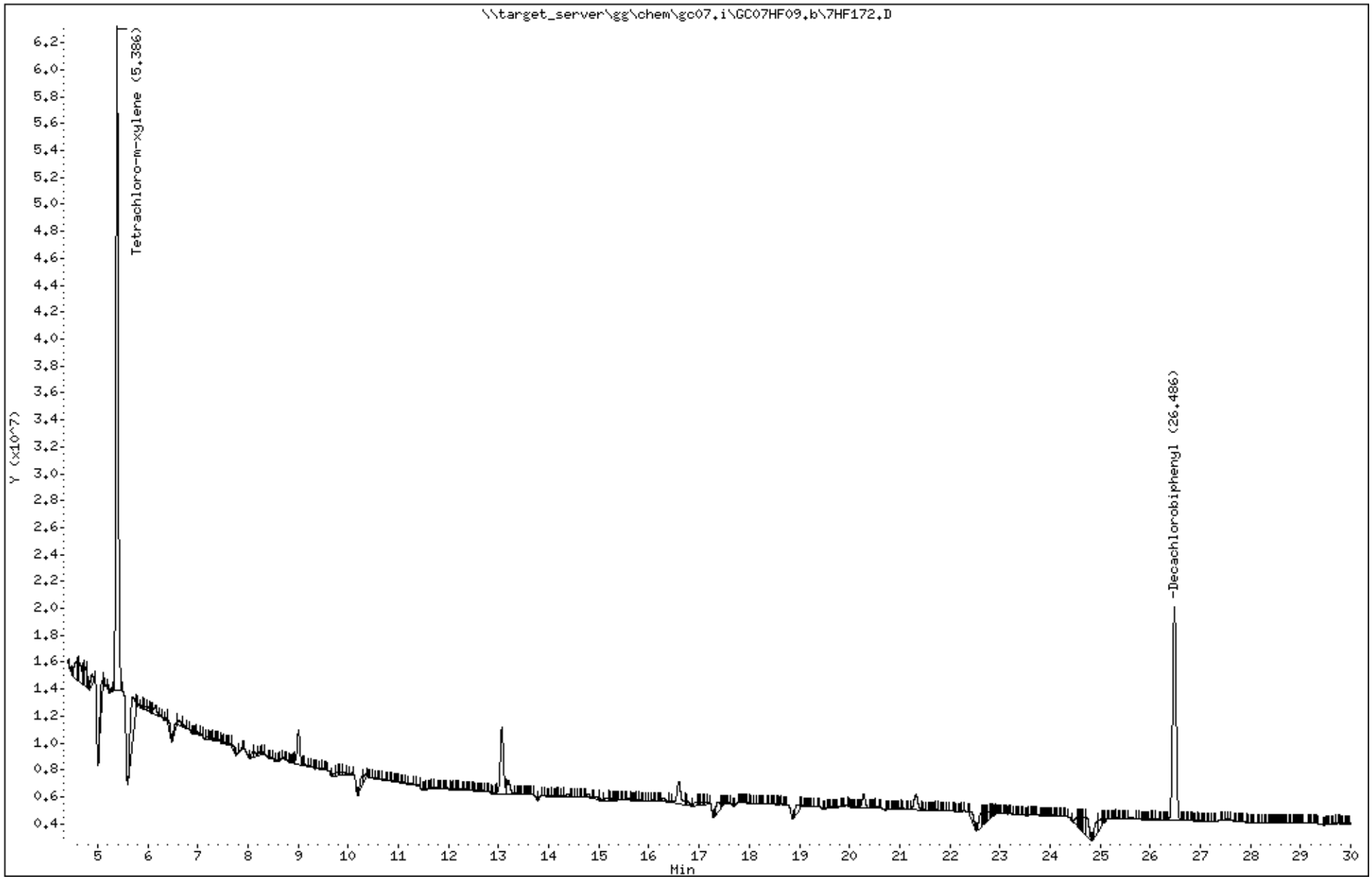
11:55 am, Jun 12, 2014

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

M3

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF172.D
Date : 09-JUN-2014 19:51
Client ID: MW-006-052914
Instrument: gc07.i
Sample Info: SH3734-5RA
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HF172.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF172.D
Lab Smp Id: SH3734-5RA Client Smp ID: MW-006-052914
Inj Date : 09-JUN-2014 19:51
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-5RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.060	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.610	5.602	0.008	3701598	0.05591	0.0527			(RM)
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.474	27.461	0.013	1284247	0.04534	0.0428			(a)

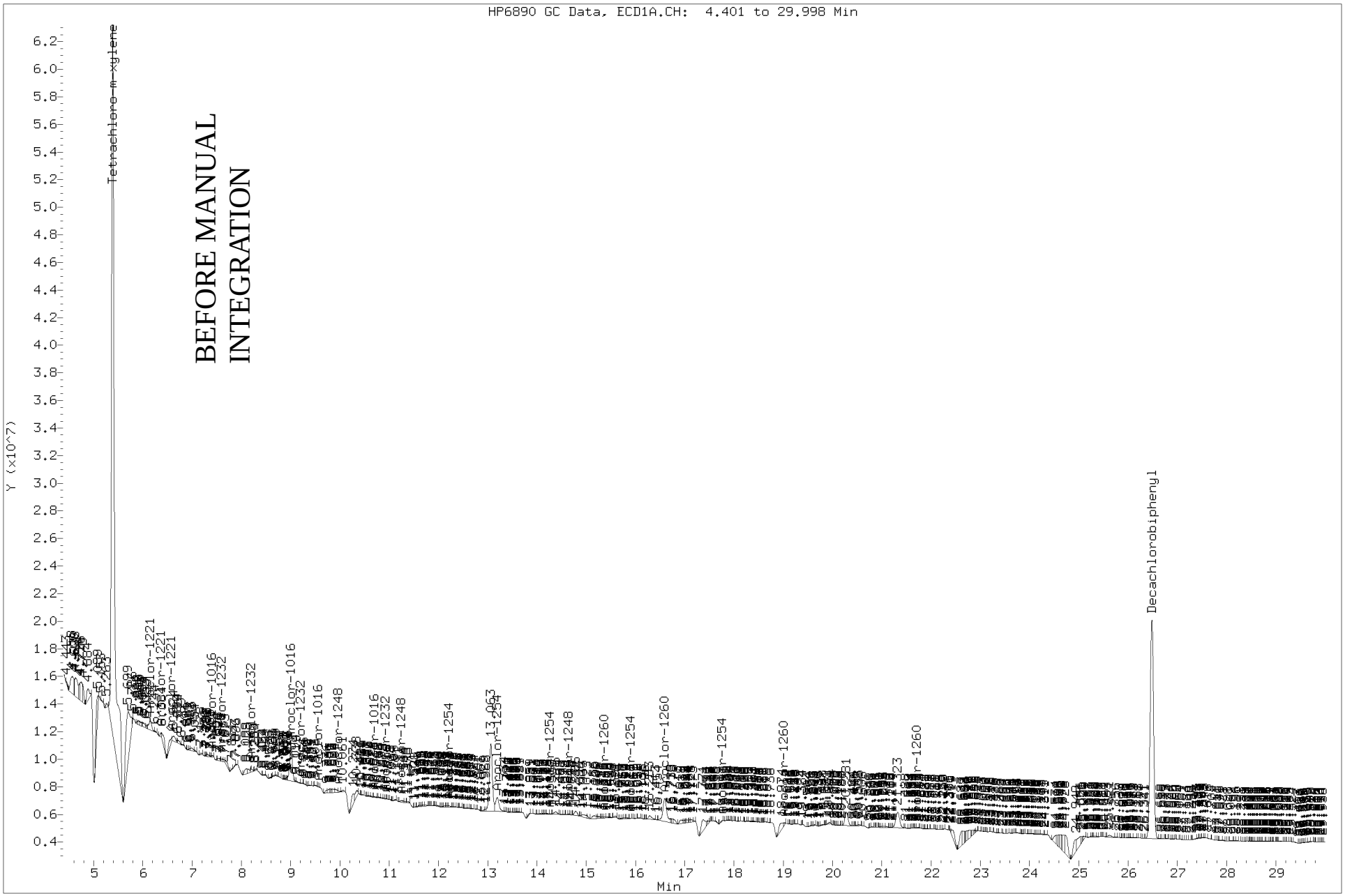
11:56 am, Jun 12, 2014

QC Flag Legend

M2

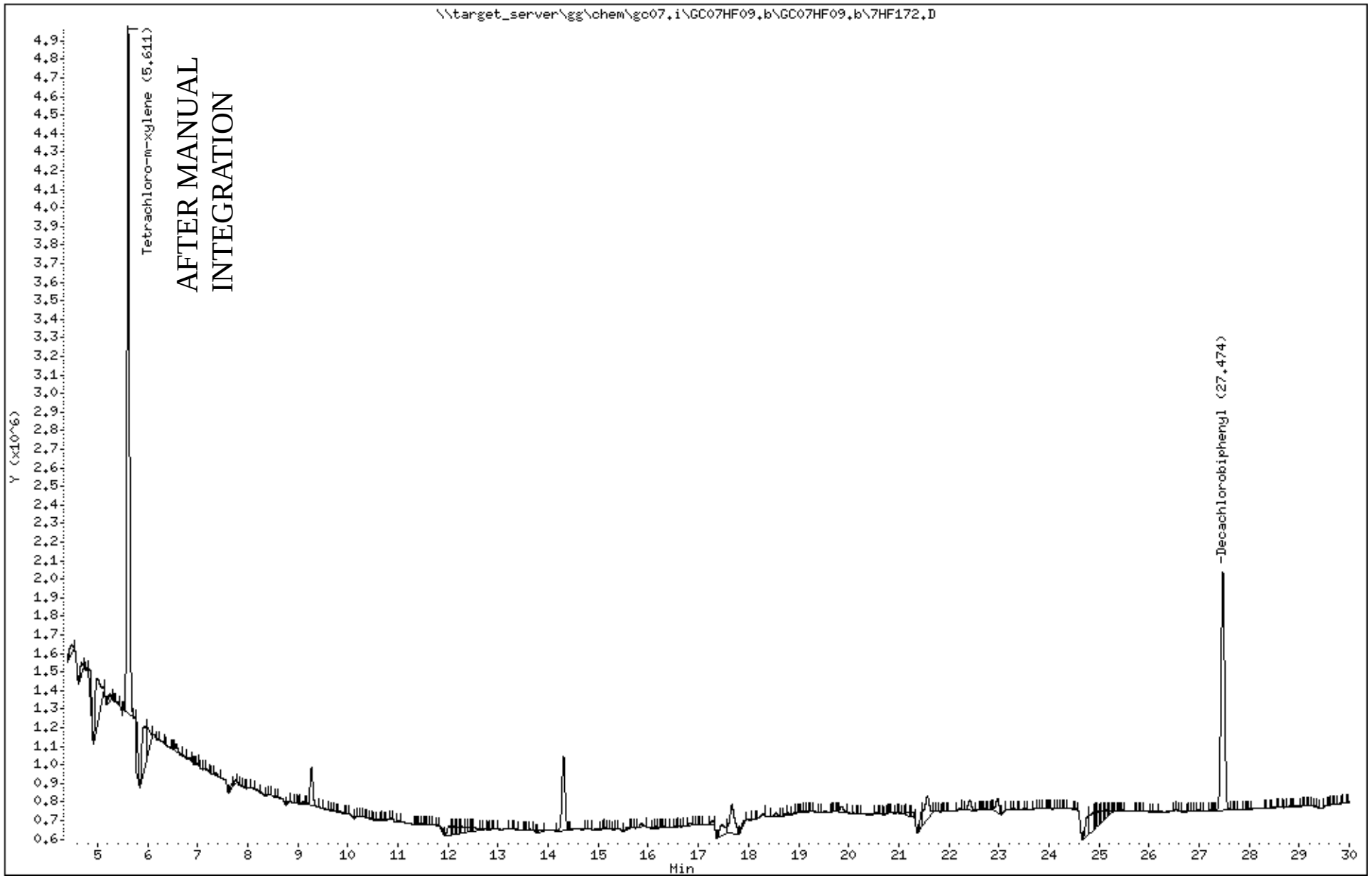
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF172.D
Injection Date: 09-JUN-2014 19:51
Instrument: gc07.i
Client Sample ID: MW-006-052914



Katahdin Analytical Services 2000035

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF172.D
Date : 09-JUN-2014 19:51
Client ID: MW-006-052914 Instrument: gc07.i
Sample Info: SH3734-5RA
Purge Volume: 1.1 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-6RA
Client ID: MW-07A-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF178.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.053	0.016	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.053	0.021	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.053	0.0094	0.026
Aroclor-1242	U	0.026	ug/L	1	.5	0.053	0.019	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.053	0.021	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.053	0.0086	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.053	0.018	0.026
Total PCBs	U	0.24	ug/L	1	4.5	0.47	0.0069	0.24
Tetrachloro-M-Xylene		101.	%					
Decachlorobiphenyl		76.3	%					

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF178.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF178.D
Lab Smp Id: SH3734-6RA Client Smp ID: MW-07A-052914
Inj Date : 09-JUN-2014 23:28
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-6RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.95000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

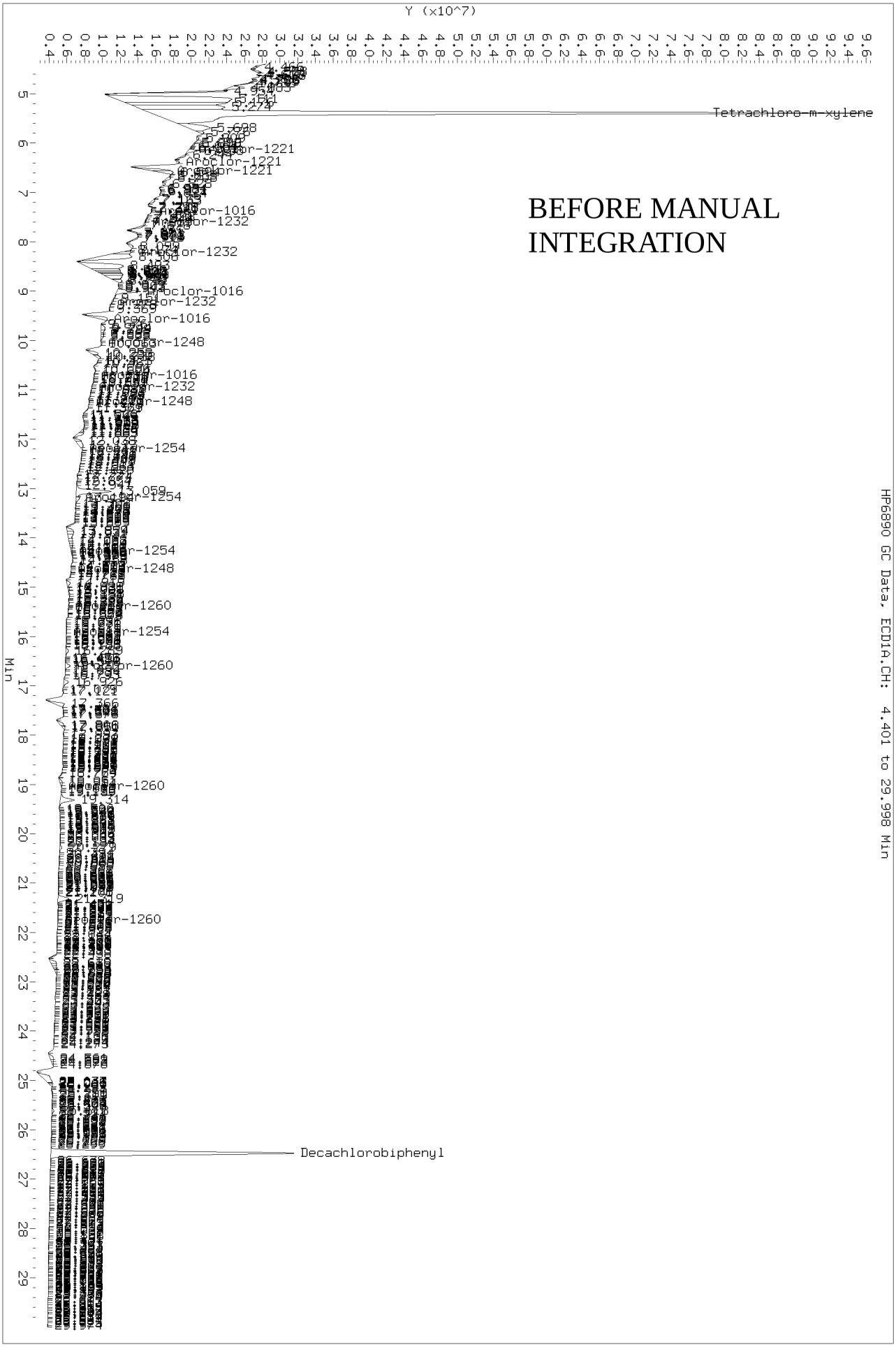
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.389	5.379	0.010	73538975	0.10120	0.106			(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.476	26.476	0.000	27361818	0.07608	0.0801			

11:56 am, Jun 12, 2014

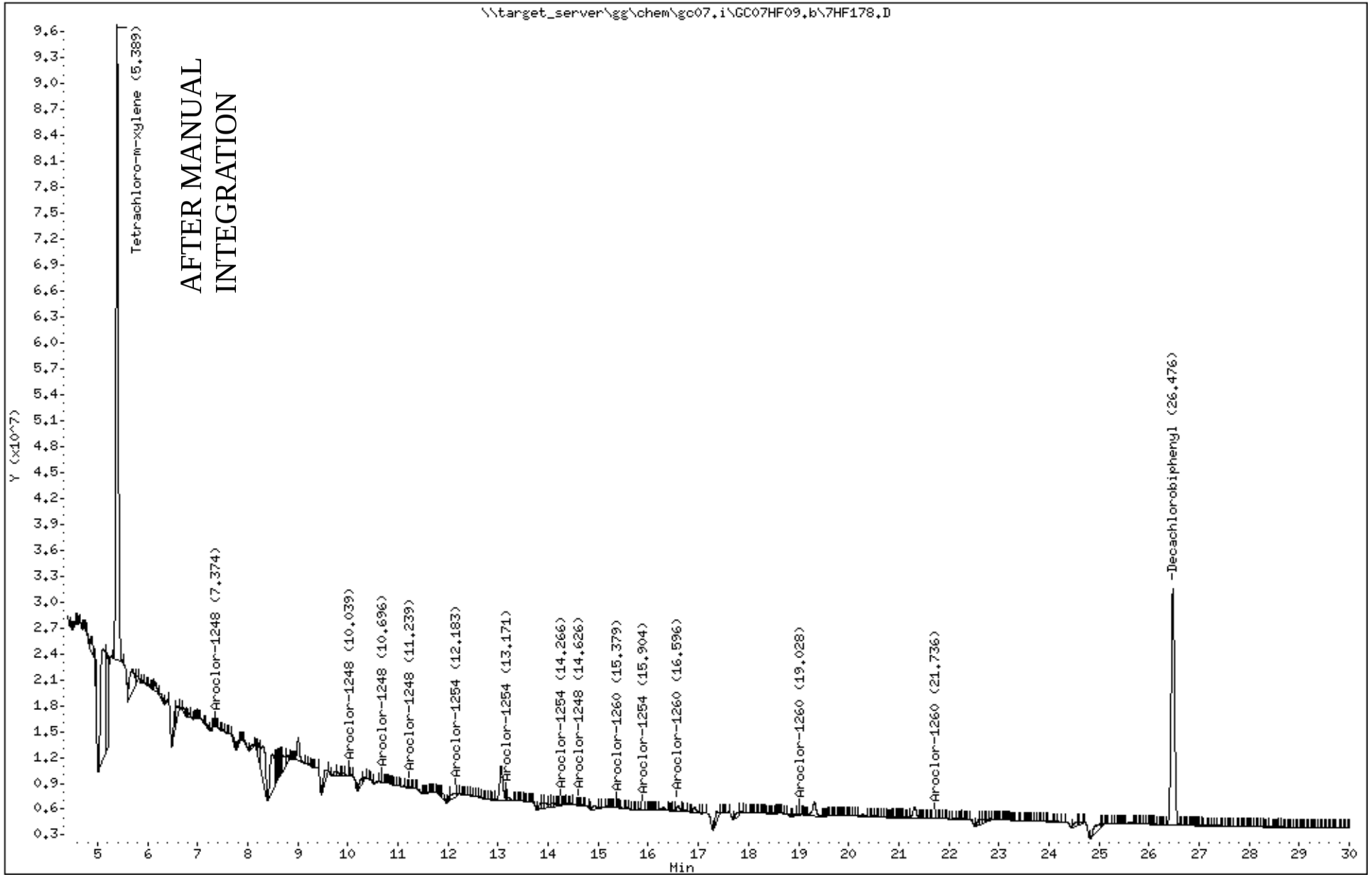
QC Flag Legend

M - Compound response manually integrated.

M3


Y (x10^7)
Min
Tetrachloro-m-xylene
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
BEFORE MANUAL INTEGRATION
Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF178.D
Injection Date: 09-JUN-2014 23:28
Instrument: gc07.i
Client Sample ID: MW-07A-052914
HP6890 GC Data, ECD1A.CH: 4.401 to 29.998 Min

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF178.D
Date : 09-JUN-2014 23:28
Client ID: MW-07A-052914
Instrument: gc07.i
Sample Info: SH3734-6RA
Purge Volume: 0.9
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000040

Data File: 7HF178.D
Report Date: 12-Jun-2014 10:58

Katahdin Analytical Services

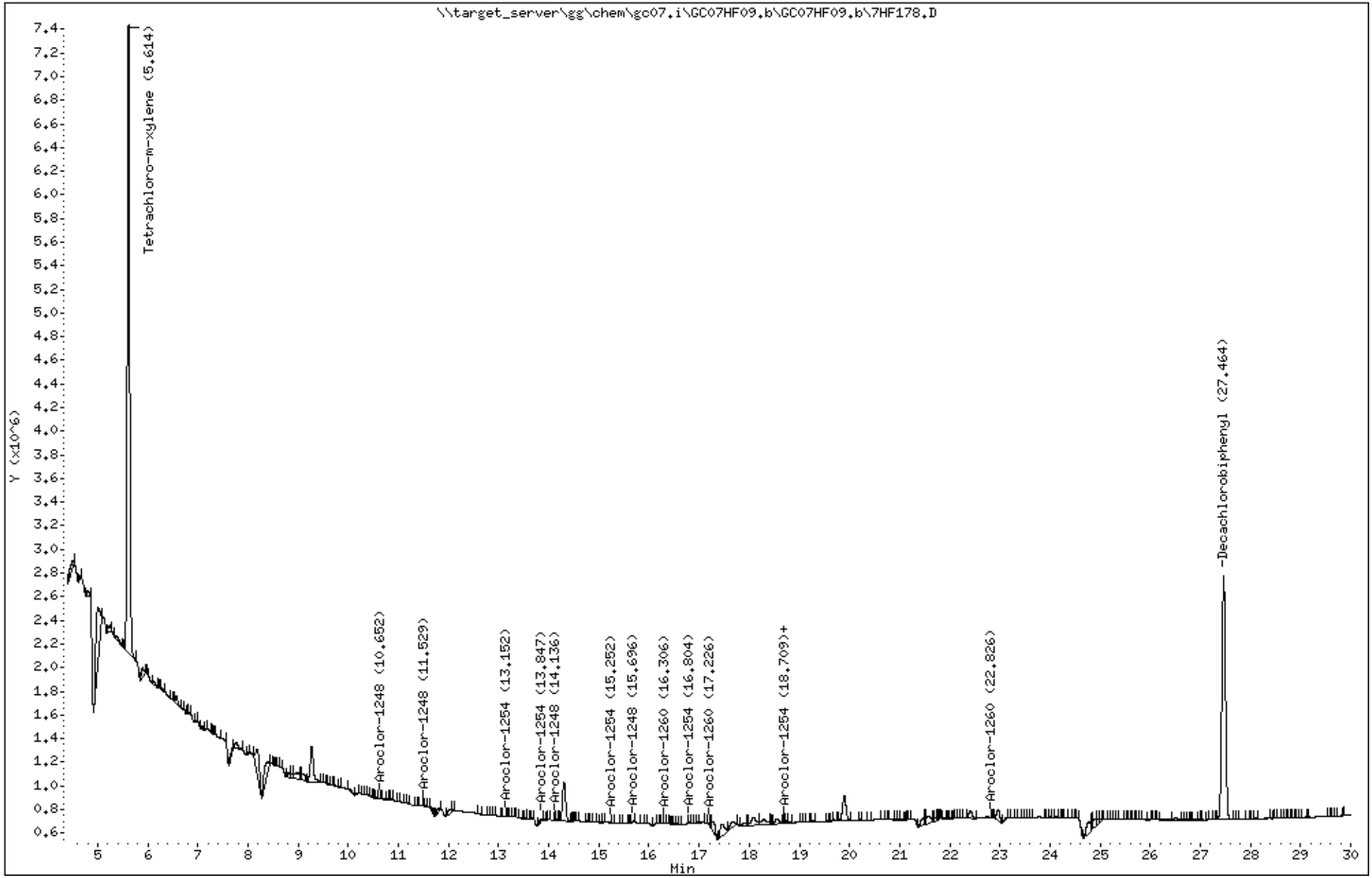
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF178.D
Lab Smp Id: SH3734-6RA Client Smp ID: MW-07A-052914
Inj Date : 09-JUN-2014 23:28
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-6RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.95000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.614	5.602	0.012	5311880	0.08044	0.0847			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.464	27.461	0.003	2063920	0.07325	0.0771			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF178.D
Date : 09-JUN-2014 23:28
Client ID: MW-07A-052914 Instrument: gc07.i
Sample Info: SH3734-6RA
Purge Volume: 0.9 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin Analytical Services 2000042

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-7RA
Client ID: EB-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF179.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 10-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.024	ug/L	1	.5	0.048	0.014	0.024
Aroclor-1221	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1232	U	0.024	ug/L	1	.5	0.048	0.0086	0.024
Aroclor-1242	U	0.024	ug/L	1	.5	0.048	0.017	0.024
Aroclor-1248	U	0.024	ug/L	1	.5	0.048	0.019	0.024
Aroclor-1254	U	0.024	ug/L	1	.5	0.048	0.0080	0.024
Aroclor-1260	U	0.024	ug/L	1	.5	0.048	0.016	0.024
Total PCBs	U	0.22	ug/L	1	4.5	0.44	0.0064	0.22
Tetrachloro-M-Xylene	*	46.0	%					
Decachlorobiphenyl		41.3	%					

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF179.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF179.D
Lab Smp Id: SH3734-7RA Client Smp ID: EB-052914
Inj Date : 10-JUN-2014 00:04
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-7RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

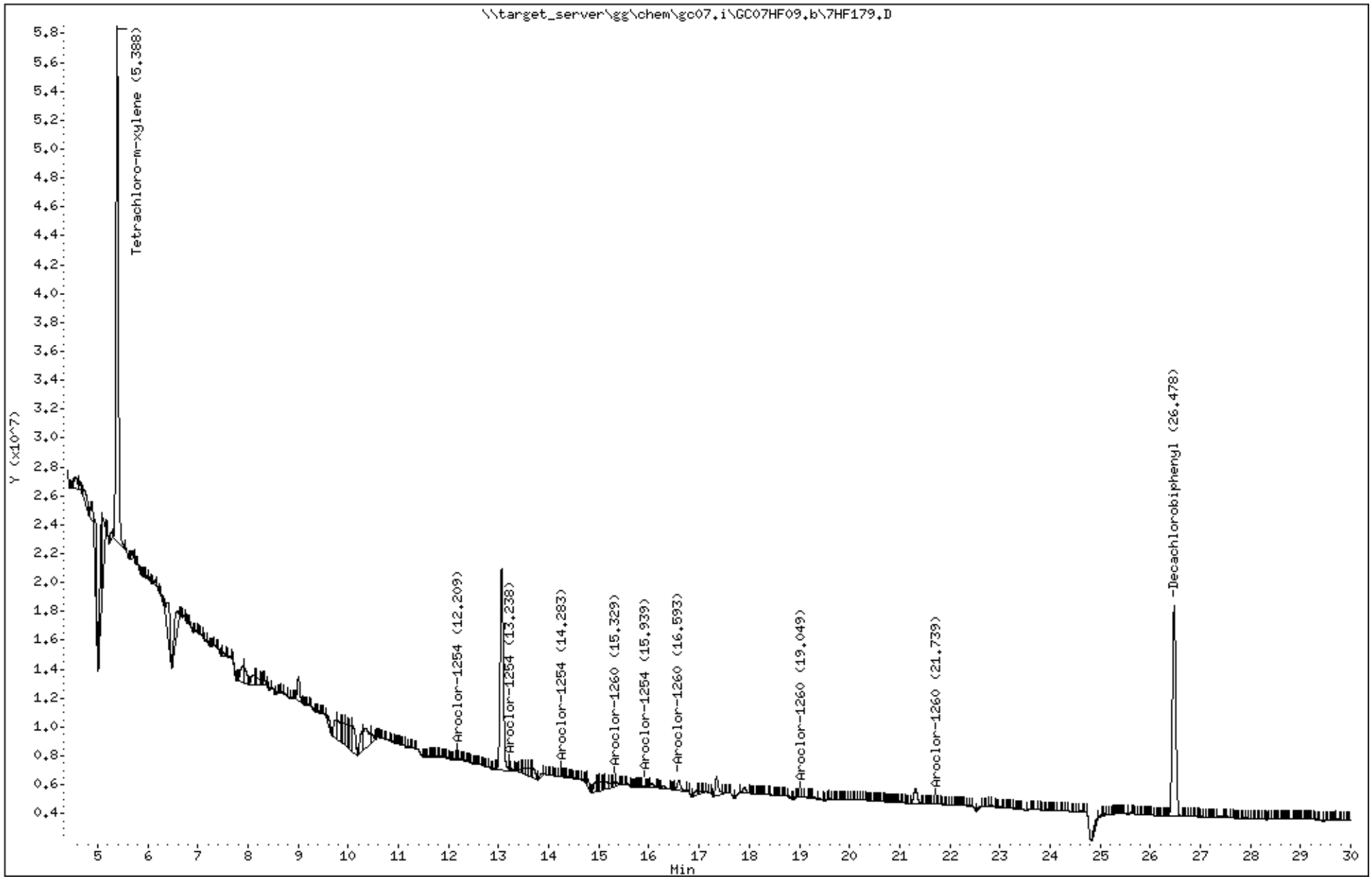
Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.030	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
RT	EXP RT	DLT RT	RESPONSE					
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.387	5.379	0.008	35628674	0.04607	0.0447		(aR)	
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.477	26.476	0.001	14600092	0.04127	0.0401		(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF179.D
Date : 10-JUN-2014 00:04
Client ID: EB-052914
Instrument: gc07.i
Sample Info: SH3734-7RA
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HF179.D
Report Date: 12-Jun-2014 10:58

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF179.D
Lab Smp Id: SH3734-7RA Client Smp ID: EB-052914
Inj Date : 10-JUN-2014 00:04
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-7RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

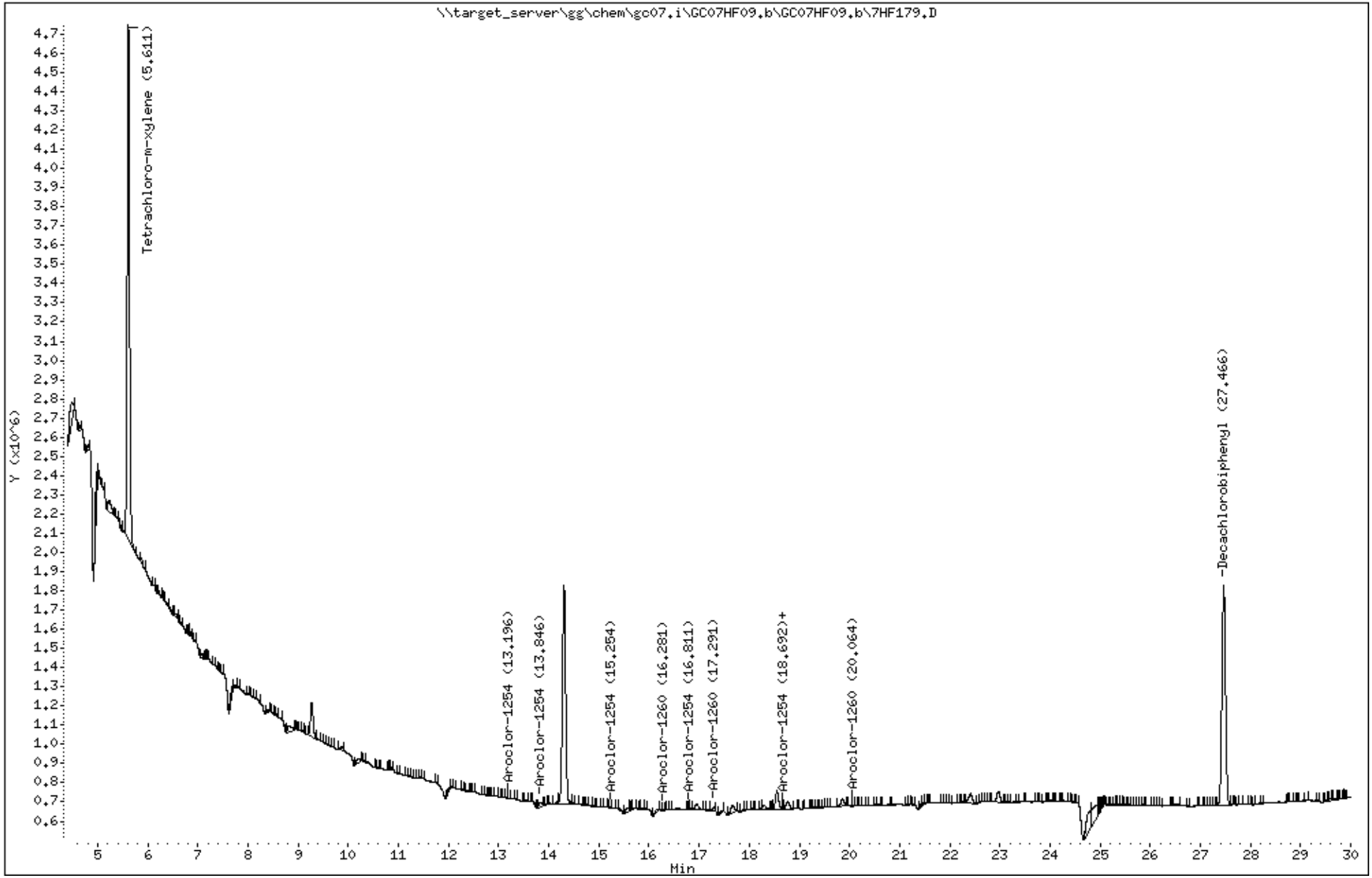
Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.030	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.610	5.602	0.008	2682790	0.04039	0.0392			(aR)
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.465	27.461	0.004	1142056	0.04027	0.0391			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF179.D
Date : 10-JUN-2014 00:04
Client ID: EB-052914 Instrument: gc07.i
Sample Info: SH3734-7RA
Purge Volume: 1.0 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin Analytical Services 2000047

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Battelle
Lab ID: SH3734-8RA
Client ID: MW-003-052914
Project: New Bedford Harbor Superfu
SDG: SH3734
Lab File ID: 7HF180.D

Sample Date: 29-MAY-14
Received Date: 30-MAY-14
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 10-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.026	ug/L	1	.5	0.051	0.015	0.026
Aroclor-1221	U	0.026	ug/L	1	.5	0.051	0.020	0.026
Aroclor-1232	U	0.026	ug/L	1	.5	0.051	0.0091	0.026
Aroclor-1242		0.11	ug/L	1	.5	0.051	0.018	0.026
Aroclor-1248	U	0.026	ug/L	1	.5	0.051	0.020	0.026
Aroclor-1254	U	0.026	ug/L	1	.5	0.051	0.0084	0.026
Aroclor-1260	U	0.026	ug/L	1	.5	0.051	0.017	0.026
Total PCBs	J	0.11	ug/L	1	4.5	0.46	0.0067	0.23
Tetrachloro-M-Xylene		78.1	%					
Decachlorobiphenyl		60.0	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Form 10
Pesticide Identification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site

SDG : SH3734
Lab Sample ID : SH3734-8RA
Client Sample ID : MW-003-052914

Column A
Instrument ID : GC07
Date Analyzed : 06/10/14
Time Analyzed : 00:40

Column B
Instrument ID : GC07
Date Analyzed : 06/10/14
Time Analyzed : 00:40

Analyte	Peak	Column	RT	Concentration	Mean	RPD
Aroclor-1242	1	A	7.41	.114		
	2	A	8.03	.0438		
	3	A	9.01	.0848		
	4	A	9.55	.0975		
	5	A	10.71	.191	.106	
	1	B	7.99	.0698		
	2	B	8.68	.125		
	3	B	9.7	.0385		
	4	B	10.42	.0407		
	5	B	11.55	.218	.0984	7.4

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF180.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF180.D
Lab Smp Id: SH3734-8RA Client Smp ID: MW-003-052914
Inj Date : 10-JUN-2014 00:40
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-8RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

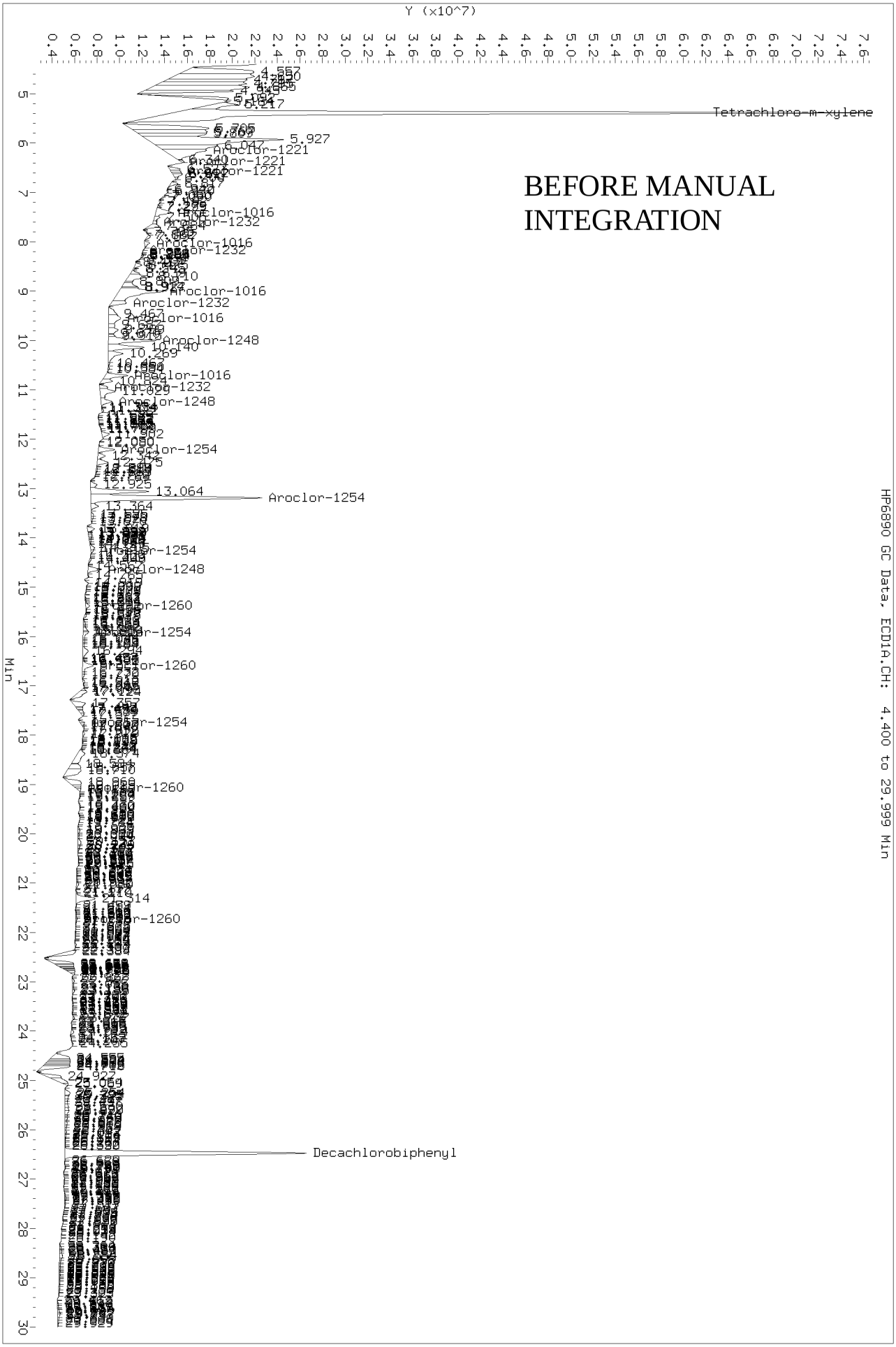
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.98000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

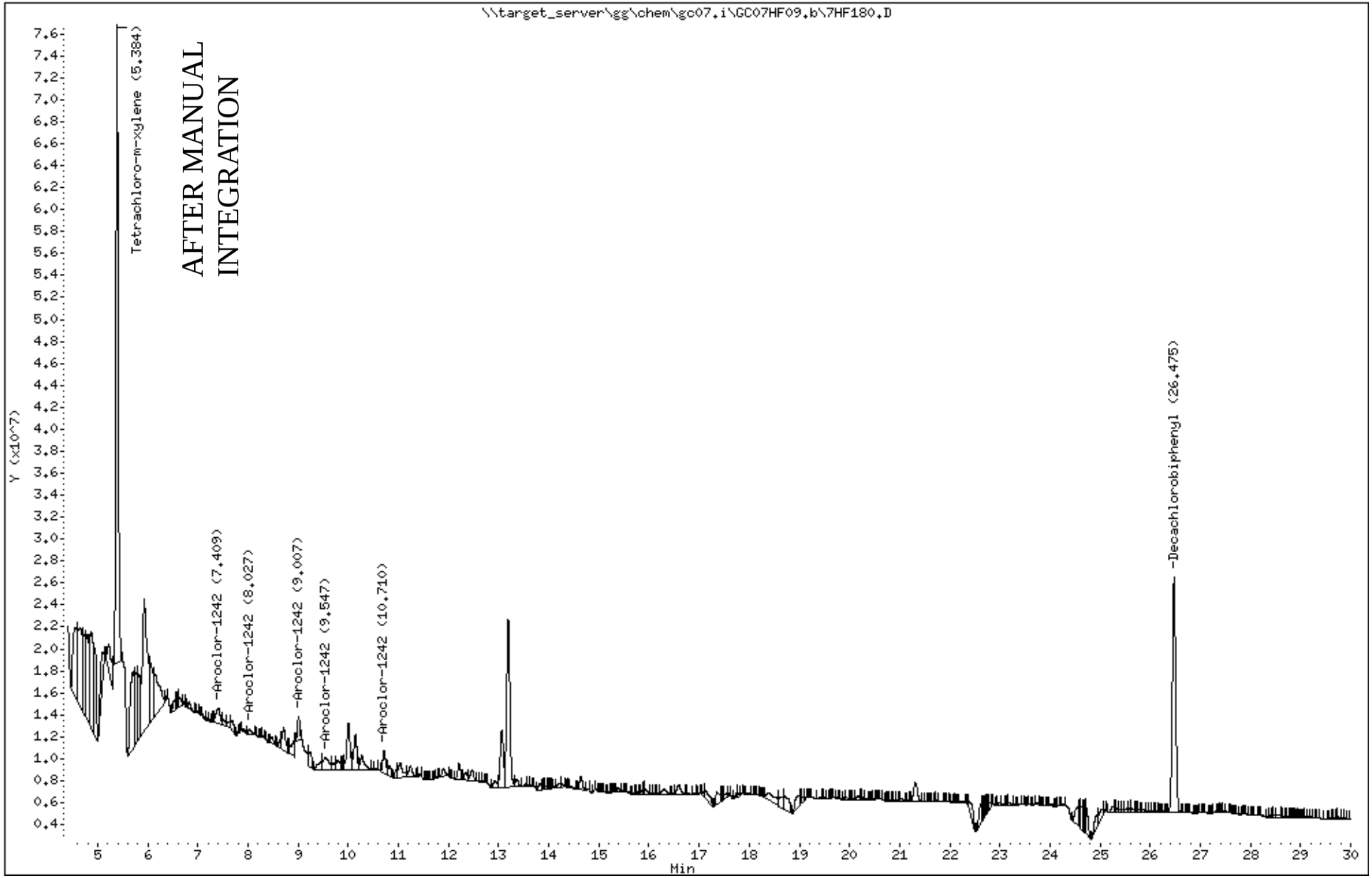
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.383	5.379	0.004	58122160	0.07809	0.0797			(M)
5 Aroclor-1242					CAS #: 53469-21-9			
7.408	7.406	0.002	1394625	0.11230	0.114	0.00- 0.00	100.00	(M)
8.027	8.000	0.027	460348	0.04294	0.0438	0.00- 0.00	33.01	
9.007	9.020	-0.013	2128786	0.08307	0.0848	0.00- 0.00	284.13	
9.547	9.563	-0.016	1070625	0.09559	0.0975	0.00- 0.00	76.77	
10.710	10.706	0.004	2003279	0.18712	0.191	0.00- 0.00	143.64	
		Average of Peak Concentrations =			0.106			
M 1 Total PCBs					CAS #:			
			1411532	0.10420	0.106			(a)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.475	26.476	-0.001	21425605	0.06003	0.0612			

11:57 am, Jun 12, 2014

M3


Y (x10^7)
Min
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
BEFORE MANUAL INTEGRATION
Data File: \\target_server\gc\chem\gc07.i\GC07HF09.b\7HF180.D
Injection Date: 10-JUN-2014 00:40
Instrument: gc07.i
Client Sample ID: MW-003-052914
HP6890 GC Data, ECD1A.CH: 4.400 to 29.999 Min

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF180.D
Date : 10-JUN-2014 00:40
Client ID: MW-003-052914
Instrument: gc07.i
Sample Info: SH3734-8RA
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000052

Data File: 7HF180.D
Report Date: 12-Jun-2014 10:58

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF180.D
Lab Smp Id: SH3734-8RA Client Smp ID: MW-003-052914
Inj Date : 10-JUN-2014 00:40
Operator : CB Inst ID: gc07.i
Smp Info : SH3734-8RA
Misc Info : WG144334,WG144065,WG143481-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	0.98000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

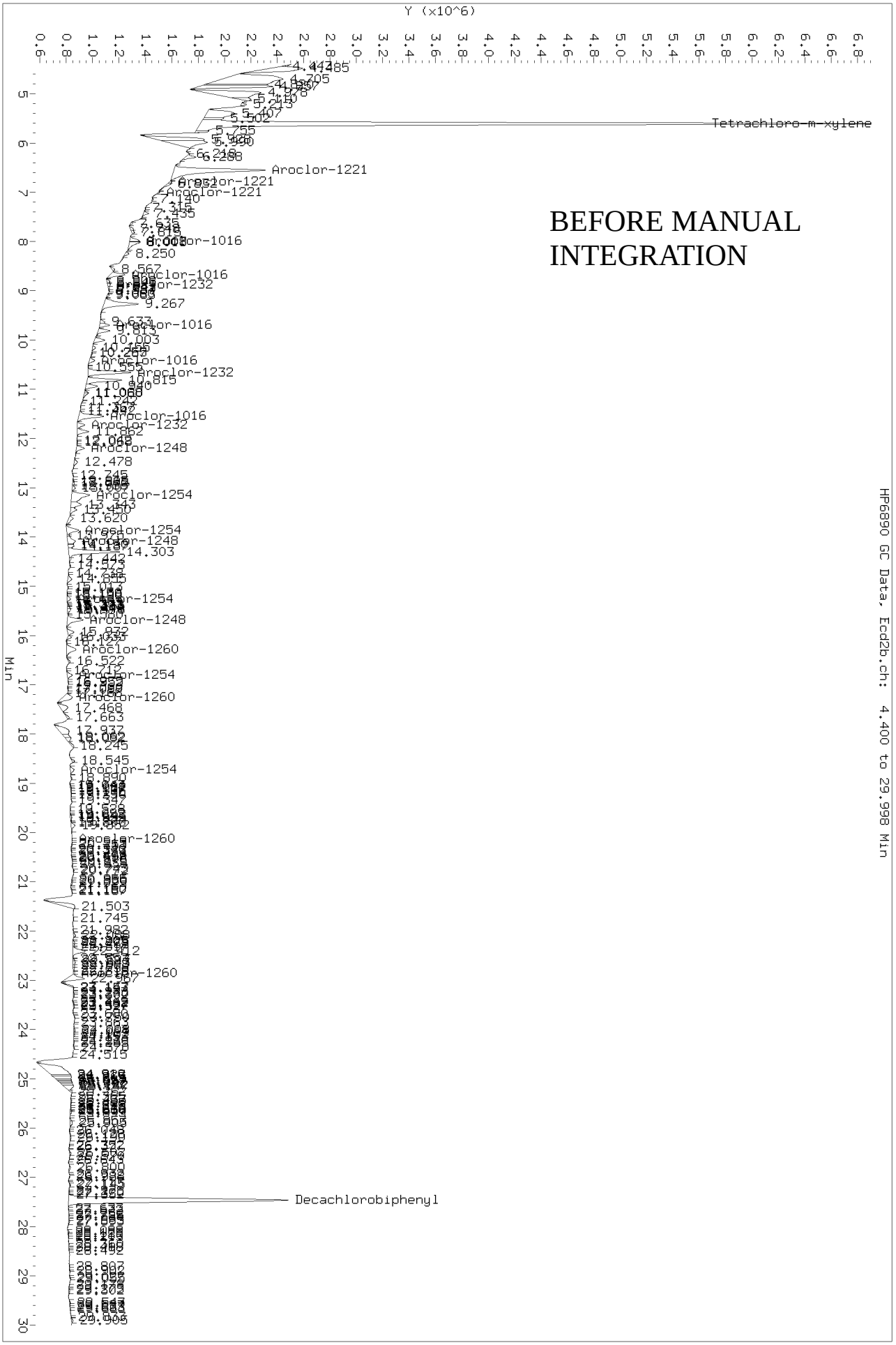
RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.608	5.602	0.006	4967946	0.07520	0.0767			(M)
6 Aroclor-1242					CAS #: 53469-21-9			
7.988	7.948	0.040	72820	0.06842	0.0698	0.00- 0.00	100.00	
8.676	8.678	-0.002	112909	0.12266	0.125	0.00- 0.00	155.05	
9.695	9.693	0.002	75450	0.03776	0.0385	0.00- 0.00	103.61	
10.421	10.413	0.008	41201	0.03988	0.0407	0.00- 0.00	56.58	
11.546	11.544	0.002	189611	0.21349	0.218	0.00- 0.00	260.38	
		Average of Peak Concentrations =			0.0984			
M 1 Total PCBs					CAS #:			
			98398	0.09644	0.0984			(a)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
27.461	27.461	0.000	1665201	0.05896	0.0602			

11:57 am, Jun 12, 2014

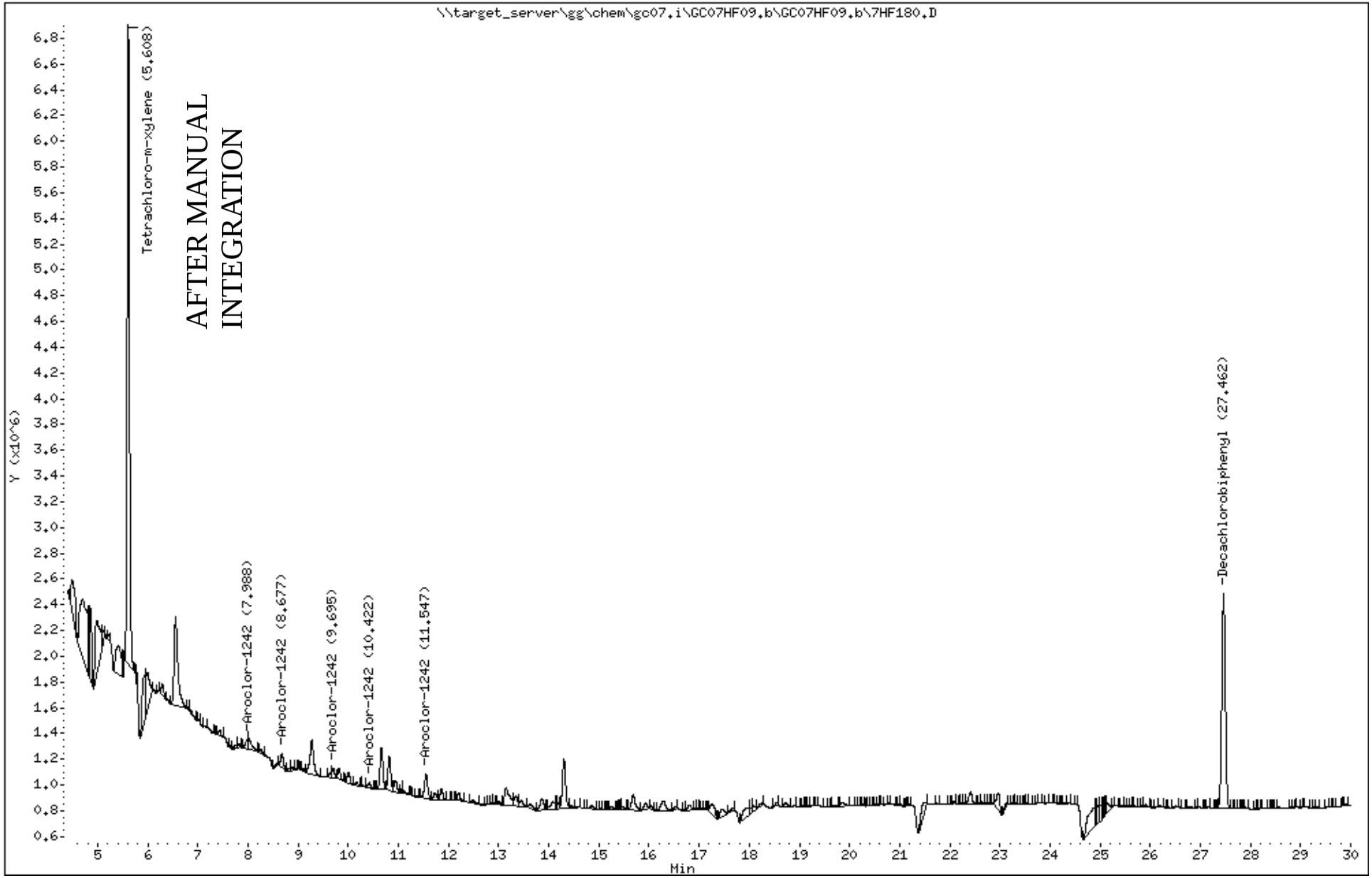
M3

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).


Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF180.D
Injection Date: 10-JUN-2014 00:40
Instrument: gc07.i
Client Sample ID: MW-003-052914
Y (x10^6)
Min
HP6890 GC Data, Ecd2b.ch: 4.400 to 29.998 Min
Tetrachloro-m-xylene
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Decachlorobiphenyl
BEFORE MANUAL INTEGRATION

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF180.D
Date : 10-JUN-2014 00:40
Client ID: MW-003-052914 Instrument: gc07.i
Sample Info: SH3734-8RA
Purge Volume: 1.0 Operator: CB
Column phase: ZB-MultiResidue-2 Column diameter: 0.53



Katahdin Analytical Services 2000055

Standards Data Section

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SH3734
Project : New Bedford Harbor Superfund Site
Instrument ID: GC07
Lab File IDs : 7HE513.D 7HE514.D 7HE515.D 7HE521.D 7HE516.D 7HE517.D
Column ID: A
Calibration Date(s): 23-MAY-14 00:01 24-MAY-14 08:26

	Level 1 0.050000(	Level 2 0.100000(	Level 3 0.250000(	Level 4 1.0000	Level 5 2.5000	Level 6 10.0000	Crv New	b	m1	m2	%RSD	Max %RSD	
Aroclor-1221(1)	+++++	+++++	+++++	2151566	+++++	+++++	AVG		2151566		0.000e+(	20.00000	O
Aroclor-1221(4)	+++++	+++++	+++++	15741760	+++++	+++++	AVG		15741760		0.000e+(	20.00000	O
Aroclor-1221(3)	+++++	+++++	+++++	4508056	+++++	+++++	AVG		4508056		0.000e+(	20.00000	O
Aroclor-1221(2)	+++++	+++++	+++++	6460792	+++++	+++++	AVG		6460792		0.000e+(	20.00000	O
Aroclor-1232(4)	+++++	+++++	+++++	15668188	+++++	+++++	AVG		15668188		0.000e+(	20.00000	O
Aroclor-1232(2)	+++++	+++++	+++++	7793835	+++++	+++++	AVG		7793835		0.000e+(	20.00000	O
Aroclor-1232(5)	+++++	+++++	+++++	6133188	+++++	+++++	AVG		6133188		0.000e+(	20.00000	O
Aroclor-1232(3)	+++++	+++++	+++++	6915729	+++++	+++++	AVG		6915729		0.000e+(	20.00000	O
Aroclor-1232(1)	+++++	+++++	+++++	14808090	+++++	+++++	AVG		14808090		0.000e+(	20.00000	O
Aroclor-1242(4)	11520540	11207530	11536936	10832143	11429840	10676548	AVG		11200590		3.28882	20.00000	O
Aroclor-1242(2)	11808760	11519400	11624712	10570934	10318770	8485516	AVG		10721349		11.66387	20.00000	O
Aroclor-1242(5)	10872100	10752580	10944180	10412401	10832660	10421714	AVG		10705939		2.16875	20.00000	O
Aroclor-1242(3)	28178420	25685330	25279292	24021146	25329734	25269445	AVG		25627228		5.35854	20.00000	O
Aroclor-1242(1)	13951520	13415910	13689060	12331982	11802415	9318454	AVG		12418224		13.9274{	20.00000	O
Aroclor-1016(4)	706677	2071947	3481740	12188618	33856348	13388057	QUA	-0.00434	7.507e-00	-2.665e-0	0.99984	0.99000	D
Aroclor-1016(3)	1672038	4374841	7657170	27551045	76861606	31731250	QUA	-0.00141	3.343e-00	-6.048e-0	0.99986	0.99000	D
Aroclor-1016(5)	653088	1920943	3333059	11232014	31316591	12417806	QUA	-0.00678	8.136e-00	-6.371e-0	0.99983	0.99000	D
Aroclor-1016(1)	840488	2005413	4025761	13947203	34389143	11387663	QUA	-0.01460	6.742e-00	1.801e-01	0.99997	0.99000	D
Aroclor-1016(2)	710729	1574154	3448518	11870807	30645116	10351148	QUA	-0.00111	7.659e-00	1.933e-01	0.99993	0.99000	D
Aroclor-1248(4)	16408000	15045310	14056984	14575248	14484791	15076454	AVG		14941131		5.44124	20.00000	O
Aroclor-1248(5)	13447220	12276390	11390396	11744155	11811214	12790533	AVG		12243318		6.23457	20.00000	O
Aroclor-1248(2)	19350820	17415000	16905036	16764019	17066652	17497340	AVG		17499811		5.43086	20.00000	O
Aroclor-1248(3)	22729920	20945920	19103288	19757729	19163072	19523555	AVG		20203914		6.96038	20.00000	O
Aroclor-1248(1)	8858060	8182620	7364664	7139448	6790289	5722885	AVG		7342994		14.8840{	20.00000	O
Aroclor-1254(1)	24219100	24501180	24174556	22472387	24444088	25198390	AVG		24168284		3.75898	20.00000	O
Aroclor-1254(4)	31291160	30517330	30848708	30738853	35045432	41198215	AVG		33273283		12.7346(	20.00000	O
Aroclor-1254(3)	20997420	20901780	20817700	19315708	21454112	23077473	AVG		21094032		5.74729	20.00000	O
Aroclor-1254(2)	28078340	28935950	26887568	26592878	30650551	33056304	AVG		29033599		8.47621	20.00000	O
Aroclor-1254(5)	30178540	29929510	30122784	29331851	32469775	39198831	AVG		31871882		11.7558{	20.00000	O
Aroclor-1260(2)	2190069	6355663	10866044	39541942	116381387	64517829	QUA	0.00639	2.309e-00	-1.178e-0	0.99982	0.99000	O
Aroclor-1260(3)	1684412	4993303	8543676	33472707	91515263	46510720	QUA	-0.00317	2.904e-00	-1.620e-0	0.99994	0.99000	O
Aroclor-1260(1)	1307945	3765220	6308793	22823005	65395933	28896468	QUA	0.00267	3.994e-00	-1.849e-0	0.99982	0.99000	O
Aroclor-1260(4)	954527	2843065	5100875	18994926	52112489	23268245	QUA	-0.00170	5.004e-00	-3.035e-0	0.99992	0.99000	O
Aroclor-1260(5)	1481909	3774137	7184279	28796099	80675629	38951931	QUA	0.01192	3.259e-00	-1.785e-0	0.99992	0.99000	O
Tetrachloro-m-xylene	903091	2730646	4365503	15705628	38649288	13344602	QUA	-0.00052	1.237e-00	1.992e-01	0.99995	0.99000	
Decachlorobiphenyl	372472	1060307	1761397	6374232	18007846	76880699	QUA	-0.00001	2.880e-00	-3.627e-0	0.99984	0.99000	

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
Lab File IDs : 7HE513.D 7HE514.D 7HE515.D 7HE521.D 7HE516.D 7HE517.D

SDG: SH3734
Instrument ID: GC07
Column ID: A
Calibration Date(s): 23-MAY-14 00:01
24-MAY-14 08:26

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
SDG: SH3734
Project : New Bedford Harbor Superfund Site
Instrument ID: GC07
Lab File IDs : 7HE513.D 7HE514.D 7HE515.D 7HE521.D 7HE516.D 7HE517.D
Column ID: B
Calibration Date(s): 23-MAY-14 00:01, 24-MAY-14 08:26

	0.050000(Level 1	0.100000(Level 2	0.250000(Level 3	1.0000 Level 4	2.5000 Level 5	10.0000 Level 6	New Crv	b	m1	m2	%RSD	Max %RSD	
Aroclor-1221(3)	+++++	+++++	+++++	400716	+++++	+++++	AVG		400716		0.000e+(	20.00000	O
Aroclor-1221(1)	+++++	+++++	+++++	377295	+++++	+++++	AVG		377295		0.000e+(	20.00000	O
Aroclor-1221(4)	+++++	+++++	+++++	1391107	+++++	+++++	AVG		1391107		0.000e+(	20.00000	O
Aroclor-1221(2)	+++++	+++++	+++++	576444	+++++	+++++	AVG		576444		0.000e+(	20.00000	O
Aroclor-1232(2)	+++++	+++++	+++++	665103	+++++	+++++	AVG		665103		0.000e+(	20.00000	O
Aroclor-1232(4)	+++++	+++++	+++++	654463	+++++	+++++	AVG		654463		0.000e+(	20.00000	O
Aroclor-1232(5)	+++++	+++++	+++++	507898	+++++	+++++	AVG		507898		0.000e+(	20.00000	O
Aroclor-1232(3)	+++++	+++++	+++++	597395	+++++	+++++	AVG		597395		0.000e+(	20.00000	O
Aroclor-1232(1)	+++++	+++++	+++++	455704	+++++	+++++	AVG		455704		0.000e+(	20.00000	O
Aroclor-1016(4)	70624	200273	324649	1134186	2930159	10940055	QUA	-0.02528	8.515e-00	5.921e-01	0.99993	0.99000	D
Aroclor-1016(2)	62170	191432	295859	1010738	2525797	9084955	QUA	-0.03746	9.740e-00	1.440e-01	0.99994	0.99000	D
Aroclor-1016(1)	72072	195354	340812	1147469	2846412	10025759	QUA	-0.03289	8.526e-00	1.477e-01	0.99996	0.99000	D
Aroclor-1016(3)	134151	368484	626286	2203037	5674276	20879124	QUA	-0.02080	4.359e-00	2.108e-01	0.99994	0.99000	D
Aroclor-1016(5)	60018	169141	278026	942125	2408779	9099173	QUA	-0.03373	1.043e-00	6.523e-01	0.99994	0.99000	D
Aroclor-1242(1)	1207560	1167250	1164396	1027795	984416	834493	AVG		1064318		13.39777	20.00000	O
Aroclor-1242(4)	1103220	1113100	1100256	997487	987115	897510	AVG		1033115		8.39321	20.00000	O
Aroclor-1242(5)	961020	931530	961444	864889	838880	771123	AVG		888148		8.60850	20.00000	O
Aroclor-1242(3)	2185360	2132400	2115580	1914364	1922540	1718242	AVG		1998081		8.89521	20.00000	O
Aroclor-1242(2)	1025500	992020	994560	895909	865242	749714	AVG		920491		11.3370(	20.00000	O
Aroclor-1248(3)	1285900	1223240	1126768	1096885	1029632	1004413	AVG		1127806		9.70679	20.00000	O
Aroclor-1248(4)	1531020	1362730	1249548	1215660	1169351	1101465	AVG		1271629		12.11248	20.00000	O
Aroclor-1248(5)	1150520	1081840	986836	945142	917842	869277	AVG		991910		10.66765	20.00000	O
Aroclor-1248(1)	1704180	1609370	1459396	1371989	1288744	1197185	AVG		1438477		13.38295	20.00000	O
Aroclor-1248(2)	1953840	1798580	1615128	1557079	1473950	1382801	AVG		1630230		12.99183	20.00000	O
Aroclor-1254(2)	2549020	2509650	2350060	2148840	2209184	2011304	AVG		2296343		9.19321	20.00000	O
Aroclor-1254(5)	2584540	2634550	2525736	2309626	2401125	2231744	AVG		2447887		6.52598	20.00000	O
Aroclor-1254(3)	1852860	1826090	1755752	1623267	1651040	1506141	AVG		1702525		7.80115	20.00000	O
Aroclor-1254(1)	2455060	2449670	2292400	2094278	2138365	1928934	AVG		2226451		9.42528	20.00000	O
Aroclor-1254(4)	2780040	2804030	2665900	2449433	2504310	2294636	AVG		2583058		7.77632	20.00000	O
Aroclor-1260(3)	139169	378601	656177	2356957	6242860	23538433	QUA	-0.01031	3.993e-00	1.099e-01	0.99992	0.99000	D
Aroclor-1260(2)	163756	453205	786828	2784961	7366322	27637296	QUA	-0.01202	3.381e-00	8.741e-01	0.99991	0.99000	D
Aroclor-1260(1)	109655	315094	537073	1833429	4908282	18551575	QUA	-0.01510	5.105e-00	1.577e-01	0.99989	0.99000	D
Aroclor-1260(4)	99607	266809	467310	1664876	4451601	17277993	QUA	-0.01072	5.666e-00	7.374e-01	0.99991	0.99000	D
Aroclor-1260(5)	128065	347007	594507	2156846	5984166	23076196	QUA	0.00214	4.199e-00	5.768e-01	0.99985	0.99000	D
Tetrachloro-m-xylene	74664	224401	359846	1285321	3336182	13172507	QUA	-0.00049	1.525e-00	-2.035e-0	0.99994	0.99000	
Decachlorobiphenyl	31048	91078	147260	535813	1429026	5546108	QUA	-0.00024	3.531e-00	1.421e-01	0.99990	0.99000	

Form 6
Initial Calibration Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
Lab File IDs : 7HE513.D 7HE514.D 7HE515.D 7HE521.D 7HE516.D 7HE517.D

SDG: SH3734
Instrument ID: GC07
Column ID: B
Calibration Date(s): 23-MAY-14 00:01
24-MAY-14 08:26

Legend: O = Kept Original Curve
Y = Failed Minimum RF
W = Failed %RSD Value

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE498.D
Report Date: 28-May-2014 12:30

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa01504
Sample Matrix: LIQUID Fraction: PCB
Lab Smp Id: WG143481-13
Level: LOW Operator: CB
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: 1016ind.spk Quant Type: ESTD
Sublist File: AR1016.sub
Method File: \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Misc Info: WG143481,WG143481,WG143481-1,SH3254-1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
6 Aroclor-1016	1.00	1.02	102.00	80-120

Data File: 7HE498.D
Report Date: 28-May-2014 12:30

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa01504
Sample Matrix: LIQUID Fraction: PCB
Lab Smp Id: WG143481-13
Level: LOW Operator: CB
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: 1016ind.spk Quant Type: ESTD
Sublist File: AR1016.sub
Method File: \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Misc Info: WG143481,WG143481,WG143481-2,SH3254-1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Aroclor-1016	1.00	1.03	103.00	80-120

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE499.D
Report Date: 28-May-2014 12:30

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa01504
Sample Matrix: LIQUID Fraction: PCB
Lab Smp Id: WG143481-14
Level: LOW Operator: CB
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: 1260ind.spk Quant Type: ESTD
Sublist File: AR1260.sub
Method File: \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Misc Info: WG143481,WG143481,WG143481-1,SH3254-1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
9 Aroclor-1260	1.00	1.02	102.00	80-120

Data File: 7HE499.D
Report Date: 28-May-2014 12:30

Katahdin Analytical Services

RECOVERY REPORT

Client Name: Client SDG: SDGa01504
Sample Matrix: LIQUID Fraction: PCB
Lab Smp Id: WG143481-14
Level: LOW Operator: CB
Data Type: GC MULTI COMP SampleType: LCS
SpikeList File: 1260ind.spk Quant Type: ESTD
Sublist File: AR1260.sub
Method File: \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Misc Info: WG143481,WG143481,WG143481-2,SH3254-1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
9 Aroclor-1260	1.00	1.02	102.00	80-120

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE498.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

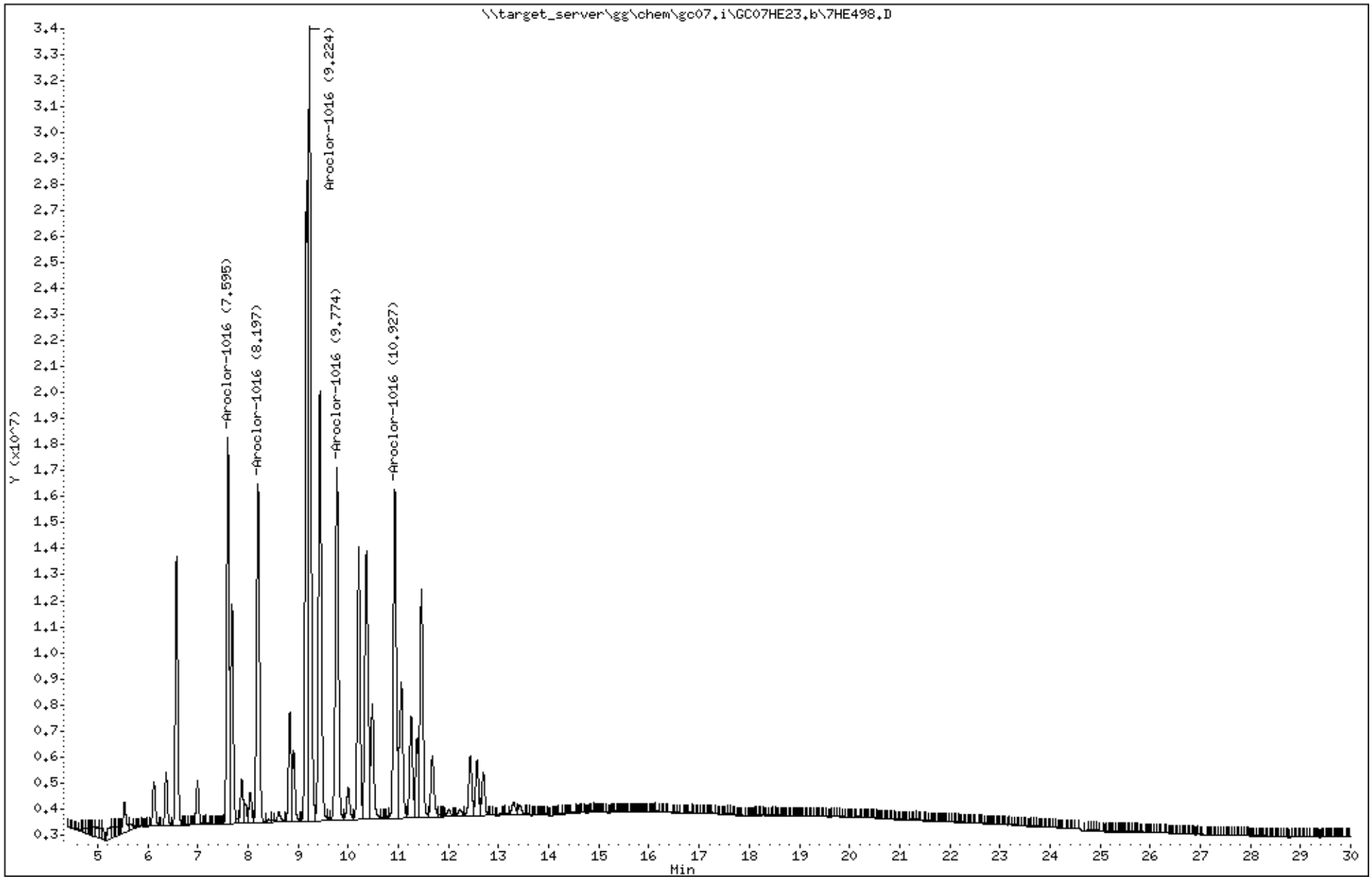
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE498.D
Lab Smp Id: WG143481-13
Inj Date : 23-MAY-2014 18:36
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-13,SH3254
Misc Info : WG143481,WG143481,WG143481-1,SH3254-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 8   QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1016.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1016					CAS #: 12674-11-2			
7.595	7.609	-0.014	14828795	1.02477	1.02	80.00- 120.00	100.00	
8.197	8.213	-0.016	13006314	1.02776	1.03	158.77- 238.15	87.71	
9.223	9.239	-0.016	30549899	1.01436	1.01	296.98- 445.46	206.02	
9.773	9.791	-0.018	13527562	1.01071	1.01	114.78- 172.16	91.22	
10.927	10.943	-0.016	12661686	1.02240	1.02	112.32- 168.48	85.39	
		Average of Peak Concentrations =			1.02			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE498.D
Date : 23-MAY-2014 18:36
Client ID:
Instrument: gc07.i
Sample Info: WG143481-13,SH3254
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HE498.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

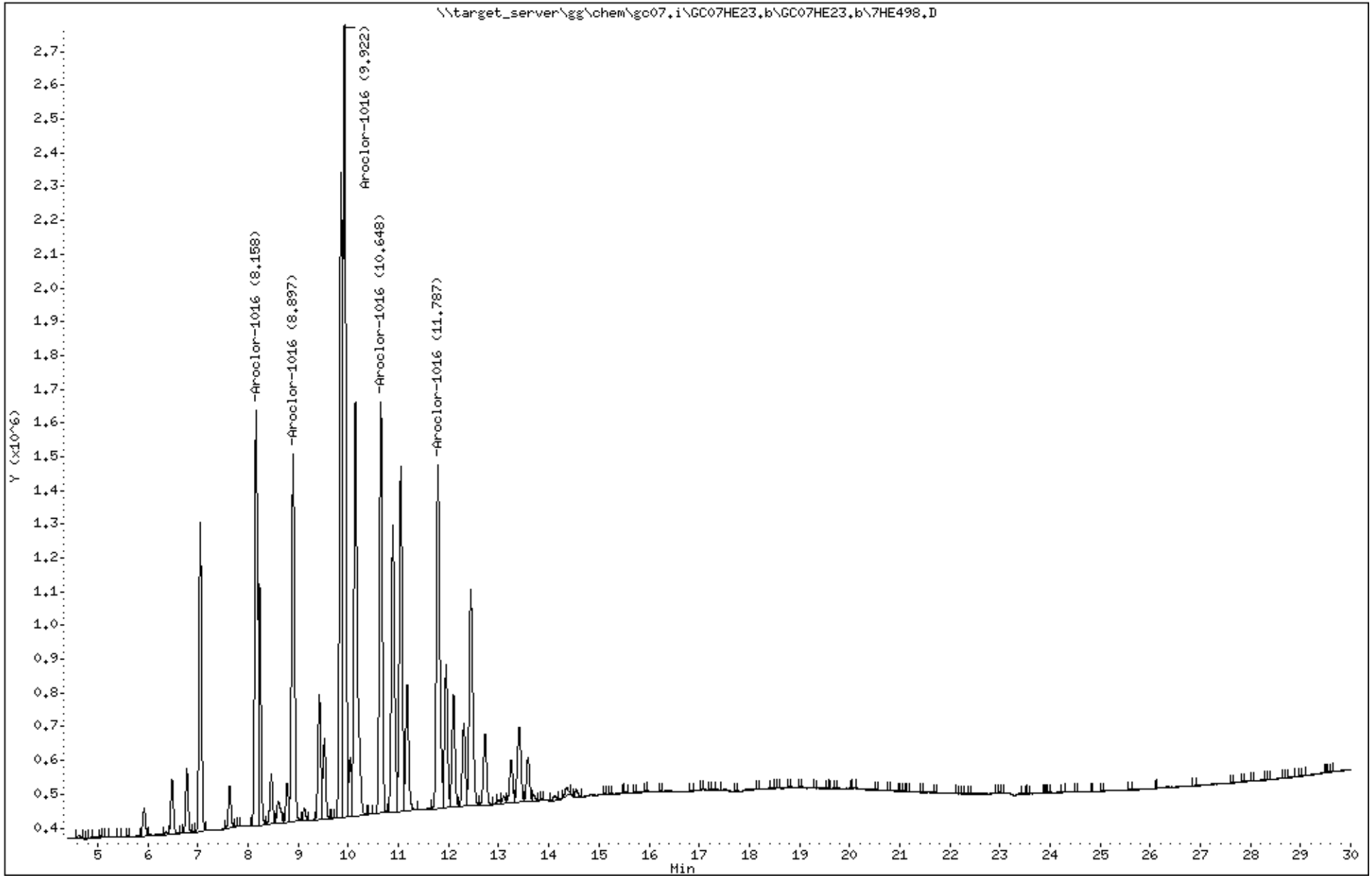
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE498.D
Lab Smp Id: WG143481-13
Inj Date : 23-MAY-2014 18:36
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-13,SH3254
Misc Info : WG143481,WG143481,WG143481-2,SH3254-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 8   QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1016.sub
Target Version: 4.12   Sample Matrix: WATER

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1016					CAS #: 12674-11-2			
8.158	8.171	-0.013	1228979	1.03721	1.04	80.00- 120.00	100.00	
8.896	8.909	-0.013	1091207	1.04246	1.04	158.77- 238.15	88.79	
9.921	9.936	-0.015	2347029	1.01386	1.01	296.98- 445.46	190.97	
10.648	10.661	-0.013	1216324	1.01920	1.02	114.78- 172.17	98.97	
11.786	11.802	-0.016	1017760	1.03483	1.03	112.32- 168.48	82.81	
		Average of Peak Concentrations =			1.03			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE498.D
Date : 23-MAY-2014 18:36
Client ID:
Instrument: gc07.i
Sample Info: WG143481-13,SH3254
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



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Report Date: 28-May-2014 12:16

Katahdin Analytical Services

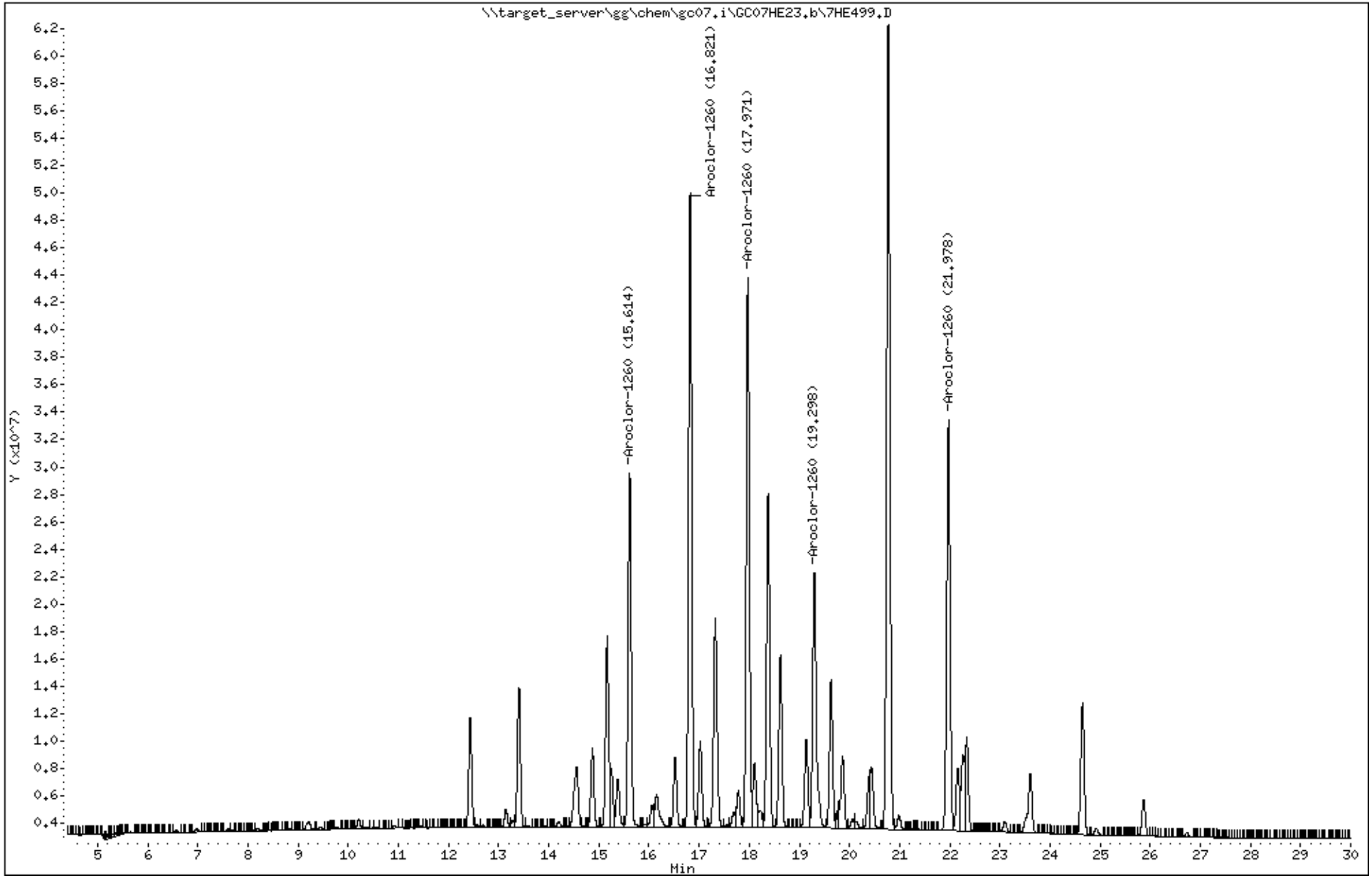
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE499.D
Lab Smp Id: WG143481-14
Inj Date : 23-MAY-2014 19:12
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-14,SH3254
Misc Info : WG143481,WG143481,WG143481-1,SH3254-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 9   QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1260.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
9 Aroclor-1260					CAS #: 11096-82-5			
15.614	15.634	-0.020	25852930	1.02276	1.02	80.00- 120.00	100.00	
16.820	16.843	-0.023	46282666	1.04989	1.05	94.69- 142.03	179.02	
17.970	17.994	-0.024	40097285	1.13524	1.14	89.28- 133.92	155.10	
19.297	19.321	-0.024	18583318	0.91778	0.918	72.48- 108.72	71.88	
21.977	22.001	-0.024	29950453	0.97204	0.972	0.00- 0.00	115.85	
		Average of Peak Concentrations =			1.02			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE499.D
Date : 23-MAY-2014 19:12
Client ID:
Instrument: gc07.i
Sample Info: WG143481-14,SH3254
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000070

Data File: 7HE499.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

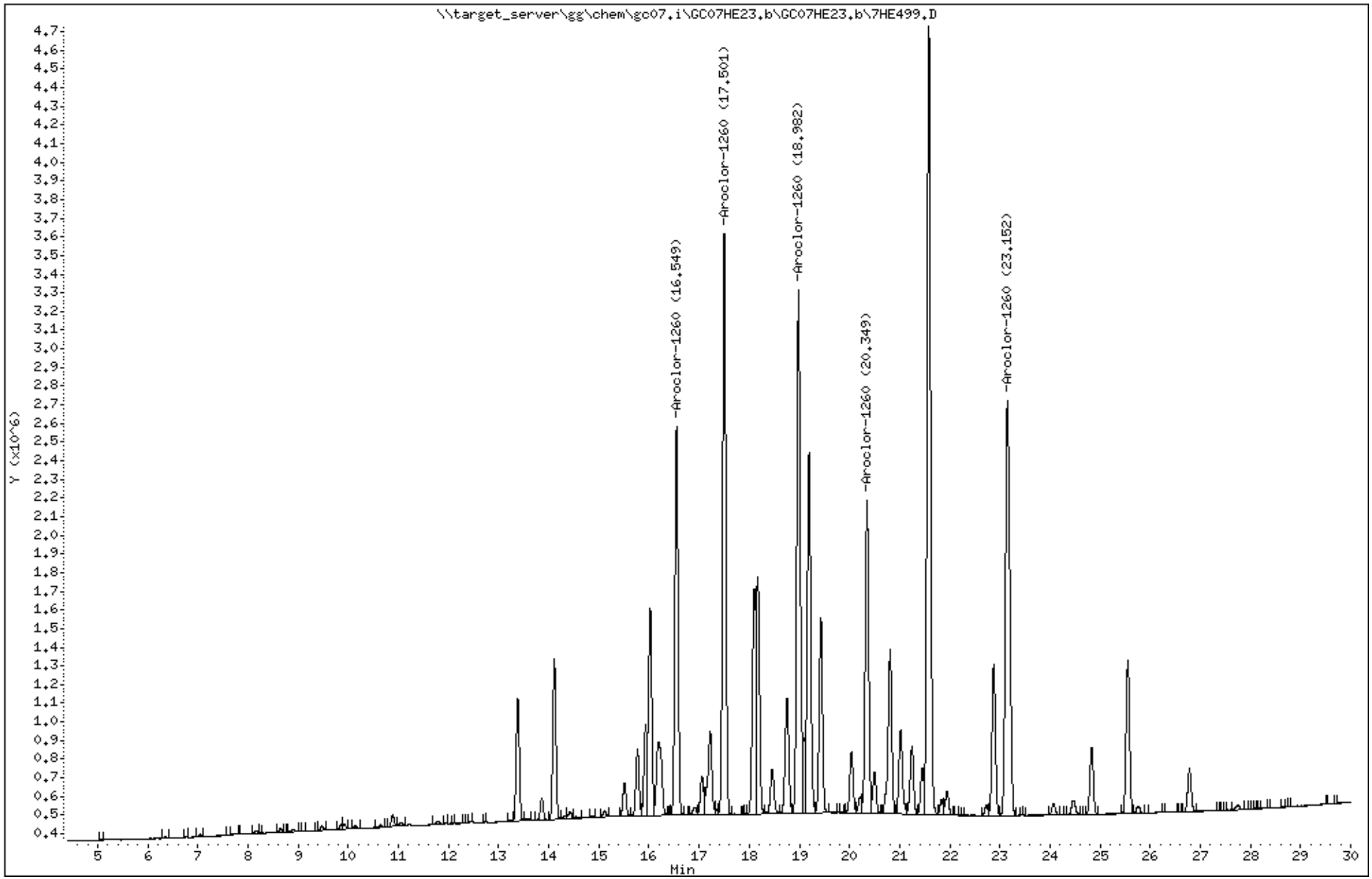
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE499.D
Lab Smp Id: WG143481-14
Inj Date : 23-MAY-2014 19:12
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-14,SH3254
Misc Info : WG143481,WG143481,WG143481-2,SH3254-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1260.sub
Target Version: 4.12 Sample Matrix: WATER

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/L)	TARGET RANGE	RATIO	REVIEW CODE
9 Aroclor-1260					CAS #: 11096-82-5			
16.548	16.564	-0.016	2080897	1.05409	1.05	80.00- 120.00	100.00	
17.500	17.519	-0.019	3114527	1.04937	1.05	94.69- 142.03	149.67	
18.982	19.002	-0.020	2804695	1.11839	1.12	89.28- 133.92	134.78	
20.348	20.367	-0.019	1674245	0.93994	0.940	72.48- 108.72	80.46	
23.152	23.176	-0.024	2227245	0.94016	0.940	0.00- 0.00	107.03	
		Average of Peak Concentrations =			1.02			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE499.D
Date : 23-MAY-2014 19:12
Client ID:
Instrument: gc07.i
Sample Info: WG143481-14,SH3254
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000072

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE492.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

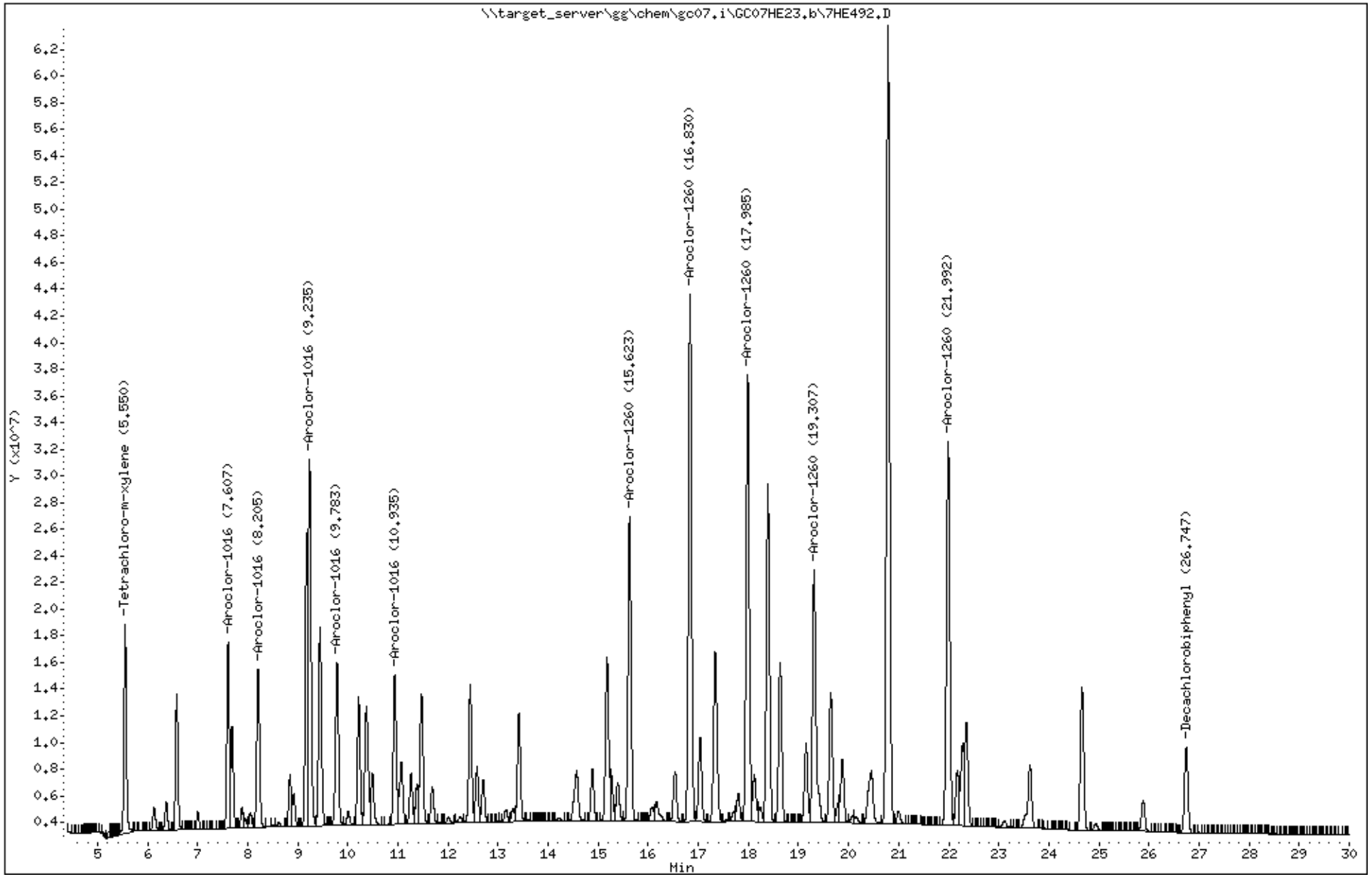
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE492.D
Lab Smp Id: WG143481-1
Inj Date : 23-MAY-2014 14:59
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-1
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 2   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.549	5.558	-0.009	15705628	0.02000	0.0176			
6 Aroclor-1016					CAS #: 12674-11-2			
7.606	7.609	-0.003	13947203	1.00000	0.961	80.00- 120.00	100.00	
8.204	8.213	-0.009	11870807	1.00000	0.935	158.77- 238.15	85.11	
9.234	9.239	-0.005	27551045	1.00000	0.915	296.98- 445.46	197.54	
9.783	9.791	-0.008	12188618	1.00000	0.910	114.78- 172.16	87.39	
10.934	10.943	-0.009	11232014	1.00000	0.906	112.32- 168.48	80.53	
Average of Peak Amounts =					0.92540			
9 Aroclor-1260					CAS #: 11096-82-5			
15.623	15.634	-0.011	22823005	1.00000	0.817	80.00- 120.00	100.00	
16.829	16.843	-0.014	39541942	1.00000	0.786	94.69- 142.03	173.25	
17.984	17.994	-0.010	33472707	1.00000	0.855	89.28- 133.92	146.66	
19.306	19.321	-0.015	18994926	1.00000	0.860	72.48- 108.72	83.23	
21.991	22.001	-0.010	28796099	1.00000	0.881	0.00- 0.00	126.17	
Average of Peak Amounts =					0.83980			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.746	26.756	-0.010	6374232	0.02000	0.0165			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE492.D
Date : 23-MAY-2014 14:59
Client ID:
Instrument: gc07.i
Sample Info: WG143481-1
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000074

Data File: 7HE492.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

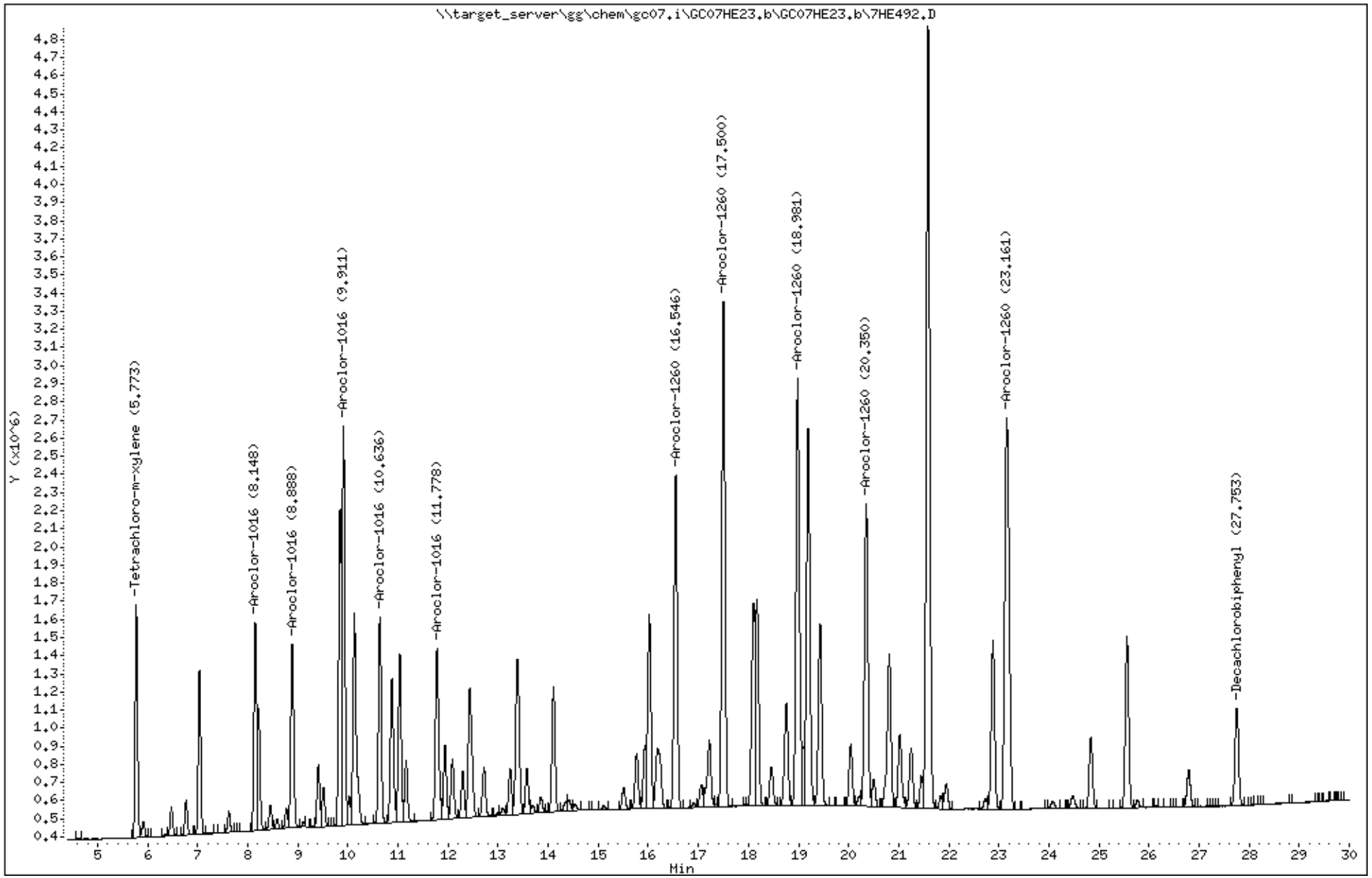
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE492.D
Lab Smp Id: WG143481-2
Inj Date : 23-MAY-2014 14:59
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-2
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne Quant Type: ESTD
Cal Date : 23-MAY-2014 14:59 Cal File: 7HE492.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.772	5.794	-0.022	1285321	0.02000	0.0200			
5 Aroclor-1016						CAS #: 12674-11-2		
8.147	8.171	-0.024	1147469	1.00000	1.00	80.00- 120.00	100.00	
8.887	8.909	-0.022	1010738	1.00000	1.00	158.77- 238.15	88.08	
9.911	9.936	-0.025	2203037	1.00000	1.00	296.98- 445.46	191.99	
10.636	10.661	-0.025	1134186	1.00000	1.00	114.78- 172.17	98.84	
11.777	11.802	-0.025	942125	1.00000	1.00	112.32- 168.48	82.10	
Average of Peak Amounts =				1.00000				
9 Aroclor-1260						CAS #: 11096-82-5		
16.546	16.564	-0.018	1833429	1.00000	1.00	80.00- 120.00	100.00	
17.499	17.519	-0.020	2784961	1.00000	1.00	94.69- 142.03	151.90	
18.981	19.002	-0.021	2356957	1.00000	1.00	89.28- 133.92	128.55	
20.349	20.367	-0.018	1664876	1.00000	1.00	72.48- 108.72	90.81	
23.161	23.176	-0.015	2156846	1.00000	1.00	0.00- 0.00	117.64	
Average of Peak Amounts =				1.00000				
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.752	27.766	-0.014	535813	0.02000	0.0200			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE492.D
Date : 23-MAY-2014 14:59
Client ID:
Instrument: gc07.i
Sample Info: WG143481-2
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE493.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE493.D
Lab Smp Id: WG143481-3
Inj Date : 23-MAY-2014 15:36
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-3
Misc Info :
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50 Cal File: 7HE515.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

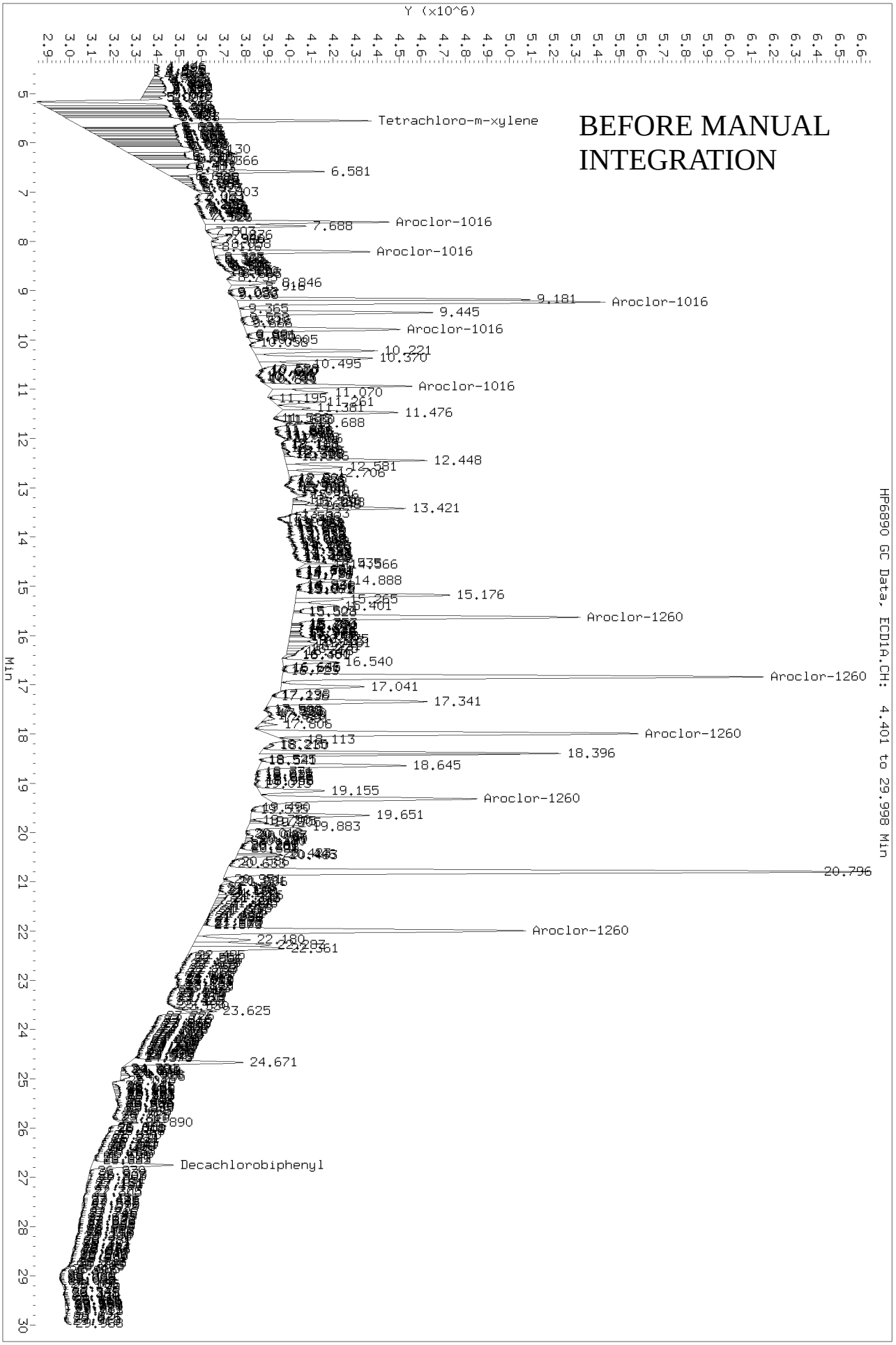
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.553	5.558	-0.005	903091	0.00100	0.00101			(M)
6 Aroclor-1016						CAS #: 12674-11-2		
7.608	7.609	-0.001	840488	0.05000	0.0422	80.00- 120.00	100.00	
8.211	8.213	-0.002	710729	0.05000	0.0534	158.77- 238.15	84.56	
9.231	9.239	-0.008	1672038	0.05000	0.0545	296.98- 445.46	198.94	
9.786	9.791	-0.005	706677	0.05000	0.0487	114.78- 172.16	84.08	
10.941	10.943	-0.002	653088	0.05000	0.0464	112.32- 168.48	77.70	
		Average of Peak Amounts =			0.04904			
9 Aroclor-1260						CAS #: 11096-82-5		
15.633	15.634	-0.001	1307945	0.05000	0.0468	80.00- 120.00	100.00	
16.841	16.843	-0.002	2190069	0.05000	0.0435	94.69- 142.03	167.44	
17.993	17.994	-0.001	1684412	0.05000	0.0430	89.28- 133.92	128.78	
19.314	19.321	-0.007	954527	0.05000	0.0432	72.48- 108.72	72.98	
21.996	22.001	-0.005	1481909	0.05000	0.0453	0.00- 0.00	113.30	
		Average of Peak Amounts =			0.04436			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.751	26.756	-0.005	372472	0.00100	0.000964			

12:32 pm, May 28, 2014

M2


Y (x10^6)
Min
Data File: \\target_server\gc\chem\gc07.i\GC07HE23.b\7HE493.D
Injection Date: 23-MAY-2014 15:36
Instrument: gc07.i
Client Sample ID:
HP6890 GC Data, ECD1A.CH: 4.401 to 29.998 Min
BEFORE MANUAL INTEGRATION
Tetrachloro-m-xylene
6.581
Aroclor-1016
7.688
Aroclor-1016
9.181
Aroclor-1016
9.445
Aroclor-1016
10.221
10.370
10.495
Aroclor-1016
11.070
11.476
12.448
12.581
13.421
14.888
15.176
Aroclor-1260
16.540
Aroclor-1260
17.041
17.341
Aroclor-1260
18.396
18.645
19.155
Aroclor-1260
19.651
19.883
20.796
Aroclor-1260
22.180
22.361
23.625
24.671
Decachlorobiphenyl

Data File: \\target_server\gc\chem\gc07.i\GC07HE23.b\7HE493.D
Date : 23-MAY-2014 15:36
Client ID:
Sample Info: MC143481-3
Purge Volume: 1.0
Column phase: ZB-MultiResidue-1
Instrument: gc07.i
Operator: CB
Column diameter: 0.53
\\target_server\gc\chem\gc07.i\GC07HE23.b\7HE493.D
AFTER MANUAL
INTEGRATION
Y (x10^6)
Min
-Tetrachloro-m-xylene (5.553)
-Aroclor-1016 (7.608)
-Aroclor-1016 (8.211)
-Aroclor-1016 (9.231)
-Aroclor-1016 (9.786)
-Aroclor-1016 (10.941)
-Aroclor-1260 (15.633)
-Aroclor-1260 (16.841)
-Aroclor-1260 (17.993)
-Aroclor-1260 (19.315)
-Aroclor-1260 (21.996)
-Decachlorobiphenyl (26.751)

Data File: 7HE493.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

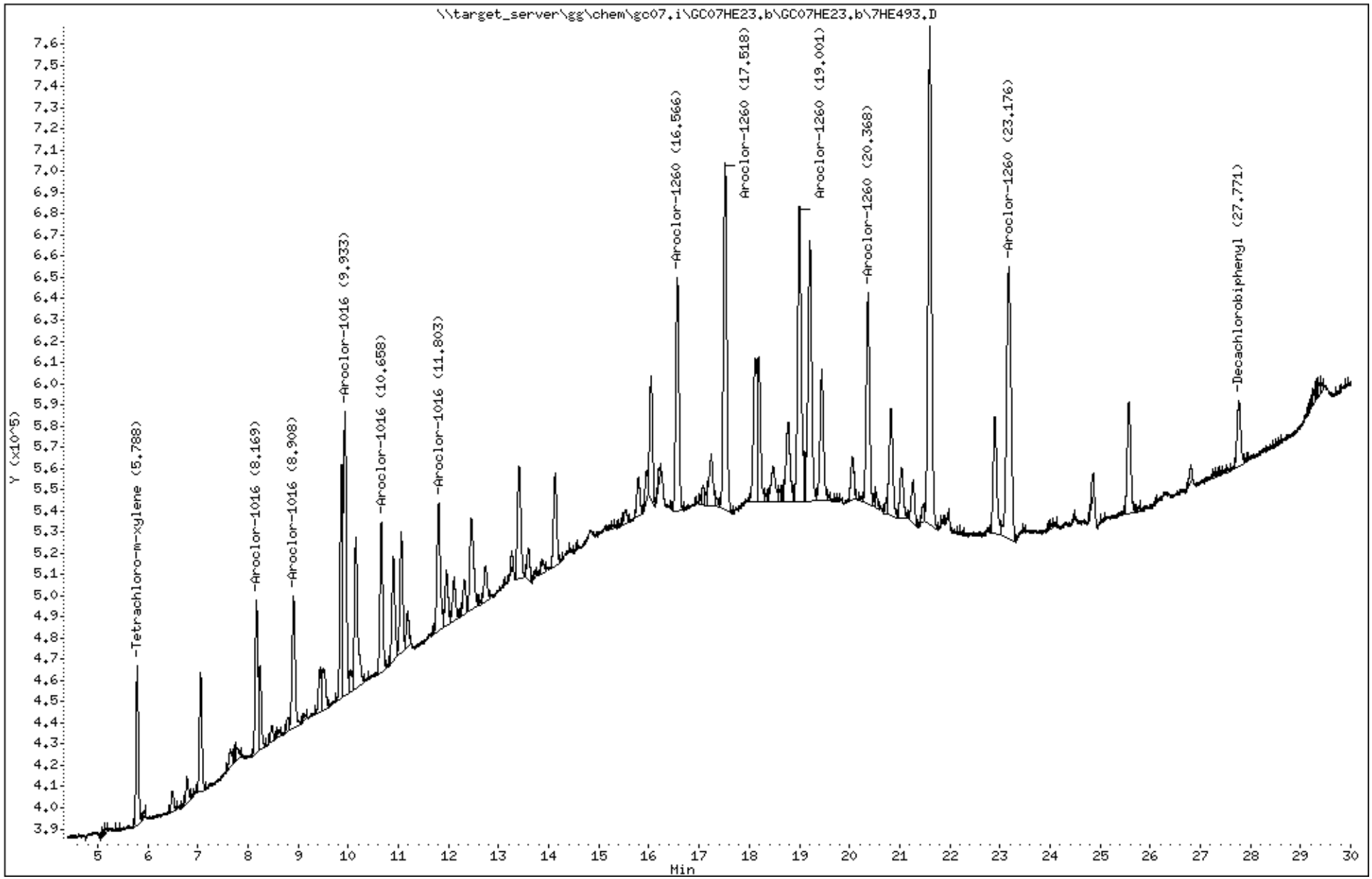
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE493.D
Lab Smp Id: WG143481-4
Inj Date : 23-MAY-2014 15:36
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-4
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 15:36   Cal File: 7HE493.D
Als bottle: 3   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.787	5.794	-0.007	74664	0.00100	0.00108			
5 Aroclor-1016						CAS #: 12674-11-2		
8.169	8.171	-0.002	72072	0.05000	0.0568	80.00- 120.00	100.00	
8.907	8.909	-0.002	62170	0.05000	0.0561	158.77- 238.15	86.26	
9.932	9.936	-0.004	134151	0.05000	0.0558	296.98- 445.46	186.13	
10.657	10.661	-0.004	70624	0.05000	0.0565	114.78- 172.17	97.99	
11.802	11.802	0.000	60018	0.05000	0.0573	112.32- 168.48	83.28	
Average of Peak Amounts =					0.05650			
9 Aroclor-1260						CAS #: 11096-82-5		
16.566	16.564	0.002	109655	0.05000	0.0552	80.00- 120.00	100.00	
17.517	17.519	-0.002	163756	0.05000	0.0546	94.69- 142.03	149.34	
19.001	19.002	-0.001	139169	0.05000	0.0548	89.28- 133.92	126.92	
20.367	20.367	0.000	99607	0.05000	0.0552	72.48- 108.72	90.84	
23.176	23.176	0.000	128065	0.05000	0.0550	0.00- 0.00	116.79	
Average of Peak Amounts =					0.05496			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.771	27.766	0.005	31048	0.00100	0.00108			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE493.D
Date : 23-MAY-2014 15:36
Client ID:
Instrument: gc07.i
Sample Info: WG143481-4
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



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Report Date: 28-May-2014 12:15

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Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE494.D
Lab Smp Id: WG143481-5
Inj Date : 23-MAY-2014 16:12
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-5
Misc Info :
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.551	5.558	-0.007	2730646	0.00200	0.00305		(M)	
6 Aroclor-1016					CAS #: 12674-11-2			
7.601	7.609	-0.008	2005413	0.10000	0.121	80.00- 120.00	100.00(M)	
8.206	8.213	-0.007	1574154	0.10000	0.120	158.77- 238.15	78.50	
9.231	9.239	-0.008	4374841	0.10000	0.145	296.98- 445.46	218.15	
9.786	9.791	-0.005	2071947	0.10000	0.151	114.78- 172.16	103.32	
10.936	10.943	-0.007	1920943	0.10000	0.149	112.32- 168.48	95.79	
Average of Peak Amounts =					0.13720			
9 Aroclor-1260					CAS #: 11096-82-5			
15.629	15.634	-0.005	3765220	0.10000	0.135	80.00- 120.00	100.00(M)	
16.837	16.843	-0.006	6355663	0.10000	0.126	94.69- 142.03	168.80	
17.989	17.994	-0.005	4993303	0.10000	0.128	89.28- 133.92	132.62	
19.321	19.321	0.000	2843065	0.10000	0.130	72.48- 108.72	75.51	
21.996	22.001	-0.005	3774137	0.10000	0.115	0.00- 0.00	100.24	
Average of Peak Amounts =					0.12680			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.751	26.756	-0.005	1060307	0.00200	0.00274			

M2

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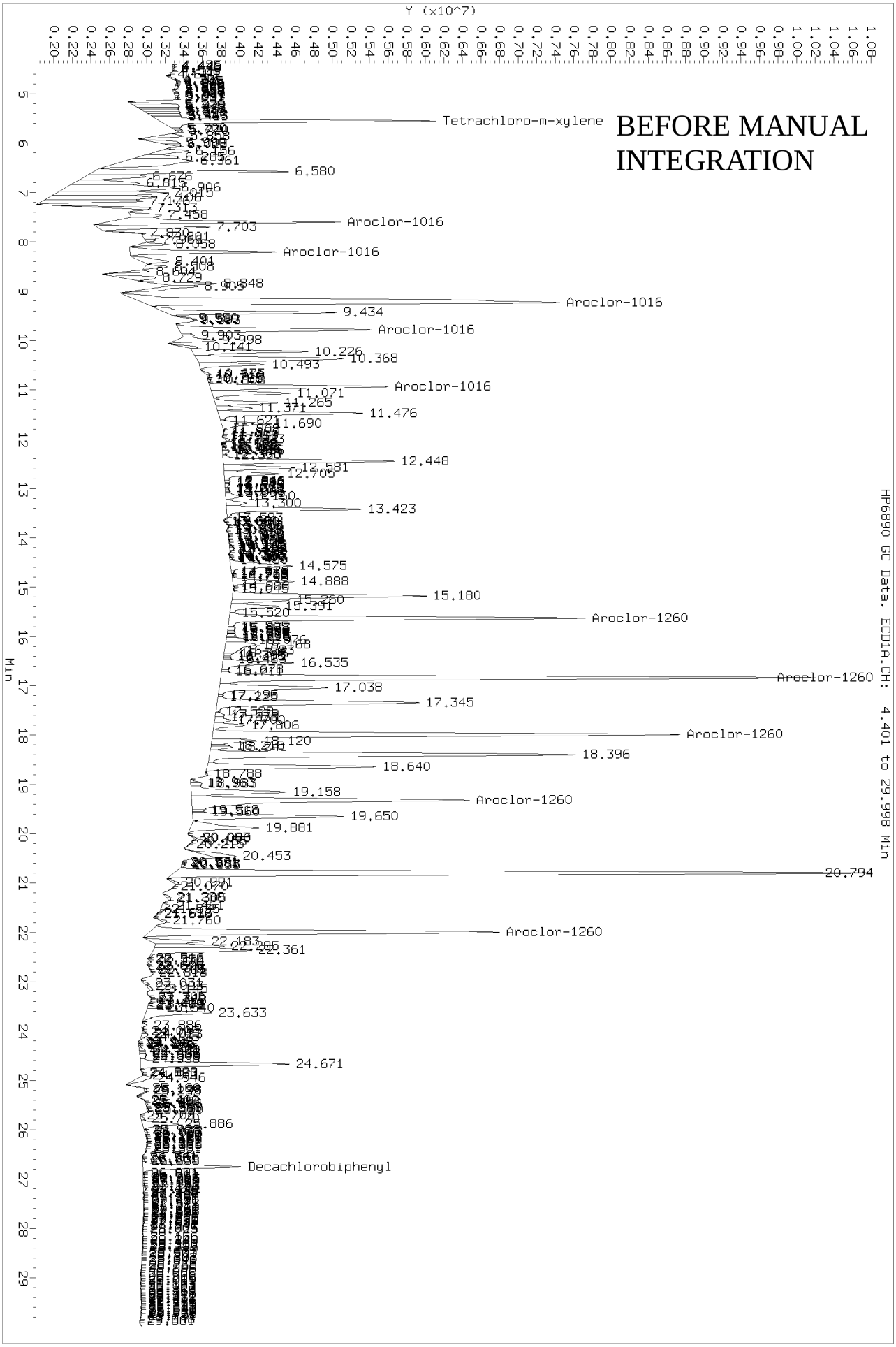
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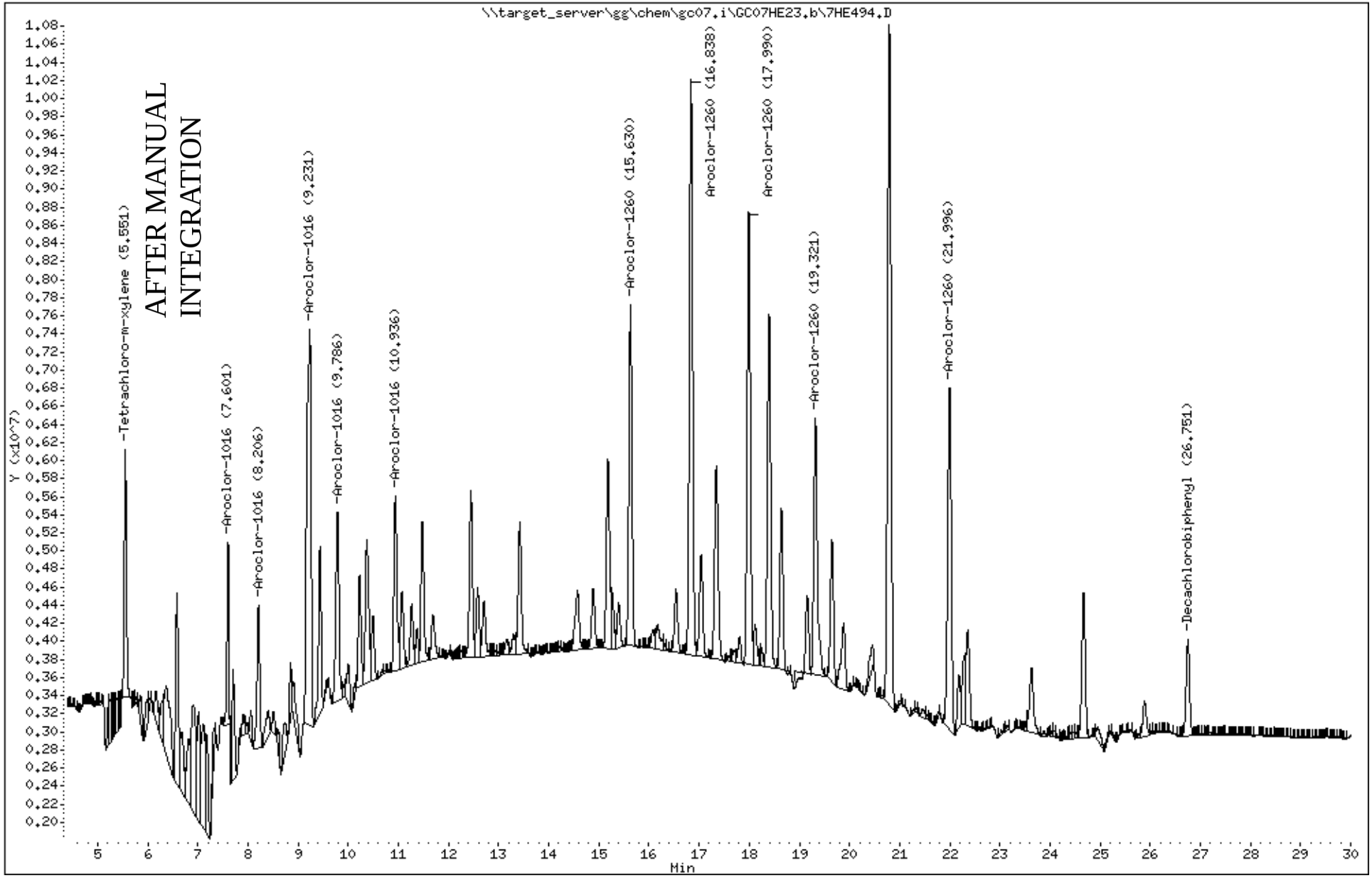
Injection Date: 23-MAY-2014 16:12
Instrument: gc07.i
Client Sample ID:
BEFORE MANUAL INTEGRATION
HP6890 GC Data, ECD1A.CH: 4.401 to 29.998 Min
Y (x10^7)
Min
Tetrachloro-m-xylene
6.580
Aroclor-1016
7.703
Aroclor-1016
Aroclor-1016
9.434
Aroclor-1016
10.226
10.368
10.493
Aroclor-1016
11.071
11.476
11.690
12.448
12.581
12.705
13.423
14.575
14.888
15.180
Aroclor-1260
15.520
16.535
Aroclor-1260
17.038
17.345
Aroclor-1260
18.396
18.640
19.158
Aroclor-1260
19.650
19.881
20.453
20.794
Aroclor-1260
23.633
24.671
Decachlorobiphenyl

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE494.D
Date : 23-MAY-2014 16:12
Client ID:
Instrument: gc07.i
Sample Info: WG143481-5
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000084

Data File: 7HE494.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE494.D
Lab Smp Id: WG143481-6
Inj Date : 23-MAY-2014 16:12
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-56
Misc Info :
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 06:02 Cal File: 7HE517.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

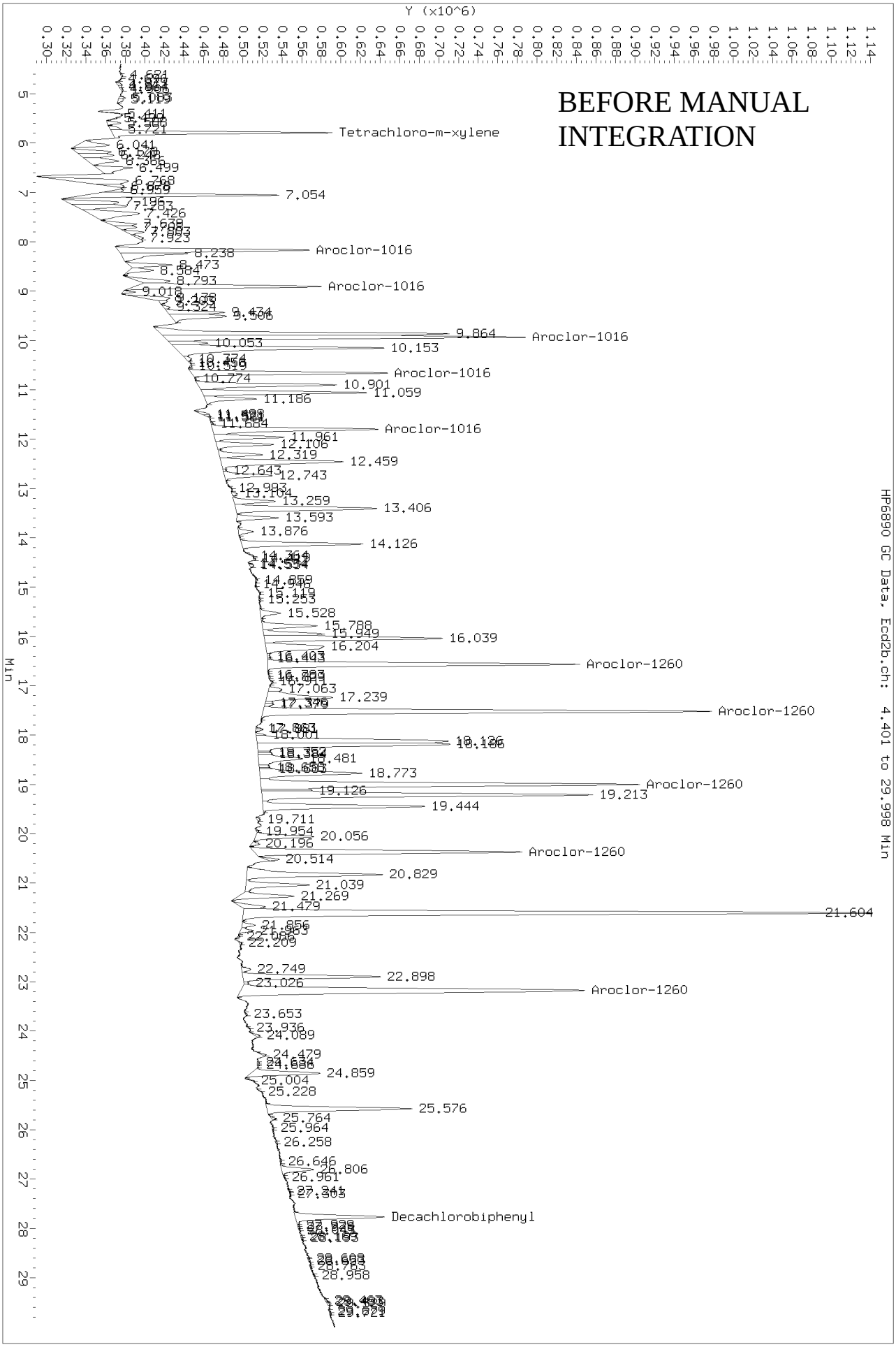
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

