

SUBSLAB DEPRESSURIZATION SYSTEM STARTUP REPORT

BUILDING 308/BUILDING 310 LINKWAY

*Former IBM East Fishkill Facility
Hopewell Junction, New York*



Poughkeepsie, New York

*Prepared for IBM Corporation
File No. 2999.03
February 2016*



8976 Wellington Road
Manassas, VA 20109

February 9, 2016

Alex G. Czuhanych
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway
Albany, New York 12233-7017

Re: Subslab Depressurization System Startup Report
Building 310/Building 308 Linkway
Former IBM East Fishkill Facility
Hopewell Junction, New York
EPA ID No. NYD00707901

Dear Mr. Czuhanych:

The enclosed report presents the results of performance monitoring and confirmatory sampling associated with the start-up of a subslab depressurization system to address the presence of volatile organic compounds (VOCs) beneath the floor slab of the Building 308/Building 310 linkway at the former IBM East Fishkill facility. Indoor air quality (IAQ) testing was conducted within the linkway in accordance with IBM's Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Work Plan, dated June 15, 2009.

If you have any questions or wish to discuss the report, please contact me at (703) 257-2583.

Sincerely yours,

Dean W. Chartrand
Program Manager
Corporate Environmental Affairs

Encl: Subslab Depressurization System Startup Report - Building 310/Building 308 Linkway

cc:	Brad Green	Sanborn Head	(via email/cover letter only)
	Gary Marone	Global Foundries	(via email/cover letter only)
	Jayne Ulrich	Global Foundries	(via email/cover letter only)
	Scarlett McLaughlin	NYSDOH	(via email and hard copy)

Dean Chartrand
IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, VA 20109

February 9, 2016
File No. 2999.03

Re: Subslab Depressurization System Startup Report
Building 310/Building 308 Linkway
Former IBM East Fishkill Facility
Hopewell Junction, New York
EPA ID No. NYD00707901

Dear Mr. Chartrand:

The enclosed report presents the results of performance monitoring and confirmatory sampling associated with the start-up of a subslab depressurization system installed in the Building 308/Building 310 linkway at the former IBM East Fishkill facility. Please contact us if you have any questions.

Very truly yours,
SANBORN, HEAD ENGINEERING, P.C.



David Shea, P.E.
President
20 Foundry St
Concord, NH 03301

JHS/DS: ds

Encl. Subslab Depressurization System Startup Report - Building 310/Building 308
Linkway

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**SUBSLAB DEPRESSURIZATION SYSTEM STARTUP REPORT
BUILDING 308/BUILDING 310 LINKWAY**

Former IBM East Fishkill Facility
Hopewell Junction, New York

Prepared for
IBM Corporation



Prepared by
Sanborn, Head Engineering, P.C.

File 2999.03
February 2016

SUBSLAB DEPRESSURIZATION SYSTEM STARTUP REPORT

BUILDING 308/BUILDING 310 LINKWAY

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EXECUTIVE SUMMARY

This report presents the results of performance monitoring and confirmatory indoor air sampling associated with the startup of a subslab depressurization system (SSDS) constructed to address the presence of volatile organic compounds (VOCs), primarily tetrachloroethene (PCE), beneath the floor slab of the Building 308/Building 310 linkway (the linkway) at the former IBM East Fishkill facility (the site).

Previous work by IBM and Sanborn, Head Engineering, P.C. (SHPC) indicated that subsurface VOCs were a source of VOCs detected in indoor air within the linkway. In response to these findings, IBM has performed remedial measures, including the sealing of floor cracks, construction joints, and a manhole/access-way within the linkway. In addition, IBM elected to install a SSDS as a supplemental remedial measure. The SSDS consists of three extraction ports (EPs) connected to individual blower fans with exhaust stacks installed above the linkway roofline.

SHPC subsequently conducted a post-startup performance assessment of the system, including subslab differential pressure monitoring and confirmatory indoor air screening and sampling. Subslab differential pressure monitoring shows that the SSDS has depressurized the subslab beneath the entire linkway in the east-west direction. Indoor air screening and confirmatory sampling was conducted approximately 44 days after system startup using a portable gas chromatograph/mass spectrometer (GC/MS) and 8-hour Summa® canister samples. Results of the indoor air screening and sampling indicate that the mitigation measures have successfully and adequately reduced VOC concentrations within indoor air throughout the linkway.

1.0 INTRODUCTION

This report presents the results of performance monitoring and confirmatory indoor air sampling associated with the startup of a subslab depressurization system (SSDS) installed within the linkway connecting Building 308 (B308) and Building 310 (B310) (the linkway) at the former IBM East Fishkill facility (the site). A site location plan is provided as Figure 1, and the location of the linkway on the site is shown on Figure 2. We understand that IBM will forward this report to the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), collectively the Agencies.

Historical indoor air screening and sampling within the linkway has indicated the presence of volatile organic compounds (VOCs), primarily tetrachloroethene (PCE). To address the indoor air VOC presence, certain measures were implemented to mitigate vapor intrusion pathways, such as sealing of floor cracks, construction joints, and a manhole/access-way inside the linkway. This work was documented in a May 2014 report¹ to the Agencies.

Subsequent indoor air screening conducted in the linkway in conjunction with heating, ventilation, and air conditioning (HVAC) system shutdown testing within B310 in January 2015 indicated the presence of PCE in indoor within the linkway. Subslab vapor samples collected in March 2015 confirmed PCE presence in soil gas below the linkway. In May 2015 IBM elected to conduct a pilot test to evaluate subslab depressurization (SSD) as a supplemental remedial measure for the linkway.

As documented in IBM's August 2015 Pilot Test Report², pilot testing results indicated SSD would be a feasible remedial measure. IBM proceeded with full scale design and construction of a SSDS, which was completed in October 2015. This letter documents the performance monitoring results of the October 2015 SSDS startup and presents the results of subsequent confirmatory indoor air screening and sampling. The assessment and this report are subject to the standard limitations of this type of work, as provided in Appendix A.

2.0 SUBSLAB DEPRESSURIZATION SYSTEM INSTALLATION AND STARTUP

The SSDS design basis was described in the August 2015 Pilot Test Report. The Agencies approved the design basis in a September 10, 2015 letter to IBM. The SSDS was constructed in September and October 2015, and put into operation on October 7, 2015. This section provides a description of the system and summarizes the startup activities, including target operating conditions and startup monitoring results.

¹ Report of Remedial Measures and Confirmatory Sampling Results, Building 308 and Linkway to Building 310, IBM East Fishkill Facility, Sanborn, Head Engineering P.C. and IBM Corporation, May 2014.

² Pilot Test Report, B310/B308 Linkway Subslab Depressurization System, Former IBM East Fishkill Facility, Sanborn, Head Engineering P.C. and IBM Corporation, August 2015.

2.1 System Description

The SSDS consists of three vapor extraction ports (EP-211, EP-213, and EP-214) each connected to a RadonAway™ HS2000E fan mounted to the north side exterior wall of the linkway. Soil vapor collected from each individual extraction port is discharged to

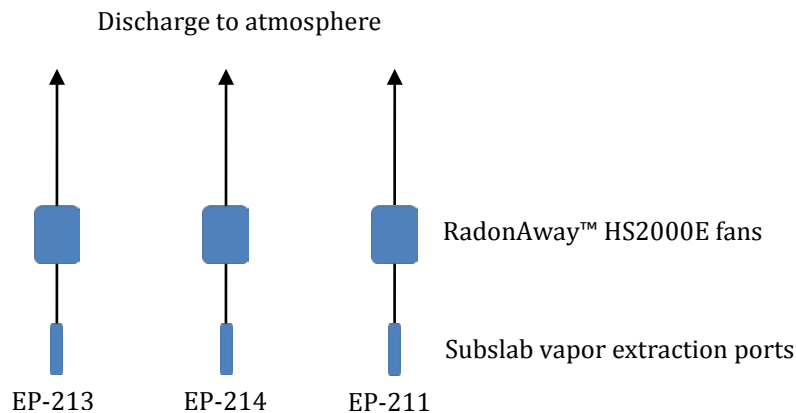


Exhibit 1 – Subslab Depressurization System Process Flow Diagram

atmosphere through an exhaust stack extending approximately 3 feet above the linkway roofline and fitted with a no-loss stack head to decrease the amount of precipitation that enters the exhaust stacks. Exhibit 1 shows diagram schematic diagram of the system.

The fans are single speed, therefore each one is fitted with an air dilution valve to allow adjustment to the applied vacuum and resulting extracted vapor flow rate from the subslab. Adjustments of the dilution air intake valves were made during startup to find the operating condition for each fan that depressurized the subslab at the minimum operating motor load. Exhibit 3 shows the wall mounted extraction fan with the no-loss stack head and dilution air valve.

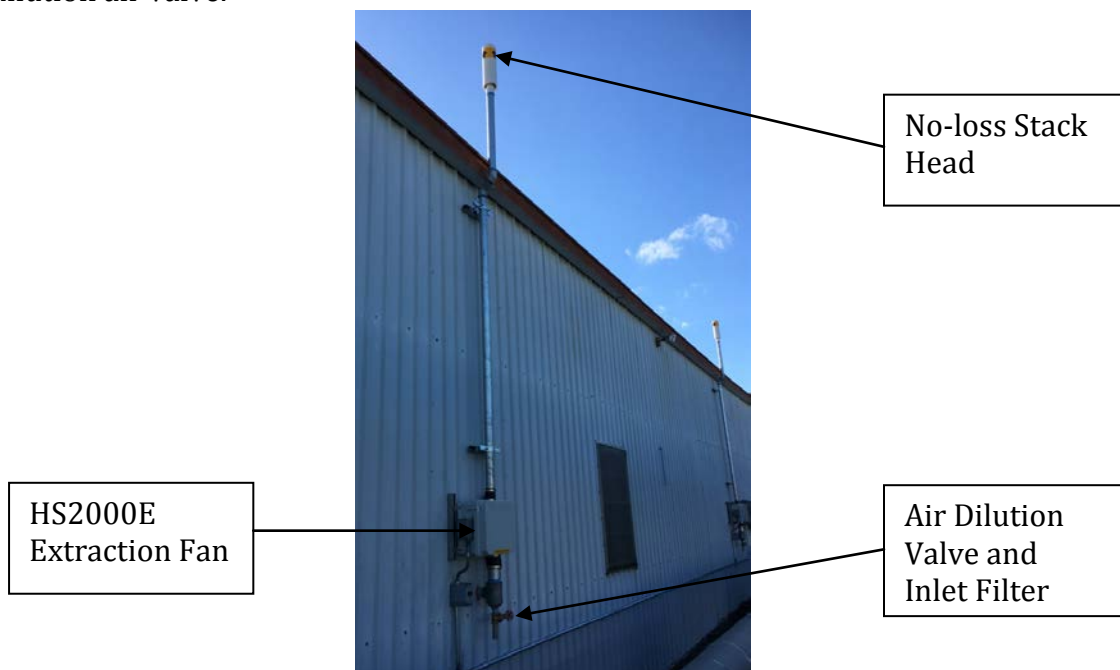


Exhibit 2 – Extraction Fan Mounted to Exterior Linkway Wall

Each extraction port is fitted with a pressure indicating switch that is connected to a cellular based remote telemetry unit (RTU). In the event of a fan shutdown and a resulting loss of applied vacuum, the pressure switch will signal the RTU, which will initiate a notification sequence. The RTU has a battery backup, and is able to send notifications during power outages. Exhibit 3 shows one of the extraction ports and its associated pressure indicating switch.

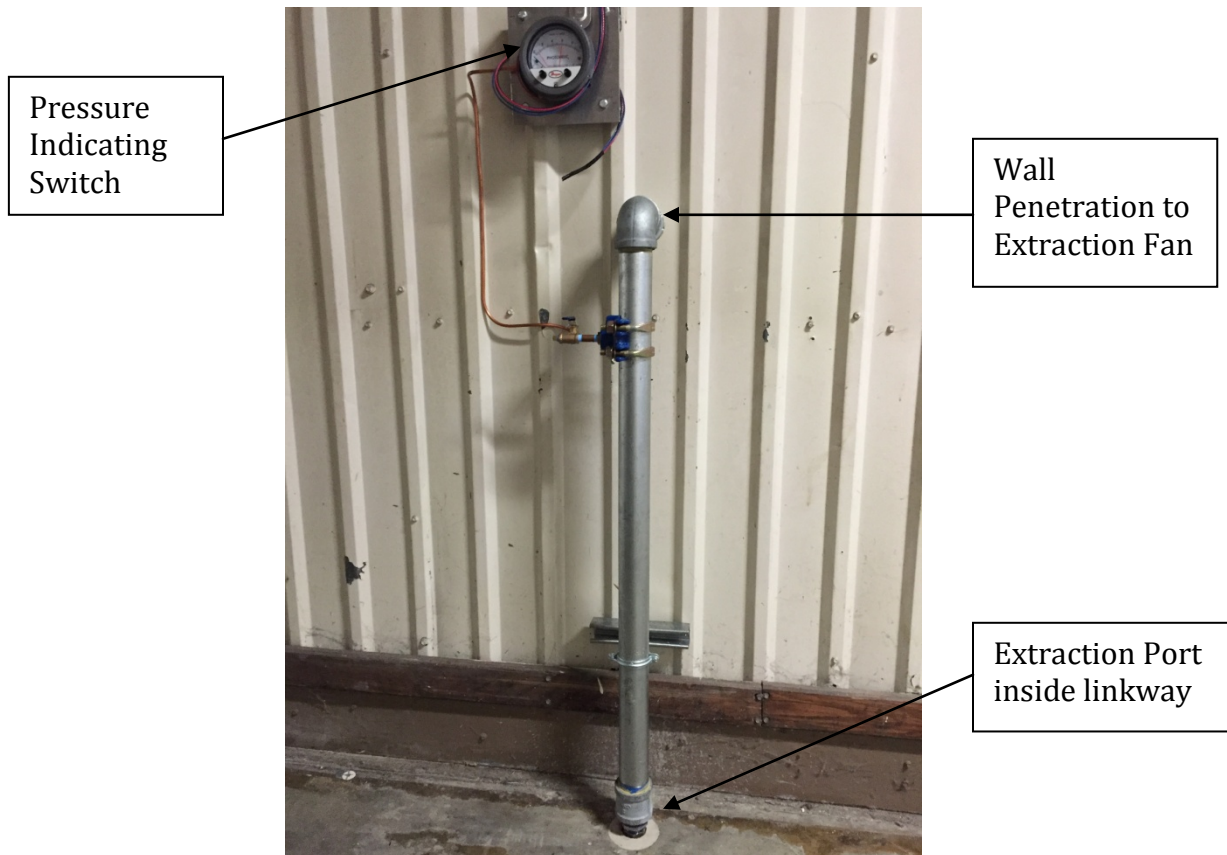


Exhibit 3 – Extraction Port with Associated Pressure Indicating Switch

2.2 Target Operating Conditions

During startup of the SSDS, each of the three blower fans was put into operation to achieve sufficient depressurization of the linkway subslab. Based on initial startup observations, the target vacuum applied to these ports ranged from approximately 6 to 8 inches of water column (in. wc), which resulted in a total combined approximate flow rate of 115 cubic feet per minute (cfm).

2.3 Subslab Differential Pressure Monitoring Results

Figure 3 summarizes the vapor extraction operating conditions and the extent of subslab pressure response during operation of the SSDS. On this figure, negative values of differential pressure indicate subslab pressure less than the indoor air pressure (i.e.,

subslab vacuum), thus showing the approximate extent of subslab vacuum influence resulting from the SSDS.

The smallest subslab differential pressure (i.e. least vacuum) observed within the linkway during system startup monitoring was -0.040 inches of water column (in. w.c.) at the easterly most monitoring port SS300. Based on SHPC's experience and various state guidance documents, a value of -0.004 in. w.c., or greater vacuum, is evidence that the SSDS is capable of intercepting vapor at that location.

As shown on Figure 3, the extent of vacuum influence under simultaneous operation of all three blower fans indicates sufficient depressurization of the subslab for the entire linkway in the east-west direction. It is expected that sufficient depressurization of the subslab across the width of the linkway (north-south direction) occurs based on the rapid differential pressure response observed in the east-west direction at distances greater than the width of the linkway.

2.4 VOC Mass Removal and Treatment

Using subslab vapor sampling data from March 2015 and the extracted vapor flow rates observed during startup, the SSDS has the potential to discharge an estimated 0.02 pounds per hour (lbs/hr) of VOC mass to the atmosphere. However, this is considered a conservative estimate since the highest subslab vapor concentration observed prior to system startup was used to calculate it. As is typical with SSDSs, an asymptotic decline in subslab vapor concentration is expected, and therefore actual concentrations will be less. This potential emission rate of 0.02 lbs/hr is well below the threshold of 0.5 lbs/hr that would require air pollution controls under NYSDEC Division of Environmental Remediation guidelines³.

3.0 INDOOR AIR SCREENING AND CONFIRMATORY SAMPLING

To evaluate the influence of SSDS operation on indoor air VOC levels, indoor air screening and confirmatory sampling was conducted on November 20, 2015, approximately 44 days after system startup. Indoor air screening was conducted using a portable gas chromatograph/mass spectrometer (GC/MS) at four of the locations that were screened in November 2013 and January 2015 prior to system installation. Post-startup, 8-hour confirmatory indoor air samples were collected using Summa® canisters at the two east-west ends of the linkway, consistent with pre-SSDS-startup sampling performed in November 2013. Indoor air screening and sampling locations are shown on Figure 4.

3.1 Indoor Air Screening and Results

Indoor air screening performed on November 20, 2015 was conducted using the Inficon HAPSITE SmartPlus portable GC/MS. The portable GC/MS data were used for general screening purposes only, to obtain an initial assessment of indoor air conditions after SSDS startup. Screening was conducted for PCE and trichloroethene (TCE) because these

³ NYSDEC, Division of Environmental Remediation, Internal memorandum from Dale Desnoyers, "Substantive Compliance with Air Requirements", February 28, 2003.

compounds were detected at greater concentrations and frequencies than other analytes during pre-system startup screening.

Table 1 presents the PCE and TCE results for pre- and post-SSDS-startup indoor air screening. Post-SSDS-startup PCE screening concentrations ranged from non-detect ($<0.68 \mu\text{g}/\text{m}^3$) to $0.97 \mu\text{g}/\text{m}^3$, which is less than the pre-SSDS-startup screening results throughout the linkway.

3.2 8-Hour Indoor Air Confirmatory Sampling and Results

The 8-hour, time-integrated indoor air confirmatory samples were collected simultaneously using 6-liter Summa® canisters. The samples were submitted to Eurofins Air Toxics, Inc. (EATI) for laboratory analysis of 22 project-specific VOCs using USEPA Method TO-15 in full scan and selective ion monitoring (SIM) modes. Additional sampling information, including sample location description, sample collection times, initial and final canister pressures, canister identification numbers, and field screening values is provided in Table 2. Photographs of sample locations are provided in Appendix B.

Table 3 summarizes the pre- and post-SSDS-startup indoor air sampling results. The analytical laboratory report for the confirmatory samples is included as Appendix C. Figure 4 shows the PCE concentrations in the pre- and post-SSDS-startup indoor air samples. PCE was not detected in the post-SSDS-startup samples at concentrations above the laboratory reporting limit, which is less than or consistent with the pre-SSDS-startup sampling results at these locations. The confirmatory indoor air results demonstrate that the SSDS is intercepting subsurface VOCs in subslab soil gas and preventing entry into the structure.

As summarized in Table 3, other compounds detected above their respective reporting limits included TCE, carbon tetrachloride, acetone, benzene, m,p-xylene, toluene, and trichlorofluoromethane (Freon® 11). Concentrations of these compounds were generally lower than or consistent with the results from the November 2013 sampling event. Carbon tetrachloride, acetone, and Freon® 11 were detected at similar concentrations in the ambient air sample, indicating that the concentrations detected at interior locations are likely attributable to the presence of these analytes in ambient outdoor air.

4.0 QUALITY ASSURANCE/QUALITY CONTROL

For quality assurance/quality control (QA/QC) purposes, one ambient outdoor air sample and one field duplicate sample were collected. The ambient air sample was collected from a location south of the linkway, near an entryway to Building 310. The field duplicate sample was collected at location IA 2037 simultaneous with the primary sample. QA/QC analytical results are presented in Table 3.

Analytical data from the November 2015 confirmatory sampling event were provided to New Environmental Horizons, Inc. (NEH) for third party independent data validation. NEH's data validation report is presented as Appendix D.

NEH's evaluation included a review of sample data to verify that the laboratory analyses were conducted in accordance with the required analytical methods and appropriate

laboratory procedures. NEH's evaluation was conducted per USEPA and NYSDEC guidelines for data validation of organic data. NEH prepared a Data Usability Report that summarizes their findings, which is included as Appendix D. In summary, NEH found the data to be useable in accordance with the project data quality objectives.

5.0 CONCLUSIONS

The installation and operation of the SSDS in the linkway is meeting its design objectives of depressurizing the subslab and preventing VOC vapors from migrating into indoor air. Indoor air screening and sampling indicates that the SSDS has reduced VOC concentrations throughout the linkway.

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TABLES

TABLE 1
Summary of Portable GC/MS Indoor Air Screening Results
SSDS Startup Report
Building 308/310 Linkway
Former IBM East Fishkill Facility
Hopewell Junction, New York

Screening Location	Collection Date	Type	Tetrachloroethene (PCE)	Trichloroethene (TCE)
			$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
IA2033	1/12/2015	Portable GC/MS - Indoor Air	3.87	R
	11/20/2015		<0.68	<0.54
IA2037	1/12/2015	Portable GC/MS - Indoor Air	5.22	R
	11/20/2015		0.97	<0.54
IA2042	11/7/2013	Portable GC/MS - Indoor Air	4.8	<2.7
	11/20/2015		<0.68	<0.54
IA2046	11/7/2013	Portable GC/MS - Indoor Air	8.1	<2.7
	11/20/2015		<0.68	<0.54

Notes:

1. This table summarizes data recorded during field screening at indoor air locations using a HAPSITE SmartPlus portable gas chromatograph/mass spectrometer (GC/MS), manufactured by Inficon. Field screening was conducted by Sanborn, Head & Associates, Inc. (Sanborn Head) personnel at the locations and on the dates noted in the table. Screening was conducted using the portable GC/MS in selective ion monitoring (SIM) mode. Results were converted to micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) by Sanborn Head using standard temperature (25°C) and pressure (1 atmosphere) for the conversion. Results were rounded to two significant figures.
2. The portable GC/MS was used as a field screening tool; therefore, the data should be considered estimated and not suitable for independent validation and decision-making. The findings should be considered in conjunction with the results of samples analyzed by a fixed laboratory.
3. "R" indicates the result was rejected based on field calibration check of the HAPSITE.

TABLE 2
Summary of Confirmatory Sample Information
SSDS Startup Report
Building 308/310 Linkway
Former IBM East Fishkill Facility
Hopewell Junction, New York

Sample Location	Building Floor	Sample Matrix	Canister Number	Sample Height (ft above floor)	Start Time (hours)	Start Pressure (mm Hg)	Stop Time (hours)	Stop Pressure (mm Hg)	PID (ppbv)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location
Collection Date: 11/20/2015												
Ambient Air	Ground	Ambient Air	25314	5	9:45	-30	17:48	-7.5	ND	51	B310 dock	None
IA2003	Ground	Indoor Air	446	2.5	9:25	-30	17:27	-7	ND	70	Linkway doors B308	None
IA2037	Ground	Indoor Air	64299	2.5	9:16	-30	17:20	-6	ND	69.6	Linkway doors B310	None
IA2037 DUP	Ground	Duplicate	32127	2.5	9:17	-30	17:20	-7.5	ND	70	Linkway doors B310	None

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on November 20, 2015.
2. Samples were collected into 6-liter, stainless steel, pre-evacuated SUMMA® canisters using 8-hour metering regulators. Canisters and regulators were laboratory-certified clean (100% certification).
3. PID screening was conducted using a ppbRAE, calibrated to a 10 parts per million by volume (ppmv) isobutylene-in-air standard.
4. "ND" indicates the instrument read 0 ppbv.

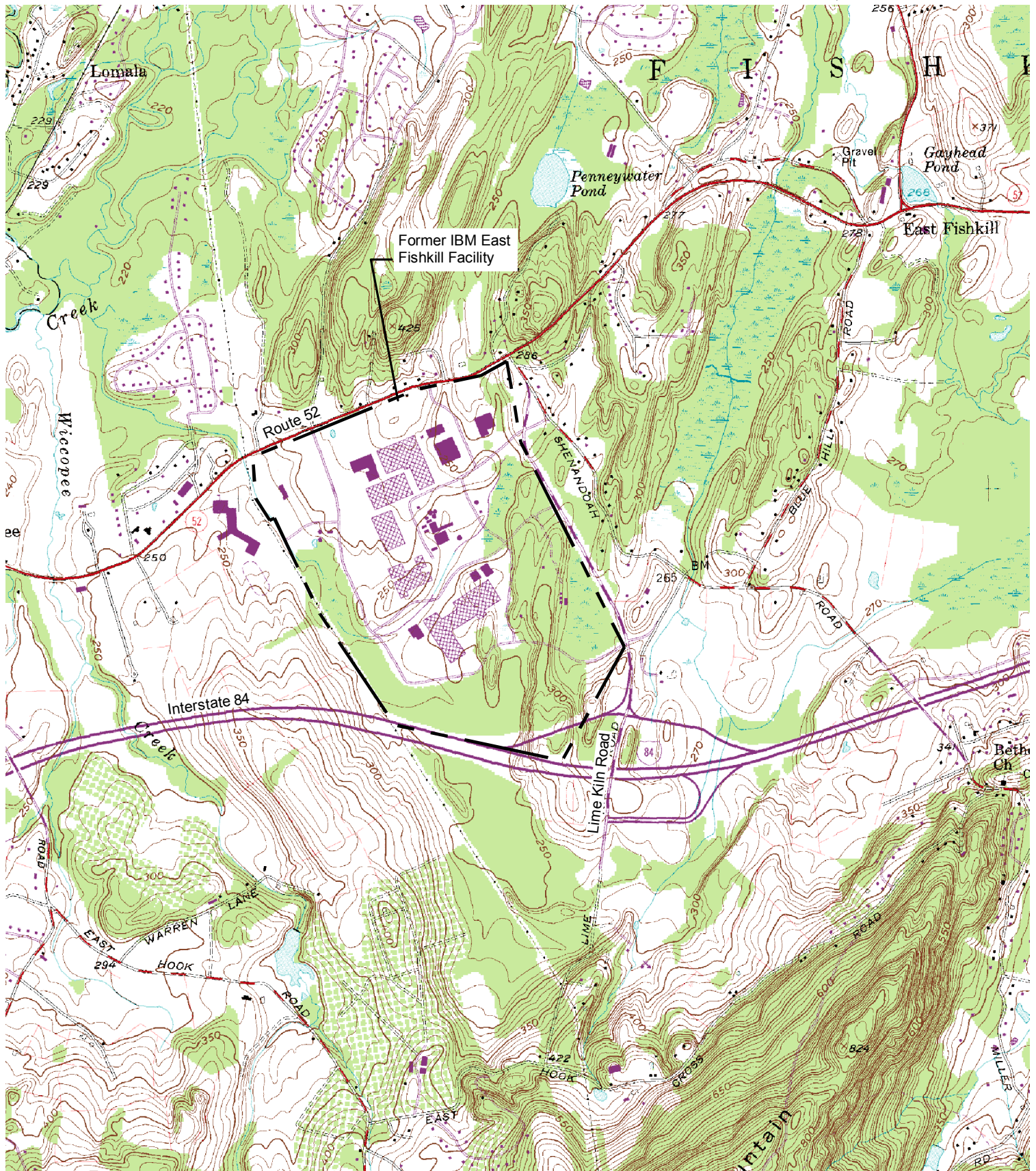
TABLE 3
Summary of Indoor Air Confirmatory Sampling Results
SSDS Startup Report
Building 308/310 Linkway
Former IBM East Fishkill Facility
Hopewell Junction, New York

Analyte Name	Concentrations in µg/m ³																	
	B308/310 Linkway Indoor Air																	
	IA2033						IA2037						IA 2037 DUP			Ambient Air		
	11/26/2013			11/20/2015			11/26/2013			11/20/2015			11/20/2015			11/20/2015		
	Result	Qual	Bias	Result	Qual	Bias	Result	Qual	Bias	Result	Qual	Bias	Result	Qual	Bias	Result	Qual	Bias
Tetrachloroethene (PCE)	<1.1	U		<1.1	U		6.8			<1.1	U		<1.1	U		<1.1	U	
Trichloroethene (TCE)	0.22			<0.18	U		0.28			<0.18	U		0.26			<0.17	U	
cis-1,2-Dichloroethene (cDCE)	<0.64	U		<0.65	U		<0.63	U		<0.65	U		<0.66	U		<0.63	U	
1,1-Dichloroethene (DCE)	<0.64	U		<0.65	U		<0.63	U		<0.65	U		<0.66	U		<0.63	U	
Vinyl chloride (VC)	<0.041	U		<0.042	U		<0.041	U		<0.042	U		<0.042	U		<0.041	U	
1,1,1-Trichloroethane (TCA)	<0.88	U		<0.90	U		<0.87	U		<0.89	U		<0.90	U		<0.87	U	
Carbon tetrachloride	0.68	J	I	0.37			0.73	J	I	0.38			0.38			0.4		
Methylene chloride (MeCl)	<1.1	U		<1.1	U		<1.1	U		<1.1	U		<1.2	U		<1.1	U	
Chlorobenzene	<0.74	U		<0.76	U		<0.73	U		<0.75	U		<0.76	U		<0.73	U	
1,2,4-Trichlorobenzene	<6.0	U		<6.1	UJ	I	<5.9	U		<6.0	UJ	I	<6.2	UJ	I	<5.9	UJ	I
1,2-Dichlorobenzene	<0.97	U		<0.99	U		<0.96	U		<0.98	U		<1.0	U		<0.96	U	
1,3-Dichlorobenzene	<0.97	U		<0.99	U		<0.96	U		<0.98	U		<1.0	U		<0.96	U	
1,4-Dichlorobenzene	<0.97	U		<0.99	U		<0.96	U		<0.98	U		<1.0	U		<0.96	U	
Acetone	7.5			15			7.1			10			8.3			3.5		
Benzene	0.90			0.53			0.83			0.5	J	I	0.52	J	I	<0.51	U	
Ethylbenzene	<0.70	U		<0.72	U		<0.69	U		<0.71	U		<0.72	U		<0.69	U	
m,p-Xylene	1.3			0.76			1.6			<0.71	U		0.86			<0.69	U	
o-Xylene	<0.70	U		<0.72	U		<0.69	U		<0.71	U		<0.72	U		<0.69	U	
Toluene	5.1			1.7			3.7			1.1			1.4			<0.6	U	
Trichlorofluoromethane (Freon® 11)	1.3			1.1			1.5			1.7			1.7			1.4		
Dichlorodifluoromethane (Freon® 12)	2.6			<4.1	U		2.2			<4.0	U		<4.1	U		<3.9	U	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon® 113)	1.7			<1.3	U		1.7			<1.2	U		<1.3	U		<1.2	U	

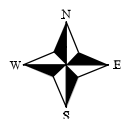
Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. personnel on the dates indicated using 6-liter SUMMA® canisters equipped with 8-hour flow controllers.
2. Sample analysis was completed by Eurofins Air Toxics, Inc. (EATI) of Folsom, California using United States Environmental Protection Agency (USEPA) Method TO-15 (Hi/Low). Trichloroethene, vinyl chloride, and carbon tetrachloride were analyzed in Selective Ion Monitoring (SIM) mode.
3. "<" indicates a non-detection at the reporting limit shown.
4. New Environmental Horizons, Inc (NEH) performed an independent validation of the 2013 and 2015 analytical data, as described in their [Data Usability Reports](#), dated January 10, 2014 and December 31, 2015. The December 31, 2015 Data Usability Report is provided as Appendix C. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data:
"U" - The compound was analyzed for, but was not detected. The associated numerical value is the sample-specific reporting limit. The value is usable for project decisions as a non-detect result at the reporting limit.
"J" - Indicates result is an estimated value.
"I" - Indicates indeterminate bias.

FIGURES



Notes:
Base map taken from 7.5 minute
USGS Quadrangle Maps: Hopewell
Junction, New York, Dated 1957,
Photorevised in 1981.



SANBORN HEAD ENGINEERING

Drawn By: E. Wright
Designed By: J. Corsello
Reviewed By: S. Soos / D. Shea
Project No: 2999.03
Date: February 2016

Figure 1

Site Location Plan

B308/B310 Linkway SSDS
Startup Report

Former IBM East Fishkill Facility
Hopewell Junction, New York



Figure 2

B308/B310 Linkway Location Plan

B308/B310 Linkway SSDS
Startup Report

Former IBM East Fishkill Facility
Hopewell Junction, New York

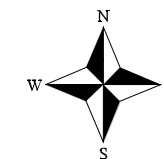
Drawn By: E. Wright
Designed By: J. Corsello
Reviewed By: S. Soos / D. Shea
Project No: 2999.03
Date: February 2016

Figure Narrative

This figure shows the buildings at the former IBM East Fishkill facility. The B308/B310 Linkway is highlighted.

Legend

- Property Line
-  Unlabeled features include wastewater treatment tanks, pump houses, trailers, and other structures and features not intended for human occupancy
- B320B Indicates building number
-  Indicates the location of the B308/B310 Linkway



200' 100' 0 200' 400' Feet

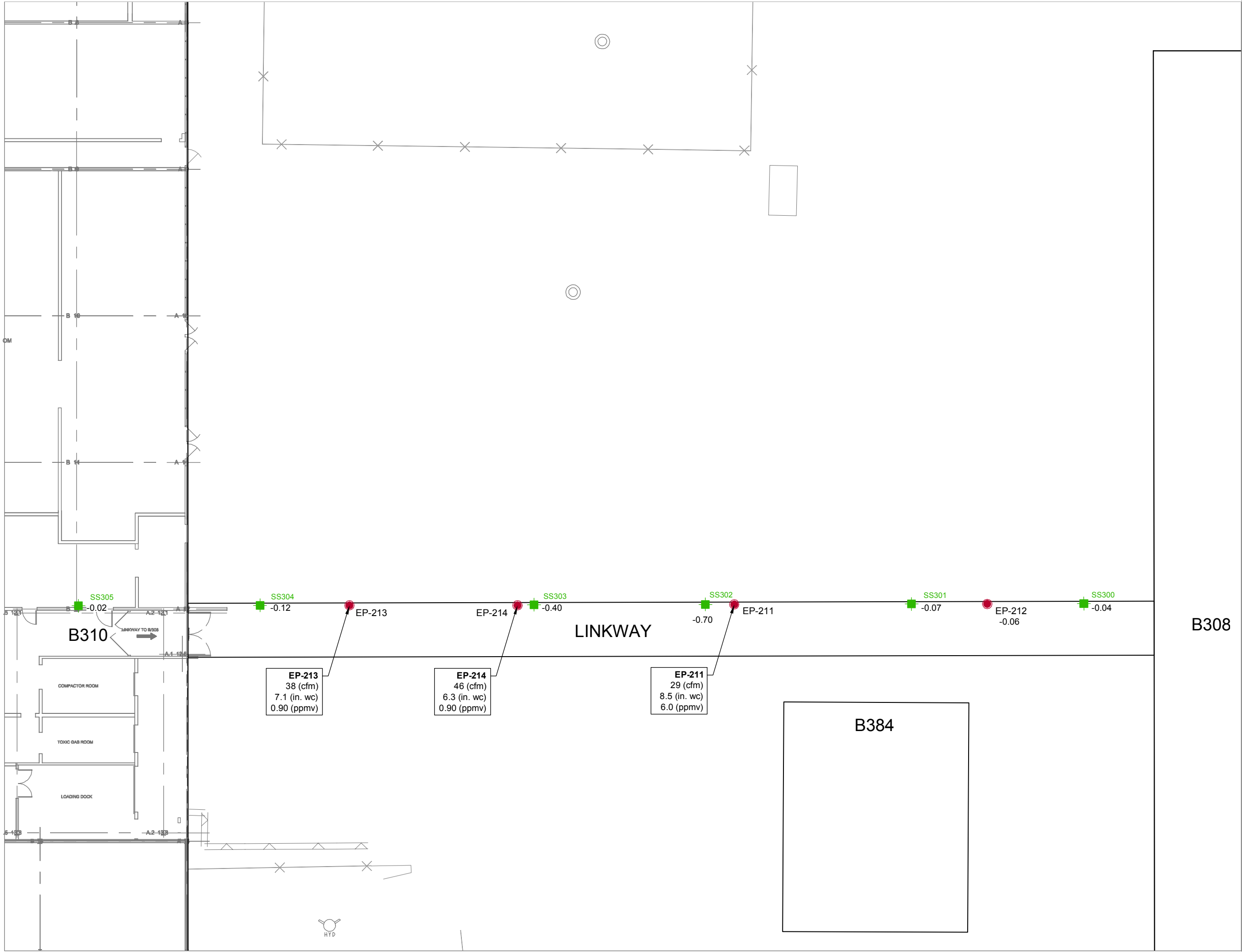


Figure 3

Subslab Pressure Response to Vapor Extraction

B308/B310 Linkway SSDS Startup Report

Former IBM East Fishkill Facility
Hopewell Junction, New York

Drawn By: E. Wright
Designed By: J. Corsello
Reviewed By: S. Soos / D. Shea
Project No: 2999.03
Date: February 2016

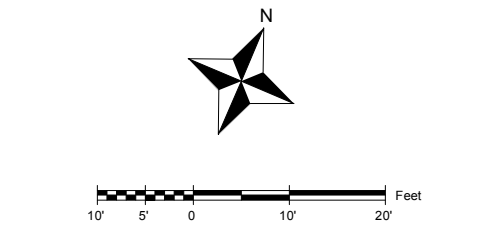
Figure Narrative

This figure shows the vapor extraction data and observed subslab pressure response for all three fans operating simultaneously. Subslab pressure was monitored using a digital manometer referenced to the indoor pressure. Negative values indicate subslab pressure less than indoor air pressure.

Legend

- SS300 1/2 inch subslab monitoring port
- EP-211 Subslab extraction port
- 0.04 Differential pressure measurement (in. wc)

EP-214	Extraction port
46 (cfm)	Flow rate (cu. ft. per min.)
6.3 (in. wc)	Vacuum (extraction port)
0.90 (ppmv)	PID concentration



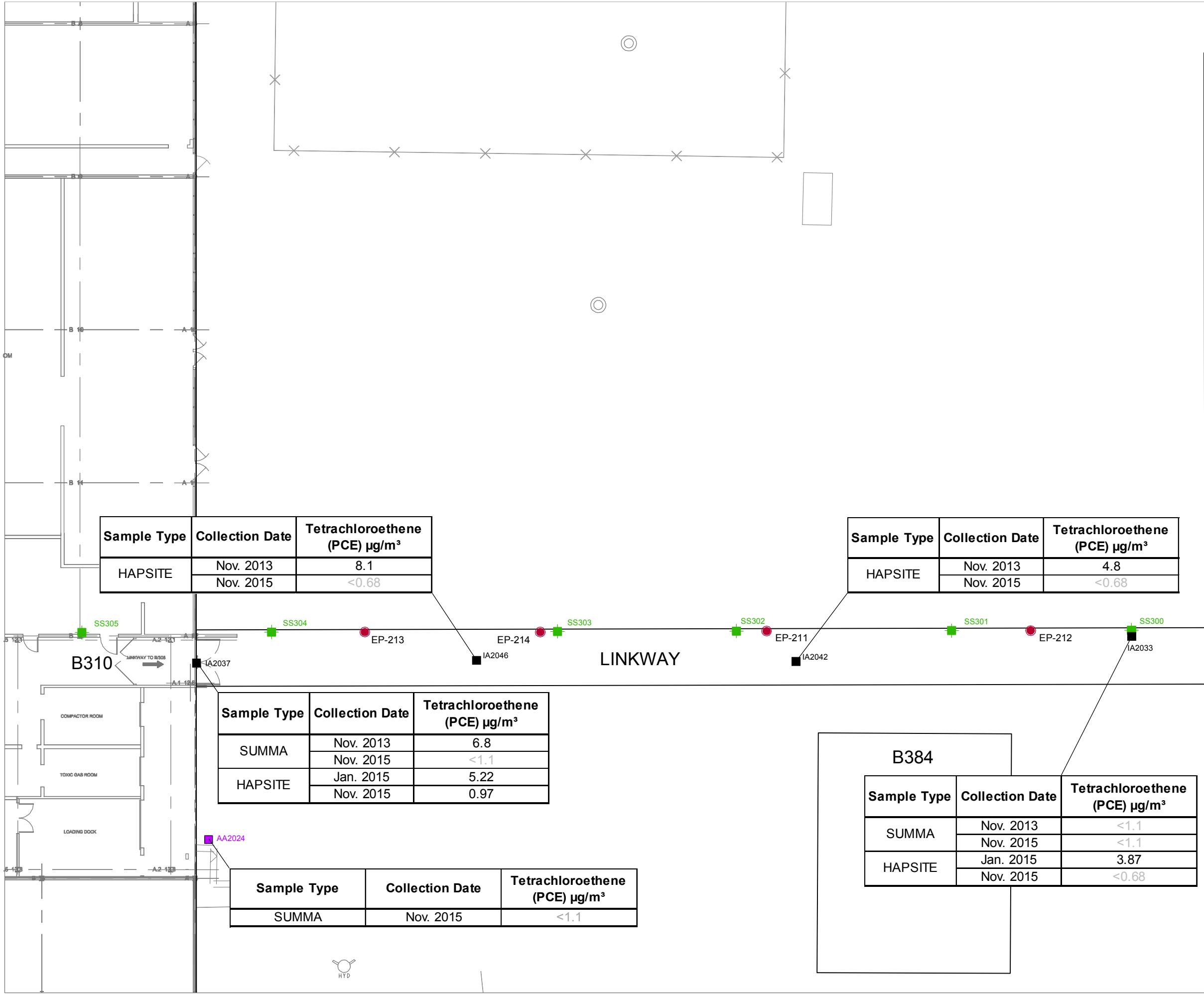


Figure 4

Summary of PCE in Indoor Air

B308/B310 Linkway SSDS Startup Report

Former IBM East Fishkill Facility
Hopewell Junction, New York

Drawn By: E. Wright
Designed By: J. Corsello
Reviewed By: S. Soos / D. Shea
Project No: 2999.03
Date: February 2016

Figure Narrative

This figure shows the results of indoor air screening and sampling for PCE in the linkway before and after startup of the Sub-slab Depressurization System (SSDS).

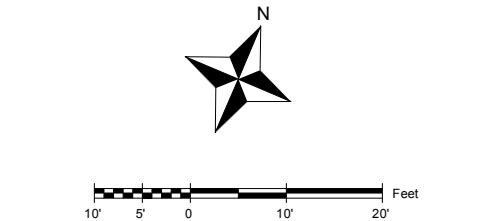
Screening samples were collected using a portable gas chromatograph/mass spectrometer (GC/MS) over an approximate 1 minute time interval. The results should be considered screening level only.

Analytical samples were collected as 8-hour time weighted average samples using Summa canisters.

The most recent result for Pre- and Post SSDS Startup data is shown at each location. Only the locations that have Post-SSDS Startup data are shown on this figure. November 2013 and January 2015 results represent pre-startup conditions. November 2015 results represent post-startup conditions.