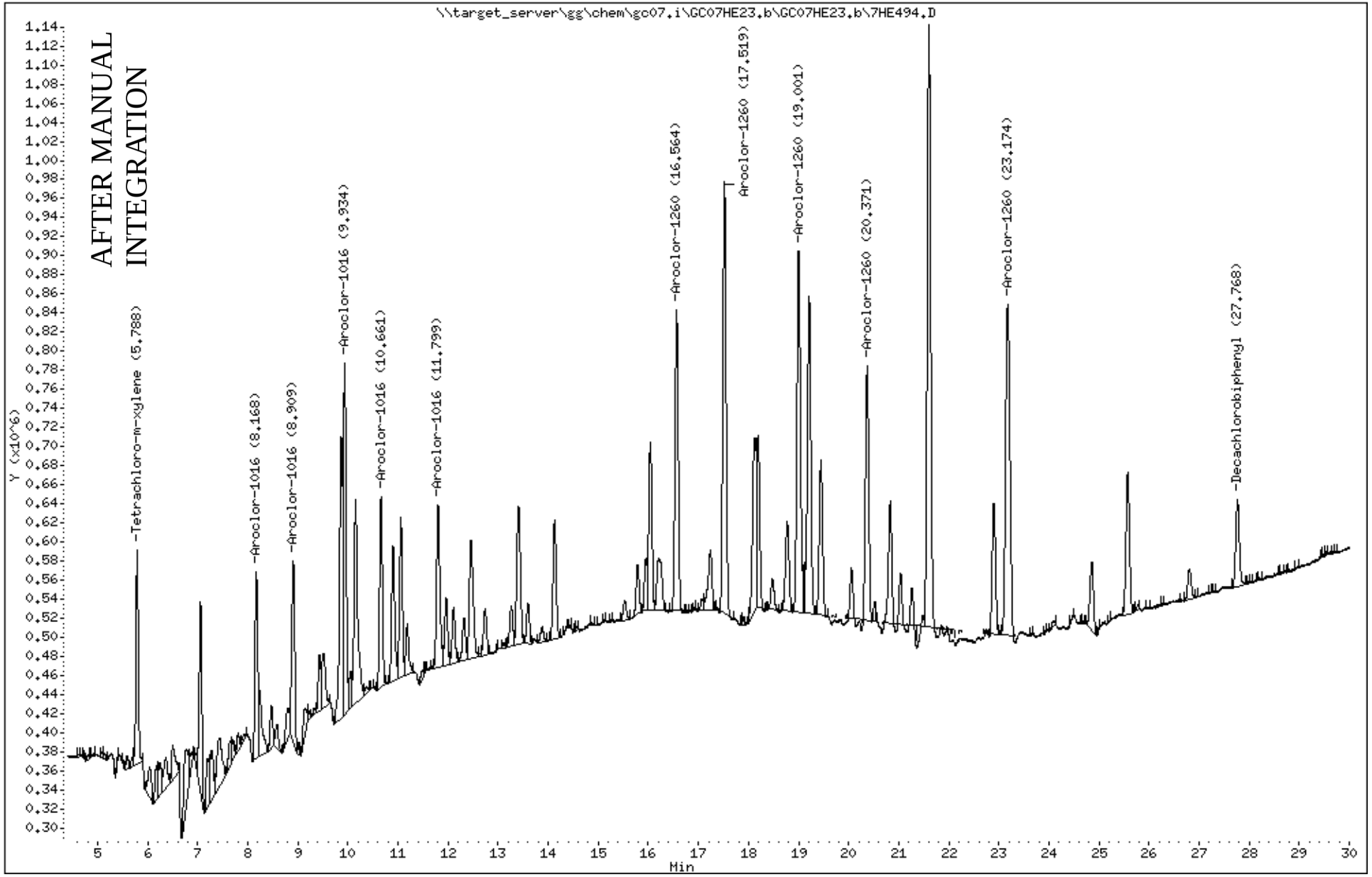
				AMOUNTS					
				CAL-AMT	ON-COL				
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE	
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8			
5.787	5.794	-0.007	224401	0.00200	0.00295				
5 Aroclor-1016						CAS #: 12674-11-2			
8.167	8.171	-0.004	195354	0.10000	0.134	80.00- 120.00	100.00		
8.909	8.909	0.000	191432	0.10000	0.150	158.77- 238.15	97.99		
9.934	9.936	-0.002	368484	0.10000	0.140	296.98- 445.46	188.62		
10.660	10.661	-0.001	200273	0.10000	0.145	114.78- 172.17	102.52		
11.799	11.802	-0.003	169141	0.10000	0.143	112.32- 168.48	86.58		
Average of Peak Amounts =					0.14240				
9 Aroclor-1260						CAS #: 11096-82-5			
16.564	16.564	0.000	315094	0.10000	0.144	80.00- 120.00	100.00(M)		
17.519	17.519	0.000	453205	0.10000	0.140	94.69- 142.03	143.83		
19.000	19.002	-0.002	378601	0.10000	0.138	89.28- 133.92	120.15		
20.370	20.367	0.003	266809	0.10000	0.137	72.48- 108.72	84.68		
23.174	23.176	-0.002	347007	0.10000	0.136	0.00- 0.00	110.13		
Average of Peak Amounts =					0.13900				
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3			
27.767	27.766	0.001	91078	0.00200	0.00289				

12:32 pm, May 28, 2014

M5


Y (x10^6)
Min
Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE494.D
Injection Date: 23-MAY-2014 16:12
Instrument: gc07.i
Client Sample ID:
HP6890 GC Data, Ecd2b.ch: 4.401 to 29.998 Min
BEFORE MANUAL INTEGRATION
Tetrachloro-m-xylene
7.054
Aroclor-1016
8.238
Aroclor-1016
8.793
Aroclor-1016
9.864
Aroclor-1016
10.153
Aroclor-1016
10.901
11.059
Aroclor-1016
11.961
12.106
12.319
12.459
12.643
12.743
13.259
13.406
13.593
13.876
14.126
16.039
Aroclor-1260
17.239
Aroclor-1260
18.773
Aroclor-1260
19.126
19.213
19.444
19.711
19.954
20.056
20.196
Aroclor-1260
20.514
20.829
21.039
21.269
21.479
21.604
22.209
22.749
22.898
23.026
Aroclor-1260
23.653
23.936
24.089
24.479
24.859
25.004
25.228
25.576
25.764
25.964
26.258
26.646
26.806
26.961
Decachlorobiphenyl
28.958

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE494.D
Date : 23-MAY-2014 16:12
Client ID:
Instrument: gc07.i
Sample Info: WG143481-56
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000087

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE495.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE495.D
Lab Smp Id: WG143481-7
Inj Date : 23-MAY-2014 16:48
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-7
Misc Info :
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50 Cal File: 7HE515.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

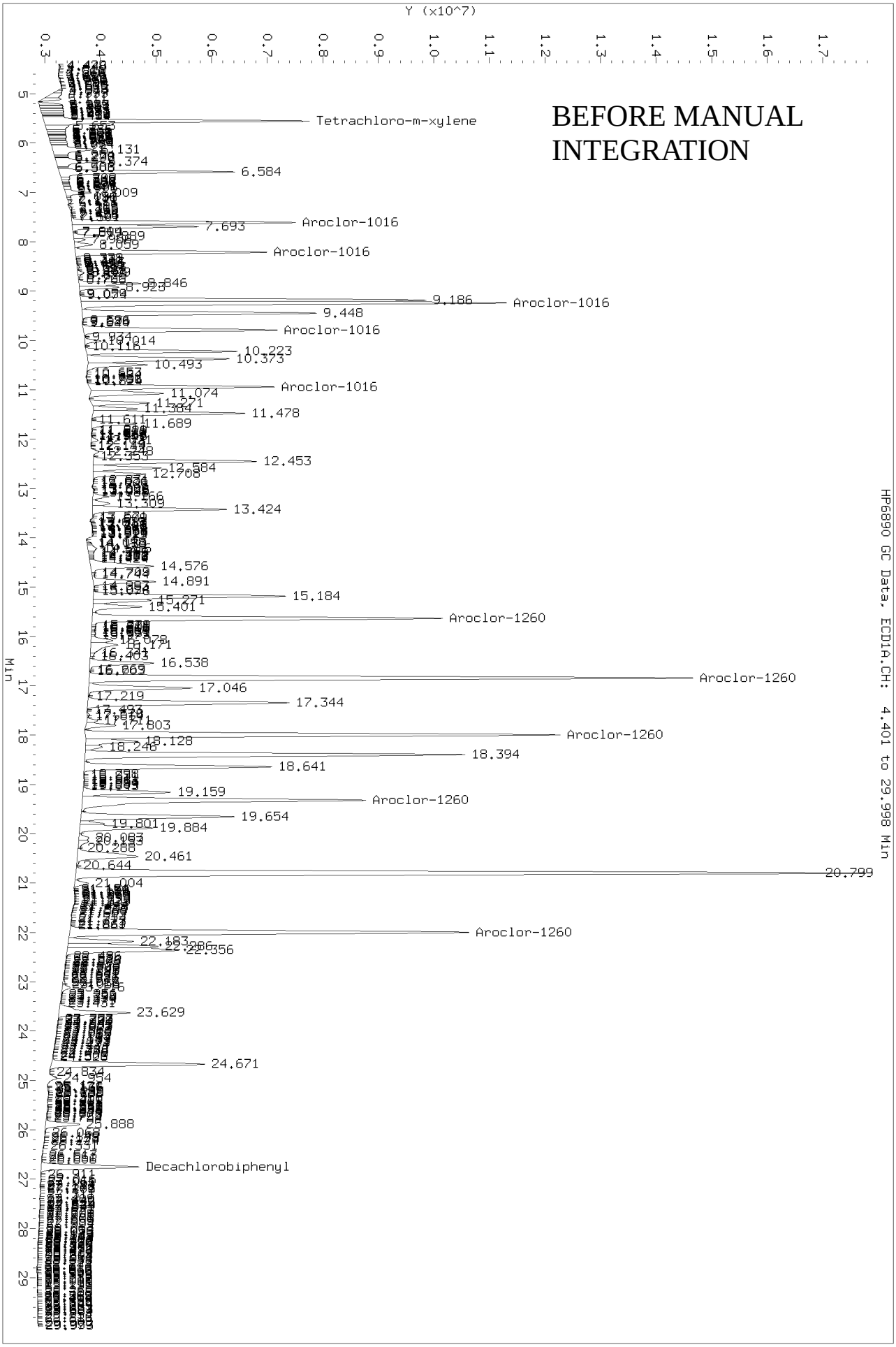
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

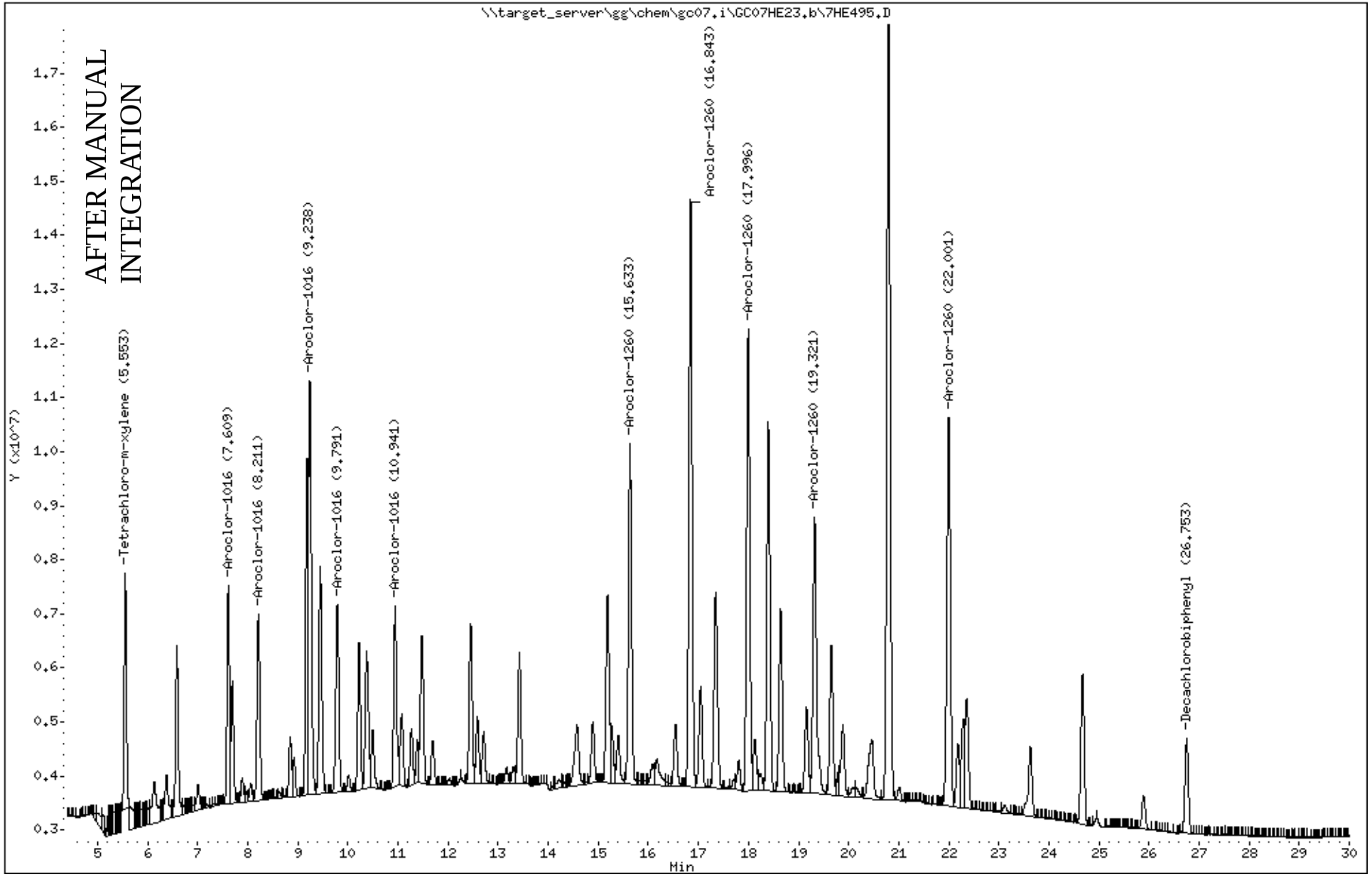
				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.552	5.558	-0.006	4365503	0.00500	0.00488			(M)
6 Aroclor-1016					CAS #: 12674-11-2			
7.609	7.609	0.000	4025761	0.25000	0.260	80.00- 120.00	100.00	
8.210	8.213	-0.003	3448518	0.25000	0.265	158.77- 238.15	85.66	
9.237	9.239	-0.002	7657170	0.25000	0.254	296.98- 445.46	190.20	
9.790	9.791	-0.001	3481740	0.25000	0.257	114.78- 172.16	86.49	
10.940	10.943	-0.003	3333059	0.25000	0.264	112.32- 168.48	82.79	
Average of Peak Amounts =					0.26000			
9 Aroclor-1260					CAS #: 11096-82-5			
15.632	15.634	-0.002	6308793	0.25000	0.226	80.00- 120.00	100.00	
16.842	16.843	-0.001	10866044	0.25000	0.216	94.69- 142.03	172.24	
17.995	17.994	0.001	8543676	0.25000	0.218	89.28- 133.92	135.42	
19.320	19.321	-0.001	5100875	0.25000	0.231	72.48- 108.72	80.85	
22.000	22.001	-0.001	7184279	0.25000	0.220	0.00- 0.00	113.88	
Average of Peak Amounts =					0.22220			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.752	26.756	-0.004	1761397	0.00500	0.00456			

12:33 pm, May 28, 2014

M2


Y (x10^7)
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
Min
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
Tetrachloro-m-xylene
6.584
7.693
Aroclor-1016
8.059
Aroclor-1016
9.186
Aroclor-1016
9.448
Aroclor-1016
10.223
10.373
10.493
Aroclor-1016
11.074
11.478
11.689
12.453
12.584
12.708
13.309
13.424
14.576
14.891
15.184
15.401
Aroclor-1260
16.538
Aroclor-1260
17.046
17.219
17.344
17.803
Aroclor-1260
18.128
18.246
18.394
18.641
19.159
Aroclor-1260
19.654
19.801
19.884
20.461
20.644
20.799
21.004
Aroclor-1260
22.183
23.629
24.671
Decachlorobiphenyl
BEFORE MANUAL
INTEGRATION
Data File: \\target_server\gc\chem\gc07.i\GC07HE23.b\7HE495.D
Injection Date: 23-MAY-2014 16:48
Instrument: gc07.i
Client Sample ID:
HP6890 GC Data, ECD1A.CH: 4.401 to 29.998 Min

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE495.D
Date : 23-MAY-2014 16:48
Client ID:
Instrument: gc07.i
Sample Info: WG143481-7
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000090

Data File: 7HE495.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

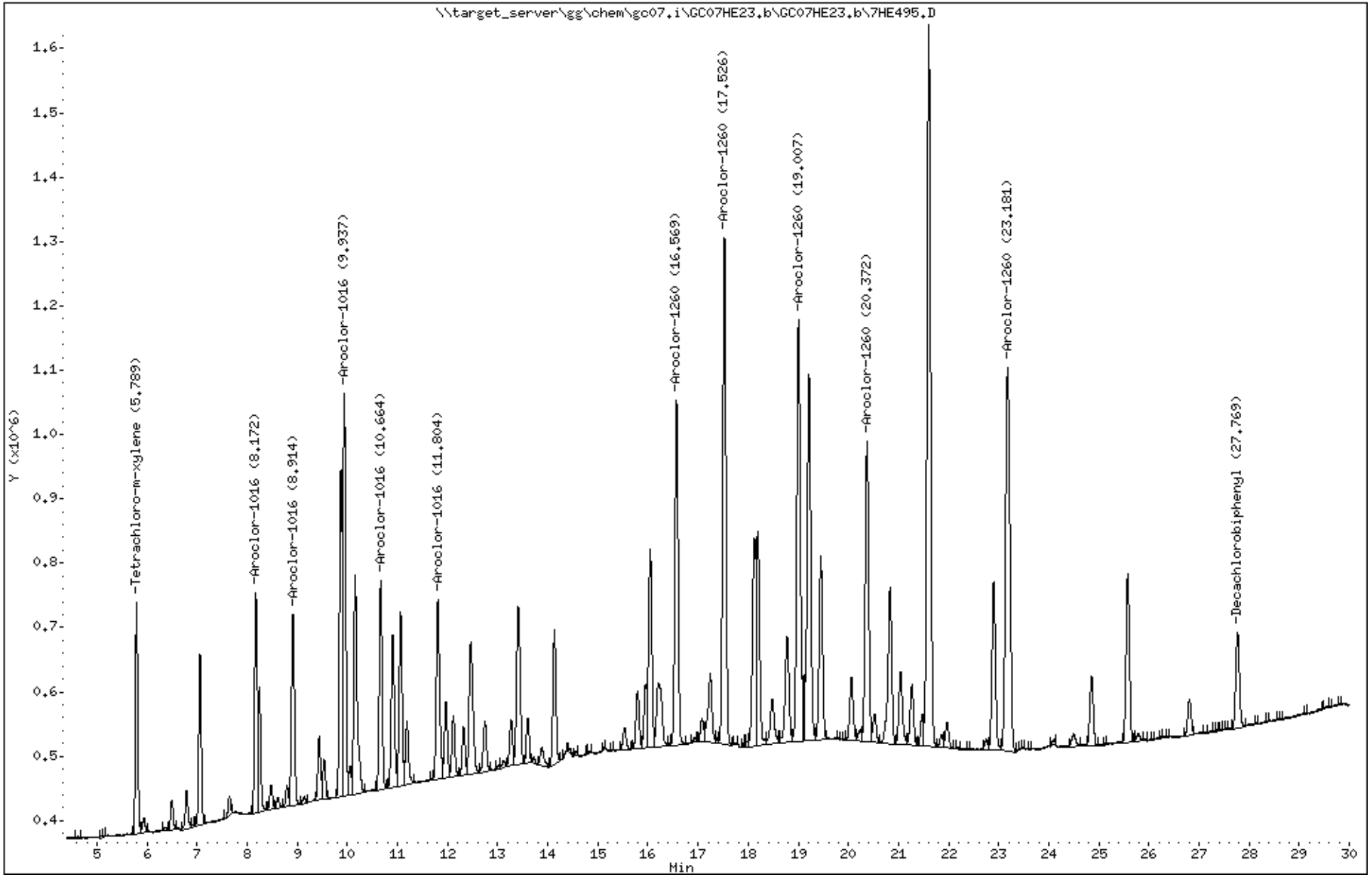
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE495.D
Lab Smp Id: WG143481-8
Inj Date : 23-MAY-2014 16:48
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-8
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 16:48   Cal File: 7HE495.D
Als bottle: 5   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.788	5.794	-0.006	359846	0.00500	0.00514			
5 Aroclor-1016						CAS #: 12674-11-2		
8.172	8.171	0.001	340812	0.25000	0.271	80.00- 120.00	100.00	
8.913	8.909	0.004	295859	0.25000	0.264	158.77- 238.15	86.81	
9.937	9.936	0.001	626286	0.25000	0.261	296.98- 445.46	183.76	
10.663	10.661	0.002	324649	0.25000	0.261	114.78- 172.17	95.26	
11.803	11.802	0.001	278026	0.25000	0.267	112.32- 168.48	81.58	
Average of Peak Amounts =					0.26480			
9 Aroclor-1260						CAS #: 11096-82-5		
16.568	16.564	0.004	537073	0.25000	0.267	80.00- 120.00	100.00	
17.525	17.519	0.006	786828	0.25000	0.261	94.69- 142.03	146.50	
19.007	19.002	0.005	656177	0.25000	0.258	89.28- 133.92	122.18	
20.372	20.367	0.005	467310	0.25000	0.259	72.48- 108.72	87.01	
23.180	23.176	0.004	594507	0.25000	0.256	0.00- 0.00	110.69	
Average of Peak Amounts =					0.26020			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.768	27.766	0.002	147260	0.00500	0.00508			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE495.D
Date : 23-MAY-2014 16:48
Client ID:
Instrument: gc07.i
Sample Info: WG143481-8
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000092

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE496.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

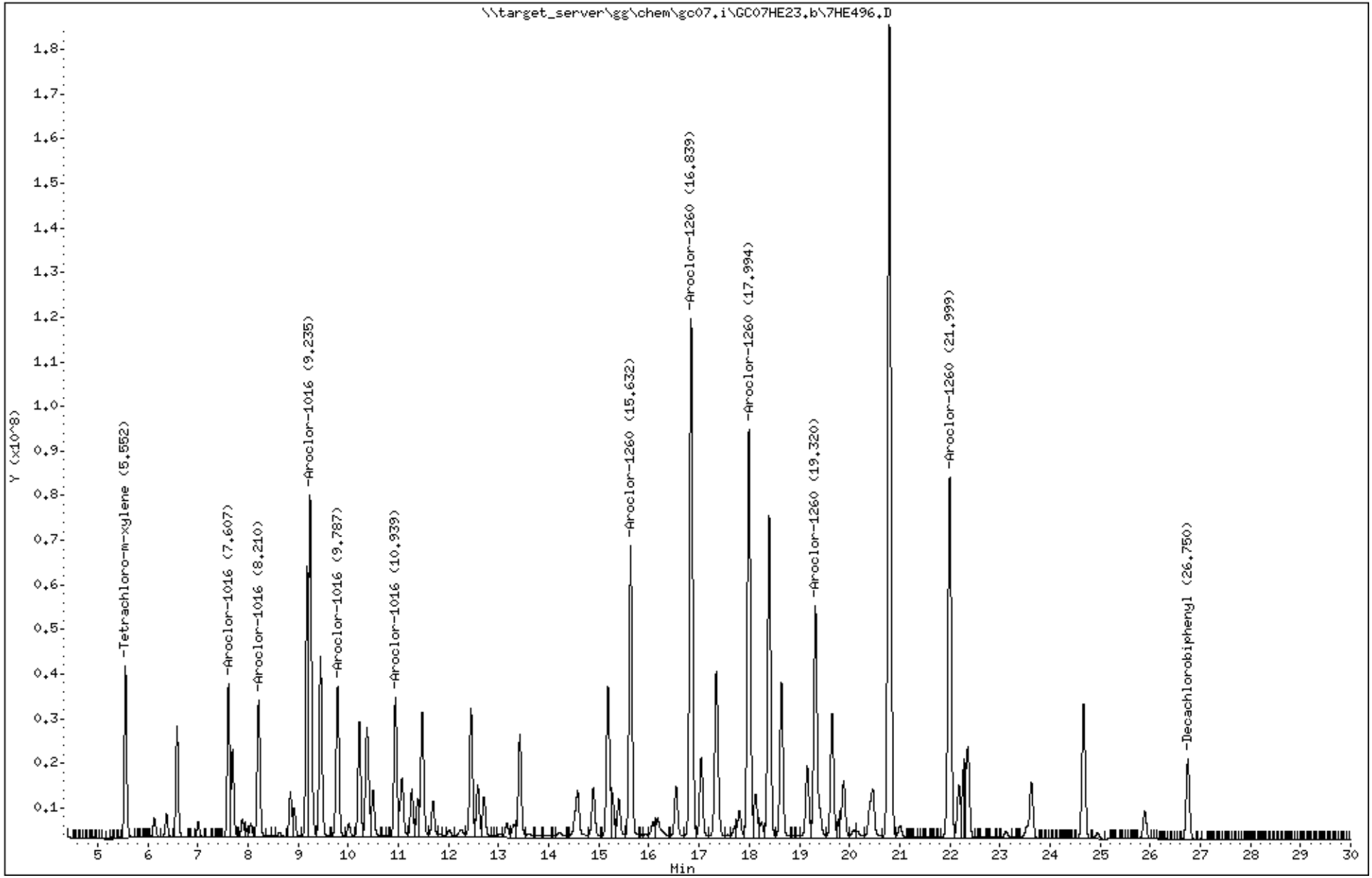
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE496.D
Lab Smp Id: WG143481-9
Inj Date : 23-MAY-2014 17:24
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-9
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 6   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.552	5.558	-0.006	38649288	0.05000	0.0432			
6 Aroclor-1016						CAS #: 12674-11-2		
7.607	7.609	-0.002	34389143	2.50000	2.52	80.00- 120.00	100.00	
8.210	8.213	-0.003	30645116	2.50000	2.53	158.77- 238.15	89.11	
9.235	9.239	-0.004	76861606	2.50000	2.53	296.98- 445.46	223.51	
9.787	9.791	-0.004	33856348	2.50000	2.53	114.78- 172.16	98.45	
10.938	10.943	-0.005	31316591	2.50000	2.53	112.32- 168.48	91.07	
Average of Peak Amounts =					2.52800			
9 Aroclor-1260						CAS #: 11096-82-5		
15.632	15.634	-0.002	65395933	2.50000	2.34	80.00- 120.00	100.00	
16.838	16.843	-0.005	116381387	2.50000	2.31	94.69- 142.03	177.96	
17.993	17.994	-0.001	91515263	2.50000	2.34	89.28- 133.92	139.94	
19.320	19.321	-0.001	52112489	2.50000	2.36	72.48- 108.72	79.69	
21.998	22.001	-0.003	80675629	2.50000	2.47	0.00- 0.00	123.36	
Average of Peak Amounts =					2.36400			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.750	26.756	-0.006	18007846	0.05000	0.0466			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE496.D
Date : 23-MAY-2014 17:24
Client ID:
Instrument: gc07.i
Sample Info: WG143481-9
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000094

Data File: 7HE496.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

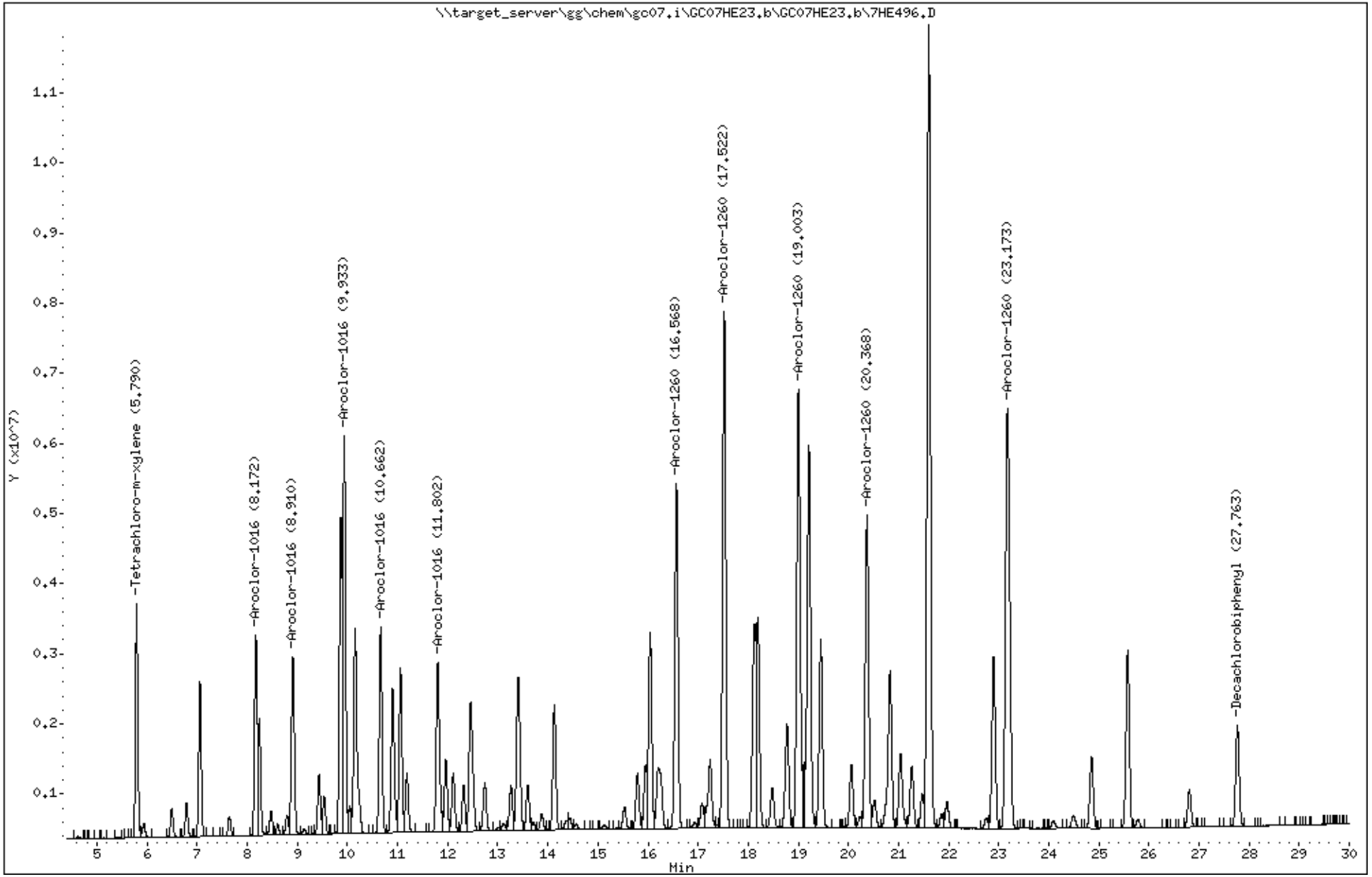
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE496.D
Lab Smp Id: WG143481-10
Inj Date : 23-MAY-2014 17:24
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-10
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 17:24   Cal File: 7HE496.D
Als bottle: 6   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.790	5.794	-0.004	3336182	0.05000	0.0502			
5 Aroclor-1016						CAS #: 12674-11-2		
8.171	8.171	0.000	2846412	2.50000	2.50	80.00- 120.00	100.00	
8.910	8.909	0.001	2525797	2.50000	2.50	158.77- 238.15	88.74	
9.933	9.936	-0.003	5674276	2.50000	2.51	296.98- 445.46	199.35	
10.661	10.661	0.000	2930159	2.50000	2.51	114.78- 172.17	102.94	
11.801	11.802	-0.001	2408779	2.50000	2.51	112.32- 168.48	84.63	
	Average of Peak Amounts =				2.50600			
9 Aroclor-1260						CAS #: 11096-82-5		
16.568	16.564	0.004	4908282	2.50000	2.52	80.00- 120.00	100.00	
17.521	17.519	0.002	7366322	2.50000	2.52	94.69- 142.03	150.08	
19.003	19.002	0.001	6242860	2.50000	2.52	89.28- 133.92	127.19	
20.368	20.367	0.001	4451601	2.50000	2.52	72.48- 108.72	90.70	
23.173	23.176	-0.003	5984166	2.50000	2.53	0.00- 0.00	121.92	
	Average of Peak Amounts =				2.52200			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.763	27.766	-0.003	1429026	0.05000	0.0504			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE496.D
Date : 23-MAY-2014 17:24
Client ID:
Instrument: gc07.i
Sample Info: WG143481-10
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE497.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

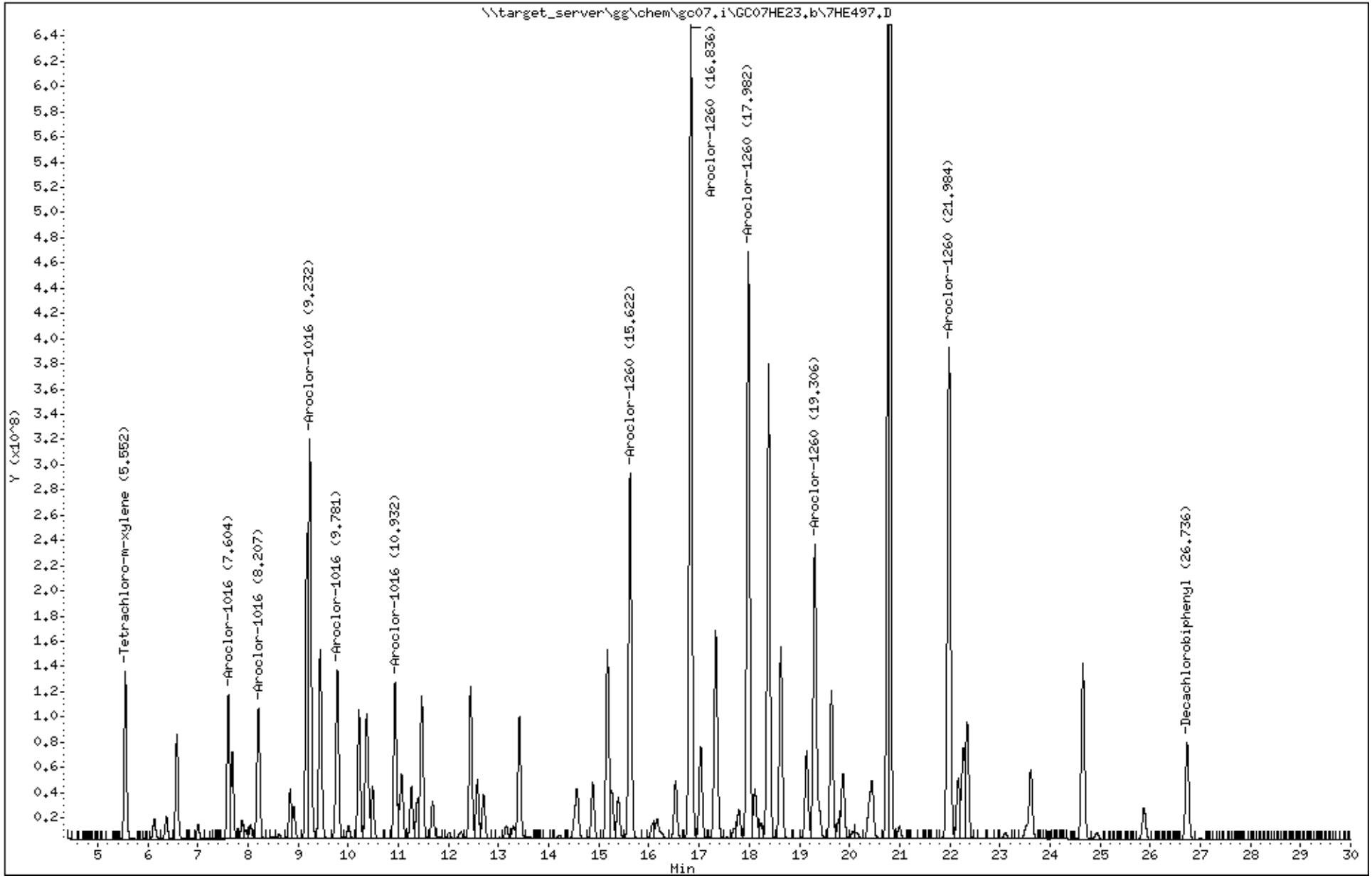
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE497.D
Lab Smp Id: WG143481-11
Inj Date : 23-MAY-2014 18:00
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-11
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 7   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.552	5.558	-0.006	133446028	0.20000	0.149			
6 Aroclor-1016						CAS #: 12674-11-2		
7.604	7.609	-0.005	113876632	10.0000	10.0	80.00- 120.00	100.00	
8.207	8.213	-0.006	103511482	10.0000	10.0	158.77- 238.15	90.90	
9.232	9.239	-0.007	317312505	10.0000	10.0	296.98- 445.46	278.65	
9.780	9.791	-0.011	133880570	10.0000	10.0	114.78- 172.16	117.57	
10.932	10.943	-0.011	124178060	10.0000	10.0	112.32- 168.48	109.05	
Average of Peak Amounts =					10.0000			
9 Aroclor-1260						CAS #: 11096-82-5		
15.622	15.634	-0.012	288964685	10.0000	10.3	80.00- 120.00	100.00(A)	
16.835	16.843	-0.008	645178294	10.0000	12.8	94.69- 142.03	223.27	
17.982	17.994	-0.012	465107206	10.0000	11.9	89.28- 133.92	160.96	
19.305	19.321	-0.016	232682454	10.0000	10.5	72.48- 108.72	80.52	
21.984	22.001	-0.017	389519317	10.0000	11.9	0.00- 0.00	134.80	
Average of Peak Amounts =					11.4800			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.735	26.756	-0.021	76880699	0.20000	0.199			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE497.D
Date : 23-MAY-2014 18:00
Client ID:
Instrument: gc07.i
Sample Info: WG143481-11
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HE497.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

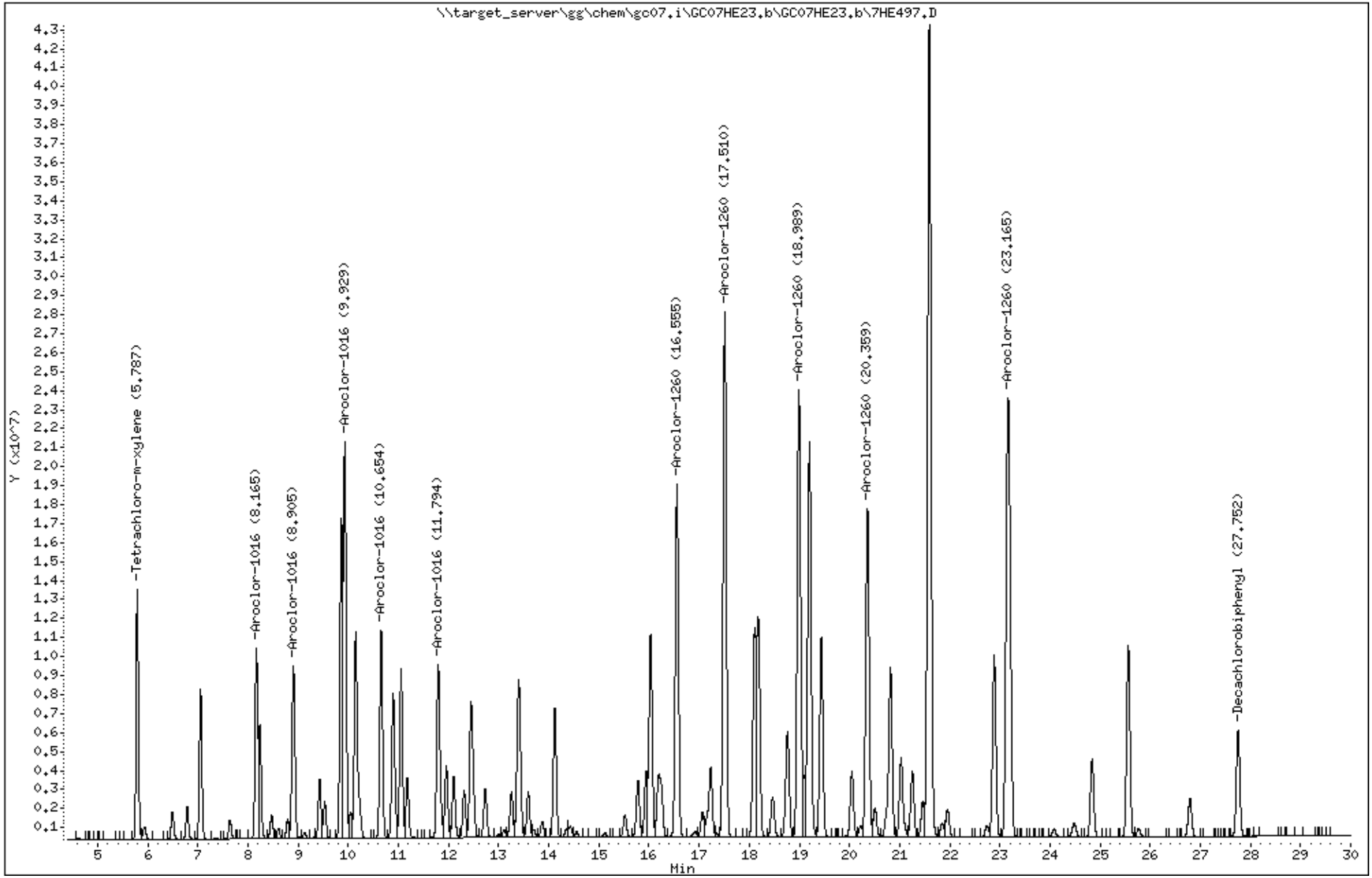
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE497.D
Lab Smp Id: WG143481-12
Inj Date : 23-MAY-2014 18:00
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-12
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 18:00   Cal File: 7HE497.D
Als bottle: 7   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.787	5.794	-0.007	13172507	0.20000	0.200			
5 Aroclor-1016						CAS #: 12674-11-2		
8.165	8.171	-0.006	10025759	10.0000	9.93	80.00- 120.00	100.00	
8.905	8.909	-0.004	9084955	10.0000	9.94	158.77- 238.15	90.62	
9.928	9.936	-0.008	20879124	10.0000	9.96	296.98- 445.46	208.25	
10.653	10.661	-0.008	10940055	10.0000	9.97	114.78- 172.17	109.12	
11.793	11.802	-0.009	9099173	10.0000	9.97	112.32- 168.48	90.76	
Average of Peak Amounts =					9.95400			
9 Aroclor-1260						CAS #: 11096-82-5		
16.555	16.564	-0.009	18551575	10.0000	9.98	80.00- 120.00	100.00	
17.510	17.519	-0.009	27637296	10.0000	9.97	94.69- 142.03	148.98	
18.988	19.002	-0.014	23538433	10.0000	9.97	89.28- 133.92	126.88	
20.358	20.367	-0.009	17277993	10.0000	9.99	72.48- 108.72	93.13	
23.165	23.176	-0.011	23076196	10.0000	9.99	0.00- 0.00	124.39	
Average of Peak Amounts =					9.98000			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.752	27.766	-0.014	5546108	0.20000	0.200			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE497.D
Date : 23-MAY-2014 18:00
Client ID:
Instrument: gc07.i
Sample Info: WG143481-12
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 200100

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE500.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

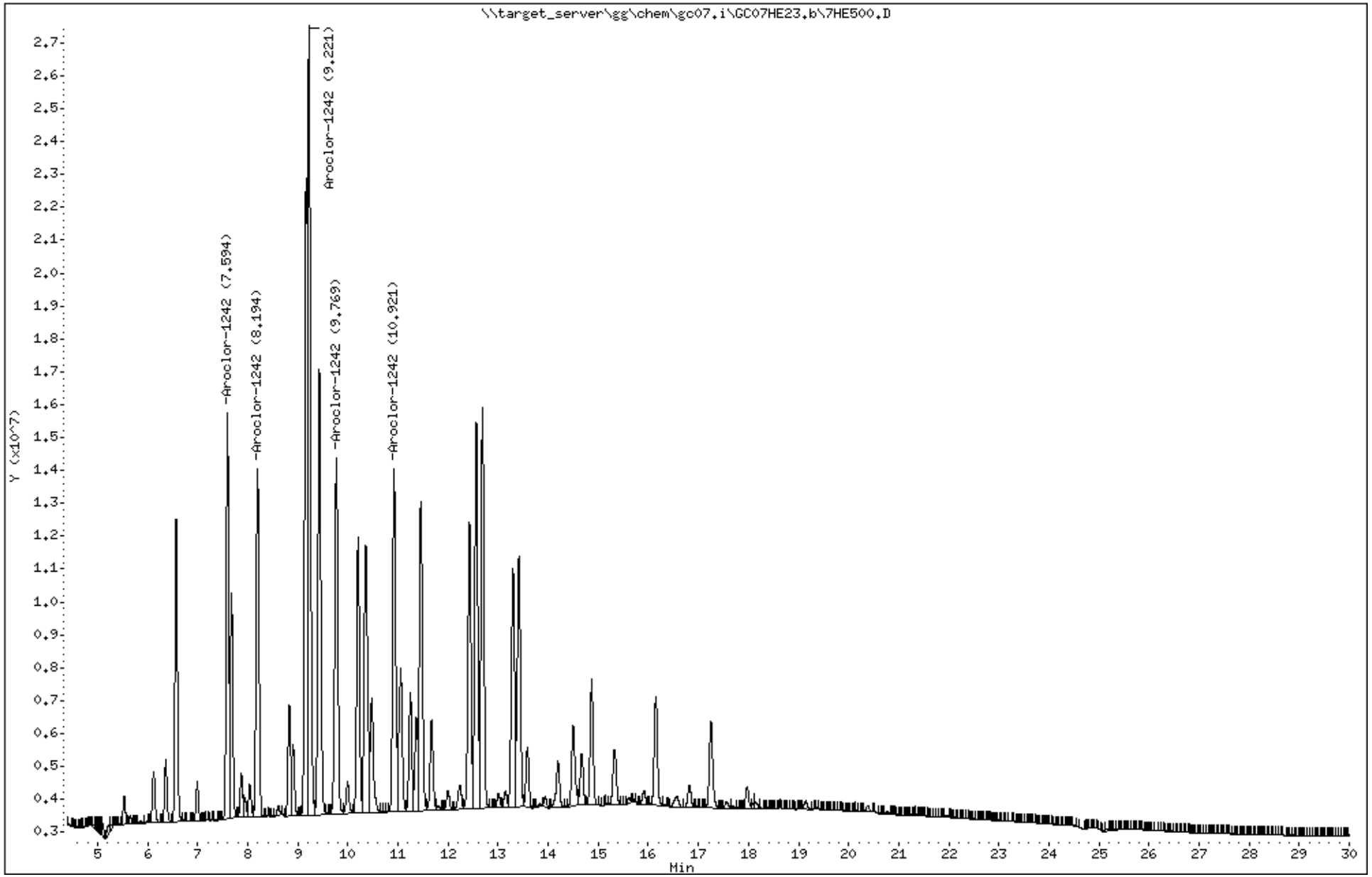
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE500.D
Lab Smp Id: WG143481-15
Inj Date : 23-MAY-2014 19:48
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-15
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 10   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.593	7.592	0.001	12331982	1.00000	0.993	0.00- 0.00	100.00	
8.193	8.196	-0.003	10570934	1.00000	0.986	0.00- 0.00	85.72	
9.220	9.219	0.001	24021146	1.00000	0.937	0.00- 0.00	194.79	
9.768	9.771	-0.003	10832143	1.00000	0.967	0.00- 0.00	87.84	
10.920	10.921	-0.001	10412401	1.00000	0.972	0.00- 0.00	84.43	
		Average of Peak Amounts =			0.97100			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE500.D
Date : 23-MAY-2014 19:48
Client ID:
Instrument: gc07.i
Sample Info: WG143481-15
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HE500.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

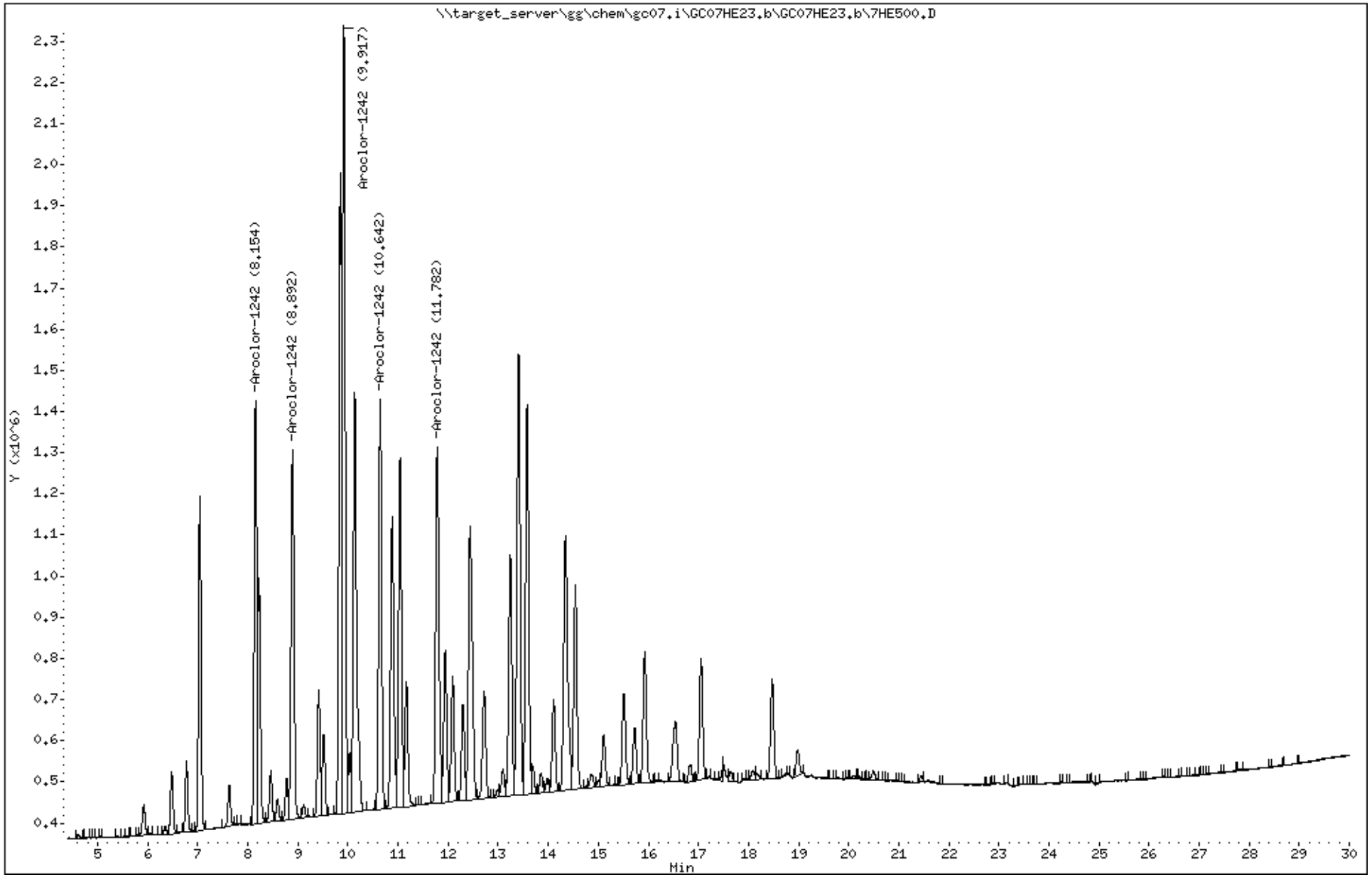
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE500.D
Lab Smp Id: WG143481-16
Inj Date : 23-MAY-2014 19:48
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-16
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 19:48   Cal File: 7HE500.D
Als bottle: 10   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
8.153	8.153	0.000	1027795	1.00000	1.00	0.00- 0.00	100.00	
8.891	8.891	0.000	895909	1.00000	1.00	0.00- 0.00	87.17	
9.916	9.913	0.003	1914364	1.00000	1.00	0.00- 0.00	186.26	
10.641	10.641	0.000	997487	1.00000	1.00	0.00- 0.00	97.05	
11.781	11.781	0.000	864889	1.00000	1.00	0.00- 0.00	84.15	
Average of Peak Amounts =					1.00000			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE500.D
Date : 23-MAY-2014 19:48
Client ID:
Instrument: gc07.i
Sample Info: WG143481-16
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE501.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

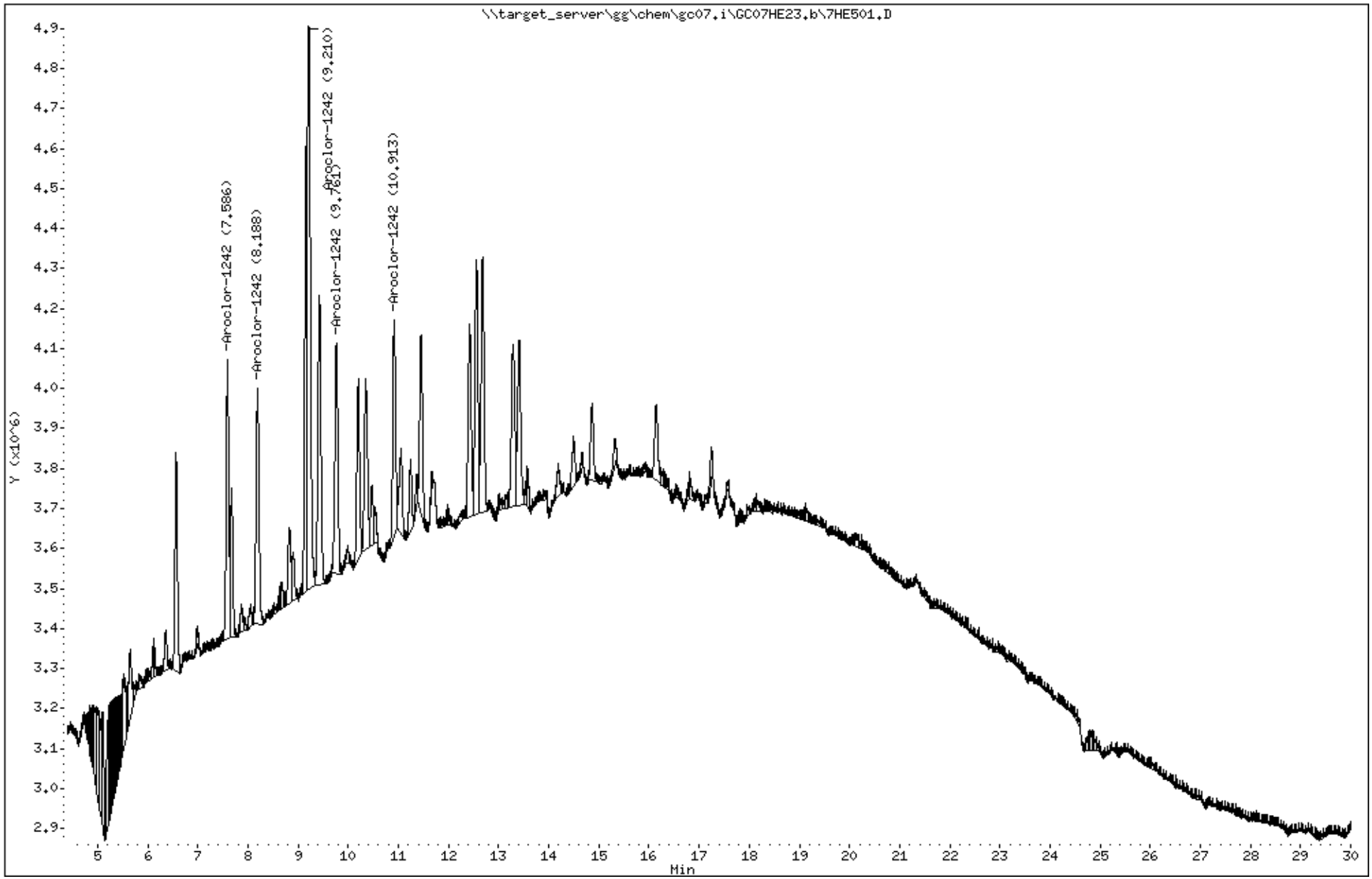
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE501.D
Lab Smp Id: WG143481-17
Inj Date : 23-MAY-2014 20:24
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-17
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 11   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.586	7.592	-0.006	697576	0.05000	0.0562	0.00- 0.00	100.00	
8.187	8.196	-0.009	590438	0.05000	0.0551	0.00- 0.00	84.64	
9.209	9.219	-0.010	1408921	0.05000	0.0550	0.00- 0.00	201.97	
9.761	9.771	-0.010	576027	0.05000	0.0514	0.00- 0.00	82.58	
10.912	10.921	-0.009	543605	0.05000	0.0508	0.00- 0.00	77.93	
		Average of Peak Amounts =			0.05370			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE501.D
Date : 23-MAY-2014 20:24
Client ID:
Instrument: gc07.i
Sample Info: WG143481-17
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 200106

Data File: 7HE501.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

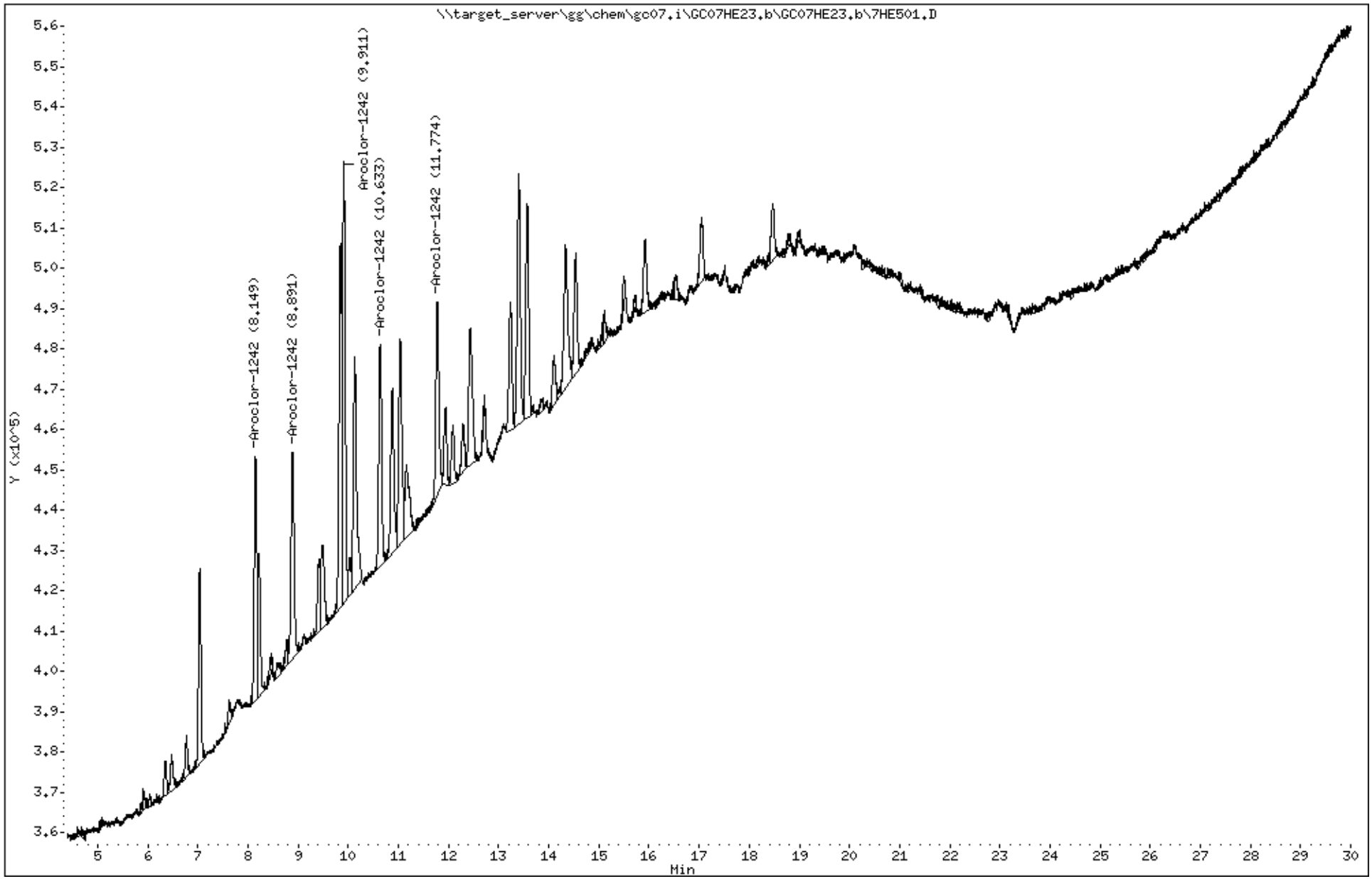
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE501.D
Lab Smp Id: WG143481-18
Inj Date : 23-MAY-2014 20:24
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-18
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 20:24   Cal File: 7HE501.D
Als bottle: 11   Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
8.149	8.153	-0.004	60378	0.05000	0.0546	0.00- 0.00	100.00	
8.890	8.891	-0.001	51275	0.05000	0.0538	0.00- 0.00	84.92	
9.910	9.913	-0.003	109268	0.05000	0.0537	0.00- 0.00	180.97	
10.632	10.641	-0.009	55161	0.05000	0.0528	0.00- 0.00	91.36	
11.774	11.781	-0.007	48051	0.05000	0.0529	0.00- 0.00	79.58	
		Average of Peak Amounts =			0.05356			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE501.D
Date : 23-MAY-2014 20:24
Client ID:
Instrument: gc07.i
Sample Info: WG143481-18
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE502.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