Legend

- SS300 1/2 inch subslab monitoring port
- EP-211 Subslab extraction port
- IA2042 Indoor air location
- AA2024 Ambient air location



APPENDIX A

LIMITATIONS

APPENDIX A

LIMITATIONS

1. The findings and conclusions described in this report are based in part on the data obtained from a finite number of samples from widely spaced locations. The figures are intended to depict inferred conditions during a given period of time, consistent with available information. The actual conditions will vary from that shown, both spatially and temporally. Other interpretations are possible. The nature and extent of variations between sampling locations may not become evident until further investigation is initiated. If variations or other latent conditions then appear evident, it may be necessary to re-evaluate the conclusions of this report.
2. The conclusions contained in this report are based in part upon various types of chemical data, as well as historical and hydrogeologic information developed by previous investigators. While SHPC has reviewed the data available to us at the time the report was prepared and information as stated in this report, any of SHPC's interpretations and conclusions that have relied on that information will be contingent on its validity. SHPC has not performed an independent assessment of the reliability of the data; should additional chemical data, historical information, or hydrogeologic information become available in the future, such information should be reviewed by SHPC and the interpretations and conclusions presented herein may be modified accordingly.
3. Sampling and quantitative laboratory testing was performed by others as part of the investigation as noted within the report. Where such analyses have been conducted by an outside laboratory, unless otherwise stated in the report, SHPC has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data. It must be noted that additional compounds not searched for during the current study may be present in vapor and groundwater at the site. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their distribution within the groundwater and vapor may occur due to the passage of time, seasonal water table fluctuations, recharge events, and other factors.
4. This report has been prepared for the exclusive use of IBM for specific application to the Building 310/Building 308 Linkway at the Former IBM East Fishkill facility in accordance with generally accepted engineering and scientific practices. No warranty, expressed or implied, is made. The contents of this report should not be relied on by any other party without the express written consent of SHPC.
5. In preparing this report, SHPC has endeavored to conform to generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. SHPC has attempted to observe a degree of care and skill generally exercised by the technical community under similar circumstances and conditions.

APPENDIX B

PHOTOGRAPH LOG

**Building 308/Building 310 Linkway
November 20, 2015
8-Hour Summa® Sampling
Photograph Log**



Photo 1: Ambient Air sample, B310 loading dock



Photo 2: IA2037 and IA2037 Dup, linkway doors to B310



Photo 3: IA2033, linkway doors to B308

APPENDIX C

ANALYTICAL LABORATORY DATA REPORT



eurofins

Air Toxics

Electronic Comprehensive Validation Package (eCVP)

COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1511365R1

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b. Target Compound Raw Data		
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-Chromatogram(s) and Ion Profiles (If Applicable)		
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Comments:

Completed by:

Vera Belitsky

Vera Belitsky / Document Control

12/16/15

(Signature)

(Print Name & Title)

(Date)

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WORK ORDER #: 1511365R1

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	BILL TO:	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	P.O. #	
FAX:		PROJECT #	
DATE RECEIVED:	11/23/2015	CONTACT:	Ausha Scott
DATE COMPLETED:	12/08/2015		
DATE REISSUED:	12/14/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	IA 2033	Modified TO-15	5.9 "Hg	4.8 psi
01B	IA 2033	Modified TO-15	5.9 "Hg	4.8 psi
02A	IA 2037	Modified TO-15	5.5 "Hg	4.9 psi
02B	IA 2037	Modified TO-15	5.5 "Hg	4.9 psi
03A	IA 2037 Dup	Modified TO-15	5.7 "Hg	5.1 psi
03B	IA 2037 Dup	Modified TO-15	5.7 "Hg	5.1 psi
04A	Ambient Air	Modified TO-15	4.9 "Hg	4.9 psi
04B	Ambient Air	Modified TO-15	4.9 "Hg	4.9 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 12/14/15

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Sanborn, Head & Associates
Workorder# 1511365R1**

Four 6 Liter Summa Canister (SIM Certified) samples were received on November 23, 2015. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$.; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Sample identification for sample IA 2033 was not provided on the sample tag. Therefore the information on the Chain of Custody was used to process and report the sample.

The Chain of Custody (COC) information for sample IA 2037 Dup did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

The work order was reissued on December 14, 2015 to correct identification of samples IA 2033 per

client submitted, revised Chain of Custody (COC) form.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Due to the linear calibration range of the instrument, the reporting limit for Freon 12 was raised from 0.10 ppbv to 0.50 ppbv.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample	Sample Extract		
					Holding Time (Days)	Date Analyzed	Holding Time (Days)	Sample Condition
IA 2033	1511365R1-01A	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
IA 2033	1511365R1-01B	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
IA 2037	1511365R1-02A	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
IA 2037	1511365R1-02B	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
IA 2037 Dup	1511365R1-03A	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
IA 2037 Dup	1511365R1-03B	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
Ambient Air	1511365R1-04A	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
Ambient Air	1511365R1-04B	11/20/2015	11/23/2015	NA	5	11/25/2015	NA	Good
Lab Blank	1511365R1-05A	NA	NA	NA	NA	11/25/2015	NA	Good
Lab Blank	1511365R1-05B	NA	NA	NA	NA	11/25/2015	NA	Good
CCV	1511365R1-06A	NA	NA	NA	NA	11/25/2015	NA	Good
CCV	1511365R1-06B	NA	NA	NA	NA	11/25/2015	NA	Good
LCS	1511365R1-07A	NA	NA	NA	NA	11/25/2015	NA	Good
LCSD	1511365R1-07A	NA	NA	NA	NA	11/25/2015	NA	Good
LCS	1511365R1-07B	NA	NA	NA	NA	11/25/2015	NA	Good
LCSD	1511365R1-07B	NA	NA	NA	NA	11/25/2015	NA	Good

Sample Results and Raw Data

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA 2033

Lab ID#: 1511365R1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.20	0.93	1.1
Acetone	0.82	6.2	2.0	15
Benzene	0.16	0.17	0.53	0.53
Toluene	0.16	0.46	0.62	1.7
m,p-Xylene	0.16	0.17	0.72	0.76



Air Toxics

Client Sample ID: IA 2033

Lab ID#: 1511365R1-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112507	Date of Collection:	11/20/15 5:27:00 PM
Dil. Factor:	1.65	Date of Analysis:	11/25/15 10:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.82	Not Detected	4.1	Not Detected
Freon 11	0.16	0.20	0.93	1.1
Freon 113	0.16	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	6.2	2.0	15
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.90	Not Detected
Benzene	0.16	0.17	0.53	0.53
Toluene	0.16	0.46	0.62	1.7
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.72	Not Detected
m,p-Xylene	0.16	0.17	0.72	0.76
o-Xylene	0.16	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected UJ	6.1	Not Detected UJ

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	91	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112507.d
Lab Smp Id: 1511365-01A
Inj Date : 25-NOV-2015 10:45
Operator : ef
Smp Info : 250mL# 6L0079
Misc Info : 5.9"Hg -> 4.8psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
Meth Date : 08-Dec-2015 12:01 dbailey
Cal Date : 20-OCT-2015 09:38
Als bottle: 1
Dil Factor: 1.65000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msdv.i
Quant Type: ISTD
Cal File: v102007.d
Compound Sublist: San12642.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.65000		Dilution Factor				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
35 Freon 11						CAS #:	75-69-4		
10.980	10.980	(0.697)	101	12075	0.12347	0.2037	80.00-	120.00	100.00
11.004	10.980	(0.699)	103	9170			32.43-	92.43	75.94
52 Acetone						CAS #:	67-64-1		
12.660	12.660	(0.804)	58	116594	3.78795	6.250	80.00-	120.00	100.00
12.660	12.660	(0.804)	43	454068			308.96-	368.96	389.44
* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	105012	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	82473			45.98-	105.98	78.54
15.743	15.743	(1.000)	49	355343			326.70-	386.70	338.38
116 Benzene						CAS #:	71-43-2		
16.590	16.562	(0.970)	78	11400	0.10089	0.1665	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	2849			0.00-	51.65	25.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	187093	4.85196	4.852	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	89161			15.86-	75.86	47.66

* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	483394	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	62117			0.00-	43.80	12.85

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.615	(1.146)	98	417658	4.72583	4.726	80.00-	120.00	100.00
19.615	19.615	(1.146)	70	48869			0.00-	39.58	11.70
19.638	19.615	(1.148)	100	286279			37.10-	97.10	68.54

147 Toluene						CAS #:	108-88-3		
19.772	19.750	(1.155)	91	40247	0.27791	0.4585	80.00-	120.00	100.00
19.750	19.750	(1.154)	92	25043			27.14-	87.14	62.22

* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	399692	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	202514			17.84-	77.84	50.67

169 m,p-Xylene						CAS #:	108-38-3		
22.303	22.303	(1.012)	106	5803	0.10575	0.1745	80.00-	120.00	100.00
22.303	22.303	(1.012)	91	13589			180.42-	240.42	234.17

\$ 177 4-Bromofluorobenzene						CAS #:	460-00-4		
23.534	23.535	(1.068)	174	186532	4.53904	4.539	80.00-	120.00	100.00
23.534	23.535	(1.068)	95	235545			85.02-	145.02	126.28
23.534	23.535	(1.068)	176	173340			63.61-	123.61	92.93

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112507.d
Lab Smp Id: 1511365-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef

Calibration Date: 25-NOV-2015
Calibration Time: 07:38

Level: LOW
Sample Type: AIR

Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 5.9"Hg -> 4.8psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	105012	4.86
123 1,4-Difluorobenze	462764	277658	647870	483394	4.46
163 Chlorobenzene-d5	397301	238381	556221	399692	0.60

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-01A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 5.9"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	4.852	97.04	70-130
\$ 146 Toluene-d8	5.000	4.726	94.52	70-130
\$ 177 4-Bromofluorobenze	5.000	4.539	90.78	70-130

Date : 25-NOV-2015 10:45

Client ID:

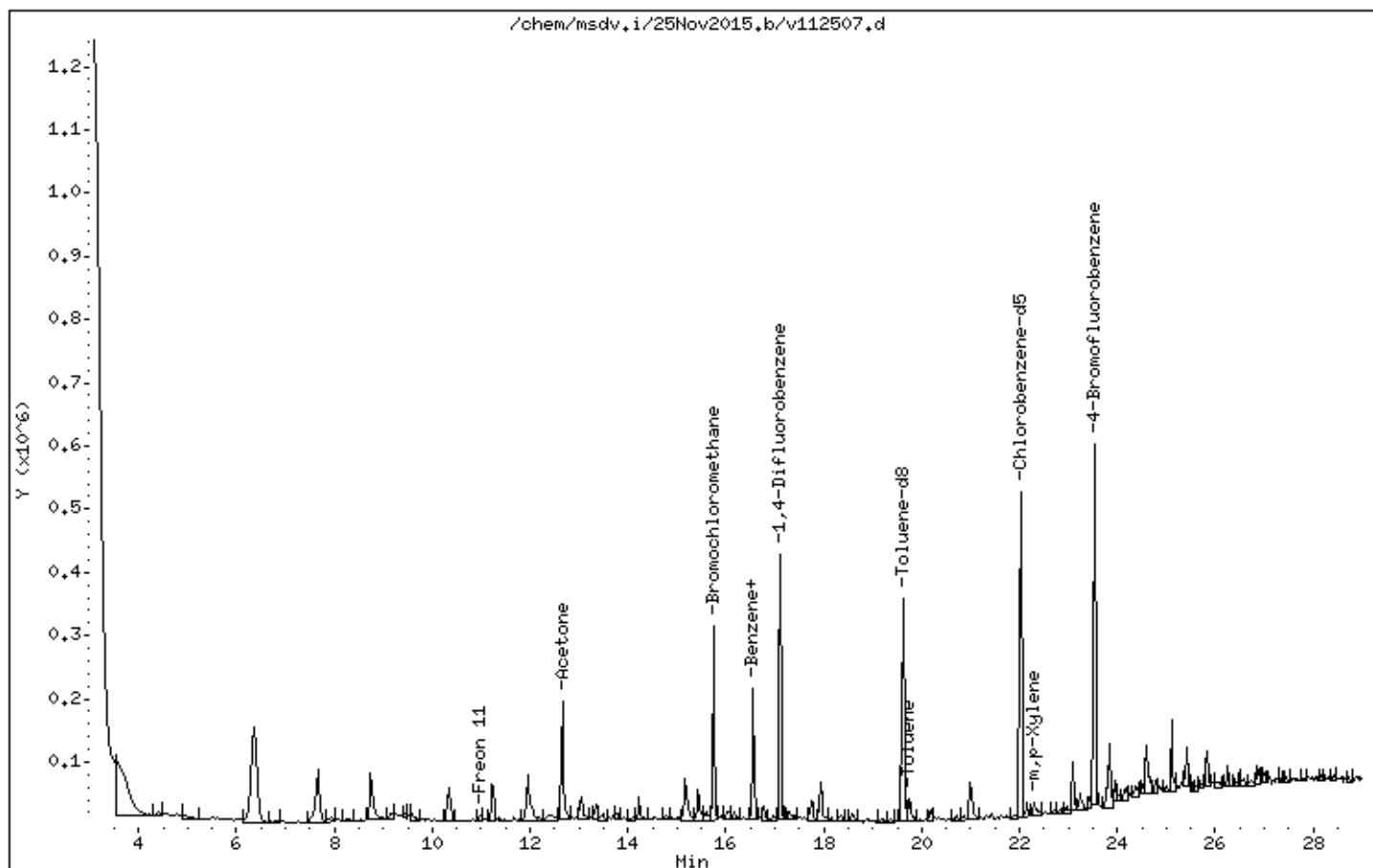
Instrument: msdv.i

Sample Info: 250mL# 6L0079

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 10:45

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L0079

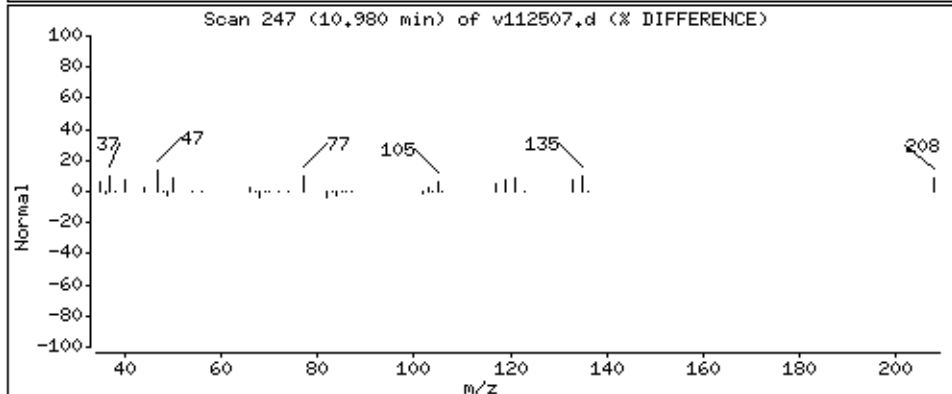
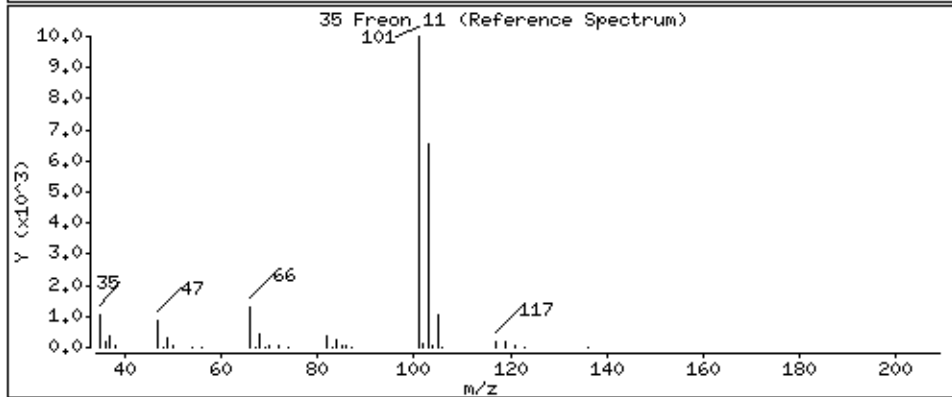
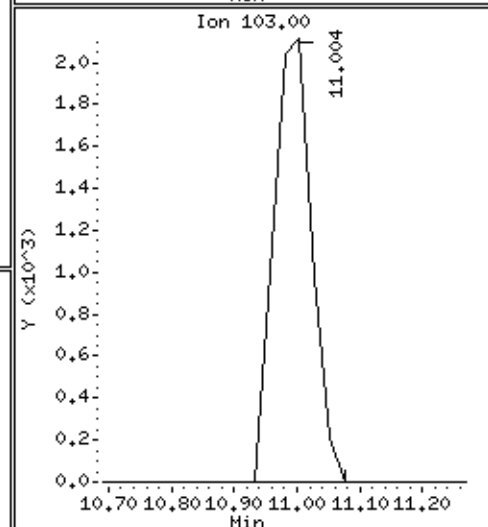
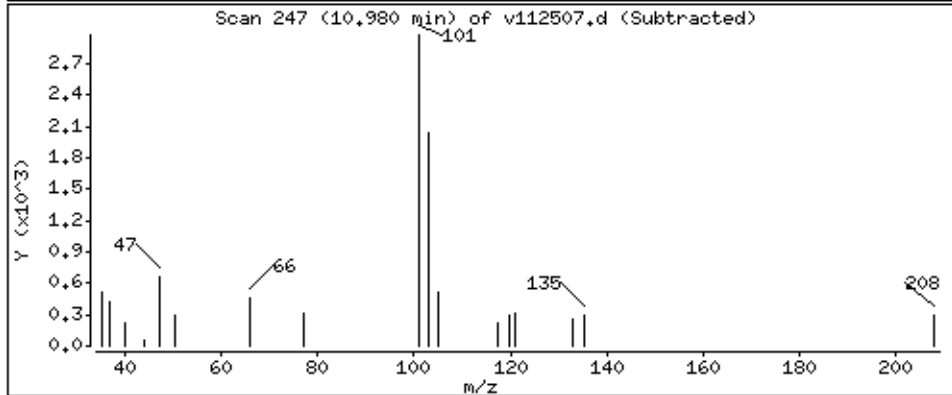
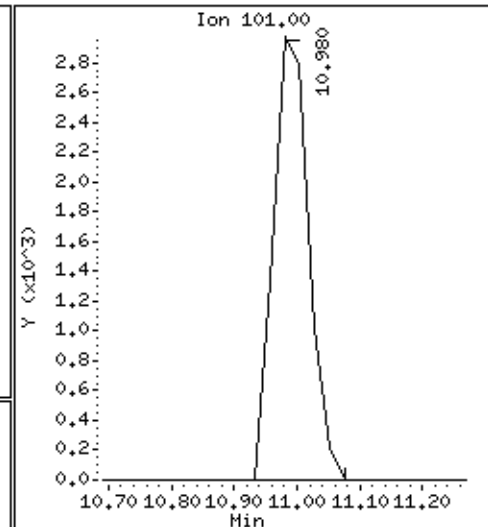
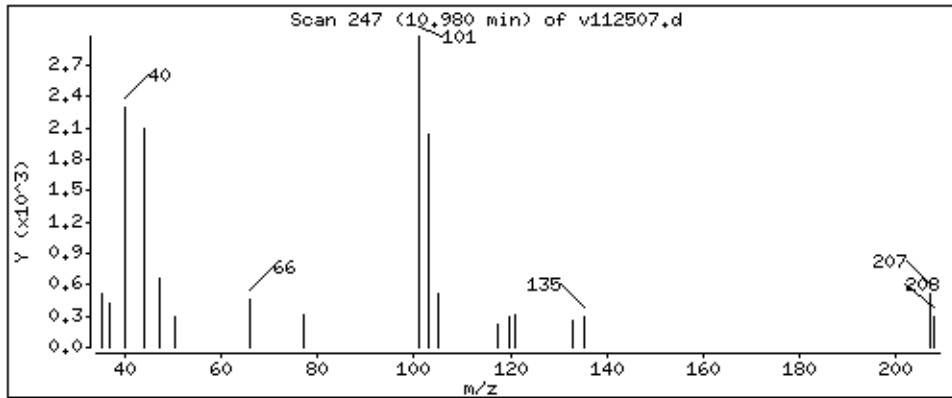
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

35 Freon 11

Concentration: 0.2037 PPBV



Date : 25-NOV-2015 10:45

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L0079

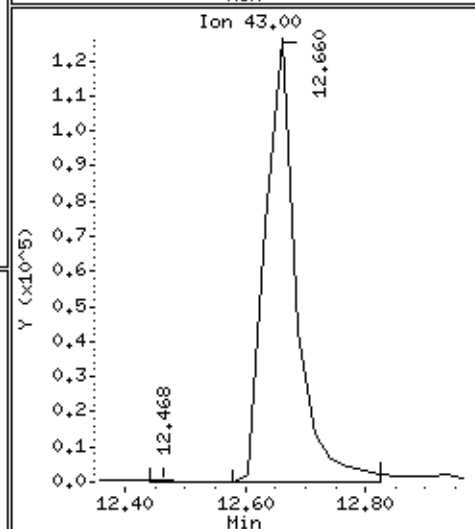
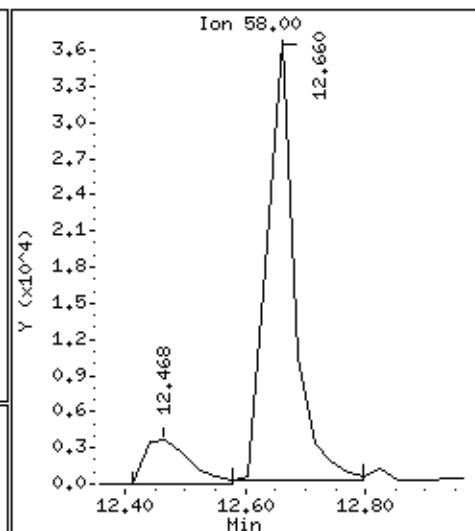
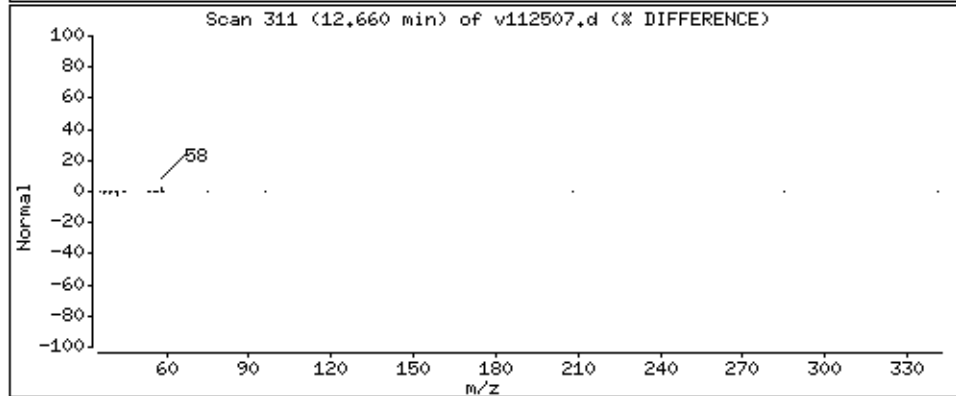
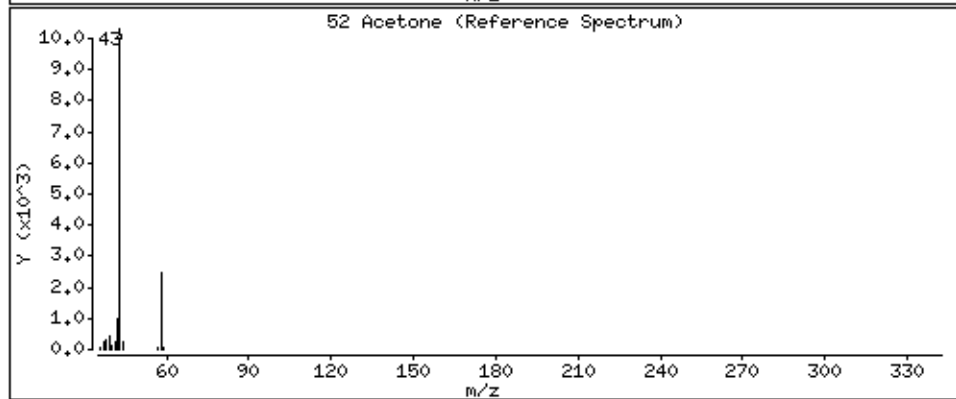
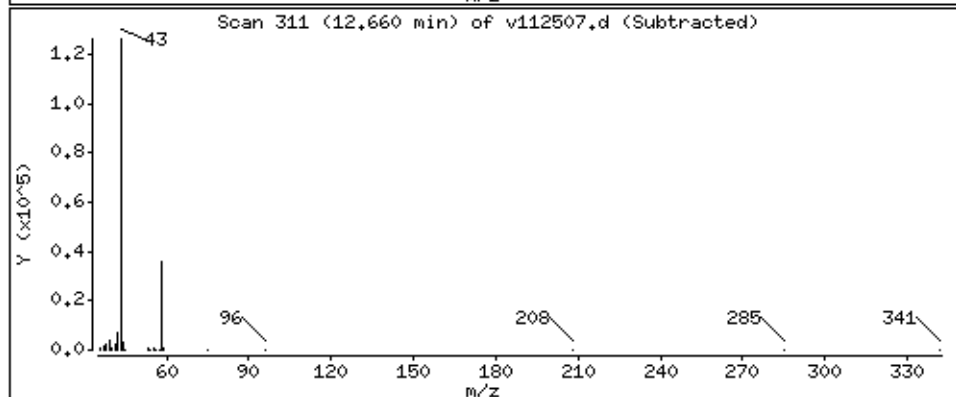
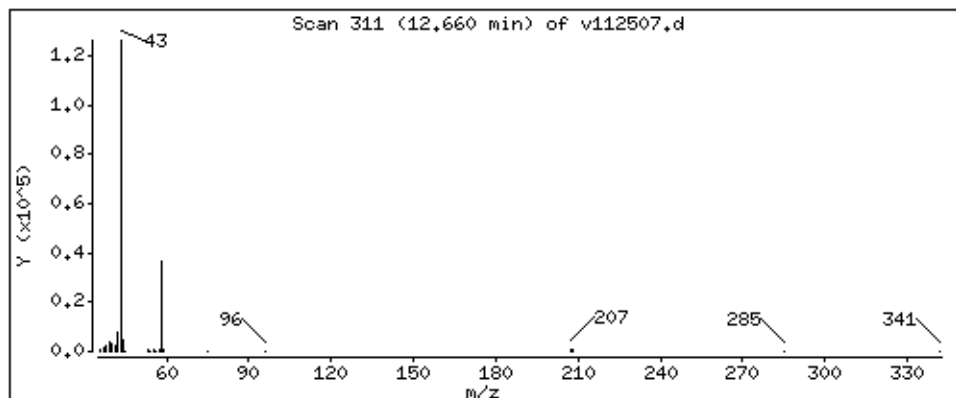
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

52 Acetone

Concentration: 6.250 PPBV



Date : 25-NOV-2015 10:45

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L0079

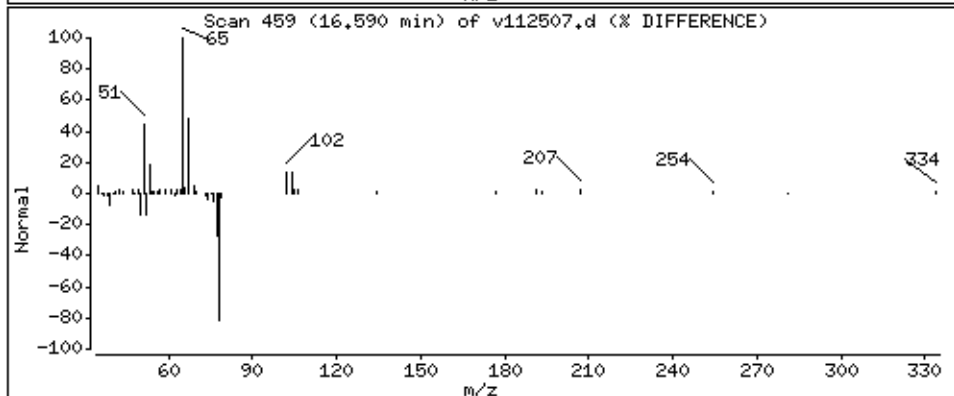
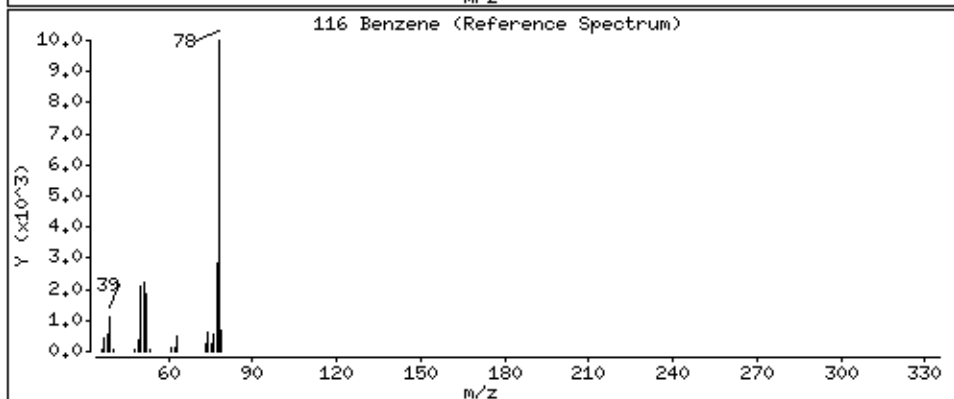
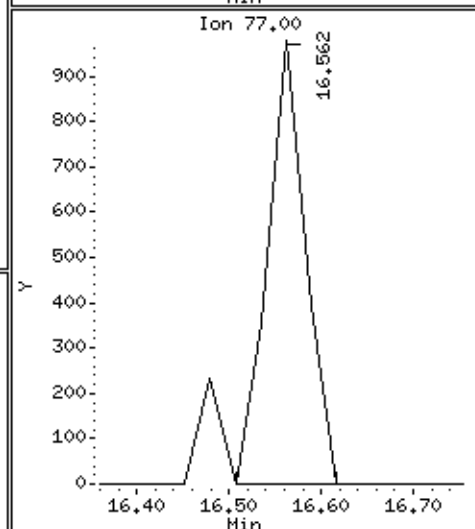
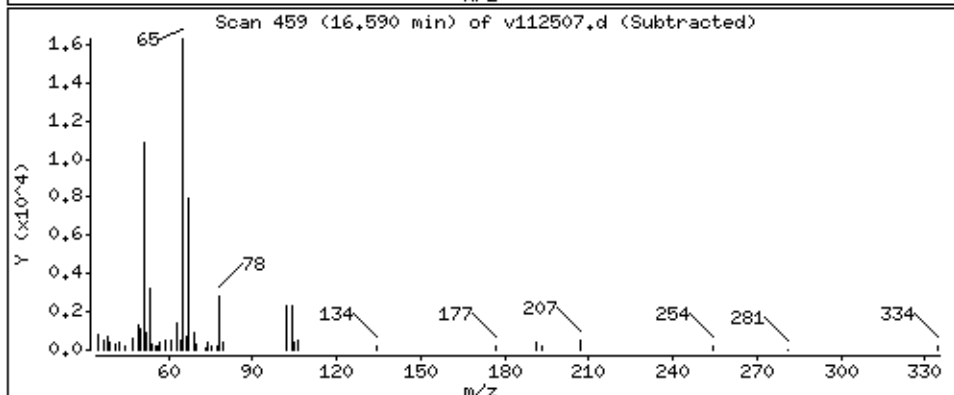
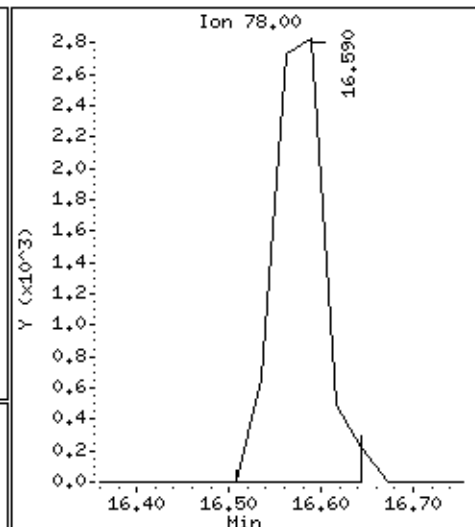
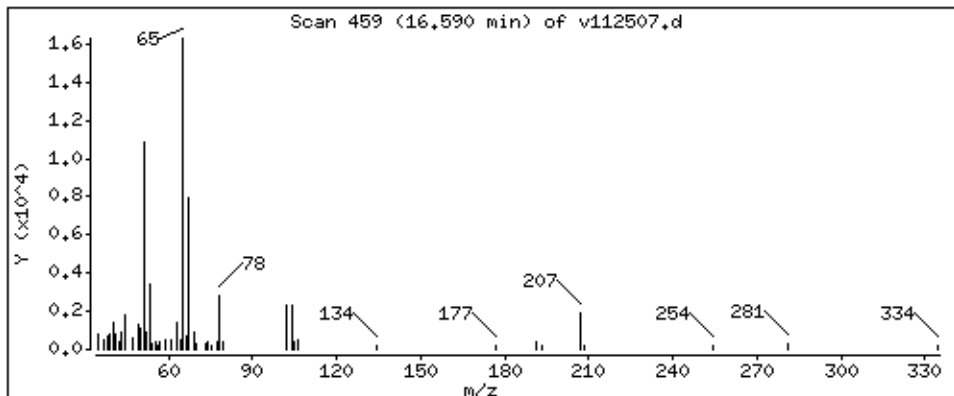
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

116 Benzene

Concentration: 0.1665 PPBV



Date : 25-NOV-2015 10:45

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L0079

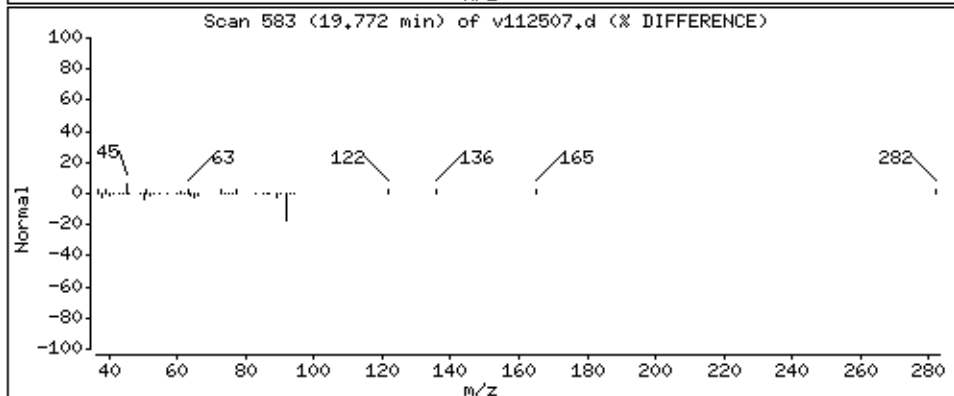
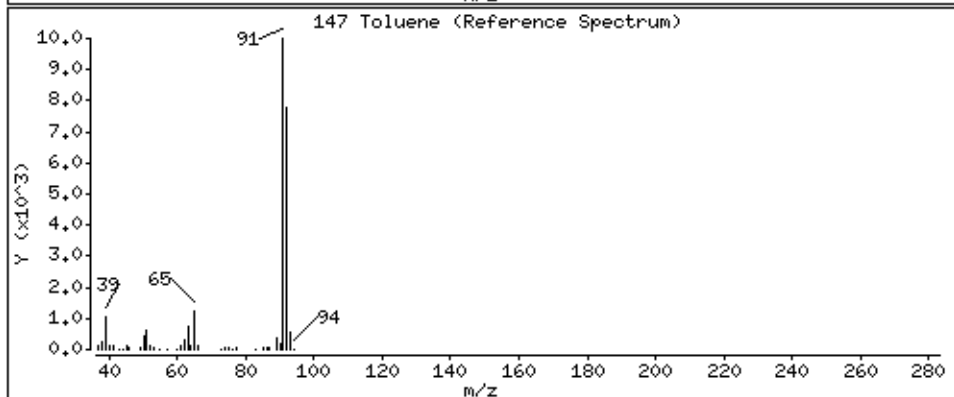
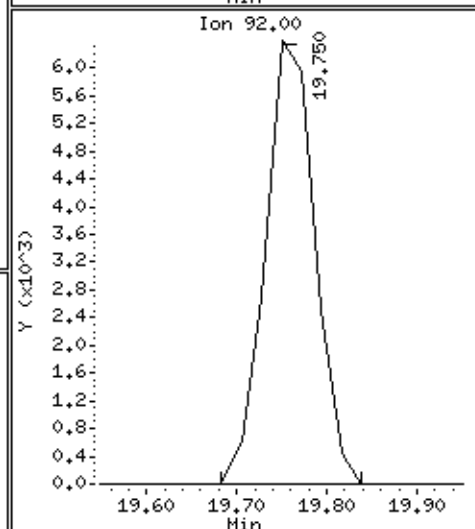
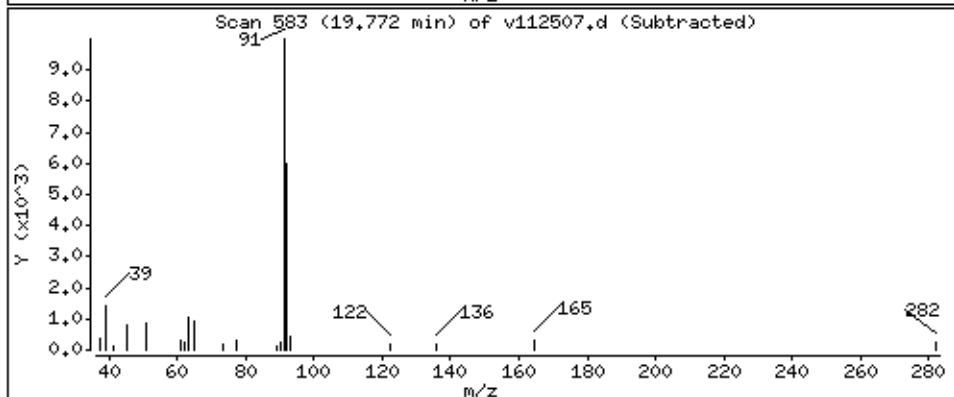
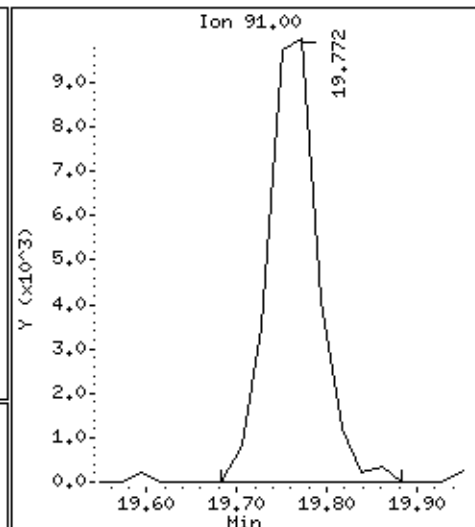
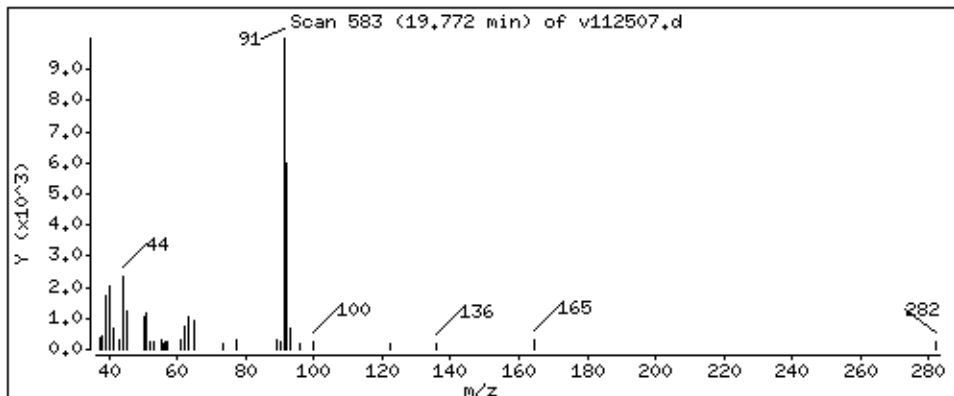
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

147 Toluene

Concentration: 0.4585 PPBV



Date : 25-NOV-2015 10:45

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L0079

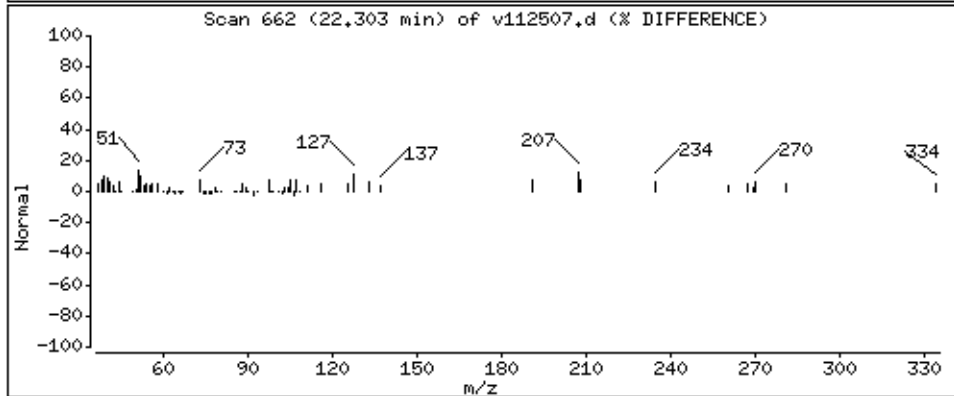
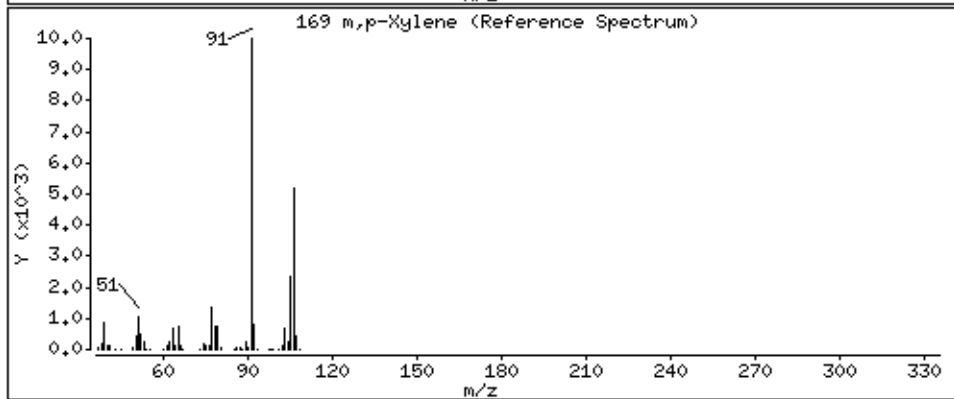
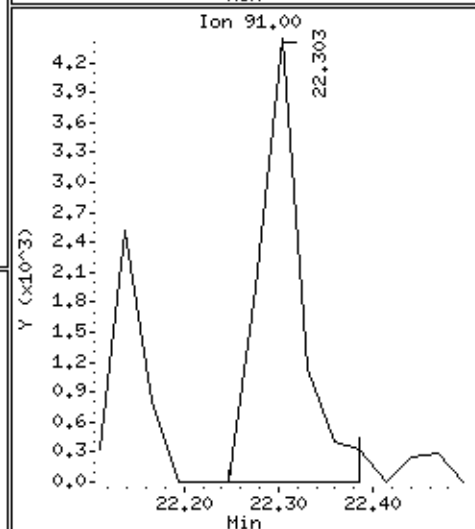
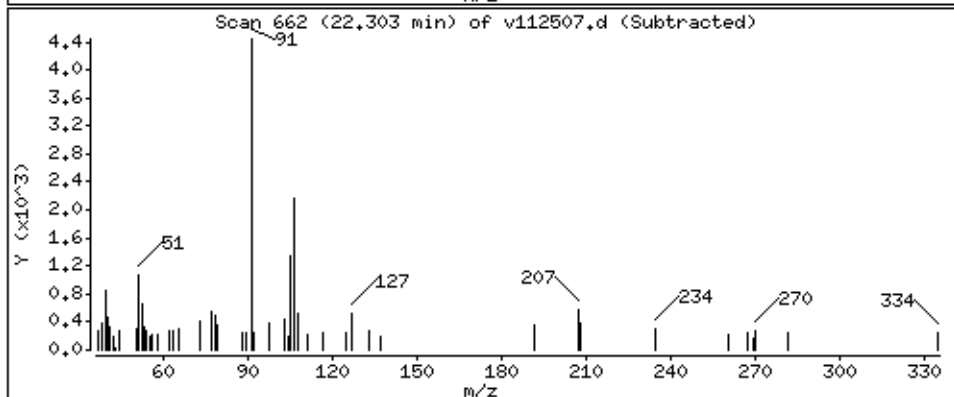
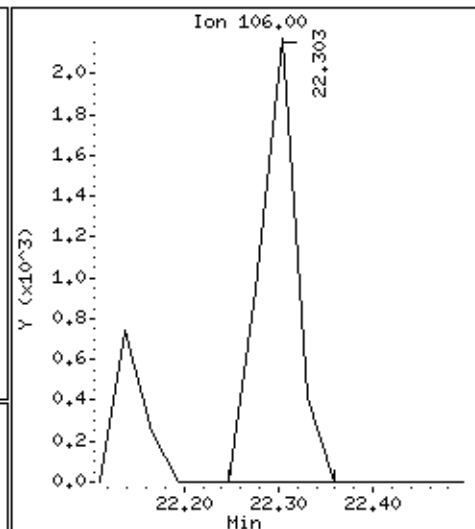
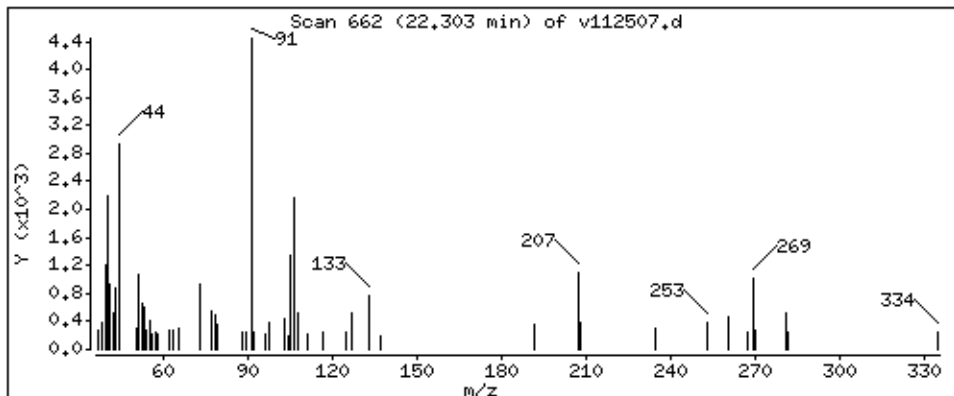
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