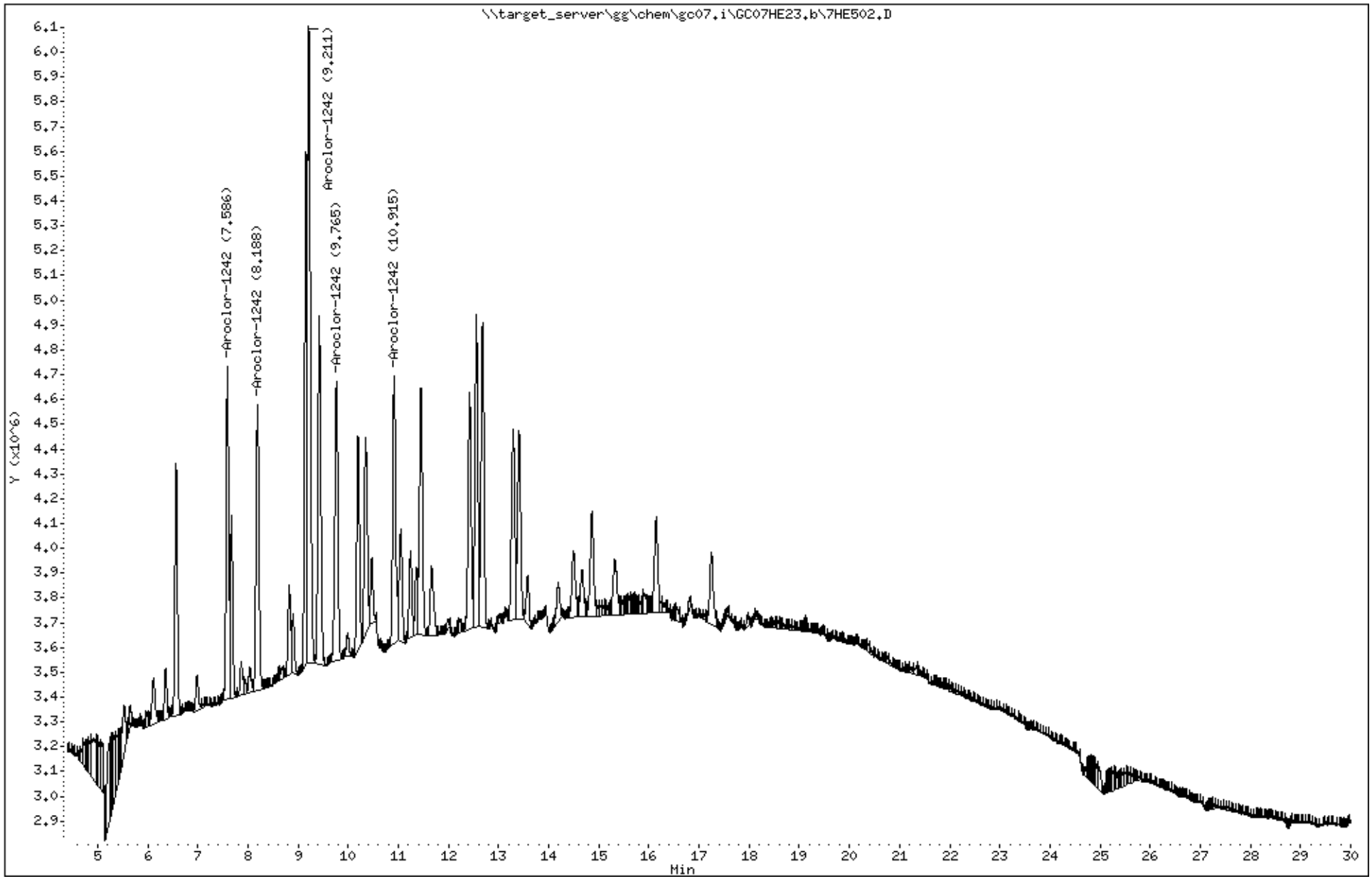
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE502.D
Lab Smp Id: WG143481-19
Inj Date : 23-MAY-2014 21:00
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-19
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 12   Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.586	7.592	-0.006	1341591	0.10000	0.108	0.00- 0.00	100.00	
8.188	8.196	-0.008	1151940	0.10000	0.107	0.00- 0.00	85.86	
9.211	9.219	-0.008	2568533	0.10000	0.100	0.00- 0.00	191.45	
9.764	9.771	-0.007	1120753	0.10000	0.100	0.00- 0.00	83.54	
10.914	10.921	-0.007	1075258	0.10000	0.100	0.00- 0.00	80.15	
		Average of Peak Amounts =			0.10300			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE502.D
Date : 23-MAY-2014 21:00
Client ID:
Instrument: gc07.i
Sample Info: WG143481-19
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000110

Data File: 7HE502.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

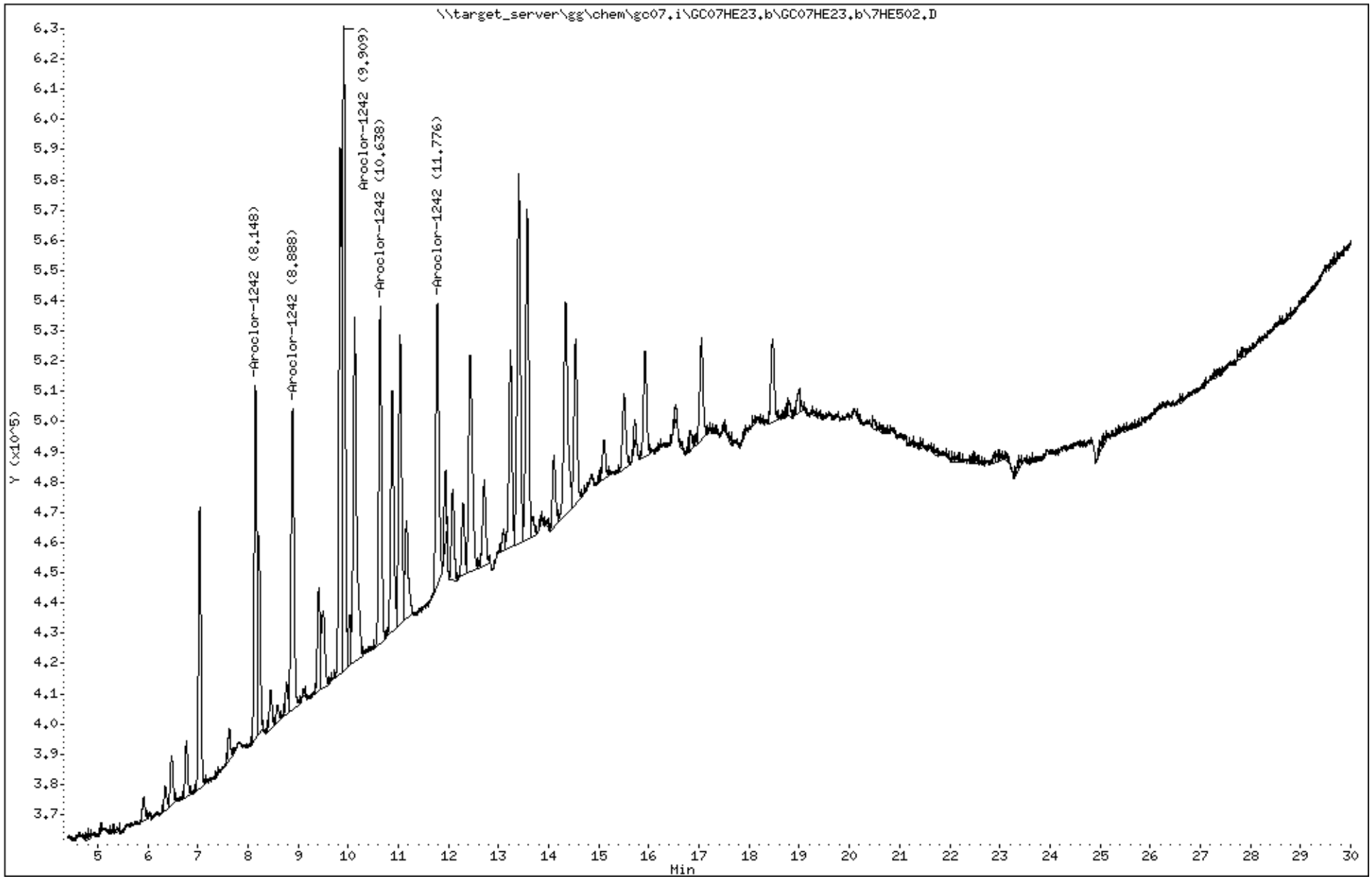
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE502.D
Lab Smp Id: WG143481-20
Inj Date : 23-MAY-2014 21:00
Operator : CB Inst ID: gc07.i
Smp Info : WG143481-20
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne Quant Type: ESTD
Cal Date : 23-MAY-2014 21:00 Cal File: 7HE502.D
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
8.147	8.153	-0.006	116725	0.10000	0.107	0.00- 0.00	100.00	
8.887	8.891	-0.004	99202	0.10000	0.105	0.00- 0.00	84.99	
9.909	9.913	-0.004	213240	0.10000	0.106	0.00- 0.00	182.69	
10.637	10.641	-0.004	111310	0.10000	0.106	0.00- 0.00	95.36	
11.776	11.781	-0.005	93153	0.10000	0.104	0.00- 0.00	79.81	
		Average of Peak Amounts =			0.10560			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE502.D
Date : 23-MAY-2014 21:00
Client ID:
Instrument: gc07.i
Sample Info: WG143481-20
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000112

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE503.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

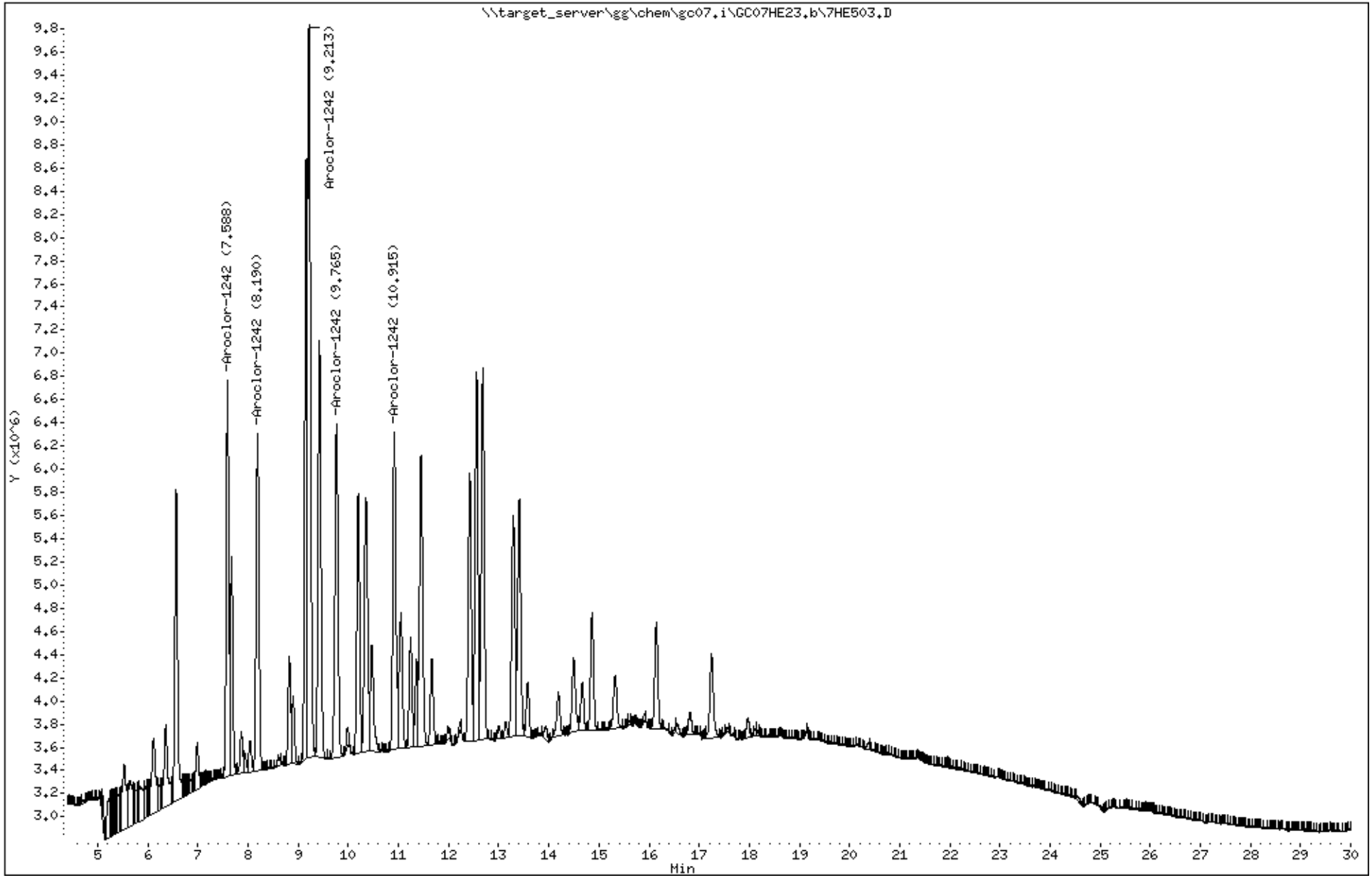
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE503.D
Lab Smp Id: WG143481-21
Inj Date : 23-MAY-2014 21:37
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-21
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 13   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.588	7.592	-0.004	3422265	0.25000	0.276	0.00- 0.00	100.00	
8.190	8.196	-0.006	2906178	0.25000	0.271	0.00- 0.00	84.92	
9.213	9.219	-0.006	6319823	0.25000	0.247	0.00- 0.00	184.67	
9.765	9.771	-0.006	2884234	0.25000	0.258	0.00- 0.00	84.28	
10.915	10.921	-0.006	2736045	0.25000	0.256	0.00- 0.00	79.95	
		Average of Peak Amounts =			0.26160			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE503.D
Date : 23-MAY-2014 21:37
Client ID:
Instrument: gc07.i
Sample Info: WG143481-21
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HE503.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

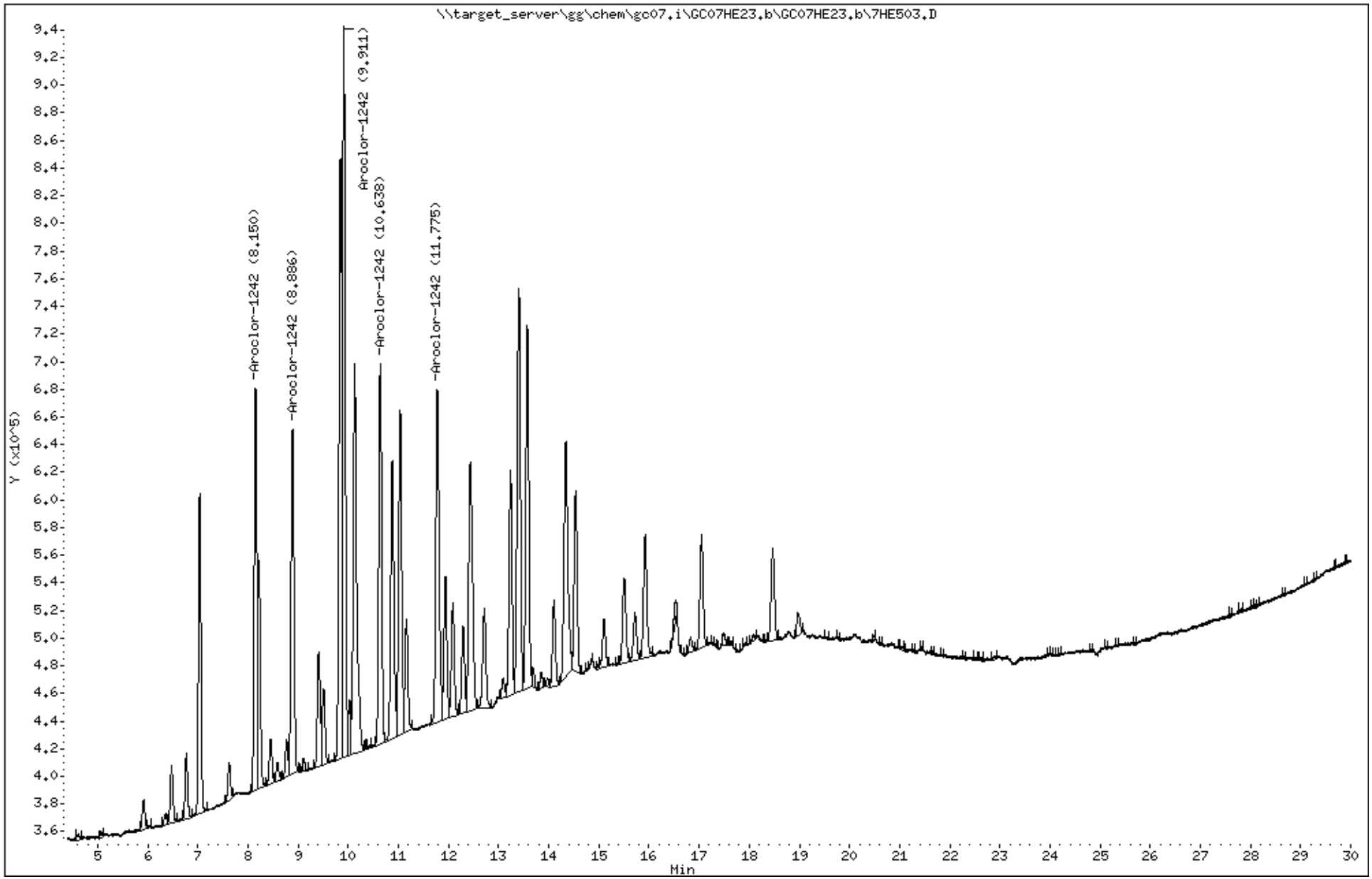
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE503.D
Lab Smp Id: WG143481-22
Inj Date : 23-MAY-2014 21:37
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-22
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 21:37   Cal File: 7HE503.D
Als bottle: 13   Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
8.149	8.153	-0.004	291099	0.25000	0.272	0.00- 0.00	100.00	
8.886	8.891	-0.005	248640	0.25000	0.268	0.00- 0.00	85.41	
9.911	9.913	-0.002	528895	0.25000	0.267	0.00- 0.00	181.69	
10.638	10.641	-0.003	275064	0.25000	0.267	0.00- 0.00	94.49	
11.774	11.781	-0.007	240361	0.25000	0.270	0.00- 0.00	82.57	
		Average of Peak Amounts =			0.26880			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE503.D
Date : 23-MAY-2014 21:37
Client ID:
Instrument: gc07.i
Sample Info: WG143481-22
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000116

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE504.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

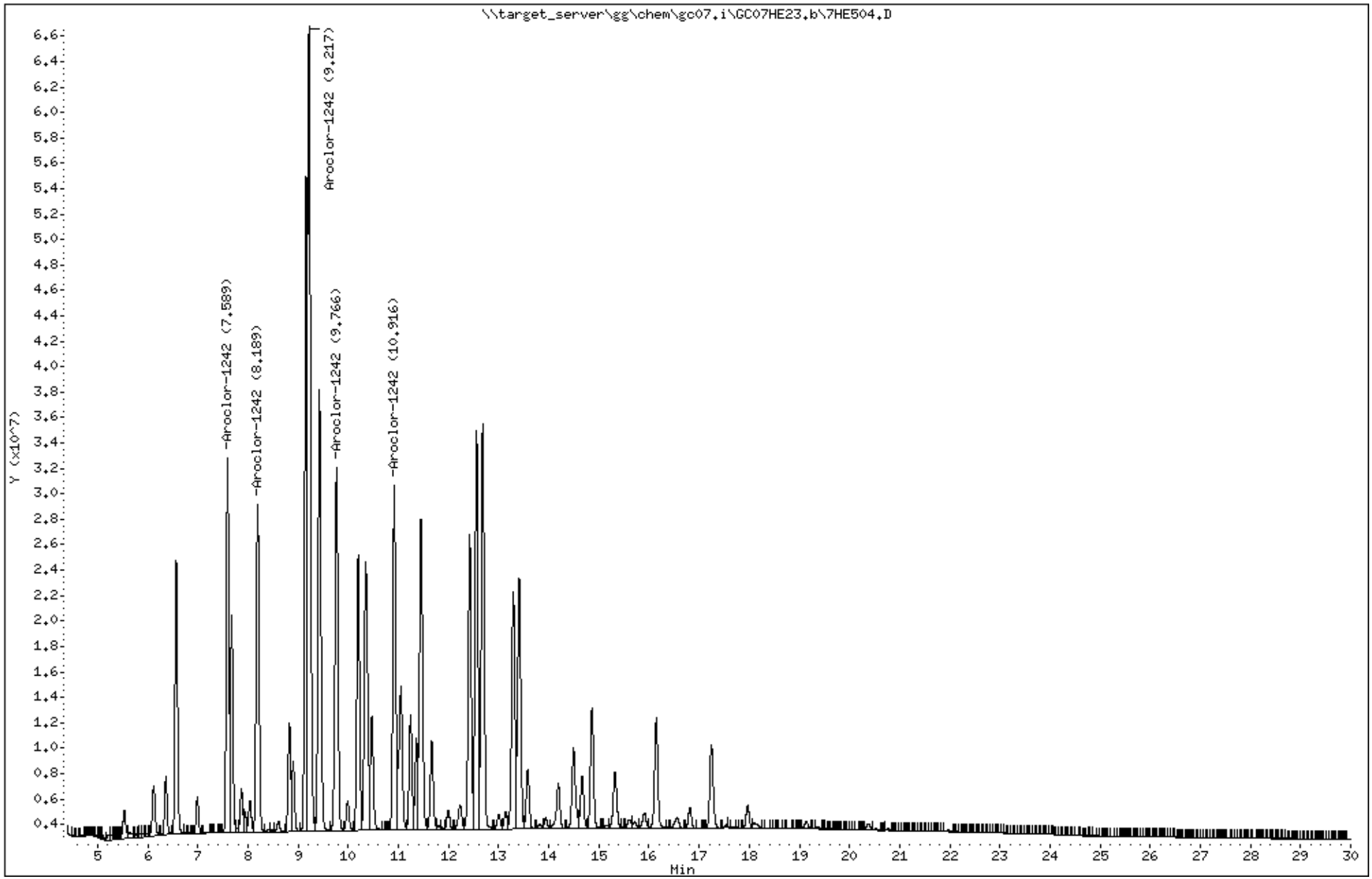
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE504.D
Lab Smp Id: WG143481-23
Inj Date : 23-MAY-2014 22:13
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-23
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 14   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.588	7.592	-0.004	29506038	2.50000	2.38	0.00- 0.00	100.00	
8.188	8.196	-0.008	25796926	2.50000	2.41	0.00- 0.00	87.43	
9.217	9.219	-0.002	63324334	2.50000	2.47	0.00- 0.00	214.61	
9.765	9.771	-0.006	28574601	2.50000	2.55	0.00- 0.00	96.84	
10.915	10.921	-0.006	27081651	2.50000	2.53	0.00- 0.00	91.78	
		Average of Peak Amounts =			2.46800			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE504.D
Date : 23-MAY-2014 22:13
Client ID:
Instrument: gc07.i
Sample Info: WG143481-23
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000118

Data File: 7HE504.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

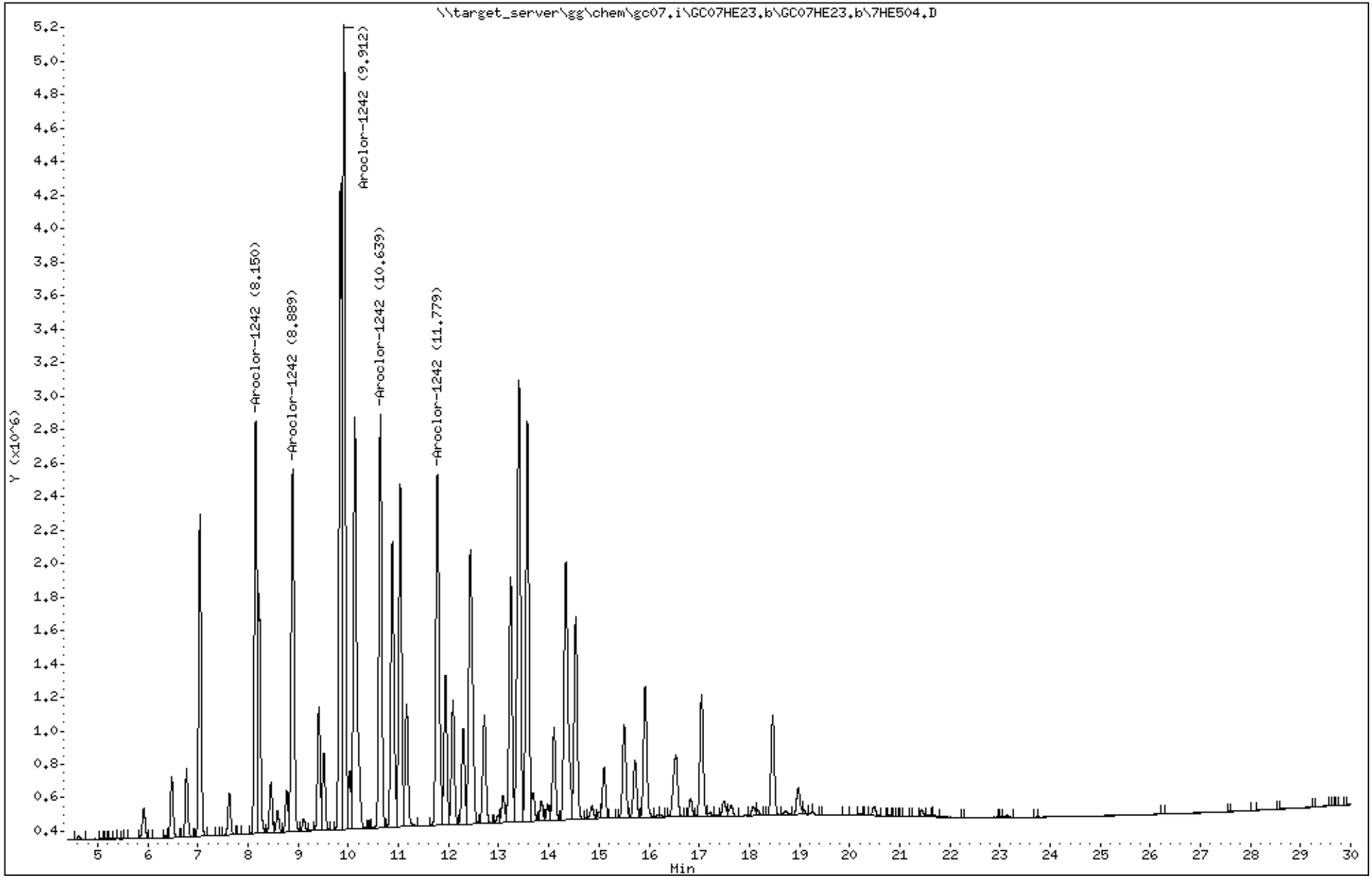
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE504.D
Lab Smp Id: WG143481-24
Inj Date : 23-MAY-2014 22:13
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-24
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 22:13   Cal File: 7HE504.D
Als bottle: 14   Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
8.150	8.153	-0.003	2461039	2.50000	2.49	0.00- 0.00	100.00	
8.888	8.891	-0.003	2163105	2.50000	2.49	0.00- 0.00	87.89	
9.911	9.913	-0.002	4806350	2.50000	2.50	0.00- 0.00	195.30	
10.638	10.641	-0.003	2467788	2.50000	2.50	0.00- 0.00	100.27	
11.778	11.781	-0.003	2097201	2.50000	2.49	0.00- 0.00	85.22	
Average of Peak Amounts =					2.49400			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE504.D
Date : 23-MAY-2014 22:13
Client ID:
Instrument: gc07.i
Sample Info: WG143481-24
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE505.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

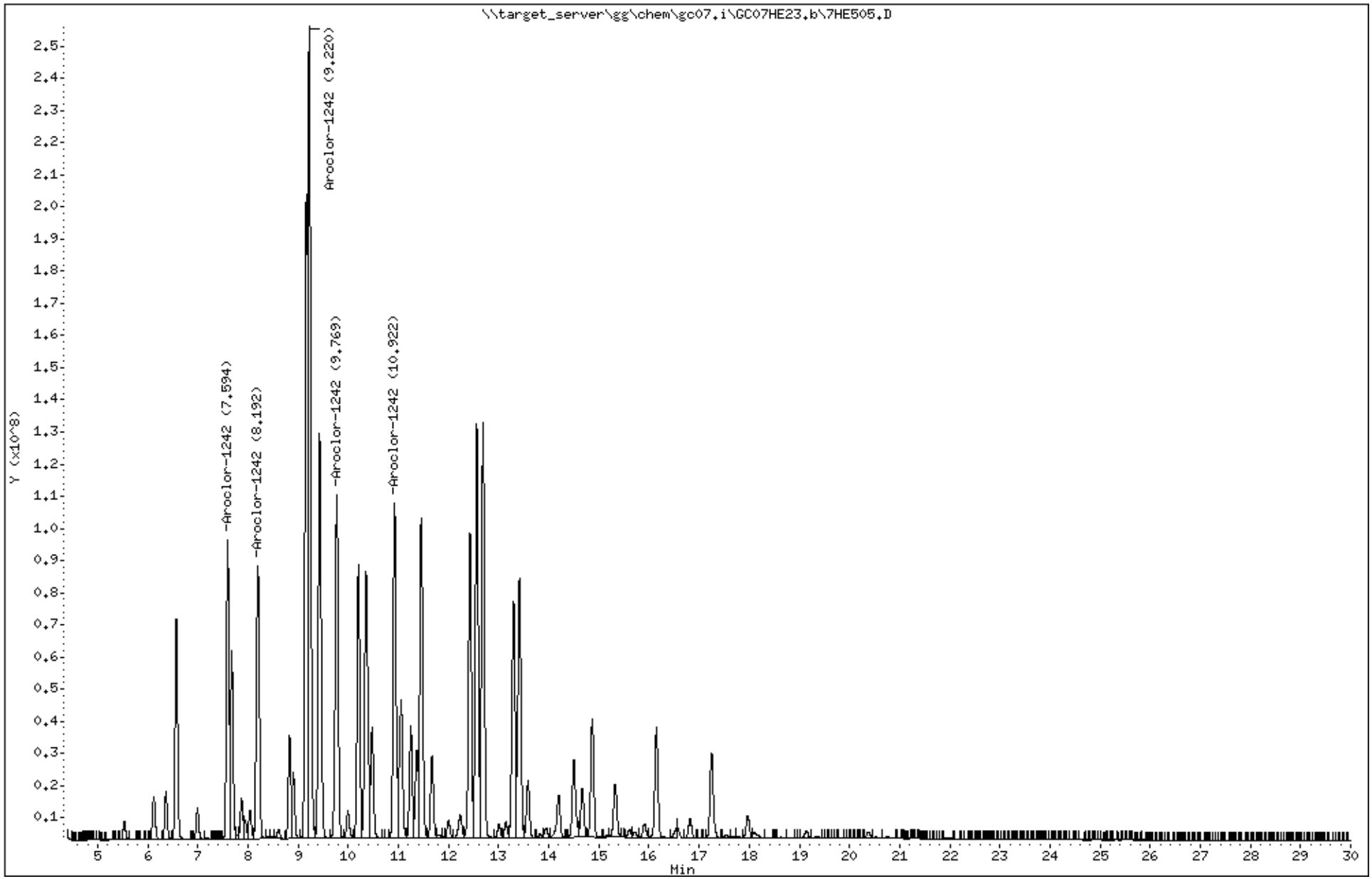
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE505.D
Lab Smp Id: WG143481-25
Inj Date : 23-MAY-2014 22:49
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-25
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 15   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.593	7.592	0.001	93184541	10.0000	7.50	0.00- 0.00	100.00	
8.192	8.196	-0.004	84855164	10.0000	7.91	0.00- 0.00	91.06	
9.220	9.219	0.001	252694452	10.0000	9.86	0.00- 0.00	271.18	
9.768	9.771	-0.003	106765480	10.0000	9.53	0.00- 0.00	114.57	
10.922	10.921	0.001	104217144	10.0000	9.73	0.00- 0.00	111.84	
		Average of Peak Amounts =			8.90600			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE505.D
Date : 23-MAY-2014 22:49
Client ID:
Instrument: gc07.i
Sample Info: WG143481-25
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000122

Data File: 7HE505.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

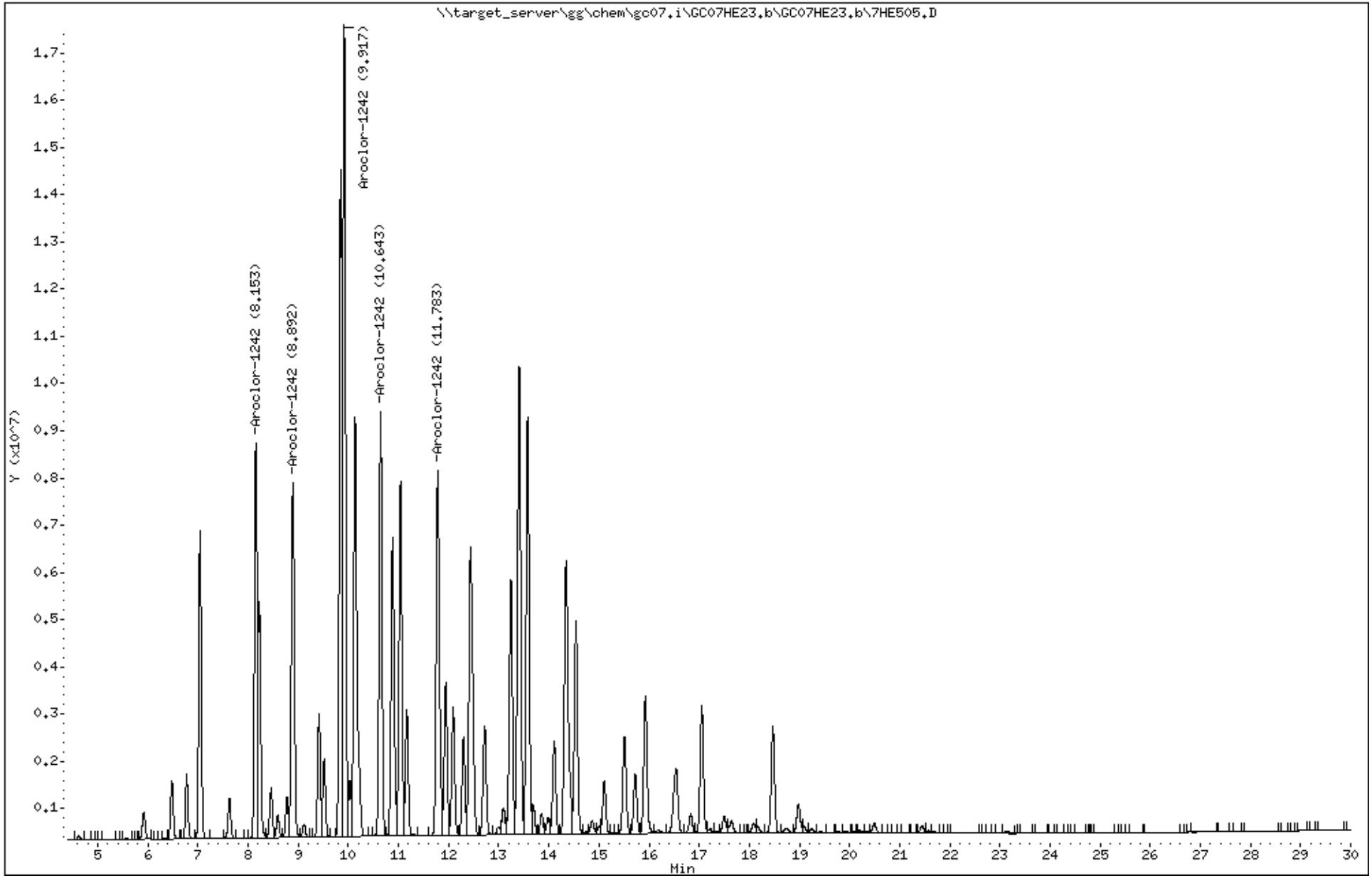
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE505.D
Lab Smp Id: WG143481-26
Inj Date : 23-MAY-2014 22:49
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-26
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 22:49   Cal File: 7HE505.D
Als bottle: 15   Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
8.153	8.153	0.000	8344933	10.0000	9.89	0.00- 0.00	100.00	
8.891	8.891	0.000	7497142	10.0000	9.91	0.00- 0.00	89.84	
9.916	9.913	0.003	17182421	10.0000	9.93	0.00- 0.00	205.90	
10.643	10.641	0.002	8975096	10.0000	9.94	0.00- 0.00	107.55	
11.783	11.781	0.002	7711229	10.0000	9.95	0.00- 0.00	92.41	
		Average of Peak Amounts =			9.92400			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE505.D
Date : 23-MAY-2014 22:49
Client ID:
Instrument: gc07.i
Sample Info: WG143481-26
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE506.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

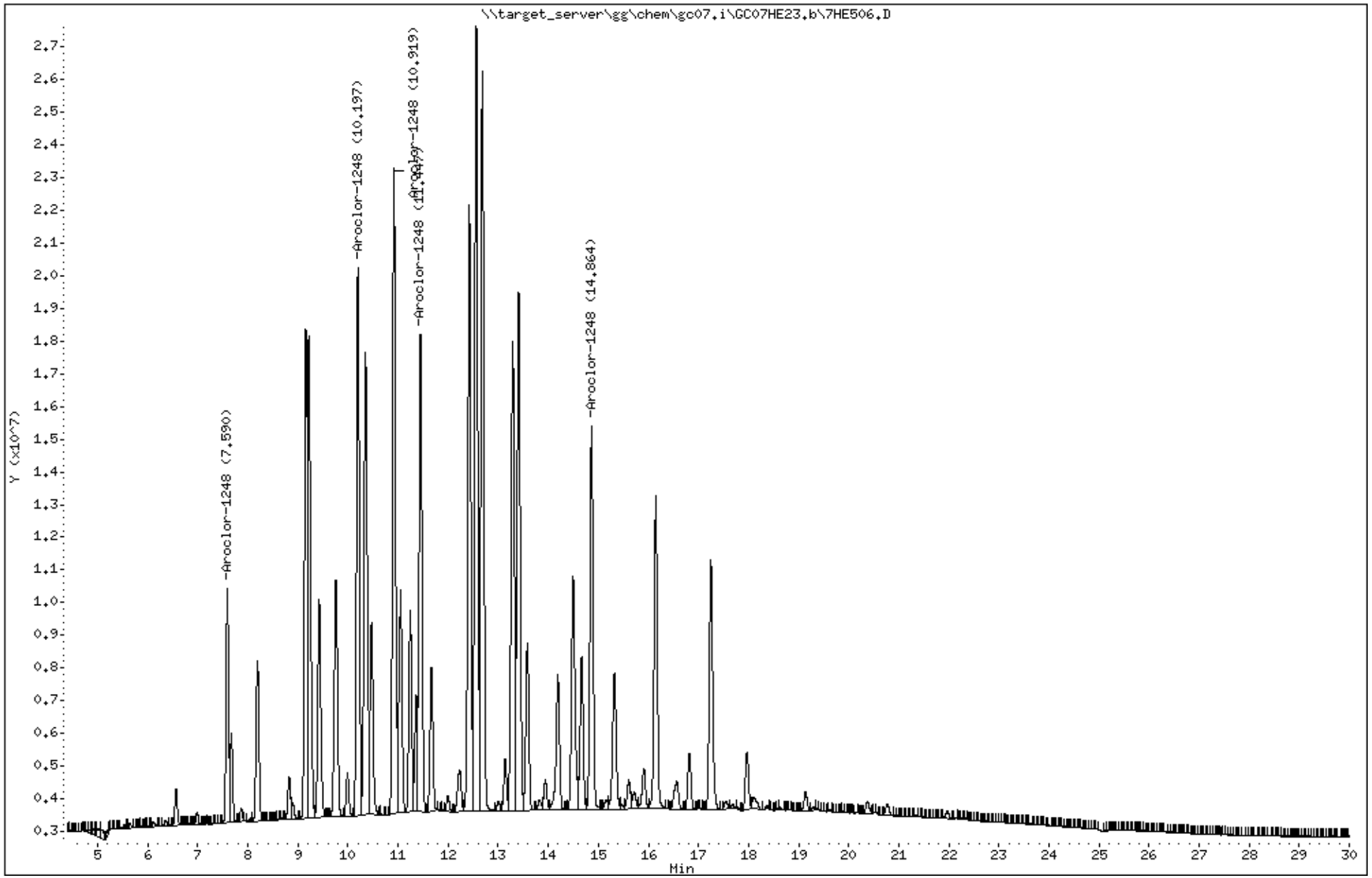
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE506.D
Lab Smp Id: WG143481-27
Inj Date : 23-MAY-2014 23:25
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-27
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 16   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1248.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
7 Aroclor-1248					CAS #: 12672-29-6			
7.590	7.592	-0.002	7139448	1.00000	0.972	0.00- 0.00	100.00	
10.196	10.202	-0.006	16764019	1.00000	0.958	0.00- 0.00	234.81	
10.918	10.920	-0.002	19757729	1.00000	0.978	0.00- 0.00	276.74	
11.446	11.452	-0.006	14575248	1.00000	0.976	0.00- 0.00	204.15	
14.863	14.865	-0.002	11744155	1.00000	0.959	0.00- 0.00	164.50	
		Average of Peak Amounts =			0.96860			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE506.D
Date : 23-MAY-2014 23:25
Client ID:
Instrument: gc07.i
Sample Info: WG143481-27
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HE506.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

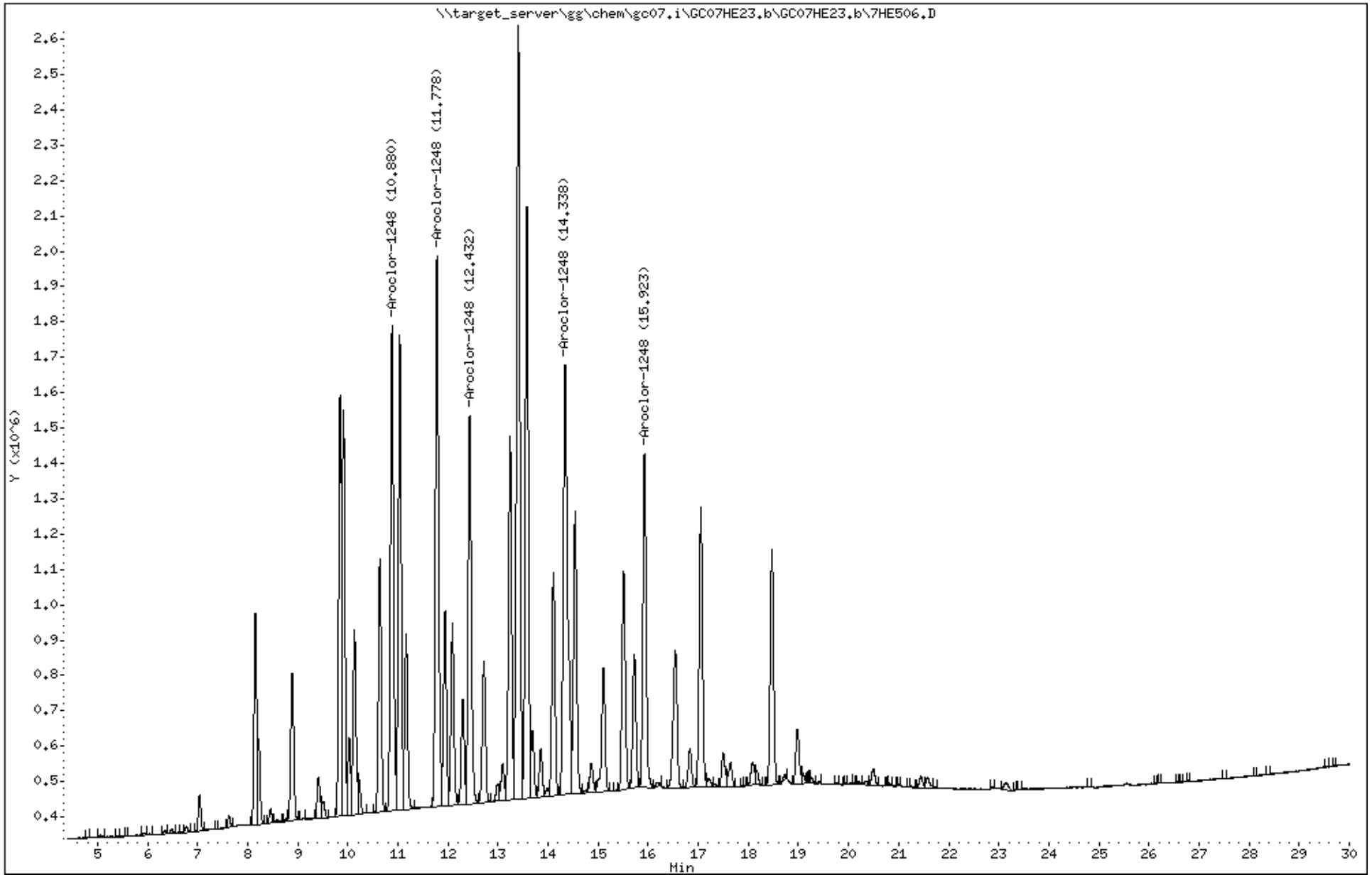
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE506.D
Lab Smp Id: WG143481-28
Inj Date : 23-MAY-2014 23:25
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-28
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 23-MAY-2014 23:25   Cal File: 7HE506.D
Als bottle: 16   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1248.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
7 Aroclor-1248					CAS #: 12672-29-6			
10.879	10.894	-0.015	1371989	1.00000	1.00	0.00- 0.00	100.00	
11.778	11.789	-0.011	1557079	1.00000	1.00	0.00- 0.00	113.49	
12.431	12.444	-0.013	1096885	1.00000	1.00	0.00- 0.00	79.95	
14.338	14.352	-0.014	1215660	1.00000	1.00	0.00- 0.00	88.61	
15.923	15.937	-0.014	945142	1.00000	1.00	0.00- 0.00	68.89	
Average of Peak Amounts =				1.00000				

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE506.D
Date : 23-MAY-2014 23:25
Client ID:
Instrument: gc07.i
Sample Info: WG143481-28
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000128

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE512.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE512.D
Lab Smp Id: WG143481-39
Inj Date : 24-MAY-2014 03:01
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-39
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 22   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1254.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

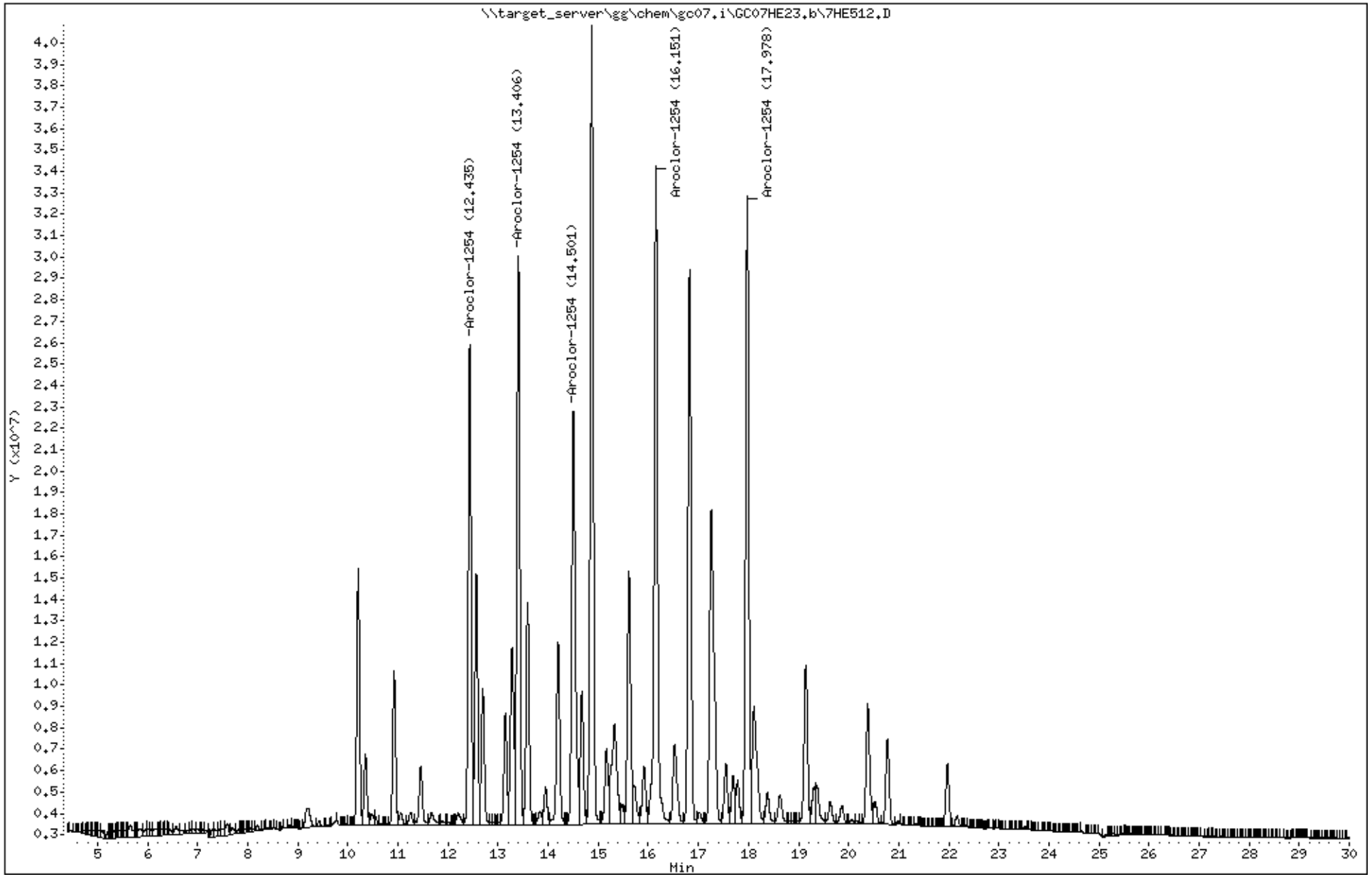
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
8 Aroclor-1254					CAS #: 11097-69-1			
12.434	12.428	0.006	22472387	1.00000	0.930	80.00- 120.00	100.00	
13.406	13.396	0.010	26592878	1.00000	0.916	80.00- 120.00	118.34	
14.501	14.496	0.005	19315708	1.00000	0.916	80.00- 120.00	85.95	
16.151	16.143	0.008	30738853	1.00000	0.924	80.00- 120.00	136.78	
17.978	17.966	0.012	29331851	1.00000	0.920	0.00- 0.00	130.52	
Average of Peak Amounts =					0.92120			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE512.D
Date : 24-MAY-2014 03:01
Client ID:
Sample Info: WG143481-39
Purge Volume: 1.0
Column phase: ZB-MultiResidue-1

Instrument: gc07.i
Operator: CB
Column diameter: 0.53



Katahdin Analytical Services 2000130

Data File: 7HE512.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE512.D
Lab Smp Id: WG143481-40
Inj Date : 24-MAY-2014 03:01
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-40
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 03:01   Cal File: 7HE512.D
Als bottle: 22   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1254.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

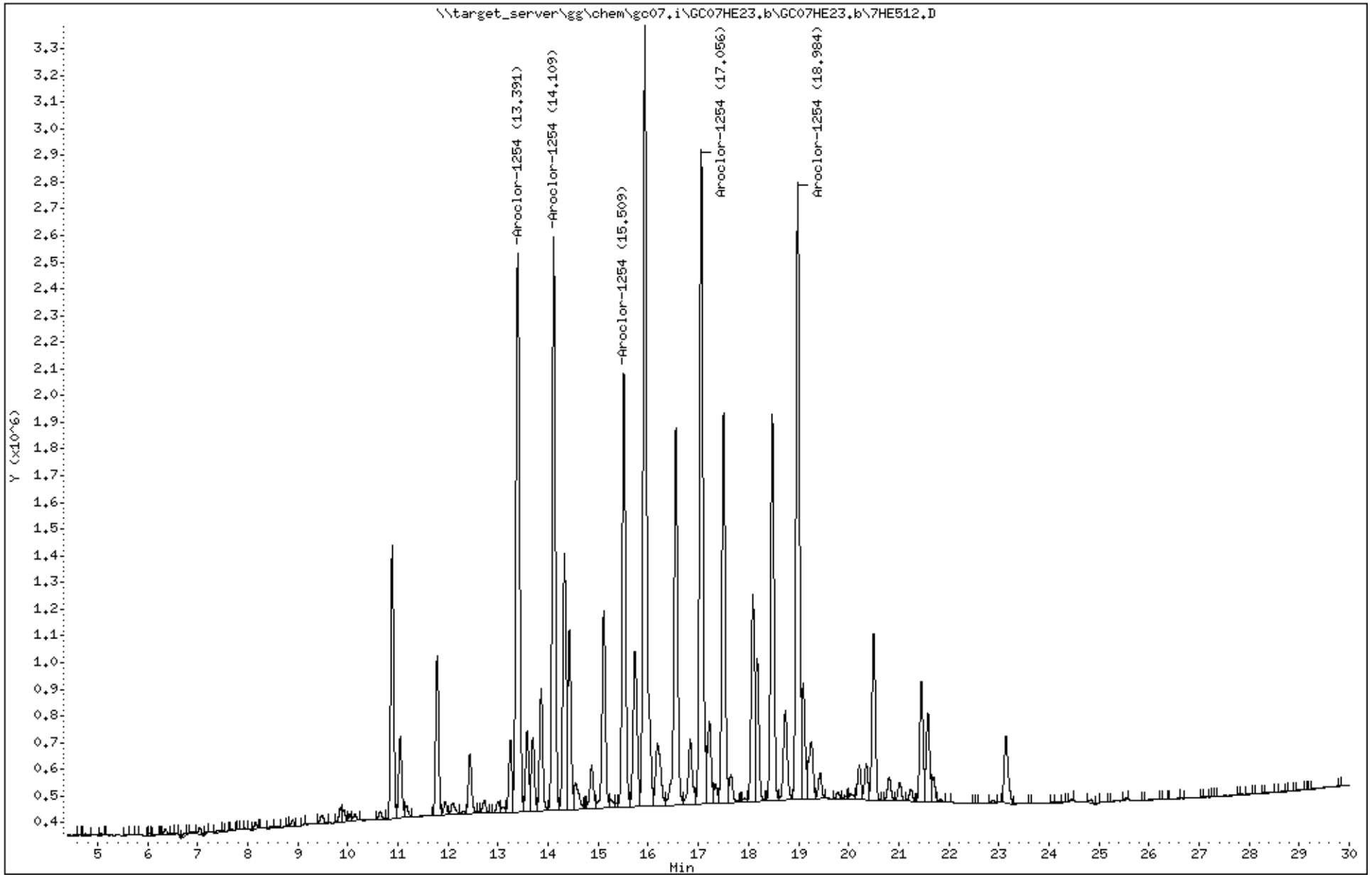
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
8 Aroclor-1254					CAS #: 11097-69-1			
13.391	13.400	-0.009	2094278	1.00000	1.00	80.00- 120.00	100.00	
14.109	14.118	-0.009	2148840	1.00000	1.00	80.00- 120.00	102.61	
15.509	15.517	-0.008	1623267	1.00000	1.00	80.00- 120.00	77.51	
17.056	17.063	-0.007	2449433	1.00000	1.00	80.00- 120.00	116.96	
18.984	18.993	-0.009	2309626	1.00000	1.00	80.00- 120.00	110.28	
Average of Peak Amounts =					1.00000			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE512.D
Date : 24-MAY-2014 03:01
Client ID:
Sample Info: WG143481-40
Purge Volume: 1.0
Column phase: ZB-MultiResidue-2

Instrument: gc07.i
Operator: CB
Column diameter: 0.53



Katahdin Analytical Services 2000132

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE518.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

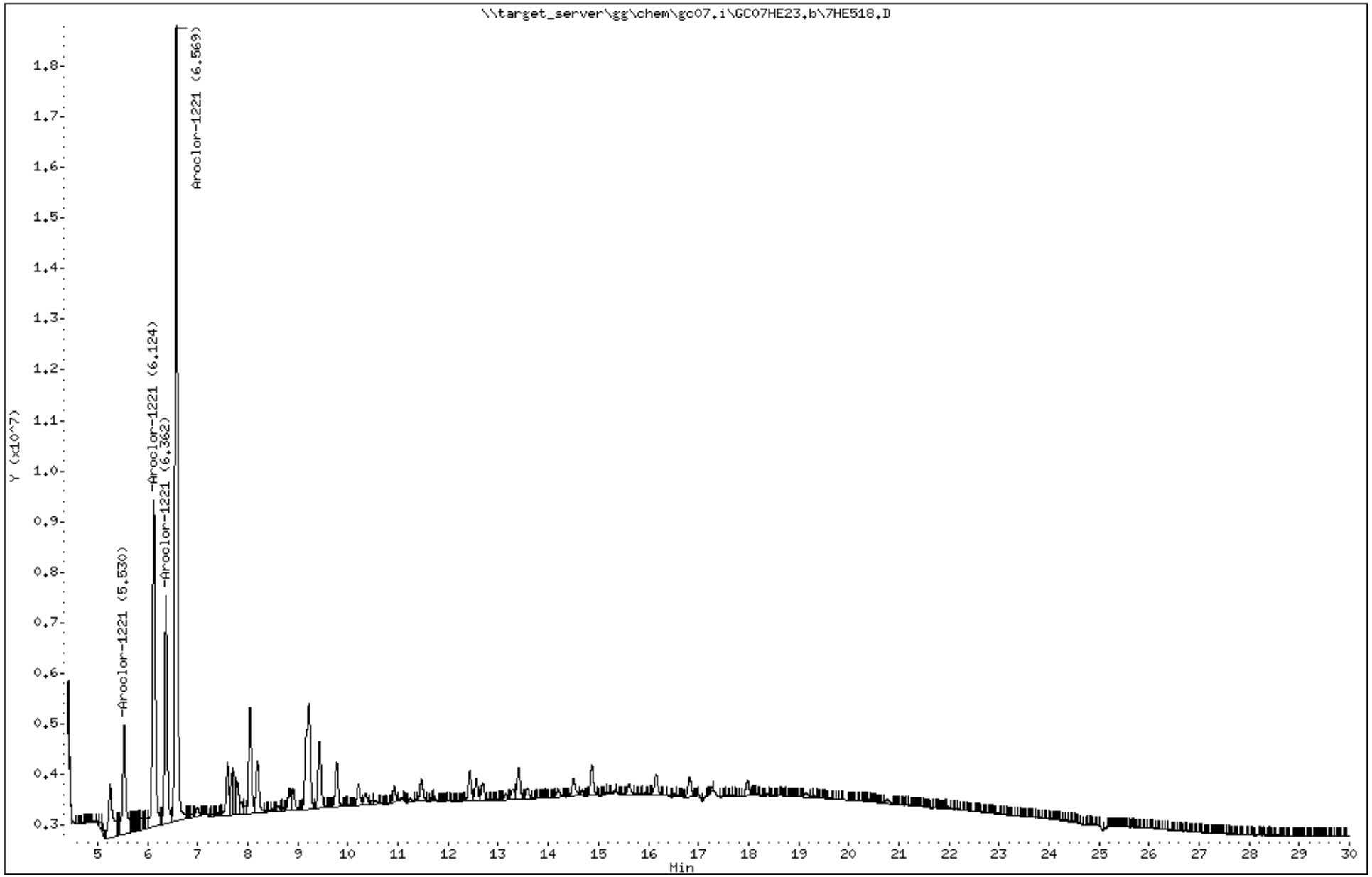
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE518.D
Lab Smp Id: WG143481-51
Inj Date : 24-MAY-2014 06:38
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-51
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 28   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1221.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
2 Aroclor-1221					CAS #: 11104-28-2			
5.530	5.530	0.000	2151566	1.00000	1.00	0.00- 0.00	100.00	
6.123	6.123	0.000	6460792	1.00000	1.00	0.00- 0.00	300.28	
6.361	6.361	0.000	4508056	1.00000	1.00	0.00- 0.00	209.52	
6.568	6.568	0.000	15741760	1.00000	1.00	0.00- 0.00	731.64	
Average of Peak Amounts =					1.00000			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE518.D
Date : 24-MAY-2014 06:38
Client ID:
Instrument: gc07.i
Sample Info: WG143481-51
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HE518.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

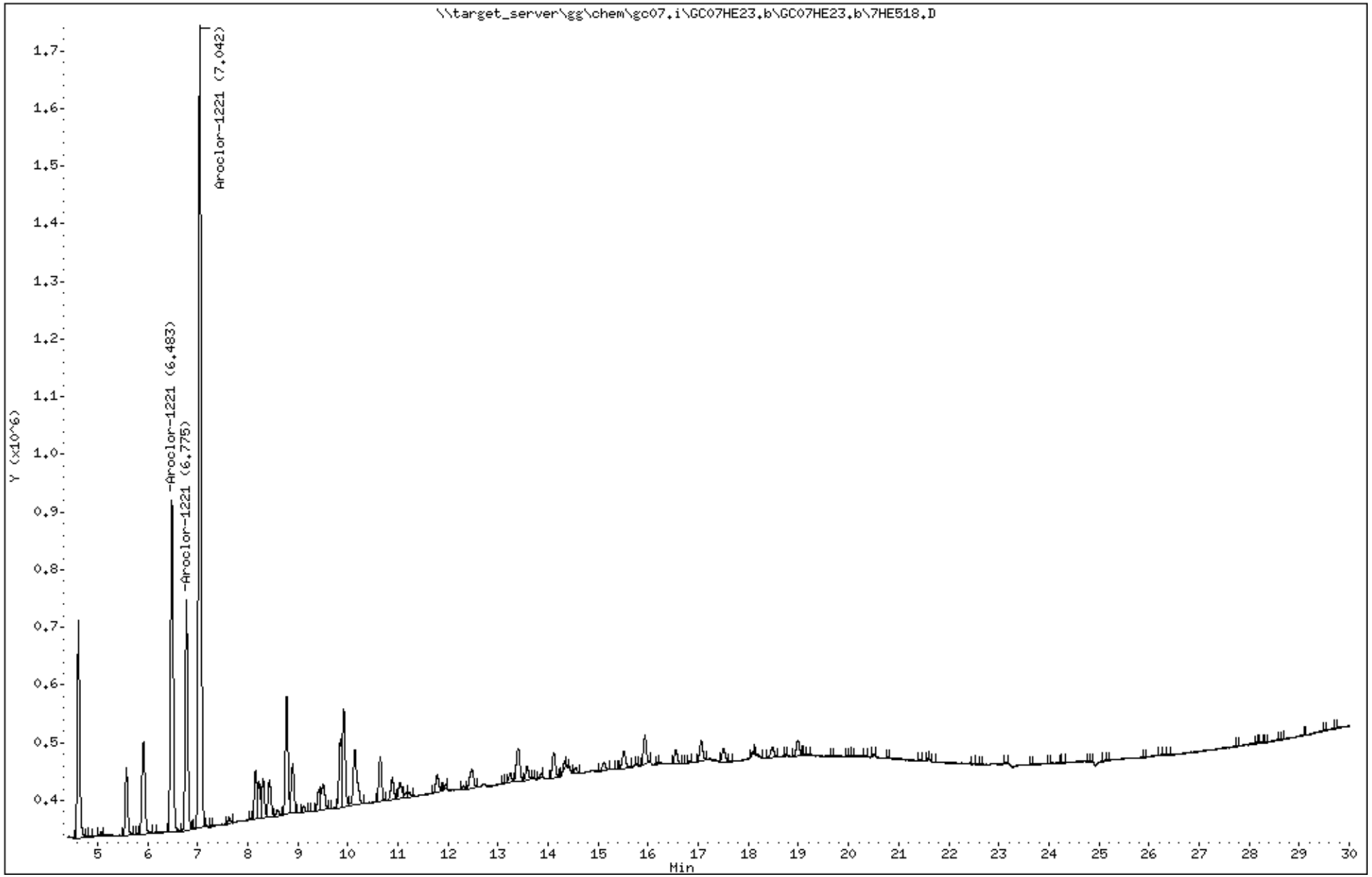
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE518.D
Lab Smp Id: WG143481-52
Inj Date : 24-MAY-2014 06:38
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-52
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 06:38   Cal File: 7HE518.D
Als bottle: 28   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1221.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
3 Aroclor-1221					CAS #: 11104-28-2			
4.616	5.836	-1.220	377295	1.00000	1.00	0.00- 0.00	100.00	
6.483	6.483	0.000	576444	1.00000	1.00	0.00- 0.00	152.78	
6.774	6.774	0.000	400716	1.00000	1.00	0.00- 0.00	106.21	
7.041	7.041	0.000	1391107	1.00000	1.00	0.00- 0.00	368.71	
		Average of Peak Amounts =		1.00000				

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE518.D
Date : 24-MAY-2014 06:38
Client ID:
Instrument: gc07.i
Sample Info: WG143481-52
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE519.D
Report Date: 28-May-2014 12:16

Katahdin Analytical Services

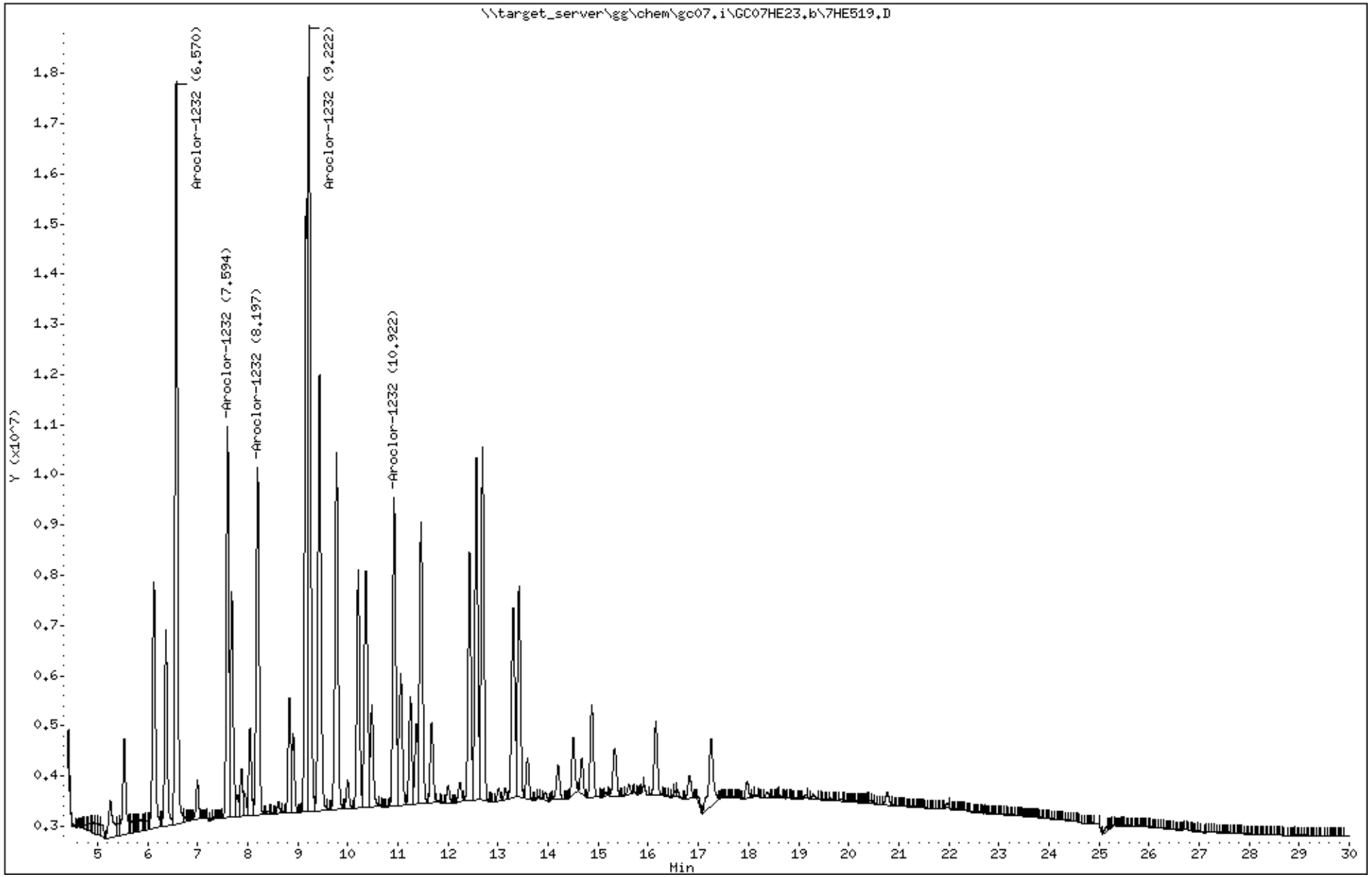
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE519.D
Lab Smp Id: WG143481-53
Inj Date : 24-MAY-2014 07:14
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-53
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m
Meth Date : 28-May-2014 11:44 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:50   Cal File: 7HE515.D
Als bottle: 29   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1232.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 Aroclor-1232					CAS #: 11141-16-5			
6.570	6.570	0.000	14808090	1.00000	1.00	0.00- 0.00	100.00	
7.593	7.593	0.000	7793835	1.00000	1.00	0.00- 0.00	52.63	
8.197	8.197	0.000	6915729	1.00000	1.00	0.00- 0.00	46.70	
9.222	9.222	0.000	15668188	1.00000	1.00	0.00- 0.00	105.81	
10.922	10.922	0.000	6133188	1.00000	1.00	0.00- 0.00	41.42	
		Average of Peak Amounts =			1.00000			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\7HE519.D
Date : 24-MAY-2014 07:14
Client ID:
Instrument: gc07.i
Sample Info: WG143481-53
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000138

Data File: 7HE519.D
Report Date: 28-May-2014 12:15

Katahdin Analytical Services

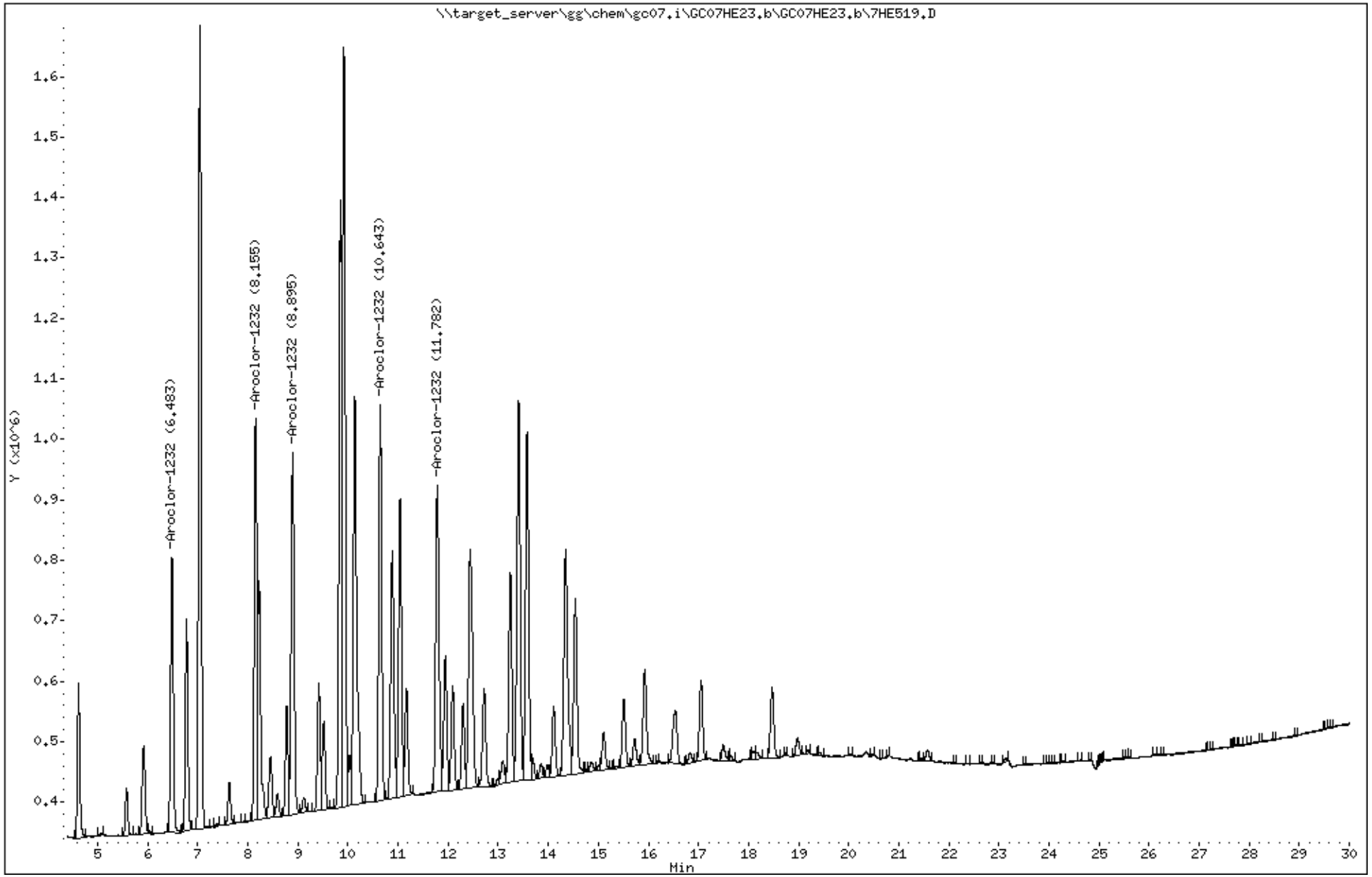
Data file : \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE519.D
Lab Smp Id: WG143481-54
Inj Date : 24-MAY-2014 07:14
Operator : CB   Inst ID: gc07.i
Smp Info : WG143481-54
Misc Info :
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HE23.b\PCB073.m\PCB073.m
Meth Date : 28-May-2014 11:45 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 07:14   Cal File: 7HE519.D
Als bottle: 29   Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1232.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/mL)	(ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
4 Aroclor-1232					CAS #: 11141-16-5			
6.483	6.483	0.000	455704	1.00000	1.00	0.00- 0.00	100.00	
8.155	8.155	0.000	665103	1.00000	1.00	0.00- 0.00	145.95	
8.895	8.895	0.000	597395	1.00000	1.00	0.00- 0.00	131.09	
10.643	10.643	0.000	654463	1.00000	1.00	0.00- 0.00	143.62	
11.781	11.781	0.000	507898	1.00000	1.00	0.00- 0.00	111.45	
Average of Peak Amounts =					1.00000			

Data File: \\target_server\gg\chem\gc07.i\GC07HE23.b\GC07HE23.b\7HE519.D
Date : 24-MAY-2014 07:14
Client ID:
Instrument: gc07.i
Sample Info: WG143481-54
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-1
Analytical Date: 06/09/14 12:01
Lab File ID : 7HF159.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: A

	Compound	$\overline{RRF}$/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
6	Aroclor-1016(5)	1.00000	0.93141	11541323	0.001	-6.85855	20.00000	Quadratic
6	Aroclor-1016(4)	1.00000	1.00891	13503514	0.001	0.89080	20.00000	Quadratic
6	Aroclor-1016(3)	1.00000	1.01000	30418008	0.001	0.99970	20.00000	Quadratic
6	Aroclor-1016(2)	1.00000	1.04345	13198503	0.001	4.34549	20.00000	Quadratic
6	Aroclor-1016(1)	1.00000	1.05715	15273377	0.001	5.71532	20.00000	Quadratic
9	Aroclor-1260(4)	1.00000	0.89718	18162284	0.001	-10.28200	20.00000	Quadratic
9	Aroclor-1260(1)	1.00000	0.90303	22785905	0.001	-9.69665	20.00000	Quadratic
9	Aroclor-1260(2)	1.00000	0.93885	41249121	0.001	-6.11533	20.00000	Quadratic
9	Aroclor-1260(5)	1.00000	0.96656	29776740	0.001	-3.34353	20.00000	Quadratic
9	Aroclor-1260(3)	1.00000	0.97302	34269741	0.001	-2.69754	20.00000	Quadratic
3	Tetrachloro-m-xylene	0.02000	0.02159	869797050	0.001	7.96139	20.00000	Quadratic
12	Decachlorobiphenyl	0.02000	0.01945	340839100	0.001	-2.73550	20.00000	Quadratic

*** = Compound out of QC criteria**

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF159.D
Report Date: 12-Jun-2014 10:47

Katahdin Analytical Services

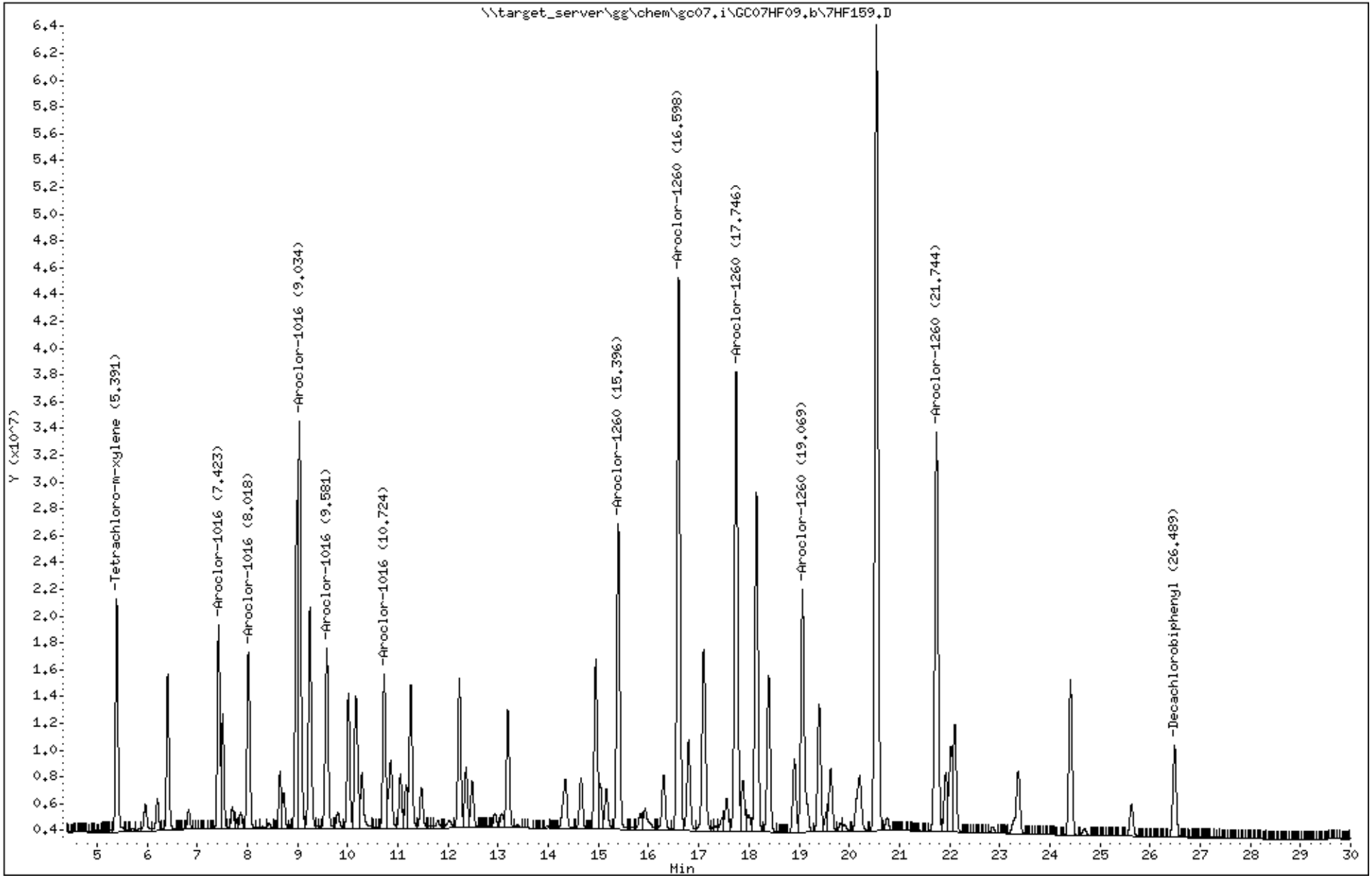
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF159.D
Lab Smp Id: WG144334-1
Inj Date : 09-JUN-2014 12:01
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-1,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 2   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.390	5.379	0.011	17395941	0.02000	0.0216			
6 Aroclor-1016						CAS #: 12674-11-2		
7.422	7.406	0.016	15273377	1.00000	1.06	80.00- 120.00	100.00	
8.017	7.999	0.018	13198503	1.00000	1.04	158.77- 238.15	86.42	
9.034	9.018	0.016	30418008	1.00000	1.01	296.98- 445.46	199.16	
9.580	9.563	0.017	13503514	1.00000	1.01	114.78- 172.16	88.41	
10.724	10.704	0.020	11541323	1.00000	0.931	112.32- 168.48	75.56	
Average of Peak Amounts =					1.01020			
9 Aroclor-1260						CAS #: 11096-82-5		
15.395	15.374	0.021	22785905	1.00000	0.903	80.00- 120.00	100.00	
16.597	16.576	0.021	41249121	1.00000	0.939	94.69- 142.03	181.03	
17.745	17.726	0.019	34269741	1.00000	0.973	89.28- 133.92	150.40	
19.069	19.048	0.021	18162284	1.00000	0.897	72.48- 108.72	79.71	
21.744	21.723	0.021	29776740	1.00000	0.966	0.00- 0.00	130.68	
Average of Peak Amounts =					0.93560			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.489	26.476	0.013	6816782	0.02000	0.0194			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF159.D
Date : 09-JUN-2014 12:01
Client ID:
Instrument: gc07.i
Sample Info: WG144334-1,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000143

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
Lab ID : WG144334-2
Lab File ID : 7HF159.D
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26

SDG: SH3734
Analytical Date: 06/09/14 12:01
Instrument ID: GC07
Column ID: B

	Compound	$\overline{RRF}$/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
5	Aroclor-1016(3)	1.00000	0.94934	2202211	0.001	-5.06578	20.00000	Quadratic
5	Aroclor-1016(4)	1.00000	0.96752	1156617	0.001	-3.24759	20.00000	Quadratic
5	Aroclor-1016(1)	1.00000	0.96889	1152018	0.001	-3.11120	20.00000	Quadratic
5	Aroclor-1016(5)	1.00000	0.97488	960997	0.001	-2.51248	20.00000	Quadratic
5	Aroclor-1016(2)	1.00000	0.98204	1031055	0.001	-1.79587	20.00000	Quadratic
9	Aroclor-1260(2)	1.00000	0.94473	2809692	0.001	-5.52670	20.00000	Quadratic
9	Aroclor-1260(3)	1.00000	0.95190	2393686	0.001	-4.80975	20.00000	Quadratic
9	Aroclor-1260(1)	1.00000	0.96346	1905521	0.001	-3.65449	20.00000	Quadratic
9	Aroclor-1260(5)	1.00000	0.98730	2338810	0.001	-1.26989	20.00000	Quadratic
9	Aroclor-1260(4)	1.00000	0.99594	1772630	0.001	-0.40618	20.00000	Quadratic
2	Tetrachloro-m-xylene	0.02000	0.01910	64271450	0.001	-4.49293	20.00000	Quadratic
12	Decachlorobiphenyl	0.02000	0.01976	28261350	0.001	-1.18394	20.00000	Quadratic

*** = Compound out of QC criteria**

Data File: 7HF159.D
Report Date: 12-Jun-2014 10:46

Katahdin Analytical Services

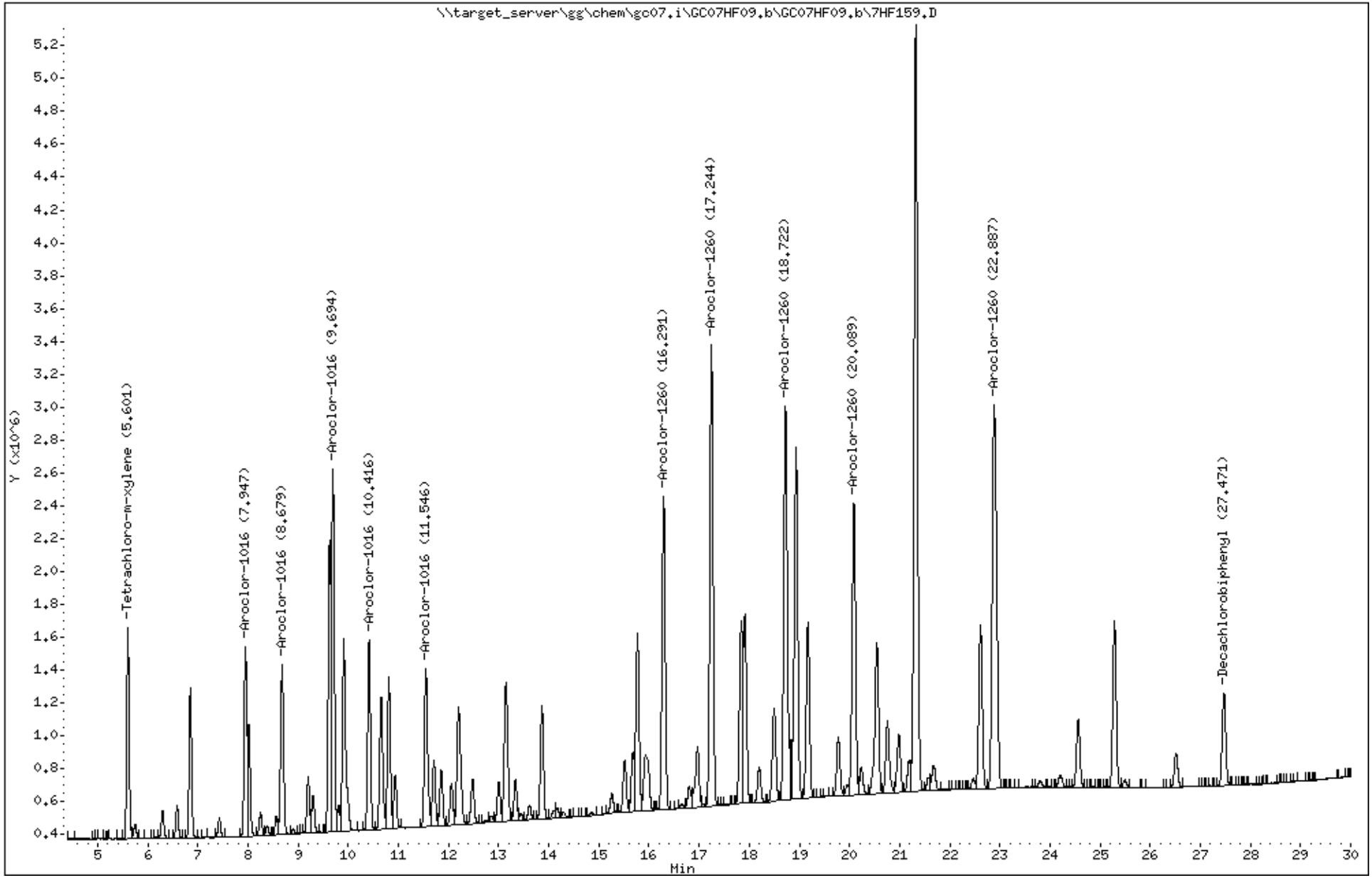
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF159.D
Lab Smp Id: WG144334-2
Inj Date : 09-JUN-2014 12:01
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-2,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 2   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO		REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8			
5.600	5.602	-0.002	1285429	0.02000	0.0191				
5 Aroclor-1016						CAS #: 12674-11-2			
7.947	7.947	0.000	1152018	1.00000	0.969	80.00- 120.00	100.00		
8.678	8.677	0.001	1031055	1.00000	0.982	158.77- 238.15	89.50		
9.693	9.692	0.001	2202211	1.00000	0.949	296.98- 445.46	191.16		
10.415	10.412	0.003	1156617	1.00000	0.968	114.78- 172.17	100.40		
11.545	11.542	0.003	960997	1.00000	0.975	112.32- 168.48	83.42		
Average of Peak Amounts =					0.96860				
9 Aroclor-1260						CAS #: 11096-82-5			
16.290	16.286	0.004	1905521	1.00000	0.963	80.00- 120.00	100.00		
17.243	17.237	0.006	2809692	1.00000	0.945	94.69- 142.03	147.45		
18.722	18.714	0.008	2393686	1.00000	0.952	89.28- 133.92	125.62		
20.088	20.081	0.007	1772630	1.00000	0.996	72.48- 108.72	93.03		
22.887	22.881	0.006	2338810	1.00000	0.987	0.00- 0.00	122.74		
Average of Peak Amounts =					0.96860				
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3			
27.470	27.461	0.009	565227	0.02000	0.0198				

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF159.D
Date : 09-JUN-2014 12:01
Client ID:
Instrument: gc07.i
Sample Info: WG144334-2,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000146

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-3
Analytical Date: 06/09/14 21:03
Lab File ID : 7HF174.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: A

	Compound	$\overline{RRF}$/Amount	RF0.250	CCAL RRF0.250	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
6	Aroclor-1016(3)	0.25000	0.30850	37139044	0.001	23.39990	20.00000	Quadratic	*
6	Aroclor-1016(1)	0.25000	0.31262	19168416	0.001	25.04849	20.00000	Quadratic	*
6	Aroclor-1016(5)	0.25000	0.31303	15727104	0.001	25.21071	20.00000	Quadratic	*
6	Aroclor-1016(2)	0.25000	0.31617	16400472	0.001	26.46807	20.00000	Quadratic	*
6	Aroclor-1016(4)	0.25000	0.32053	17312296	0.001	28.21111	20.00000	Quadratic	*
9	Aroclor-1260(4)	0.25000	0.30346	24482844	0.001	21.38421	20.00000	Quadratic	*
9	Aroclor-1260(1)	0.25000	0.30876	30768368	0.001	23.50532	20.00000	Quadratic	*
9	Aroclor-1260(5)	0.25000	0.31230	37054472	0.001	24.92068	20.00000	Quadratic	*
9	Aroclor-1260(2)	0.25000	0.31320	53511568	0.001	25.27843	20.00000	Quadratic	*
9	Aroclor-1260(3)	0.25000	0.31477	44062844	0.001	25.90635	20.00000	Quadratic	*
3	Tetrachloro-m-xylene	0.00500	0.00585	1.023e+09	0.001	17.04228	20.00000	Quadratic	
12	Decachlorobiphenyl	0.00500	0.00578	403492000	0.001	15.68264	20.00000	Quadratic	

*** = Compound out of QC criteria**

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF174.D
Report Date: 12-Jun-2014 10:48

Katahdin Analytical Services

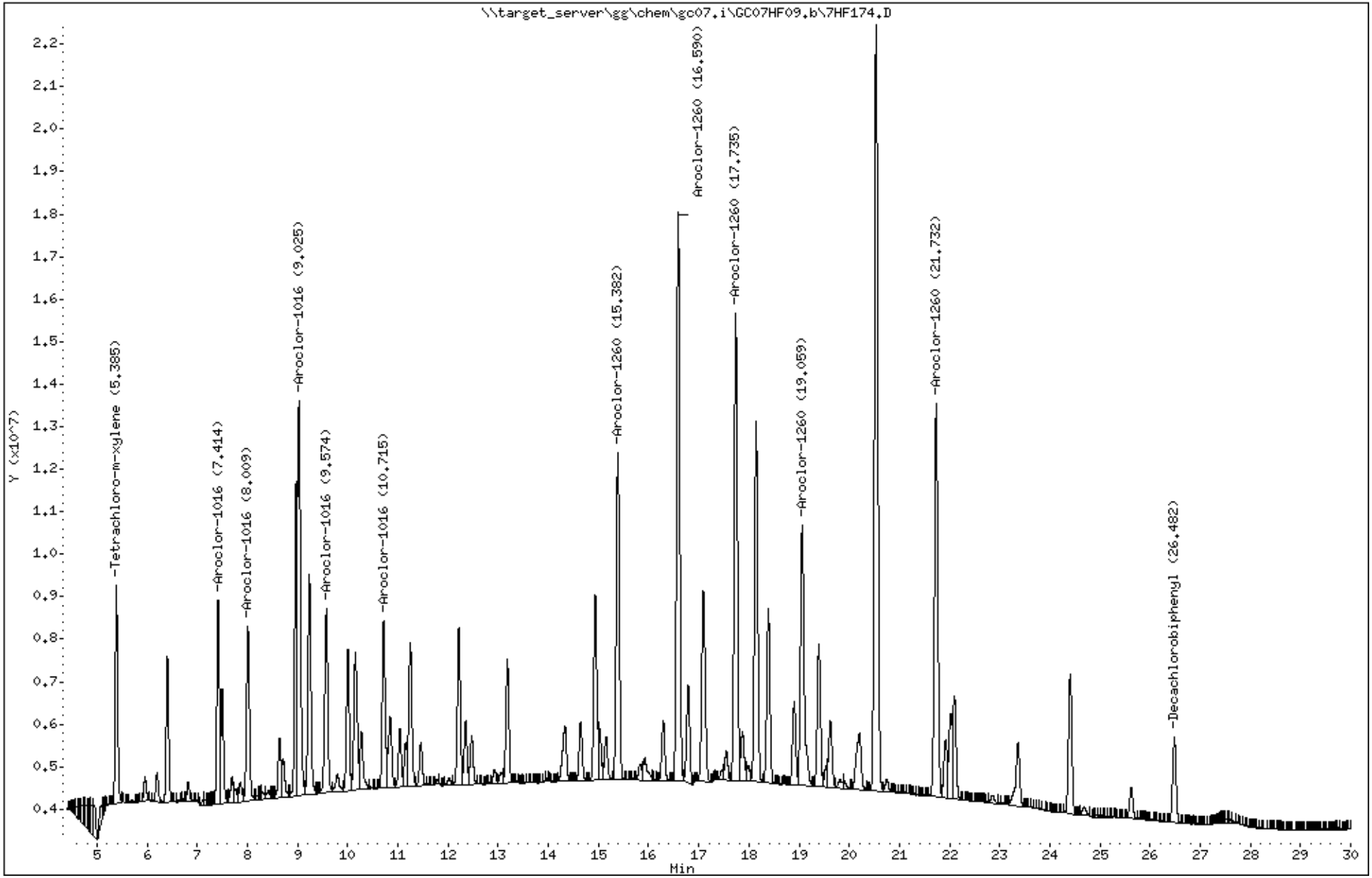
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF174.D
Lab Smp Id: WG144334-3
Inj Date : 09-JUN-2014 21:03
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-3,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 16   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.385	5.379	0.006	5114212	0.02000	0.00585			
6 Aroclor-1016						CAS #: 12674-11-2		
7.413	7.406	0.007	4792104	1.00000	0.313	80.00- 120.00	100.00	
8.008	7.999	0.009	4100118	1.00000	0.316	158.77- 238.15	85.56	
9.025	9.018	0.007	9284761	1.00000	0.308	296.98- 445.46	193.75	
9.573	9.563	0.010	4328074	1.00000	0.320	114.78- 172.16	90.32	
10.715	10.704	0.011	3931776	1.00000	0.313	112.32- 168.48	82.05	
Average of Peak Amounts =					0.31400			
9 Aroclor-1260						CAS #: 11096-82-5		
15.382	15.374	0.008	7692092	1.00000	0.309	80.00- 120.00	100.00	
16.590	16.576	0.014	13377892	1.00000	0.313	94.69- 142.03	173.92	
17.735	17.726	0.009	11015711	1.00000	0.315	89.28- 133.92	143.21	
19.058	19.048	0.010	6120711	1.00000	0.303	72.48- 108.72	79.57	
21.732	21.723	0.009	9263618	1.00000	0.312	0.00- 0.00	120.43	
Average of Peak Amounts =					0.31040			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.482	26.476	0.006	2017460	0.02000	0.00578			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF174.D
Date : 09-JUN-2014 21:03
Client ID:
Instrument: gc07.i
Sample Info: WG144334-3,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000149

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-4
Analytical Date: 06/09/14 21:03
Lab File ID : 7HF174.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: B

	Compound	$\overline{RRF}$/Amount	RF0.250	CCAL RRF0.250	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
5	Aroclor-1016(2)	0.25000	0.27042	1258636	0.001	8.16988	20.00000	Quadratic
5	Aroclor-1016(3)	0.25000	0.27227	2680708	0.001	8.90734	20.00000	Quadratic
5	Aroclor-1016(4)	0.25000	0.27235	1394724	0.001	8.93992	20.00000	Quadratic
5	Aroclor-1016(1)	0.25000	0.27642	1442180	0.001	10.56912	20.00000	Quadratic
5	Aroclor-1016(5)	0.25000	0.27683	1188516	0.001	10.73284	20.00000	Quadratic
9	Aroclor-1260(2)	0.25000	0.27514	3390304	0.001	10.05588	20.00000	Quadratic
9	Aroclor-1260(3)	0.25000	0.28087	2910716	0.001	12.34676	20.00000	Quadratic
9	Aroclor-1260(1)	0.25000	0.28295	2331004	0.001	13.17847	20.00000	Quadratic
9	Aroclor-1260(5)	0.25000	0.28829	2723544	0.001	15.31738	20.00000	Quadratic
9	Aroclor-1260(4)	0.25000	0.29764	2175444	0.001	19.05519	20.00000	Quadratic
2	Tetrachloro-m-xylene	0.00500	0.00526	75419800	0.001	5.11574	20.00000	Quadratic
12	Decachlorobiphenyl	0.00500	0.00553	32653200	0.001	10.54374	20.00000	Quadratic

*** = Compound out of QC criteria**

Data File: 7HF174.D
Report Date: 12-Jun-2014 10:47

Katahdin Analytical Services

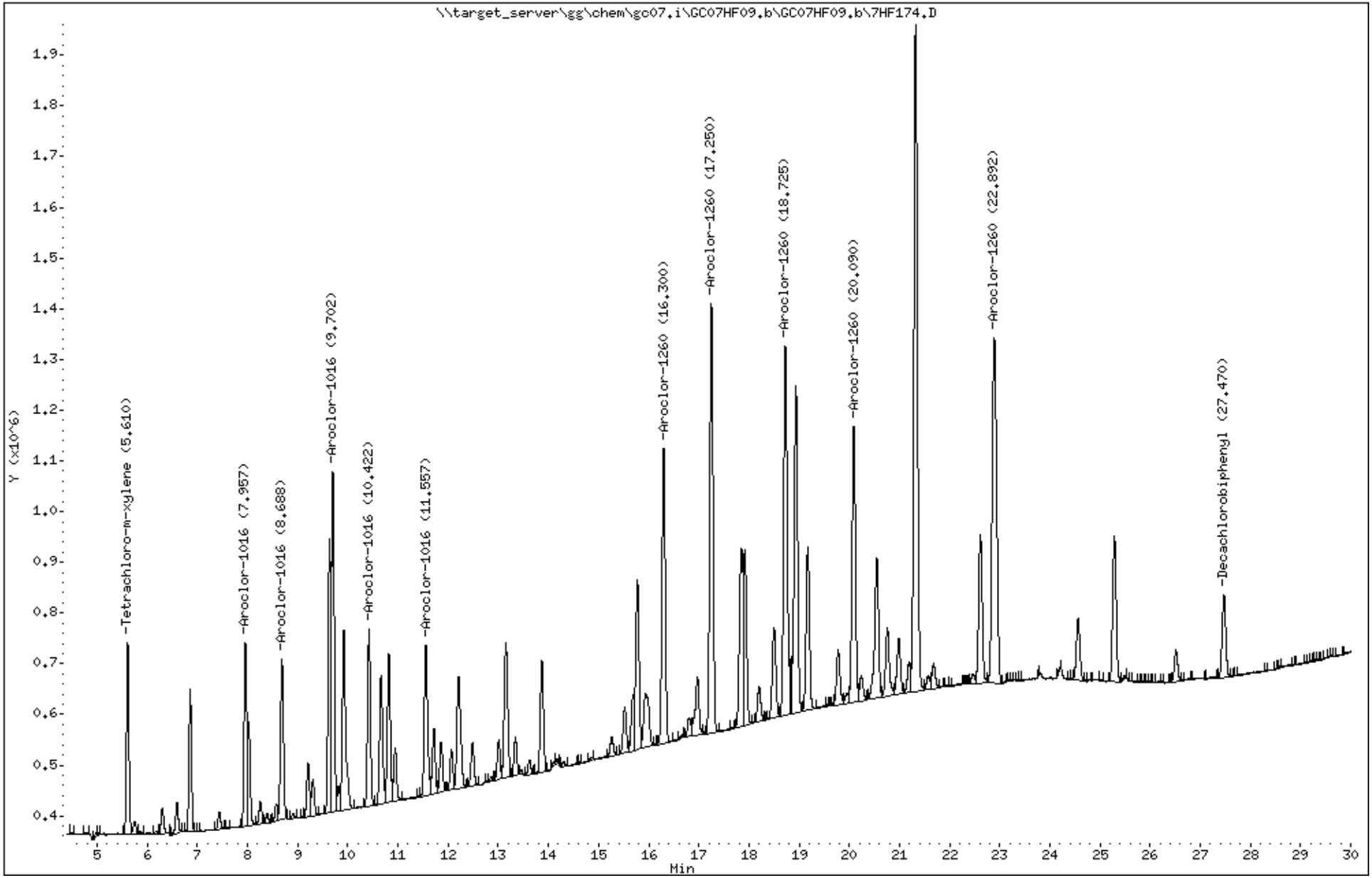
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF174.D
Lab Smp Id: WG144334-4
Inj Date : 09-JUN-2014 21:03
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-4,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 16   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.610	5.602	0.008	377099	0.02000	0.00526			
5 Aroclor-1016						CAS #: 12674-11-2		
7.956	7.947	0.009	360545	1.00000	0.276	80.00- 120.00	100.00	
8.688	8.677	0.011	314659	1.00000	0.270	158.77- 238.15	87.27	
9.701	9.692	0.009	670177	1.00000	0.272	296.98- 445.46	185.88	
10.421	10.412	0.009	348681	1.00000	0.272	114.78- 172.17	96.71	
11.556	11.542	0.014	297129	1.00000	0.277	112.32- 168.48	82.41	
	Average of Peak Amounts =				0.27340			
9 Aroclor-1260						CAS #: 11096-82-5		
16.300	16.286	0.014	582751	1.00000	0.283	80.00- 120.00	100.00	
17.250	17.237	0.013	847576	1.00000	0.275	94.69- 142.03	145.44	
18.725	18.714	0.011	727679	1.00000	0.281	89.28- 133.92	124.87	
20.090	20.081	0.009	543861	1.00000	0.298	72.48- 108.72	93.33	
22.891	22.881	0.010	680886	1.00000	0.288	0.00- 0.00	116.84	
	Average of Peak Amounts =				0.28500			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.470	27.461	0.009	163266	0.02000	0.00553			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF174.D
Date : 09-JUN-2014 21:03
Client ID:
Instrument: gc07.i
Sample Info: WG144334-4,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 200152

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-11
Analytical Date: 06/09/14 21:39
Lab File ID : 7HF175.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: A

	Compound	RRF/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
5	Aroclor-1242(5)	10705939	12955573	12955573	0.001	21.01295	20.00000	Averaged	*
5	Aroclor-1242(2)	10721349	12816547	12816547	0.001	19.54230	20.00000	Averaged	
5	Aroclor-1242(4)	11200590	13372509	13372509	0.001	19.39112	20.00000	Averaged	
5	Aroclor-1242(1)	12418224	14727551	14727551	0.001	18.59628	20.00000	Averaged	
5	Aroclor-1242(3)	25627228	30289265	30289265	0.001	18.19173	20.00000	Averaged	

*** = Compound out of QC criteria**

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF175.D
Report Date: 12-Jun-2014 10:48

Katahdin Analytical Services

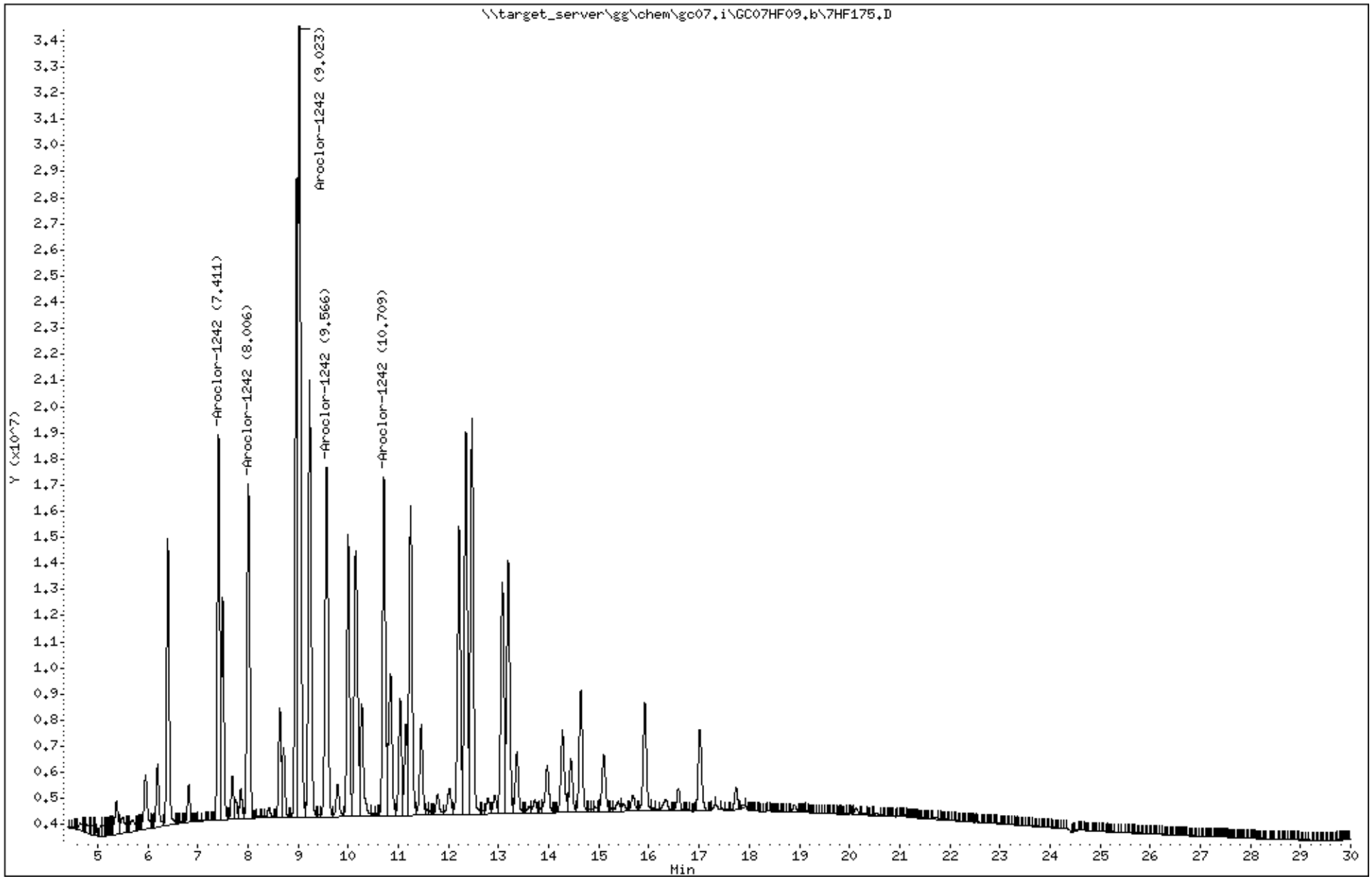
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF175.D
Lab Smp Id: WG144334-11
Inj Date : 09-JUN-2014 21:39
Operator : CB Inst ID: gc07.i
Smp Info : WG144334-11,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.411	7.406	0.005	14727551	1.00000	1.18	0.00- 0.00	100.00	
8.006	8.000	0.006	12816547	1.00000	1.20	0.00- 0.00	87.02	
9.022	9.020	0.002	30289265	1.00000	1.18	0.00- 0.00	205.66	
9.566	9.563	0.003	13372509	1.00000	1.19	0.00- 0.00	90.80	
10.709	10.706	0.003	12955573	1.00000	1.21	0.00- 0.00	87.97	
		Average of Peak Amounts =			1.19200			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF175.D
Date : 09-JUN-2014 21:39
Client ID:
Instrument: gc07.i
Sample Info: WG144334-11,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 200155

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-12
Analytical Date: 06/09/14 21:39
Lab File ID : 7HF175.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: B

Compound	RRF/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
6 Aroclor-1242(4)	1033115	1078956	1078956	0.001	4.43720	20.00000	Averaged
6 Aroclor-1242(1)	1064318	1093058	1093058	0.001	2.70029	20.00000	Averaged
6 Aroclor-1242(3)	1998081	2060311	2060311	0.001	3.11449	20.00000	Averaged
6 Aroclor-1242(5)	888148	917711	917711	0.001	3.32864	20.00000	Averaged
6 Aroclor-1242(2)	920491	949695	949695	0.001	3.17267	20.00000	Averaged

*** = Compound out of QC criteria**

Data File: 7HF175.D
Report Date: 12-Jun-2014 10:47

Katahdin Analytical Services

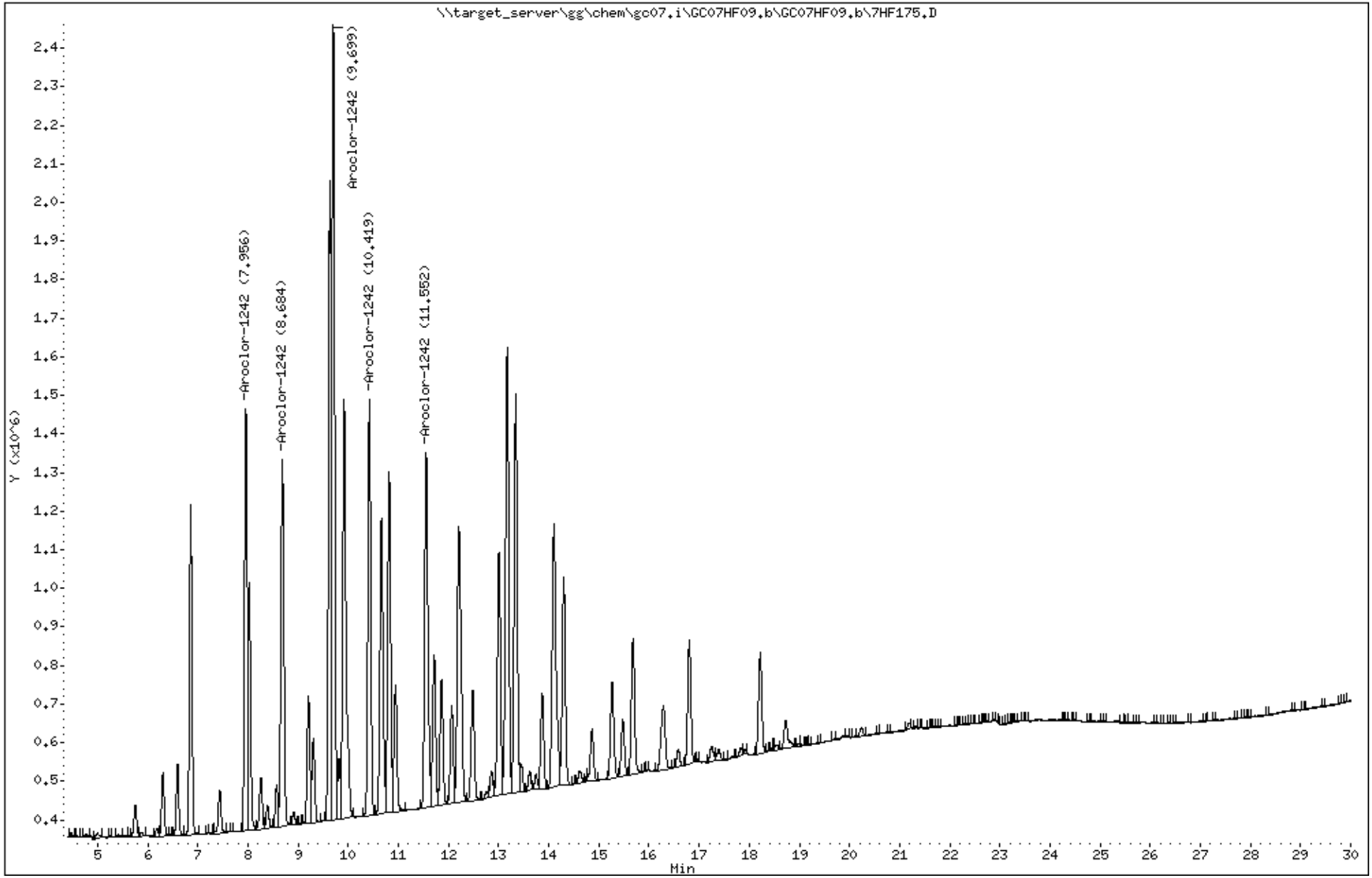
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF175.D
Lab Smp Id: WG144334-12
Inj Date : 09-JUN-2014 21:39
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-12,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 17   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
7.955	7.948	0.007	1093058	1.00000	1.03	0.00- 0.00	100.00	
8.684	8.678	0.006	949695	1.00000	1.03	0.00- 0.00	86.88	
9.699	9.693	0.006	2060311	1.00000	1.03	0.00- 0.00	188.49	
10.419	10.413	0.006	1078956	1.00000	1.04	0.00- 0.00	98.71	
11.552	11.544	0.008	917711	1.00000	1.03	0.00- 0.00	83.96	
		Average of Peak Amounts =			1.03200			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF175.D
Date : 09-JUN-2014 21:39
Client ID:
Instrument: gc07.i
Sample Info: WG144334-12,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 200158

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-7
Analytical Date: 06/10/14 05:28
Lab File ID : 7HF188.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: A

	Compound	$\overline{RRF}$/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
6	Aroclor-1016(2)	1.00000	1.23064	15477457	0.001	23.06371	20.00000	Quadratic	*
6	Aroclor-1016(1)	1.00000	1.25002	17901200	0.001	25.00249	20.00000	Quadratic	*
6	Aroclor-1016(4)	1.00000	1.25825	16828460	0.001	25.82487	20.00000	Quadratic	*
6	Aroclor-1016(3)	1.00000	1.26955	38278753	0.001	26.95483	20.00000	Quadratic	*
6	Aroclor-1016(5)	1.00000	1.29815	16058517	0.001	29.81540	20.00000	Quadratic	*
9	Aroclor-1260(1)	1.00000	1.29575	32879821	0.001	29.57484	20.00000	Quadratic	*
9	Aroclor-1260(4)	1.00000	1.31801	26807554	0.001	31.80142	20.00000	Quadratic	*
9	Aroclor-1260(5)	1.00000	1.35119	42061343	0.001	35.11900	20.00000	Quadratic	*
9	Aroclor-1260(2)	1.00000	1.38191	61498098	0.001	38.19111	20.00000	Quadratic	*
9	Aroclor-1260(3)	1.00000	1.41676	50306135	0.001	41.67643	20.00000	Quadratic	*
3	Tetrachloro-m-xylene	0.02000	0.02438	976342100	0.001	21.92200	20.00000	Quadratic	*
12	Decachlorobiphenyl	0.02000	0.02383	418241300	0.001	19.13094	20.00000	Quadratic	

*** = Compound out of QC criteria**

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF188.D
Report Date: 12-Jun-2014 10:48

Katahdin Analytical Services

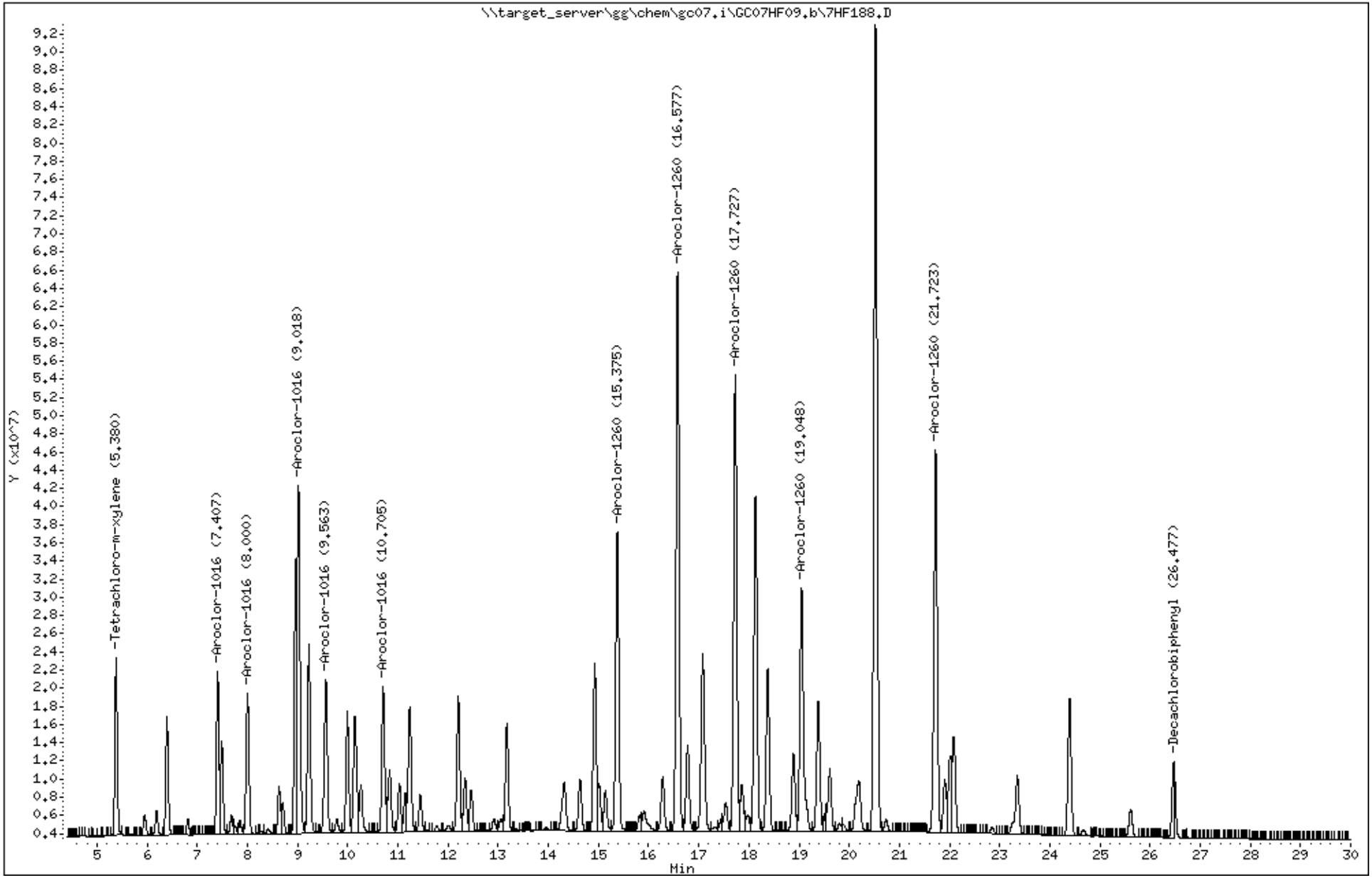
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF188.D
Lab Smp Id: WG144334-7
Inj Date : 10-JUN-2014 05:28
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-7,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 29   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS					
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.379	5.379	0.000	19526842	0.02000	0.0244			
6 Aroclor-1016						CAS #: 12674-11-2		
7.406	7.406	0.000	17901200	1.00000	1.25	80.00- 120.00	100.00	
7.999	7.999	0.000	15477457	1.00000	1.23	158.77- 238.15	86.46	
9.018	9.018	0.000	38278753	1.00000	1.27	296.98- 445.46	213.83	
9.563	9.563	0.000	16828460	1.00000	1.26	114.78- 172.16	94.01	
10.704	10.704	0.000	16058517	1.00000	1.30	112.32- 168.48	89.71	
Average of Peak Amounts =					1.26200			
9 Aroclor-1260						CAS #: 11096-82-5		
15.374	15.374	0.000	32879821	1.00000	1.30	80.00- 120.00	100.00	
16.576	16.576	0.000	61498098	1.00000	1.38	94.69- 142.03	187.04	
17.726	17.726	0.000	50306135	1.00000	1.42	89.28- 133.92	153.00	
19.048	19.048	0.000	26807554	1.00000	1.32	72.48- 108.72	81.53	
21.723	21.723	0.000	42061343	1.00000	1.35	0.00- 0.00	127.92	
Average of Peak Amounts =					1.35400			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.476	26.476	0.000	8364826	0.02000	0.0238			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF188.D
Date : 10-JUN-2014 05:28
Client ID:
Instrument: gc07.i
Sample Info: WG144334-7,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000161

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-8
Analytical Date: 06/10/14 05:28
Lab File ID : 7HF188.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: B

	Compound	$\overline{RRF}$/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
5	Aroclor-1016(3)	1.00000	1.09382	2526250	0.001	9.38171	20.00000	Quadratic
5	Aroclor-1016(1)	1.00000	1.10744	1307890	0.001	10.74425	20.00000	Quadratic
5	Aroclor-1016(2)	1.00000	1.10997	1158291	0.001	10.99742	20.00000	Quadratic
5	Aroclor-1016(4)	1.00000	1.11742	1329662	0.001	11.74228	20.00000	Quadratic
5	Aroclor-1016(5)	1.00000	1.14596	1122878	0.001	14.59616	20.00000	Quadratic
9	Aroclor-1260(5)	1.00000	1.11270	2635440	0.001	11.26995	20.00000	Quadratic
9	Aroclor-1260(1)	1.00000	1.12996	2227558	0.001	12.99645	20.00000	Quadratic
9	Aroclor-1260(2)	1.00000	1.13206	3355107	0.001	13.20572	20.00000	Quadratic
9	Aroclor-1260(3)	1.00000	1.14841	2878704	0.001	14.84053	20.00000	Quadratic
9	Aroclor-1260(4)	1.00000	1.16766	2074201	0.001	16.76590	20.00000	Quadratic
2	Tetrachloro-m-xylene	0.02000	0.02159	72427750	0.001	7.93789	20.00000	Quadratic
12	Decachlorobiphenyl	0.02000	0.02240	31974500	0.001	11.99184	20.00000	Quadratic

*** = Compound out of QC criteria**

Data File: 7HF188.D
Report Date: 12-Jun-2014 10:47

Katahdin Analytical Services

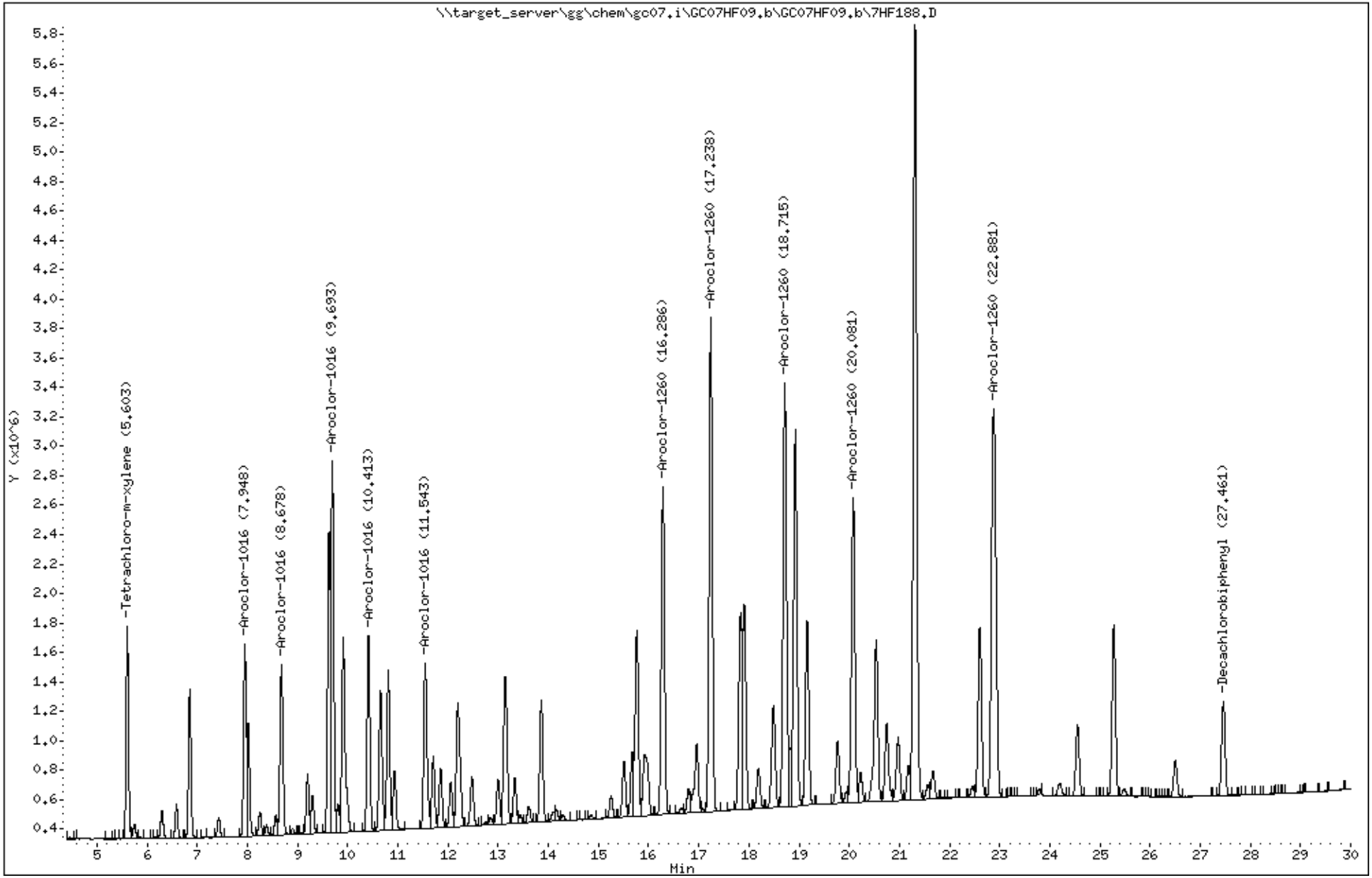
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF188.D
Lab Smp Id: WG144334-8
Inj Date : 10-JUN-2014 05:28
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-8,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 29   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1660.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.602	5.602	0.000	1448555	0.02000	0.0216			
5 Aroclor-1016						CAS #: 12674-11-2		
7.947	7.947	0.000	1307890	1.00000	1.11	80.00- 120.00	100.00	
8.677	8.677	0.000	1158291	1.00000	1.11	158.77- 238.15	88.56	
9.692	9.692	0.000	2526250	1.00000	1.09	296.98- 445.46	193.15	
10.412	10.412	0.000	1329662	1.00000	1.12	114.78- 172.17	101.66	
11.542	11.542	0.000	1122878	1.00000	1.14	112.32- 168.48	85.85	
Average of Peak Amounts =					1.11400			
9 Aroclor-1260						CAS #: 11096-82-5		
16.286	16.286	0.000	2227558	1.00000	1.13	80.00- 120.00	100.00	
17.237	17.237	0.000	3355107	1.00000	1.13	94.69- 142.03	150.62	
18.714	18.714	0.000	2878704	1.00000	1.15	89.28- 133.92	129.23	
20.081	20.081	0.000	2074201	1.00000	1.17	72.48- 108.72	93.12	
22.881	22.881	0.000	2635440	1.00000	1.11	0.00- 0.00	118.31	
Average of Peak Amounts =					1.13800			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.461	27.461	0.000	639490	0.02000	0.0224			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF188.D
Date : 10-JUN-2014 05:28
Client ID:
Instrument: gc07.i
Sample Info: WG144334-8,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-13
Analytical Date: 06/10/14 06:05
Lab File ID : 7HF189.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: A