169 m,p-Xylene

Concentration: 0.1745 PPBV



Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA 2033

Lab ID#: 1511365R1-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.059	0.21	0.37



Air Toxics

Client Sample ID: IA 2033

Lab ID#: 1511365R1-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112507sim	Date of Collection:	11/20/15 5:27:00 PM
Dil. Factor:	1.65	Date of Analysis:	11/25/15 10:45 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.059	0.21	0.37
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112507sim.d
Lab Smp Id: 1511365-01B
Inj Date : 25-NOV-2015 10:45
Operator : ef
Smp Info : 250mL# 6L0079
Misc Info : 5.9"Hg -> 4.8psi
Comment : SIM - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Meth Date : 25-Nov-2015 08:52 efinn
Cal Date : 08-OCT-2015 19:44
Als bottle: 1
Dil Factor: 1.65000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msdv.i
Quant Type: ISTD
Cal File: v100812sim.d
Compound Sublist: San12642.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Name		Value		Description			
DF		1.65000		Dilution Factor			
				CONCENTRATIONS			
RT	EXP RT (REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
* 13 Bromochloromethane				CAS #: 74-97-5			
15.757	15.757 (1.000)	130	115842	5.00000		80.00- 120.00	100.00
15.757	15.757 (1.000)	128	89810			47.55- 107.55	77.53
15.757	15.757 (1.000)	49	379213			270.30- 330.30	327.35
16 Carbon Tetrachloride				CAS #: 56-23-5			
16.250	16.250 (1.031)	117	3194	0.03556	0.05867	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	3353			65.95- 125.95	104.98
\$ 18 1,2-Dichloroethane-d4				CAS #: 17060-07-0			
16.548	16.548 (1.050)	65	204181	4.99925	4.999	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	92378			17.43- 77.43	45.24
* 20 1,4-Difluorobenzene				CAS #: 540-36-3			
17.125	17.125 (1.000)	114	463819	5.00000		80.00- 120.00	100.00
17.097	17.125 (1.000)	88	63979			0.00- 44.06	13.79

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	CONCENTRATIONS		TARGET RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====		
\$ 22 Toluene-d8					CAS #: 2037-26-5			
19.629	19.629	(1.146)	98	360755	4.91379	4.914	80.00- 120.00	100.00
19.629	19.629	(1.146)	70	42674			0.00- 40.98	11.83
19.629	19.629	(1.146)	100	218326			32.48- 92.48	60.52

* 28 Chlorobenzene-d5					CAS #: 3114-55-4			
22.042	22.042	(1.000)	117	379094	5.00000		80.00- 120.00	100.00
22.015	22.042	(1.000)	82	186139			16.56- 76.56	49.10

\$ 33 4-Bromofluorobenzene					CAS #: 460-00-4			
23.548	23.548	(1.068)	174	192357	4.66235	4.662	80.00- 120.00	100.00
23.548	23.548	(1.068)	95	215255			80.08- 140.08	111.90
23.548	23.548	(1.068)	176	187793			67.26- 127.26	97.63

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112507sim.d
Lab Smp Id: 1511365-01B
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.9"Hg -> 4.8psi

Calibration Date: 25-NOV-2015
Calibration Time: 07:38
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	115842	3.83
20 1,4-Difluorobenze	447704	268622	626786	463819	3.60
28 Chlorobenzene-d5	377895	226737	529053	379094	0.32

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-01B
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.9"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	4.999	99.99	70-130
\$ 22 Toluene-d8	5.000	4.914	98.28	70-130
\$ 33 4-Bromofluorobenze	5.000	4.662	93.25	70-130

Date : 25-NOV-2015 10:45

Client ID:

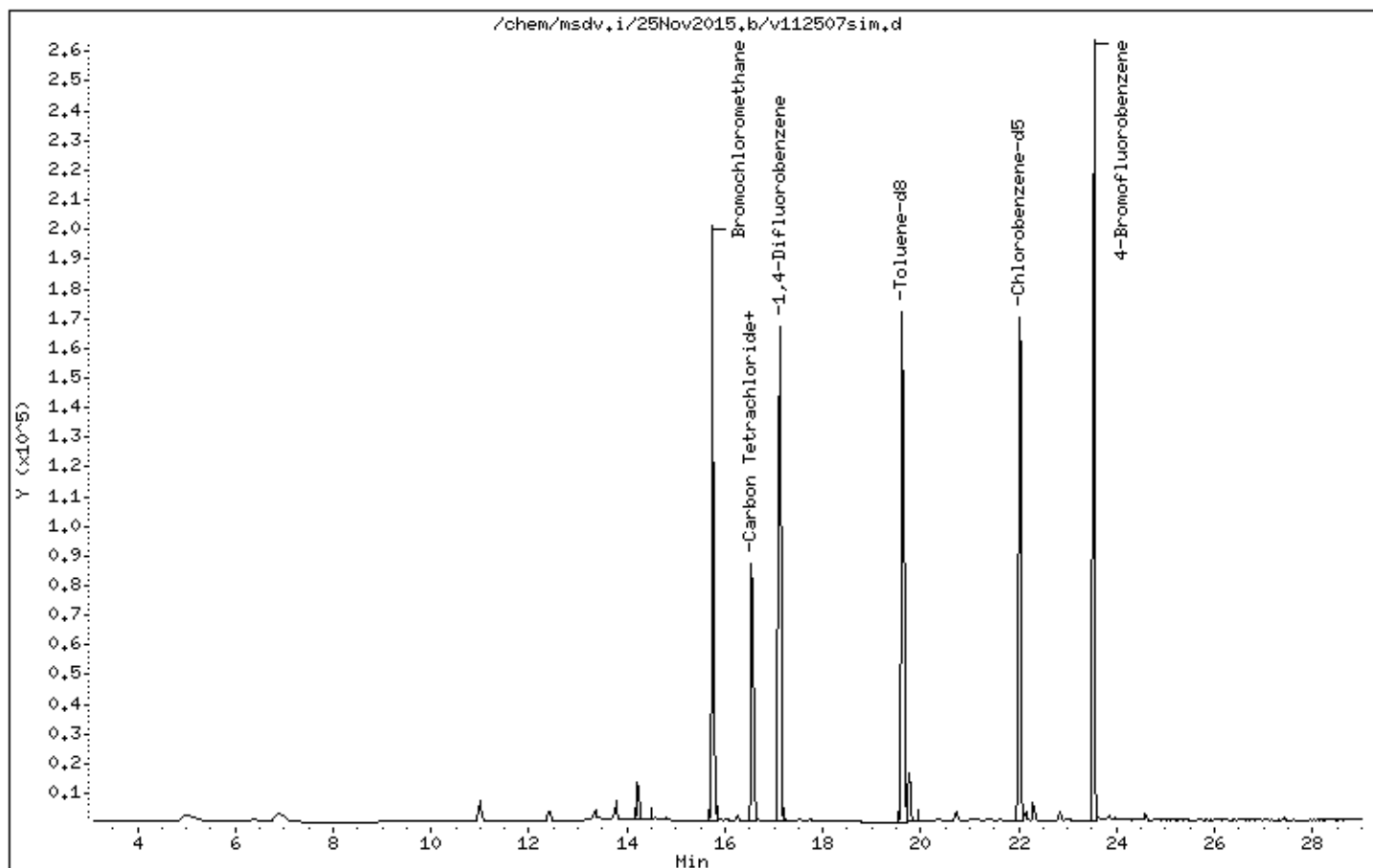
Instrument: msdv.i

Sample Info: 250mL# 6L0079

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 10:45

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L0079

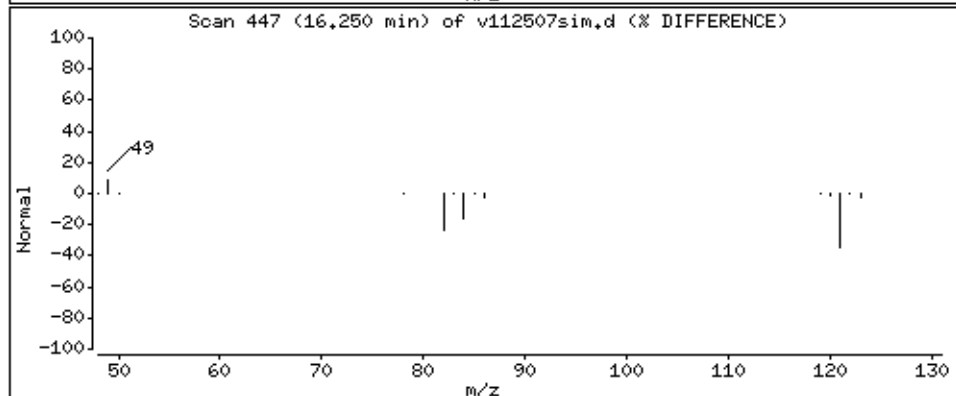
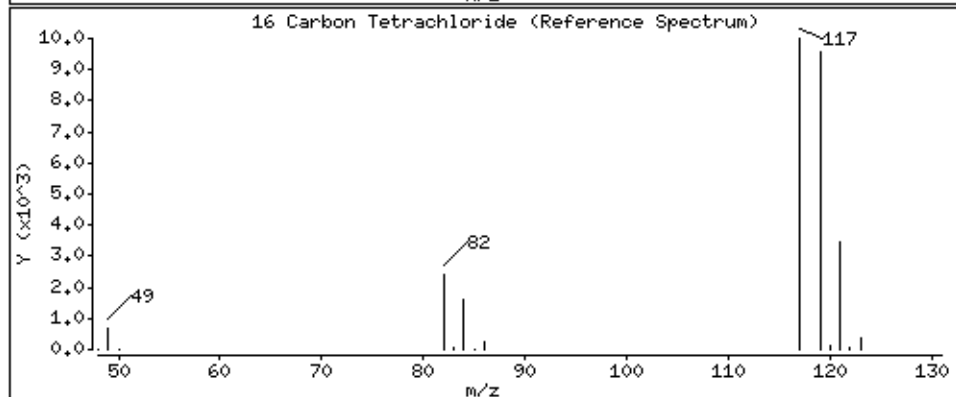
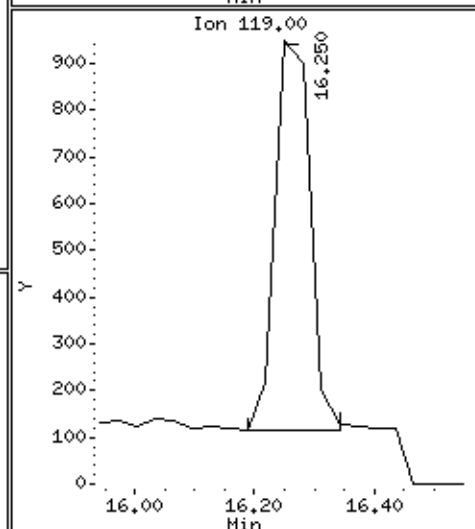
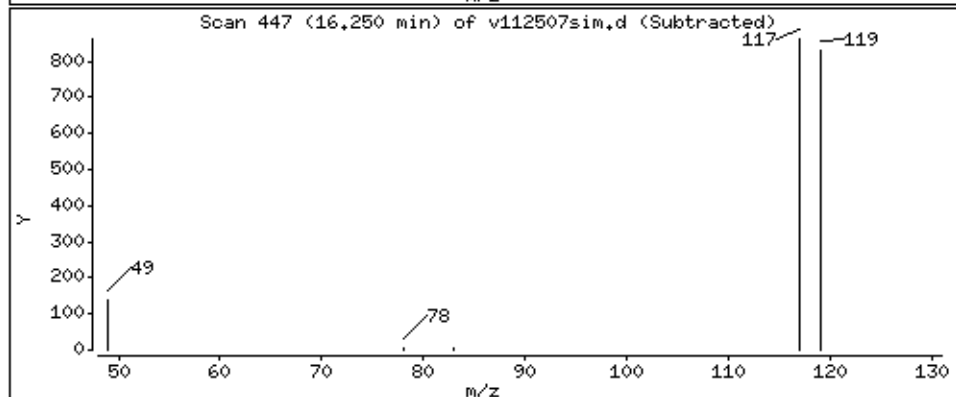
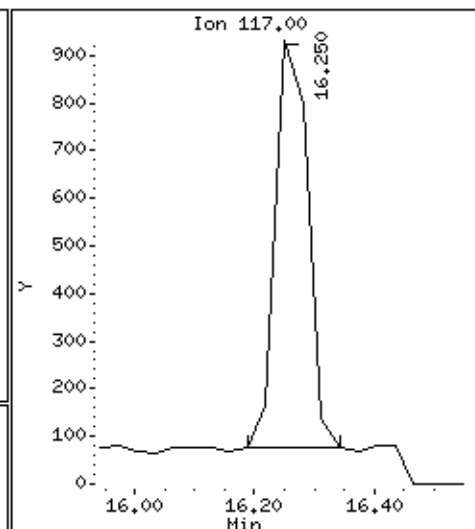
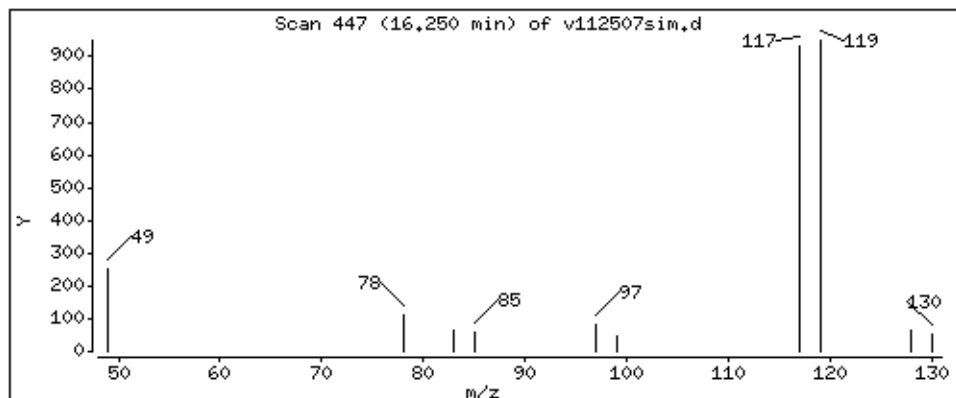
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.05867 PPBV



Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA 2037

Lab ID#: 1511365R1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.31	0.92	1.7
Acetone	0.82	4.3	1.9	10
Benzene	0.16	0.16 J	0.52	0.50 J
Toluene	0.16	0.30	0.61	1.1

Client Sample ID: IA 2037

Lab ID#: 1511365R1-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112508	Date of Collection:	11/20/15 5:20:00 PM
Dil. Factor:	1.63	Date of Analysis:	11/25/15 11:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.82	Not Detected	4.0	Not Detected
Freon 11	0.16	0.31	0.92	1.7
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	4.3	1.9	10
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Benzene	0.16	0.16 J	0.52	0.50 J
Toluene	0.16	0.30	0.61	1.1
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.75	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected UJ	6.0	Not Detected UJ

J = Estimated value.

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	87	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112508.d
Lab Smp Id: 1511365-02A
Inj Date : 25-NOV-2015 11:21
Operator : ef
Smp Info : 250mL# 6L1299
Misc Info : 5.5"Hg -> 4.9psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
Meth Date : 08-Dec-2015 12:01 dbailey
Cal Date : 20-OCT-2015 09:38
Als bottle: 1
Dil Factor: 1.63000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msdv.i
Quant Type: ISTD
Cal File: v102007.d
Compound Sublist: San12642.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.63000		Dilution Factor				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
35 Freon 11						CAS #:	75-69-4		
10.980	10.980	(0.697)	101	18594	0.18807	0.3066	80.00-	120.00	100.00
11.004	10.980	(0.699)	103	12902			32.43-	92.43	69.39
52 Acetone						CAS #:	67-64-1		
12.660	12.660	(0.804)	58	82217	2.64220	4.307	80.00-	120.00	100.00
12.660	12.660	(0.804)	43	302949			308.96-	368.96	368.47
* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	106161	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	84887			45.98-	105.98	79.96
15.743	15.743	(1.000)	49	337748			326.70-	386.70	318.15
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	10418	0.09661	0.1575	80.00-	120.00	100.00(a)
16.562	16.562	(0.968)	77	3248			0.00-	51.65	31.18

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL (PPBV)	FINAL (PPBV)		
\$ 117	1,2-Dichloroethane-d4					CAS #:	17060-07-0	
16.562	16.562 (1.052)	65	186660	4.78837	4.788	80.00-	120.00	100.00
16.562	16.562 (1.052)	67	92353			15.86-	75.86	49.48
* 123	1,4-Difluorobenzene					CAS #:	540-36-3	
17.111	17.111 (1.000)	114	461339	5.00000		80.00-	120.00	100.00
17.111	17.111 (1.000)	88	62773			0.00-	43.80	13.61
\$ 146	Toluene-d8					CAS #:	2037-26-5	
19.615	19.615 (1.146)	98	417788	4.95330	4.953	80.00-	120.00	100.00
19.615	19.615 (1.146)	70	45868			0.00-	39.58	10.98
19.638	19.615 (1.148)	100	269947			37.10-	97.10	64.61
147	Toluene					CAS #:	108-88-3	
19.772	19.750 (1.155)	91	25034	0.18112	0.2952	80.00-	120.00	100.00
19.772	19.750 (1.155)	92	19022			27.14-	87.14	75.99
* 163	Chlorobenzene-d5					CAS #:	3114-55-4	
22.029	22.029 (1.000)	117	391504	5.00000		80.00-	120.00	100.00
22.029	22.029 (1.000)	82	185937			17.84-	77.84	47.49
\$ 177	4-Bromofluorobenzene					CAS #:	460-00-4	
23.534	23.535 (1.068)	174	175027	4.34815	4.348	80.00-	120.00	100.00
23.534	23.535 (1.068)	95	218384			85.02-	145.02	124.77
23.534	23.535 (1.068)	176	171193			63.61-	123.61	97.81

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112508.d
Lab Smp Id: 1511365-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef

Calibration Date: 25-NOV-2015
Calibration Time: 07:38

Level: LOW
Sample Type: AIR

Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 5.5"Hg -> 4.9psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	106161	6.01
123 1,4-Difluorobenze	462764	277658	647870	461339	-0.31
163 Chlorobenzene-d5	397301	238381	556221	391504	-1.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-02A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 5.5"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	4.788	95.77	70-130
\$ 146 Toluene-d8	5.000	4.953	99.07	70-130
\$ 177 4-Bromofluorobenze	5.000	4.348	86.96	70-130

Date : 25-NOV-2015 11:21

Client ID:

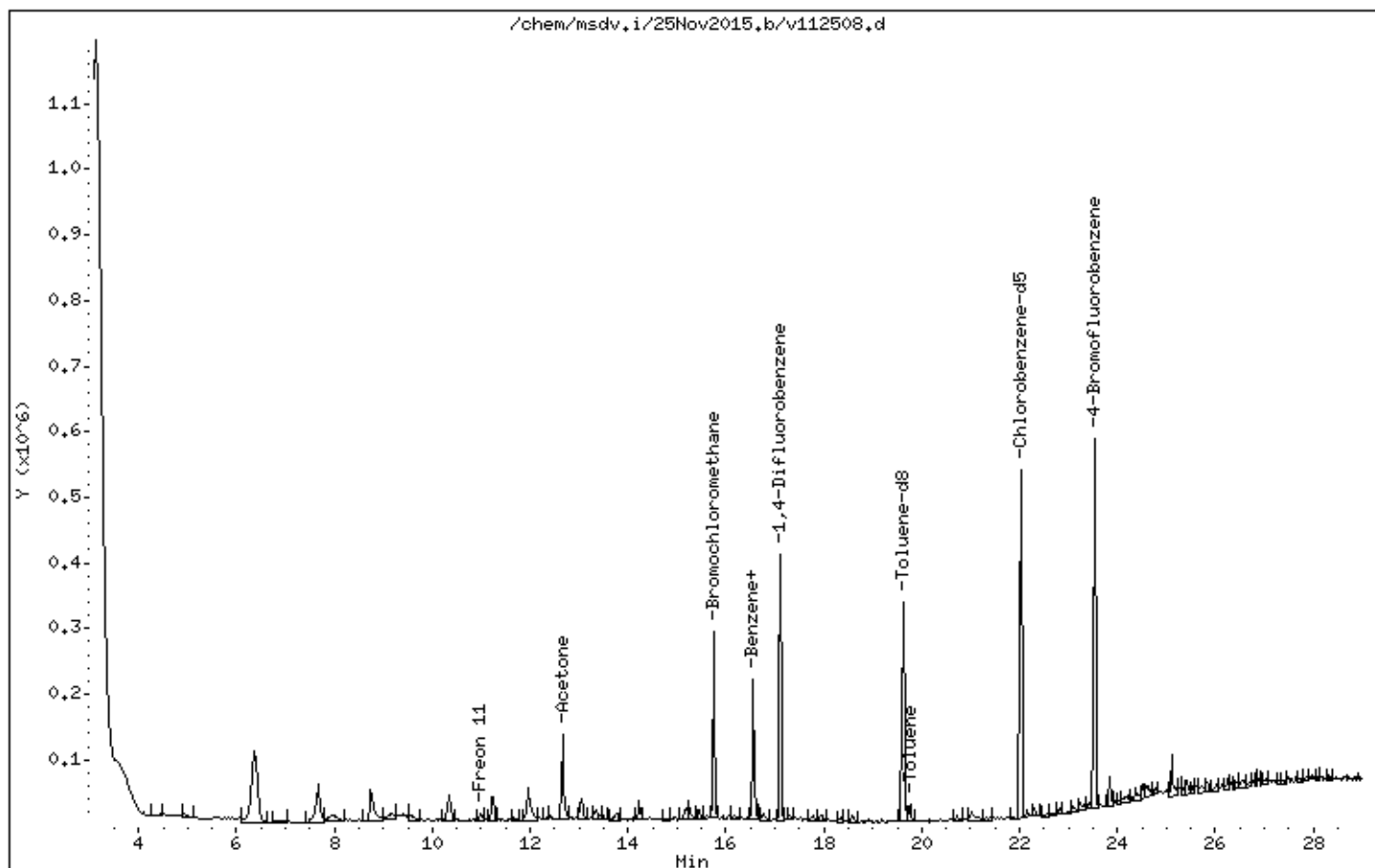
Instrument: msdv.i

Sample Info: 250mL# 6L1299

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 11:21

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L1299

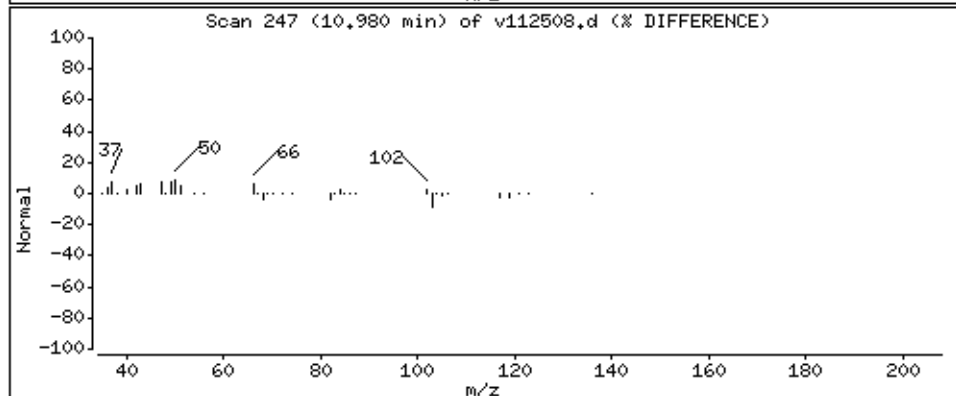
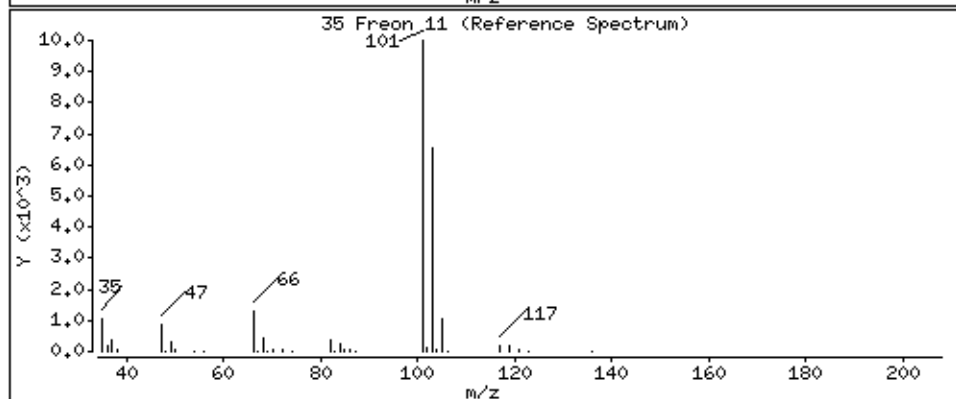
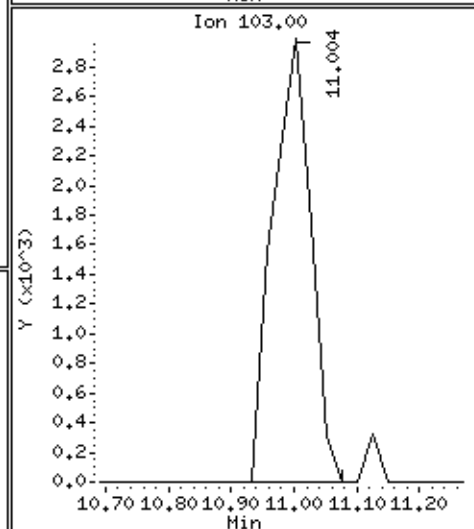
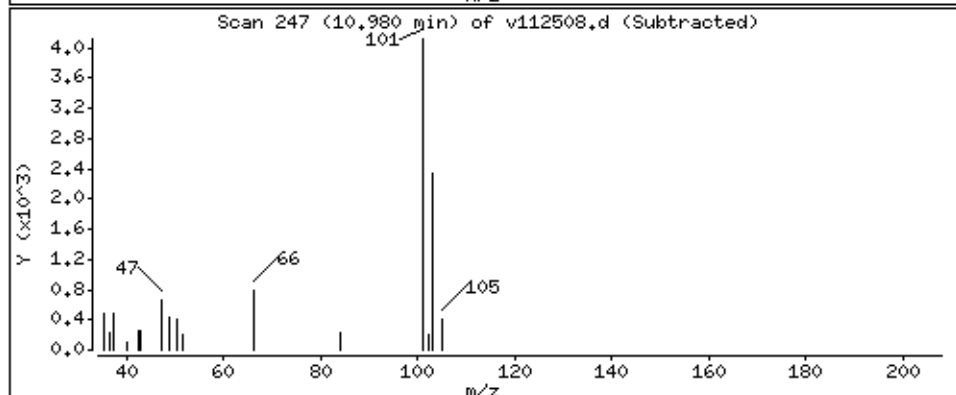
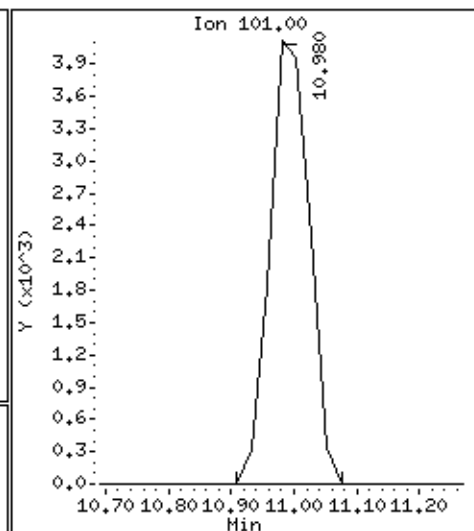
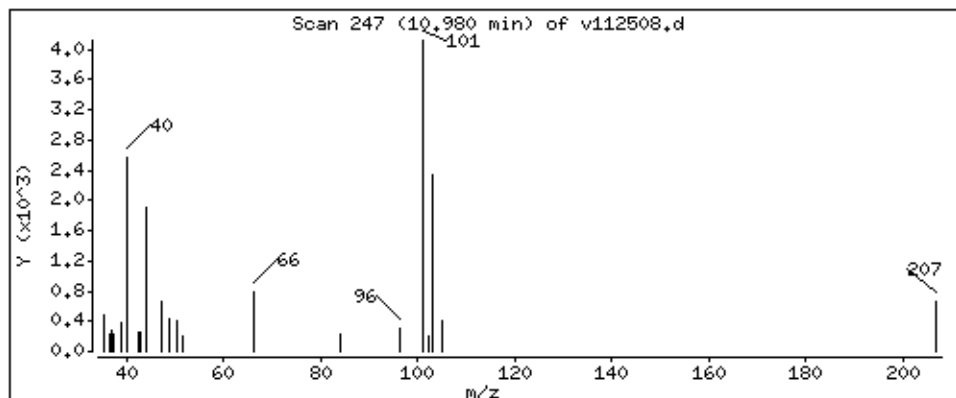
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

35 Freon 11

Concentration: 0.3066 PPBV



Date : 25-NOV-2015 11:21

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L1299

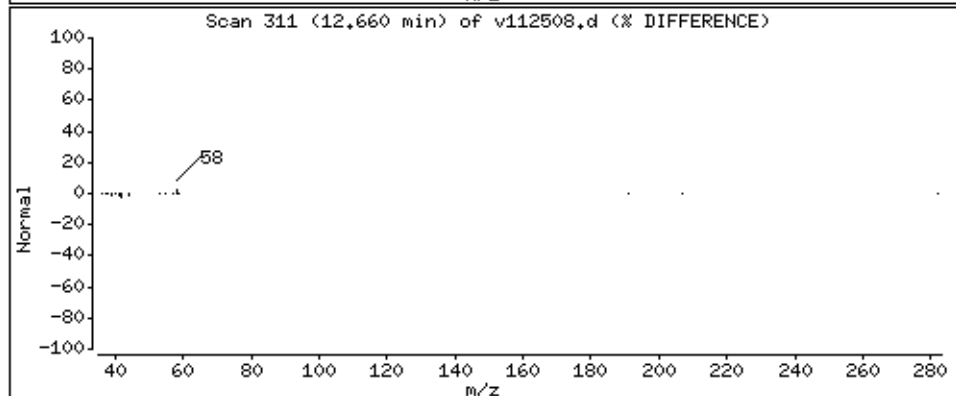
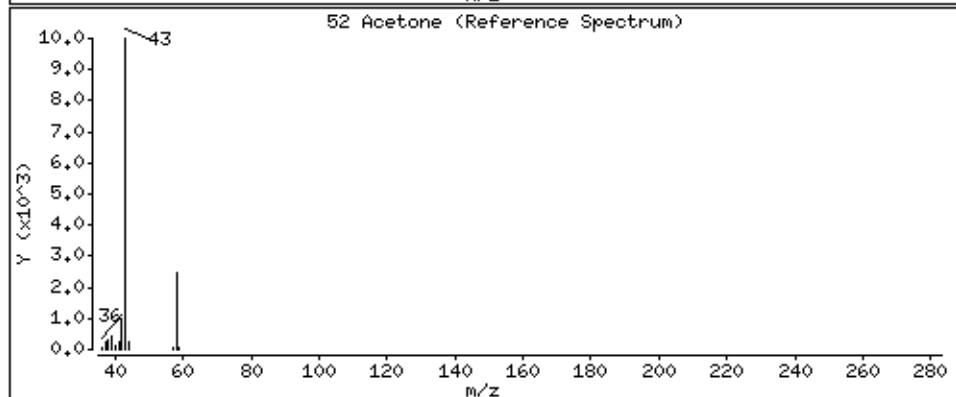
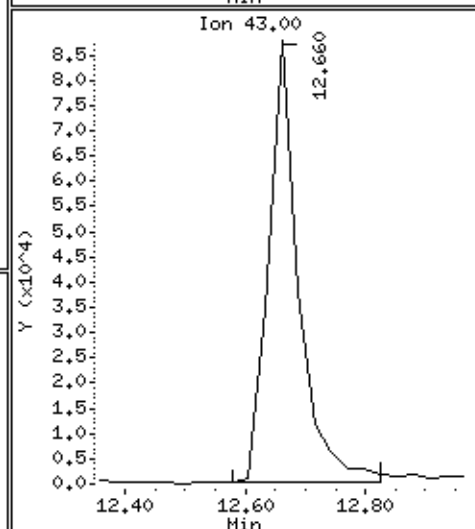
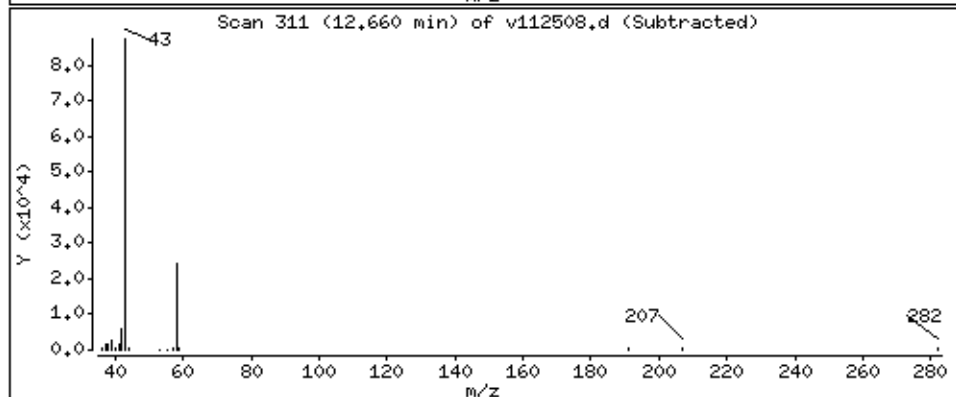
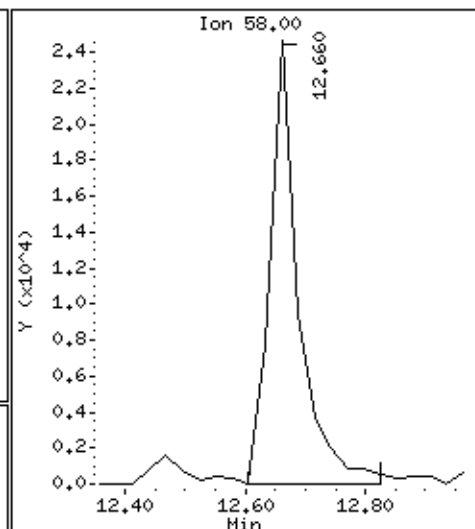
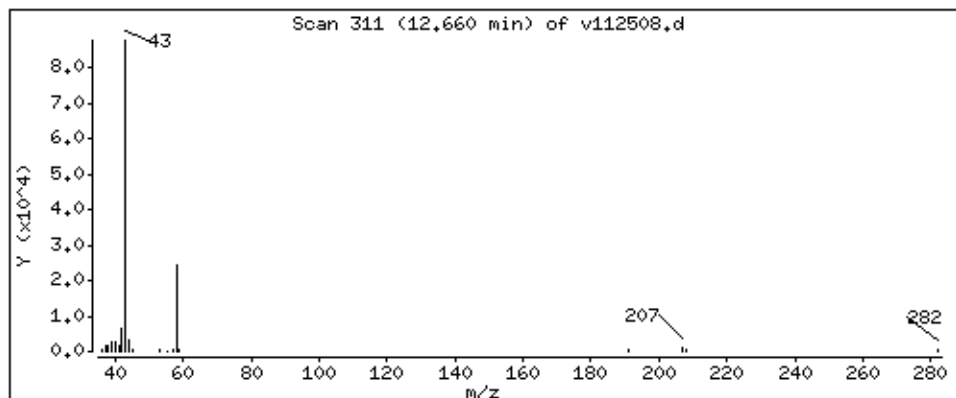
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

52 Acetone

Concentration: 4.307 PPBV



Date : 25-NOV-2015 11:21

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L1299

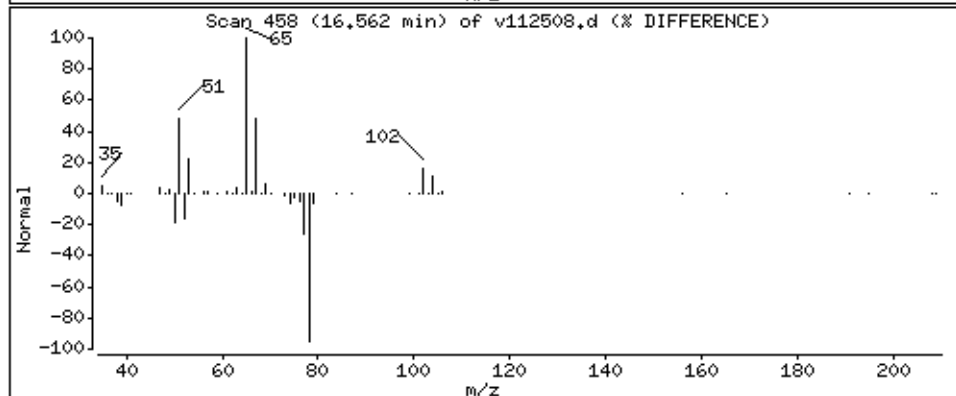
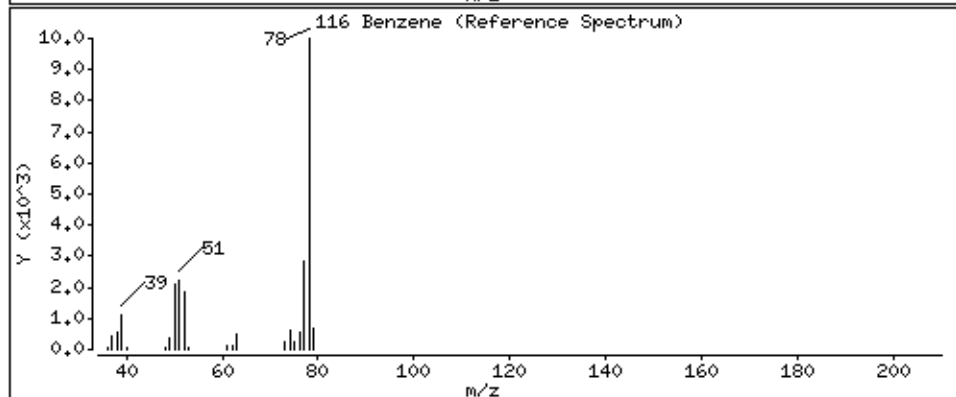
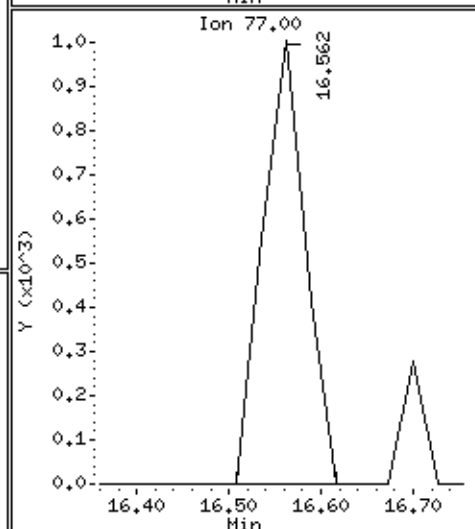
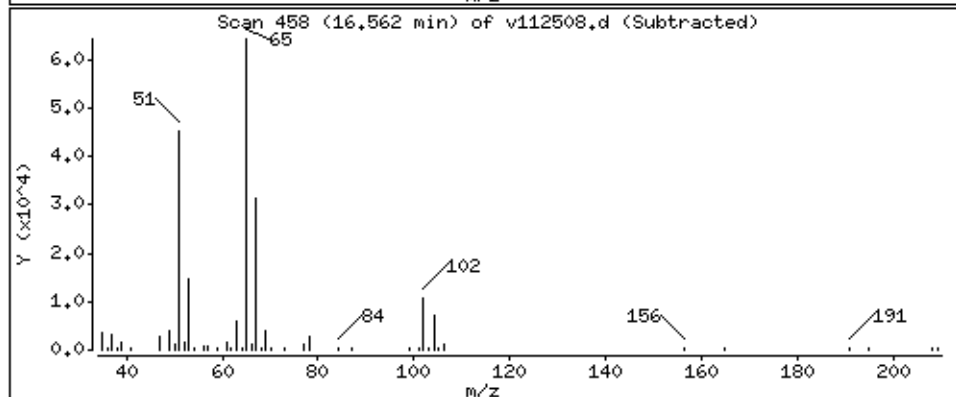
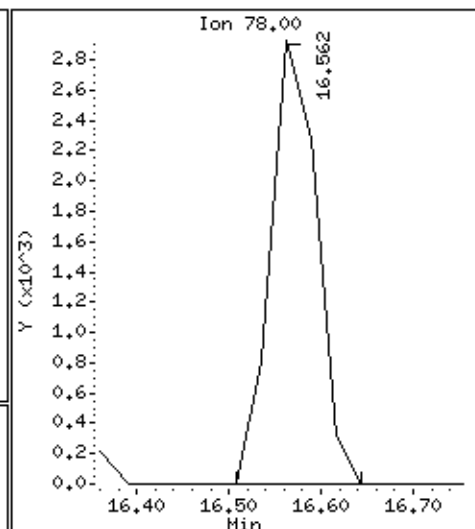
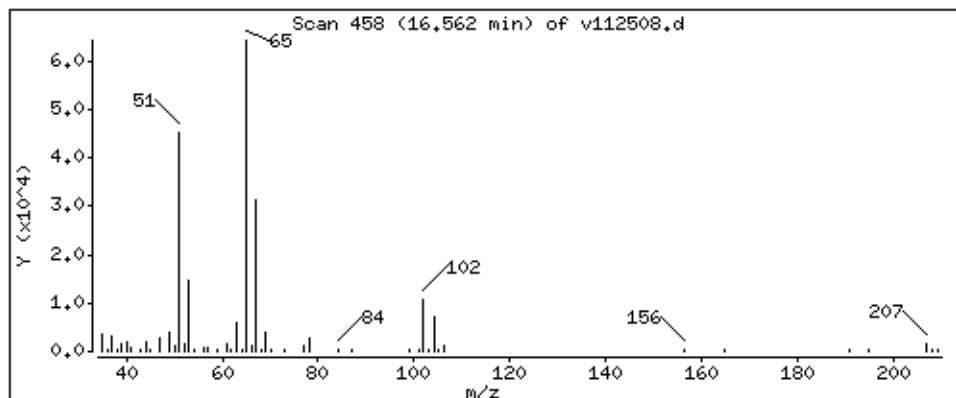
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

116 Benzene

Concentration: 0.1575 PPBV



Date : 25-NOV-2015 11:21

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L1299

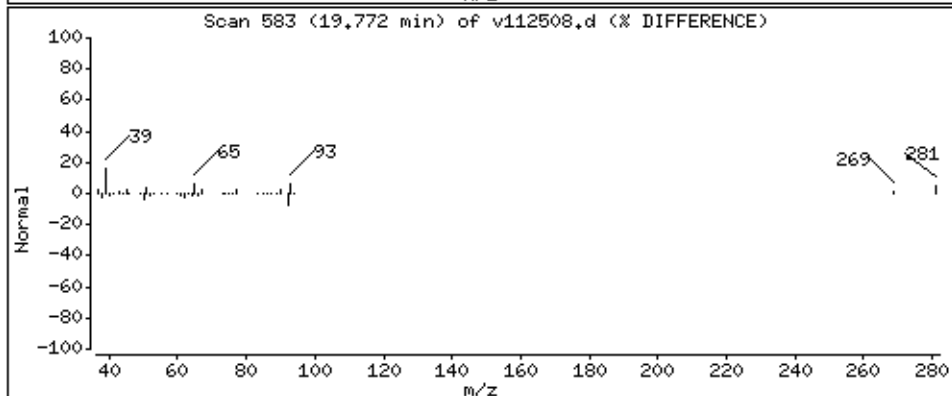
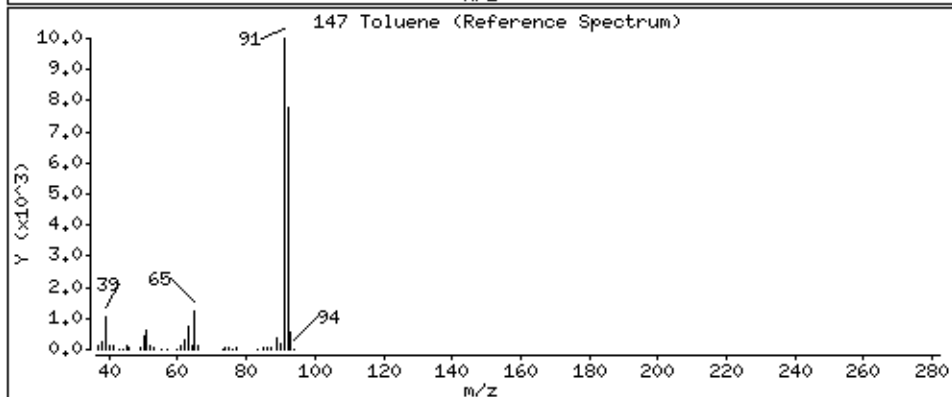
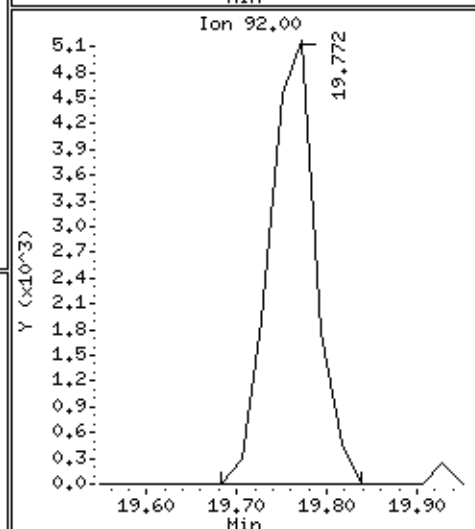
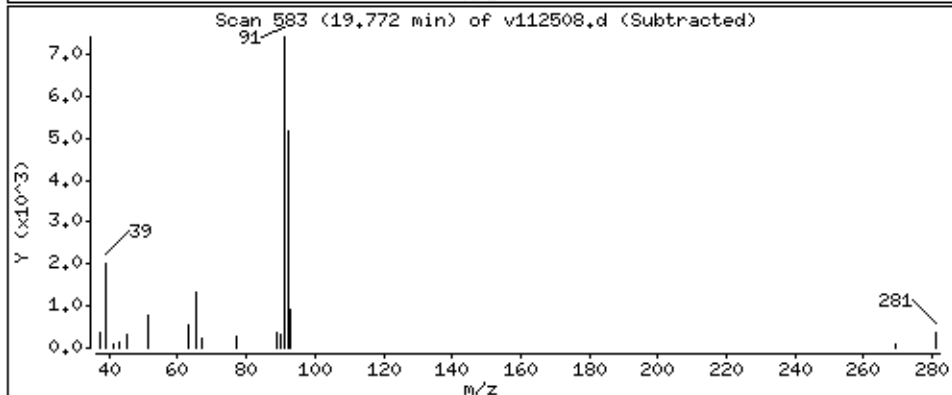
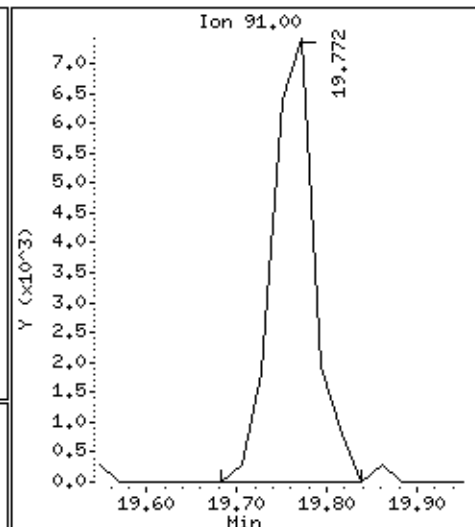
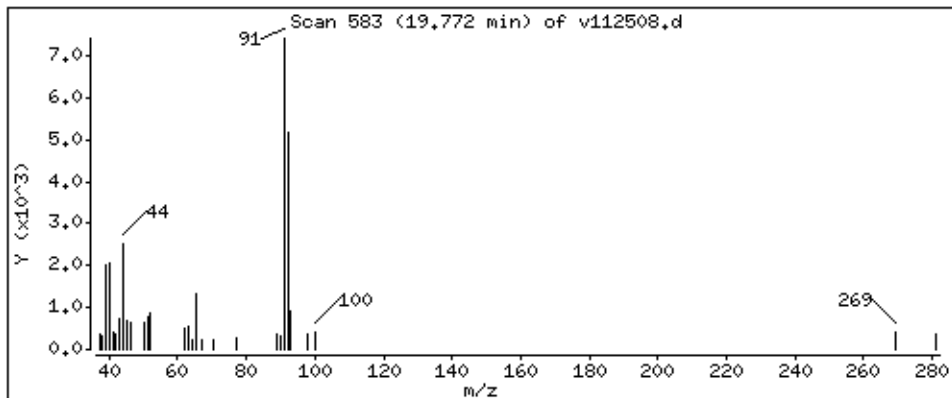
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

147 Toluene

Concentration: 0.2952 PPBV



Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA 2037

Lab ID#: 1511365R1-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.061	0.20	0.38



Air Toxics

Client Sample ID: IA 2037

Lab ID#: 1511365R1-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112508sim	Date of Collection:	11/20/15 5:20:00 PM
Dil. Factor:	1.63	Date of Analysis:	11/25/15 11:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.061	0.20	0.38
Trichloroethene	0.033	Not Detected	0.18	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112508sim.d
Lab Smp Id: 1511365-02B
Inj Date : 25-NOV-2015 11:21
Operator : ef
Smp Info : 250mL# 6L1299
Misc Info : 5.5"Hg -> 4.9psi
Comment : SIM - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Meth Date : 25-Nov-2015 08:52 efinn
Cal Date : 08-OCT-2015 19:44
Als bottle: 1
Dil Factor: 1.63000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msdv.i
Quant Type: ISTD
Cal File: v100812sim.d
Compound Sublist: San12642.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description					
DF		1.63000	Dilution Factor					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 13 Bromochloromethane					CAS #: 74-97-5			
15.757	15.757	(1.000)	130	115820	5.000000		80.00- 120.00	100.00
15.757	15.757	(1.000)	128	89820			47.55- 107.55	77.55
15.757	15.757	(1.000)	49	378365			270.30- 330.30	326.68
16 Carbon Tetrachloride					CAS #: 56-23-5			
16.250	16.250	(1.031)	117	3356	0.03738	0.06092	80.00- 120.00	100.00
16.250	16.250	(1.031)	119	3406			65.95- 125.95	101.49
\$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0			
16.548	16.548	(1.050)	65	203117	4.97419	4.974	80.00- 120.00	100.00
16.548	16.548	(1.050)	67	92219			17.43- 77.43	45.40
* 20 1,4-Difluorobenzene					CAS #: 540-36-3			
17.125	17.125	(1.000)	114	459026	5.000000		80.00- 120.00	100.00
17.125	17.125	(1.000)	88	64456			0.00- 44.06	14.04

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	CONCENTRATIONS		TARGET RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====		
\$ 22 Toluene-d8					CAS #: 2037-26-5			
19.629	19.629	(1.146)	98	354841	4.88370	4.884	80.00- 120.00	100.00
19.629	19.629	(1.146)	70	42156			0.00- 40.98	11.88
19.629	19.629	(1.146)	100	214881			32.48- 92.48	60.56

* 28 Chlorobenzene-d5					CAS #: 3114-55-4			
22.042	22.042	(1.000)	117	372763	5.00000		80.00- 120.00	100.00
22.015	22.042	(1.000)	82	179447			16.56- 76.56	48.14

\$ 33 4-Bromofluorobenzene					CAS #: 460-00-4			
23.548	23.548	(1.068)	174	184223	4.54104	4.541	80.00- 120.00	100.00
23.548	23.548	(1.068)	95	208359			80.08- 140.08	113.10
23.548	23.548	(1.068)	176	178266			67.26- 127.26	96.77

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112508sim.d
Lab Smp Id: 1511365-02B
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.5"Hg -> 4.9psi

Calibration Date: 25-NOV-2015
Calibration Time: 07:38
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	115820	3.81
20 1,4-Difluorobenze	447704	268622	626786	459026	2.53
28 Chlorobenzene-d5	377895	226737	529053	372763	-1.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-02B
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.5"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	4.974	99.48	70-130
\$ 22 Toluene-d8	5.000	4.884	97.67	70-130
\$ 33 4-Bromofluorobenze	5.000	4.541	90.82	70-130

Date : 25-NOV-2015 11:21

Client ID:

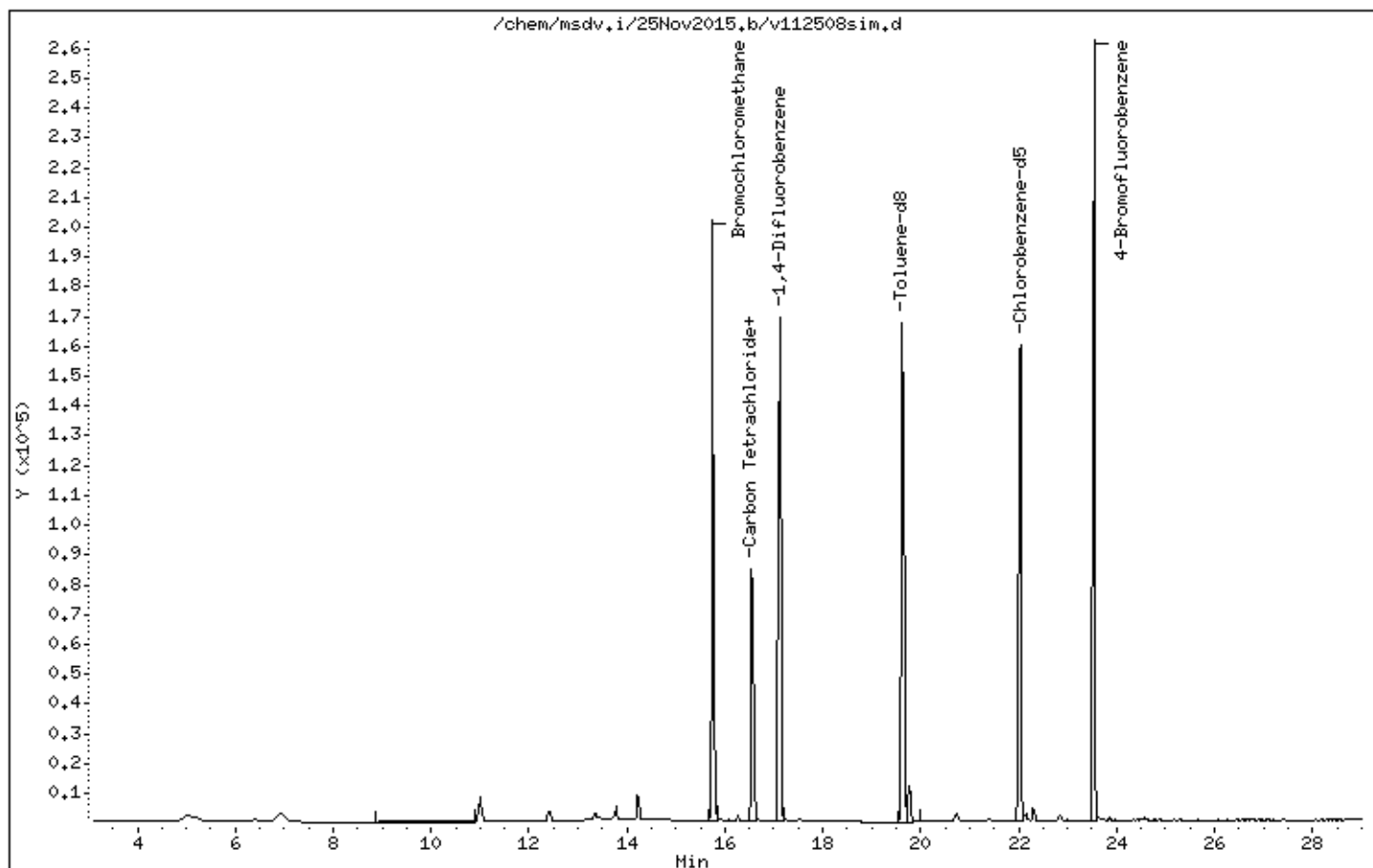
Instrument: msdv.i

Sample Info: 250mL# 6L1299

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 11:21

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 6L1299

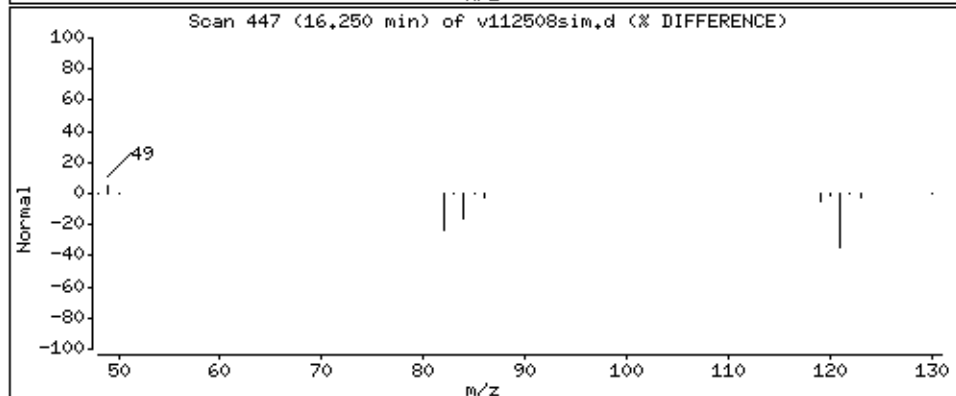
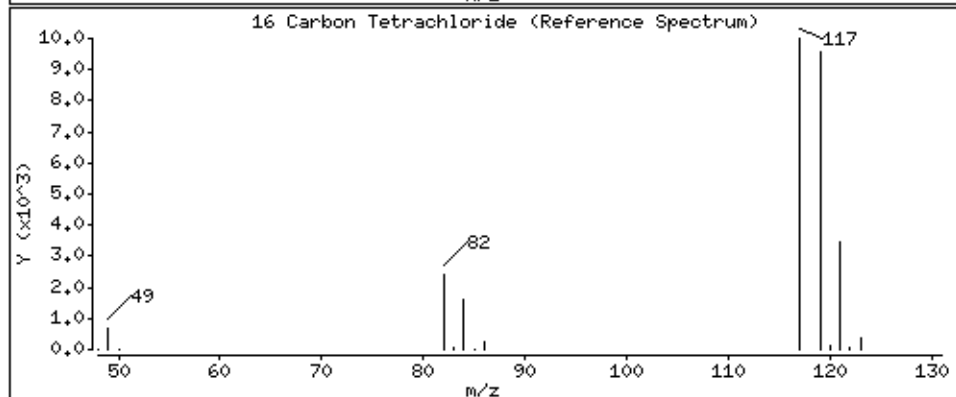
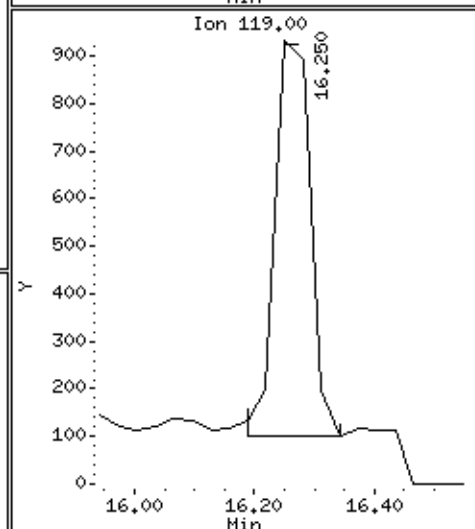
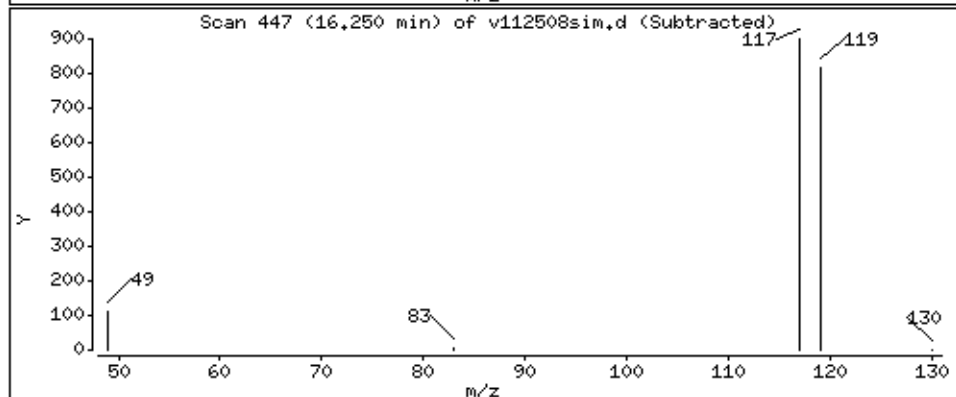
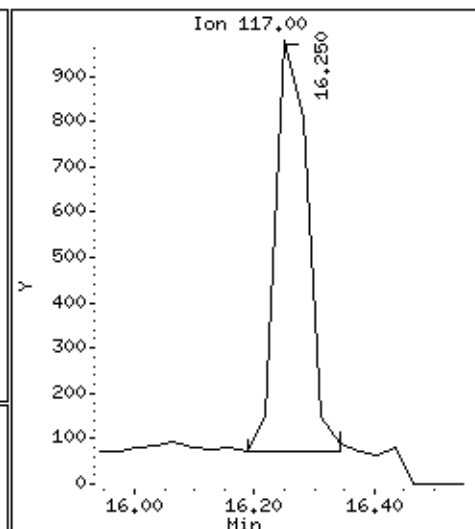
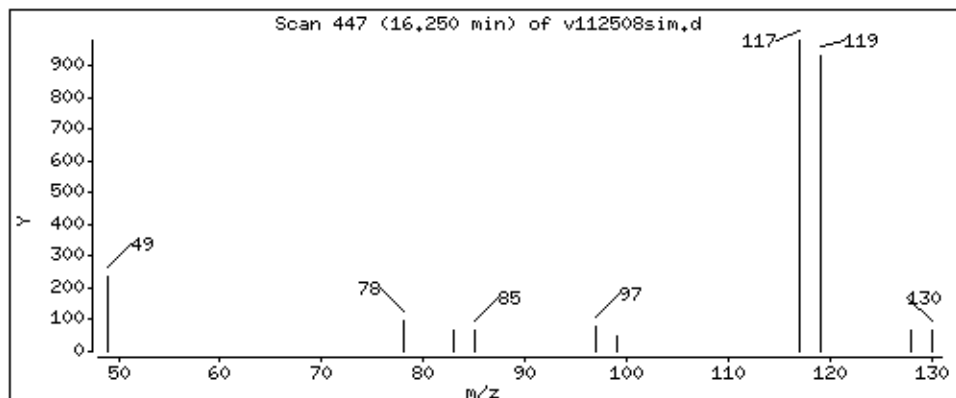
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.06092 PPBV



Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA 2037 Dup

Lab ID#: 1511365R1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.17	0.30	0.93	1.7
Acetone	0.83	3.5	2.0	8.3
Benzene	0.17	0.16 J	0.53	0.52 J
Toluene	0.17	0.37	0.62	1.4
m,p-Xylene	0.17	0.20	0.72	0.86



Air Toxics

Client Sample ID: IA 2037 Dup

Lab ID#: 1511365R1-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

MODIFIED EXTRACT METHOD TO 15 GC/MS SIMP/CL/SSCAN				
File Name:	v112509	Date of Collection: 11/20/15 5:20:00 PM		
Dil. Factor:	1.66	Date of Analysis: 11/25/15 11:57 AM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.83	Not Detected	4.1	Not Detected
Freon 11	0.17	0.30	0.93	1.7
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.83	3.5	2.0	8.3
Methylene Chloride	0.33	Not Detected	1.2	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.90	Not Detected
Benzene	0.17	0.16 J	0.53	0.52 J
Toluene	0.17	0.37	0.62	1.4
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
Chlorobenzene	0.17	Not Detected	0.76	Not Detected
Ethyl Benzene	0.17	Not Detected	0.72	Not Detected
m,p-Xylene	0.17	0.20	0.72	0.86
o-Xylene	0.17	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.83	Not Detected UJ	6.2	Not Detected UJ

J = Estimated value.

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112509.d
Lab Smp Id: 1511365-03A
Inj Date : 25-NOV-2015 11:57
Operator : ef
Smp Info : 250mL# 32127
Misc Info : 5.7"Hg -> 5.1psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
Meth Date : 08-Dec-2015 12:01 dbailey
Cal Date : 20-OCT-2015 09:38
Als bottle: 1
Dil Factor: 1.66000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msdv.i
Quant Type: ISTD
Cal File: v102007.d
Compound Sublist: San12642.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.66000		Dilution Factor				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
35 Freon 11						CAS #:	75-69-4		
11.004	10.980	(0.699)	101	16292	0.17836	0.2961	80.00-	120.00	100.00
10.980	10.980	(0.697)	103	12678			32.43-	92.43	77.82
52 Acetone						CAS #:	67-64-1		
12.661	12.660	(0.804)	58	60568	2.10682	3.497	80.00-	120.00	100.00
12.661	12.660	(0.804)	43	246361			308.96-	368.96	406.75
* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	98081	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	80909			45.98-	105.98	82.49
15.743	15.743	(1.000)	49	336442			326.70-	386.70	343.03
116 Benzene						CAS #:	71-43-2		
16.590	16.562	(0.970)	78	10934	0.09792	0.1625	80.00-	120.00	100.00(a)
16.590	16.562	(0.970)	77	2337			0.00-	51.65	21.37

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	190790	5.29751	5.298	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	91830			15.86-	75.86	48.13

* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	477723	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	63802			0.00-	43.80	13.36

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.615	(1.146)	98	423182	4.84518	4.845	80.00-	120.00	100.00
19.638	19.615	(1.148)	70	44819			0.00-	39.58	10.59
19.615	19.615	(1.146)	100	260660			37.10-	97.10	61.60

147 Toluene						CAS #:	108-88-3		
19.750	19.750	(1.154)	91	31705	0.22152	0.3677	80.00-	120.00	100.00
19.772	19.750	(1.155)	92	17411			27.14-	87.14	54.92

* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	385893	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	200213			17.84-	77.84	51.88

169 m,p-Xylene						CAS #:	108-38-3		
22.303	22.303	(1.012)	106	6332	0.11951	0.1984	80.00-	120.00	100.00
22.303	22.303	(1.012)	91	10505			180.42-	240.42	165.91

\$ 177 4-Bromofluorobenzene						CAS #:	460-00-4		
23.535	23.535	(1.068)	174	187164	4.71728	4.717	80.00-	120.00	100.00
23.535	23.535	(1.068)	95	227767			85.02-	145.02	121.69
23.535	23.535	(1.068)	176	176324			63.61-	123.61	94.21

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112509.d
Lab Smp Id: 1511365-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef

Calibration Date: 25-NOV-2015
Calibration Time: 07:38

Level: LOW
Sample Type: AIR

Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 5.7"Hg -> 5.1psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	98081	-2.06
123 1,4-Difluorobenze	462764	277658	647870	477723	3.23
163 Chlorobenzene-d5	397301	238381	556221	385893	-2.87

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-03A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 5.7"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	5.298	105.95	70-130
\$ 146 Toluene-d8	5.000	4.845	96.90	70-130
\$ 177 4-Bromofluorobenze	5.000	4.717	94.35	70-130

Date : 25-NOV-2015 11:57

Client ID:

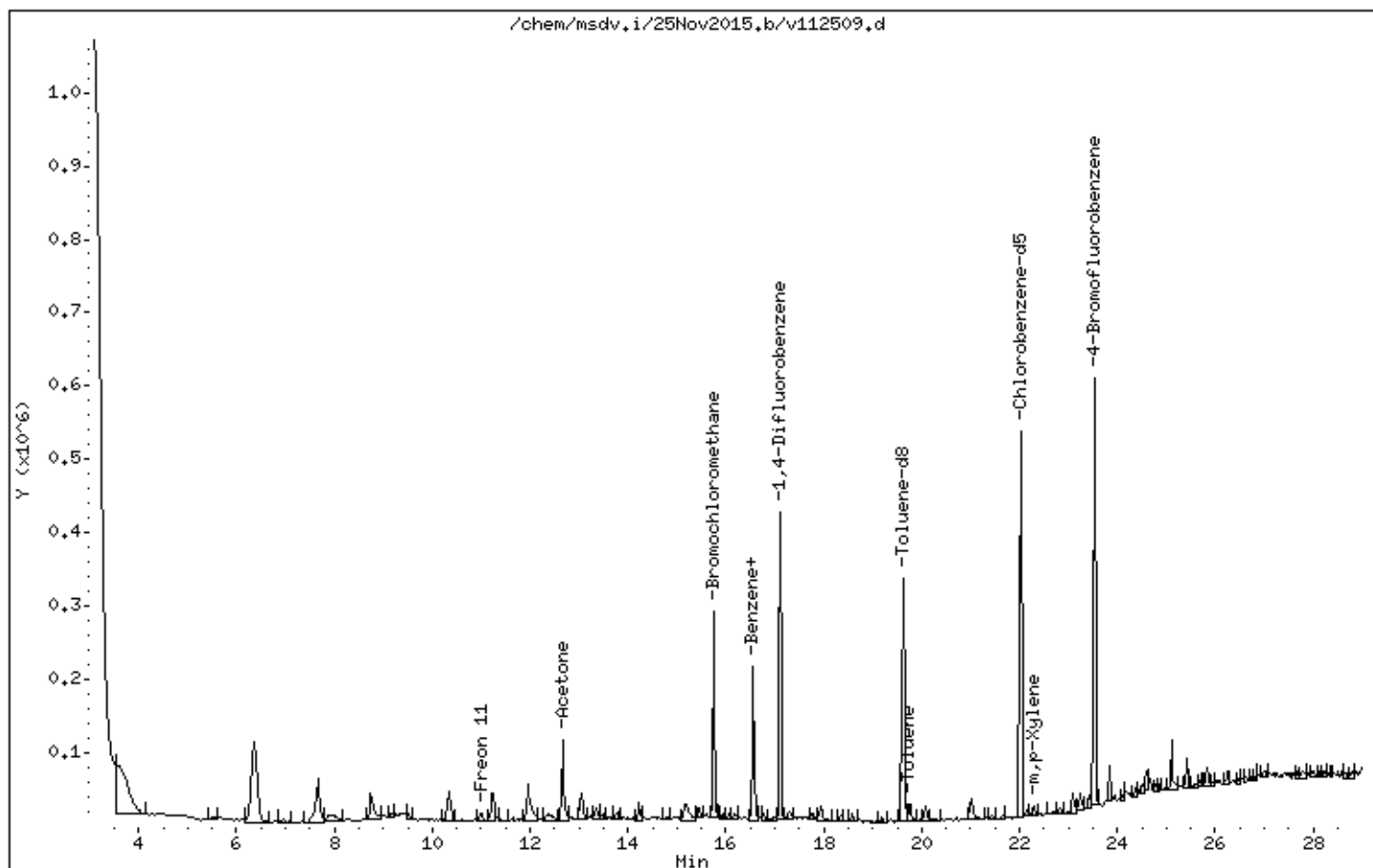
Instrument: msdv.i

Sample Info: 250mL# 32127

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

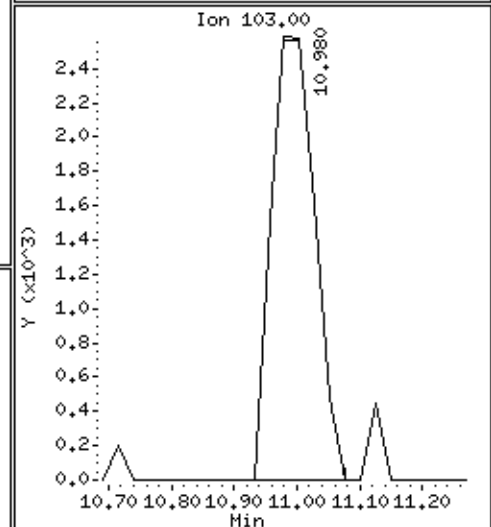
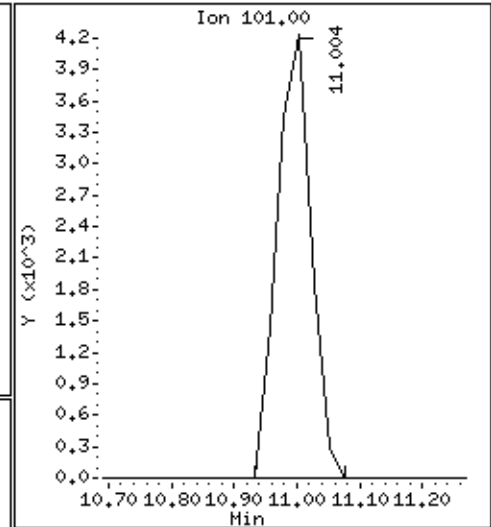
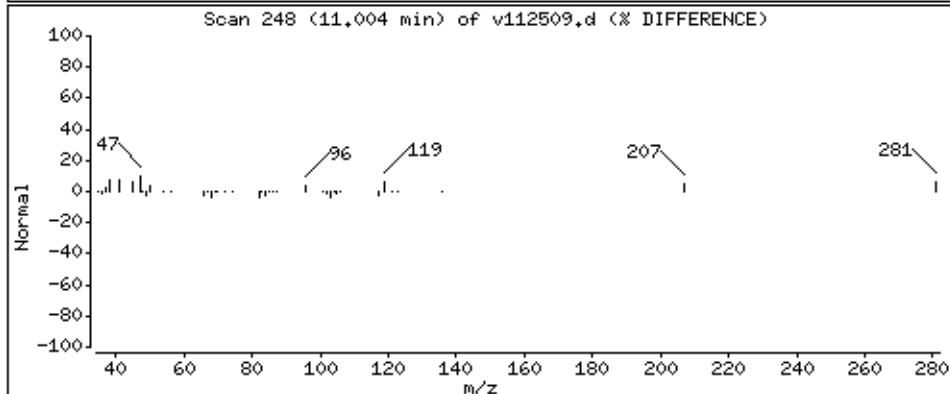
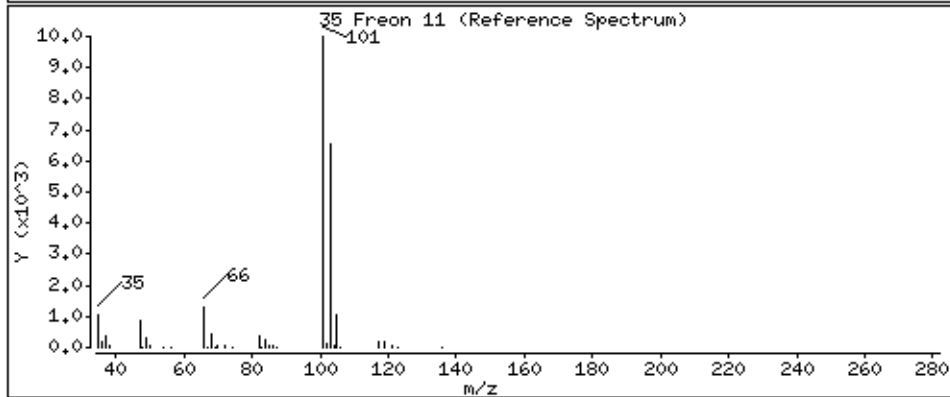
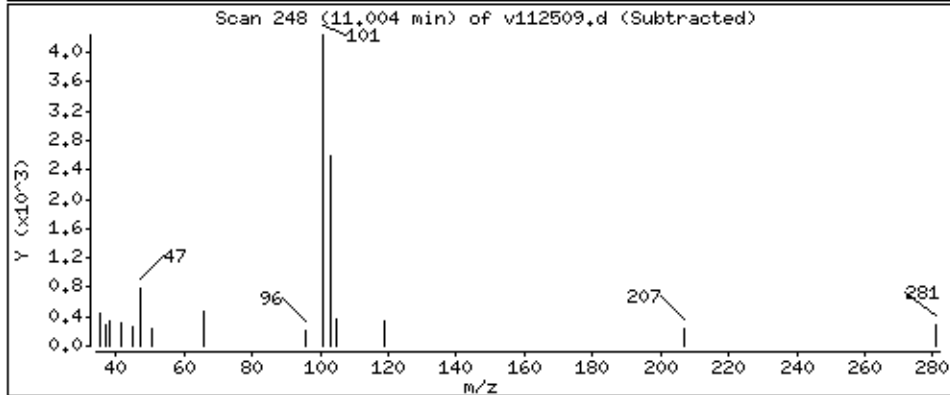
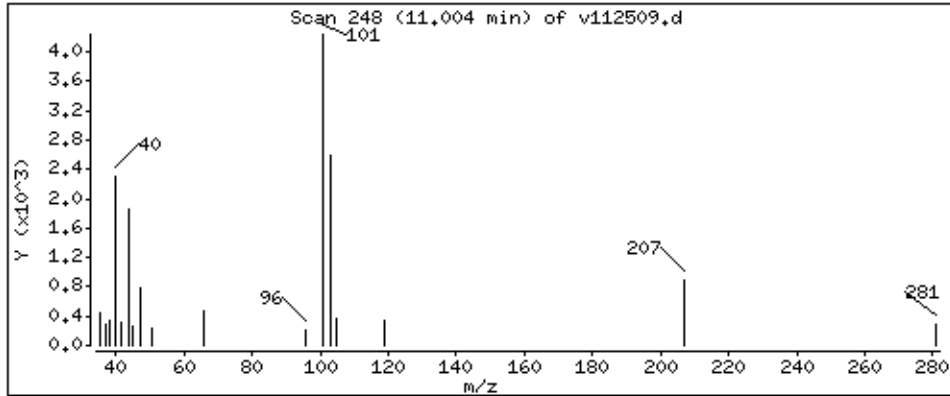
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

35 Freon 11

Concentration: 0.2961 PPBV



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

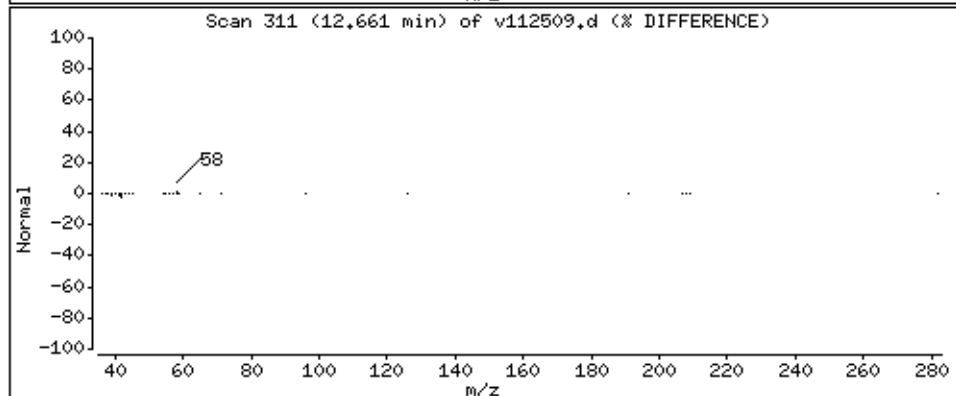
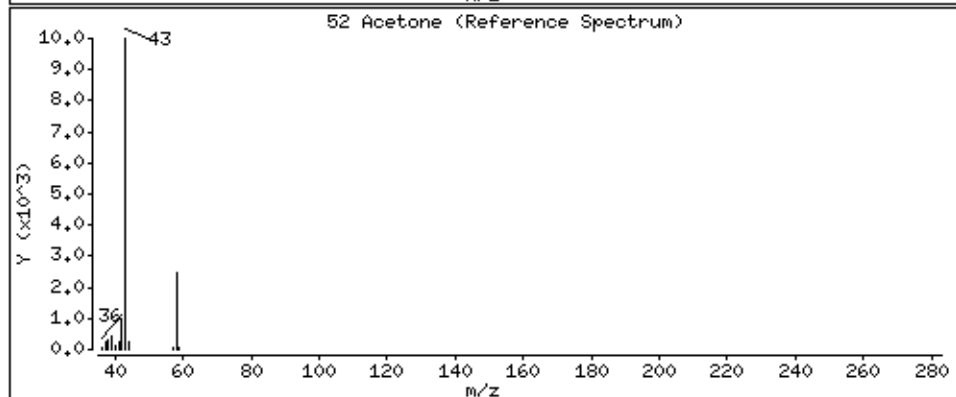
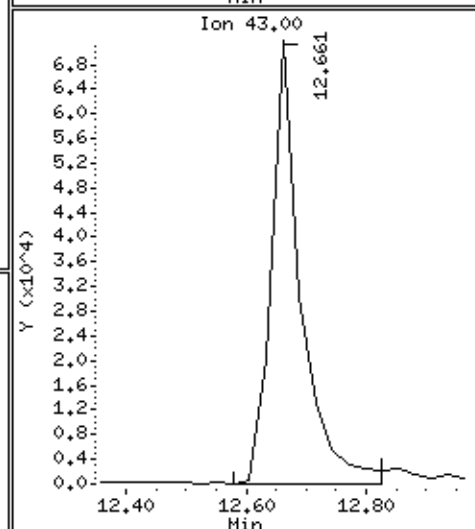
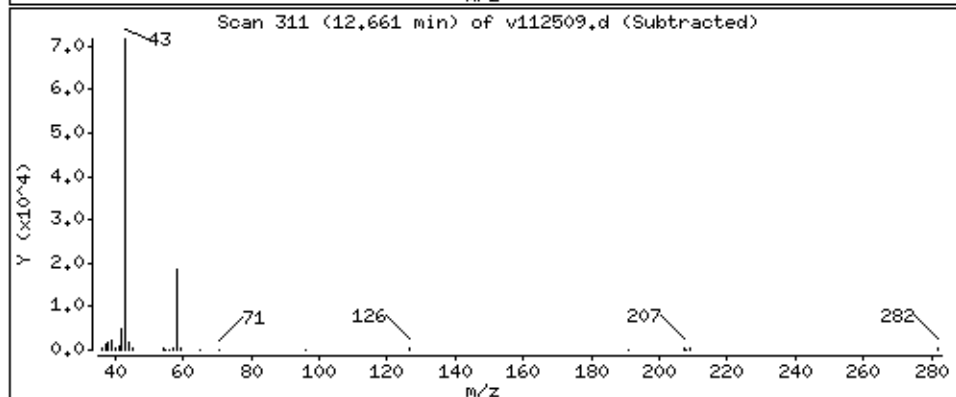
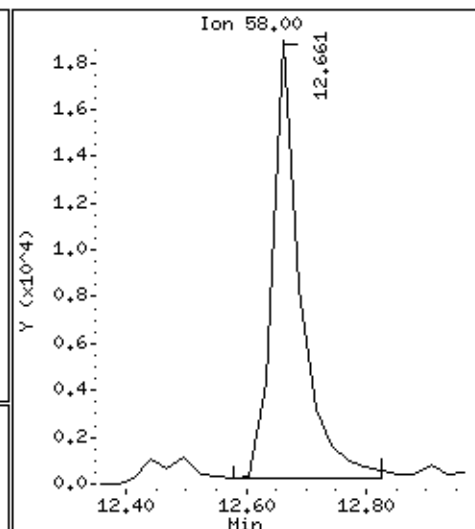
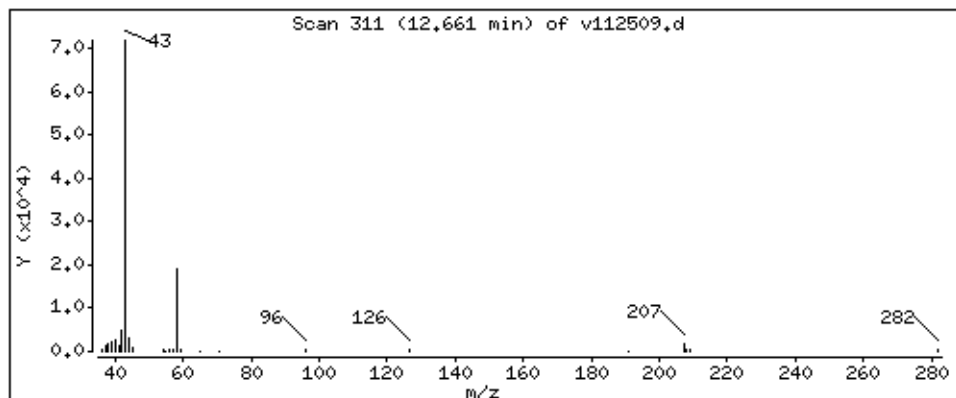
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