	Compound	RRF/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type	
5	Aroclor-1242(5)	10705939	13339740	13339740	0.001	24.60130	20.00000	Averaged	*
5	Aroclor-1242(2)	10721349	13008684	13008684	0.001	21.33440	20.00000	Averaged	*
5	Aroclor-1242(4)	11200590	14159373	14159373	0.001	26.41632	20.00000	Averaged	*
5	Aroclor-1242(1)	12418224	15246685	15246685	0.001	22.77670	20.00000	Averaged	*
5	Aroclor-1242(3)	25627228	32091870	32091870	0.001	25.22568	20.00000	Averaged	*

*** = Compound out of QC criteria**

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF189.D
Report Date: 12-Jun-2014 10:48

Katahdin Analytical Services

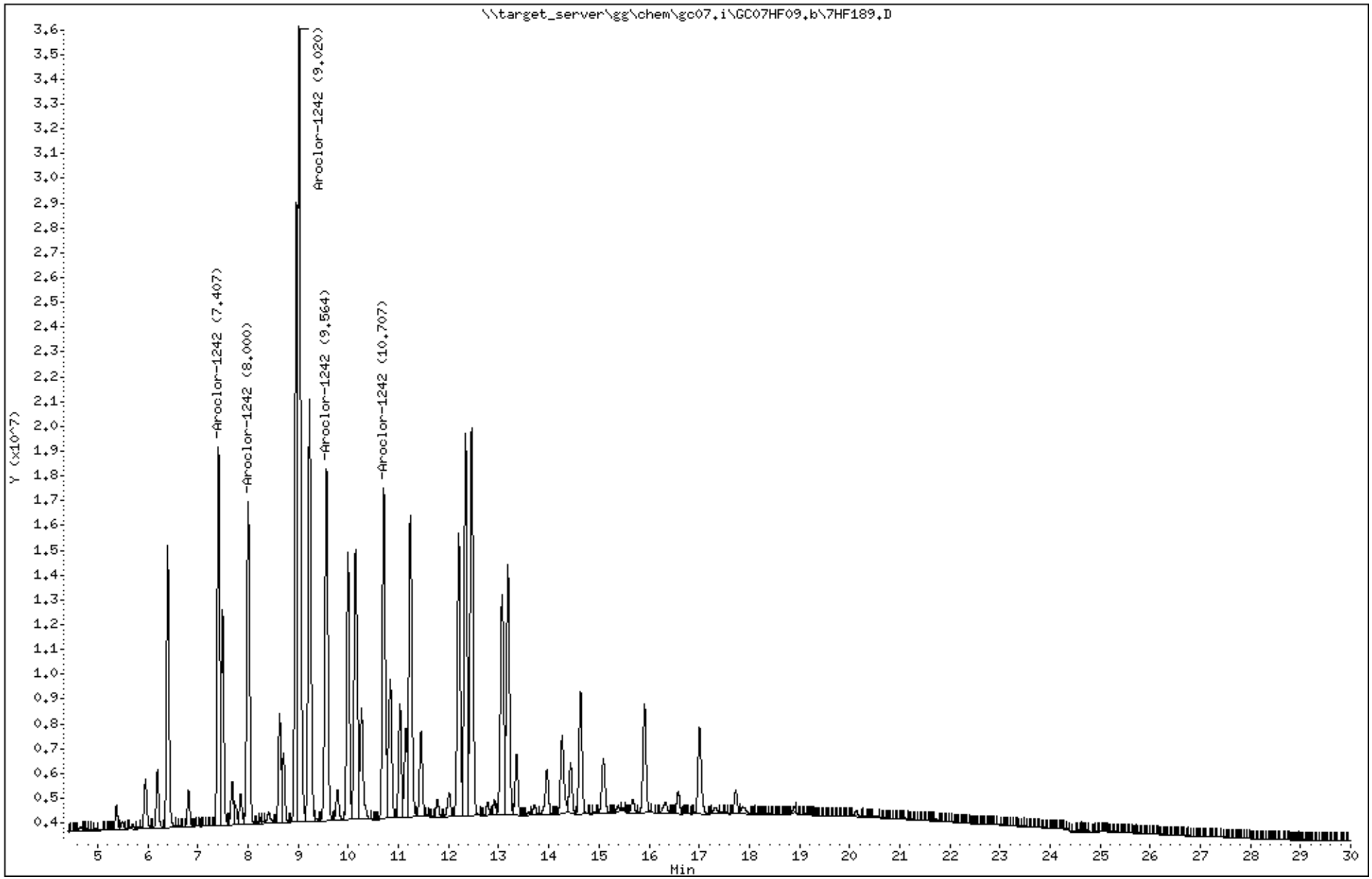
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF189.D
Lab Smp Id: WG144334-13
Inj Date : 10-JUN-2014 06:05
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-13,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 30   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
5 Aroclor-1242					CAS #: 53469-21-9			
7.406	7.406	0.000	15246685	1.00000	1.23	0.00- 0.00	100.00	
8.000	8.000	0.000	13008684	1.00000	1.21	0.00- 0.00	85.32	
9.020	9.020	0.000	32091870	1.00000	1.25	0.00- 0.00	210.48	
9.563	9.563	0.000	14159373	1.00000	1.26	0.00- 0.00	92.87	
10.706	10.706	0.000	13339740	1.00000	1.25	0.00- 0.00	87.49	
Average of Peak Amounts =					1.24000			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF189.D
Date : 10-JUN-2014 06:05
Client ID:
Instrument: gc07.i
Sample Info: WG144334-13,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 200167

Form 7
Calibration Verification Summary

Lab Name : Katahdin Analytical Services
Project : New Bedford Harbor Superfund Site
SDG: SH3734
Lab ID : WG144334-14
Analytical Date: 06/10/14 06:05
Lab File ID : 7HF189.D
Instrument ID: GC07
Initial Calibration Date(s): 05/23/14 00:01 05/24/14 08:26
Column ID: B

Compound	RRF/Amount	RF1	CCAL RRF1	Min	%D/ %Drift	Max %D/ %Drift	Curve Type
6 Aroclor-1242(4)	1033115	1115146	1115146	0.001	7.94020	20.00000	Averaged
6 Aroclor-1242(1)	1064318	1108372	1108372	0.001	4.13915	20.00000	Averaged
6 Aroclor-1242(3)	1998081	2085610	2085610	0.001	4.38065	20.00000	Averaged
6 Aroclor-1242(5)	888148	944554	944554	0.001	6.35100	20.00000	Averaged
6 Aroclor-1242(2)	920491	978872	978872	0.001	6.34239	20.00000	Averaged

*** = Compound out of QC criteria**

Data File: 7HF189.D
Report Date: 12-Jun-2014 10:47

Katahdin Analytical Services

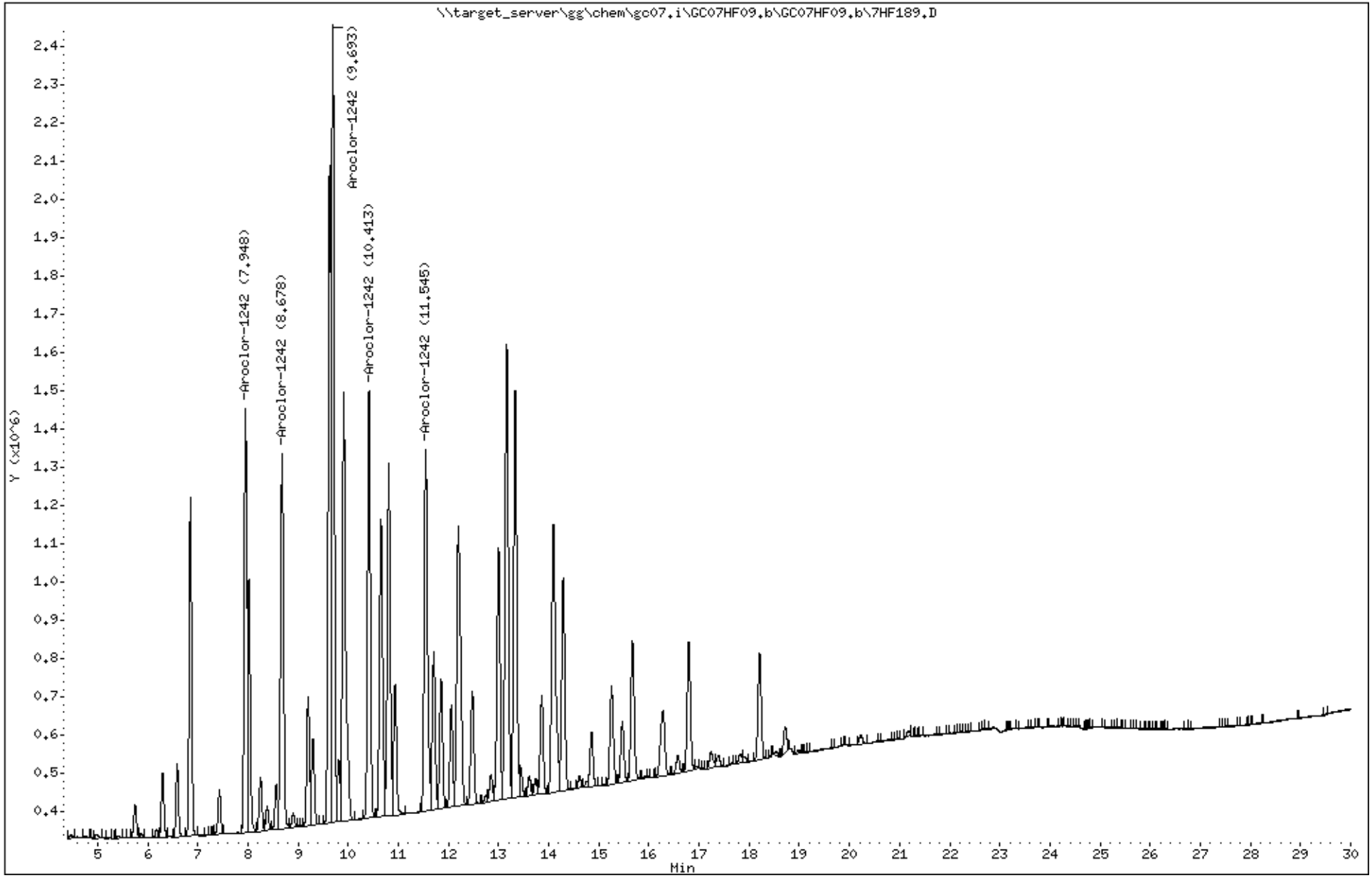
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF189.D
Lab Smp Id: WG144334-14
Inj Date : 10-JUN-2014 06:05
Operator : CB   Inst ID: gc07.i
Smp Info : WG144334-14,SH3734
Misc Info : WG144334,WG144334,WG143481,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne   Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13   Cal File: 7HE514.D
Als bottle: 30   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon   Compound Sublist: AR1242.sub
Target Version: 4.12   Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.01000	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	TARGET RANGE	RATIO	REVIEW CODE
6 Aroclor-1242					CAS #: 53469-21-9			
7.948	7.948	0.000	1108372	1.00000	1.04	0.00- 0.00	100.00	
8.678	8.678	0.000	978872	1.00000	1.06	0.00- 0.00	88.32	
9.693	9.693	0.000	2085610	1.00000	1.04	0.00- 0.00	188.17	
10.413	10.413	0.000	1115146	1.00000	1.08	0.00- 0.00	100.61	
11.544	11.544	0.000	944554	1.00000	1.06	0.00- 0.00	85.22	
Average of Peak Amounts =					1.05600			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF189.D
Date : 10-JUN-2014 06:05
Client ID:
Instrument: gc07.i
Sample Info: WG144334-14,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Raw QC Data Section

Report of Analytical Results

Client:
Lab ID: WG144065-1RA
Client ID: Method Blank Sample
Project:
SDG: SH3734
Lab File ID: 7HF163.D

Sample Date:
Received Date:
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA
Report Date: 12-JUN-14

Compound	Qualifier	Result	Units	Dilution	LOQ	ADJ LOQ	ADJ MDL	ADJ LOD
Aroclor-1016	U	0.025	ug/L	1	.5	0.050	0.015	0.025
Aroclor-1221	U	0.025	ug/L	1	.5	0.050	0.020	0.025
Aroclor-1232	U	0.025	ug/L	1	.5	0.050	0.0089	0.025
Aroclor-1242	U	0.025	ug/L	1	.5	0.050	0.018	0.025
Aroclor-1248	U	0.025	ug/L	1	.5	0.050	0.020	0.025
Aroclor-1254	U	0.025	ug/L	1	.5	0.050	0.0082	0.025
Aroclor-1260	U	0.025	ug/L	1	.5	0.050	0.017	0.025
Total PCBs	U	0.22	ug/L	1	4.5	0.45	0.0066	0.22
Tetrachloro-M-Xylene		69.4	%					
Decachlorobiphenyl		81.6	%					

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF163.D
Report Date: 12-Jun-2014 10:56

Katahdin Analytical Services

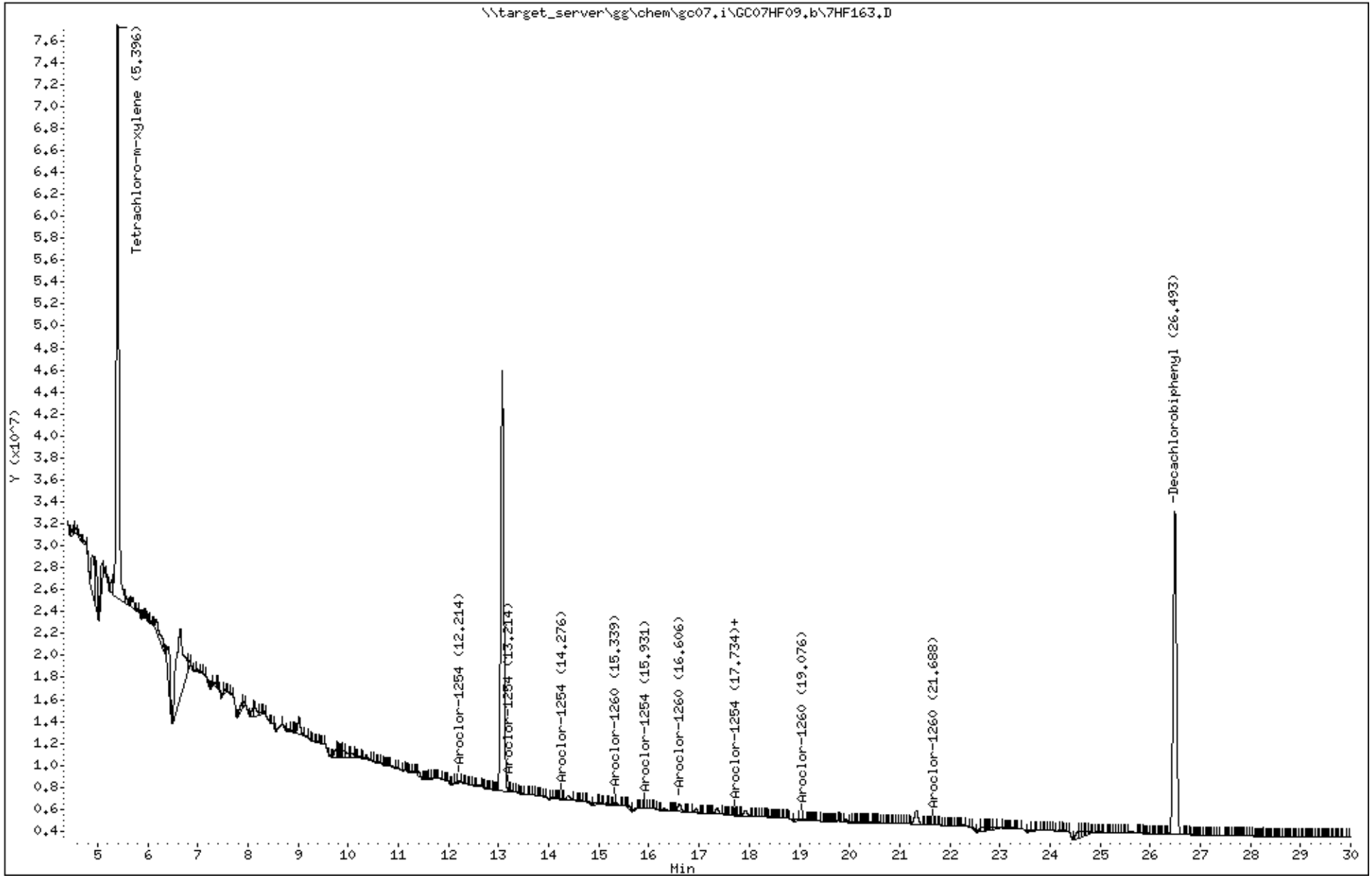
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF163.D
Lab Smp Id: WG144065-1RA Client Smp ID: WG144065-Blank
Inj Date : 09-JUN-2014 14:26
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-1RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)			
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.396	5.379	0.017	52129886	0.06936	0.0694			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
26.492	26.476	0.016	29448486	0.08166	0.0816			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF163.D
Date : 09-JUN-2014 14:26
Client ID: WG144065-Blank
Instrument: gc07.i
Sample Info: WG144065-1RA,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HF163.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF163.D
Lab Smp Id: WG144065-1RA Client Smp ID: WG144065-Blank
Inj Date : 09-JUN-2014 14:26
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-1RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: TSW8082DoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

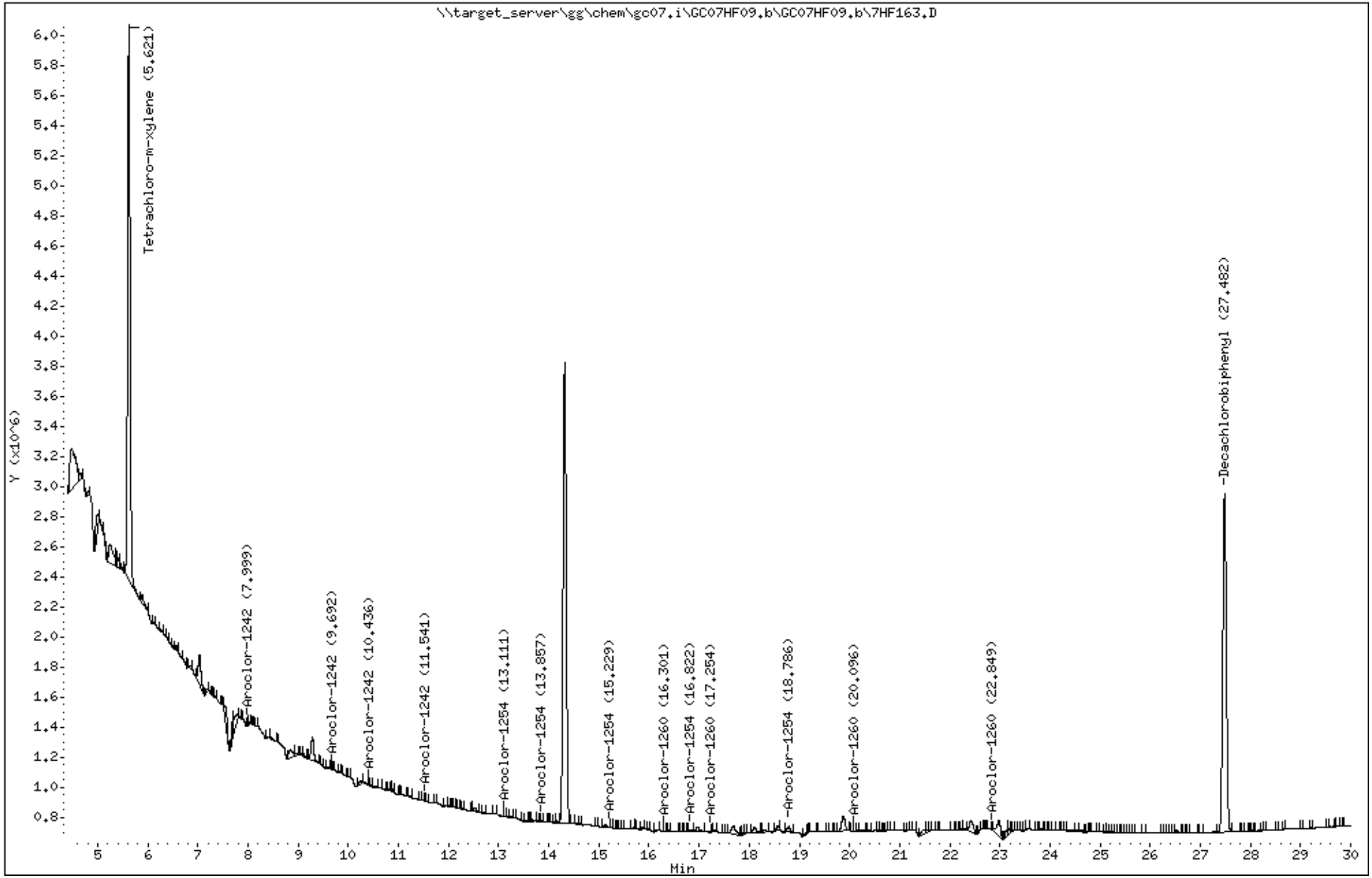
Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)			
RT	EXP RT	DLT RT	RESPONSE			TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.620	5.602	0.018	3694418	0.05581	0.0558		(R)	
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.482	27.461	0.021	2249980	0.07993	0.0799			

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF163.D
Date : 09-JUN-2014 14:26
Client ID: WG144065-Blank
Instrument: gc07.i
Sample Info: WG144065-1RA,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



LCS/LCSD Recovery Report

LCS ID: WG144065-2RA
LCSD ID: WG144065-3RA
Project:
SDG: SH3734
Report Date: 12-JUN-14
LCS File ID: 7HF164.D

Received Date:
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065
LCSD File ID: 7HF165.D

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA

Compound	Spike Amt	LCS Conc	LCS Rec (%)	LCSD Conc	LCSD Rec (%)	Conc Units	RPD (%)	RPD Limit	Limits
Aroclor-1016	0.500	0.387	77.4	0.469	93.8	ug/L	19	30	25-145
Aroclor-1260	0.500	0.439	87.8	0.556	111.	ug/L	28	30	30-145
Tetrachloro-M-Xylene			58.5*		80.6				62-111
Decachlorobiphenyl			69.9		82.6				40-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

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Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF164.D
Report Date: 12-Jun-2014 10:56

Katahdin Analytical Services

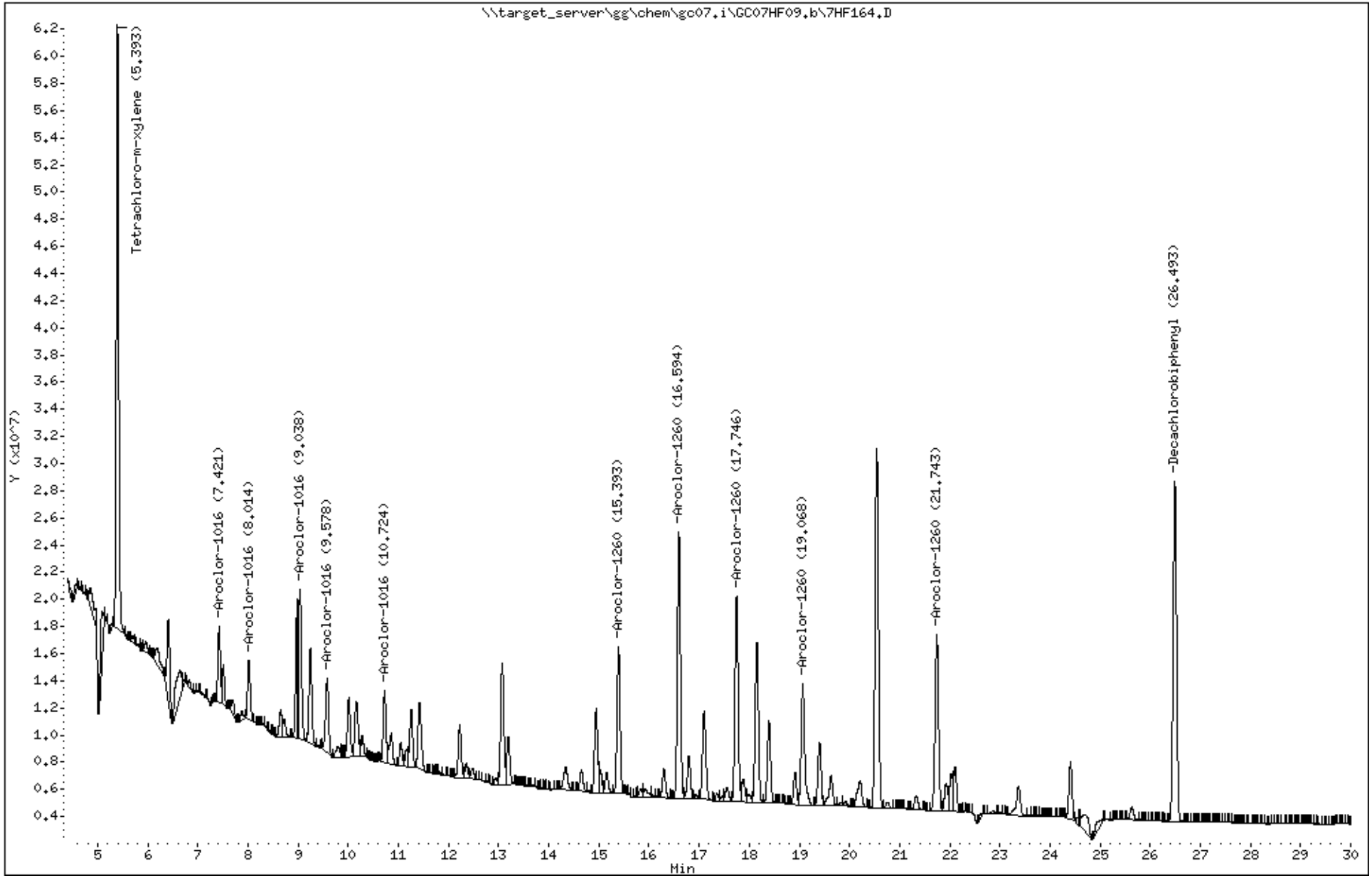
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF164.D
Lab Smp Id: WG144065-2RA Client Smp ID: WG144065-LCS
Inj Date : 09-JUN-2014 15:02
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-2RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.392	5.379	0.013	44509667	0.05847	0.0585			(R)
6 Aroclor-1016					CAS #: 12674-11-2			
7.420	7.406	0.014	5645368	0.37175	0.372	80.00- 120.00	100.00	
8.014	7.999	0.015	4381671	0.33820	0.338	158.77- 238.15	77.62	
9.037	9.018	0.019	11080505	0.36832	0.368	296.98- 445.46	196.28	
9.577	9.563	0.014	5543389	0.41173	0.412	114.78- 172.16	98.19	
10.724	10.704	0.020	5305855	0.42475	0.425	112.32- 168.48	93.99	
	Average of Peak Concentrations =				0.383			
9 Aroclor-1260					CAS #: 11096-82-5			
15.392	15.374	0.018	10849032	0.43375	0.434	80.00- 120.00	100.00	
16.594	16.576	0.018	19615798	0.45481	0.455	94.69- 142.03	180.81	
17.745	17.726	0.019	15096514	0.43155	0.432	89.28- 133.92	139.15	
19.067	19.048	0.019	8908019	0.44167	0.442	72.48- 108.72	82.11	
21.742	21.723	0.019	12969135	0.43160	0.432	0.00- 0.00	119.54	
	Average of Peak Concentrations =				0.439			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.492	26.476	0.016	25073331	0.06992	0.0699			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF164.D
Date : 09-JUN-2014 15:02
Client ID: WG144065-LCS
Instrument: gc07.i
Sample Info: WG144065-2RA,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000179

Data File: 7HF164.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

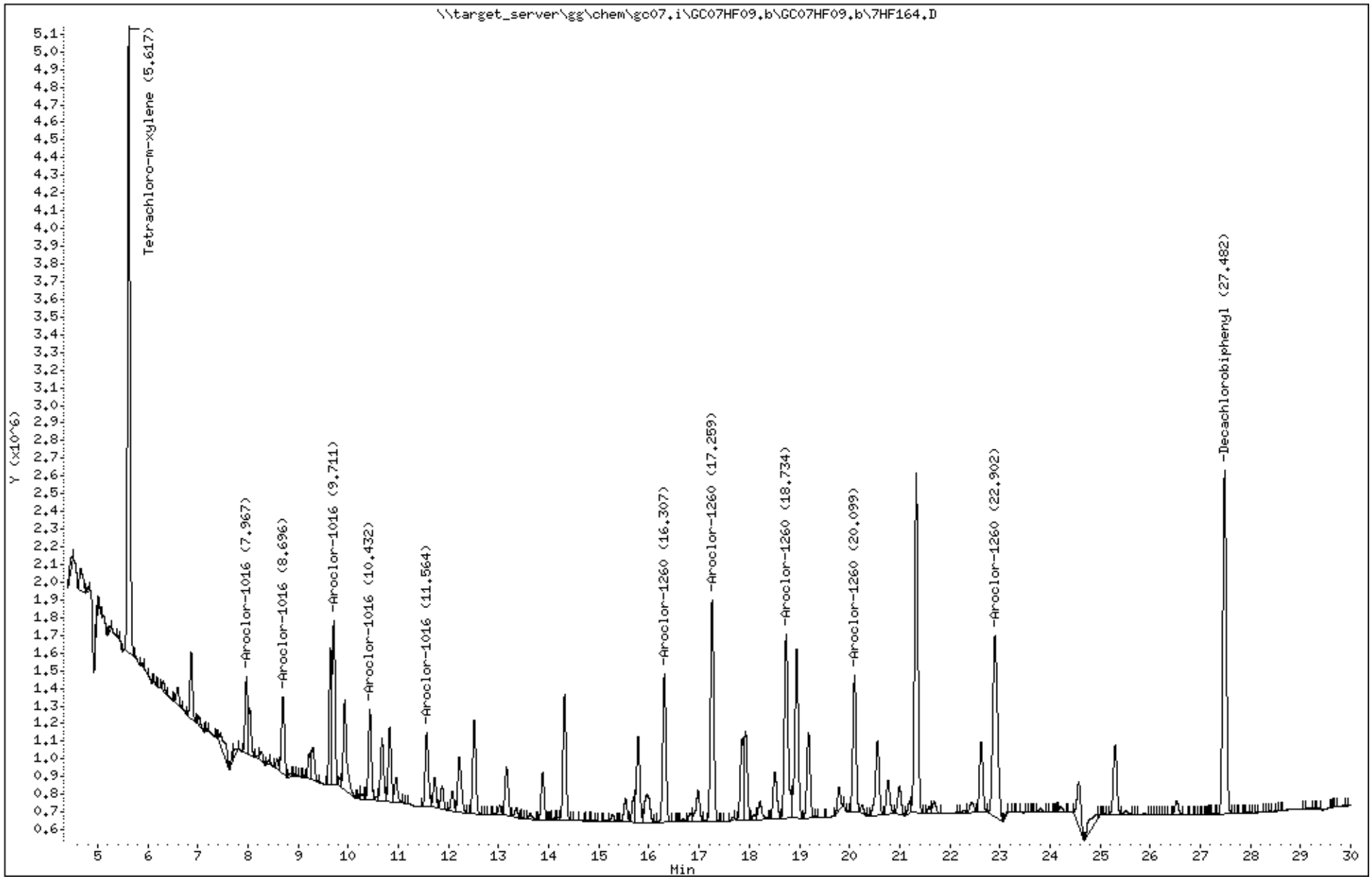
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF164.D
Lab Smp Id: WG144065-2RA Client Smp ID: WG144065-LCS
Inj Date : 09-JUN-2014 15:02
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-2RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.617	5.602	0.015	3541215	0.05347	0.0535			(R)
5 Aroclor-1016					CAS #: 12674-11-2			
7.967	7.947	0.020	433215	0.33923	0.339	80.00- 120.00	100.00	
8.695	8.677	0.018	436095	0.39001	0.390	158.77- 238.15	100.66	
9.710	9.692	0.018	928880	0.38591	0.386	296.98- 445.46	214.42	
10.432	10.412	0.020	510775	0.41120	0.411	114.78- 172.17	117.90	
11.563	11.542	0.021	422720	0.40845	0.408	112.32- 168.48	97.58	
		Average of Peak Concentrations =			0.387			
9 Aroclor-1260					CAS #: 11096-82-5			
16.307	16.286	0.021	839156	0.41442	0.414	80.00- 120.00	100.00	
17.258	17.237	0.021	1253875	0.41324	0.413	94.69- 142.03	149.42	
18.733	18.714	0.019	1037590	0.40523	0.405	89.28- 133.92	123.65	
20.098	20.081	0.017	776149	0.42947	0.429	72.48- 108.72	92.49	
22.902	22.881	0.021	1022320	0.43199	0.432	0.00- 0.00	121.83	
		Average of Peak Concentrations =			0.419			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
27.482	27.461	0.021	1943561	0.06893	0.0689			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF164.D
Date : 09-JUN-2014 15:02
Client ID: WG144065-LCS
Instrument: gc07.i
Sample Info: WG144065-2RA,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000181

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF165.D
Report Date: 12-Jun-2014 10:56

Katahdin Analytical Services

Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF165.D
Lab Smp Id: WG144065-3RA Client Smp ID: WG144065-LCSD
Inj Date : 09-JUN-2014 15:38
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-3RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

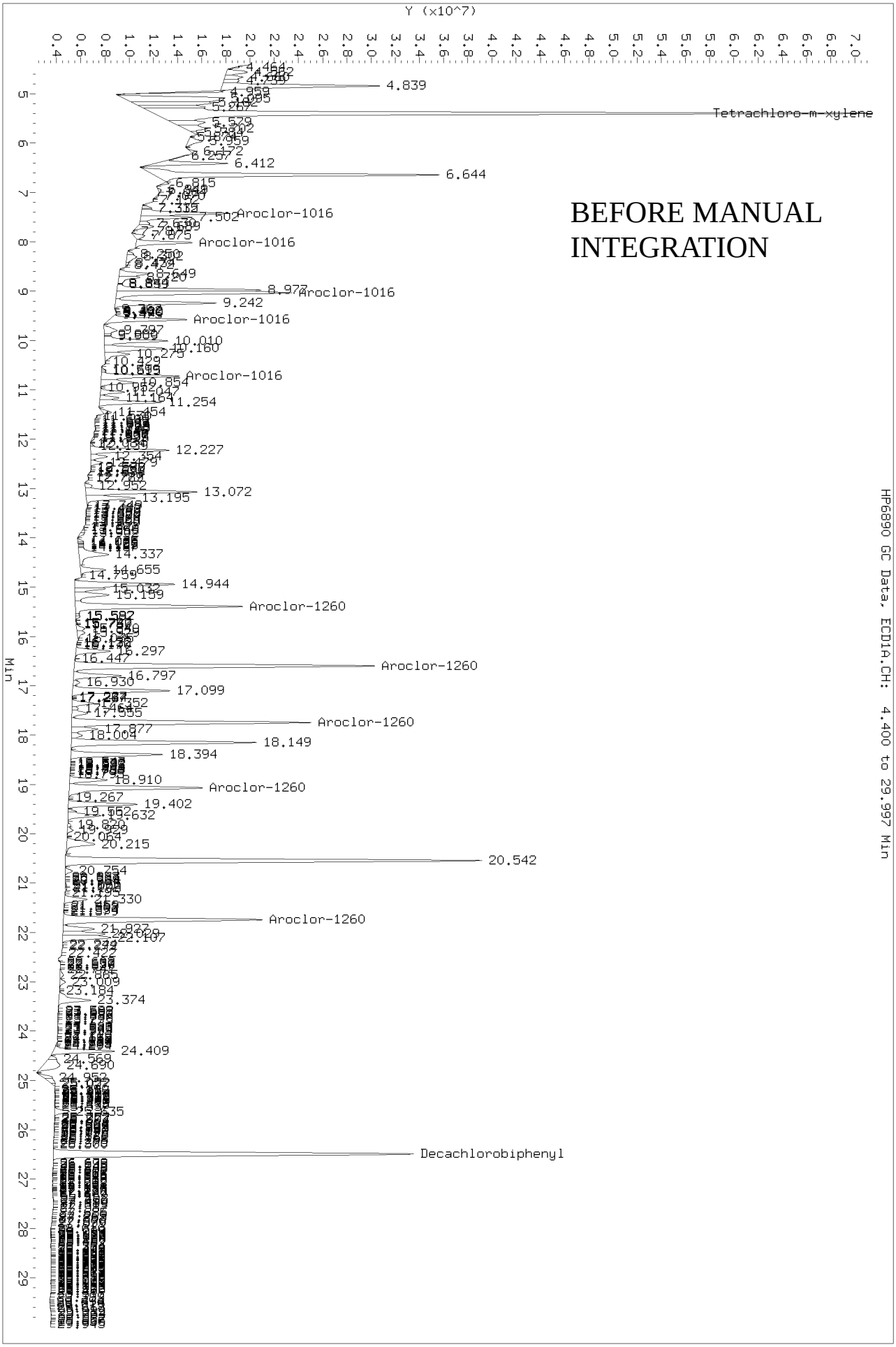
Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.395	5.379	0.016	55606740	0.07441	0.0744			(M)
6 Aroclor-1016					CAS #: 12674-11-2			
7.423	7.406	0.017	7349462	0.49063	0.491	80.00- 120.00	100.00	
8.016	7.999	0.017	4630244	0.35767	0.358	158.77- 238.15	63.00	
9.031	9.018	0.013	14484885	0.48161	0.482	296.98- 445.46	197.09	
9.578	9.563	0.015	6411435	0.47687	0.477	114.78- 172.16	87.24	
10.721	10.704	0.017	6439269	0.51688	0.517	112.32- 168.48	87.62	
Average of Peak Concentrations =					0.465			
9 Aroclor-1260					CAS #: 11096-82-5			
15.391	15.374	0.017	13836105	0.55168	0.552	80.00- 120.00	100.00	
16.596	16.576	0.020	24833342	0.57256	0.572	94.69- 142.03	179.48	
17.746	17.726	0.020	19807278	0.56569	0.566	89.28- 133.92	143.16	
19.068	19.048	0.020	11035805	0.54687	0.547	72.48- 108.72	79.76	
21.740	21.723	0.017	16463059	0.54364	0.544	0.00- 0.00	118.99	
Average of Peak Concentrations =					0.556			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.490	26.476	0.014	29798669	0.08259	0.0826			

12:00 pm, Jun 12, 2014

M3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Min
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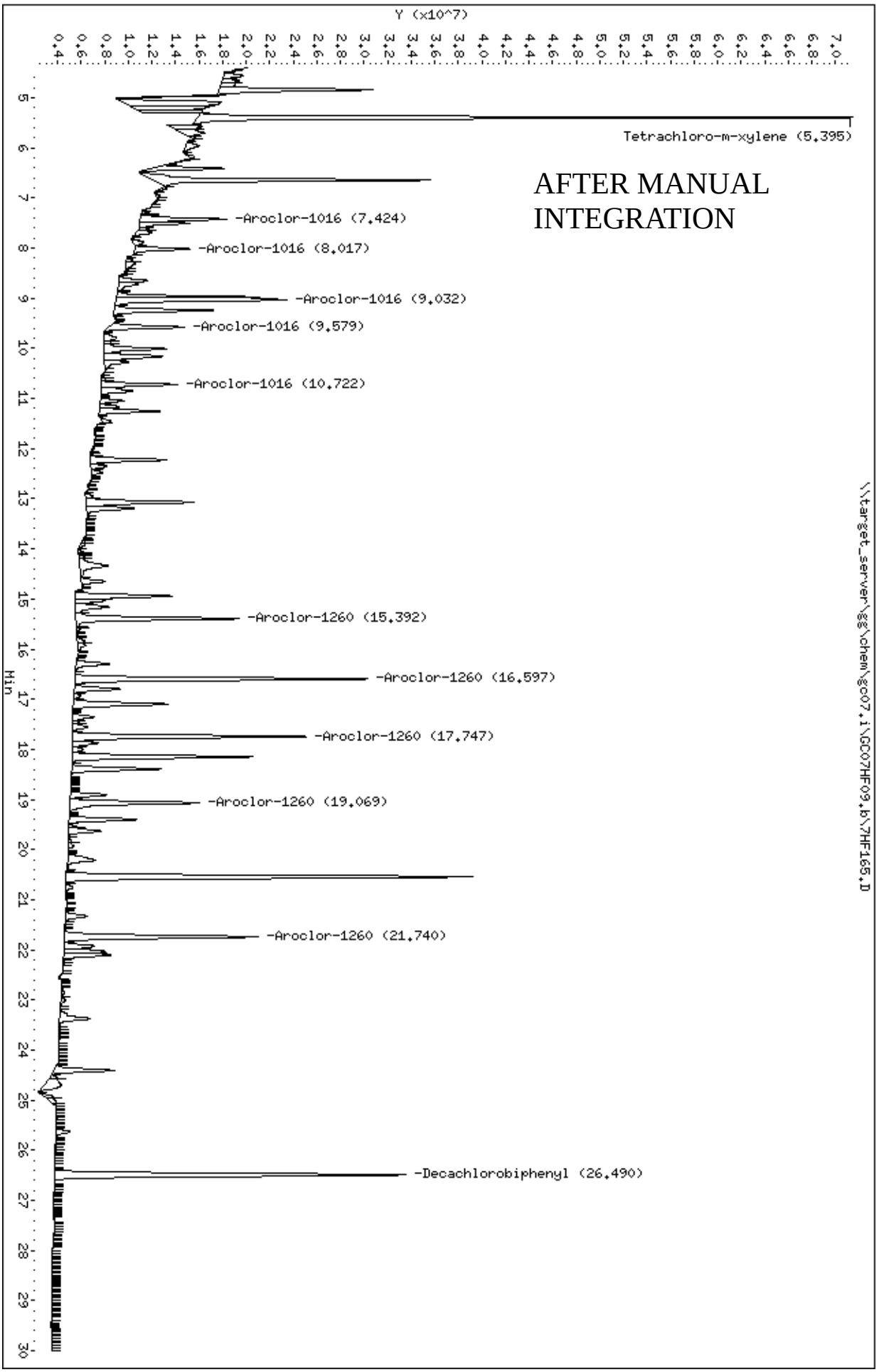
Tetrachloro-m-xylene
6.412
6.644
Aroclor-1016
Aroclor-1016
8.972
Aroclor-1016
9.242
Aroclor-1016
10.010
Aroclor-1016
11.254
12.227
13.072
14.944
Aroclor-1260
Aroclor-1260
17.099
Aroclor-1260
18.149
18.394
Aroclor-1260
19.402
20.215
20.542
Aroclor-1260
24.409
Decachlorobiphenyl
BEFORE MANUAL INTEGRATION
Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF165.D
Injection Date: 09-JUN-2014 15:38
Instrument: gc07.i
Client Sample ID: WG144065-LCSD
HP6890 GC Data, ECD1A.CH: 4.400 to 29.997 Min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Date : 09-JUN-2014 15:38
Client ID: WG144065-LCSD
Sample Info: WG144065-3RA,SH3734
Purge Volume: 1.0
Column phase: ZB-MultiResidue-1
Instrument: gc07.i
Operator: CB
Column diameter: 0.53
\\target_server\gg\chem\gc07.i\GC07HF09.b\7HF165.D
Y (x10^7)
Min
Tetrachloro-m-xylene (5.395)
-Aroclor-1016 (7.424)
-Aroclor-1016 (8.017)
-Aroclor-1016 (9.032)
-Aroclor-1016 (9.579)
-Aroclor-1016 (10.722)
-Aroclor-1260 (15.392)
-Aroclor-1260 (16.597)
-Aroclor-1260 (17.747)
-Aroclor-1260 (19.069)
-Aroclor-1260 (21.740)
-Decachlorobiphenyl (26.490)
AFTER MANUAL INTEGRATION

Data File: 7HF165.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

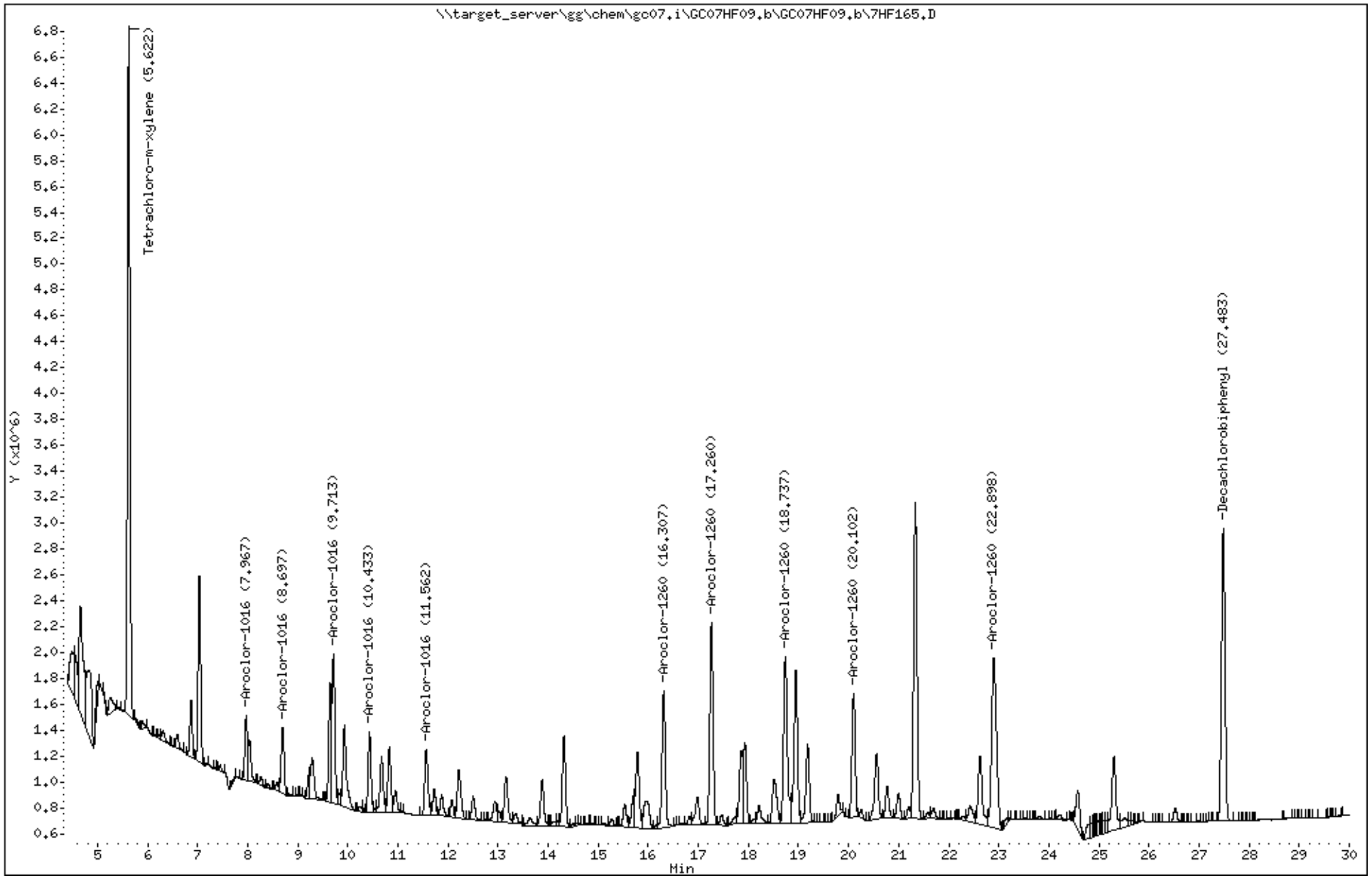
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF165.D
Lab Smp Id: WG144065-3RA Client Smp ID: WG144065-LCSD
Inj Date : 09-JUN-2014 15:38
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-3RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 8 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.000	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.621	5.602	0.019	5326065	0.08065	0.0806			
5 Aroclor-1016					CAS #: 12674-11-2			
7.966	7.947	0.019	493446	0.39141	0.391	80.00- 120.00	100.00	
8.696	8.677	0.019	511291	0.46427	0.464	158.77- 238.15	103.62	
9.713	9.692	0.021	1152463	0.48434	0.484	296.98- 445.46	233.55	
10.433	10.412	0.021	619047	0.50412	0.504	114.78- 172.17	125.45	
11.561	11.542	0.019	510849	0.50093	0.501	112.32- 168.48	103.53	
		Average of Peak Concentrations =			0.469			
9 Aroclor-1260					CAS #: 11096-82-5			
16.306	16.286	0.020	1058621	0.52713	0.527	80.00- 120.00	100.00	
17.259	17.237	0.022	1566575	0.51972	0.520	94.69- 142.03	147.98	
18.736	18.714	0.022	1285404	0.50483	0.505	89.28- 133.92	121.42	
20.101	20.081	0.020	955566	0.53136	0.531	72.48- 108.72	90.27	
22.898	22.881	0.017	1308768	0.55265	0.553	0.00- 0.00	123.63	
		Average of Peak Concentrations =			0.527			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
27.483	27.461	0.022	2260583	0.08031	0.0803			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF165.D
Date : 09-JUN-2014 15:38
Client ID: WG144065-LCSD
Instrument: gc07.i
Sample Info: WG144065-3RA,SH3734
Purge Volume: 1.0
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



MS/MSD Recovery Report

MS ID: WG144065-4RA
MSD ID: WG144065-5RA
Sample ID: SH3734-1
Client ID: MW-005-052914
Project:
SDG: SH3734
MS File ID: 7HF166.D

Received Date:
Extract Date: 05-JUN-14
Extracted By: AM
Extraction Method: SW846 3510
Lab Prep Batch: WG144065
Report Date: 12-JUN-14
MSD File ID: 7HF167.D

Analysis Date: 09-JUN-14
Analyst: CB
Analysis Method: SW846 8082A
Matrix: AQ
% Solids: NA

Compound	MS Spike	MSD Spike	Conc Units	Samp Conc	MS Conc	MSD Conc	MS Rec (%)	MSD Rec (%)	RPD (%)	RPD Limit	Limits
Aroclor-1016	0.472	0.472	ug/L	U0.026	0.54	0.55	115.	117.	2	30	25-145
Aroclor-1260	0.472	0.472	ug/L	U0.026	0.57	0.57	121.	120.	3	30	30-145
Tetrachloro-M-Xylene							97.6	106.			62-111
Decachlorobiphenyl							102.	93.4			40-135

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://www.katahdinlab.com

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF166.D
Report Date: 12-Jun-2014 10:56

Katahdin Analytical Services

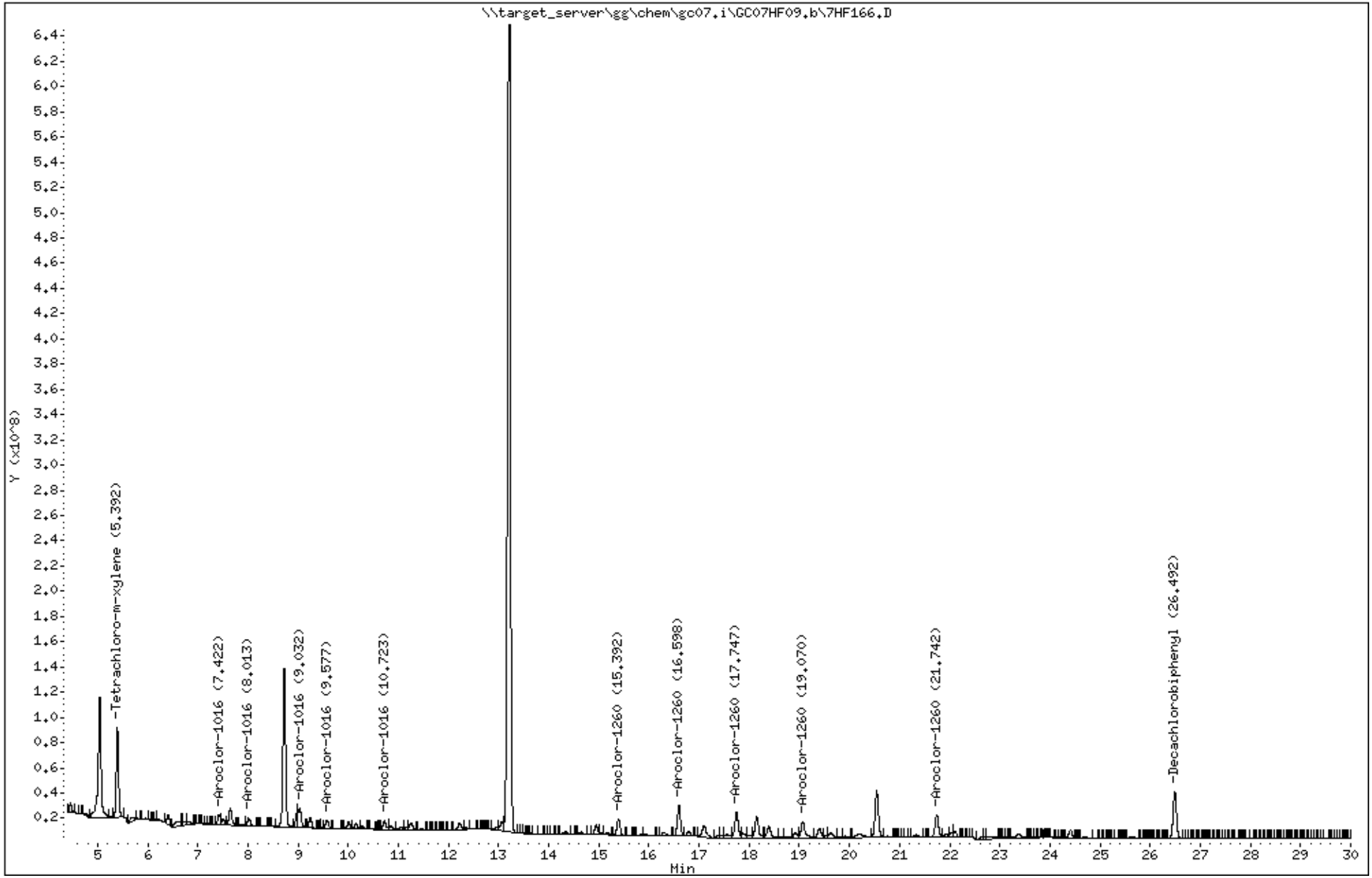
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF166.D
Lab Smp Id: WG144065-4RA Client Smp ID: MW-005-052914MS
Inj Date : 09-JUN-2014 16:14
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-4RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.060	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.391	5.379	0.012	71123773	0.09751	0.0920			
6 Aroclor-1016					CAS #: 12674-11-2			
7.421	7.406	0.015	7912247	0.53012	0.500	80.00- 120.00	100.00	
8.013	7.999	0.014	5720695	0.44337	0.418	158.77- 238.15	72.30	
9.031	9.018	0.013	15101039	0.50210	0.474	296.98- 445.46	190.86	
9.576	9.563	0.013	7226251	0.53801	0.508	114.78- 172.16	91.33	
10.723	10.704	0.019	6633337	0.53265	0.502	112.32- 168.48	83.84	
Average of Peak Concentrations =					0.480			
9 Aroclor-1260					CAS #: 11096-82-5			
15.391	15.374	0.017	12933969	0.51610	0.487	80.00- 120.00	100.00	
16.598	16.576	0.022	24486419	0.56475	0.533	94.69- 142.03	189.32	
17.746	17.726	0.020	21469059	0.61284	0.578	89.28- 133.92	165.99	
19.069	19.048	0.021	12508926	0.61953	0.584	72.48- 108.72	96.71	
21.741	21.723	0.018	17899172	0.58956	0.556	0.00- 0.00	138.39	
Average of Peak Concentrations =					0.548			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.491	26.476	0.015	37022633	0.10165	0.0959			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF166.D
Date : 09-JUN-2014 16:14
Client ID: MW-005-052914MS
Instrument: gc07.i
Sample Info: WG144065-4RA,SH3734
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Katahdin Analytical Services 2000189

Data File: 7HF166.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

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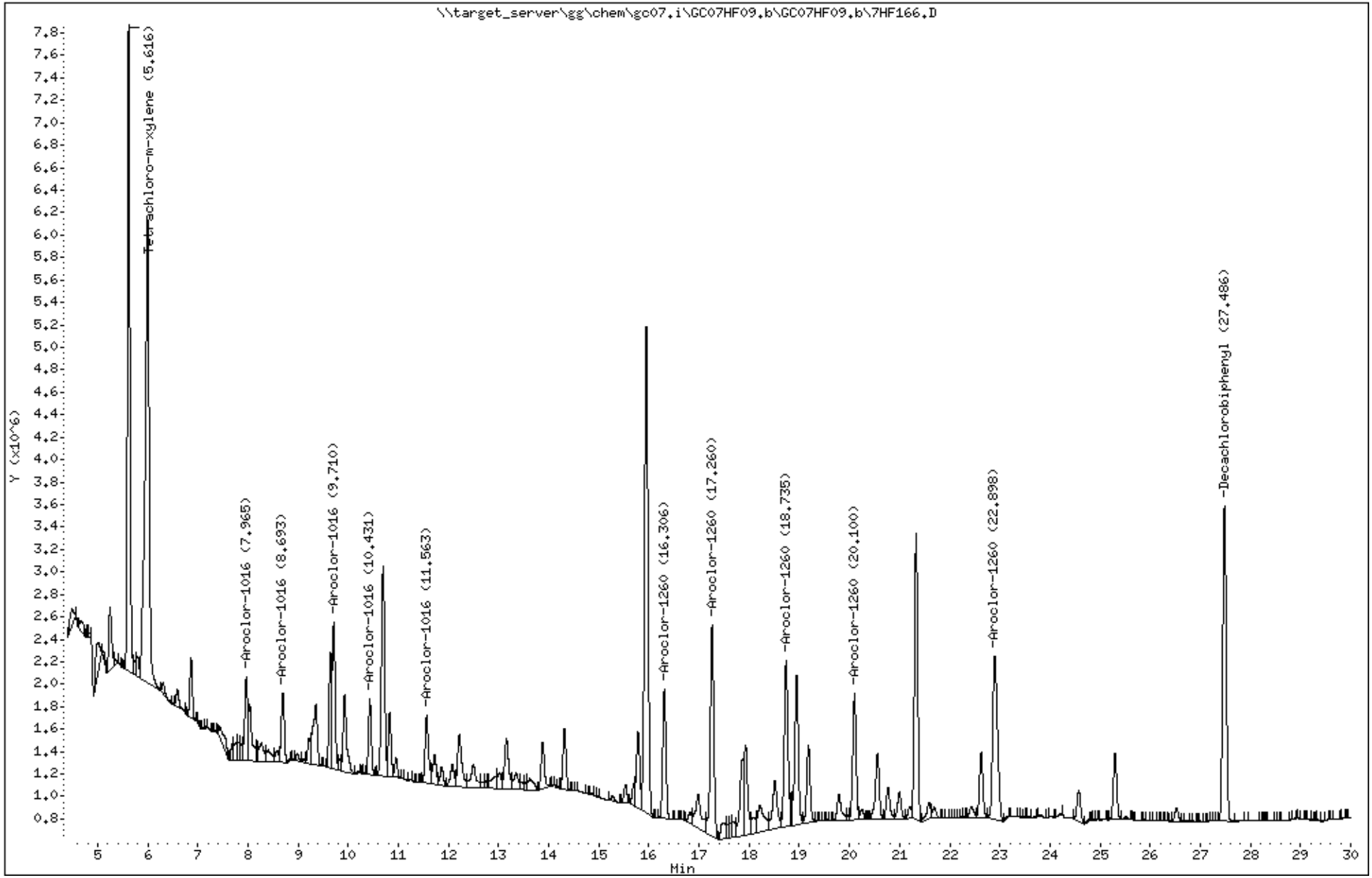
Lab Smp Id: WG144065-4RA Client Smp ID: MW-005-052914MS
Inj Date : 09-JUN-2014 16:14
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-4RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 9 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.060	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.616	5.602	0.014	5758895	0.08724	0.0823			
5 Aroclor-1016					CAS #: 12674-11-2			
7.964	7.947	0.017	745001	0.61047	0.576	80.00- 120.00	100.00	
8.692	8.677	0.015	615777	0.56773	0.536	158.77- 238.15	82.65	
9.709	9.692	0.017	1300003	0.54942	0.518	296.98- 445.46	174.50	
10.431	10.412	0.019	668615	0.54671	0.516	114.78- 172.17	89.75	
11.562	11.542	0.020	607967	0.60296	0.569	112.32- 168.48	81.61	
Average of Peak Concentrations =					0.543			
9 Aroclor-1260					CAS #: 11096-82-5			
16.306	16.286	0.020	1149687	0.57394	0.541	80.00- 120.00	100.00	
17.259	17.237	0.022	1876547	0.62545	0.590	94.69- 142.03	163.22	
18.734	18.714	0.020	1481269	0.58364	0.551	89.28- 133.92	128.84	
20.099	20.081	0.018	1121786	0.62579	0.590	72.48- 108.72	97.57	
22.897	22.881	0.016	1445967	0.61047	0.576	0.00- 0.00	125.77	
Average of Peak Concentrations =					0.570			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
27.486	27.461	0.025	2808716	0.10006	0.0944			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF166.D
Date : 09-JUN-2014 16:14
Client ID: MW-005-052914MS
Instrument: gc07.i
Sample Info: WG144065-4RA,SH3734
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000191

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Report Date: 12-Jun-2014 10:56