52 Acetone

Concentration: 3.497 PPBV



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

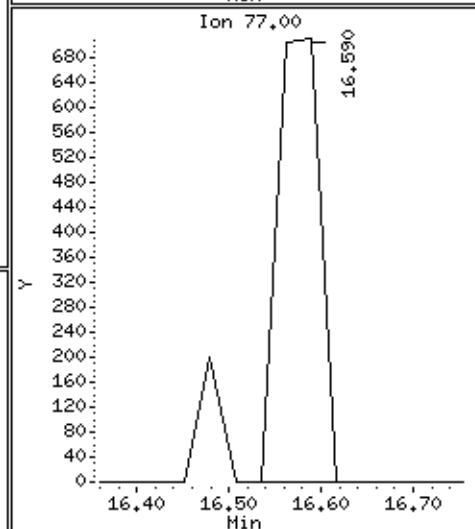
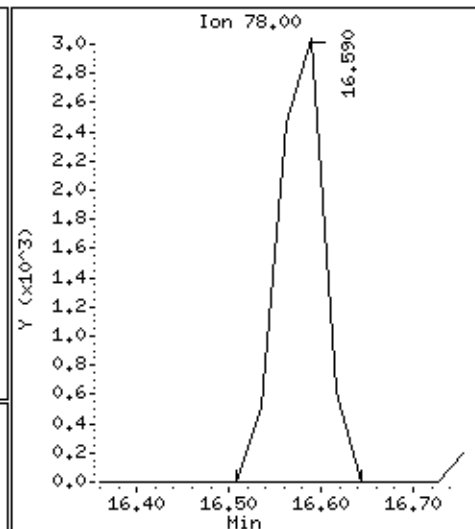
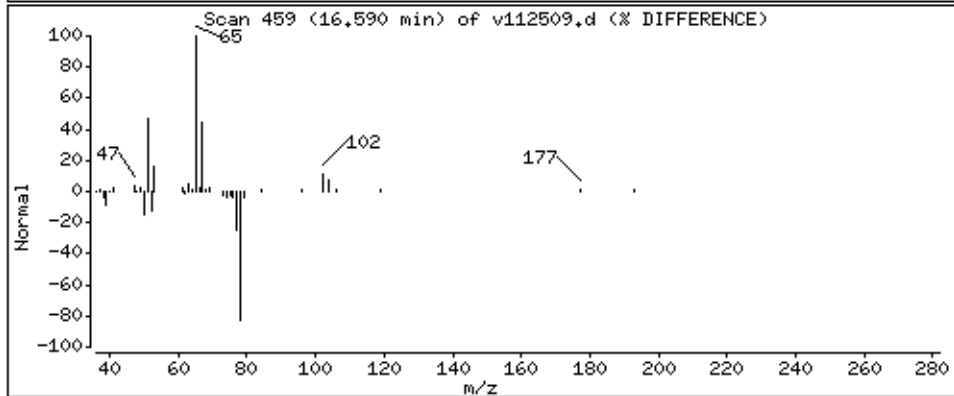
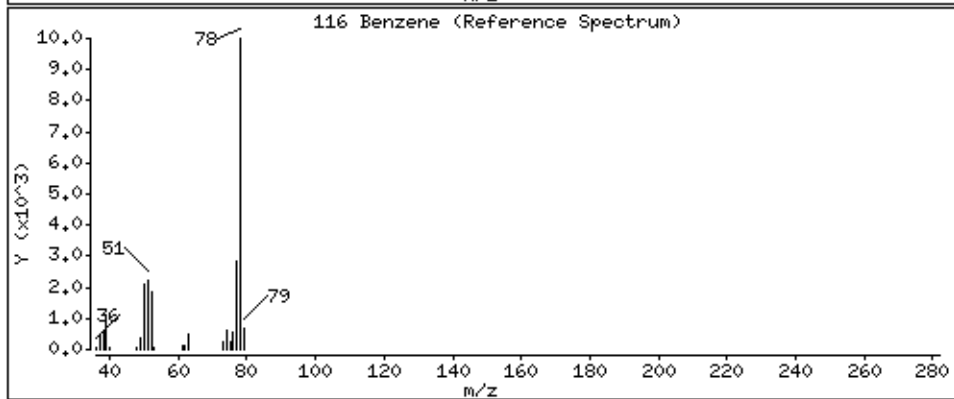
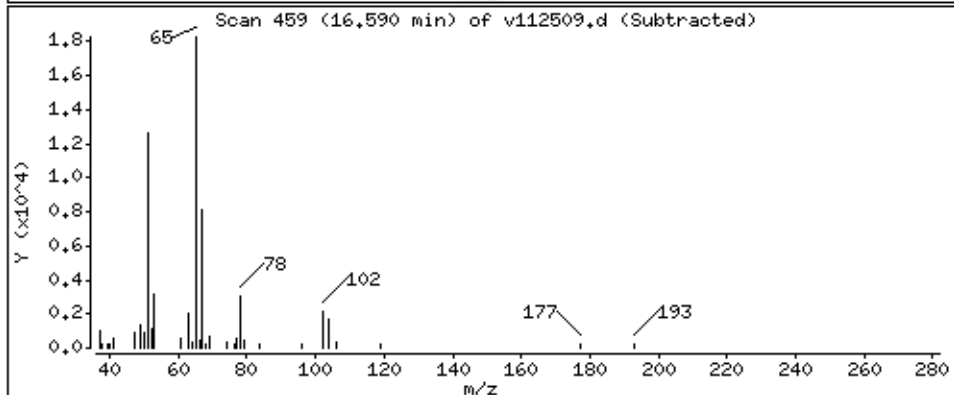
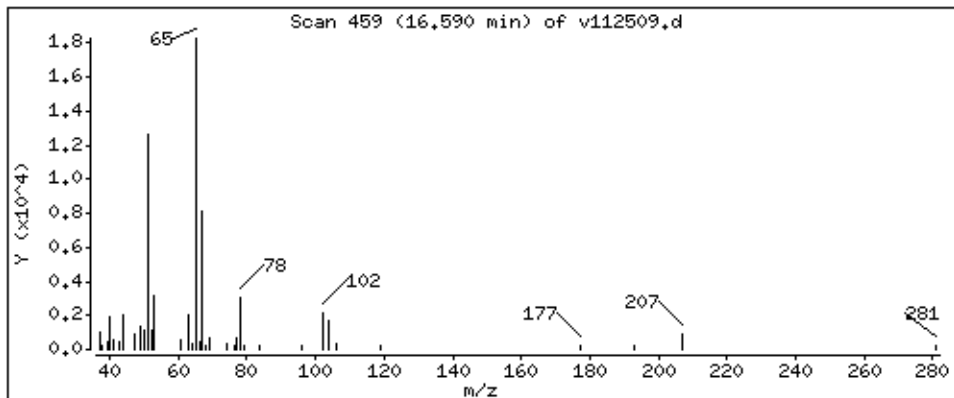
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

116 Benzene

Concentration: 0.1625 PPBV



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

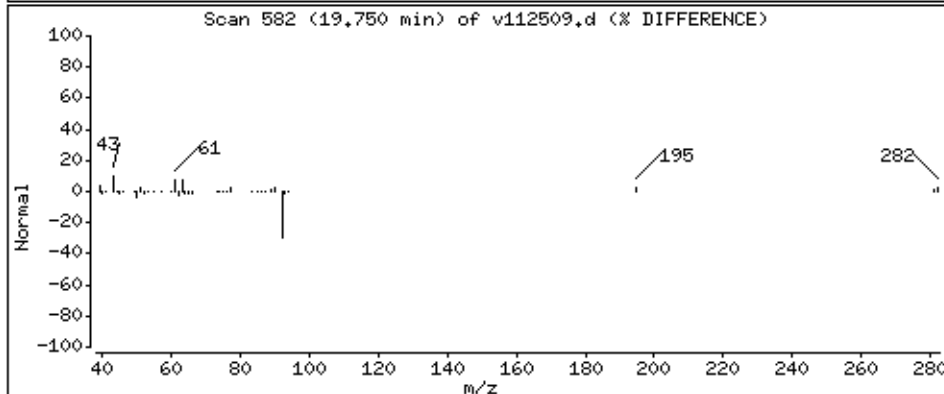
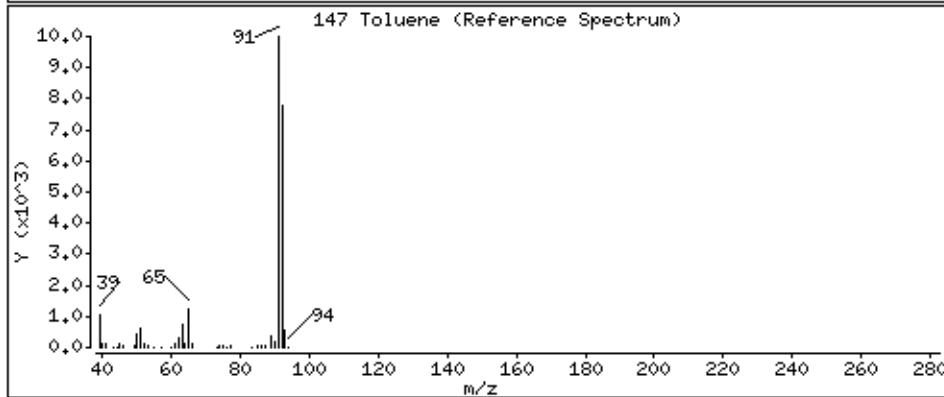
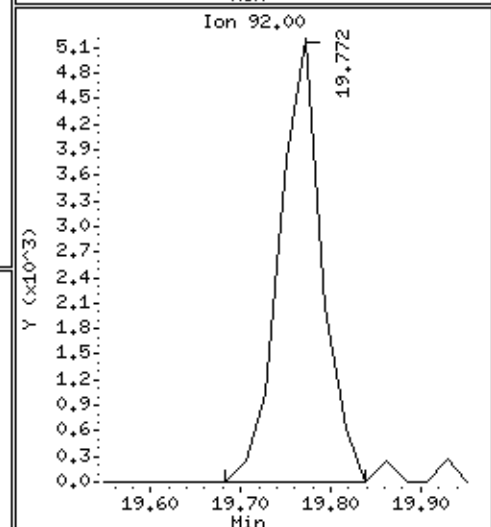
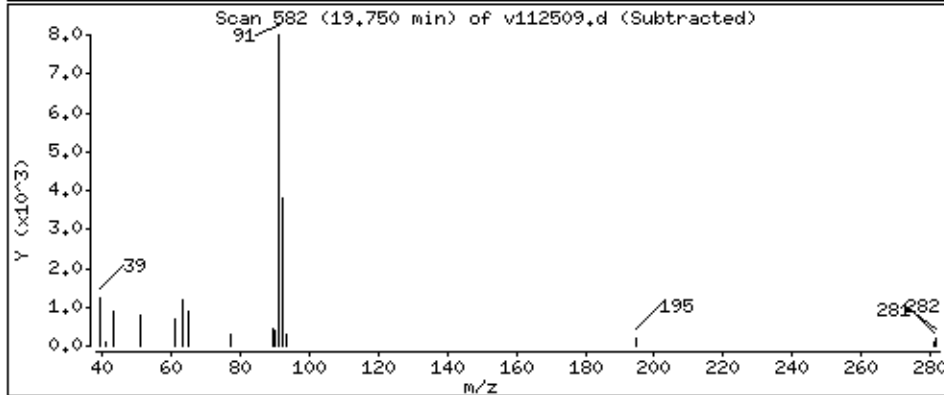
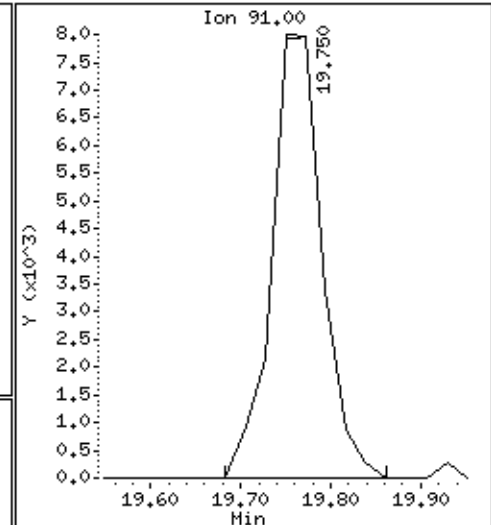
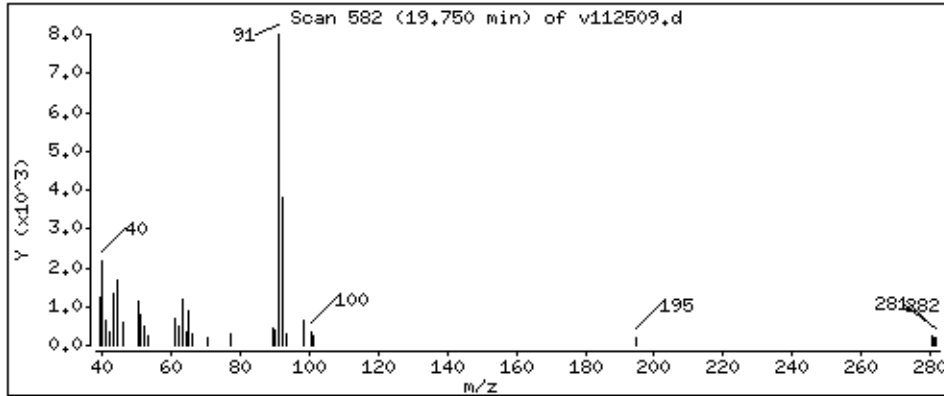
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

147 Toluene

Concentration: 0.3677 PPBV



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

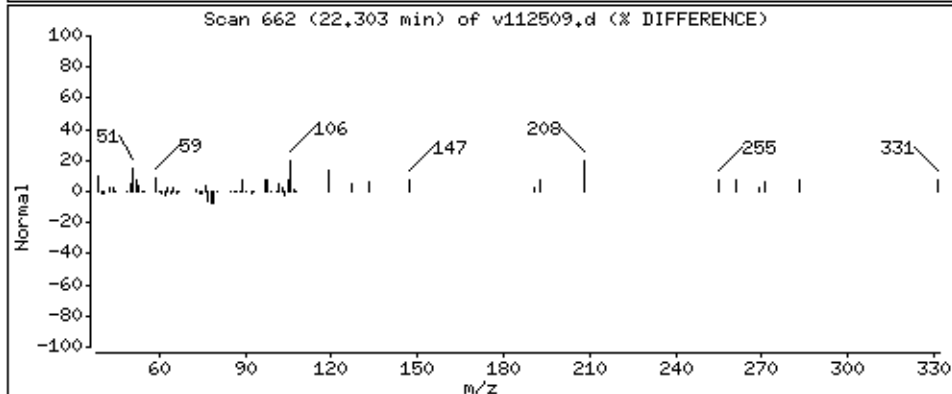
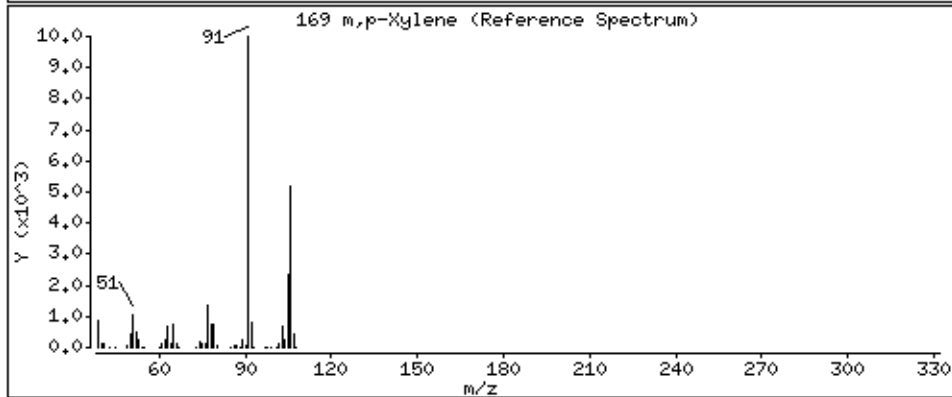
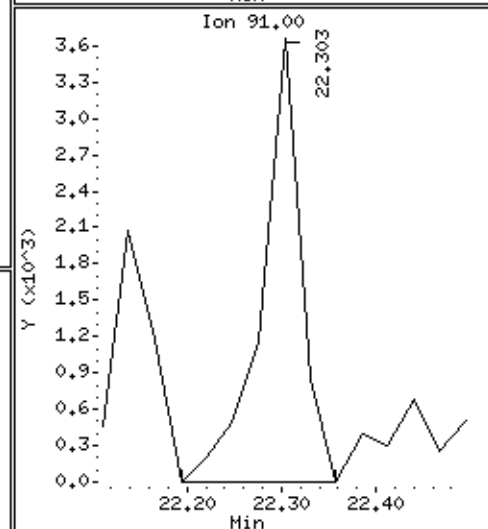
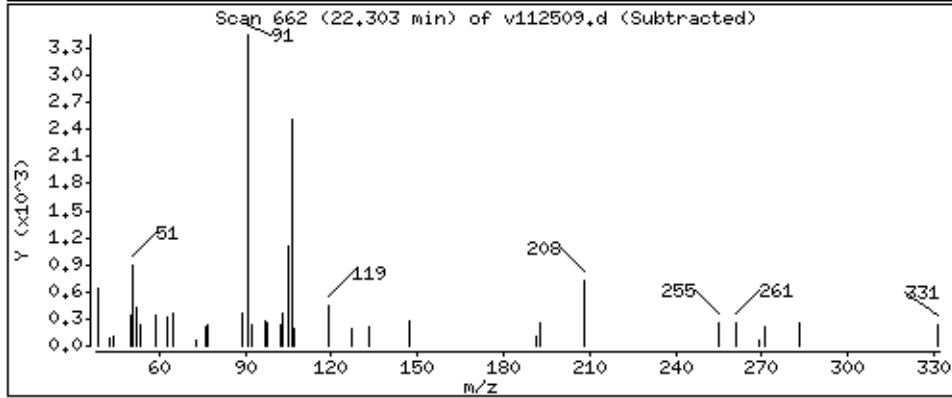
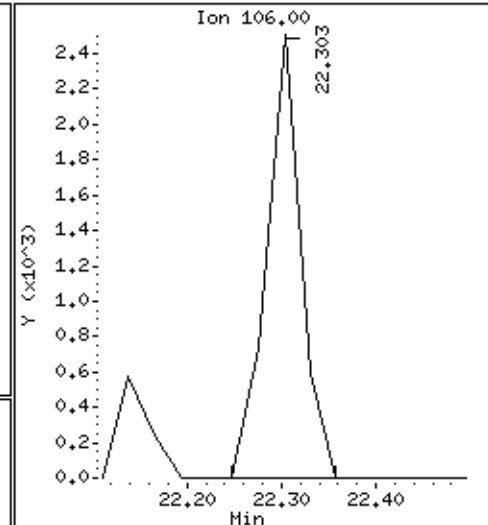
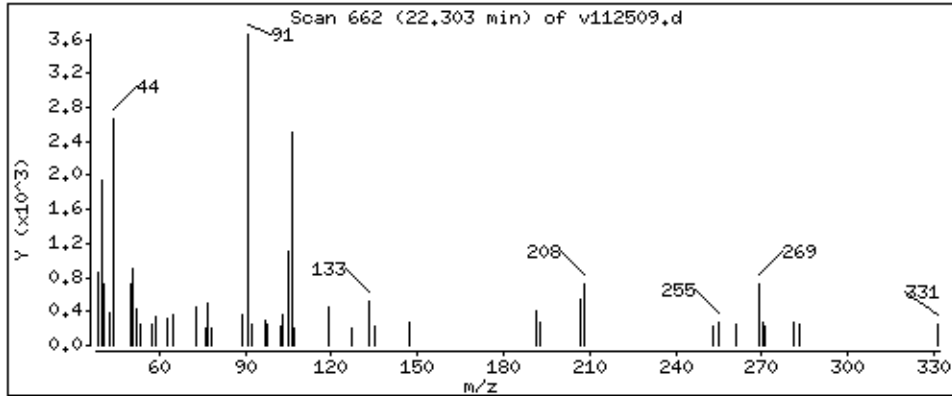
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

169 m,p-Xylene

Concentration: 0.1984 PPBV



Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA 2037 Dup

Lab ID#: 1511365R1-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.033	0.060	0.21	0.38
Trichloroethene	0.033	0.047	0.18	0.26



Air Toxics

Client Sample ID: IA 2037 Dup

Lab ID#: 1511365R1-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112509sim	Date of Collection:	11/20/15 5:20:00 PM
Dil. Factor:	1.66	Date of Analysis:	11/25/15 11:57 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.042	Not Detected
Carbon Tetrachloride	0.033	0.060	0.21	0.38
Trichloroethene	0.033	0.047	0.18	0.26

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112509sim.d
Lab Smp Id: 1511365-03B
Inj Date : 25-NOV-2015 11:57
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 32127
Misc Info : 5.7"Hg -> 5.1psi
Comment : SIM - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Meth Date : 25-Nov-2015 08:52 efinn Quant Type: ISTD
Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
Als bottle: 1
Dil Factor: 1.66000
Integrator: HP RTE Compound Sublist: San12642.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description					
DF		1.66000	Dilution Factor					
CONCENTRATIONS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 13 Bromochloromethane							CAS #:	74-97-5
15.757	15.757	(1.000)	130	113490	5.00000		80.00- 120.00	100.00
15.757	15.757	(1.000)	128	88048			47.55- 107.55	77.58
15.757	15.757	(1.000)	49	372983			270.30- 330.30	328.65
16 Carbon Tetrachloride							CAS #:	56-23-5
16.250	16.250	(1.031)	117	3190	0.03625	0.06018	80.00- 120.00	100.00
16.250	16.250	(1.031)	119	3092			65.95- 125.95	96.93
\$ 18 1,2-Dichloroethane-d4							CAS #:	17060-07-0
16.548	16.548	(1.050)	65	201348	5.03207	5.032	80.00- 120.00	100.00
16.576	16.548	(1.052)	67	92590			17.43- 77.43	45.99
* 20 1,4-Difluorobenzene							CAS #:	540-36-3
17.125	17.125	(1.000)	114	454415	5.00000		80.00- 120.00	100.00
17.125	17.125	(1.000)	88	63270			0.00- 44.06	13.92

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
21 Trichloroethene						CAS #:	79-01-6		
17.509	17.509	(1.022)	130	1820	0.02858	0.04745	80.00-	120.00	100.00
17.509	17.509	(1.022)	95	1863			64.51-	124.51	102.35
17.509	17.509	(1.022)	97	1215			31.18-	91.18	66.79

\$ 22 Toluene-d8						CAS #:	2037-26-5		
19.629	19.629	(1.146)	98	355942	4.94857	4.948	80.00-	120.00	100.00
19.629	19.629	(1.146)	70	42217			0.00-	40.98	11.86
19.629	19.629	(1.146)	100	216542			32.48-	92.48	60.84

* 28 Chlorobenzene-d5						CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	376205	5.00000		80.00-	120.00	100.00
22.015	22.042	(1.000)	82	182517			16.56-	76.56	48.52

\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4		
23.548	23.548	(1.068)	174	193558	4.72749	4.727	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	217078			80.08-	140.08	112.15
23.548	23.548	(1.068)	176	187062			67.26-	127.26	96.64

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112509sim.d
Lab Smp Id: 1511365-03B
Analysis Type: VOA
Quant Type: ISTD
Operator: ef

Calibration Date: 25-NOV-2015
Calibration Time: 07:38

Level: LOW
Sample Type: AIR

Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.7"Hg -> 5.1psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	113490	1.72
20 1,4-Difluorobenze	447704	268622	626786	454415	1.50
28 Chlorobenzene-d5	377895	226737	529053	376205	-0.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-03B
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.7"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	5.032	100.64	70-130
\$ 22 Toluene-d8	5.000	4.948	98.97	70-130
\$ 33 4-Bromofluorobenze	5.000	4.727	94.55	70-130

Date : 25-NOV-2015 11:57

Client ID:

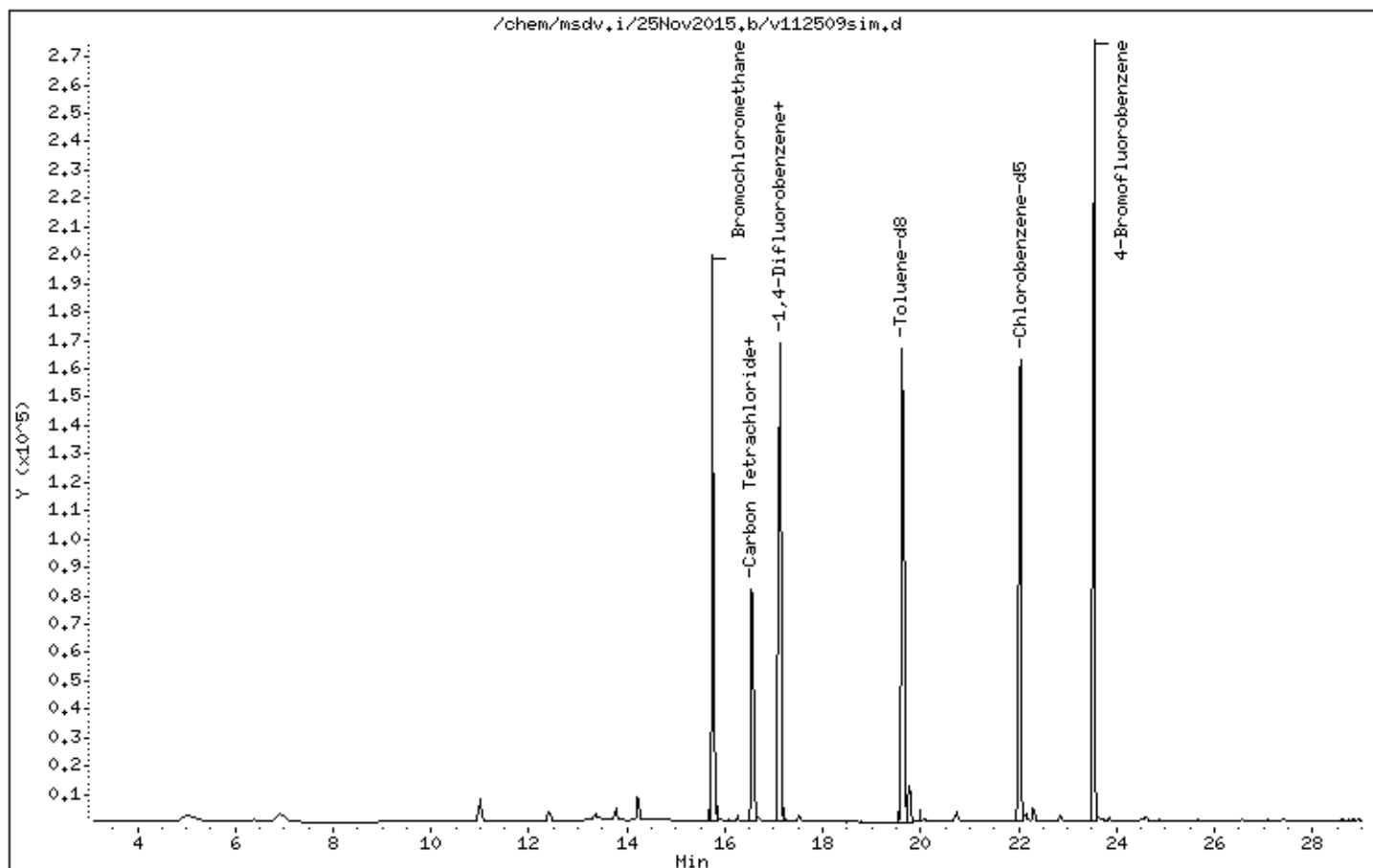
Instrument: msdv.i

Sample Info: 250mL# 32127

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

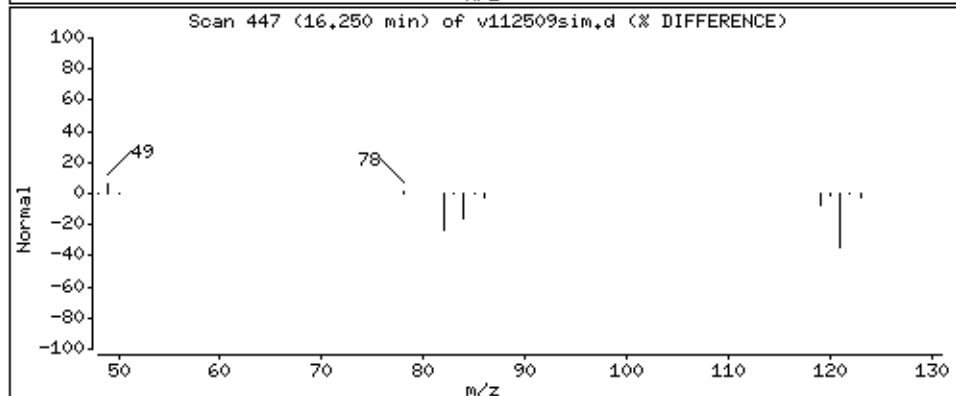
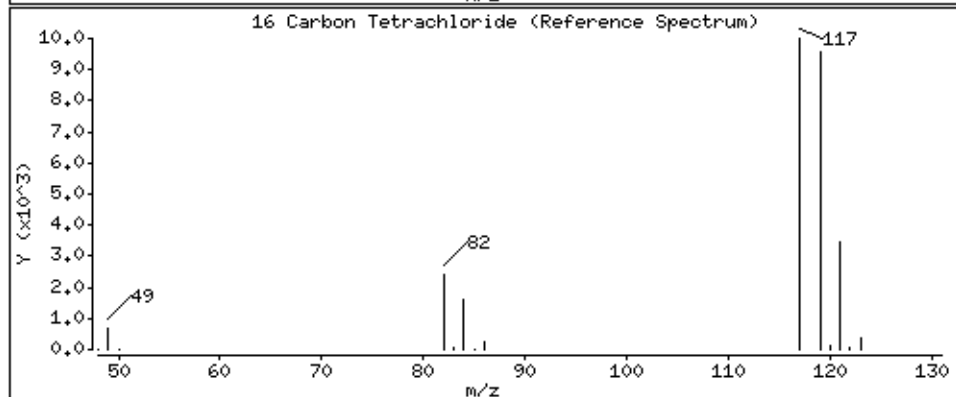
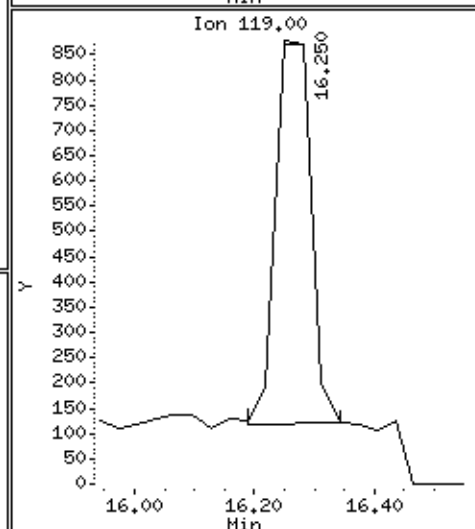
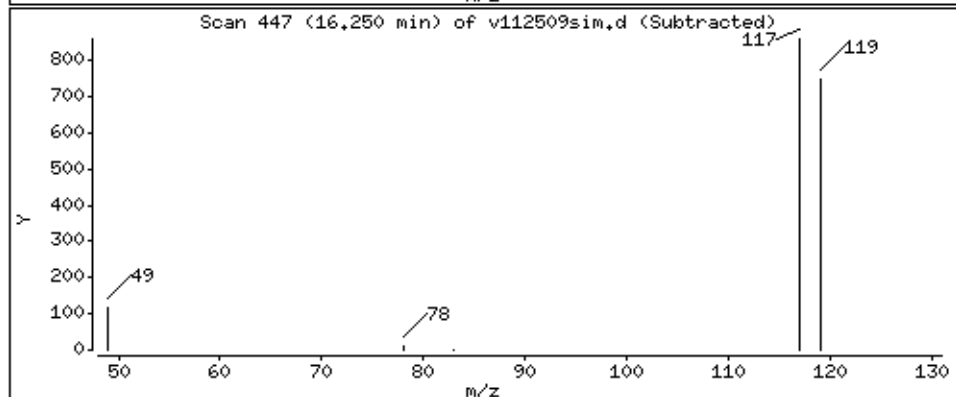
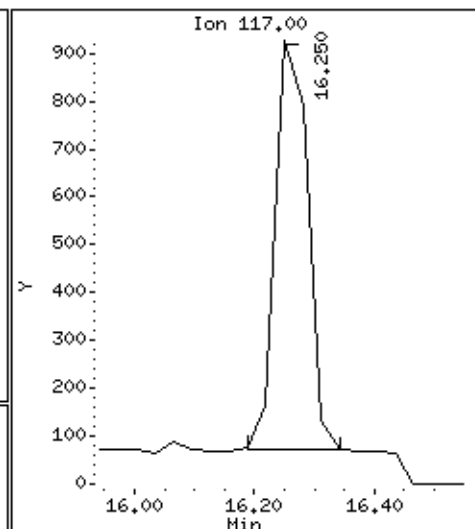
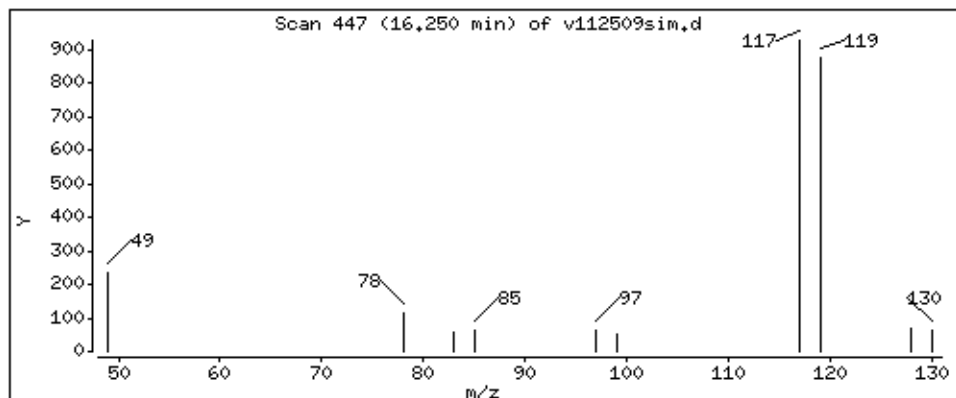
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.06018 PPBV



Date : 25-NOV-2015 11:57

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 32127

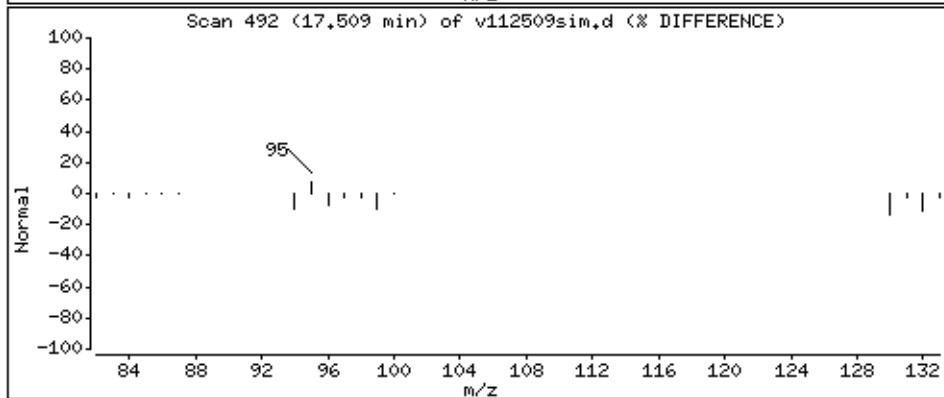
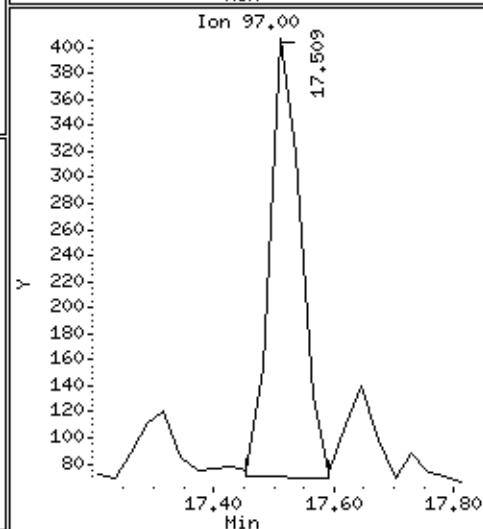
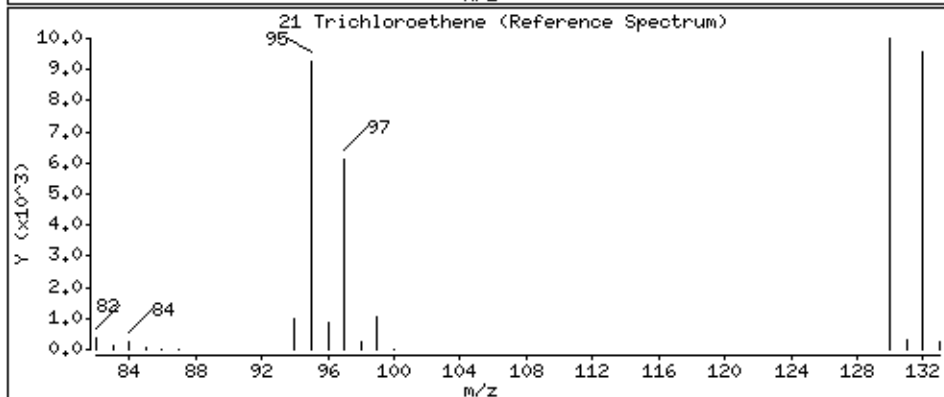
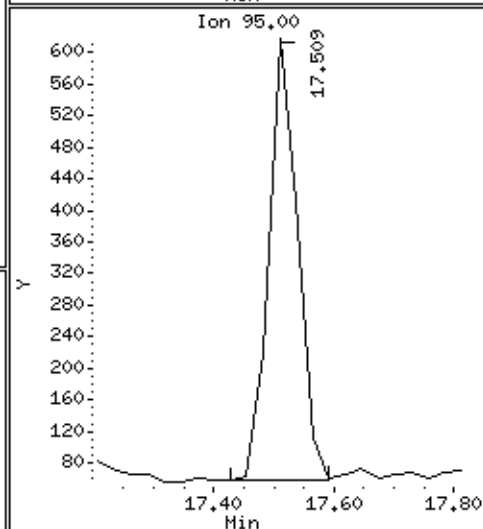
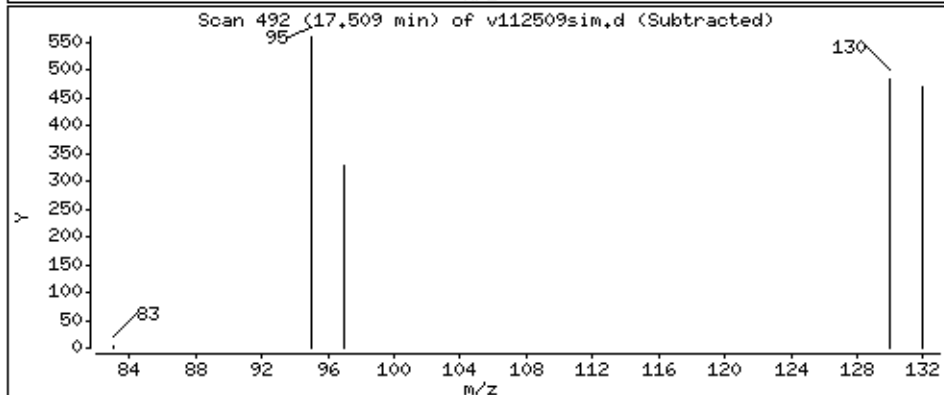
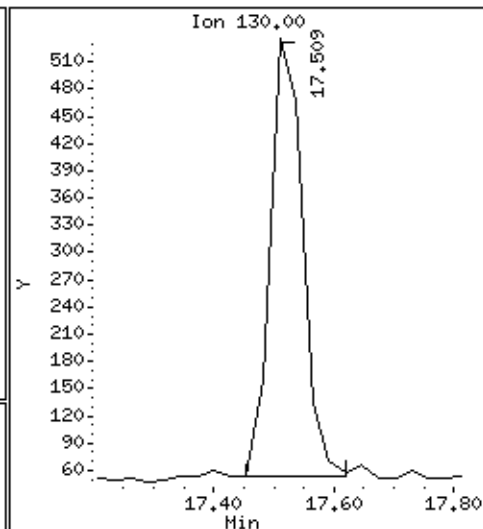
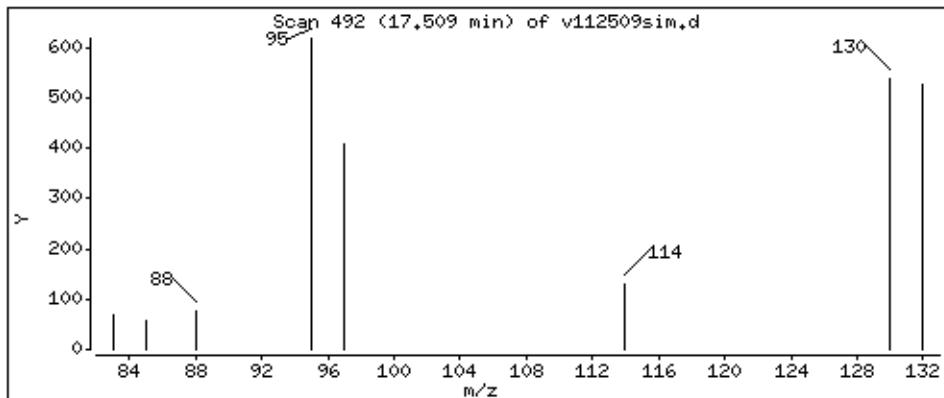
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.04745 PPBV



Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: Ambient Air

Lab ID#: 1511365R1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.16	0.25	0.89	1.4
Acetone	0.80	1.5	1.9	3.5



Air Toxics

Client Sample ID: Ambient Air

Lab ID#: 1511365R1-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

MODIFIED EXTRACT METHOD TO 15 GC/MS SIM/OLE SCAN				
File Name:	v112510	Date of Collection: 11/20/15 5:48:00 PM		
Dil. Factor:	1.59	Date of Analysis: 11/25/15 12:33 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	3.9	Not Detected
Freon 11	0.16	0.25	0.89	1.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	1.5	1.9	3.5
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected UJ	5.9	Not Detected UJ

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	87	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112510.d
Lab Smp Id: 1511365-04A
Inj Date : 25-NOV-2015 12:33
Operator : ef
Smp Info : 250mL# 25314
Misc Info : 4.9"Hg -> 4.9psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
Meth Date : 08-Dec-2015 12:01 dbailey
Cal Date : 20-OCT-2015 09:38
Als bottle: 1
Dil Factor: 1.59000
Integrator: HP RTE
Target Version: 3.50
Processing Host: eeyore

Inst ID: msdv.i
Quant Type: ISTD
Cal File: v102007.d
Compound Sublist: San12642.sub
Sample Matrix: AIR

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description			
DF			1.59000		Dilution Factor			
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
35 Freon 11					CAS #: 75-69-4			
11.004	10.980	(0.699)	101	13562	0.15518	0.2467	80.00- 120.00	100.00
10.980	10.980	(0.697)	103	9108			32.43- 92.43	67.16
52 Acetone					CAS #: 67-64-1			
12.660	12.660	(0.804)	58	25437	0.92478	1.470	80.00- 120.00	100.00
12.660	12.660	(0.804)	43	97150			308.96- 368.96	381.92
* 98 Bromochloromethane					CAS #: 74-97-5			
15.743	15.743	(1.000)	130	93842	5.00000		80.00- 120.00	100.00
15.743	15.743	(1.000)	128	77454			45.98- 105.98	82.54
15.743	15.743	(1.000)	49	330643			326.70- 386.70	352.34
\$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0			
16.562	16.562	(1.052)	65	181178	5.25785	5.258	80.00- 120.00	100.00
16.562	16.562	(1.052)	67	81913			15.86- 75.86	45.21

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
* 123 1,4-Difluorobenzene							CAS #:	540-36-3	
17.111	17.111	(1.000)	114	441600	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	61386			0.00-	43.80	13.90

\$ 146 Toluene-d8							CAS #:	2037-26-5	
19.615	19.615	(1.146)	98	406757	5.03808	5.038	80.00-	120.00	100.00
19.615	19.615	(1.146)	70	45183			0.00-	39.58	11.11
19.615	19.615	(1.146)	100	257240			37.10-	97.10	63.24

* 163 Chlorobenzene-d5							CAS #:	3114-55-4	
22.029	22.029	(1.000)	117	382552	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	187762			17.84-	77.84	49.08

\$ 177 4-Bromofluorobenzene							CAS #:	460-00-4	
23.534	23.535	(1.068)	174	171773	4.36719	4.367	80.00-	120.00	100.00
23.534	23.535	(1.068)	95	213002			85.02-	145.02	124.00
23.534	23.535	(1.068)	176	168060			63.61-	123.61	97.84

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112510.d
Lab Smp Id: 1511365-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef

Calibration Date: 25-NOV-2015
Calibration Time: 07:38

Level: LOW
Sample Type: AIR

Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 4.9"Hg -> 4.9psi

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	93842	-6.29
123 1,4-Difluorobenze	462764	277658	647870	441600	-4.57
163 Chlorobenzene-d5	397301	238381	556221	382552	-3.71

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-04A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: 4.9"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	5.258	105.16	70-130
\$ 146 Toluene-d8	5.000	5.038	100.76	70-130
\$ 177 4-Bromofluorobenze	5.000	4.367	87.34	70-130

Date : 25-NOV-2015 12:33

Client ID:

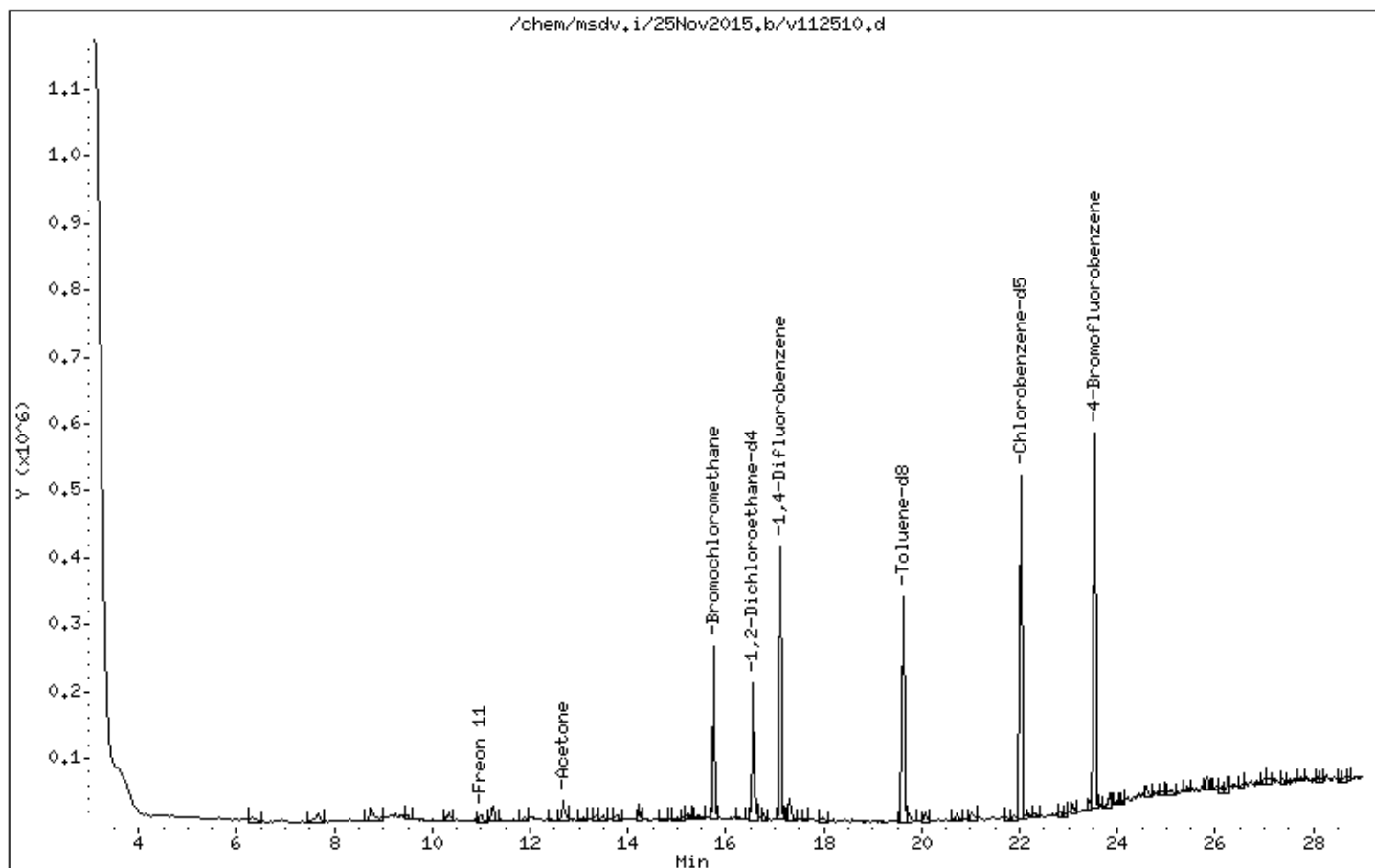
Instrument: msdv,i

Sample Info: 250mL# 25314

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 12:33

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 25314

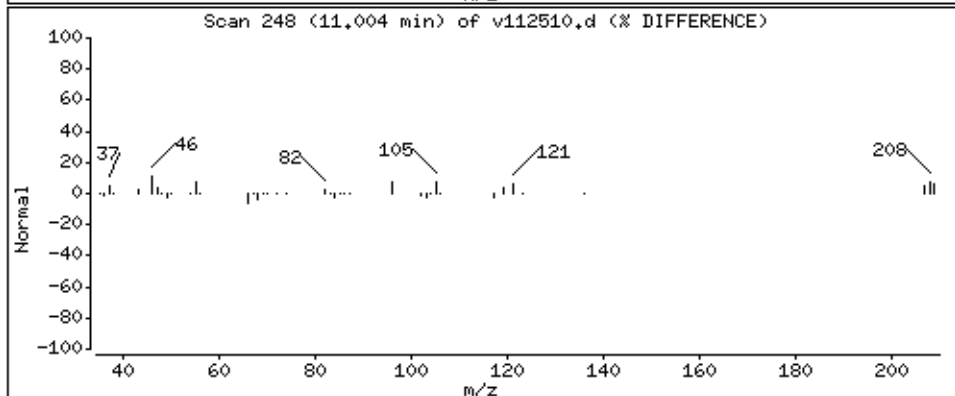
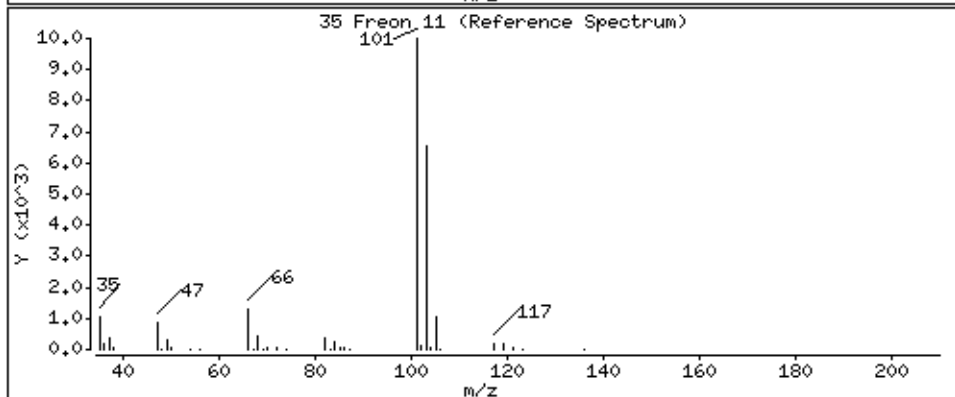
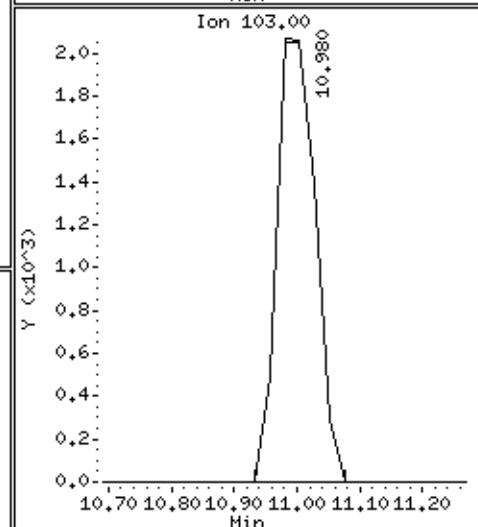
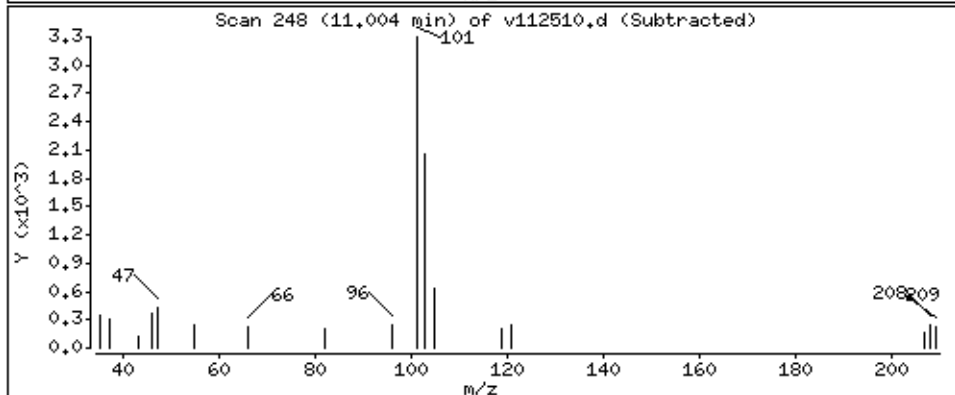
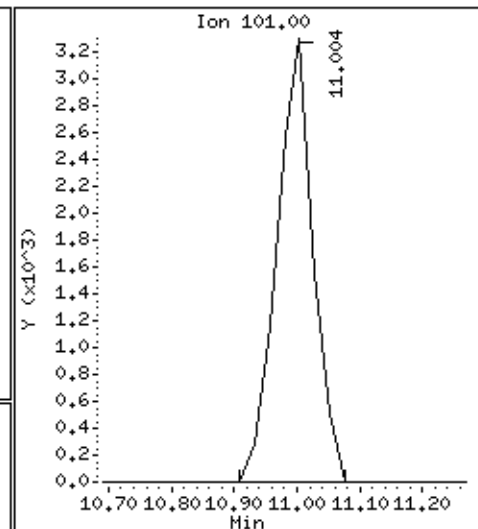
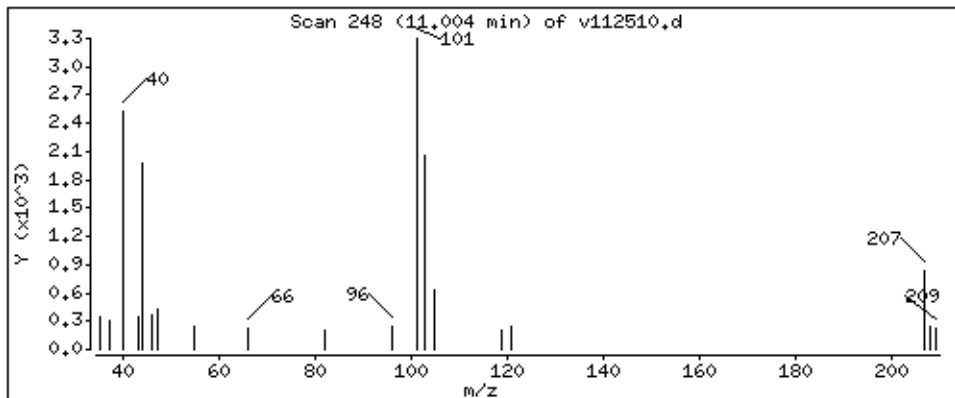
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

35 Freon 11

Concentration: 0.2467 PPBV



Date : 25-NOV-2015 12:33

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 25314

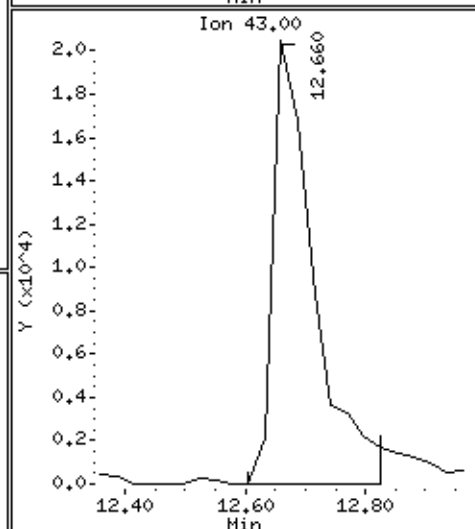
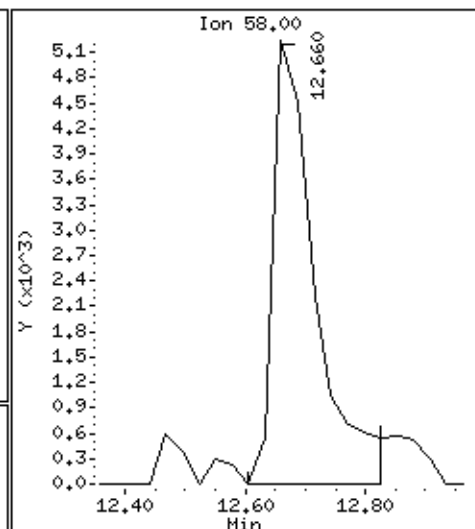
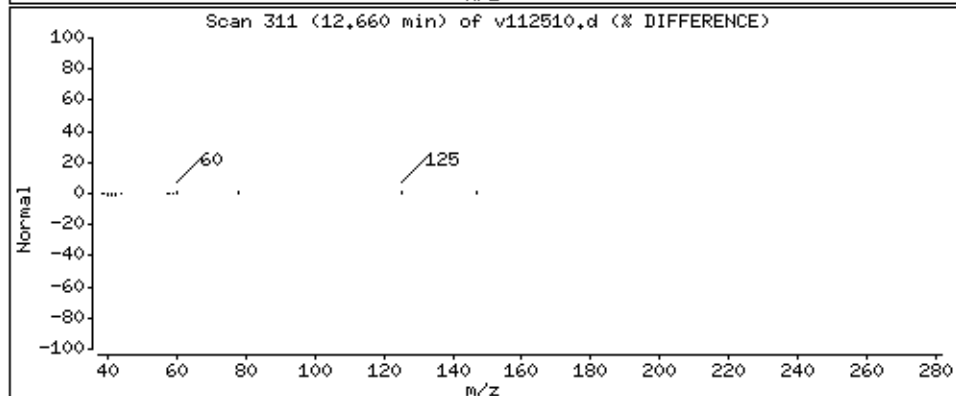
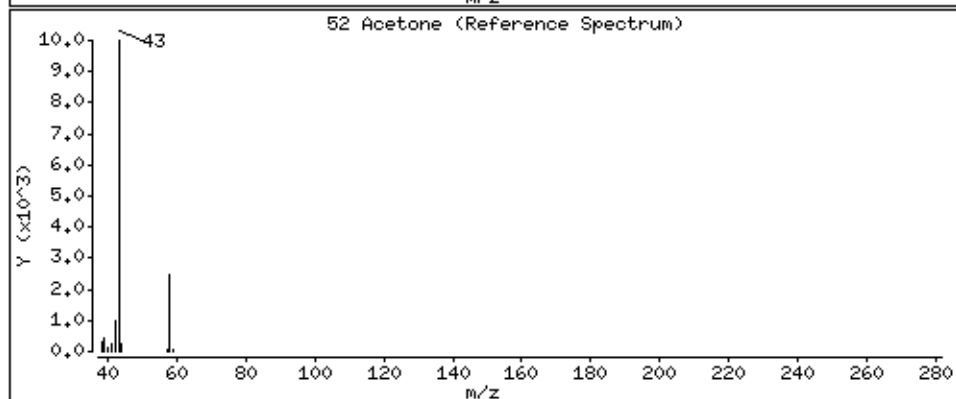
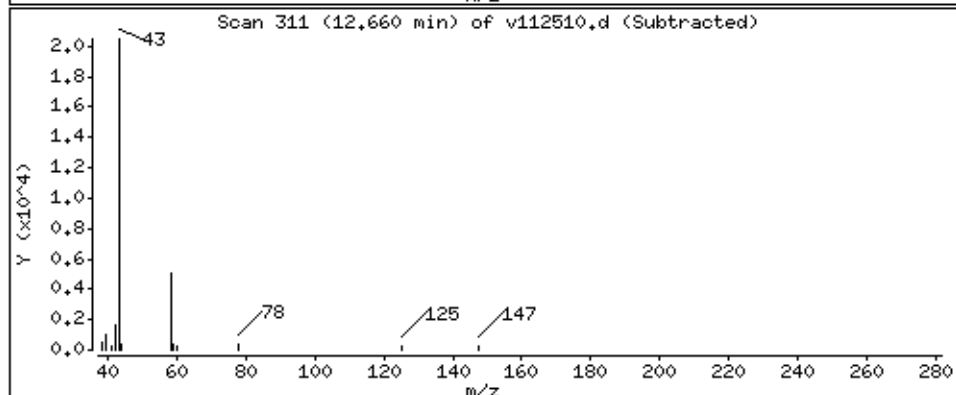
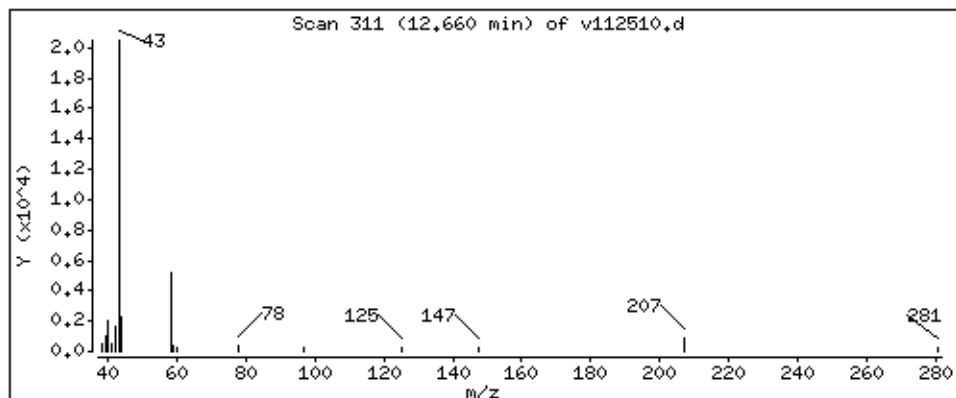
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

52 Acetone

Concentration: 1.470 PPBV



Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: Ambient Air

Lab ID#: 1511365R1-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Carbon Tetrachloride	0.032	0.063	0.20	0.40



Air Toxics

Client Sample ID: Ambient Air

Lab ID#: 1511365R1-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112510sim	Date of Collection:	11/20/15 5:48:00 PM
Dil. Factor:	1.59	Date of Analysis:	11/25/15 12:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Carbon Tetrachloride	0.032	0.063	0.20	0.40
Trichloroethene	0.032	Not Detected	0.17	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112510sim.d
Lab Smp Id: 1511365-04B
Inj Date : 25-NOV-2015 12:33
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 25314
Misc Info : 4.9"Hg -> 4.9psi
Comment : SIM - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Meth Date : 25-Nov-2015 08:52 efinn Quant Type: ISTD
Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
Als bottle: 1
Dil Factor: 1.59000
Integrator: HP RTE Compound Sublist: San12642.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value		Description				
DF		1.59000		Dilution Factor				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 13 Bromochloromethane					CAS #: 74-97-5			
15.757	15.757	(1.000)	130	110967	5.000000		80.00- 120.00	100.00
15.757	15.757	(1.000)	128	86598			47.55- 107.55	78.04
15.757	15.757	(1.000)	49	367229			270.30- 330.30	330.93
16 Carbon Tetrachloride					CAS #: 56-23-5			
16.250	16.250	(1.031)	117	3428	0.03985	0.06336	80.00- 120.00	100.00
16.250	16.250	(1.031)	119	3317			65.95- 125.95	96.76
\$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0			
16.548	16.548	(1.050)	65	197733	5.05409	5.054	80.00- 120.00	100.00
16.576	16.548	(1.052)	67	89544			17.43- 77.43	45.29
* 20 1,4-Difluorobenzene					CAS #: 540-36-3			
17.125	17.125	(1.000)	114	442057	5.000000		80.00- 120.00	100.00
17.125	17.125	(1.000)	88	61679			0.00- 44.06	13.95

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
\$ 22 Toluene-d8							CAS #:	2037-26-5	
19.629	19.629	(1.146)	98	342818	4.89935	4.899	80.00-	120.00	100.00
19.629	19.629	(1.146)	70	41176			0.00-	40.98	12.01
19.629	19.629	(1.146)	100	208695			32.48-	92.48	60.88

* 28 Chlorobenzene-d5							CAS #:	3114-55-4	
22.042	22.042	(1.000)	117	363490	5.00000		80.00-	120.00	100.00
22.015	22.042	(1.000)	82	174478			16.56-	76.56	48.00

\$ 33 4-Bromofluorobenzene							CAS #:	460-00-4	
23.548	23.548	(1.068)	174	184272	4.65812	4.658	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	206191			80.08-	140.08	111.89
23.548	23.548	(1.068)	176	179583			67.26-	127.26	97.46

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112510sim.d
Lab Smp Id: 1511365-04B
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 4.9"Hg -> 4.9psi

Calibration Date: 25-NOV-2015
Calibration Time: 07:38
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	110967	-0.54
20 1,4-Difluorobenze	447704	268622	626786	442057	-1.26
28 Chlorobenzene-d5	377895	226737	529053	363490	-3.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1511365-04B
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: San12642.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 4.9"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	5.054	101.08	70-130
\$ 22 Toluene-d8	5.000	4.899	97.99	70-130
\$ 33 4-Bromofluorobenze	5.000	4.658	93.16	70-130

Date : 25-NOV-2015 12:33

Client ID:

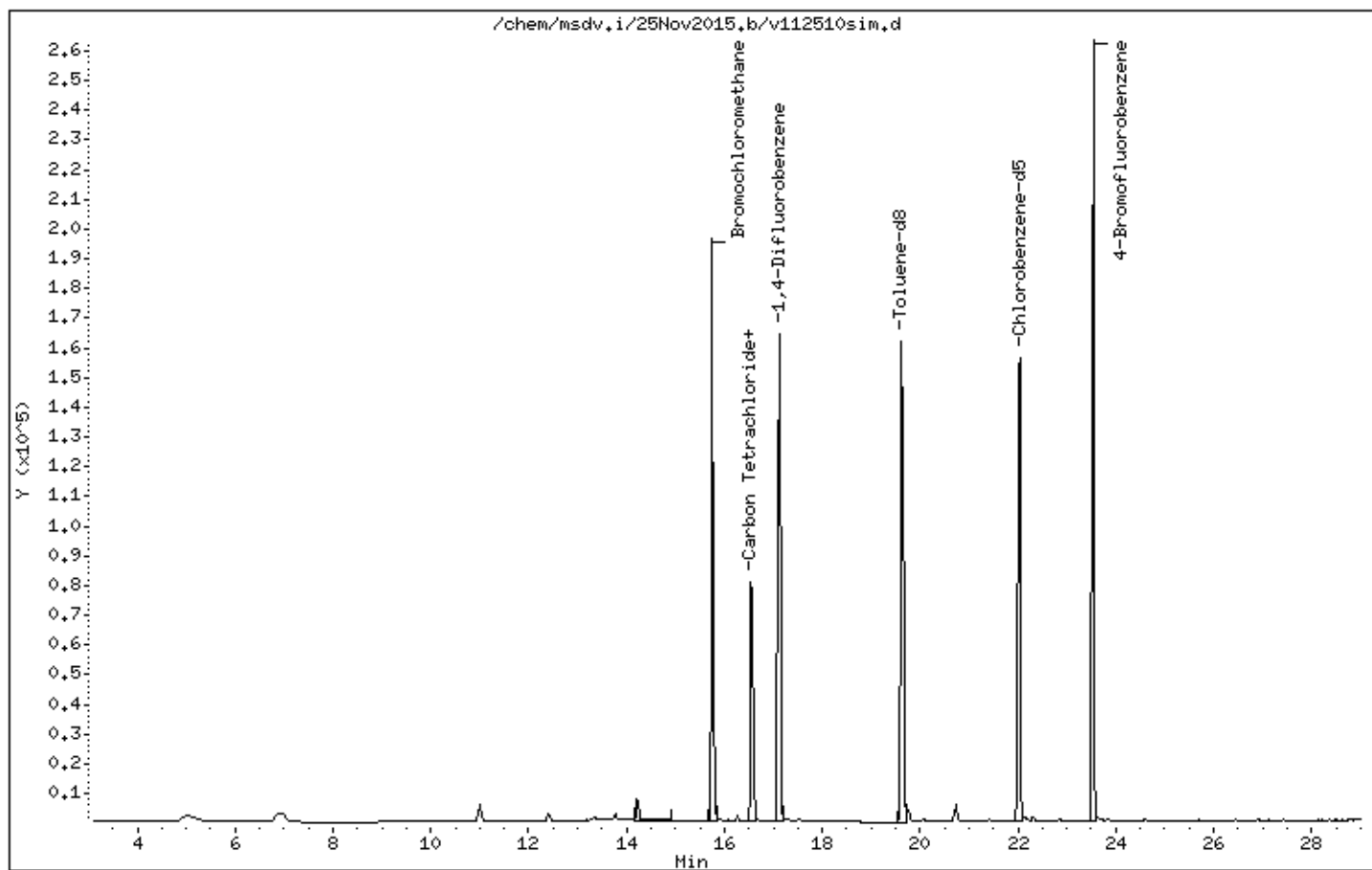
Instrument: msdv.i

Sample Info: 250mL# 25314

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Date : 25-NOV-2015 12:33

Client ID:

Instrument: msdv.i

Sample Info: 250mL# 25314

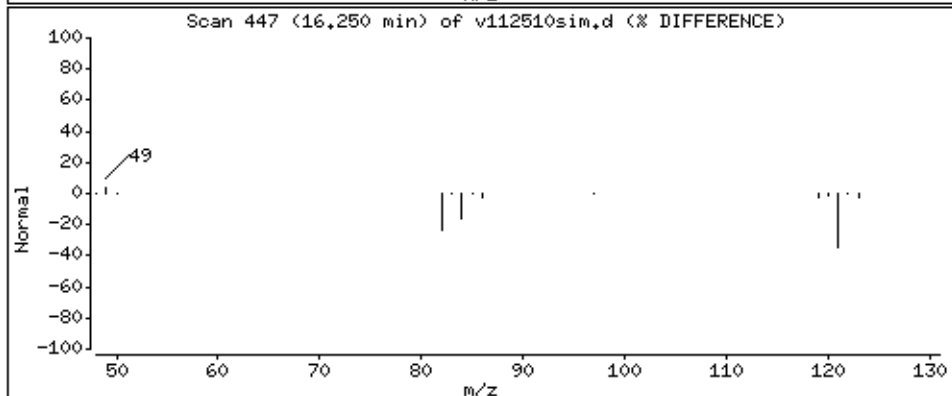
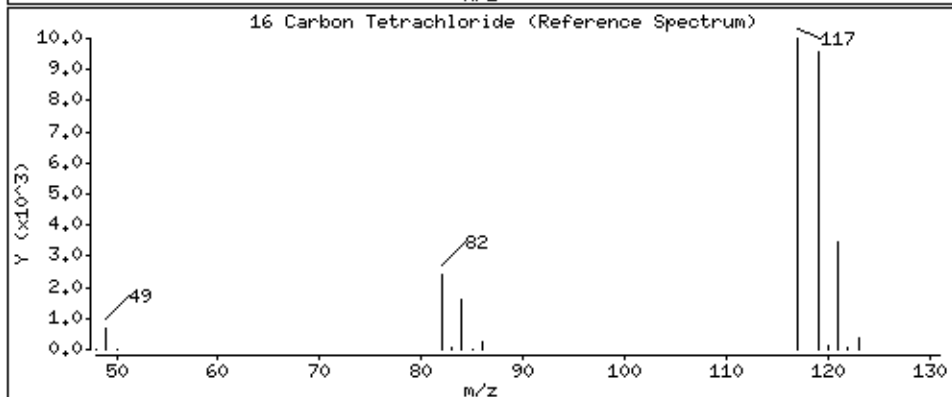
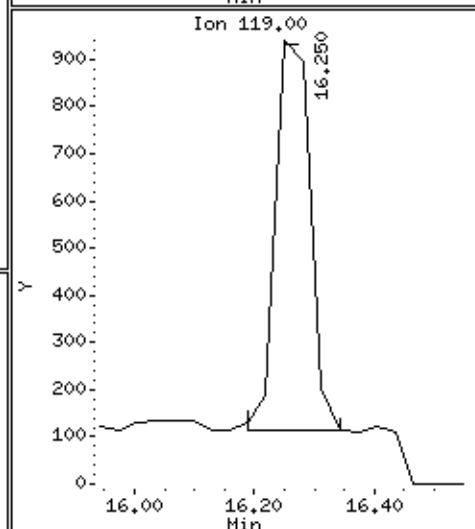
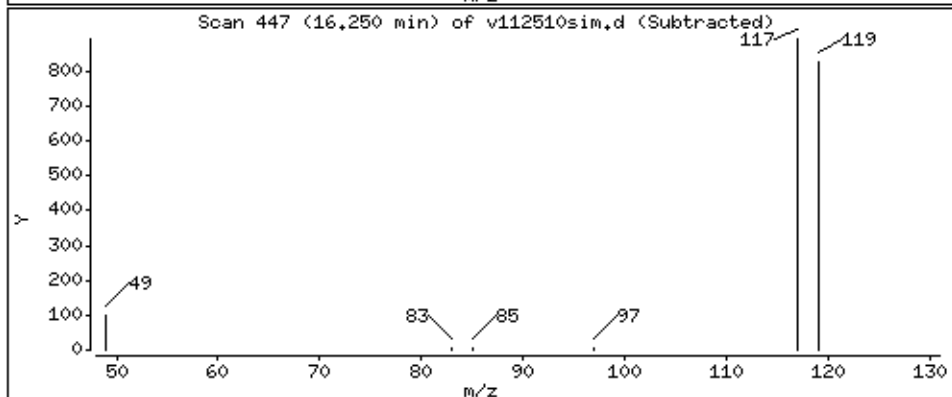
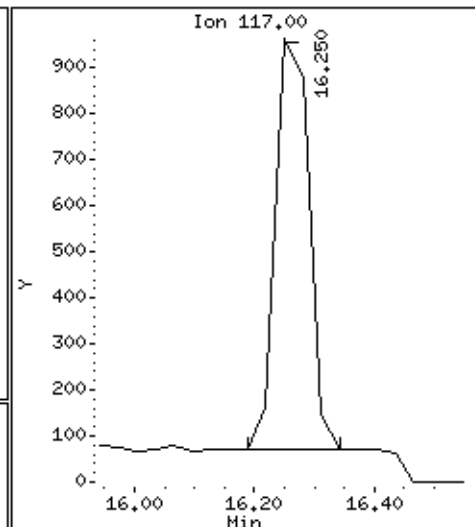
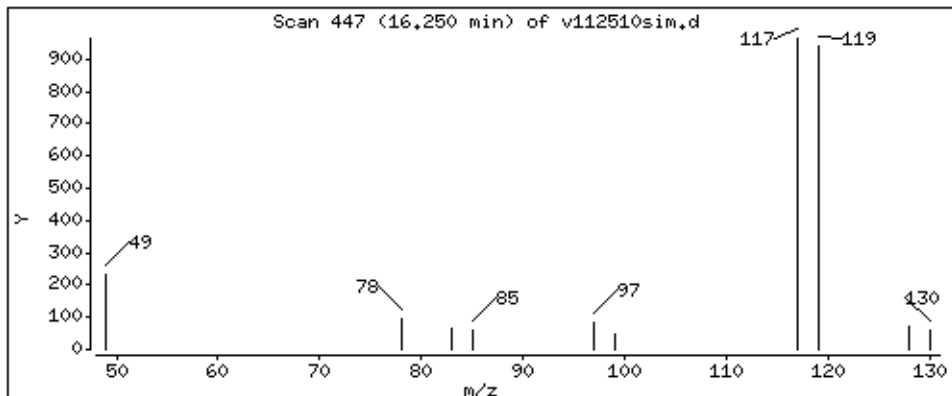
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.06336 PPBV



QC Results and Raw Data

Client Sample ID: Lab Blank

Lab ID#: 1511365R1-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 10:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected UJ	3.7	Not Detected UJ

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	91	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /var/chem/msdv.i/25Nov2015.b/v112506.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 25-NOV-2015 10:09
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 34034
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
Meth Date : 25-Nov-2015 08:51 efinn Quant Type: ISTD
Cal Date : 20-OCT-2015 09:38 Cal File: v102007.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description			
DF			1.00000		Dilution Factor			
RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 98 Bromochloromethane					CAS #: 74-97-5			
15.743	15.743	(1.000)	130	102412	5.00000		80.00- 120.00	100.00
15.743	15.743	(1.000)	128	81902			45.98- 105.98	79.97
15.743	15.743	(1.000)	49	344201			326.70- 386.70	336.09
\$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0			
16.562	16.562	(1.052)	65	194803	5.18019	5.180	80.00- 120.00	100.00
16.562	16.562	(1.052)	67	90809			15.86- 75.86	46.62
* 123 1,4-Difluorobenzene					CAS #: 540-36-3			
17.111	17.111	(1.000)	114	487648	5.00000		80.00- 120.00	100.00
17.111	17.111	(1.000)	88	67112			0.00- 43.80	13.76
\$ 146 Toluene-d8					CAS #: 2037-26-5			
19.615	19.615	(1.146)	98	445908	5.00147	5.001	80.00- 120.00	100.00
19.615	19.615	(1.146)	70	46289			0.00- 39.58	10.38
19.615	19.615	(1.146)	100	268219			37.10- 97.10	60.15

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	CONCENTRATIONS		TARGET RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====		
* 163 Chlorobenzene-d5					CAS #: 3114-55-4			
22.029	22.029	(1.000)	117	406367	5.00000		80.00- 120.00	100.00
22.029	22.029	(1.000)	82	208859			17.84- 77.84	51.40

\$ 177 4-Bromofluorobenzene					CAS #: 460-00-4			
23.534	23.535	(1.068)	174	189282	4.53030	4.530	80.00- 120.00	100.00
23.534	23.535	(1.068)	95	232999			85.02- 145.02	123.10
23.534	23.535	(1.068)	176	175781			63.61- 123.61	92.87

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 25-NOV-2015
Lab File ID: v112506.d	Calibration Time: 07:38
Lab Smp Id: Lab Blank	Client Smp ID: Lab Blank
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ef	
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m	
Misc Info: Humid	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	102412	2.26
123 1,4-Difluorobenze	462764	277658	647870	487648	5.38
163 Chlorobenzene-d5	397301	238381	556221	406367	2.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	5.180	103.60	70-130
\$ 146 Toluene-d8	5.000	5.001	100.03	70-130
\$ 177 4-Bromofluorobenze	5.000	4.530	90.61	70-130

Date : 25-NOV-2015 10:09

Client ID: Lab Blank

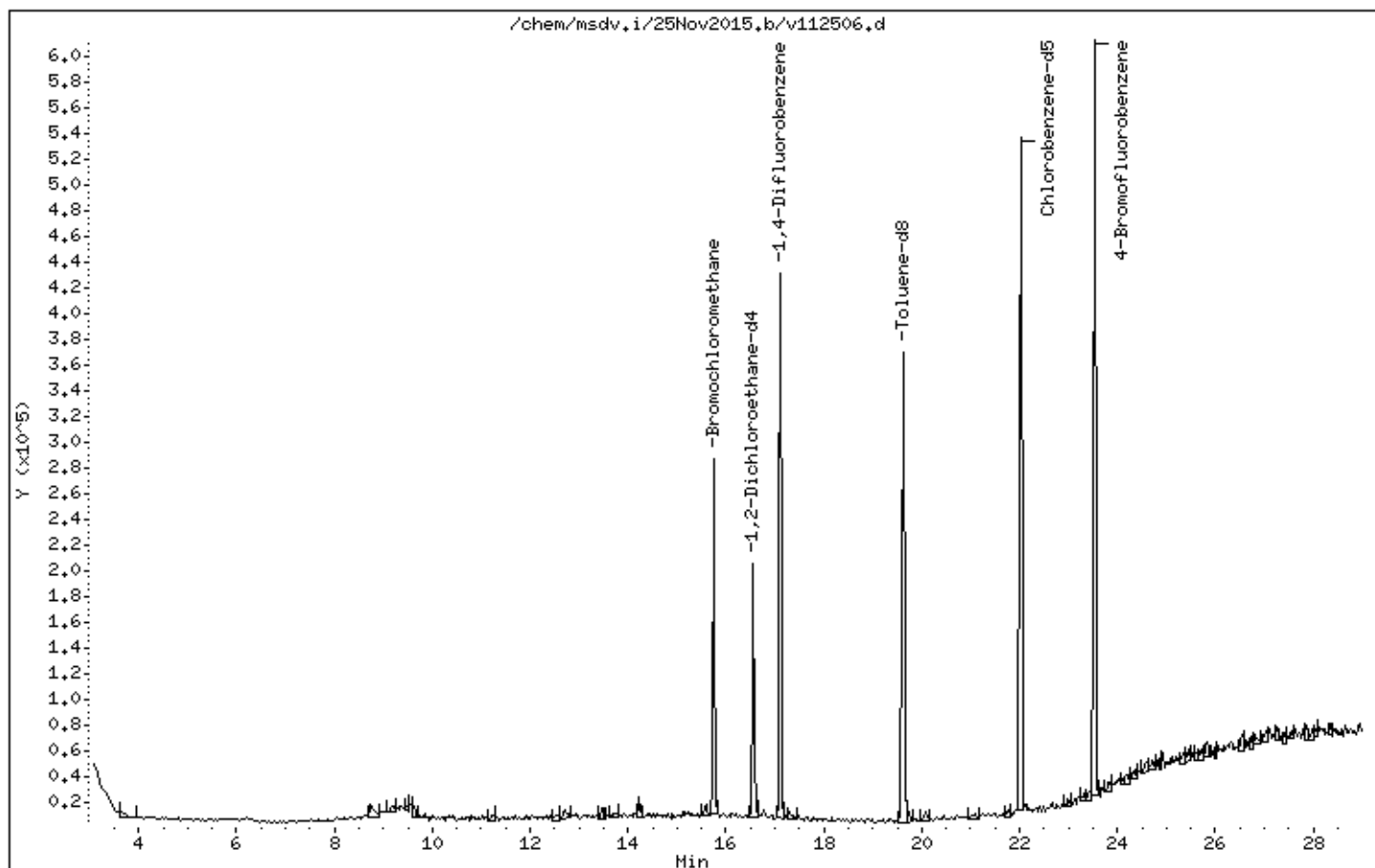
Instrument: msdv.i

Sample Info: 250mL# 34034

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Client Sample ID: Lab Blank

Lab ID#: 1511365R1-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112506sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 10:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /var/chem/msdv.i/25Nov2015.b/v112506sim.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 25-NOV-2015 10:09
Operator : ef Inst ID: msdv.i
Smp Info : 250mL# 34034
Misc Info : Humid
Comment : SIM - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Meth Date : 25-Nov-2015 08:52 efinn Quant Type: ISTD
Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	
RT	EXP RT (REL RT)	MASS	RESPONSE	RATIO
==	=====	=====	=====	=====
* 13 Bromochloromethane				
			CAS #: 74-97-5	
15.757	15.757 (1.000)	130	117324 5.00000	80.00- 120.00 100.00
15.757	15.757 (1.000)	128	92301	47.55- 107.55 78.67
15.757	15.757 (1.000)	49	384516	270.30- 330.30 327.74

\$ 18 1,2-Dichloroethane-d4			CAS #: 17060-07-0	
16.548	16.548 (1.050)	65	206741 4.99803	80.00- 120.00 100.00
16.548	16.548 (1.050)	67	94072	17.43- 77.43 45.50

* 20 1,4-Difluorobenzene			CAS #: 540-36-3	
17.125	17.125 (1.000)	114	470020 5.00000	80.00- 120.00 100.00
17.097	17.125 (1.000)	88	65980	0.00- 44.06 14.04

\$ 22 Toluene-d8			CAS #: 2037-26-5	
19.629	19.629 (1.146)	98	366340 4.92404	80.00- 120.00 100.00
19.629	19.629 (1.146)	70	43342	0.00- 40.98 11.83
19.629	19.629 (1.146)	100	222773	32.48- 92.48 60.81

				CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
* 28 Chlorobenzene-d5						CAS #:	3114-55-4	
22.042	22.042	(1.000)	117	385827	5.00000		80.00- 120.00	100.00
22.015	22.042	(1.000)	82	187869			16.56- 76.56	48.69

\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4	
23.548	23.548	(1.068)	174	196548	4.68080	4.681	80.00- 120.00	100.00
23.548	23.548	(1.068)	95	220285			80.08- 140.08	112.08
23.548	23.548	(1.068)	176	190291			67.26- 127.26	96.82

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112506sim.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: Humid

Calibration Date: 25-NOV-2015
Calibration Time: 07:38
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	117324	5.16
20 1,4-Difluorobenze	447704	268622	626786	470020	4.98
28 Chlorobenzene-d5	377895	226737	529053	385827	2.10

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	4.998	99.96	70-130
\$ 22 Toluene-d8	5.000	4.924	98.48	70-130
\$ 33 4-Bromofluorobenze	5.000	4.681	93.62	70-130

Date : 25-NOV-2015 10:09

Client ID: Lab Blank

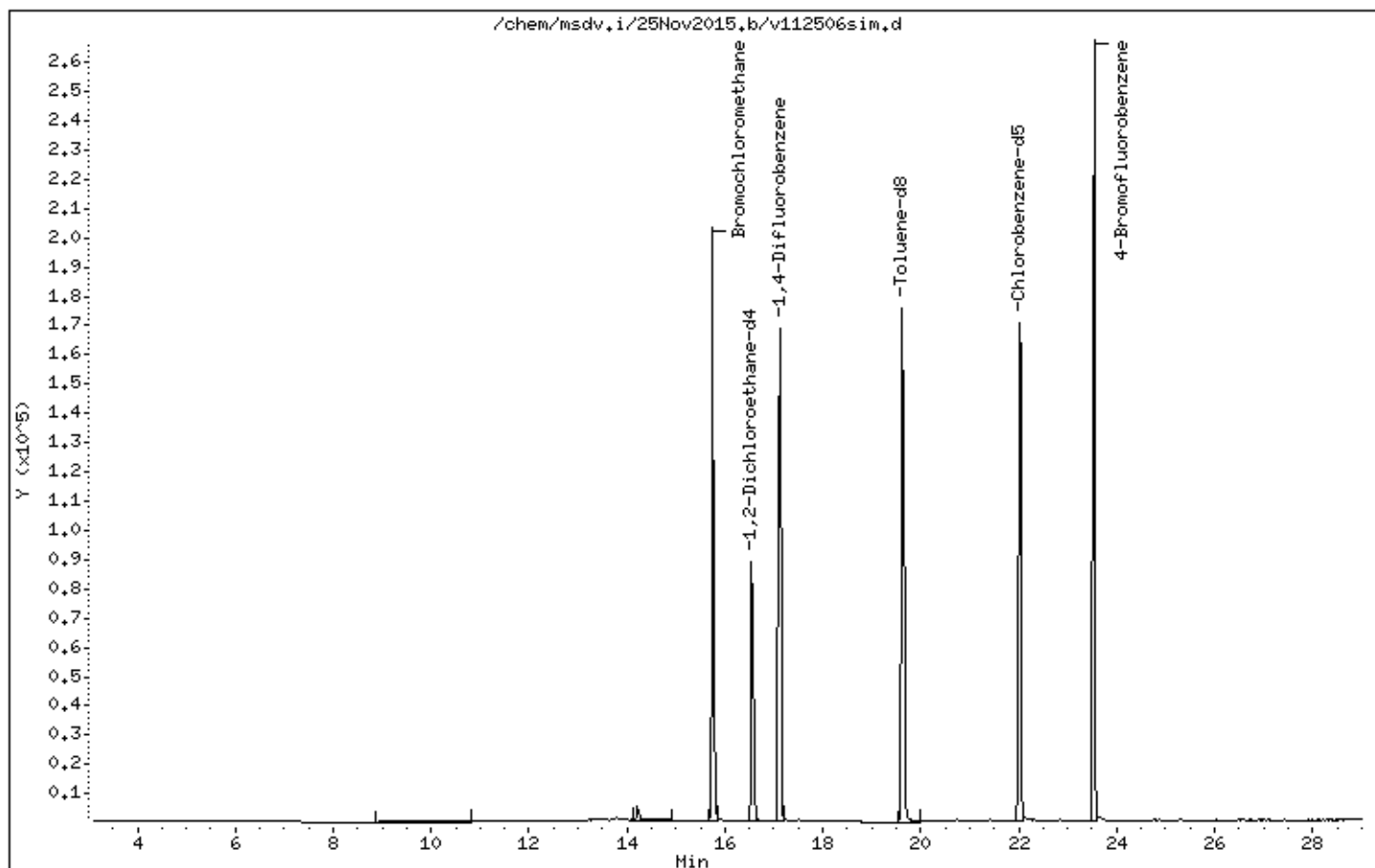
Instrument: msdv.i

Sample Info: 250mL# 34034

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED.