Katahdin Analytical Services

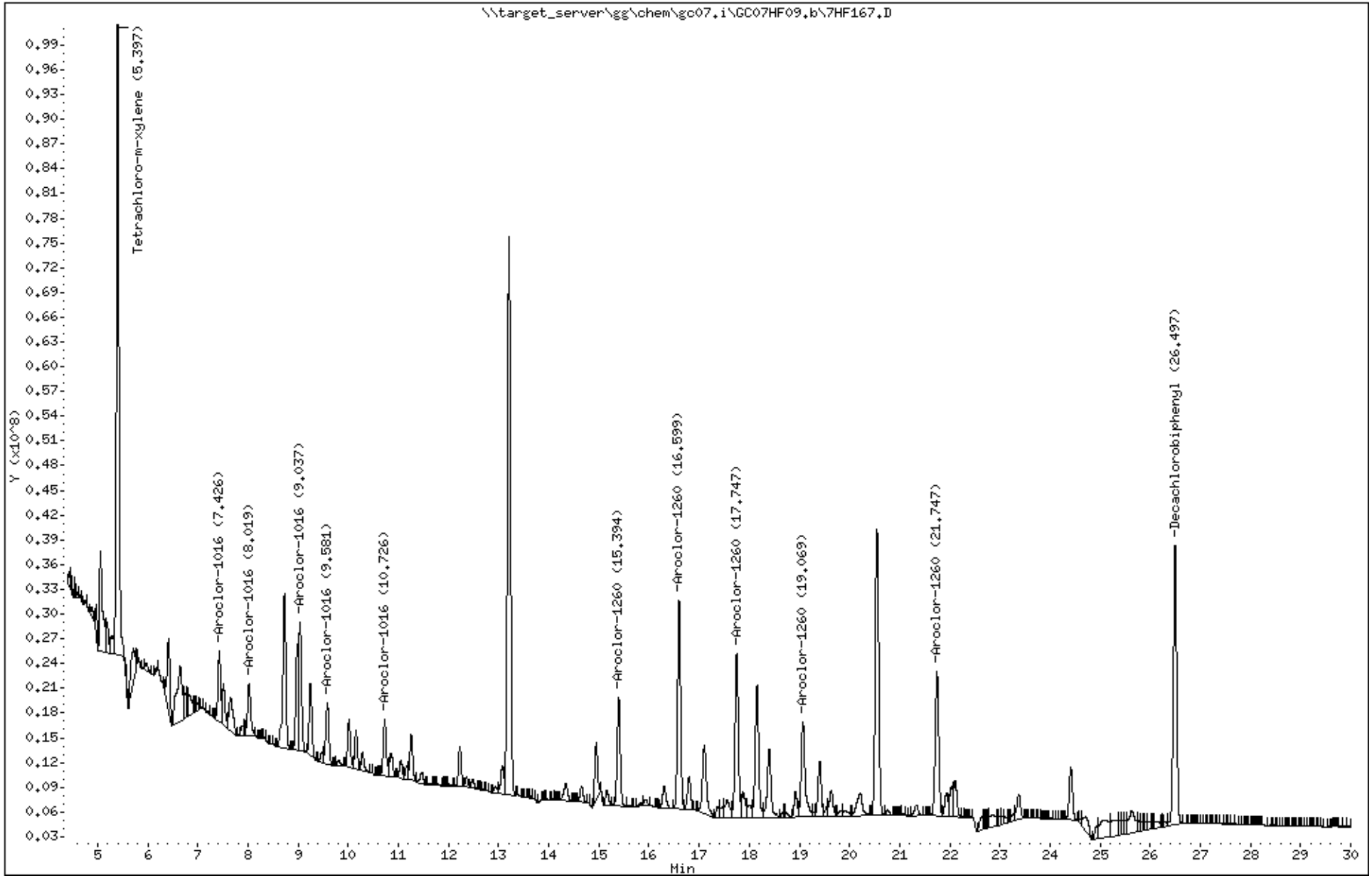
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF167.D
Lab Smp Id: WG144065-5RA Client Smp ID: MW-005-052914MSD
Inj Date : 09-JUN-2014 16:50
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-5RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment :
Method : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.060	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 3 Tetrachloro-m-xylene					CAS #: 877-09-8			
5.397	5.379	0.018	76468471	0.10570	0.0997			
6 Aroclor-1016					CAS #: 12674-11-2			
7.425	7.406	0.019	8621327	0.58004	0.547	80.00- 120.00	100.00	
8.019	7.999	0.020	6338698	0.49214	0.464	158.77- 238.15	73.52	
9.037	9.018	0.019	15621696	0.51942	0.490	296.98- 445.46	181.20	
9.580	9.563	0.017	7441762	0.55418	0.523	114.78- 172.16	86.32	
10.725	10.704	0.021	6803205	0.54646	0.516	112.32- 168.48	78.91	
	Average of Peak Concentrations =				0.508			
9 Aroclor-1260					CAS #: 11096-82-5			
15.394	15.374	0.020	13046984	0.52056	0.491	80.00- 120.00	100.00	
16.599	16.576	0.023	25205936	0.58095	0.548	94.69- 142.03	193.19	
17.747	17.726	0.021	19941030	0.56949	0.537	89.28- 133.92	152.84	
19.069	19.048	0.021	11540318	0.57177	0.539	72.48- 108.72	88.45	
21.747	21.723	0.024	17479770	0.57616	0.544	0.00- 0.00	133.98	
	Average of Peak Concentrations =				0.532			
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3			
26.497	26.476	0.021	33866683	0.09337	0.0881			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\7HF167.D
Date : 09-JUN-2014 16:50
Client ID: MW-005-052914MSD
Instrument: gc07.i
Sample Info: WG144065-5RA,SH3734
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-1
Column diameter: 0.53



Data File: 7HF167.D
Report Date: 12-Jun-2014 10:57

Katahdin Analytical Services

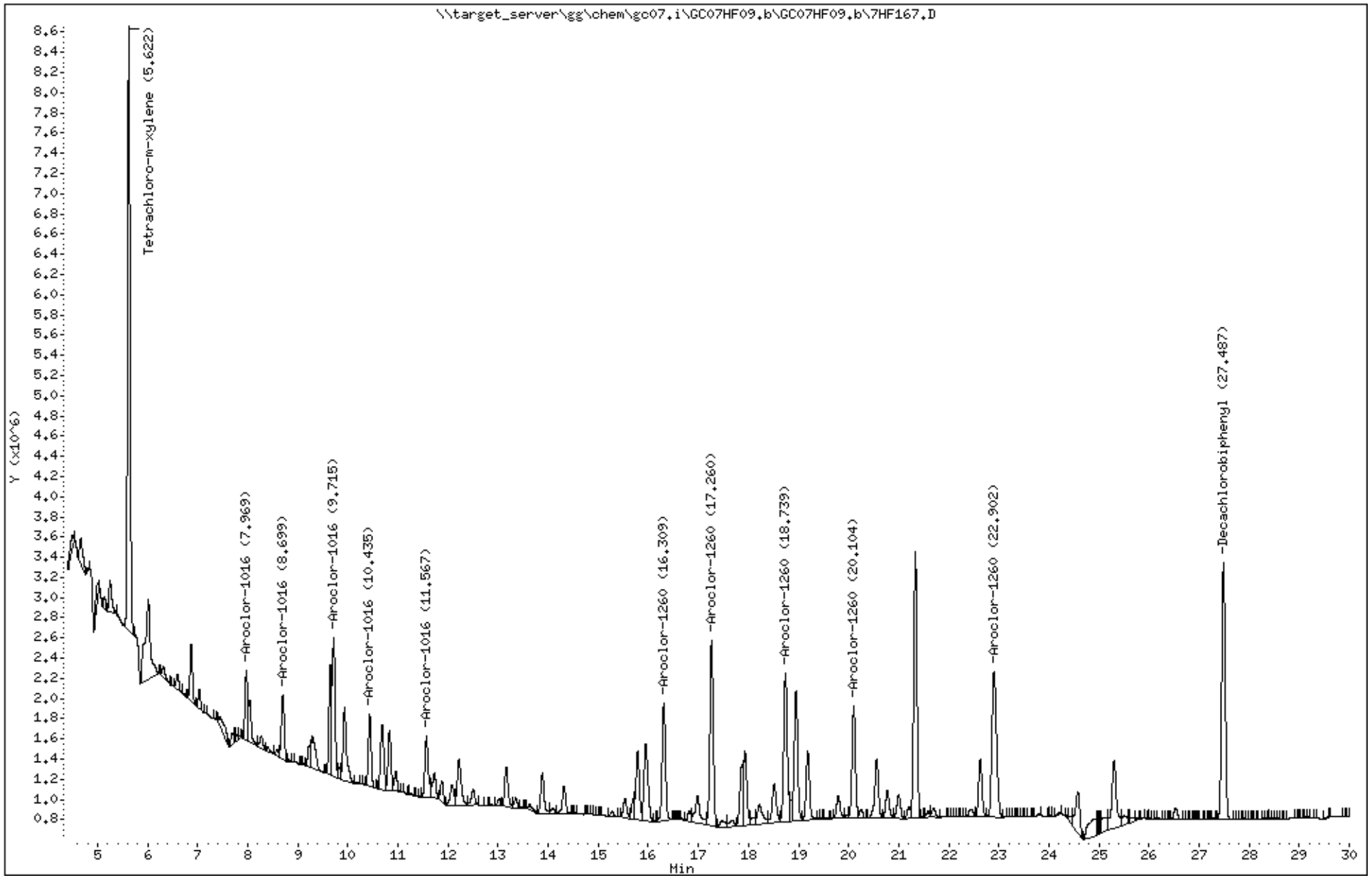
Data file : \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF167.D
Lab Smp Id: WG144065-5RA Client Smp ID: MW-005-052914MSD
Inj Date : 09-JUN-2014 16:50
Operator : CB Inst ID: gc07.i
Smp Info : WG144065-5RA,SH3734
Misc Info : WG144334,WG144065,WG143481-1,SH3734-1
Comment   :
Method   : \\target_server\gg\chem\gc07.i\GC07HF09.b\PCB073.m\PCB073.m
Meth Date : 10-Jun-2014 08:39 cbyrne Quant Type: ESTD
Cal Date : 24-MAY-2014 04:13 Cal File: 7HE514.D
Als bottle: 10 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: LCSDoD.sub
Target Version: 4.12 Sample Matrix: WATER
Processing Host: V200T5

Concentration Formula: Amt * DF * Vt*(1/Vo)*1000 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	0.00100	Final Volume (L)
Vo	1.060	Sample Volume (L)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/mL)	FINAL (ug/L)	TARGET RANGE	RATIO	REVIEW CODE
$ 2 Tetrachloro-m-xylene						CAS #: 877-09-8		
5.622	5.602	0.020	5985134	0.09069	0.0856			
5 Aroclor-1016						CAS #: 12674-11-2		
7.968	7.947	0.021	696213	0.56784	0.536	80.00- 120.00	100.00	
8.698	8.677	0.021	641342	0.59309	0.560	158.77- 238.15	92.12	
9.715	9.692	0.023	1372249	0.58132	0.548	296.98- 445.46	197.10	
10.435	10.412	0.023	710758	0.58294	0.550	114.78- 172.17	102.09	
11.567	11.542	0.025	608019	0.60301	0.569	112.32- 168.48	87.33	
Average of Peak Concentrations =					0.552			
9 Aroclor-1260						CAS #: 11096-82-5		
16.308	16.286	0.022	1165409	0.58202	0.549	80.00- 120.00	100.00	
17.260	17.237	0.023	1846288	0.61512	0.580	94.69- 142.03	158.42	
18.738	18.714	0.024	1477356	0.58207	0.549	89.28- 133.92	126.77	
20.103	20.081	0.022	1116407	0.62273	0.587	72.48- 108.72	95.80	
22.902	22.881	0.021	1439949	0.60793	0.574	0.00- 0.00	123.56	
Average of Peak Concentrations =					0.568			
$ 12 Decachlorobiphenyl						CAS #: 2051-24-3		
27.487	27.461	0.026	2544337	0.09053	0.0854			

Data File: \\target_server\gg\chem\gc07.i\GC07HF09.b\GC07HF09.b\7HF167.D
Date : 09-JUN-2014 16:50
Client ID: MW-005-052914MSD
Instrument: gc07.i
Sample Info: WG144065-5RA,SH3734
Purge Volume: 1.1
Operator: CB
Column phase: ZB-MultiResidue-2
Column diameter: 0.53



Katahdin Analytical Services 2000195

Logbooks and Supporting Documents

KATAHDIN ANALYTICAL SERVICES, INC. – ORGANICS NON-CONFORMANCE REPORT

Problem Identification (Person discovering problem) Name: Carolyn Byrne Date: 6/10/14

Affected Method: 8082

☐ LCS Failure	☐ Prep Error	☐ ICAL Failure	☐ Discrepancy between results
☐ Blank Contamination	☐ Hold Time Missed	☐ Independent Std Failure	☐ Chromatographic Interference
☐ Poor Precision (RPD)	☒ Surrogate Failure	☐ CV Failure	☐ Internal Standard Failure
☐ Sample out of clock	☐ Tune Failure	☐ Matrix Spike Failure	☐ Sample Contamination
☐ Retention Time Window	☐ Lab Accident	☐ Spiking Error	☐ Other

Details: Samples SH3734-2AA + 4AA LTCY TCB ATB. No hits in samples + all QL acceptable. Samples were copper cleaned due to very high sulfur interference. FV = 1mL

Work Orders/Samples Affected →	SH3734				
Client	Battelle				
Requirements and/or Procedures Not Met: Project QAPP(Q) / Method(M) / SOP(S) / DoD QSM(D) / Client (C) / Other:	M, D				
Significance of Non-Conforming Work:	---	---	---	---	---
Corrective Action can be taken within holding time	X no PCB HT				
Corrective Action cannot be taken within holding time					
Non-Conformance not related to holding time					
Approval of Significance (Dept. Mgr., Ops. Mgr. or QAO) – Initials & Date	AL 6-10-14				
Client Contacted: PM initials & Date	QP 06.11.14				
Corrective Action:	---	---	---	---	---
Reanalyze with compliant QC					
Re-Extract/Re-Prep					
Report non-compliance w/Cover Letter/Narrative and/or flagging	✓				
Date Corrective Action Completed					
By Whom?					
Re-analysis or Re-extraction results indicate?					
Approval of Corrective Action (Dept. Mgr., Ops. Mgr. or QAO) – Initials & Date	AL 6-12-14				

Is Further Corrective Action including root cause analysis warranted (i.e.recurring problems)?

By Whom? Date:

KATAHDIN ANALYTICAL SERVICES, INC. – ORGANICS NON-CONFORMANCE REPORT

Problem Identification (Person discovering problem) Name: Carolyn Byrne Date: 6/10/14

Affected Method: 8082

- ☐ LCS Failure
- ☐ Blank Contamination
- ☐ Poor Precision (RPD)
- ☐ Sample out of clock
- ☐ Retention Time Window
- ☐ Prep Error
- ☐ Hold Time Missed
- ☐ Surrogate Failure
- ☐ Tune Failure
- ☐ Lab Accident
- ☐ ICAL Failure
- ☐ Independent Std Failure
- ☒ ~~CV~~ Failure
- ☐ Matrix Spike Failure
- ☐ Spiking Error
- ☐ Discrepancy between results
- ☐ Chromatographic Interference
- ☐ Internal Standard Failure
- ☐ Sample Contamination
- ☐ Other

Details: CV file 7HF174 ↑ AR1016+1260 channel A, ch B acceptable CV files ~~7HF175~~ + 7HF189
+ file 7HF188 TAC-1242 A, channel B acceptable

7HF174 = ~~opening~~ closing CV for all QC + samples SH3734-1-5, opening for SH3734-6-8

~~7HF175 = closing CV for~~

7HF188 = closing CV for SH3734-6-8 7HF189 = closing CV for SH3734-6-8

Work Orders/Samples Affected →	SH3734-1-8				
Client	Battelle				
Requirements and/or Procedures Not Met: Project QAPP(Q) / Method(M) / SOP(S) / DoD QSM(D) / Client (C) / Other:	D				
Significance of Non-Conforming Work:	---	---	---	---	---
Corrective Action can be taken within holding time	~~N/A~~ ch 6 lcs/M				
Corrective Action cannot be taken within holding time					
Non-Conformance not related to holding time	X				
Approval of Significance (Dept. Mgr., Ops. Mgr. or QAO) – Initials & Date	PL 6-10-14				
Client Contacted: PM initials & Date	CP 6.11.14				
Corrective Action:	---	---	---	---	---
Reanalyze with compliant QC					
Re-Extract/Re-Prep					
Report non-compliance w/Cover Letter/Narrative and/or flagging	✓				
Date Corrective Action Completed					
By Whom?					
Re-analysis or Re-extraction results indicate?					
Approval of Corrective Action (Dept. Mgr., Ops. Mgr. or QAO) – Initials & Date	PL 6-12-14				

Is Further Corrective Action including root cause analysis warranted (i.e.recurring problems)?

By Whom? Date:

Subject: FW: COC for the samples received 5/30- New Bedford Harbor - SH3734
From: "Peter Lemay" <plemay@katahdinlab.com>
Date: 6/12/2014 8:31 AM
To: "Carolyn Byrne " <cbyrne@katahdinlab.com>, <jprescott@katahdinlab.com>

From: Jennifer Obrin [mailto:jobrin@katahdinlab.com]
Sent: Wednesday, June 11, 2014 4:02 PM
To: 'Peter Lemay'
Subject: FW: COC for the samples received 5/30- New Bedford Harbor - SH3734

From: Dahlen, Deirdre T [mailto:DahlenD@battelle.org]
Sent: Wednesday, June 11, 2014 3:40 PM
To: Jennifer Obrin
Subject: RE: COC for the samples received 5/30- New Bedford Harbor - SH3734

Regarding the surrogate recoveries – I don't think it makes sense to re-extract because the sample holding time has expired (7-days according to QAPP Worksheet #19). Please document the exceedence and the potential impact on data quality (e.g., sample data may be biased low).

Thanks,
Deirdre

From: Jennifer Obrin [mailto:jobrin@katahdinlab.com]
Sent: Wednesday, June 11, 2014 9:37 AM
To: Dahlen, Deirdre T; KoenigM@battelle.org
Subject: RE: COC for the samples received 5/30- New Bedford Harbor - SH3734

Good Morning,

The PCB group has come to me with a non-conformance. Samples SH3734-2RA and 4RA had low surrogate recoveries on both channels A and B. There were no hits in the samples and all of the QC was acceptable including surrogates. The samples had to be copper cleaned due to very high sulfur interference. Please let me know if you would like the lab to re-extract or if they can proceed with narration.

I also wanted to notify you that the CV 7HF174 had high recoveries for AR1016 and 1260 in channel A however channel B was acceptable. The CV 7HF189 had a high recovery for AR1242 in channel A however channel B was acceptable. We will narrate these issues but wanted to make you aware of them. Please let me know if you have any questions or if you would like us to take a different form of action.

Have a wonderful day!

Jennifer Obrin
Federal Programs Project Manager
Katahdin Analytical Services
A Woman-Owned Small Business Enterprise
DoD ELAP Accredited
600 Technology Way
Scarborough, Maine 04074

Direct - 207.874.2400 x17
Cell - 207.333.7469
Fax - 207.775.4029

From: Jennifer Obrin [mailto:jobrin@katahdinlab.com]
Sent: Monday, June 02, 2014 11:12 AM
To: 'Dahlen, Deirdre T'; 'KoenigM@battelle.org'
Subject: COC for the samples received 5/30- New Bedford Harbor - SH3734

Good Morning,

Please find attached the COC for the samples received 5/30 for the project New Bedford Harbor under the work order SH3734. Please let me know if you have any questions.

Jennifer Obrin
Federal Programs Project Manager
Katahdin Analytical Services
A Woman-Owned Small Business Enterprise
DoD ELAP Accredited
600 Technology Way
Scarborough, Maine 04074
Direct - 207.874.2400 x17
Cell - 207.333.7469
Fax - 207.775.4029

PCB
I.V. 1ml Sep

6/12

KATAHDIN ANALYTICAL SERVICES, INC.
ORGANIC EXTRACTIONS LOG - AQUEOUS PESTICIDE/PCB

Extraction Method: (check one)	SW846 3520 (CLLE)		SW846 3510 (SEP) ✓	SW846 3535 (SPE)	
Analytical Method: (check one)	SW846 8081	SW846 8082 ✓	EPA 608	CLP OLM04.2	CLP OLC2.1	Other:
Standards	Surrogate ID: GC1373		Spike ID: GC1364	Spike ID:	
Solvents	Solvent Lot # (Mecl2): DK625		Solvent Lot # (Hexane): DK003	Solvent Lot # (Acetone): —	
Consumables	Filter Paper Lot # FC010424		Acid Lot # 50730	NaSO₄ Lot # 27964001	
Nitrogen Bath Temperature: 35°C	Vial Lot #: 362724				
Prep Start Time: 0830	Prep End Time: 1430		CLLE Start Time: —	CLLE End Time: —	

Date Extracted	Ext. Init.	Sample ID	Initial Vol. mL	Surr. Vol.	Spike Vol.	Fraction Pest	Fraction PCB	Final Vol. mL	Date Conc.	Tray Location LL32	Initials	Clean-Up GPC	Clean-Up Flor.	Clean-Up Acid Wash	Clean-Up Other	Comments
6-5-14	AM	WG144065-1	1000	0.1ml	NR	AM 6-5-14	✓	1mL	6-5-14	D9	KF			✓		R276774
↓	↓	-2	↓	↓	0.05ml		↓	↓	↓	D10	↓			↓		
		-3								E1						
		-4	1060							E2						MS SH3734-1N
↓	↓	-5	1060	↓	↓		↓	↓	↓	E3	↓			↓		MSD SH3734-1L

JMS 6-5-14

EX-002 – Revision 1 – 10/15/09

QAEX260

0000044

Date Extracted	Ext. Init.	Sample ID	Initial Vol. mL	Surr. Vol.	Spike Vol.	Fraction Pest	Fraction PCB	Final Vol. mL	Date Conc.	Tray Location	Initials	Clean-Up GPC	Clean-Up Flor.	Clean-Up Acid Wash	Clean-Up Other	Comments
6-5-14	AM	SH3734-1M	960	0.1ml	NR		✓	1mL	6-5-14	E4	KF			✓		MS/D
↓	↓	-2 E	1050	↓	↓		↓	↓	↓	E5	↓			↓		
		-3 D	1050							E6						
		-4 E	960							E7						
		-5 D	1060							E8						
		-6 E	950							E9						
		-7 E	1030							E10						NaOH added by mistake, neutralized with HCl to pH7
		-8 D	980							LL33 A1						
↓	↓	SH3820-23G	970	↓	↓		↓	↓	↓	A2	↓			↓		

JMS

Katahdin Analytical Services, Inc.

GC Laboratory Instrument Runlog

Instrument: GC07

Amount Injected: 2 uL

Column Numbers: 406/407

Method: SW846 8082 / EPA 608 (circle)

Standard	Standard ID

Date	Init.	Result File	Sample ID	Y/N	Analytical Workgroup	Method	Comments
5/23/14	CB	7496491	PRIME	N	WG143481	PCB073	
		492	AR1660 1.0	Y	-1,2		P7231
		493	0.05		-3,4		P7241
		494	0.1		-5,6		P7242
		495	0.25		-7,8		P7225
		496	2.5		-9,10		P7244
		497	10		-11,12		P7239
		498	AR-1016 1.0		-13		P7244
		499	AR1260 1.0		-14		P7245
		500	AR1242 1.0		-15,16		P7235
		501	0.05		-17,18		P7236
		502	0.1		-19,20		P7237
		503	0.25		-21,22		P7238
		504	2.5		-23,24		P7239
		505	10		-25,26		P7284
5/24/14		506	AR1248 1.0		-27,28		P7230
		507	0.05		-29,30		P7246
		508	0.1		-31,32		P7247
		509	0.25		-33,34		P7248
		510	2.5		-35,36		P7220
		511	10		-37,38		P7245
		512	AR1254 1.0		-39,40		P7223
		513	0.05		-41,42		P7240
		514	0.1		-43,44		P7241
		515	0.25		-45,46		P7242
		516	2.5		-47,48		P7243
		517	10		-49,50		P7240
		518	AR1221 1.0		-51,52		P7249
		519	AR1232 1.0		-53,54		P7255
		520	AR1262 1.0		-55,56		P7196

Katahdin Analytical Services, Inc.

GC Laboratory Instrument Runlog

Instrument: GC07

Amount Injected: 2 uL

Column Numbers: 406/407

Method: SW846 (8082) / EPA 608 (circle)

Standard	Standard ID
AR1660 1.0	P7231
AR1242 1.0	P7235
AR1248 1.0	P7230
AR1254 1.0	P7223
AR1660 0.25	P7238

Date	Init.	Result File	Sample ID	Y/N	Analytical Workgroup	Method	Comments
6/7/14	CB	7HF139	AR1660 1.0	Y	WG144298-7,8	PCB073	↑PAL ↑600% nonDoD
		140	AR1242 1.0				↑A
		141	AR1248 1.0		-9,10		↑A (non-DoD)
		142	AR1254 1.0				↑A (non DoD)
		143	SH36665-15 35x0	Y			
		144	-16				
		145	-17				
		146	-18	N			needs 1:20-48
		147	-19	N			needs 1:10-48
		148	-20	N			needs 1:10-48
		149	-21	N			needs 1:20-48
		150	-22	N			needs 1:20-48
		151	-23	N			needs 1:20-48
		152	SH37490-1	Y			
		153	RINSE	N			
		154	AR1660 0.25	Y	-11,12		↑PCB1660 & 1260B
		155	AR1242 1.0				↑A (non-DoD)
		156	AR1248 1.0		-13,14		↑A (non-DoD)
		157	AR1254 1.0				↑A
9			Clipped column exchanged liner CB 6/9/14				
6/8/14	CB	7HF158	PRIME	N	WG144334	PCB073	
		159	AR1660 1.0	Y	-1,2		
		160	AR1242 1.0	Y			
		161	AR1248 1.0	Y			
		162	AR1254 1.0	Y			
		163	WG144065-1 1+A 3100%	Y			↓TB
		164	-2				↓TA+TB
		165	-3				
		166	-4				
		167	-5				

Katahdin Analytical Services, Inc.

GC Laboratory Instrument Runlog

Instrument: GC07

Amount Injected: 2 uL

Column Numbers: 406/407

Method: SW846 8082 / EPA 608 (circle)

Standard	Standard ID
AR1660 1.0	P7231
AR1242 1.0	P7235
AR1260 1.0	P7230
AR1254 1.0	P7223
AR1660 0.25	P7234

Date	Init.	Result File	Sample ID	Y/N	Analytical Workgroup	Method	Comments
6/9/14	CB	7MF168	SH3734-1RA 3510	Y	WG141334	PCB073	3660
		169	-2	Y			LTHD A+B-narr
		170	-3	Y			
		171	-4	Y			LTHD A+B-narr
		172	-5	Y			LTB
		173	RINSE	N			
		174	AR1660 0.25	Y	-3,4		TALL A
		175	AR1242 1.0		-11,12		TA
		176	AR1260 1.0		-5,6		TA
		177	AR1254 1.0				TA
		178	SH3734-6RA 3510	Y			3660
6/10/14		179	-7				LTHA+B
		180	-8				
		181	SH3665-1BDL	Y			e1:20
		182	-19				e1:10
		183	-20				e1:10
		184	-21				e1:20
		185	-22				e1:20
		186	-23				e1:20
		187	RINSE	N			
		188	AR1660 1.0	Y	-7,8		TALL A
		189	AR1242 1.0		-13,14		TA
		190	AR1260 1.0		-9,10		TA
		191	AR1254 1.0				TA
		Clipped column + changed liner CB 6/10/14					
6/10/14	CB	7MF192	RLINE	N	WG141394	PCB073	
		193	AR1660 1.0	Y			
		194	AR1242 1.0	Y			
		195	AR1260 1.0	Y			
		196	AR1254 1.0	Y			

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1411797

Client: Battelle

ATTN: Deirdre Dahlen

Project Name: NEW BEDFORD HARBOR SAWYER

Project Number: W912WJ-12-D-0004

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1411797

Project Number: W912WJ-12-D-0004

Project Name: NEW BEDFORD HARBOR SAWYER **Received:** 05/30/2014 14:40

Client Account: Battelle **Received by:** KL

Samples Delivered by: COURIER **Call Tracker #**

Bill Of Laden N/A **Trackingnum**

Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt <2,7 **Are samples Properly Preserved?** Yes

Initial pH **preserved in house with** **Final pH**

Other Issues

Chlorine Check N/A

Are VOA/VPH Vials Present? No

Aqueous: Do Vials Contain Head Space? N/A

Soils: Is MeOHCovering the Soil? N/A

Reagent H2O Preserved vials Frozen on N/A

Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	Yes	No	3.6 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jun 16 2014, 06:13 pm

Login Number: L1411797

Account: BATDUX BattelleProject: W912WJ-12-D-0004 New Bedford Harbor Water Quality Monitoring

Received: 30MAY14 Due Date: 13JUN14

Sample #	Client ID	Mat	PR	Collected	Container
L1411797-01	MW-005-052914		1	S0 29MAY14 10:10	1-Plastic-A1,3-Plastic-C.25
L1411797-01 MS L1411797-01 MSD L1411797-01 DUP A2-DPKG-FULL Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-DPKG-FULL,A2-MS/MSD,A2-PB-6020T,A2-TSS-2540D					
L1411797-02	MW-04A-052914		1	S0 29MAY14 10:45	1-Plastic-A1,3-Plastic-C.25
L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T,A2-TSS-2540D					
L1411797-03	MW-04A-052914-REP		1	S0 29MAY14 10:46	1-Plastic-A1,1-Plastic-C.25
L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T,A2-TSS-2540D					
L1411797-04	MW-001-052914		1	S0 29MAY14 13:30	1-Plastic-A1,1-Plastic-C.25
L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T,A2-TSS-2540D					
L1411797-05	MW-006-052914		1	S0 29MAY14 15:15	1-Plastic-A1,1-Plastic-C.25
L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T,A2-TSS-2540D					
L1411797-06	MW-07A-052914		1	S0 29MAY14 16:50	1-Plastic-A1,1-Plastic-C.25
L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T,A2-TSS-2540D					
L1411797-07	EB-052914		1	S0 29MAY14 18:45	2-Plastic-C.25
L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14					
A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Jun 16 2014, 06:13 pm

Login Number: L1411797

Account: BATDUX BattelleProject: W912WJ-12-D-0004 New Bedford Harbor Water Quality Monitoring

Received: 30MAY14 Due Date: 13JUN14

Sample #	Client ID	Mat	PR	Collected	Container
L1411797-08	MW-003-052914	S0	1	29MAY14 18:55	1-Plastic-A1,1-Plastic-C.25

L1411797-01 MS L1411797-01 MSD Package Due Date: 06/13/14

A2-CD-6020T,A2-CR-6020T,A2-CU-6020T,A2-PB-6020T,A2-TSS-2540D

Logged By: Elizabeth Porta

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1411797-01A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-01A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-01A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-01A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-01B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-01B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-01C	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-01C	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-01C	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-01D	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-01D	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-01D	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-02A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-02A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-02A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-02A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-02B	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-02B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-02B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-03A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-03A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-03A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-03A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-03B	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-03B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1411797-03B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-04A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-04A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-04A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-04A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-04B	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-04B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-04B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-05A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-05A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-05A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-05A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-05B	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-05B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-05B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-06A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-06A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-06A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-06A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-06B	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-06B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-06B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-07A	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-07A	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-07A	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1411797-08A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-WET CHEMISTRY	John Kowalski	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	John Kowalski
L1411797-08A	Plastic-A1	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	John Kowalski	A2-WET CHEMISTRY	A2-WET CHEMISTRY	John Kowalski
L1411797-08A	Plastic-A1	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-08A	Plastic-A1	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante
L1411797-08B	Plastic-C.25	INTACT	05-JUN-14	CUSTODY	A2-CUSTODY-REFRIG-F1	Ashaley Kane	A2-METALS PREP	A2-METALS PREP	Ashaley Kane
L1411797-08B	Plastic-C.25	INTACT	02-JUN-14	A2-CUSTODY	A2-CUSTODY-REFRIDGE	Tanya Mueller	A2-CUSTODY-REFRIG-F1	A2-CUSTODY-REFRIG-F1	Tanya Mueller
L1411797-08B	Plastic-C.25	INTACT	02-JUN-14	A2-LOGIN	A2-LOGIN	Kevin LaPlante	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kevin LaPlante

Chain of Custody

L1411797

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 5/30/14

ALPHA Job #: ~~L1411723~~ 5/31/14

Client Information

Client: AECOM
Address: 250 Apollo Dr, Chelmsford, MA 01824
Phone: 978-905-2312
Email:

Project Information

Project Name: New Bedford Harbor Sawyer Street CDF
Project Location: New Bedford, MA
Project #:
Project Manager: Ryan McCarthy
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: ~~6/6/14~~

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods
☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ______ Criteria ______

Additional Project Information:

Report to Deirdre Dahlen at Batelle

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TSS; Cd, Cr, Cu, Pb

SAMPLE INFO: Filtration ☐ Field ☐ Lab to do; Preservation ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	TSS	Cd, Cr, Cu, Pb	Sample Comments	TOTAL # BOTTLES
~~11723-01~~	MW-005-052914	5/29/14	1010	GW	HJ	X	X	MS/MSD	
02 ~~02~~	MW-04A-052914	5/29/14	1045	GW	RM	X	X		
03 ~~03~~	MW-04A-052914-REP	5/29/14	1046	GW	RM	X	X		
04 ~~04~~	MW-001-052914	5/29/14	1330	GW	HJ	X	X		
05 ~~05~~	MW-006-052914	5/29/14	1515	GW	RM	X	X		
06 ~~06~~	MW-07A-052914	5/29/14	1600	GW	HJ	X	X		
07 ~~07~~	EB-052914	5/29/14	1845	GW	RM		X		
08 ~~08~~	MW-003-052914	05/29/14	1855	GW	HJ	X	X		

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Helen [signature]	5/30/14 1620	[signature] AAL	5/30/14 1440
W. McClendon	5/30/14 1620	W. McClendon	5/30/14 1620
[signature]	5/31/14 0400	[signature] Mansfield Lab	5/30/14 16:20; 5/31/14 0400

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

Metals

ICPMS
Analysis

Sequence Logs

Dataset Report

User Name: metals-instrument
Computer Name: A2-00887
Dataset File Path: C:\Elandata\Dataset\WG697449\
Report Date/Time: Thursday, June 12, 2014 16:03:50

The Dataset

Batch ID	Sample ID	Date and Time	Read Type
	Blank	15:18:03 Thu 12-Jun-14	Blank
	Blank	15:22:32 Thu 12-Jun-14	Blank
	Standard 1	15:23:40 Thu 12-Jun-14	Standard #1
	QC Std 1	15:24:51 Thu 12-Jun-14	QC Std #1
	QC Std 2	15:26:01 Thu 12-Jun-14	QC Std #2
	QC Std 3	15:27:11 Thu 12-Jun-14	QC Std #3
	QC Std 7	15:28:22 Thu 12-Jun-14	QC Std #7
	QC Std 8	15:29:30 Thu 12-Jun-14	QC Std #8
	QC Std 13	15:30:41 Thu 12-Jun-14	QC Std #13
	QC Std 14	15:31:51 Thu 12-Jun-14	QC Std #14
WG695349	WG695349-1-T	15:33:02 Thu 12-Jun-14	Sample
WG695349	WG695349-2-T	15:34:10 Thu 12-Jun-14	Sample
WG695349	L1411797-01-T	15:35:18 Thu 12-Jun-14	Sample
WG695349	WG695349-6-T-D5	15:36:27 Thu 12-Jun-14	Sample
WG695349	WG695349-3-T	15:37:35 Thu 12-Jun-14	Sample
	QC Std 5	15:38:46 Thu 12-Jun-14	QC Std #5
	QC Std 6	15:39:56 Thu 12-Jun-14	QC Std #6
WG695349	WG695349-4-T	15:41:06 Thu 12-Jun-14	Sample
WG695349	WG695349-5-T	15:42:14 Thu 12-Jun-14	Sample
WG695349	L1411797-02-T	15:43:23 Thu 12-Jun-14	Sample
WG695349	L1411797-03-T	15:44:31 Thu 12-Jun-14	Sample
WG695349	L1411797-04-T	15:45:39 Thu 12-Jun-14	Sample
WG695349	L1411797-05-T	15:46:48 Thu 12-Jun-14	Sample
WG695349	L1411797-06-T	15:47:56 Thu 12-Jun-14	Sample
WG695349	L1411797-07-T	15:49:05 Thu 12-Jun-14	Sample
WG695349	L1411797-08-T	15:50:13 Thu 12-Jun-14	Sample
	QC Std 5	15:51:23 Thu 12-Jun-14	QC Std #5
	QC Std 6	15:52:33 Thu 12-Jun-14	QC Std #6
	QC Std 9	15:53:44 Thu 12-Jun-14	QC Std #9
WG695349	L1411797-01-T	15:55:04 Thu 12-Jun-14	Sample
WG695349	L1411797-02-T	15:56:21 Thu 12-Jun-14	Sample
	QC Std 5	15:57:32 Thu 12-Jun-14	QC Std #5
	QC Std 6	15:58:42 Thu 12-Jun-14	QC Std #6
	QC Std 9	15:59:52 Thu 12-Jun-14	QC Std #9

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.
Metals Batch Report - Total Metals (Mass Spec) - A2-6020T Batch WG695349 for dept. 5
Jun 13, 2014 14:06

Sample No.	Client No.	Sample I.D.	Mat	Due	As Sb	B	Ba Be	Cd Cr	Cu Pb	Ni Se	Ag Sr	Tl Sn	Ti Zn	Fe Mn	Ca Al	Mg K	Na Co	V Mo	Si W	Ha W	Zr 60
L1411797-01		MW-005-052914	1	0613				X	X X												
L1411797-02		MW-04A-052914	1	0613				X	X X												
L1411797-03		MW-04A-052914-REP	1	0613				X	X X												
L1411797-04		MW-001-052914	1	0613				X	X X												
L1411797-05		MW-006-052914	1	0613				X	X X												
L1411797-06		MW-07A-052914	1	0613				X	X X												
L1411797-07		EB-052914	1	0613				X	X X												
L1411797-08		MW-003-052914	1	0613				X	X X												
WG695349-1		Laboratory Method	1					X	X X												
WG695349-2		Laboratory Contro	1					X	X X												
WG695349-3		Duplicate Sample	1					X	X X												
WG695349-4		Matrix Spike	1					X	X X												
WG695349-5		Matrix Spike Dupl	1					X	X X												
WG695349-6		Serial Dilution	1					X	X X												

Comments:

WG695349-3	L1411797-01
WG695349-4	L1411797-01
WG695349-5	L1411797-01
WG695349-6	L1411797-01

Tune

Instrument Tuning Report

File Name: default.tun
File Path: C:\Elandata\Tuning\default.tun
Number of Replicates: 5

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
Be	9.012	9.075	2020	2075	0.692
Co	58.933	58.975	14143	2049	0.665
In	114.904	114.925	27760	2030	0.665
Tl	204.975	204.975	49661	1990	0.686
U	238.050	238.025	57702	1973	0.696

Relative Std. Dev.

Mass	Meas. Intens. RSD
~~3.000~~	~~4.554~~ NA
9.000	2.147
59.000	1.068
115.000	1.479
205.000	1.321
238.000	0.889

D 6/12/14

Report Date/Time: Thursday, June 12, 2014 10:29:15
Page 1

60

Sample Raw Data

Sample/Batch Report

Sample File: C:\Elandata\Sample\L1411797.sam
Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 9.034
Report Date/Time: Thursday, June 12, 2014 16:03:48

A/S Loc.	Sample ID
14	WG695349-1-T
15	WG695349-2-T
16	L1411797-01-T
17	WG695349-6-T-D5
18	WG695349-3-T
19	WG695349-4-T
20	WG695349-5-T
21	L1411797-02-T
22	L1411797-03-T
23	L1411797-04-T
24	L1411797-05-T
25	L1411797-06-T
26	L1411797-07-T
27	L1411797-08-T

Standards/Reagents
CAL=C061114M1
ICV=I061114M1
IS=IS061114
ICSA=061114ICSA1
ICSAB=061114ICSAB1
ACID=MW050514B
ICPMS2
SEQ. REVIEWED BY:

D 6/12/14
1267583

Calibration Report

Analyte	Mass	Curve Type	Slope	Intercept	Corr Coeff
Cr	51.941	Linear Thru Zero	0.012166	0.000	1.000000
Cu	62.930	Linear Thru Zero	0.007392	0.000	1.000000
Ge	73.922	Linear Thru Zero	0.000000	0.000	0.000000
Cd	113.904	Linear Thru Zero	0.011145	0.000	1.000000
In	114.904	Linear Thru Zero	0.000000	0.000	0.000000
Tb	158.925	Linear Thru Zero	0.000000	0.000	0.000000
Pb	207.977	Linear Thru Zero	0.045889	0.000	1.000000

D6/12/11-1

Method 6020A - Summary Report

Sample ID: Blank

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\Blank.002
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:22:32
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌜	Cr	52	6921.801		1.815			ug/L
|	Cu	63	673.775		5.261			ug/L
⌞>	Ge	74	499317.302		1.637			ug/L
⌜	Cd	114	21.591		24.824			ug/L
⌞>	In	115	300020.386		2.080			ug/L
⌜>	Tb	159	311904.852		1.805			ug/L
⌞	Pb	208	106.667		9.472			ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌜	Cr	52					
|	Cu	63					
⌞>	Ge	74					
⌜	Cd	114					
⌞>	In	115					
⌜>	Tb	159					
⌞	Pb	208					

Method 6020A - Summary Report

Sample ID: Standard 1

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\Standard 1.003
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:23:40
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	606132.001	1.217	5.423	100.00000	5.64	ug/L
|	Cu	63	364774.767	0.739	4.352	100.00000	4.89	ug/L
⌊>	Ge	74	492803.824	492803.824	2.889			ug/L
⌈	Cd	114	322735.895	1.114	6.031	100.00000	5.37	ug/L
⌊>	In	115	289565.331	289565.331	2.638			ug/L
⌈>	Tb	159	307906.308	307906.308	4.217			ug/L
⌊	Pb	208	1410868.559	4.589	2.204	100.00000	5.84	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74					
⌈	Cd	114					
⌊>	In	115					
⌈>	Tb	159					
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 1

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 1.004
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:24:51
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	317659.927	0.618	4.177	50.83668	4.38	ug/L
|	Cu	63	192005.622	0.381	4.723	51.50985	4.05	ug/L
⌊>	Ge	74	502409.351	502409.351	1.208			ug/L
⌈	Cd	114	164208.517	0.558	1.831	50.10842	1.43	ug/L
⌊>	In	115	294074.865	294074.865	2.930			ug/L
⌈>	Tb	159	311648.277	311648.277	3.030			ug/L
⌊	Pb	208	728788.559	2.340	1.795	50.98224	3.39	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	101.673				
|	Cu	63	103.020				
⌊>	Ge	74		100.619			
⌈	Cd	114	100.217				
⌊>	In	115		98.018			
⌈>	Tb	159		99.918			
⌊	Pb	208	101.964				

Method 6020A - Summary Report

Sample ID: QC Std 2

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 2.005
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:26:01
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	7058.156	0.000	0.913	0.00306	1308.72	ug/L
|	Cu	63	648.357	-0.000	9.057	-0.00986	160.67	ug/L
⌊>	Ge	74	508125.667	508125.667	2.894			ug/L
⌈	Cd	114	37.253	0.000	18.750	0.00476	47.01	ug/L
⌊>	In	115	298445.812	298445.812	1.785			ug/L
⌈>	Tb	159	310785.641	310785.641	3.729			ug/L
⌊	Pb	208	194.584	0.000	1.337	0.00621	10.75	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		101.764			
⌈	Cd	114					
⌊>	In	115		99.475			
⌈>	Tb	159		99.641			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 3

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 3.006
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:27:11
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	9697.256	0.006	3.024	0.47850	16.36	ug/L
|	Cu	63	3120.119	0.005	3.884	0.67362	3.58	ug/L
⌊>	Ge	74	493451.257	493451.257	5.792			ug/L
⌈	Cd	114	670.729	0.002	4.685	0.20108	4.48	ug/L
⌊>	In	115	290025.429	290025.429	2.581			ug/L
⌈>	Tb	159	307613.566	307613.566	2.442			ug/L
⌊	Pb	208	3078.953	0.010	2.118	0.21069	1.29	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	95.701				
|	Cu	63	134.724				
⌊>	Ge	74		98.825			
⌈	Cd	114	100.539				
⌊>	In	115		96.669			
⌈>	Tb	159		98.624			
⌊	Pb	208	105.343				

Method 6020A - Summary Report

Sample ID: QC Std 7

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 7.007
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:28:22
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	29265.376	0.059	2.042	4.81475	5.44	ug/L
|	Cu	63	15325.423	0.037	4.391	4.94825	5.58	ug/L
⌊>	Ge	74	404462.652	404462.652	4.213			ug/L
⌈	Cd	114	10790.330	0.041	7.428	3.71896	4.41	ug/L
⌊>	In	115	259653.182	259653.182	3.114			ug/L
⌈>	Tb	159	289233.171	289233.171	2.912			ug/L
⌊	Pb	208	7216.120	0.025	1.954	0.53674	4.84	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		81.003			
⌈	Cd	114					
⌊>	In	115		86.545			
⌈>	Tb	159		92.731			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 8

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 8.008
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:29:30
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	537718.824	1.300	4.671	106.88669	4.47	ug/L
|	Cu	63	306896.094	0.749	3.657	101.27337	2.70	ug/L
⌊>	Ge	74	409254.423	409254.423	2.985			ug/L
⌈	Cd	114	293985.648	1.142	3.596	102.45549	2.10	ug/L
⌊>	In	115	257594.454	257594.454	5.115			ug/L
⌈>	Tb	159	287793.411	287793.411	2.287			ug/L
⌊	Pb	208	1278300.018	4.444	3.509	96.85118	5.22	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	106.887				
|	Cu	63	101.273				
⌊>	Ge	74		81.963			
⌈	Cd	114	102.455				
⌊>	In	115		85.859			
⌈>	Tb	159		92.270			
⌊	Pb	208	96.851				

Method 6020A - Summary Report

Sample ID: QC Std 13

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 13.009
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:30:41
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	6990.604	-0.000	1.664	-0.01393	127.94	ug/L
|	Cu	63	917.963	0.000	0.550	0.06072	5.55	ug/L
⌊>	Ge	74	510580.750	510580.750	1.929			ug/L
⌈	Cd	114	108.784	0.000	29.233	0.02685	34.35	ug/L
⌊>	In	115	292311.203	292311.203	1.848			ug/L
⌈>	Tb	159	314947.435	314947.435	2.791			ug/L
⌊	Pb	208	277.085	0.001	19.358	0.01178	35.02	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		102.256			
⌈	Cd	114					
⌊>	In	115		97.430			
⌈>	Tb	159		100.975			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 14

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 14.010
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:31:51
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	6787.117	-0.000	2.760	-0.02201	257.92	ug/L
|	Cu	63	745.447	0.000	8.825	0.01916	75.17	ug/L
⌊>	Ge	74	499703.048	499703.048	3.108			ug/L
⌈	Cd	114	38.583	0.000	21.093	0.00549	40.93	ug/L
⌊>	In	115	289169.774	289169.774	4.172			ug/L
⌈>	Tb	159	317163.690	317163.690	1.970			ug/L
⌊	Pb	208	149.584	0.000	3.860	0.00283	20.41	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		100.077			
⌈	Cd	114					
⌊>	In	115		96.383			
⌈>	Tb	159		101.686			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: WG695349-1-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\WG695349-1-T.011
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:33:02
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌜	Cr	52	7321.706	0.001	6.562	0.07953	100.67	ug/L
|	Cu	63	1575.970	0.002	1.885	0.24936	5.35	ug/L
⌞>	Ge	74	493905.763	493905.763	3.253			ug/L
⌜	Cd	114	101.468	0.000	14.111	0.02528	17.70	ug/L
⌞>	In	115	286986.460	286986.460	2.931			ug/L
⌜>	Tb	159	312828.056	312828.056	1.174			ug/L
⌞	Pb	208	3144.796	0.010	0.425	0.21163	1.26	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌜	Cr	52					
|	Cu	63					
⌞>	Ge	74		98.916			
⌜	Cd	114					
⌞>	In	115		95.656			
⌜>	Tb	159		100.296			
⌞	Pb	208					

Method 6020A - Summary Report

Sample ID: WG695349-2-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\WG695349-2-T.012
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:34:10
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	6042357.397	12.257	5.834	1007.48123	4.74	ug/L
|	Cu	63	3788365.890	7.691	5.292	1040.43372	3.54	ug/L
⌊>	Ge	74	492336.263	492336.263	2.532			ug/L
⌈	Cd	114	1608096.238	5.721	3.694	513.32815	2.48	ug/L
⌊>	In	115	281209.932	281209.932	4.585			ug/L
⌈>	Tb	159	310216.994	310216.994	2.207			ug/L
⌊	Pb	208	14376699.458	46.365	1.878	1010.36199	3.50	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		98.602			
⌈	Cd	114					
⌊>	In	115		93.730			
⌈>	Tb	159		99.459			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-01-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-01-T.013
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:35:18
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	22635.343	0.036	7.854	2.98881	12.38	ug/L
|	Cu	63	17984.461	0.039	4.402	5.21436	5.76	ug/L
⌊>	Ge	74	451069.812	451069.812	2.371			ug/L
⌈	Cd	114	520.057	0.002	35.584	0.16865	38.97	ug/L
⌊>	In	115	267710.413	267710.413	2.442			ug/L
⌈>	Tb	159	290747.065	290747.065	1.254			ug/L
⌊	Pb	208	6898.973	0.023	21.368	0.50887	20.48	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		90.337			
⌈	Cd	114					
⌊>	In	115		89.231			
⌈>	Tb	159		93.217			
⌊	Pb	208					

6/12/14

Method 6020A - Summary Report

Sample ID: WG695349-6-T-D5

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\WG695349-6-T-D5.014
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:36:27
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	10871.089	0.009	4.658	0.73418	10.53	ug/L
|	Cu	63	5310.307	0.010	7.638	1.32403	8.87	ug/L
⌊>	Ge	74	477022.112	477022.112	3.420			ug/L
⌈	Cd	114	115.390	0.000	10.745	0.03094	14.75	ug/L
⌊>	In	115	277169.053	277169.053	1.929			ug/L
⌈>	Tb	159	302059.170	302059.170	3.992			ug/L
⌊	Pb	208	1597.972	0.005	3.166	0.10804	7.49	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		95.535			
⌈	Cd	114					
⌊>	In	115		92.383			
⌈>	Tb	159		96.843			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: WG695349-3-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\WG695349-3-T.015
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:37:35
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	21257.348	0.034	3.778	2.76257	3.46	ug/L
|	Cu	63	17139.519	0.037	6.393	4.99268	4.29	ug/L
⌊>	Ge	74	447754.838	447754.838	2.350			ug/L
⌈	Cd	114	206.420	0.001	11.561	0.06199	12.76	ug/L
⌊>	In	115	270680.812	270680.812	3.767			ug/L
⌈>	Tb	159	295340.131	295340.131	3.213			ug/L
⌊	Pb	208	4712.972	0.016	1.204	0.34054	3.63	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		89.673			
⌈	Cd	114			/		
⌊>	In	115		90.221			
⌈>	Tb	159		94.689			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 5

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 5.016
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:38:46
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	316497.707	0.622	1.950	51.16283	4.68	ug/L
|	Cu	63	191608.734	0.384	0.921	51.90373	1.75	ug/L
⌊>	Ge	74	497812.140	497812.140	2.653			ug/L
⌈	Cd	114	162329.863	0.555	3.441	49.80934	2.92	ug/L
⌊>	In	115	292582.806	292582.806	4.825			ug/L
⌈>	Tb	159	317379.582	317379.582	3.040			ug/L
⌊	Pb	208	749516.855	2.362	2.124	51.48240	3.29	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	102.326				
|	Cu	63	103.807				
⌊>	Ge	74		99.699			
⌈	Cd	114	99.619				
⌊>	In	115		97.521			
⌈>	Tb	159		101.755			
⌊	Pb	208	102.965				

Method 6020A - Summary Report

Sample ID: QC Std 6

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 6.017
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:39:56
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	6898.868	-0.000	2.610	-0.01804	376.06	ug/L
|	Cu	63	802.952	0.000	2.804	0.03208	22.23	ug/L
⌊>	Ge	74	506457.452	506457.452	4.131			ug/L
⌈	Cd	114	50.226	0.000	45.611	0.00883	79.54	ug/L
⌊>	In	115	295135.638	295135.638	1.181			ug/L
⌈>	Tb	159	317554.456	317554.456	2.712			ug/L
⌊	Pb	208	269.585	0.001	16.829	0.01109	30.74	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		101.430			
⌈	Cd	114					
⌊>	In	115		98.372			
⌈>	Tb	159		101.811			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: WG695349-4-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\WG695349-4-T.018
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:41:06
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	5579014.618	12.720	2.055	1045.60260	2.85	ug/L
|	Cu	63	3275374.610	7.471	3.410	1010.74509	1.51	ug/L
⌊>	Ge	74	438271.720	438271.720	2.630			ug/L
⌈	Cd	114	1511511.568	5.707	3.773	512.08058	2.24	ug/L
⌊>	In	115	264794.033	264794.033	1.903			ug/L
⌈>	Tb	159	294993.019	294993.019	1.606			ug/L
⌊	Pb	208	12992543.677	44.057	1.492	960.07240	3.00	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		87.774			
⌈	Cd	114					
⌊>	In	115		88.259			
⌈>	Tb	159		94.578			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: WG695349-5-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\WG695349-5-T.019
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:42:14
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	5667897.974	12.641	3.208	1039.10043	4.95	ug/L
|	Cu	63	3356344.792	7.491	2.921	1013.35764	3.90	ug/L
⌊>	Ge	74	448194.379	448194.379	2.613			ug/L
⌈	Cd	114	1545097.149	5.786	2.300	519.13029	1.58	ug/L
⌊>	In	115	267121.986	267121.986	3.234			ug/L
⌈>	Tb	159	297704.918	297704.918	4.239			ug/L
⌊	Pb	208	13255475.852	44.564	1.765	971.12714	3.35	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		89.761			
⌈	Cd	114					
⌊>	In	115		89.035			
⌈>	Tb	159		95.447			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-02-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-02-T.020
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:43:23
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	15312.944	0.018	8.210	1.51845	10.89	ug/L
|	Cu	63	15382.229	0.031	8.320	4.21084	6.29	ug/L
⌊>	Ge	74	473204.522	473204.522	2.388			ug/L
⌈	Cd	114	878.330	0.003	23.522	0.27913	25.21	ug/L
⌊>	In	115	276528.905	276528.905	3.702			ug/L
⌈>	Tb	159	302001.477	302001.477	3.276			ug/L
⌊	Pb	208	7673.804	0.025	15.790	0.54860	19.56	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		94.770			
⌈	Cd	114					
⌊>	In	115		92.170			
⌈>	Tb	159		96.825			
⌊	Pb	208					

6/12/14

Method 6020A - Summary Report

Sample ID: L1411797-03-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-03-T.021
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:44:31
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	16300.026	0.020	3.146	1.61599	8.94	ug/L
|	Cu	63	8636.186	0.016	2.947	2.21977	5.01	ug/L
⌊>	Ge	74	486926.658	486926.658	4.827			ug/L
⌈	Cd	114	2115.755	0.007	3.264	0.64516	3.35	ug/L
⌊>	In	115	291376.714	291376.714	1.796			ug/L
⌈>	Tb	159	316412.282	316412.282	2.704			ug/L
⌊	Pb	208	9694.123	0.030	2.476	0.66078	5.02	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		97.518			
⌈	Cd	114					
⌊>	In	115		97.119			
⌈>	Tb	159		101.445			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-04-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-04-T.022
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:45:39
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	13555.934	0.015	1.561	1.21014	4.80	ug/L
|	Cu	63	14860.054	0.030	1.766	4.05556	0.68	ug/L
⌊>	Ge	74	474357.515	474357.515	1.975			ug/L
⌈	Cd	114	558.435	0.002	19.293	0.17453	19.28	ug/L
⌊>	In	115	276623.386	276623.386	1.837			ug/L
⌈>	Tb	159	304509.619	304509.619	4.520			ug/L
⌊	Pb	208	5352.285	0.017	1.198	0.37619	5.56	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		95.001			
⌈	Cd	114					
⌊>	In	115		92.202			
⌈>	Tb	159		97.629			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-05-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-05-T.023
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:46:48
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	9707.272	0.006	4.947	0.49695	17.67	ug/L
|	Cu	63	5364.502	0.010	5.032	1.30530	5.10	ug/L
⌊>	Ge	74	487828.233	487828.233	3.115			ug/L
⌈	Cd	114	160.233	0.000	3.493	0.04339	2.95	ug/L
⌊>	In	115	288462.092	288462.092	2.915			ug/L
⌈>	Tb	159	311979.604	311979.604	1.589			ug/L
⌊	Pb	208	3606.947	0.011	0.505	0.24455	2.12	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		97.699			
⌈	Cd	114					
⌊>	In	115		96.147			
⌈>	Tb	159		100.024			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-06-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-06-T.024
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:47:56
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	8868.492	0.004	2.639	0.33047	18.46	ug/L
|	Cu	63	7632.788	0.014	3.235	1.89881	3.33	ug/L
⌊>	Ge	74	496210.198	496210.198	2.761			ug/L
⌈	Cd	114	1088.624	0.004	8.172	0.32389	6.88	ug/L
⌊>	In	115	295663.071	295663.071	4.547			ug/L
⌈>	Tb	159	313094.093	313094.093	2.748			ug/L
⌊	Pb	208	3739.046	0.012	1.767	0.25298	4.32	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		99.378			
⌈	Cd	114					
⌊>	In	115		98.548			
⌈>	Tb	159		100.381			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-07-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-07-T.025
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:49:05
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	9240.527	0.004	0.413	0.33733	9.79	ug/L
|	Cu	63	4180.545	0.007	3.605	0.91662	2.95	ug/L
⌊>	Ge	74	514491.539	514491.539	2.224			ug/L
⌈	Cd	114	129.424	0.000	9.132	0.03181	11.17	ug/L
⌊>	In	115	303523.441	303523.441	2.966			ug/L
⌈>	Tb	159	323975.585	323975.585	2.662			ug/L
⌊	Pb	208	4462.517	0.013	5.589	0.29272	5.04	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		103.039			
⌈	Cd	114					
⌊>	In	115		101.168			
⌈>	Tb	159		103.870			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-08-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-08-T.026
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:50:13
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	15683.966	0.020	5.985	1.65343	9.06	ug/L
|	Cu	63	18511.780	0.039	5.296	5.24004	2.67	ug/L
⌊>	Ge	74	461731.167	461731.167	3.813			ug/L
⌈	Cd	114	300.771	0.001	7.021	0.09054	11.30	ug/L
⌊>	In	115	278920.873	278920.873	3.734			ug/L
⌈>	Tb	159	301058.357	301058.357	3.970			ug/L
⌊	Pb	208	4159.122	0.013	4.482	0.29411	7.62	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		92.472			
⌈	Cd	114					
⌊>	In	115		92.967			
⌈>	Tb	159		96.522			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 5

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 5.027
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:51:23
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	320008.822	0.627	2.275	51.49991	3.35	ug/L
|	Cu	63	187589.234	0.374	3.895	50.56771	0.90	ug/L
⌊>	Ge	74	500154.170	500154.170	4.553			ug/L
⌈	Cd	114	167616.743	0.560	2.026	50.21875	3.26	ug/L
⌊>	In	115	299627.026	299627.026	3.401			ug/L
⌈>	Tb	159	324465.522	324465.522	3.058			ug/L
⌊	Pb	208	763350.702	2.353	2.136	51.28240	2.84	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	103.000				
|	Cu	63	101.135				
⌊>	Ge	74		100.168			
⌈	Cd	114	100.437				
⌊>	In	115		99.869			
⌈>	Tb	159		104.027			
⌊	Pb	208	102.565				

Method 6020A - Summary Report

Sample ID: QC Std 6

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 6.028
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:52:33
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	6985.189	-0.000	6.207	-0.01362	519.82	ug/L
|	Cu	63	797.535	0.000	6.252	0.02890	36.87	ug/L
⌊>	Ge	74	510278.508	510278.508	3.795			ug/L
⌈	Cd	114	54.746	0.000	29.286	0.00951	52.05	ug/L
⌊>	In	115	308696.859	308696.859	2.081			ug/L
⌈>	Tb	159	325125.879	325125.879	1.481			ug/L
⌊	Pb	208	285.835	0.001	19.530	0.01170	31.53	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		102.195			
⌈	Cd	114					
⌊>	In	115		102.892			
⌈>	Tb	159		104.239			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 9

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 9.029
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:53:44
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	9985.483	0.006	2.359	0.50869	9.03	ug/L
|	Cu	63	3210.568	0.005	6.035	0.68854	2.09	ug/L
⌊>	Ge	74	498369.479	498369.479	4.435			ug/L
⌈	Cd	114	723.691	0.002	3.633	0.21135	1.22	ug/L
⌊>	In	115	298076.848	298076.848	2.532			ug/L
⌈>	Tb	159	321667.633	321667.633	3.352			ug/L
⌊	Pb	208	3271.484	0.010	3.734	0.21445	6.44	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	101.738				
|	Cu	63	137.708				
⌊>	Ge	74		99.810			
⌈	Cd	114	105.674				
⌊>	In	115		99.352			
⌈>	Tb	159		103.130			
⌊	Pb	208	107.223				

Method 6020A - Summary Report

Sample ID: L1411797-01-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-01-T.030
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:55:04
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	21571.829	0.033	3.009	2.73263	7.47	ug/L
|	Cu	63	16269.146	0.034	4.290	4.61816	2.06	ug/L
⌊>	Ge	74	458371.573	458371.573	3.020			ug/L
⌈	Cd	114	247.237	0.001	7.128	0.07432	10.13	ug/L
⌊>	In	115	274988.107	274988.107	2.117			ug/L
⌈>	Tb	159	299702.729	299702.729	2.110			ug/L
⌊	Pb	208	4811.336	0.016	2.397	0.34259	4.43	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		91.800			
⌈	Cd	114					
⌊>	In	115		91.656			
⌈>	Tb	159		96.088			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: L1411797-02-T

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\L1411797-02-T.031
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:56:21
Batch ID: WG695349
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	14391.820	0.017	5.151	1.35812	11.89	ug/L
|	Cu	63	13666.992	0.027	9.322	3.71828	9.56	ug/L
⌊>	Ge	74	473936.688	473936.688	1.684			ug/L
⌈	Cd	114	606.745	0.002	4.102	0.18998	4.25	ug/L
⌊>	In	115	277248.147	277248.147	3.514			ug/L
⌈>	Tb	159	308991.875	308991.875	2.802			ug/L
⌊	Pb	208	5749.875	0.018	0.837	0.39830	3.34	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		94.917			
⌈	Cd	114					
⌊>	In	115		92.410			
⌈>	Tb	159		99.066			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 5

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 5.032
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:57:32
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	314919.028	0.611	3.738	50.21491	4.47	ug/L
|	Cu	63	188865.240	0.373	4.264	50.48035	2.87	ug/L
⌊>	Ge	74	504471.284	504471.284	4.344			ug/L
⌈	Cd	114	165883.841	0.560	2.533	50.23204	2.15	ug/L
⌊>	In	115	296317.613	296317.613	2.541			ug/L
⌈>	Tb	159	320716.879	320716.879	1.288			ug/L
⌊	Pb	208	746874.044	2.329	2.744	50.75675	3.97	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	100.430				
|	Cu	63	100.961				
⌊>	Ge	74		101.032	✓		
⌈	Cd	114	100.464	✓			
⌊>	In	115		98.766			
⌈>	Tb	159		102.825			
⌊	Pb	208	101.513				

Method 6020A - Summary Report

Sample ID: QC Std 6

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 6.033
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:58:42
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	6994.357	-0.000	1.544	-0.00845	563.33	ug/L
|	Cu	63	800.869	0.000	3.312	0.03041	9.40	ug/L
⌊>	Ge	74	508836.796	508836.796	3.873			ug/L
⌈	Cd	114	56.252	0.000	36.816	0.00981	57.18	ug/L
⌊>	In	115	308709.951	308709.951	2.512			ug/L
⌈>	Tb	159	332877.778	332877.778	1.484			ug/L
⌊	Pb	208	310.836	0.001	34.504	0.01289	53.74	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52					
|	Cu	63					
⌊>	Ge	74		101.907			
⌈	Cd	114					
⌊>	In	115		102.896			
⌈>	Tb	159		106.724			
⌊	Pb	208					

Method 6020A - Summary Report

Sample ID: QC Std 9

Method File: C:\Elandata\Method\6020_batdux.mth
Dataset File: C:\Elandata\Dataset\WG697449\QC Std 9.034
Calibration File:
Sample Date/Time: Thursday, June 12, 2014 15:59:52
Batch ID:
Operator ID:PD

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Meas. Intens. RSD	Conc. Mean	Conc. RSD	Sample Unit
⌈	Cr	52	9860.353	0.006	4.909	0.47127	13.18	ug/L
|	Cu	63	3164.717	0.005	0.905	0.66874	3.63	ug/L
⌊>	Ge	74	503205.879	503205.879	3.116			ug/L
⌈	Cd	114	682.467	0.002	5.857	0.19389	6.75	ug/L
⌊>	In	115	305963.173	305963.173	4.498			ug/L
⌈>	Tb	159	320474.792	320474.792	3.949			ug/L
⌊	Pb	208	3399.836	0.010	3.874	0.22390	4.71	ug/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Cr	52	94.255				
|	Cu	63	133.748				
⌊>	Ge	74		100.779			
⌈	Cd	114	96.944				
⌊>	In	115		101.981			
⌈>	Tb	159		102.748			
⌊	Pb	208	111.949				

Digestion Logs
ICPMS

Metals Sample Preparation Logbook

Client/Project: L1411797 Bostdex		Initials: AR	Date: 6/5/14
Samples: 1-8	Method(s): 3020		Matrix: L
Pipet ID: WHG-16A	Balance ID: 14621306	Initial Temp: 95°C	Start time: 12:00
MW-1 / Block: 9	Thermometer: TH-001	Final Temp: 95°C	Stop time: 12:00

Spike Lots: R01250 / M00474
NA
NA

Sample ID	Weight (g) / Volume (ml) Method 1	Method 2	Method 3
QC 1797-01	25		
-02			
-03			
-04			
-05			
-06			
-07			
-08			
Blank			
LCS			
DUP			
MS			
SERD			
MSD			

Spike Amounts:
Method 1: .125mL / .05mL of 1:100
Method 2: NA
Method 3: NA

Method 1: 3020
WG#: WG695349
Run ID: R676712

Method 2:
WG#: NA
Run ID: NA

Method 3:
WG#: NA
Run ID: NA

Hg Std. Prep

Std	Conc (ppb)	Vol (mL)
0		
1		
2		
3		
4		
5		
ICV		

Notes: conc. HNO_3: MS112113A

True Values

Table IV: Initial Calibration Levels and ICV/CCV Concentrations

Analyte	STD1	STD2	ICV,CCV
	(µg/L)	(µg/L)	(µg/L)
Ag		100	50
Al	10050		5050
As	100		50
B	100		50
Ba		100	50
Be	100		50
Ca	10100		5050
Cd	100		50
Co	100		50
Cr	100		50
Cu	100		50
Fe	10100		5050
K	10000		5500
Mg	10100		5050
Mn	100		50
Mo	100		50
Na	10000		5050
Ni	100		50
Pb	100		50
Sb	100		50
Se	100		50
Si	50		25
Sn	100		50
Sr	100		50
Ti	100		50
Tl	100		50
V	100		50
Zn	100		50
W	1	100	50

Interferent ICSA, ICSAB	(mg/L)
Cl^-	2000
Ca	300
Fe, Na	250
Al, Mg, P, K, S	100
C	200
Mo, Ti	2

All analyte concentrations in ICSAB = 100 ppb except for Ag and Ba = 50 ppb

Analyte	LCS,MS Water	LCS,MS soil	LCS,MS Tissue
	(µg/L)	(µg/L)	(µg/L)
Ag	20	40	40
Al	5000	20000	10000
As	1000	4000	2000
B	1000	4000	2000
Ba	1000	4000	2000
Be	500	2000	1000
Ca	5000	4000	10000
Cd	500	2000	1000
Co	1000	4000	2000
Cr	1000	4000	2000
Cu	1000	4000	2000
Fe	5000	20000	10000
K	5000	20000	10000
Mg	5000	20000	10000
Mn	1000	4000	2000
Mo	1000	4000	2000
Na	5000	20000	10000
Ni	1000	4000	2000
Pb	1000	4000	2000
Sb	20	40	40
Se	1000	4000	2000
Si	1000	4000	2000
Sn	250	1000	500
Sr	1000	4000	2000
Ti	1000	4000	2000
Tl	1000	4000	2000
V	1000	4000	2000
Zn	1000	4000	2000
W	1000	200	200

Mercury: ICV, CCV, LCS and MS = 2.5 ppb.
Arsenic Hydride, Selenium Hydride: ICV, CCV, LCS and MS = 5 ppb.
Mercury by Method 1631: ICV,CCV = 0.005 ppb, LCS, MS = 0.005 ppb.