SDG No.: 1511365R1

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY						
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#	TOTAL OUT
01	IA 2033	97		94		91		0
02	IA 2033	100		98		93		0
03	IA 2037	96		99		87		0
04	IA 2037	99		98		91		0
05	IA 2037 Dup	106		97		94		0
06	IA 2037 Dup	101		99		94		0
07	Ambient Air	105		101		87		0
08	Ambient Air	101		98		93		0
09	Lab Blank	104		100		91		0
10	Lab Blank	100		98		94		0
11	CCV	101		100		92		0
12	CCV	99		101		97		0
13	LCS	90		101		93		0
14	LCSD	98		98		92		0
15	LCS	99		100		96		0
16	LCSD	99		100		95		0
17								0
18								0
19								0
20								0
21								0
22								0
23								0
24								0

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130

Toluene-d8 70 - 130

4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS SIM/Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 1511365R1

Lab File ID: v112502.d

Date Analyzed: 11/25/2015

Instrument ID: msdv.i

Time Analyzed: 07:38 AM

	Chlorobenzene-d5		RT		1,4-Difluorobenzene		RT		Bromochloromethane		RT	
	Area	#		#	Area	#		#	Area	#		#
	12-HOUR STD	397301		22.03	462764		17.11		100145		15.74	
	UPPER LIMIT	556221		22.36	647870		17.44		140203		16.07	
	LOWER LIMIT	238381		21.70	277658		16.78		60087		15.41	
	CLIENT SAMPLE NO											
01	IA 2033	399692		22.03	483394		17.11		105012		15.74	
03	IA 2037	391504		22.03	461339		17.11		106161		15.74	
05	IA 2037 Dup	385893		22.03	477723		17.11		98081		15.74	
07	Ambient Air	382552		22.03	441600		17.11		93842		15.74	
09	Lab Blank	406367		22.03	487648		17.11		102412		15.74	
11	CCV	397301		22.03	462764		17.11		100145		15.74	
13	LCS	407757		22.03	478340		17.11		107255		15.74	
14	LCSD	411569		22.03	485674		17.11		104787		15.74	
17												
18												
19												
20												
21												
22												

'Area Upper Limit=+40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT

'Area Lower Limit=-40% of internal standard area'

RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS SIM/Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD

SDG No: 1511365R1

Lab File ID: v112502sim.d

Date Analyzed: 11/25/2015

Instrument ID: msdv.i

Time Analyzed: 07:38 AM

	Chlorobenzene-d5		RT		1,4-Difluorobenzene		RT		Bromochloromethane		RT	
	Area	#		#	Area	#		#	Area	#		#
	12-HOUR STD	377895		22.04	447704		17.12		111568		15.76	
	UPPER LIMIT	529053		22.37	626786		17.45		156195		16.09	
	LOWER LIMIT	226737		21.71	268622		16.79		66941		15.43	
	CLIENT SAMPLE NO											
02	IA 2033	379094		22.04	463819		17.12		115842		15.76	
04	IA 2037	372763		22.04	459026		17.12		115820		15.76	
06	IA 2037 Dup	376205		22.04	454415		17.12		113490		15.76	
08	Ambient Air	363490		22.04	442057		17.12		110967		15.76	
10	Lab Blank	385827		22.04	470020		17.12		117324		15.76	
12	CCV	377895		22.04	447704		17.12		111568		15.76	
15	LCS	385690		22.04	461538		17.12		115176		15.76	
16	LCSD	386194		22.04	468046		17.12		118095		15.76	
17												
18												
19												
20												
21												
22												

'Area Upper Limit=+40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT

'Area Lower Limit=-40% of internal standard area'

RT Lower Limit=-0.33 minutes of internal standard RT

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: v112504.d & v112503.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 11/25/15 & 11/25/15

CAS Number	Compound	Original		Duplicate		RPD	Result Less Than 5X RL
		Amount	Flags	Amount	Flags		
71-55-6	1,1,1-Trichloroethane	88		90		2.2	
75-35-4	1,1-Dichloroethene	89		101		13	
120-82-1	1,2,4-Trichlorobenzene	80		79		1.2	
95-50-1	1,2-Dichlorobenzene	83		83		0	
541-73-1	1,3-Dichlorobenzene	83		79		4.9	
106-46-7	1,4-Dichlorobenzene	84		77		8.7	
67-64-1	Acetone	98		100		2.0	
71-43-2	Benzene	100		102		2.0	
56-23-5	Carbon Tetrachloride	ND		ND		0	
108-90-7	Chlorobenzene	94		93		1.1	
156-59-2	cis-1,2-Dichloroethene	98		100		2.0	
100-41-4	Ethyl Benzene	89		86		3.4	
75-69-4	Freon 11	97		97		0	
76-13-1	Freon 113	85		89		4.6	
75-71-8	Freon 12	102		106		3.8	
108-38-3	m,p-Xylene	87		87		0	
75-09-2	Methylene Chloride	91		97		6.4	
95-47-6	o-Xylene	93		93		0	
127-18-4	Tetrachloroethene	91		91		0	
108-88-3	Toluene	92		91		1.1	
79-01-6	Trichloroethene	ND		ND		0	
75-01-4	Vinyl Chloride	ND		ND		0	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: v112504sim.d & v112503sim.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 11/25/15 & 11/25/15

CAS Number	Compound	Original		Duplicate		RPD	Result Less Than 5X RL
		Amount	Flags	Amount	Flags		
71-55-6	1,1,1-Trichloroethane	ND		ND		0	
75-35-4	1,1-Dichloroethene	ND		ND		0	
120-82-1	1,2,4-Trichlorobenzene	ND		ND		0	
95-50-1	1,2-Dichlorobenzene	ND		ND		0	
541-73-1	1,3-Dichlorobenzene	ND		ND		0	
106-46-7	1,4-Dichlorobenzene	ND		ND		0	
67-64-1	Acetone	ND		ND		0	
71-43-2	Benzene	ND		ND		0	
56-23-5	Carbon Tetrachloride	69		68		1.4	
108-90-7	Chlorobenzene	ND		ND		0	
156-59-2	cis-1,2-Dichloroethene	ND		ND		0	
100-41-4	Ethyl Benzene	ND		ND		0	
75-69-4	Freon 11	ND		ND		0	
76-13-1	Freon 113	ND		ND		0	
75-71-8	Freon 12	ND		ND		0	
108-38-3	m,p-Xylene	ND		ND		0	
75-09-2	Methylene Chloride	ND		ND		0	
95-47-6	o-Xylene	ND		ND		0	
127-18-4	Tetrachloroethene	ND		ND		0	
108-88-3	Toluene	ND		ND		0	
79-01-6	Trichloroethene	88		87		1.1	
75-01-4	Vinyl Chloride	105		101		3.9	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 14:58
 End Cal Date : 20-OCT-2015 09:38
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/21oct2015.b/v15l1008c.m
 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Calibration File Names:

Level 5: /chem/msdv.i/08Oct2015.b/v100806.d
 Level 6: /chem/msdv.i/08Oct2015.b/v100807.d
 Level 7: /chem/msdv.i/20Oct2015.b/v102005.d
 Level 8: /chem/msdv.i/20Oct2015.b/v102006.d
 Level 12: /chem/msdv.i/20Oct2015.b/v102007.d
 Level 13: /chem/msdv.i/08Oct2015.b/v100811.d
 Level 15: /chem/msdv.i/08Oct2015.b/v100812.d
 Level 16: /chem/msdv.i/08Oct2015.b/v100813.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 14:58
 End Cal Date : 20-OCT-2015 09:38
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/21oct2015.b/v15l1008c.m
 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
8 Propane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
9 Propylene	++++ 2.92340	++++ 2.67699	3.19317	2.95049	3.10112	3.12297	2.99469	6.250
10 1,1-Difluoroethane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
11 Freon 12	++++ 4.25245	++++ 3.94732	4.13694	4.30893	4.55706	4.47306	4.27930	5.191
12 Vinyl Fluoride	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
13 Chlorodifluoromethane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
14 Ethylene Oxide	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
15 Freon 114	++++ 3.56745	3.46157 3.28538	3.47265	3.47743	3.77731	3.63786	3.52566	4.404
16 Freon 142b	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
17 Chloromethane	++++ 3.41723	++++ 3.12792	3.62401	3.53162	3.73715	3.65219	3.51502	6.229

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 14:58
 End Cal Date : 20-OCT-2015 09:38
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/21oct2015.b/v15l1008c.m
 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
23 Butane	+++++	+++++	0.56895	0.61307	0.60927	0.64757	0.60653	5.035
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
25 Vinyl Chloride	+++++	2.54954 2.32689	2.03505	2.30191	2.46752	2.47809	2.33862	7.617
26 1,3-Butadiene	+++++	3.43768 2.84217	2.74929	2.81884	2.99563	2.91468	2.91493	8.790
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
28 Methanol	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
29 Bromomethane	++++ 1.32738	++++ 1.13298	1.07630	0.94284	1.38468	1.39936	1.21059	15.468
30 Chloroethane	++++ 0.95292	++++ 0.87332	0.85064	0.89880	1.10305	0.98597	0.94412	9.810
31 Isopentane	++++ 2.56694	++++ 2.32519	2.43325	2.64826	2.68096	2.64266	2.54954	5.543
32 Vinyl Bromide	++++ ++++	++++ ++++	1.85596	1.81799	1.77009	++++	1.81468	2.371
33 2-Chloropropane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
34 Pentane	++++ ++++	++++ ++++	6.94750	6.72492	6.97377	++++	6.88206	1.987
35 Freon 11	4.02011 4.66407	4.71473 4.36209	4.59834	4.82845	5.20901	4.85572	4.65657	7.584
36 1-Pentene	++++ ++++	++++ ++++	2.86950	2.70005	3.07788	++++	2.88248	6.565
37 Dichlorofluoromethane	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++

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	20.000 Level 15	40.000 Level 16						
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
42 Ethanol	+++++	+++++	1.52259	1.26984	1.49473	1.51235	1.43822	7.185
43 1,2-Dichloro-1-fluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
44 Ethyl Ether	+++++	+++++	0.69739	0.76303	0.89099	+++++	0.78380	12.561
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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 Quant Method : ISTD
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 Integrator : HP RTE
 Method file : /chem/msdv.i/210oct2015.b/v15l1008c.m
 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
48 Freon 123	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
49 Freon 113	3.77717 3.27963	3.39692 3.03291	2.85616	3.23973	3.54174	3.41116	3.31693	8.663
50 1,1-Dichloroethene	+++++ 1.07026	1.52052 0.98733	1.05133	1.05174	1.20380	1.12278	1.14397	15.673
51 2,2-Dimethylbutane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
52 Acetone	+++++ 1.45736	+++++ 1.39372	1.49700	1.42419	1.55730	1.46373	1.46555	3.902
53 Iodomethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
54 Bromoethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
55 4-Methyl-1-pentene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
56 Carbon Disulfide	+++++ 4.64094	+++++ 4.35707	4.32170	4.46741	4.73911	4.74749	4.54562	4.163
57 2-Propanol	+++++ 6.86635	+++++ 6.41915	5.96640	6.52700	7.09792	6.88345	6.62671	6.165

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	20.000 Level 15	40.000 Level 16						
58 3-Chloropropene	+++++ 0.68071	0.70229 0.65243	0.61532	0.62012	0.70331	0.74478	0.67414	7.043
59 Cyclopentene	+++++ +++++	+++++ +++++	2.86368	3.41704	3.52438	+++++	3.26837	10.848
60 2-Methylpentane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
61 Methyl Acetate	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
62 3-Methylpentane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
63 Acetonitrile	+++++ +++++	+++++ +++++	1.60155	2.13566	2.25932	+++++	1.99885	17.489
64 Cyclopentane	+++++ +++++	+++++ +++++	0.98755	0.95315	0.99610	+++++	0.97893	2.323
65 1-Chloropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
66 Methylene Chloride	+++++ 1.41288	2.10722 1.33223	1.32756	1.57643	1.55653	1.48817	1.54300	17.358
67 2-Methyl-1-pentene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
71 tert-Butyl alcohol	+++++ 6.54423	+++++ 6.18495	6.14702	6.05218	6.90128	6.76192	6.43193	5.511
72 Methyl tert-butyl ether	+++++ 4.76508	5.23539 4.47290	4.73888	4.85706	5.09341	5.00213	4.88069	5.198
73 trans-1,2-Dichloroethene	+++++ 1.09955	1.15093 1.07136	1.06561	1.15743	1.19286	1.15466	1.12749	4.317
74 Acrylonitrile	+++++ +++++	+++++ +++++	1.79406	2.34059	2.97814	+++++	2.37093	24.995
75 trans-2-Hexene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
76 1-Hexene	+++++ +++++	+++++ +++++	2.81194	2.53493	2.65114	+++++	2.66601	5.218
77 cis-2-Hexene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
78 Hexane	+++++ 5.48018	8.76265 5.12927	6.05664	5.91194	5.90344	5.70354	6.13538	19.559
79 Methylcyclopentane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
80 sec-Butyl chloride	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
81 2,3,4-Trimethylpentane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
82 1,1-Dichloroethane	+++++ 4.39743	4.63427 4.04978	4.20648	4.33448	4.73190	4.42085	4.39646	5.333
83 Isopropyl ether	+++++ 13.88263	+++++ 12.86642	13.25036	13.69915	15.13337	14.46950	13.88357	5.918
84 1-Propanol	+++++ +++++	+++++ +++++	0.62295	0.63628	0.67509	+++++	0.64477	4.201
85 Chloroprene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
86 Vinyl Acetate	+++++ 0.42117	+++++ 0.41732	0.41725	0.33261	0.39447	0.42781	0.40177	8.885
87 Butanal	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
88 Ethyl-tert-butyl ether	+++++ 10.41130	+++++ 9.86890	9.42987	10.29526	11.01502	10.78575	10.30102	5.665
89 Isobutyl chloride	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
90 2,2-Dichloropropane	+++++ +++++	+++++ +++++	3.48006	3.34254	3.42833	+++++	3.41698	2.033
91 cis-1,2-Dichloroethene	+++++ 1.21357	1.47590 1.14141	1.34495	1.14839	1.30882	1.28859	1.27452	9.296
92 2-Butanone	+++++ 0.85477	+++++ 0.77852	0.68548	0.74914	0.85448	0.84950	0.79532	8.793
93 Methyl Acrylate	+++++ +++++	+++++ +++++	7.01244	8.42307	8.87209	+++++	8.10253	11.976
94 Ethyl Acetate	+++++ +++++	+++++ +++++	0.19267	0.24195	0.22391	+++++	0.21951	11.358
95 Methacrylonitrile	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
96 2-Chloropentane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
97 2-Butanol	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
99 Tetrahydrofuran	+++++ 4.77256	+++++ 4.52626	3.78931	4.76680	5.08639	5.01073	4.65867	10.090
100 Chloroform	+++++ 3.76812	3.61650 3.46886	3.61863	3.67803	4.01254	3.82923	3.71313	4.733
101 1-Bromopropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
102 Cyclohexane	+++++ 2.26528	2.11249 2.13356	1.98434	2.30800	2.45114	2.32031	2.22502	7.051
103 1,1,1-Trichloroethane	3.97575 4.26655	4.29560 4.02828	4.08686	4.18094	4.61370	4.39182	4.22994	4.953
104 Chloroacetonitrile	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
105 n-Butylchloride	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
106 Carbon Tetrachloride	4.69541 4.36751	3.44295 4.11120	3.34474	3.85294	4.61136	4.54752	4.12170	12.797
107 1,1-Dichloropropene	+++++ +++++	+++++ +++++	1.19342	1.07117	1.10844	+++++	1.12434	5.573
108 Thiophene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
113 2,2,4-Trimethylpentane	+++++ 5.76224	6.24543 5.48096	5.62159	5.99688	6.24647	6.04981	5.91477	5.080
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
115 Isobutanol	+++++	+++++	3.34503	3.33869	3.95418	+++++	3.54597	9.970
116 Benzene	+++++ 1.13002	1.30181 1.14548	1.06238	1.09147	1.27699	1.17337	1.16879	7.714
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
119 tert-Amyl methyl ether	+++++ 0.28558	+++++ 0.28815	0.26173	0.24926	0.31839	0.29560	0.28312	8.703
120 1,2-Dichloroethane	0.74795 0.79510	0.77422 0.80021	0.78031	0.71568	0.86727	0.80781	0.78607	5.675

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	20.000 Level 15	40.000 Level 16						
121 Heptane	+++++ 0.73405	0.89603 0.72978	0.69844	0.72046	0.79564	0.75977	0.76202	8.752
122 2,3-Dichloro-1-propene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
124 n-Butanol	+++++ +++++	+++++ +++++	0.89372	1.00177	1.15357	+++++	1.01635	12.844
125 Trichloroethene	0.62054 0.58250	0.81173 0.57981	0.60974	0.56600	0.64839	0.59302	0.62647	12.656
126 Bromodichloroethene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
127 Methylcyclohexane	+++++ 0.67913	+++++ 0.69685	0.64861	0.69232	0.76602	0.71715	0.70001	5.642
128 Ethyl acrylate	+++++ +++++	+++++ +++++	0.22260	0.21405	0.29232	+++++	0.24299	17.669
129 2-Methylheptane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
130 3-Methylheptane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
131 2-Pentanone	+++++ +++++	+++++ +++++	9.94277	10.33270	11.62907	+++++	10.63485	8.301

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	20.000 Level 15	40.000 Level 16						
132 1,2-Dichloropropane	+++++ 0.63627	0.76252 0.64440	0.58391	0.59777	0.69951	0.65761	0.65457	9.322
133 1-Bromo-2-Chloroethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
134 Methyl Methacrylate	+++++ +++++	+++++ +++++	4.44031	5.20189	5.33744	+++++	4.99321	9.685
135 Diethyl Ketone	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
136 1,4-Dioxane	+++++ 0.28640	0.39215 0.29413	0.26376	0.28813	0.30625	0.29234	0.30331	13.584
137 Dibromomethane	+++++ +++++	+++++ +++++	0.48039	0.45309	0.46921	+++++	0.46756	2.936
138 Bromodichloromethane	1.20339 0.99265	1.00181 1.00706	0.98079	0.95349	1.09420	1.01945	1.03161	7.795
139 2-Nitropropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
140 bis(chloromethyl) Ether	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1-Octene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
142 Epichlorohydrin	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Chloroethyl Vinyl Ether	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
144 cis-1,3-Dichloropropene	+++++ 0.74047	0.85117 0.76299	0.69551	0.66363	0.81107	0.75607	0.75441	8.479
145 4-Methyl-2-pentanone	+++++ 2.18439	1.90030 2.19610	1.93672	2.08128	2.37498	2.24535	2.13130	7.970
147 Toluene	+++++ 1.44206	1.74340 1.44902	1.36829	1.37756	1.61146	1.49427	1.49801	9.037
148 Octane	+++++ +++++	+++++ +++++	0.56986	0.50963	0.54956	+++++	0.54302	5.643
149 Vinyl Cyclohexene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
150 trans-1,3-Dichloropropene	+++++ 0.74505	0.69812 0.74241	0.69225	0.69926	0.81508	0.74247	0.73352	5.857
151 Ethyl Methacrylate	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
152 1-Chloro-2-Bromopropane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 14:58
 End Cal Date : 20-OCT-2015 09:38
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/21oct2015.b/v15l1008c.m
 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 1,1,2-Trichloroethane	0.59262 0.59434	0.65871 0.58991	0.60805	0.55823	0.67975	0.60864	0.61128	6.444
156 Tetrachloroethene	0.75374 0.86945	0.88782 0.86548	0.98887	0.90648	0.97797	0.90052	0.89379	8.176
157 1,3-Dichloropropane	+++++	+++++	0.75313	0.69057	0.64029	+++++	0.69466	8.138
158 2-Hexanone	+++++	+++++	0.86984	0.93763	1.10590	1.05762	1.01525	9.019
159 Butyl Acetate	+++++	+++++	0.36699	0.31371	0.33414	+++++	0.33828	7.946
160 Dibromochloromethane	0.87890 1.14541	0.97474 1.18179	1.11369	1.07113	1.24169	1.17343	1.09760	10.877
161 1,2-Dibromoethane (EDB)	0.92609 0.93858	0.77365 0.93855	0.92134	0.99926	1.05231	0.99262	0.94280	8.696
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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 Integrator : HP RTE
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 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
164 1-Chlorohexane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++ 1.34303	1.28086 1.37071	1.34934	1.38279	1.44421	1.40833	1.36847	3.800
166 Butyl Ether	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++ 0.63117	0.85136 0.64406	0.63213	0.64805	0.68182	0.66320	0.67883	11.510
168 1,1,1,2-Tetrachloroethane	+++++ +++++	+++++ +++++	0.86162	0.83491	0.71601	+++++	0.80418	9.639
169 m,p-Xylene	+++++ 0.66530	0.75303 0.69578	0.64806	0.65304	0.70168	0.68876	0.68652	5.250
170 Nonane	+++++ +++++	+++++ +++++	1.77401	1.58043	1.10869	+++++	1.48771	23.003
171 o-Xylene	+++++ 0.61540	0.72301 0.63541	0.59132	0.58445	0.68573	0.65779	0.64187	7.882
172 Styrene	+++++ 1.02316	1.22300 1.04354	1.06145	0.96351	1.02963	1.03906	1.05476	7.612
173 2-Heptanone	+++++ +++++	+++++ +++++	1.37249	1.20810	1.07613	+++++	1.21891	12.181

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INITIAL CALIBRATION DATA

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 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
174 Bromoform	1.12352 1.15834	1.08943 1.18263	1.13428	1.07099	1.25957	1.19459	1.15167	5.288
175 Cumene	+++++ 1.95825	1.80261 2.00450	1.79445	1.71771	1.98490	2.02029	1.89753	6.447
176 Cyclohexanone	+++++ +++++	+++++ +++++	1.21774	1.10372	1.04408	+++++	1.12185	7.865
178 1-Decene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++ +++++	+++++ +++++	0.70333	0.64718	0.60514	+++++	0.65189	7.557
181 1,1,2,2-Tetrachloroethane	1.15152 1.06061	1.15069 1.04914	1.06985	1.07174	1.17275	1.10752	1.10423	4.367
182 Propylbenzene	+++++ 1.83038	2.42807 1.91406	1.67351	1.65617	1.90124	1.89891	1.90034	13.496
183 1,4-Dichloro-2-Butene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
184 trans-1,4-Dichloro-2-butene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
185 1,2,3-Trichloropropane	++++ ++++	++++ ++++	0.32640	0.33903	0.26967	++++	0.31170	11.852
186 3-Ethyltoluene	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
187 Decane	++++ ++++	++++ ++++	2.43520	2.24632	1.72570	++++	2.13574	17.205
188 4-Ethyltoluene	1.94917 1.33320	1.95593 1.35633	1.44410	1.25064	1.32974	1.37041	1.49869	19.026
189 2-Chlorotoluene	++++ ++++	++++ ++++	0.52154	0.39480	0.36864	++++	0.42833	19.093
190 1,3,5-Trimethylbenzene	1.73187 1.20652	1.96385 1.11968	1.30540	1.19899	1.37351	1.27071	1.39632	21.154
191 4-Chlorotoluene	++++ ++++	++++ ++++	0.32539	0.35810	0.29816	++++	0.32722	9.171
192 beta-Pinene	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
193 Diisobutyl Ketone	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++
194 alpha Methyl Styrene	++++ ++++	++++ ++++	++++	++++	++++	++++	++++	++++

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	20.000 Level 15	40.000 Level 16						
195 tert-Butylbenzene	+++++ +++++	+++++ +++++	0.85713	0.84454	0.75421	+++++	0.81863	6.858
196 1,2,4-Trimethylbenzene	2.12326 1.07956	1.94436 0.97457	1.41264	1.30360	1.34556	1.21402	1.42469	28.391
197 Pentachloroethane	+++++ +++++	+++++ +++++	0.20523	0.21805	0.18655	+++++	0.20328	7.792
198 Limonene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
199 D-Limonene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
200 Benzaldehyde	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
201 Indan	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
202 Indene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
203 sec-Butylbenzene	+++++ +++++	+++++ +++++	1.16558	1.11875	0.96095	+++++	1.08176	9.911
204 Isobutylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
206 bis(2-Chloroethyl) Ether	+++++	+++++	0.78805	0.73803	0.67589	+++++	0.73399	7.656
207 p-Cymene	+++++	+++++	1.31305	1.07602	0.70218	+++++	1.03041	29.888
208 1,3-Dichlorobenzene	1.46702 0.89897	1.04418 0.90861	0.85887	0.80560	0.88451	0.92951	0.97466	21.574
209 1,4-Dichlorobenzene	+++++	1.26947 0.78033	0.80974	0.70532	0.77383	0.82415	0.85332	21.993
210 1,2,3-Trimethylbenzene	+++++	+++++	0.56622	0.52828	0.32896	+++++	0.47449	26.860
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	1.03837	1.04658	1.15417	1.18160	1.15275	8.334
213 Butylbenzene	+++++	+++++	0.36498	0.37297	0.19734	+++++	0.31177	31.810
214 1,2-Dichlorobenzene	1.00907 0.77546	1.28104 0.79428	0.73292	0.72990	0.75578	0.81505	0.86169	22.232

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
215 Undecane	+++++ +++++	+++++ +++++	2.32004	2.34395	2.13832	+++++	2.26743	4.960
216 4-Ethyl-1,2-dimethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropropane	+++++ +++++	+++++ +++++	0.30387	0.27468	0.28369	+++++	0.28741	5.202
222 1-Dodecene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
225 Dodecane	+++++ +++++	+++++ +++++	0.31714	0.31897	0.33489	+++++	0.32367	3.015
226 1,2,4-Trichlorobenzene	1.31178 0.64684	0.92053 0.63162	0.80782	0.76687	0.58436	0.65999	0.79123	30.019 <-
227 Hexachlorobutadiene	+++++ 0.49302	0.79245 0.52638	0.59081	0.49853	0.41611	0.48403	0.54305	22.407
228 Naphthalene	+++++ 1.56257	+++++ 1.54765	1.38724	1.72216	1.18604	1.49430	1.48333	12.254
229 1,2,3-Trichlorobenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
230 Tridecane	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
231 Quinoline	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
232 2-Methylnaphthalene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
233 1,3,5-Triethylbenzene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++
234 Acenaphthylene	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 237 1,2-Dichloroethene (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 239 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
M 240 3 and 4-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
241 Total Volatile Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
242 TPH reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
243 TPH reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
244 TPH reference to Gasoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
245 TPH reference MineralSpirits	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
246 TPH reference to Stoddard	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
247 TVOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
248 TVOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
249 TVOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
250 TVOC reference to Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
251 NMOC reference to Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
252 NMOC reference to Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
253 NMOC reference to Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
254 C3 - C4 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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	20.000 Level 15	40.000 Level 16						
255 C4 - C5 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
256 C5 - C6 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
257 C6 - C7 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
258 C7 - C8 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
259 C8 - C9 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
260 C9 - C10 Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
261 C10+ Hydrocarbons	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
262 C5 - C6 Aliphatic ref C5 + C6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
263 C6-C8 Aliphatic ref Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
264 C8-C10 Aliphatic ref Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
265 C10-C12 Aliphatic ref Dodecan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
266 C8-C10 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
267 C8-C10 Aromatic ref 1,2,3-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
268 C10-C12 Aromatic	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
269 C10-C12 Aromatic 1,2,4,5-TMB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
270 C10-C12 Aromatic Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
\$ 117 1,2-Dichloroethane-d4	1.79216 1.91429	1.77038 1.91162	1.80605	1.82534	1.76770	1.90033	1.83598	3.438
\$ 146 Toluene-d8	0.90596 0.91955	0.92663 0.93194	0.90782	0.89517	0.90893	0.91710	0.91414	1.311
\$ 177 4-Bromofluorobenzene	0.53412 0.49637	0.49395 0.52690	0.50608	0.51835	0.50564	0.53127	0.51408	3.062

Calibration History

Method : /chem/msdv.i/210oct2015.b/v15l1008c.m
 Start Cal Date: 08-OCT-2015 14:58
 End Cal Date : 20-OCT-2015 09:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
08-OCT-2015 14:58	Level5	/chem/msdv.i/080oct2015.b/v100806.d
Cal Level: 6 , Cal Amount: 0.10000		
08-OCT-2015 15:35	Level6	/chem/msdv.i/080oct2015.b/v100807.d
Cal Level: 7 , Cal Amount: 0.50000		
20-OCT-2015 07:51	ComboICAL	/chem/msdv.i/200oct2015.b/v102005.d
08-OCT-2015 16:30	HILOcrvFULL	/chem/msdv.i/080oct2015.b/v100808.d
Cal Level: 8 , Cal Amount: 1.00000		
20-OCT-2015 08:26	ComboICAL	/chem/msdv.i/200oct2015.b/v102006.d
08-OCT-2015 17:24	HILOcrvFULL	/chem/msdv.i/080oct2015.b/v100809.d
Cal Level: 12, Cal Amount: 5.00000		
20-OCT-2015 09:38	ComboICAL	/chem/msdv.i/200oct2015.b/v102007.d
08-OCT-2015 18:10	HILOcrvFULL	/chem/msdv.i/080oct2015.b/v100810.d
Cal Level: 13, Cal Amount: 10.00000		
08-OCT-2015 18:54	HILOcrvFULL	/chem/msdv.i/080oct2015.b/v100811.d
Cal Level: 15, Cal Amount: 20.00000		
08-OCT-2015 19:44	HILOcrvFULL	/chem/msdv.i/080oct2015.b/v100812.d


```
+-----+-----+-----+
| Cal Level: 16, Cal Amount: 40.00000                                |
+=====+
|08-OCT-2015 20:29 |AT12                                           |/chem/msdv.i/080ct2015.b/v100813.d|
+-----+-----+-----+
```

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 12

```
+-----+-----+-----+
| Ccal Level: 12, Ccal Amount: 5.000                                |
+=====+
|21-OCT-2015 08:52 |AT12                                           |/chem/msdv.i/210ct2015.b/v102102.d|
+-----+-----+-----+
```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 14:58
 End Cal Date : 20-OCT-2015 09:38
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/21Oct2015.b/v1511008c.m
 Cal Date : 21-Oct-2015 10:25 ghehir
 Curve Type : Average

Calibration File Names:

Level 5: /chem/msdv.i/08Oct2015.b/v100806.d
 Level 6: /chem/msdv.i/08Oct2015.b/v100807.d
 Level 7: /chem/msdv.i/20Oct2015.b/v102005.d
 Level 8: /chem/msdv.i/20Oct2015.b/v102006.d
 Level 12: /chem/msdv.i/20Oct2015.b/v102007.d
 Level 13: /chem/msdv.i/08Oct2015.b/v100811.d
 Level 15: /chem/msdv.i/08Oct2015.b/v100812.d
 Level 16: /chem/msdv.i/08Oct2015.b/v100813.d

Please see Calibration History page(s)
 for all the calibration files.

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Curve Name: V15L1008C

Initial Calibration Narrative

An initial calibration curve was analyzed on 10/8/15 on MSD-V.

The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

Tune Files: v100801 & V102001

ICAL: Zero (0) out.

ICV: Zero out

File # V100816. Standard 2736-276; 5.0ppbv (50ppbv); 25mL load.

DOD for Ethanol and alpha-chlorotoluene is prohibited at this time due to lack of LOD's for fourth quarter 2015.

BTEX RL Spike: v100807x.

- The reporting limit for alpha-Chlorotoluene has been raised from 0.1ppbv to 0.5ppbv for the duration of the 2015 MDL due to poor peak quality at the normal RL at the time the MDL was run.
- The reporting limits for Freon 12 has been raised from 0.1ppbv to 0.5ppbv due to poor peak quality at the RL.

Naphthalene was calibrated at 0.1ppbv, 0.5ppbv, 1.0ppbv, 2.0ppbv, and 4.0ppbv.

Naphthalene is expired in the second source standard: CAR: F9A2A2185

~The quantitation ion peak (128 amu) is sufficiently resolved for accurate quantification of Naphthalene at the special reporting limit of 0.1ppbv. However, the secondary mass ion peak (127 amu) for Naphthalene is not completely baseline-resolved. Identification of Naphthalene based on the presence and abundance ratio of confirmation ion is reliable at the lowest concentrations even when insufficient baseline resolution of the secondary mass ion peak (127 amu). The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

The following compounds were calibrated down to a special RL of 0.05ppbv:

Freon 11	1,1,2-Trichloroethane	1,2,4-Trimethylbenzene
Freon 113	Tetrachloroethane	1,3 Dichlorobenzene
1,1,1-Trichloroethane	Dibromochloromethane	1,2 Dichlorobenzene
Carbon Tetrachloride	1,2-Dibromoethane	1,2,4-Trichlorobenzene
Trichloroethene	Bromoform	
Bromodichloromethane	1,1,2,2-Tetrachloroethane	

A 3 (three) point initial calibration was performed 10/20/15 for **Combo specials**. 0.5ppbv→5.0ppbv. 0 out.

A "C" curve was evaluated 10/21/15 to disable ICAL level 6 (0.1ppbv) for alpha-chlorotoluene. The MDL > 0.1ppbv and therefore the 0.1ppbv RL is not valid. Impact on RRF was insignificant. Expect lumen errors due to RRF change.

-Raised RL for alpha-chlorotoluene 0.1ppbv→0.5ppbv due to MDL

MDL 3/2/15, 3/3/15, & 4/9/2015.

Special RL MDL for 1,2,4-Trichlorobenzene on 4/15/2015.

Eurofins Air Toxics, Inc.

*Nash expired

9/12/15

MSD-V

CAR #F9A2A2185

Logbook #2757

BFB Verification of 176/174 m/z Ratio: 83.192/15.8920/100=96.85%
 Tekmar Purge Flow: 83 10/8/15
 Vacuum: 83 10/8/15

File ID: V100810
 Compound: Toluene-18
 Initials: 83

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area sample} \times \text{Conc}_{IS}}{\text{Area}_{IS} \times \text{RRF}}$$

$$= \frac{(589073) \times (50000)}{(648096) \times (0.91467)} = 4969$$

IS/IS Std #:	2736-260	Exp. Date:	12/1/15
BCM	UL 146071	Sim	160006
1,4-DFB	648096		652482
CB-d5	578351		555124

Verified CCV IS vs ICAL mid-point (-40% D): 83

SOP# (Circle one): 6 (83/38/91/109) Method (Circle one): TO-14A/TO-15/TO-17
 Method Name: V15V6929A/V15V1008A/V15V1008A

Reported Result: 496983 10/9/15

Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
✓	V100801	BFB Tone Check	2799-805	50 _{mg}	2ul	1.00	83	10/8/15	1110	83	
✓	02	ICAL Level #1	2736-295	0.003ppbv	15ml	1.00	83	11/5	1311	83	Points dropped 11/20/15 due to linearity
✓	03	#2		0.005ppbv	50ml	1.00	83	1347	1472	83	
✓	04	#3		0.01ppbv	50ml	1.00	83	1454	1535	83	
✓	05	#4		0.02ppbv	100ml	1.00	83	1630	1724	83	
✓	06	#5		0.05ppbv	250ml	1.00	83	1854	1944	83	
✓	07	#6		0.1ppbv	25ml	1.00	83	2029	2120	83	
✓	08	#7		0.5ppbv	125ml	1.00	83			83	
✓	09	#8		1.0ppbv	25ml	1.00	83			83	
✓	10	#9		5.0ppbv	25ml	1.00	83			83	
✓	11	#10		10ppbv	50ml	1.00	83			83	
✓	12	#11		20ppbv	100ml	1.00	83			83	
✓	13	#12		40ppbv	200ml	1.00	83			83	
✓	14	System blank	2799-294	100ml	1.00	83				83	

CCV

Reviewed

Date

10/9/15

0134 of 0451

BFB Verification of 176/174 m/z Ratio: (60318/62570) x 100 = 96.81%

Tekmar Purge Flow: 10/20/15 AS

Vacuum: AS

IS/Std. #:	2736-260	Exp. Date:	12/24/15
BCM L.L.	117446	SEM:	135143
1,4-DFB	536885		549291
CB-d5	473843		453638

Verified CCV IS vs ICAI mid-point (40% D): AS

File ID: V100002

Compound: Tol-d8

Initials: AS

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \text{Conc}_{\text{IS}} = \left(\frac{507981}{536885} \right) \times \left(\frac{5.000}{0.9414} \right) = 5.175$$

SOP# (Circle one): 6 (83/38) 91/109

Method Name: V-5-1008A/V-15-1008A

Method (Circle one): TO-14A/TO-15/TO-17

Reported Result: 5.175

Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
✓	V100001	BFB Time Check	2299-1168	50mg	2.0g	1.00	AS	10/20/15	0507	AS	
✓	02	CCV (50ppbv)	2736-291	5.0ppbv	25ml		AS		0533	AS	Exp 11/20/15 Out
✓	03	LCS	2736-276				AS		0618	AS	Exp 10/30/15 Out
✓	04	LCS					AS		0658	AS	
✓	05	ICAL Level 7	2736-213	05ppbv	25ml		AS		0751	AS	Exp 11/20/15 Combo
✓	06	06		10ppbv	50ml		AS		0826	AS	
✓	07	07		50ppbv	250ml	1.00	AS		0938	AS	
✓	08	Lab Blank	34034	Blank	250ml	1.00	AS		1127	AS	
✓	09	1510218-01193	13861	3.71g-51psi	250ml	1.53	AS		1302	AS	
✓	10	02AB-41887	41311g-57psi	250ml	1.56	883	AS				

Reviewed

Date

10/20/15

-83 Doc's for work expired

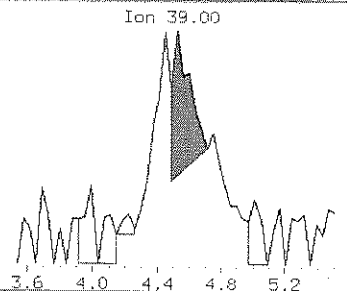
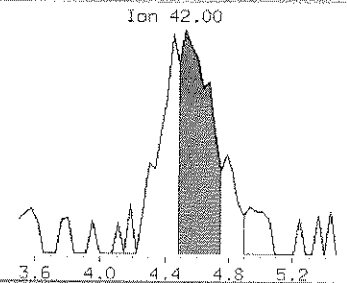
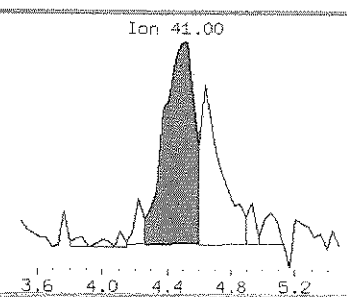
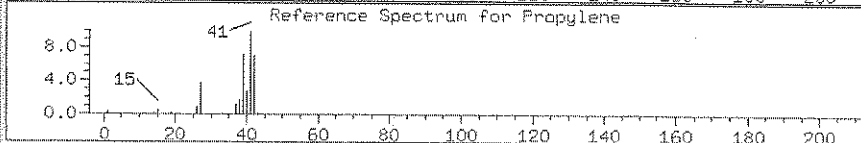
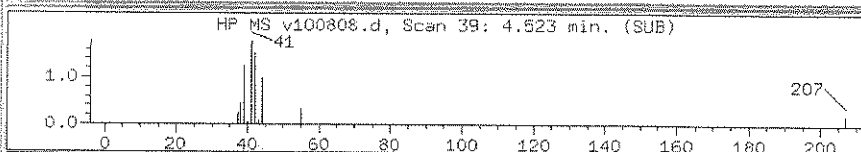
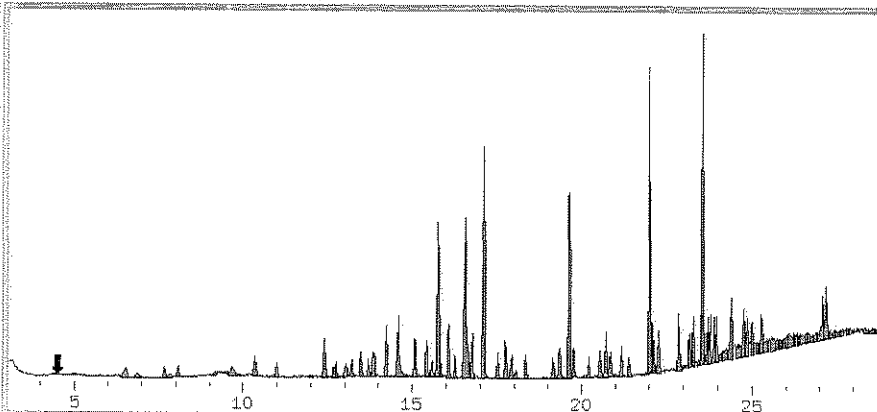
10/20/15

File Security Edit Display Process Spectra Help

Sample: ICAI Type: CALIB_7 Inj.Date: 08-OCT-2015 16:30

- + 9 Propylene
- + 11 Freon 12
- + 15 Freon 114
- + 17 Chloromethane
- + 23 Butane
- + 25 Vinyl Chloride
- + 26 1,3-Butadiene
- + 29 Bromomethane
- + 30 Chloroethane
- + 31 Isopentane
- + 35 Freon 11
- + 42 Ethanol
- + 49 Freon 113
- + 50 1,1-Dichloroeth
- + 52 Acetone
- + 56 Carbon Disulfide
- + 57 2-Propanol
- + 58 3-Chloropropene
- + 66 Methylene Chloride
- + 71 tert-Butyl alcohol
- + 72 Methyl tert-butyl
- + 73 trans-1,2-Dichloro
- + 78 Hexane
- + 83 Isopropyl ether
- + 82 1,1-Dichloroeth

- v100806.d
- v100807.d
- v100808.d
- v100809.d
- v100810.d
- v100811.d
- v100812.d
- v100813.d



Hit# RT(min) Response Amount Conc Ratio Flags Report:

Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
	4.107	453			87		
	4.107	1916			369		
4	4.220	2143	0.02718	0.02718	100	Ta	
	4.183	758			35		
	4.220	623			29		
5	4.523	31282	0.3968	0.3968	100		

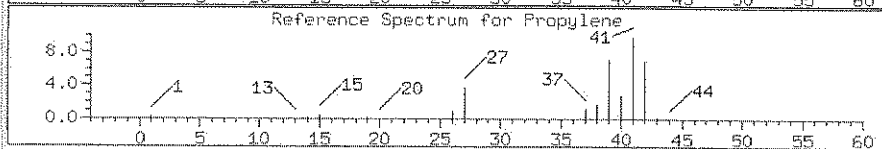
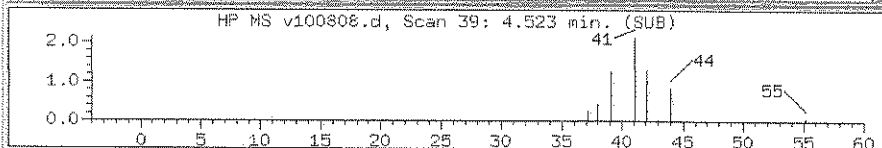
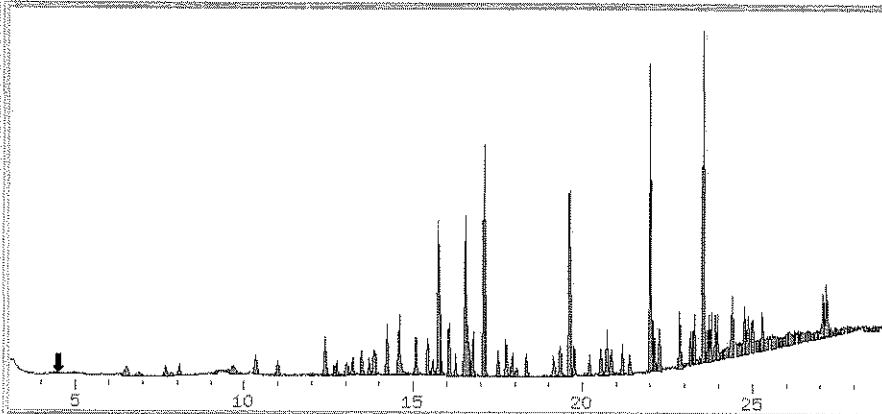
Before

File Security Edit Display Process Spectra Help

Sample: ICAL Type: CALIB_7 Inj.Date: 08-OCT-2015 16:30

* 9 Propylene
 + 11 Freon 12
 + 15 Freon 114
 + 17 Chloromethane
 + 23 Butane
 + 25 Vinyl Chloride
 + 26 1,3-Butadiene
 + 29 Bromomethane
 + 30 Chloroethane
 + 31 Isopentane
 + 35 Freon 11
 + 42 Ethanol
 + 49 Freon 113
 + 50 1,1-Dichloroeth
 + 52 Acetone
 + 56 Carbon Disulfide
 + 57 2-Propanol
 + 58 3-Chloropropene
 + 66 Methylene Chloride
 + 71 tert-Butyl alcohol
 + 72 Methyl tert-butyl ether
 + 73 trans-1,2-Dichloroethane
 + 78 Hexane
 + 83 Isopropyl ether
 + 82 1,1-Dichloroethane

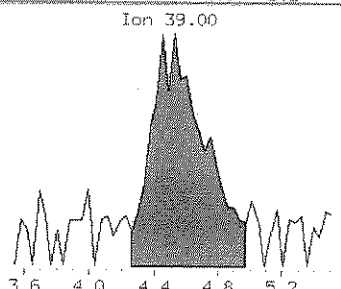
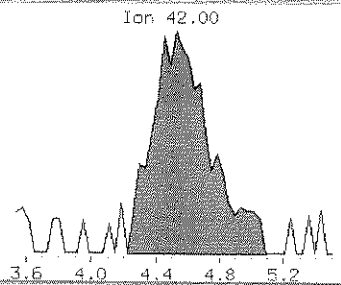
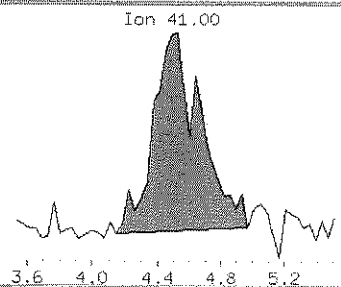
v100806.d
 v100807.d
 v100808.d
 v100809.d
 v100810.d
 v100811.d
 v100812.d
 v100813.d



Hit# RT(min) Response Amount Conc Ratio Flags Report:

Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report
1	4.523	46286	0.5331	0.5331	100	M	
	4.523	38714			84		
	4.523	37683			81		

- Mark Propylene Undetected.