Wet Chemistry

Total Suspended Solids Analysis

Sample Raw Data

ALPHA ANALYTICAL LABS

Wet Chemistry - Mansfield Lab

TOTAL SUSPENDED SOLIDS

Last Change 04/15/09 EC
File A2-TSS.xlt

SOP No.: W-006

Product: A2-TSS-2540D
Analyte: Solids, Total Suspended
Analysis Date: 6/5/2014 10:00
Technician: JK
Work group: WG697777
RDL: 5.0 mg/l

Analysis: T S S
Method: SM 2540D(M)
LCS Concentration (mg/l): 35.9

105 Degrees C

	Sample Number	Symbol	Tare Weight (gm)	Sample Volume (ml)	Net Weight(1) (gm)	Net Weight(2) (gm)	RDL MULT.	RESULT mg/l	
BLANK	WG697777-1		0.0613	600	0.0612	0.0613	1	0.0	
DUP	WG697777-3		0.0667	300	0.0668	0.0667	1	0.0	L1408516-01
	L1411797-01		0.068	600	0.0693	0.0693	1	2.2	
	L1411797-02		0.0677	300	0.0676	0.0677	1	0.0	
	L1411797-03		0.0651	300	0.0652	0.0652	1	0.3	
	L1411797-04		0.0678	200	0.069	0.0691	1	6.0	
	L1411797-05		0.0641	300	0.0655	0.0655	1	4.7	
	L1411797-06		0.0683	600	0.0685	0.0685	1	0.3	
	L1411797-08		0.0635	300	0.0677	0.0679	1	14.0	

	Sample Number	Symbol	Tare Weight (gm)	Sample Volume (ml)	Net Weight(1) (gm)	Net Weight(2) (gm)	LCS Concentration	RESULT mg/l	% Recovery
LCS	WG697777-2		0.066	200	0.073	0.073	36	35.0	97

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jun 13 2014, 03:19 pm

Work Group: WG697777 for Department: 7 Wet Chemistry

Created: 13-JUN-14 Due: Operator:

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1411797-01	MW-005-052914	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
L1411797-02	MW-04A-052914	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
L1411797-03	MW-04A-052914-REP	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
L1411797-04	MW-001-052914	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
L1411797-05	MW-006-052914	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
L1411797-06	MW-07A-052914	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
L1411797-08	MW-003-052914	S	A2-TSS-2540D	WATER	DONE	U	0605	0613	S0	Plastic-A1
WG697777-1	Laboratory Method Bl	S	A2-TSS-2540D	WATER	DONE	U				
WG697777-2	Laboratory Control S	S	A2-TSS-2540D	WATER	DONE	U				
WG697777-3	Duplicate Sample	S	A2-TSS-2540D	WATER	DONE	U				

Comments:

WG697777-3 L1411797-02

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1411797
Client:	Battelle Duxbury Operations 397 Washington Street Duxbury, MA 02332
ATTN:	Deirdre Dahlen
Phone:	(781) 952-5253
Project Name:	NEW BEDFORD HARBOR SAWYER ST
Project Number:	W912WJ-12-D-0004
Report Date:	06/13/14

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004

Lab Number: L1411797
Report Date: 06/13/14

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1411797-01	MW-005-052914	NEW BEDFORD, MA	05/29/14 10:10
L1411797-02	MW-04A-052914	NEW BEDFORD, MA	05/29/14 10:45
L1411797-03	MW-04A-052914-REP	NEW BEDFORD, MA	05/29/14 10:46
L1411797-04	MW-001-052914	NEW BEDFORD, MA	05/29/14 13:30
L1411797-05	MW-006-052914	NEW BEDFORD, MA	05/29/14 15:15
L1411797-06	MW-07A-052914	NEW BEDFORD, MA	05/29/14 16:50
L1411797-07	EB-052914	NEW BEDFORD, MA	05/29/14 18:45
L1411797-08	MW-003-052914	NEW BEDFORD, MA	05/29/14 18:55

Project Name:	NEW BEDFORD HARBOR SAWYER ST	**Lab Number:**	L1411797
Project Number:	W912WJ-12-D-0004	**Report Date:**	06/13/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	NEW BEDFORD HARBOR SAWYER ST	**Lab Number:**	L1411797
Project Number:	W912WJ-12-D-0004	**Report Date:**	06/13/14

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Peter Henriksen

Title: Technical Director/Representative Date: 06/13/14

METALS

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-01
Client ID: MW-005-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 10:10
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:55	3020	1,6020A	PD
Chromium, Total	0.00273		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:55	3020	1,6020A	PD
Copper, Total	0.00462		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:55	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:55	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-02
Client ID: MW-04A-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 10:45
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:56	3020	1,6020A	PD
Chromium, Total	0.00136		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:56	3020	1,6020A	PD
Copper, Total	0.00372		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:56	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:56	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-03
Client ID: MW-04A-052914-REP
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 10:46
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	0.00064		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:44	3020	1,6020A	PD
Chromium, Total	0.00162		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:44	3020	1,6020A	PD
Copper, Total	0.00222		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:44	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:44	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-04
Client ID: MW-001-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 13:30
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:45	3020	1,6020A	PD
Chromium, Total	0.00121		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:45	3020	1,6020A	PD
Copper, Total	0.00406		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:45	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:45	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-05
Client ID: MW-006-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 15:15
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:46	3020	1,6020A	PD
Chromium, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:46	3020	1,6020A	PD
Copper, Total	0.00130		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:46	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:46	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-06
Client ID: MW-07A-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 16:50
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:47	3020	1,6020A	PD
Chromium, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:47	3020	1,6020A	PD
Copper, Total	0.00190		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:47	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:47	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-07
Client ID: EB-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water
Date Collected: 05/29/14 18:45
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:49	3020	1,6020A	PD
Chromium, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:49	3020	1,6020A	PD
Copper, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:49	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:49	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST
Lab Number: L1411797
Project Number: W912WJ-12-D-0004
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-08
Client ID: MW-003-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water
Date Collected: 05/29/14 18:55
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:50	3020	1,6020A	PD
Chromium, Total	0.00165		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:50	3020	1,6020A	PD
Copper, Total	0.00524		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:50	3020	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:50	3020	1,6020A	PD

Project Name: NEW BEDFORD HARBOR SAWYER ST **Lab Number:** L1411797

Project Number: W912WJ-12-D-0004 **Report Date:** 06/13/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG695349-1										
Cadmium, Total	ND		mg/l	0.00050	--	1	06/05/14 12:00	06/12/14 15:33	1,6020A	PD
Chromium, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:33	1,6020A	PD
Copper, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:33	1,6020A	PD
Lead, Total	ND		mg/l	0.00100	--	1	06/05/14 12:00	06/12/14 15:33	1,6020A	PD

Prep Information

Digestion Method: 3020

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD HARBOR SAWYER ST

Project Number: W912WJ-12-D-0004

Lab Number: L1411797

Report Date: 06/13/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG695349-2 SRM Lot Number: A2METSPIKE								
Cadmium, Total	103		-		80-120	-		20
Chromium, Total	101		-		80-120	-		20
Copper, Total	104		-		80-120	-		20
Lead, Total	101		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004

Lab Number: L1411797
Report Date: 06/13/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG695349-4 WG695349-5 QC Sample: L1411797-01 Client ID: MW-005-052914												
Cadmium, Total	ND	0.5	0.5121	102		0.5191	104		75-125	1		20
Chromium, Total	0.00273	1	1.04	104		1.04	104		75-125	0		20
Copper, Total	0.00462	1	1.01	100		1.01	100		75-125	0		20
Lead, Total	ND	1	0.960	96		0.971	97		75-125	1		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-000

Lab Number: L1411797
Report Date: 06/13/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG695349-3 QC Sample: L1411797-01 Client ID: MW-005-052914						
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00273	0.00276	mg/l	1		20
Copper, Total	0.00462	0.00499	mg/l	8		20
Lead, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-01
Client ID: MW-005-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 10:10
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	2.20		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-02
Client ID: MW-04A-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 10:45
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	ND		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-03
Client ID: MW-04A-052914-REP
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 10:46
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	ND		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-04
Client ID: MW-001-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 13:30
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	6.00		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-05
Client ID: MW-006-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 15:15
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	4.70		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-06
Client ID: MW-07A-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water
Date Collected: 05/29/14 16:50
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	ND		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004
Lab Number: L1411797
Report Date: 06/13/14

SAMPLE RESULTS

Lab ID: L1411797-08
Client ID: MW-003-052914
Sample Location: NEW BEDFORD, MA
Matrix: Water

Date Collected: 05/29/14 18:55
Date Received: 05/30/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total Suspended	14.0		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Project Name: NEW BEDFORD HARBOR SAWYER S **Lab Number:** L1411797

Project Number: W912WJ-12-D-0004 **Report Date:** 06/13/14

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab for sample(s): 01-06,08 Batch: WG697777-1										
Solids, Total Suspended	ND		mg/l	1.00	NA	1	-	06/05/14 10:00	30,2540D	JK

Lab Control Sample Analysis

Batch Quality Control

Project Name: NEW BEDFORD HARBOR SAWYER ST

Project Number: W912WJ-12-D-0004

Lab Number: L1411797

Report Date: 06/13/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06,08 Batch: WG697777-2								
Solids, Total Suspended	97		-		80-120	-		5

Lab Duplicate Analysis
Batch Quality Control

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-000

Lab Number: L1411797
Report Date: 06/13/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-06,08 QC Batch ID: WG697777-3 QC Sample: L1411797-02 Client ID: MW-04A-052914						
Solids, Total Suspended	ND	ND	mg/l	NC		5

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004

Lab Number: L1411797
Report Date: 06/13/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1411797-01A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-01B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-01C	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-01D	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-02A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-02B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-02C	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	-
L1411797-02D	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	-
L1411797-03A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-03B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-04A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-04B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-05A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-05B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-06A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-06B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-07A	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)
L1411797-07B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	-

*Values in parentheses indicate holding time in days

Project Name: NEW BEDFORD HARBOR SAWYER ST
Project Number: W912WJ-12-D-0004

Lab Number: L1411797
Report Date: 06/13/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1411797-08A	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	A2-TSS-2540D(7)
L1411797-08B	Plastic 250ml HNO3 preserved	A	<2	3.6	Y	Absent	A2-PB-6020T(180),A2-CR-6020T(180),A2-CD-6020T(180),A2-CU-6020T(180)

*Values in parentheses indicate holding time in days

Project Name:	NEW BEDFORD HARBOR SAWYER ST	**Lab Number:**	L1411797
Project Number:	W912WJ-12-D-0004	**Report Date:**	06/13/14

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: Data Usability Report

Project Name:	NEW BEDFORD HARBOR SAWYER ST	**Lab Number:**	L1411797
Project Number:	W912WJ-12-D-0004	**Report Date:**	06/13/14

Data Qualifiers

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: NEW BEDFORD HARBOR SAWYER ST **Lab Number:** L1411797

Project Number: W912WJ-12-D-0004 **Report Date:** 06/13/14

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:06131416:31 L1411797

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 5/30/14

ALPHA Job #: ~~L1411723~~ 5/31/14

ALPHA ANALYTICAL

8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: AECOM

Address: 250 Apollo Dr
Chelmsford, MA 01824

Phone: 978-905-2312

Email:

Project Information

Project Name: New Bedford Harbor Sawyer Street CDF

Project Location: New Bedford, MA

Project #:

Project Manager: Ryan McCarthy

ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: ~~6/6/14~~

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods
☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ____________ Criteria ____________

Additional Project Information:

Report to Deirdre Dahlen at Batelle

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; TSS; Cd, Cr, Cu, Pb

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	SVOC	METALS	METALS	EPH	VPH	PCB/PEST	TPH	TSS	Cd, Cr, Cu, Pb					Sample Comments	TOTAL # BOTTLES
~~11723-01~~	MW-005-052914	5/29/14	1010	GW	HJ									X	X					MS/MSD	
02 ~~02~~	MW-04A-052914	5/29/14	1045	GW	RM									X	X						
03 ~~03~~	MW-04A-052914-REP	5/29/14	1046	GW	RM									X	X						
04 ~~04~~	MW-001-052914	5/29/14	1330	GW	HJ									X	X						
05 ~~05~~	MW-006-052914	5/29/14	1515	GW	RM									X	X						
06 ~~06~~	MW-07A-052914	5/29/14	1600	GW	HJ									X	X						
07 ~~07~~	EB-052914	5/29/14	1845	GW	RM										X						
08 ~~08~~	MW-003-052914	05/29/14	1855	GW	HJ									X	X						
					Container Type																
					Preservative																

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
Helen [signature]		AAC [signature]	5/30/14 1440
W. McClelland [signature]	5/30/14 1620	W. McClelland [signature]	5/30/14 1620
[signature]	5/30/14 1620	[signature]	5/30/14 16:20
	5/31/14 0400	Mansfield lab	5/31/14 0400

FORM NO: 01-01 (rev. 12-Mar-2012)

Alpha
Summary Forms

Inorganic Summary Forms

U.S. EPA - CLP

COVER PAGE

Lab Name: Alpha Analytical

Lab Code: AAL SDG No.: L1411797

Client Sample No.	Lab Sample ID.
MW-005-052914	L1411797-01
MW-04A-052914	L1411797-02
MW-04A-052914-REP	L1411797-03
MW-001-052914	L1411797-04
MW-006-052914	L1411797-05
MW-07A-052914	L1411797-06
EB-052914	L1411797-07
MW-003-052914	L1411797-08
Prep Blank	WG695349-1
LCS	WG695349-2
MW-005-052914D	WG695349-3
MW-005-052914S	WG695349-4
MW-005-052914SD	WG695349-5

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	Yes/No	Yes	NA
Were ICP-AES and ICP-MS background corrections applied?	Yes/No	Yes	NA
If yes-were raw data generated before application of background corrections?	Yes/No	No	NA

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-005-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-01

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:55

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00273			
7440-48-4	Cobalt				
7440-50-8	Copper	0.00462			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-04A-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-02

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:56

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00136			
7440-48-4	Cobalt				
7440-50-8	Copper	0.00372			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-04A-052914-REP

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-03

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:44

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00064			
7440-70-2	Calcium				
7440-47-3	Chromium	0.00162			
7440-48-4	Cobalt				
7440-50-8	Copper	0.00222			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-001-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-04

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:45

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00121			
7440-48-4	Cobalt				
7440-50-8	Copper	0.00406			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-006-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-05

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:46

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00100	U		
7440-48-4	Cobalt				
7440-50-8	Copper	0.00130			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-07A-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-06

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:47

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00100	U		
7440-48-4	Cobalt				
7440-50-8	Copper	0.00190			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EB-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-07

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:49

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00100	U		
7440-48-4	Cobalt				
7440-50-8	Copper	0.00100	U		
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
1-IN
INORGANIC ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MW-003-052914

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

Lab Sample ID: L1411797-08

Analytical Method: 6020A

Date Received: 05/30/14

% Solids:

Date Analyzed: 6/12/14 15:50

Concentration Units: mg/l

CAS No.	Analyte	Concentration	C		
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium	0.00050	U		
7440-70-2	Calcium				
7440-47-3	Chromium	0.00165			
7440-48-4	Cobalt				
7440-50-8	Copper	0.00524			
7439-89-6	Iron				
7439-92-1	Lead	0.00100	U		
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7439-98-7	Molybdenum				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-24-6	Strontium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
7440-31-5	Tin				
7440-33-7	Tungsten				
7440-42-8	Boron				
57-12-5	Cyanide				
END					

Comments:

U.S. EPA - CLP
2A-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Concentration Units: mg/L

	Initial Calibration Verification			Continuing Calibration Verification					M
Analyte	True	Found	%R(1)	True	Found	%R(2)	Found	%R(2)	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium	0.05	0.05011	100	0.05	0.04981	100	0.050	100	
Calcium									
Chromium	0.05	0.0508	102	0.05	0.0512	102	0.051	103	
Cobalt									
Copper	0.05	0.0515	103	0.05	0.0519	104	0.051	101	
Iron									
Lead	0.05	0.0510	102	0.05	0.0515	103	0.051	103	
Magnesium									
Manganese									
Mercury									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Vanadium									
Zinc									
Tin									
Tungsten									
Boron									
Cyanide									
***									

(1) ICV Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP
2A-IN
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Concentration Units: mg/L

	Initial Calibration Verification			Continuing Calibration Verification					M
Analyte	True	Found	%R(1)	True	Found	%R(2)	Found	%R(2)	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium				0.05	0.05023	100			
Calcium									
Chromium				0.05	0.0502	100			
Cobalt									
Copper				0.05	0.0505	101			
Iron									
Lead				0.05	0.0508	102			
Magnesium									
Manganese									
Mercury									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Vanadium									
Zinc									
Tin									
Tungsten									
Boron									
Cyanide									
***									

(1) ICV Control Limits: Mercury 90-110; Other Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP
3-IN
BLANKS

Lab Name: Alpha Analytical

Lab Code: AAL SDG No.: L1411797

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units: mg/l

Analyte	Initial Calibration Blank(mg/L)	C	Continuing Calibration Blank (mg/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium	0.0000154	U	0.0000154	U	0.0000154	U	0.0000154	U	0.00050	U	
Calcium											
Chromium	0.000298	U	0.000298	U	0.000298	U	0.000298	U	0.00100	U	
Cobalt											
Copper	0.000099	U	0.000099	U	0.000099	U	0.000099	U	0.00100	U	
Iron											
Lead	0.000065	U	0.000065	U	0.000065	U	0.000065	U	0.00100	U	
Magnesium											
Manganese											
Mercury											
Molybdenum											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Strontium											
Thallium											
Vanadium											
Zinc											
Tin											
Tungsten											
Boron											
Cyanide											
***											

U.S. EPA - CLP
4A-IN
ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: Alpha Analytical

Lab Code: AAL SDG No.: L1411797

ICP-AES Instrument ID: ICPMS2

Concentration Units: mg/l

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found %R	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found %R	Final Found Sol. AB	Final Found %R
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium		0.1	0.003719		0.1024555	102				
Calcium										
Chromium		0.1	0.0048148		0.1068867	107				
Cobalt										
Copper		0.1	0.0049483		0.1012734	101				
Iron										
Lead		0.1	0.0005367		0.0968512	97				
Magnesium										
Manganese										
Mercury										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Vanadium										
Zinc										
Tin										
Tungsten										
Boron										
***										

U.S. EPA - CLP
6-IN
MATRIX SPIKE DUPLICATES

EPA SAMPLE NO.

MW-005-052914D

Lab Name: Alpha Analytical

Lab Code: AAL Case No.:

Matrix (soil/water): WATER

% Solids for Sample: N/A % Solids for Duplicate: N/A

Concentration Units: mg/l

Analyte	Control Limit	MS (S)	C	MSD (D)	C	RPD		
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium	20	0.5121		0.5191		1		
Calcium								
Chromium	20	1.04		1.04		0		
Cobalt								
Copper	20	1.01		1.01		0		
Iron								
Lead	20	0.960		0.971		1		
Magnesium								
Manganese								
Mercury								
Molybdenum								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Strontium								
Thallium								
Vanadium								
Zinc								
Tin								
Tungsten								
Boron								
Cyanide								

U.S. EPA - CLP
5A-IN
MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW-005-052914S

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

% Solids for Sample: N/A

Concentration Units: mg/l

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R		
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium	75-125	0.5121		0.00050	U	0.500	102		
Calcium									
Chromium	75-125	1.04		0.00273		1.0	104		
Cobalt									
Copper	75-125	1.01		0.00462		1.00	100		
Iron									
Lead	75-125	0.960		0.00100	U	1.00	96		
Magnesium									
Manganese									
Mercury									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Vanadium									
Zinc									
Tin									
Tungsten									
Boron									
Cyanide									

Comments:

U.S. EPA - CLP
5A-IN
MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MW-005-052914SD

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797

Matrix (soil/water): WATER

% Solids for Sample: N/A

Concentration Units: mg/l

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R		
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium	75-125	0.5191		0.00050	U	0.500	104		
Calcium									
Chromium	75-125	1.04		0.00273		1.0	104		
Cobalt									
Copper	75-125	1.01		0.00462		1.00	100		
Iron									
Lead	75-125	0.971		0.00100	U	1.00	97		
Magnesium									
Manganese									
Mercury									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Vanadium									
Zinc									
Tin									
Tungsten									
Boron									
Cyanide									

Comments:

U.S. EPA - CLP
6-IN
DUPLICATES

EPA SAMPLE NO.

MW-005-052914D

Lab Name: Alpha Analytical

Lab Code: AAL Case No.:

Matrix (soil/water): WATER

% Solids for Sample: N/A

% Solids for Duplicate: N/A

Concentration Units: mg/l

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD		
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium	20	0.00050	U	0.00050	U	NC		
Calcium								
Chromium	20	0.00273		0.00276		1		
Cobalt								
Copper	20	0.00462		0.00499		8		
Iron								
Lead	20	0.00100	U	0.00100	U	NC		
Magnesium								
Manganese								
Mercury								
Molybdenum								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Strontium								
Thallium								
Vanadium								
Zinc								
Tin								
Tungsten								
Boron								
Cyanide								

U.S. EPA - CLP
7-IN
LABORATORY CONTROL SAMPLE

Lab Name: Alpha Analytical

Lab Code: AAL

SDG No.: L1411797
WATER

Analyte	Aqueous (mg/L) True	Found	%R	Limits	Solid (mg/kg) True	Found	C	Limits	%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium	0.500	0.51330	103	80-120					
Calcium									
Chromium	1.0	1.0100	101	80-120					
Cobalt									
Copper	1.00	1.0400	104	80-120					
Iron									
Lead	1.00	1.0100	101	80-120					
Magnesium									
Manganese									
Mercury									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Vanadium									
Zinc									
Tin									
Tungsten									
Boron									
Cyanide									

U.S. EPA - CLP
12-IN
PREPARATION LOG

Lab Name: Alpha Analytical

Lab Code: AAL SDG No.: L1411797

Preparation Method: 3020

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
L1411797-01	06/05/14		25
L1411797-02	06/05/14		25
L1411797-03	06/05/14		25
L1411797-04	06/05/14		25
L1411797-05	06/05/14		25
L1411797-06	06/05/14		25
L1411797-07	06/05/14		25
L1411797-08	06/05/14		25
WG695349-1	06/05/14		25
WG695349-2	06/05/14		25
WG695349-3	06/05/14		25
WG695349-4	06/05/14		25
WG695349-5	06/05/14		25

FORM XII-IN ILM05.0

U.S. EPA - CLP
13-IN
Analysis Run Log

Lab Name: Alpha Analytical

Lab Code: AAL SDG No.: L1411797

Instrument ID: ICPMS2 Analysis Method: 6020A

Start Date: 06/12/14 End Date: 06/12/14

Lab Sample ID	D/F	Time	Analytes																														
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	MO	NI	K	SE	AG	NA	SR	TL	V	ZN	SN	W	B			
A1-ICV	1	15:24						X		X		X		X																			
A1-ICB	1	15:26						X		X		X		X																			
A1-ICSA	1	15:28						X		X		X		X																			
A1-ICSAB	1	15:29						X		X		X		X																			
WG695349-1	1	15:33						X		X		X		X																			
WG695349-2	1	15:34						X		X		X		X																			
WG695349-3	1	15:37						X		X		X		X																			
A1-CCV	1	15:38						X		X		X		X																			
A1-CCB	1	15:39						X		X		X		X																			
WG695349-4	1	15:41						X		X		X		X																			
WG695349-5	1	15:42						X		X		X		X																			
L1411797-03	1	15:44						X		X		X		X																			
L1411797-04	1	15:45						X		X		X		X																			
L1411797-05	1	15:46						X		X		X		X																			
L1411797-06	1	15:47						X		X		X		X																			
L1411797-07	1	15:49						X		X		X		X																			
L1411797-08	1	15:50						X		X		X		X																			
A1-CCV	1	15:51						X		X		X		X																			
A1-CCB	1	15:52						X		X		X		X																			
L1411797-01	1	15:55						X		X		X		X																			
L1411797-02	1	15:56						X		X		X		X																			
A1-CCV	1	15:57						X		X		X		X																			
A1-CCB	1	15:58						X		X		X		X																			

FORM XIII-IN ILM02.0

U.S. EPA - CLP
14-IN
ICP-MS TUNE

Lab Name: Alpha Analytical

Lab Code: AAL SDG No.: L1411797

ICP-MS Instrument ICPMS2 Date: 06/12/14

Element - Mass	Avg. Measured Mass (amu)	Avg. Peak Width at 10% Peak Height (amu)	%RSD
^{9}Be	9.075	0.692	2.147
^{59}Co	58.975	0.665	1.068
^{115}In	114.925	0.665	1.479
^{205}Tl	204.975	0.686	1.321
^{238}U	238.025	0.696	0.889

Comments:

U.S. EPA - CLP
15-IN
ICP-MS Internal Standards Relative Intensity Summary

Lab Name: Alpha Analytical SDG No.: L1411797

Lab Code: AAL

ICP Instrument ID: ICPMS2 Start Date: 6/12/2014 End Date: 6/12/2014

EPA Sample No.	Time	Internal Standards %RI For:											
		Lithium	Q	Scandium	Q	Germanium	Q	Indium	Q	Bismuth	Q	Terbium	Q
ICV	15:24					101		98				100	
ICB	15:26					102		99				100	
ICSA	15:28					81		87				93	
ICSAB	15:29					82		86				92	
WG695349-1	15:33					99		96				100	
WG695349-2	15:34					99		94				99	
WG695349-3	15:37					90		90				95	
CCV	15:38					100		98				102	
CCB	15:39					101		98				102	
WG695349-4	15:41					88		88				95	
WG695349-5	15:42					90		89				95	
L1411797-03	15:44					98		97				101	
L1411797-04	15:45					95		92				98	
L1411797-05	15:46					98		96				100	
L1411797-06	15:47					99		99				100	
L1411797-07	15:49					103		101				104	
L1411797-08	15:50					92		93				97	
CCV	15:51					100		100				104	
CCB	15:52					102		103				104	
L1411797-01	15:55					92		92				96	
L1411797-02	15:56					95		92				99	
CCV	15:57					101		99				103	
CCB	15:58					102		103				107	

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Appendix C

Data Validation Report

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July 17, 2014

Battelle
397 Washington St.
Duxbury, MA 02332
Attn: Ms. Deirdre Dahlen

Subject: NBH 2014 Data Validation

Dear Ms. Dahlen,

Enclosed are the final validation reports for the fractions listed below. These sample delivery groups (SDGs) were received on June 27, 2014.

SDG #	**Fraction**
L1411797	Metals, TSS
SH3734	VOCs, PCBs – Total & Aroclors

The data validation was performed at the Tier I Stage 1 and Tier 1 Stage 2A levels using the following guidelines, as applicable to each method:

- EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013
- EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010

Please feel free to contact me if you have any questions.

Sincerely,

Betsy Cutié
Battelle Columbus

Data Validation Report

Project Name: New Bedford Harbor 2014

Collection Date: May 29, 2014

Report Date: July 17, 2014

Matrix: Groundwater

Parameters: TSS

Validation Level: Tier I Stage 1

Laboratory: Alpha Analytical

Sample Delivery Group (SDG): L1411797

Sample Identification:

MW-001-052914
MW-003-052914
MW-005-052914
MW-006-052914
MW-04A-052914
MW-04A-052914-DUP
MW-07A-052914

Introduction

This data review covers 7 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were performed according to standard method SM 2540D (TSS).

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

An EPA Tier I Stage 1 review was performed on all of the samples.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor 2014

TSS - Data Qualification Summary - SDG L1411797

No sample data were qualified

Attachment 1
Tier I Stage 1 Data Validation Checklist

Project: New Bedford Harbor 2014

Laboratory: Alpha Analytical **Laboratory Batch:** L1411797

Analysis: TSS

Matrix: Groundwater **Collection Date:** 4/29/14

Reviewer: B. Cutie **Review Date:** 7/17/14

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Total Suspended Solids		
Preservation and technical holding times	Ice, 4°C ± 2°C. Analyze within 7 days	Yes
Method Blank	1 per extraction batch Target analytes < RL or 5X rule	Yes
Laboratory Control Sample	1 per extraction batch; 85-115% R	Yes
Lab Duplicate	1 per 20 samples or per batch; whichever is more frequent RPD ≤ 20% for results >5x RL	Yes
Field Duplicates*	RPD ≤ 30%	Yes

*Field duplicate pair is MW-04A-052914 & MW-04A-052914-REP.

References:

Final Quality Assurance Project Plan Addendum 7.0, Environmental Monitoring, Sampling and Analysis, New Bedford Harbor Superfund Site, New Bedford, MA, April 2014.

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Data Validation Report

Project Name: New Bedford Harbor 2014

Collection Date: May 29, 2014

Report Date: July 17, 2014

Matrix: Groundwater

Parameters: Metals (Cd, Cr, Cu, Pb)

Validation Level: Tier I Stage 2A

Laboratory: Alpha Analytical

Sample Delivery Group (SDG): L1411797

Sample Identification:

MW-001-052914
MW-003-052914
MW-005-052914
MW-006-052914
MW-04A-052914
MW-04A-052914-DUP
MW-07A-052914
EB-052914

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were performed according to EPA method 6020A (Metals).

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

An EPA Tier I Stage 2A review was performed on all of the samples.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor 2014

Metals - Data Qualification Summary - SDG L1411797

No sample data were qualified

Attachment 1
Tier I Stage 2A Data Validation Checklist

Laboratory: Alpha Analytical **Laboratory Batch:** L1411797

Analysis: Metals (Cd, Cr, Cu, Pb)

Matrix: Groundwater **Collection Date:** 5/29/2014

Reviewer: B. Cutie **Review Date:** 7/17/2014

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C, HT: extract and analyze within six months	Yes
Equipment blank	1 per sampling event Target analytes < RL or 5X rule	Yes
Initial Calibration (ICAL) , Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV)	ICAL – minimum 3 point, $r^2 \geq 0.998$ CCV every 10 samples, ICV≤ 20 %D CCV≤ 20 %D	Yes
Method Blank	1 per extraction batch Target analytes < RL or apply 5X rule	Yes
Matrix Spike/Matrix Spike Duplicate	1 per 20 samples; %R = 75-125% RPD ≤ 20% (for compounds >5X background)	Yes
Laboratory Control Sample	1 per extraction batch; %R = 80-120%	Yes
Interference Checks	Analyzed at the beginning of the analytical run or every 12 hours, 80-120% R	Yes
Completeness post-validation	Completeness ≥ 95%	Yes
Field Duplicates*	RPD ≤ 30%	No. Duplicate sample IDs MW-04A and MW-04A-REP had RSD= 31.1% for Cu, however both results were less than 2X the RL. Sample results were not qualified.

*Field duplicate pair is MW-04A-052914 & MW-04A-052914-REP.

Attachment 1
Tier I Stage 2A Data Validation Checklist

References:

Final Quality Assurance Project Plan Addendum 7.0, Environmental Monitoring, Sampling and Analysis, New Bedford harbor Superfund Site, New Bedford, MA, April 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Data Validation Report

Project Name: New Bedford Harbor 2014

Collection Date: May 29, 2014

Report Date: July 17, 2014

Matrix: Groundwater

Parameters: PCB Aroclors

Validation Level: Tier I Stage 2A

Laboratory: Katahdin Analytical

Sample Delivery Group (SDG): SH3734

Sample Identification:

EB-052914
MW-001-052914
MW-003-052914
MW-005-052914
MW-006-052914
MW-04A-052914
MW-04A-052914-REP
MW-07A-052914

Introduction

This data review covers 8 water samples listed on the cover sheet including duplicate samples and field blanks. The analyses were performed according to EPA method 8082A (PCB Aroclors and Total).

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

An EPA Tier I Stage 2A review was performed on all of the samples.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor 2014
PCB Congeners (Total) - Data Qualification Summary - SDG SH3734

SDG	Sample IDs	Compound	Flag	Reason
SH3734	MW-001-052914 MW-04A-052914	All compounds	J (all detects) UJ (all non-detects)	Samples MW-04A-052914 and MW-001-052914 had both surrogate recoveries below acceptance criteria on both channels.

Attachment 1
Tier I Stage 2A Data Validation Checklist

Laboratory: Katahdin Analytical Services **Laboratory Batch:** SH3734

Analysis: PCB Aroclors

Matrix: Groundwater **Collection Date:** 5/29/2014

Reviewer: B. Cutie **Review Date:** 7/17/2014

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Ice, 4°C ± 2°C HT: Extract within 7 days, Analyze within 40 days	Yes
Equipment Blank	1 per sampling event Target analytes < RL or 5X rule	Yes
Initial Calibration (ICAL) and Initial Calibration Verification (ICV) Continuing Calibration Verification (CCV)	ICAL at least 5 points, % RSD ≤ 20% Linear Model correlation coefficient (r) ≥ 0.990, CCV every 10 samples ICV ≤ 20 %D, CCV≤ 20 %D	Yes
Method Blank	1 per extraction batch Target analytes < RL or apply 5X rule	Yes
Matrix Spike/Matrix Spike Duplicate	1 per 20 samples; Aroclor 1016 and Aroclor 1260 %R within laboratory established limits, RPD ≤ 30%	Yes
Laboratory Control Sample/ Laboratory Control Sample Duplicate	1 per extraction batch; Aroclor 1016 and Aroclor 1260 %R within laboratory established limits, RPD ≤ 30% ; LCS is midpoint of calibration curve	Yes
Surrogate Spikes	%R within laboratory established limits. TCX (62-111%), DCB (40-135%)	Samples MW-04A-052914 and MW-001-052914 had both surrogates with recoveries below acceptance criteria on both channels. Sample results detects/non-detects were qualified with J or UJ, respectively.
Completeness post-validation	Completeness ≥ 95%	Yes
Field duplicates *	RPD ≤ 50%	Yes

Attachment 1
Tier I Stage 2A Data Validation Checklist

*Field duplicate pair is MW-04A-052914 & MW-04A-052914-REP.

References:

Final Quality Assurance Project Plan Addendum 7.0, Environmental Monitoring, Sampling and Analysis, New Bedford harbor Superfund Site, New Bedford, MA, April 2014

EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Data Validation Report

Project Name: New Bedford Harbor 2014

Collection Date: May 29, 2014

Report Date: July 17, 2014

Matrix: Groundwater

Parameters: VOCs

Validation Level: Tier I Stage 2A

Laboratory: Katahdin Analytical

Sample Delivery Group (SDG): SH3734

Sample Identification:

EB-052914
MW-001-052914
MW-003-052914
MW-005-052914
MW-006-052914
MW-04A-052914
MW-04A-052914-REP
MW-07A-052914
Trip Blank

Introduction

This data review covers 9 water samples listed on the cover sheet including duplicate samples and field blanks. The analyses were performed according to EPA method 8260B (VOCs).

A qualification summary is provided at the end of this report which details any data validation qualifiers that were assigned.

An EPA Tier I Stage 2A review was performed on all of the samples.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

New Bedford Harbor 2014

VOCs - Data Qualification Summary - SDG SH3734

SDG	Sample IDs	Compound	Flag	Reason
SH3734	EB-052914 MW-001-052914 MW-003-052914 MW-005-052914 MW-006-052914 MW-04A-052914 MW-04A-052914-REP MW-07A-052914 Trip Blank	1,4-Dioxane	J (all detects) UJ (all non-detects)	1,4-dioxane did not meet initial calibration criteria (linear and quadratic).

Attachment 1
Volatile Organic Compounds
Tier I Stage 2A Data Validation Checklist

Laboratory: Katahdin Analytical Services **Laboratory Batch:** SH3734

Analysis: VOCs

Matrix: Groundwater **Collection Date:** 5/29/2014

Reviewer: B. Cutie **Review Date:** 7/17/2014

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Preservation and technical holding times	Cooled to 4 ± 2°C and pH <2. No air bubbles in vials. HT: Analyze within 14 days.	Yes
Trip Blank	1 per sampling event Target analytes < RL or 5X/10X rule	Yes
Equipment Blank	1 per sampling event Target analytes < RL or 5X/10X rule	Yes
Initial Calibration (ICAL), Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV)	CCV every 10 samples ICAL r^2 ≥0.995 ; ICV ≤ 20 %D CCV ≤ 20 %D	1,4-dioxane did not meet the ICAL critiera (linear and quadratic). 1,4-dioxane results (detects/non-detects) for all associated samples were qualified with J or UJ, respectively.
Method Blank	1 per extraction batch Acetone, 2-Butanone, & Methylene Chloride ≤ 2x RL; all other Target Analytes < RL	Yes
Field Duplicates*	RPD ≤ 30%	Yes
Matrix Spike/Matrix Spike Duplicate	1 per 20 samples; %R within lab limits RPD ≤ 20% (for compounds >5X background)	Yes
Laboratory Control Sample/ Laboratory Control Sample Duplicate	1 per extraction batch; %R within lab limits, RPD ≤ 20%	Yes
Surrogate spikes	Per sample; %R for DCA (70-120%), BFB (75-120%), DBF (85-115%), TOL (85-120%)	Yes
Internal standards	-50% to 100% of area counts of opening CCV	Yes

Attachment 1
Volatile Organic Compounds
Tier I Stage 2A Data Validation Checklist

Data Element	Acceptance Criteria	Acceptable (Yes/No)/Comment
Completeness post-validation	Completeness ≥ 95%	Yes

*Field duplicate pair is MW-04A-052914 & MW-04A-052914-REP.

References: Final Quality Assurance Project Plan Addendum 7.0, Environmental Monitoring, Sampling and Analysis, New Bedford harbor Superfund Site, New Bedford, MA, April 2014, EPA-NE Environmental Data Review Supplement, Regional Data Review Elements and Superfund Specific Guidance/Procedures, April 2013.

Appendix D

Inter-laboratory Comparison Results

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USACE, New England District
Region I Data Review Worksheet **Data Validation Report**
Project: New Bedford Harbor- Sawyer St GW Monitoring QA **Review Criteria: NBH UFP-QAPP**
USEPA Region I Tier I+ Guidance
SEDD 2A

Data Validation Level	Matrix	Preservation	Temperature Sample Receipt	Laboratory	SDG Number
Tier I+ SEDD 2A Level II Data Package	Aqueous GW Monitoring	Various (As appropriate by Method)	One (1) sample cooler was received by TAL-VT on 05-31-14 at 0.6 °C	Test America Laboratory, VT 30 Community Drive, South Burlington, VT 05403 POC: Jim Madison 802-660-1990	SDG# or Lab W.O. No. 22587
Site: New Bedford Harbor Superfund Site 2011 Sawyer St GW Monitoring QA-Split Sampling- 5-29-14					

Field Identification of Samples Evaluated:

Field ID	Sample Location	Lab Sample Number	Sample Date
MW-001-052914-QA	NBH Sawyer St	200-22587-1	5-29-14

Note: *One QA split sample was collected for the Biannual Groundwater Monitoring at the Sawyer Street Pilot Study Confined Disposal Facility at the New Bedford Harbor Superfund Site located in New Bedford, MA. The following suite of analysis parameters were performed by the sub-contracted lab Test America, Inc., Burlington, VT. The appropriate sample handling, shipping, COCs, COC seals, certified pre-clean sample containers and preservatives were used. All of the appropriate coolers, sample containers were provided by the primary laboratory, Katahdin Analytical Services, Scraborough ME.*

Data Validation Chemist:

Mark R. Koenig
Senior Project Chemist
USACE, New England District
696 Virginia Road
Concord, MA 01742-2751
Ph: 978-318-8312
Fax: 978-318-8664

Analytical Parameters collected 10-05-11:

VOCs by Method 5030B/8260B
PCBs by Method 3510C/8082-Aroclors
Metals by Methods 3010A/6010C-AES-ICP (Cd, Cr, Cu and Pb)
TSS (Total Suspended Solids) by ASTM Method 2540D

Note: One QA Split sample was collected.

USACE, New England District
Region I Data Review Worksheet **Data Validation Report**
Project: New Bedford Harbor- Sawyer St GW Monitoring QA **Review Criteria: NBH UFP-QAPP**
USEPA Region I Tier I+ Guidance
SEDD 2A

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inventory	QUAL	BIAS
COC	1)Unbroken custody (accept or if broken R) 2) Temp≤6° (Soil-J detects, R - nondetects 3) Preserved per method (amber bottles, temperature. J, UJ, or R (function of HT and compound).	Cooler temperature at 0.6 degrees C. Sample preservation was adequate. The samples were transported to the laboratory in 1 cooler with ice packs but were not frozen upon receipt. Sample custody was transferred from Field Team Leader to and the sub-contracted laboratory TAL-VT. The Chain of Custody was intact. The laboratory sample receipt and login checklist indicates that sample integrity was maintained during transport. No qualifications were required.	X	-	
Holding Times (All analyses)	1) 7 Days water, 14 days soil to extraction; (40 days after extraction) 2) J –detects, UJ or R –nondetects (function of time) 3) 180-days for metals, Hg 28-days	1. All samples were extracted within 7 days from sample collection and analyzed within 40 days form sample extraction. Metals were digested and analyzed within the 180 holding times. No qualifications were required.	X	-	
% Solids Check (SOLIDS)	30%<Solids: if no sample weight adjustment made 1) <10% R entire sample 2) 10%.> and <30%; J-detects, NDs -R	Not applicable	-	-	
Results > Cal Range or <Cal Range	1) >Upper Cal Range J-detects - ensure instrument blank performed 2) <MRL but >MDL – J –detects (estimated)	1. No reported results were outside of the linear calibration range. No qualifications were required.	X	-	
Equipment Blank (EB)	< 5x (<10x common) contaminants for aqueous samples	1. Equipment Blank was not submitted with the QA-split sample. The trip balank was within all of the acceptance criteria.	-	-	
Surrogates	Surrogate Recoveries (All methods) **8260B-** sample MW-001-052914-QA 1,2-Dichloroethane-d4 @ 94% (80-120) 4-Bromofluorobenzene @ 95% (80-125) 1,2-Dichlorobenzene-d4 @ 88 (75-125) Toluene-d8 @ 96% (80-120) **8082-** sample MW-04A-100511-QA TCMX @ 84% (55-120) DCB @ 108% (30-150)	 **8260B-** sample and QC samples All the surrogate recoveries for sample MW-001-052914, MB and LCS/LCSD were within the acceptance limits. No qualifiers were required. **8082-** sample and QC samples All the surrogate recoveries for sample MW-001-052914-QA, MB and LCS/LCSD were within the acceptance limits. No qualifiers required.	X	-	

USACE, New England District
Region I Data Review Worksheet **Data Validation Report**
Project: New Bedford Harbor- Sawyer St GW Monitoring QA **Review Criteria: NBH UFP-QAPP**
USEPA Region I Tier I+ Guidance
SEDD 2A

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inventory	QUAL	BIAS
Laboratory Method Blanks (MB)	1) < 5x contaminants – U 2) analytes <lab RL (contract lab)	1 All of the Method Blanks for all of the analytical methods associated with sample MW-001-052914 were free of contamination above the RLs or LOQs, except for VOCs where several analytes were detected. They received UJ qualifiers on NDs and J qualifier on detects. Metals: All of the metals in the MB 200-22587-1 were below the LOQ s. No qualifiers required.	X	-	
Laboratory Control Sample (LCS) Percent Recovery	1) LCS TAL-VT laboratory acceptance limits (Battelle UFP-QAPP) 2) DOD QSM Table D-12 (aqueous) 10% and <LCL% J detects, UJ -NDs >UCL% J detects <10% R NDs, J-detects	1. All of the LCS/LCSD QC samples for all the analytical analyses were within the acceptance limits, except for; Bromoform. This compound was no detected in the sample under their standard reporting list, so a UJ qualifications was required.	X	-	
LCS/LCSD Relative Percent Difference (RPD)	RPD<30% laboratory SOP	All of the LCS/LCSDs for all methods performed were within the laboratory acceptance limits for precision.	X	-	
Matrix Spike/ Matrix Spike Duplicate (MS/MSD) Percent Recovery	1) MS/MSD ESS Lab acceptance limits (Battelle UFP-QAPP limits). 2) DOD QSM Table D-12 (aqueous) D-13 (s) QAPP limits (if MS > 4X native levels) Qualification of MS sample: <10% J detects, R NDs >10% and <LCL J detects, UJ -NDs >UCL J detects	1. **Metals-** No MS/MSD or MS were required.. No evaluation of matrix effects or % recoveries on sample MW-001-052914-QA could be made. 2. **8082 PCBs by aroclors:**. No MS/MSD or MS required. No evaluation of matrix effects or % recoveries on sample MW-001-052914-QA could be made. 3. **8260B VOCs**: No MS/MSD or MS required. No evaluation of matrix effects or % recoveries on sample MW-052914-QA could be made. 4. **TSS by Method 2540D:** No MS/MSD was performed on TSS.	-	-	
MS/MSD RPD	RPD ≤ 30% (Battelle UFP-QAPP) J –detects in MS sample UJ-non detects	See above. No MS/MSDs were requested. Matrix effects, %Recoveries or precision could not be made.	-	-	

USACE, New England District
Region I Data Review Worksheet **Data Validation Report**
Project: New Bedford Harbor- Sawyer St GW Monitoring QA **Review Criteria: NBH UFP-QAPP**
USEPA Region I Tier I+ Guidance
SEDD 2A

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inventory	QUAL	BIAS
Retention times	Within 3X standard deviation for each analyte from ICAL/CCV –lab window limits. Once per ICAL determined and evaluated with each CCV Exceeds: determine if false positives reported	No samples qualified.	X	-	
Field Duplicate RPD	1) RPD ≤ 50% water Results > X MRL (FD pair only) J-detects (both > X PQL) 2) If one >X MRL, other ND, J-detections, UJ non-detect Other conditions use judgment	1. A field duplicate for TSS was not collected for the QA-split sample.	-	-	
Initial Calibration (ICAL) (Linearity)	Correct calibration standards %RSD < 20% use average RF for calibration DOD QSM %RSD> 20% use least squares regression r> 0.995 MMR QAPP	1. Not evaluated as part of the Tier I+ or SEDD 2A DV.	X	-	
2nd Source Initial Calibration Verification (ICV)	%D ≤ 20% DOD QSM, 20% WHG UFP-QAPP once after ICAL Qualification: J detects, R or UJ ND's	1. Not evaluated as part of the Tier I+ or SEDD 2A DV.	X	-	
Continuing Calibration Verification (CCV)	1) 20 %D/drift of expected value (primary column) 2) 20% of expected value (confirmation column) WHG UFP-QAPP Analyzed after every 10 samples and at end of sequence.	1. Not evaluated as part of the Tier I+ or SEDD 2A DV.	X	-	

USACE, New England District
Region I Data Review Worksheet **Data Validation Report**
Project: New Bedford Harbor- Sawyer St GW Monitoring QA **Review Criteria: NBH UFP-QAPP**
USEPA Region I Tier I+ Guidance
SEDD 2A

REVIEW ITEMS	ACCEPTANCE CRITERIA	SAMPLES AFFECTED	Inventory	QUAL	BIAS
Compound Detection Confirmed	1) Detects within proper retention time windows. 2) Primary column detects confirmed by secondary column detects for PCB aroclors. 3) RPD <40% between column detections for PCBs by Method 8082 by aroclors. 4) MS/MSD no matrix interferences noted.	1. No QC deviations were observed. 2. Executive Summary of Detections of QA-split sample MW-04052914-QA, no detects: **8260B-** All reported target analytes were NDs at the LOQ. The two compounds naphthalene at 0.21 J ug/l and acetone at 2.5 J ug/l were all appropriately qualified by the lab as estimated J-values between the LOQ and the LOD. **8082 Aroclors-** All 9 Aroclors were reported as NDs at the LOQ. **Metals-6010C, no validation qualifiers applied.** Cadmium @ **0.89J ug/l** (LOD @ 0..56 ug/l, LOQ @ 5.0 ug/l) Chromium @ **0.15 J ug/l** (/LOD @ 1.1 ug/l, LOQ @) 10 ug/l) Copper @ **5.1 J ug/l** (/LOD) @ 4.2 ug/l, LOQ @ 25 ug/l) Lead @ **10.0 U ug/l** (LOD @ 3.7 ug/l, LOQ @ 10.0 ug/l) **TSS-** TSS at 16.5 mg/l for the sample.	X	Refer to Table 3	
Quantitation Sensitivity	Check MRL per Battelle UFP-QAPP Check if dilutions have raised MRL>Battelle UFP-QAPP limits	Acceptable	X	-	
Overall Evaluation of Data Usability	1) Appropriate method 2) Evaluate any analytical problems 3) Evaluate sampling errors – field contamination, sample hold times	Analytical Error Evaluation: 1. All LCS/LCSD %REC's and RPD's were within QC limits. 2. MS and MSD were not required since there was only one QA sample. 3. Method Blanks for all methods were free of contamination, except for 1,2,4-Trichlorobenzene, Hexachlorobutadiene, Naphthlene, 1,2,3-Trichlorobenzene which were reported in the method blank. The NDs were qualified with UJ. 4. All the analytical method surrogate spikes recovered within the acceptance limits. Data Usability Evaluation: All of the data is usable for the intended purposes. Minor data discrepancies were noted for VOCs, but based on the low-level detection they don't affect the usability of the QA data.	X	-	

*(Tier I+, SEDD 2A Check items) Completeness Check: Inventory Check Sheet_ X__ Sample Quantitation Calculations (TIER II ONLY):
Lab Correspondence: none

DATA COMPARISON TABLES (VALIDATED RESULTS)

PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING

5-29-14 Sampling Event

	Katahdin	TAL-VT
Laboratory Sample ID:	SH3734-9	200-22587-1
Field Sample ID:	**MW-001-052914**	**MW-001-5/29/14**
Date Sampled:	**5/29/14**	**5/12/14**
Date Received:	5/30/14	5/31/14
Date Extracted:	6/10/14	6/9/14
Date Analyzed:	6/10/14	6/9/14
Extraction Method:	5030B	5030B
Analysis Method:	8260B	8260B
Matrix:	**Groundwater**	**Groundwater**
Concentration Units:	ug/L	ug/L
Dilution Factor:	1.0	1.0

Target Analytes	Katahdin LOD	Primary Lab Results Katahdin	TAL-VT RL	QA Lab Results TAL-VT	USACE Comparison Code	%RPD	USACE Discrep.
1,1,1,2-Tetrachloroethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,1,1-Trichloroethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,1,2,2-Tetrachloroethane	1.0 U	0.50 U	1.0 U	0.5 U	0	NC	
1,1,2-Trichloroethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,1-Dichloroethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,1-Dichloroethene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,1-Dichloropropene	2.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,2,3-Trichlorobenzene	1.0 U	0.50 U	1.0 U	1.0 UJ	0	NC	
1,2,3-Trichloropropane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,2,4-Trichlorobenzene	1.0 U	0.50 U	1.0 U	1.0 UJ	0	NC	
1,2,4-Trimethylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,2-Dibromo-3-chloropropane	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
1,2-Dibromoethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,2-Dichlorobenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,2-Dichloroethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,2-Dichloropropane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,3,5-Trimethylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,3-Dichlorobenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,3-Dichloropropane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1,4-Dichlorobenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
1-Chlorohexane	NA	NA	NA	NA	0	NC	
1,4-Dioxane	100 U	50 U	50 U	50 U	0	NC	
2,2-Dichloropropane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
2-Butanone	5.0 U	2.5 U	5.0 U	5.0 U	0	NC	
2-Hexanone	5.0 U	2.5 U	5.0 U	5.0 U	0	NC	
4-Chlorotoluene	2.0 U	0.50 U	1.0 U	1.0 U	0	NC	
4-Isopropyltoluene	1.0 U	0.50 U	NA	NA	0	NC	
4-Methyl-2-pentanone	5.0 U	2.5 U	5.0 U	5.0 U	0	NC	
Acetone	5.0 U	2.5 U	5 U	**2.5 J**	0	NC	
Benzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Bromobenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Bromochloromethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Bromodichloromethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Bromoform	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Bromomethane	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Carbon disulfide	1.0 U	0.50 U	1.0 U	1.0 **U**	0	NC	
Carbon tetrachloride	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Chlorobenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Chloroethane	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Chloroform	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Chloromethane	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
cis-1,2-Dichloroethene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
cis-1,3-Dichloropropene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Dibromochloromethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Dibromomethane	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Dichlorodifluoromethane	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Ethyl ether	NA	NA	NA	NA	0	NC	
Ethylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Ethyl-Tert-Butyl-Ether	1.0 U	0.50 U	NA	NA	0	NC	
Hexachlorobutadiene	1.0 U	0.75 U	1.0 U	1.0 UJ	0	NC	
Isopropyl Ether	NA	NA	NA	NA	0	NC	
Isopropylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Methyl tert butyl ether	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Methylene chloride	5.0 U	2.5 U	1.0 U	1.0 U	0	NC	
Naphthalene	1.0 U	**2.8**	1.0 U	**0.21 J**	0	**172**	**%**
n-Butylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
n-Propylbenzene	1.0 U	0.50 U	1.0	1.0	0	NC	
o-Chlorotoluene	1.0 U	0.50 U	NA	NA	0	NC	
o-Xylene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
p/m-Xylene	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
p-Chlorotoluene	1.0 U	0.50 U	NA	NA	0	NC	
p-Isopropyltoluene	1.0 U	0.50 U	NA	NA	0	NC	
sec-Butylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Styrene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
tert-Butylbenzene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Tertiary-Amyl Methyl Ether	1.0 U	0.50 U	NA	NA	0	NC	
Tetrachloroethene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Tetrahydrofuran	10.0 U	5.0 U	14.0 U	14.0 U	0	NC	
Toluene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
trans-1,2-Dichloroethene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
trans-1,3-Dichloropropene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Trichloroethene	1.0 U	0.50 U	1.0 U	1.0 U	0	NC	
Trichlorofluoromethane	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	
Vinyl chloride	2.0 U	1.0 U	1.0 U	1.0 U	0	NC	

SURROGATE RECOVERIES(%)	Primary Lab Alpha		QA Lab Analytics	
1,2-Dichloroethane-d4 (70-130)	101 %	1,2-Dichloroethane-d4 (80-120)	94	%
Toluene-d8 (70-130)	101 %	Toluene-d8 (80-120)	98	%
4-Bromofluorobenzene (70-130)	101 %	4-Bromofluorobenzene (70-125)	98	%
Dibromofluoromethane (70-130)	100 %	1,2-Dibromobenzene-d4 (75-120)	91	%

SEE APPENDIX A FOR KEY TO COMMENTS

U= Not Detected above the Reporting Limit

NA= Not Analyzed

NC= Not calculated

*=Surrogate recoveries outside acceptance limits

DATA COMPARISON TABLES VALIDATED RESULTS

PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING

29-May-14

	Katahdin	TAL-VT
Laboratory Sample ID:	SH3734-4RA	200-22587-1
Field Sample ID:	**MW-001-052914**	**MW-0001-052914**
Date Sampled:	5/29/14	5/29/14
Date Received:	5/30/14	5/31/14
Date Extracted:	6/5/14	6/3/14
Date Analyzed:	6/9/14	6/4/14
Extraction Method:	3510C	3510C
Analysis Method:	8082-Aroclors	8082-Aroclors
Matrix:	**Groundwater**	**Groundwater**
Concentration Units:	ug/L	ug/L
Dilution Factor:	1.0	1.0

	Katahdin		TAL-VT			
	PRIMARY LAB	PRIMARY LAB	QA LAB	QA LAB	COMPARISON	
TARGET ANALYTE	**RL**	**RESULTS**	**RL**	**RESULTS**	**CODE**	***%RPD***
Aroclor-1016	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Aroclor-1221	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Aroclor-1232	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Aroclor-1242	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Arolcor-1248	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Arolcor-1254	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Arolcor-1260	0.026 U	0.026 U	0.051 U	0.051 U	0	0
Total PCBs		0.026 U		0.051 U		0

SURROGATE RECOVERIES (%)	QA			CONTRACTOR	
	column 1	column 2		column 1	column 2
Tetrachloro-m-xylene (62-111%)	43.6*	NR	Tetrachloro-m-xylene (55-120%)	88	NR
Decachlorobiphenyl (40-135%)	37.1*	NR	Decachlorobiphenyl (30-150%)	97	NR

SEE APPENDIX A FOR KEY TO COMMENTS

U= Indicates compound was analyzed for but not detected above the reporting limit.

J= Indicates an estimated value. This flag is used when the result is less than the reporting limit, but > 1/2 MDL.

D= Surrogate diluted out.

NA= Not applicable

NR= Not reported

*= Surrogate recoveries outside acceptance limits

COMPARISON OF QA & CONTRACTOR VALIDATED RESULTS

PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING

May 29, 2014 QA SAMPLING EVENT

	ALPHA	TAL-VT
Laboratory Sample ID:	L1411797-04	200-13157-1
Field Sample ID:	**MW-001-052914**	MW-001-052914
Date Sampled:	5/29/14	5/29/14
Date Received:	5/30/14	5/31/14
Date Digested:	6/5/14	6/4/14
Date Analyzed:	6/12/14	6/12/14
Analysis Method:	6020A	6010C
Matrix:	**Groundwater**	**Groundwater**
Concentration Units:	ug/L	ug/L
Dilution Factor:	1.0	1.0

Target Analyte	ALPHA PRIMARY LAB RL		**ALPHA PRIMARY LAB RESULTS**		TAL-VT QA LAB RL		**TAL-VT QA LAB RESULTS**		COMPARISON CODE Criteria 30%	QA split RPD's
Cadmium	0.5	U	0.50	U	0.10	U	**0.89**	**J**	NC	
Chromium	1.0	U	**1.2**		4.0	U	**1.5**	J	30	22%
Copper	1.0	U	**4.1**		20	U	**5.1**	**J**	30	21.7%
Lead	1.0	U	1.0	U	2.0	U	10.0	**U**	NC	

SEE APPENDIX A FOR KEY TO COMMENTS
NR=NOT REPORTED
U= Not Detected at the Reporting Limit
B= Less than the Contract Required Detection Limit (CRDL), but greater than the Instrument Detction Limit (IDL).
J= Analyte detected below quantitation limit.
NC= Not Calculated

COMPARISON OF QA & CONTRACTOR VALIDATED RESULTS

PROJECT: NEW BEDFORD HARBOR SUPERFUND SITE, SAWYER ST GW MONITORING

May 29, 2014 QA SAMPLING EVENT

	ALPHA	TAL-VT
Laboratory Sample ID:	L1411797-04	200-22587-1
Field Sample ID:	**MW-001-052914**	**MW-001-052914**
Date Sampled:	5/29/14	5/29/14
Date Received:	5/30/14	5/31/14
Date Analyzed:	6/5/14	6/4/14
Analysis Method:	2540D	2540D
Matrix:	**Groundwater**	**Groundwater**
Concentration Units:	mg/L	mg/L
Dilution Factor:	1.0	1.0

Inorganic Target Analyte	Analysis Method	ALPHA Primary Lab RL	**ALPHA PRIMARY LAB RESULTS**			TAL-VT QA LAB RL		**TAL-VT QA LAB RESULTS**			USACE COMPARISON CODE	*RPD*
Total Suspended Solids (TSS)	2540D	1.0	U	**6.00**	**mg/l**	5.0	U	**16.5**	**mg/l**		0	***93%***

SEE APPENDIX A FOR KEY TO COMPARISON CODES

NR= NOT REPORTED

NC= NOT CALCULATED

U= Not detected at or above the Reporting Limit

J= Estimated value, below the Reporting Limit

LRL= Laboratory Reporting Limit