After

83

10/9/15

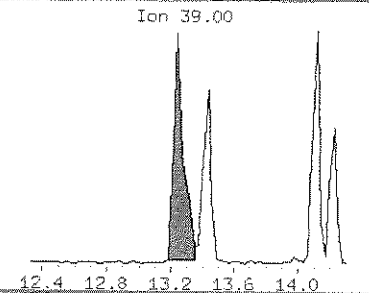
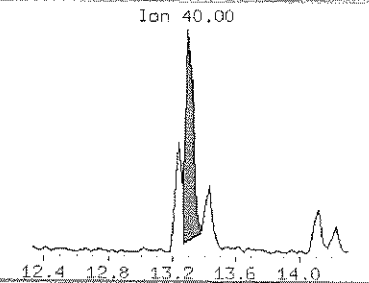
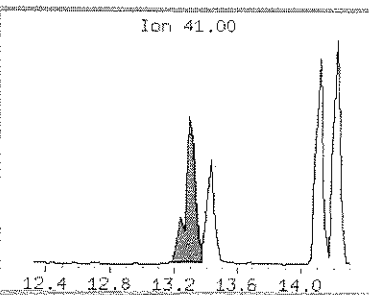
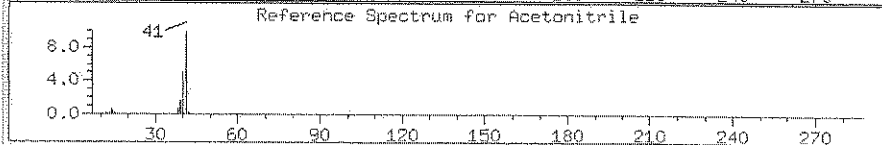
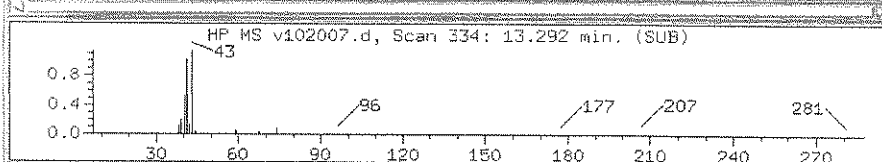
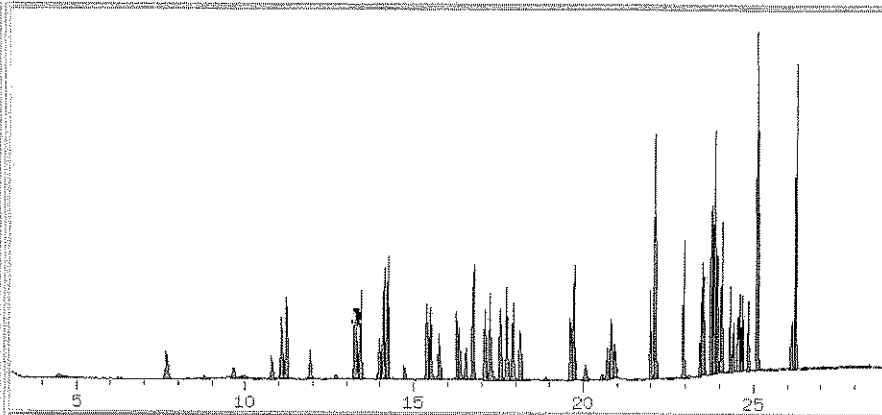
Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

File Security Edit Display Process Spectra Help

Sample: ICAL Type: SAMPLE Inj.Date: 20-OCT-2015 09:38

- + 32 Vinyl Bromide
- + 36 1-Pentene
- + 34 Pentane
- + 44 Ethyl Ether
- + 53 Iodomethane
- + 59 Cyclopentene
- + 63 Acetonitrile
- + 64 Cyclopentane
- + 74 Acrylonitrile
- + 76 1-Hexene
- + 84 1-Propanol
- + 90 2,2-Dichloropro
- + 94 Ethyl Acetate
- + 93 Methyl Acrylate
- ** 98 Bromochloromet
- + 107 1,1-Dichloropro
- + 115 Isobutanol
- ** 123 1,4-Difluorobe
- + 124 n-Butanol
- + 128 Ethyl acrylate
- + 131 2-Pentanone
- + 134 Methyl Methacr
- + 137 Dibromomethane
- + 148 Octane
- + 157 1,3-Dichloropro

v102005.d
v102006.d
v102007.d



Hit# RT(min) Response Amount Conc Ratio Flags Report:

Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	13.292	444330	0.000	0.000	100	s	
	13.292	174946			39		
	13.237	219096			49		

- Mark Acetonitrile Undetected.

Before

File Security Edit Display Process Spectra Help

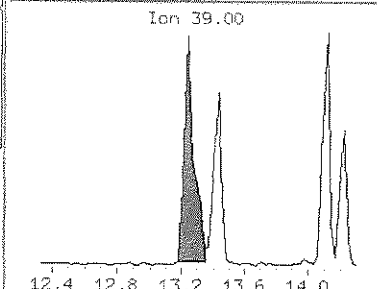
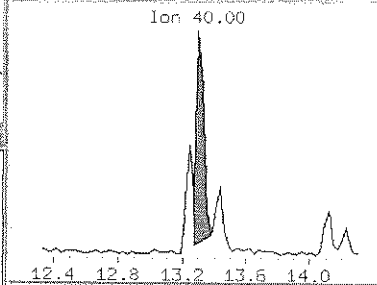
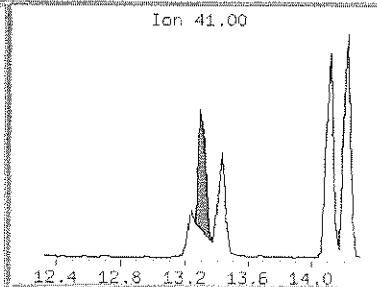
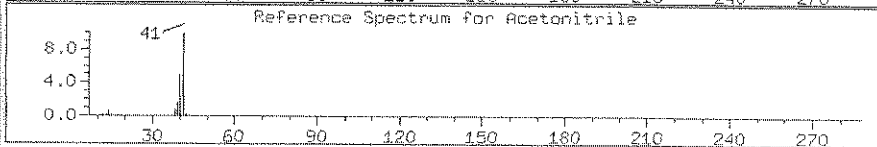
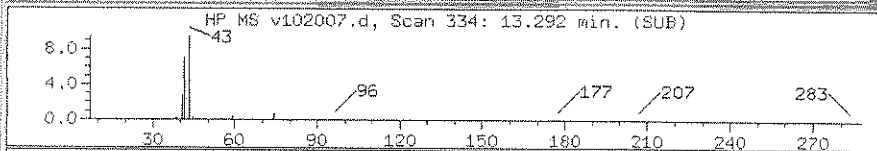
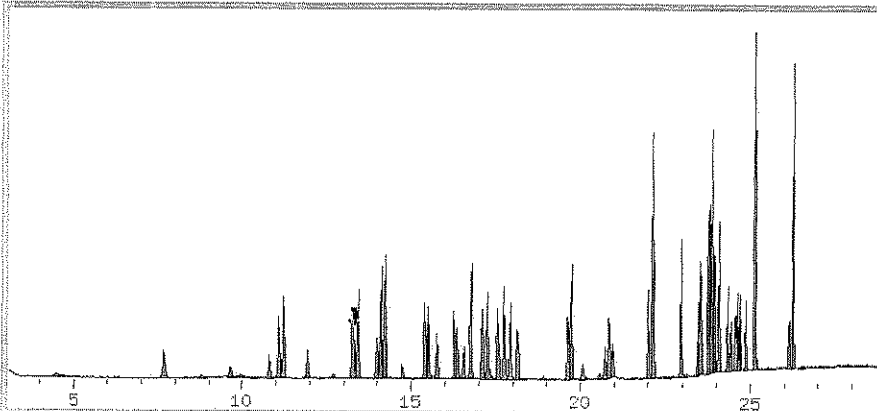
Sample: ICAL Type: SAMPLE Inj.Date: 20-OCT-2015 09:38

+ 32 Vinyl Bromide
 + 36 1-Pentene
 + 34 Pentane
 + 44 Ethyl Ether
 + 53 Iodomethane
 + 59 Cyclopentane
 + **63 Acetonitrile**
 + 64 Cyclopentane
 + 74 Acrylonitrile
 + 76 1-Hexene
 + 84 1-Propanol
 + 90 2,2-Dichloropropane
 + 94 Ethyl Acetate
 + 93 Methyl Acrylate
 + 98 Bromochloromethane
 + 107 1,1-Dichloropropane
 + 115 Isobutanol
 + 123 1,4-Difluorobenzene
 + 124 n-Butanol
 + 128 Ethyl acrylate
 + 131 2-Pentanone
 + 134 Methyl Methacrylate
 + 137 Dibromomethane
 + 148 Octane
 + 157 1,3-Dichloropropane

v102005.d

v102006.d

v102007.d



Hit# RT(min) Response Amount Conc Ratio Flags Report:

Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	13.292	248620	0.000	0.000	100	AM	
	13.292	174946			70		
	13.237	219096			88		

- Mark Acetonitrile Undetected.

10/20/15
Ac

After

S83 10/20/15

Correct Baseline	✓
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

Modified EPA Methods TO-14A/TO-15 Low Level
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane
Target Compounds:
Freon 12
Freon 114
Chloromethane
Vinyl Chloride
1,3-Butadiene
Bromomethane
Chloroethane
Freon 11
Ethanol
Freon 113
1,1-Dichloroethene
Acetone
2-Propanol
Carbon Disulfide
3-Chloropropene
Methylene Chloride
Methyl tert-butyl ether
trans-1,2-Dichloroethene
Hexane
1,1-Dichloroethane
2-Butanone (Methyl Ethyl Ketone)
cis-1,2-Dichloroethene
Tetrahydrofuran
Chloroform
1,1,1-Trichloroethane
Cyclohexane
Carbon Tetrachloride
2,2,4-Trimethylpentane
Surrogates:
1,2-Dichloroethane-d4

1,4-Difluorobenzene
Target Compounds:
Benzene
1,2-Dichloroethane
Heptane
Trichloroethene
1,2-Dichloropropane
1,4-Dioxane
Bromodichloromethane
cis-1,3-Dichloropropene
4-Methyl-2-pentanone
Toluene
Surrogates:
Toluene-d8

Chlorobenzene-d5
Target Compounds:
trans-1,3-Dichloropropene
1,1,2-Trichloroethane
Tetrachloroethene
2-Hexanone
Dibromochloromethane
1,2-Dibromoethane (EDB)
Chlorobenzene
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Bromoform
Cumene
1,1,2,2-Tetrachloroethane
Propylbenzene
4-Ethyltoluene
1,3,5-Trimethylbenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
alpha-Chlorotoluene
1,2-Dichlorobenzene
1,2,4-Trichlorobenzene
Hexachlorobutadiene
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100816.d
 Lab Smp Id: ICV Client Smp ID: ICV
 Inj Date : 09-OCT-2015 09:06
 Operator : sab Inst ID: msdv.i
 Smp Info : 25mL #2736-276
 Misc Info : 5.0ppbv (25ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
 Meth Date : 12-Oct-2015 16:04 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 20:29 Cal File: v100813.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description				
DF		1.00000	Dilution Factor				
RT	EXP RT (REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
9 Propylene							
4.447	4.485 (0.282)	41	447446	5.01405	5.014	80.00- 120.00	100.00
4.447	4.485 (0.282)	42	314364			37.47- 97.47	70.26
4.447	4.522 (0.282)	39	298936			32.82- 92.82	66.81
11 Freon 12							
4.938	5.013 (0.314)	85	715205	5.60865	5.609	80.00- 120.00	100.00
4.938	5.013 (0.314)	87	233238			1.30- 61.30	32.61
15 Freon 114							
6.486	6.524 (0.412)	135	620052	5.90183	5.902	80.00- 120.00	100.00
6.486	6.524 (0.412)	137	192117			2.78- 62.78	30.98
6.486	6.524 (0.412)	85	648687			87.42- 147.42	104.62
17 Chloromethane							
6.826	6.901 (0.434)	50	578142	5.51959	5.520	80.00- 120.00	100.00
6.826	6.901 (0.434)	52	171572			0.67- 60.67	29.68

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
23 Butane						CAS #:	106-97-8		
7.627	7.658	(0.484)	58	100994	5.58780	5.588	80.00- 120.00	100.00	
7.627	7.658	(0.484)	43	944273			986.38-1046.38	934.98	
25 Vinyl Chloride						CAS #:	75-01-4		
7.782	7.813	(0.494)	62	391647	5.61998	5.620	80.00- 120.00	100.00	
7.782	7.813	(0.494)	64	105132			0.00- 56.32	26.84	
26 1,3-Butadiene						CAS #:	106-99-0		
8.030	8.061	(0.510)	54	447926	5.15677	5.157	80.00- 120.00	100.00	
8.030	8.061	(0.510)	39	389148			59.51- 119.51	86.88	
29 Bromomethane						CAS #:	74-83-9		
9.631	9.655	(0.612)	94	212847	5.90027	5.900	80.00- 120.00	100.00	
9.631	9.655	(0.612)	96	209959			64.14- 124.14	98.64	
30 Chloroethane						CAS #:	75-00-3		
10.137	10.161	(0.644)	64	162699	5.78310	5.783	80.00- 120.00	100.00	
10.137	10.161	(0.644)	49	73508			16.17- 76.17	45.18	
10.137	10.161	(0.644)	66	39468			0.00- 53.05	24.26	
31 Isopentane						CAS #:	78-78-4		
10.330	10.330	(0.656)	57	413445	5.44196	5.442	80.00- 120.00	100.00	
10.330	10.330	(0.656)	43	714131			146.62- 206.62	172.73	
10.330	10.330	(0.656)	42	607806			123.11- 183.11	147.01	
35 Freon 11						CAS #:	75-69-4		
10.980	11.004	(0.697)	101	792248	5.70946	5.709	80.00- 120.00	100.00	
10.980	11.004	(0.697)	103	517830			32.43- 92.43	65.36	
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	242054	5.64792	5.648	80.00- 120.00	100.00	
11.919	11.919	(0.757)	46	94341			3.52- 63.52	38.98	
11.919	11.919	(0.757)	43	40456			0.00- 49.09	16.71	
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	533927	5.40189	5.402	80.00- 120.00	100.00	
12.413	12.413	(0.788)	153	330687			32.55- 92.55	61.93	
12.386	12.413	(0.787)	101	584290			82.40- 142.40	109.43	
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	178804	5.24524	5.245	80.00- 120.00	100.00	
12.386	12.386	(0.787)	61	684130			344.18- 404.18	382.61	
12.386	12.386	(0.787)	96	283217			122.48- 182.48	158.39	
52 Acetone						CAS #:	67-64-1		
12.633	12.633	(0.802)	58	238459	5.47597	5.476	80.00- 120.00	100.00	

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
52 Acetone (continued)									
12.633	12.633	(0.802)	43	790866			308.96- 368.96	331.66	
56 Carbon Disulfide									
12.743	12.743	(0.809)	76	661690	4.88496	CAS #: 75-15-0 4.885	80.00- 120.00	100.00	
57 2-Propanol									
13.018	13.017	(0.827)	45	1107255	5.59689	CAS #: 67-63-0 5.597	80.00- 120.00	100.00	
13.018	13.017	(0.827)	43	166012			0.00- 46.45	14.99	
13.018	13.017	(0.827)	59	29659			0.00- 32.99	2.68	
58 3-Chloropropene									
13.210	13.210	(0.839)	76	100372	4.99649	CAS #: 107-05-1 4.996	80.00- 120.00	100.00	
13.210	13.210	(0.839)	41	680060			674.37- 734.37	677.54	
66 Methylene Chloride									
13.484	13.484	(0.856)	84	237257	5.16004	CAS #: 75-09-2 5.160	80.00- 120.00	100.00	
13.484	13.484	(0.856)	49	725690			288.43- 348.43	305.87	
13.484	13.484	(0.856)	51	221726			65.27- 125.27	93.45	
72 Methyl tert-butyl ether									
13.841	13.841	(0.879)	73	780090	5.36368	CAS #: 1634-04-4 5.364	80.00- 120.00	100.00	
13.841	13.841	(0.879)	57	333148			17.16- 77.16	42.71	
13.841	13.841	(0.879)	41	311640			14.94- 74.94	39.95	
73 trans-1,2-Dichloroethene									
13.869	13.896	(0.881)	98	157910	4.70002	CAS #: 156-60-5 4.700	80.00- 120.00	100.00	
13.869	13.869	(0.881)	61	542964			319.94- 379.94	343.84	
13.869	13.896	(0.881)	96	247190			133.67- 193.67	156.54	
78 Hexane									
14.226	14.226	(0.904)	57	910563	4.98045	CAS #: 110-54-3 4.980	80.00- 120.00	100.00	
14.226	14.226	(0.904)	43	644655			45.57- 105.57	70.80	
14.226	14.226	(0.904)	86	67632			0.00- 37.01	7.43	
82 1,1-Dichloroethane									
14.582	14.582	(0.926)	63	717579	5.47731	CAS #: 75-34-3 5.477	80.00- 120.00	100.00	
14.582	14.582	(0.926)	65	194728			0.00- 56.80	27.14	
86 Vinyl Acetate									
14.637	14.637	(0.930)	86	68853	5.75105	CAS #: 108-05-4 5.751	80.00- 120.00	100.00	
14.610	14.610	(0.928)	42	101249			254.23- 314.23	147.05	
14.610	14.610	(0.928)	43	1579601			4287.95-4347.95	2294.15	
91 cis-1,2-Dichloroethene									
15.423	15.423	(0.980)	98	222570	5.86031	CAS #: 156-59-2 5.860	80.00- 120.00	100.00	

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
91 cis-1,2-Dichloroethene (continued)									
15.423	15.423	(0.980)	61	680101			282.85-	342.85	305.57
15.423	15.423	(0.980)	96	341752			128.91-	188.91	153.55

92 2-Butanone						CAS #:	78-93-3		
15.403	15.403	(0.978)	72	126166	5.32357	5.324	80.00-	120.00	100.00
15.403	15.403	(0.978)	43	1190572			922.45-	982.45	943.65
15.403	15.403	(0.978)	57	81596			34.83-	94.83	64.67

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	748137	5.38913	5.389	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	124674			0.00-	44.56	16.66
15.743	15.743	(1.000)	72	132670			0.00-	46.89	17.73

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	148994	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	109531			45.98-	105.98	73.51
15.743	15.743	(1.000)	49	517037			326.70-	386.70	347.02

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	591928	5.34969	5.350	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	387168			34.80-	94.80	65.41

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	374362	5.64617	5.646	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	990523			240.10-	300.10	264.59
16.082	16.082	(1.022)	41	510693			110.99-	170.99	136.42

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.052	16.052	(1.020)	97	690482	5.47796	5.478	80.00-	120.00	100.00
16.052	16.052	(1.020)	99	445833			33.53-	93.53	64.57

106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	646050	5.26005	5.260	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	668548			76.59-	136.59	103.48

113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	951942	5.40098	5.401	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	2827723			265.00-	325.00	297.05
16.535	16.535	(1.050)	41	678736			45.25-	105.25	71.30

116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	858284	5.34634	5.346	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	190214			0.00-	51.65	22.16

\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	261348	4.77694	4.777	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL (PPBV)	FINAL (PPBV)		
\$ 117	1,2-Dichloroethane-d4 (continued)						
16.562	16.562 (1.052)	67	124181			15.86- 75.86	47.52
120	1,2-Dichloroethane				CAS #: 107-06-2		
16.672	16.672 (0.974)	62	578183	5.35510	5.355	80.00- 120.00	100.00
16.672	16.672 (0.974)	64	175357			0.56- 60.56	30.33
121	Heptane				CAS #: 142-82-5		
16.782	16.782 (0.981)	57	542105	5.17938	5.179	80.00- 120.00	100.00
16.782	16.782 (0.981)	100	92900			0.00- 46.48	17.14
16.782	16.782 (0.981)	43	1154972			186.23- 246.23	213.05
* 123	1,4-Difluorobenzene				CAS #: 540-36-3		
17.111	17.111 (1.000)	114	686763	5.00000		80.00- 120.00	100.00
17.111	17.111 (1.000)	88	90714			0.00- 43.80	13.21
125	Trichloroethene				CAS #: 79-01-6		
17.496	17.523 (1.022)	130	447243	5.19768	5.198	80.00- 120.00	100.00
17.496	17.523 (1.022)	95	435327			66.89- 126.89	97.34
17.496	17.523 (1.022)	97	279897			35.91- 95.91	62.58
127	Methylcyclohexane				CAS #: 108-87-2		
17.743	17.743 (1.037)	83	507382	5.27707	5.277	80.00- 120.00	100.00
17.743	17.743 (1.037)	55	929791			146.83- 206.83	183.25
17.743	17.743 (1.037)	56	308302			28.02- 88.02	60.76
132	1,2-Dichloropropane				CAS #: 78-87-5		
17.935	17.935 (1.048)	63	478541	5.32265	5.323	80.00- 120.00	100.00
17.935	17.935 (1.048)	62	363155			41.26- 101.26	75.89
17.908	17.935 (1.047)	41	332855			40.22- 100.22	69.56
136	1,4-Dioxane				CAS #: 123-91-1		
18.045	18.045 (1.055)	88	212089	5.09092	5.091	80.00- 120.00	100.00
18.045	18.045 (1.055)	58	296800			119.94- 179.94	139.94
18.045	18.045 (1.055)	57	89352			14.89- 74.89	42.13
138	Bromodichloromethane				CAS #: 75-27-4		
18.347	18.347 (0.833)	83	679104	5.58718	5.587	80.00- 120.00	100.00
18.347	18.347 (0.833)	85	430894			34.56- 94.56	63.45
144	cis-1,3-Dichloropropene				CAS #: 10061-01-5		
19.145	19.145 (1.119)	75	529473	5.10972	5.110	80.00- 120.00	100.00
19.145	19.145 (1.119)	77	164224			1.86- 61.86	31.02
19.145	19.145 (1.119)	39	446589			58.69- 118.69	84.35
145	4-Methyl-2-pentanone				CAS #: 108-10-1		
19.324	19.346 (1.129)	43	1612260	5.50747	5.507	80.00- 120.00	100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
145 4-Methyl-2-pentanone (continued)									
19.324	19.346	(1.129)	58	529452			2.96-	62.96	32.84
19.324	19.346	(1.129)	85	121022			0.00-	37.25	7.51

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.638	(1.146)	98	609189	4.84973	4.850	80.00-	120.00	100.00
19.615	19.638	(1.146)	70	62328			0.00-	39.58	10.23
19.615	19.638	(1.146)	100	406259			37.10-	97.10	66.69

147 Toluene						CAS #:	108-88-3		
19.750	19.772	(1.154)	91	1106769	5.37904	5.379	80.00-	120.00	100.00
19.750	19.772	(1.154)	92	661050			27.14-	87.14	59.73

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.212	20.211	(0.918)	75	499594	5.78065	5.781	80.00-	120.00	100.00
20.212	20.211	(0.918)	77	156852			0.00-	59.12	31.40
20.212	20.211	(0.918)	39	412593			53.01-	113.01	82.59

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	410328	5.69721	5.697	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	249121			31.52-	91.52	60.71
20.534	20.534	(0.932)	83	335686			49.16-	109.16	81.81

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	608018	5.77366	5.774	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	435252			42.65-	102.65	71.59
20.714	20.714	(0.940)	131	462507			42.72-	102.72	76.07

158 2-Hexanone						CAS #:	591-78-6		
20.821	20.821	(0.945)	58	703251	5.85943	5.859	80.00-	120.00	100.00
20.821	20.821	(0.945)	43	1467524			185.90-	245.90	208.68
20.821	20.821	(0.945)	100	64468			0.00-	39.88	9.17

160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	777873	6.01499	6.015	80.00-	120.00	100.00
21.180	21.180	(0.961)	127	603905			51.36-	111.36	77.64

161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	666549	6.00042	6.000	80.00-	120.00	100.00
21.395	21.395	(0.971)	109	611148			67.82-	127.82	91.69

* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	589114	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	291119			17.84-	77.84	49.42

165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	933061	5.78690	5.787	80.00-	120.00	100.00

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	CONCENTRATIONS		TARGET RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====		
165 Chlorobenzene (continued)								
22.056	22.056	(1.001)	114	287263			2.39- 62.39	30.79
22.056	22.056	(1.001)	77	493064			23.63- 83.63	52.84
167 Ethyl Benzene								
22.139	22.138	(1.005)	106	441818	5.52402	CAS #: 100-41-4 5.524	80.00- 120.00	100.00
22.139	22.138	(1.005)	91	1373847			289.30- 349.30	310.95
169 m,p-Xylene								
22.303	22.303	(1.012)	106	429627	5.31139	CAS #: 108-38-3 5.311	80.00- 120.00	100.00
22.303	22.303	(1.012)	91	934024			180.42- 240.42	217.40
171 o-Xylene								
22.852	22.852	(1.037)	106	434106	5.74009	CAS #: 95-47-6 5.740	80.00- 120.00	100.00
22.852	22.852	(1.037)	91	930112			183.19- 243.19	214.26
172 Styrene								
22.852	22.880	(1.037)	104	675119	5.43246	CAS #: 100-42-5 5.432	80.00- 120.00	100.00
22.852	22.852	(1.037)	78	341577			21.26- 81.26	50.60
174 Bromoform								
23.148	23.173	(1.051)	173	781154	5.75679	CAS #: 75-25-2 5.757	80.00- 120.00	100.00
23.148	23.173	(1.051)	171	412432			21.70- 81.70	52.80
175 Cumene								
23.277	23.277	(1.057)	105	1263670	5.65218	CAS #: 98-82-8 5.652	80.00- 120.00	100.00
23.277	23.277	(1.057)	120	383297			0.00- 59.53	30.33
\$ 177 4-Bromofluorobenzene								
23.535	23.534	(1.068)	174	301543	4.97836	CAS #: 460-00-4 4.978	80.00- 120.00	100.00
23.535	23.534	(1.068)	95	347299			85.02- 145.02	115.17
23.535	23.534	(1.068)	176	299254			63.61- 123.61	99.24
181 1,1,2,2-Tetrachloroethane								
23.689	23.689	(1.075)	83	748313	5.75168	CAS #: 79-34-5 5.752	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	492842			33.93- 93.93	65.86
182 Propylbenzene								
23.767	23.767	(1.079)	91	1228108	5.48500	CAS #: 103-65-1 5.485	80.00- 120.00	100.00
23.767	23.767	(1.079)	120	293449			0.00- 55.14	23.89
188 4-Ethyltoluene								
23.896	23.896	(1.085)	105	883670	5.00437	CAS #: 622-96-8 5.004	80.00- 120.00	100.00
23.896	23.896	(1.085)	120	292893			3.95- 63.95	33.15
190 1,3,5-Trimethylbenzene								
23.947	23.947	(1.087)	105	871127	5.29503	CAS #: 108-67-8 5.295	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL (PPBV)	FINAL (PPBV)		
190	1,3,5-Trimethylbenzene (continued)							
23.947	23.947 (1.087)	120	441535				19.31- 79.31	50.69
196	1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.386	24.386 (1.107)	105	829621	4.94230	4.942	80.00- 120.00	100.00	
24.386	24.386 (1.107)	120	428839			17.64- 77.64	51.69	
208	1,3-Dichlorobenzene					CAS #: 541-73-1		
24.756	24.756 (1.124)	146	594192	5.17422	5.174	80.00- 120.00	100.00	
24.756	24.756 (1.124)	148	381767			34.17- 94.17	64.25	
24.756	24.756 (1.124)	111	234721			10.53- 70.53	39.50	
209	1,4-Dichlorobenzene					CAS #: 106-46-7		
24.845	24.868 (1.128)	146	554210	5.51230	5.512	80.00- 120.00	100.00	
24.845	24.868 (1.128)	148	345363			35.60- 95.60	62.32	
24.845	24.845 (1.128)	111	194331			7.23- 67.23	35.06	
212	alpha-Chlorotoluene					CAS #: 100-44-7		
24.980	25.002 (1.134)	91	808115	5.67414	5.674	80.00- 120.00	100.00	
25.002	25.002 (1.135)	126	179320			0.00- 51.02	22.19	
214	1,2-Dichlorobenzene					CAS #: 95-50-1		
25.271	25.271 (1.147)	146	524274	5.16392	5.164	80.00- 120.00	100.00	
25.271	25.271 (1.147)	148	331114			33.23- 93.23	63.16	
25.271	25.271 (1.147)	111	213925			10.17- 70.17	40.80	
226	1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.065	27.065 (1.229)	180	454363	4.87386	4.874	80.00- 120.00	100.00	
27.065	27.065 (1.229)	182	431634			66.03- 126.03	95.00	
227	Hexachlorobutadiene					CAS #: 87-68-3		
27.177	27.177 (1.234)	225	303153	4.73801	4.738	80.00- 120.00	100.00	
27.177	27.177 (1.234)	223	186595			33.08- 93.08	61.55	
228	Naphthalene					CAS #: 91-20-3		
27.401	27.401 (1.244)	128	69594	0.39821	0.3982	80.00- 120.00	100.00(a)	
27.401	27.401 (1.244)	127	10461			0.00- 42.23	15.03	

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100816.d	Calibration Time: 18:10
Lab Smp Id: ICV	Client Smp ID: ICV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: sab	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m	
Misc Info: 5.0ppbv (25ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	148994	2.00
123 1,4-Difluorobenze	648096	388858	907334	686763	5.97
163 Chlorobenzene-d5	578351	347011	809691	589114	1.86

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 090ct2015
 Sample Matrix: GAS Fraction: VOA
 Lab Smp Id: ICV Client Smp ID: ICV
 Level: LOW Operator: sab
 Data Type: MS DATA SampleType: LCS
 SpikeList File: AT12.spk Quant Type: ISTD
 Sublist File: AT12.sub
 Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m
 Misc Info: 5.0ppbv (25ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.014	100.28	60-140
11 Freon 12	5.000	5.609	112.17	70-130
15 Freon 114	5.000	5.902	118.04	70-130
17 Chloromethane	5.000	5.520	110.39	70-130
23 Butane	5.000	5.588	111.76	60-140
25 Vinyl Chloride	5.000	5.620	112.40	70-130
26 1,3-Butadiene	5.000	5.157	103.14	70-130
29 Bromomethane	5.000	5.900	118.01	70-130
30 Chloroethane	5.000	5.783	115.66	70-130
31 Isopentane	5.000	5.442	108.84	60-140
35 Freon 11	5.000	5.709	114.19	70-130
42 Ethanol	5.000	5.648	112.96	70-130
49 Freon 113	5.000	5.402	108.04	70-130
50 1,1-Dichloroethene	5.000	5.245	104.90	70-130
52 Acetone	5.000	5.476	109.52	70-130
56 Carbon Disulfide	5.000	4.885	97.70	70-130
57 2-Propanol	5.000	5.597	111.94	70-130
58 3-Chloropropene	5.000	4.996	99.93	70-130
66 Methylene Chloride	5.000	5.160	103.20	70-130
72 Methyl tert-butyl	5.000	5.364	107.27	70-130
73 trans-1,2-Dichloro	5.000	4.700	94.00	70-130
78 Hexane	5.000	4.980	99.61	70-130
82 1,1-Dichloroethane	5.000	5.477	109.55	70-130
86 Vinyl Acetate	5.000	5.751	115.02	60-140
91 cis-1,2-Dichloroet	5.000	5.860	117.21	70-130
92 2-Butanone	5.000	5.324	106.47	70-130
99 Tetrahydrofuran	5.000	5.389	107.78	70-130
100 Chloroform	5.000	5.350	106.99	70-130
103 1,1,1-Trichloroeth	5.000	5.478	109.56	70-130
106 Carbon Tetrachlori	5.000	5.260	105.20	70-130
102 Cyclohexane	5.000	5.646	112.92	70-130
113 2,2,4-Trimethylpen	5.000	5.401	108.02	70-130
116 Benzene	5.000	5.346	106.93	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.355	107.10	70-130
121 Heptane	5.000	5.179	103.59	70-130
125 Trichloroethene	5.000	5.198	103.95	70-130
127 Methylcyclohexane	5.000	5.277	105.54	60-140
132 1,2-Dichloropropan	5.000	5.323	106.45	70-130
136 1,4-Dioxane	5.000	5.091	101.82	70-130
138 Bromodichlorometha	5.000	5.587	111.74	70-130
144 cis-1,3-Dichloropr	5.000	5.110	102.19	70-130
145 4-Methyl-2-pentano	5.000	5.507	110.15	70-130
147 Toluene	5.000	5.379	107.58	70-130
150 trans-1,3-Dichloro	5.000	5.781	115.61	70-130
155 1,1,2-Trichloroeth	5.000	5.697	113.94	70-130
156 Tetrachloroethene	5.000	5.774	115.47	70-130
158 2-Hexanone	5.000	5.859	117.19	70-130
160 Dibromochlorometha	5.000	6.015	120.30	70-130
161 1,2-Dibromoethane	5.000	6.000	120.01	70-130
165 Chlorobenzene	5.000	5.787	115.74	70-130
167 Ethyl Benzene	5.000	5.524	110.48	70-130
169 m,p-Xylene	5.000	5.311	106.23	70-130
171 o-Xylene	5.000	5.740	114.80	70-130
172 Styrene	5.000	5.432	108.65	70-130
174 Bromoform	5.000	5.757	115.14	70-130
175 Cumene	5.000	5.652	113.04	70-130
181 1,1,2,2-Tetrachlor	5.000	5.752	115.03	70-130
182 Propylbenzene	5.000	5.485	109.70	70-130
188 4-Ethyltoluene	5.000	5.004	100.09	70-130
190 1,3,5-Trimethylben	5.000	5.295	105.90	70-130
196 1,2,4-Trimethylben	5.000	4.942	98.85	70-130
208 1,3-Dichlorobenzen	5.000	5.174	103.48	70-130
209 1,4-Dichlorobenzen	5.000	5.512	110.25	70-130
212 alpha-Chlorotoluen	5.000	5.674	113.48	70-130
214 1,2-Dichlorobenzen	5.000	5.164	103.28	70-130
226 1,2,4-Trichloroben	5.000	4.874	97.48	70-130
227 Hexachlorobutadien	5.000	4.738	94.76	70-130
228 Naphthalene	0.5000	0.3982	79.64	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	4.777	95.54	70-130
\$ 146 Toluene-d8	5.000	4.850	96.99	70-130
\$ 177 4-Bromofluorobenze	5.000	4.978	99.57	70-130

Date : 09-OCT-2015 09:06

Client ID: ICV

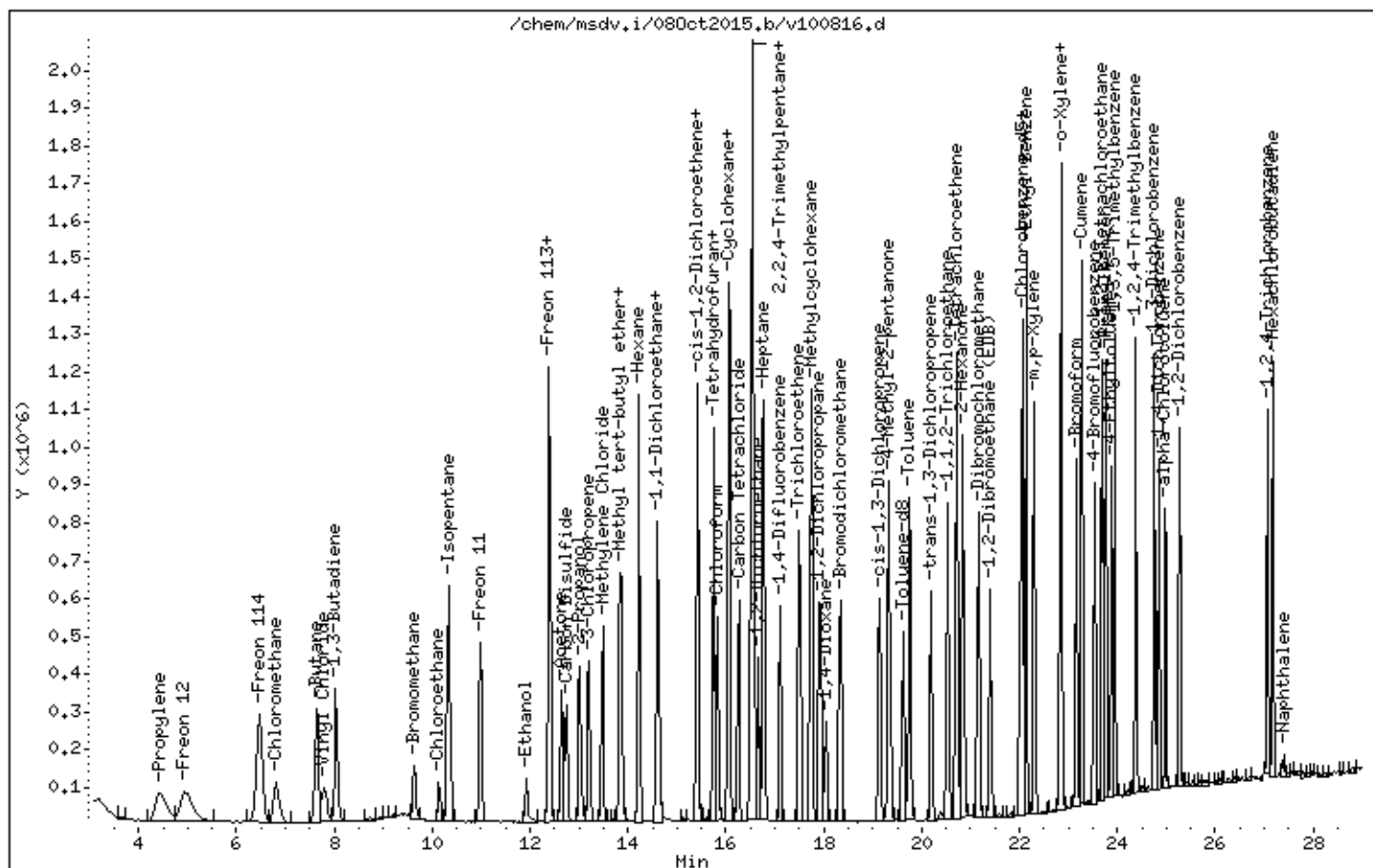
Instrument: msdv.i

Sample Info: 25mL #2736-276

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100806.d
 Lab Smp Id: ICAL Client Smp ID: Level # 5
 Inj Date : 08-OCT-2015 14:58
 Operator : sab Inst ID: msdv.i
 Smp Info : 250mL# 2736-295
 Misc Info : 0.05ppbv (0.05ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
 Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 14:58 Cal File: v100806.d
 Als bottle: 1 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: Level5.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	
		AMOUNTS		
RT	EXP RT (REL RT)	MASS	RESPONSE (PPBV)	RATIO
35 Freon 11				
11.004	11.004 (0.699)	101	5709 0.05000	100.00(a)
10.980	11.004 (0.697)	103	5140	90.03
49 Freon 113				
12.413	12.413 (0.788)	151	5364 0.05000	100.00(a)
12.386	12.413 (0.787)	153	4478	83.48
12.386	12.413 (0.787)	101	6505	121.27
* 98 Bromochloromethane				
15.743	15.743 (1.000)	130	142011 5.00000	100.00
15.743	15.743 (1.000)	128	105253	74.12
15.743	15.743 (1.000)	49	413390	291.10
103 1,1,1-Trichloroethane				
16.052	16.052 (1.020)	97	5646 0.05000	100.00(a)
16.083	16.052 (1.022)	99	4444	78.71

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	6668	0.05000	0.05696	80.00- 120.00	100.00	(a)
16.267	16.267	(1.033)	117	4150			76.59- 136.59	62.24	

\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	254507	5.00000	4.881	80.00- 120.00	100.00	
16.562	16.562	(1.052)	67	116555			15.86- 75.86	45.80	

120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	5019	0.05000	0.04758	80.00- 120.00	100.00	(a)
16.672	16.672	(0.974)	64	2605			0.56- 60.56	51.90	

* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	671031	5.00000		80.00- 120.00	100.00	
17.111	17.111	(1.000)	88	97049			0.00- 43.80	14.46	

125 Trichloroethene						CAS #:	79-01-6		
17.496	17.523	(1.022)	130	4164	0.05000	0.04953	80.00- 120.00	100.00	(a)
17.496	17.523	(1.022)	95	3376			66.89- 126.89	81.08	
17.523	17.523	(1.024)	97	3804			35.91- 95.91	91.35	

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	6961	0.05000	0.05832	80.00- 120.00	100.00	(a)
18.319	18.347	(0.832)	85	4042			34.56- 94.56	58.07	

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.638	19.638	(1.148)	98	607927	5.00000	4.955	80.00- 120.00	100.00	
19.615	19.638	(1.146)	70	60346			0.00- 39.58	9.93	
19.638	19.638	(1.148)	100	388104			37.10- 97.10	63.84	

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	3428	0.05000	0.04847	80.00- 120.00	100.00	(a)
20.534	20.534	(0.932)	99	2556			31.52- 91.52	74.56	
20.534	20.534	(0.932)	83	2729			49.16- 109.16	79.61	

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	4360	0.05000	0.04216	80.00- 120.00	100.00	(a)
20.714	20.714	(0.940)	129	2821			42.65- 102.65	64.70	
20.714	20.714	(0.940)	131	6458			42.72- 102.72	148.12	

160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	5084	0.05000	0.04004	80.00- 120.00	100.00	(a)
21.180	21.180	(0.961)	127	9121			51.36- 111.36	179.41	

161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	5357	0.05000	0.04911	80.00- 120.00	100.00	(a)

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
161	1,2-Dibromoethane (EDB)	(continued)						
21.395	21.395	(0.971)	109	5615			67.82- 127.82	104.82

* 163	Chlorobenzene-d5					CAS #: 3114-55-4		
22.029	22.029	(1.000)	117	578451	5.00000		80.00- 120.00	100.00
22.029	22.029	(1.000)	82	287695			17.84- 77.84	49.74

174	Bromoform					CAS #: 75-25-2		
23.173	23.173	(1.052)	173	6499	0.05000	0.04878	80.00- 120.00	100.00(a)
23.173	23.173	(1.052)	171	3683			21.70- 81.70	56.67

\$ 177	4-Bromofluorobenzene					CAS #: 460-00-4		
23.535	23.534	(1.068)	174	308965	5.00000	5.195	80.00- 120.00	100.00
23.535	23.534	(1.068)	95	361773			85.02- 145.02	117.09
23.535	23.534	(1.068)	176	295605			63.61- 123.61	95.68

181	1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
23.689	23.689	(1.075)	83	6661	0.05000	0.05214	80.00- 120.00	100.00(a)
23.689	23.689	(1.075)	85	5303			33.93- 93.93	79.61

188	4-Ethyltoluene					CAS #: 622-96-8		
23.896	23.896	(1.085)	105	11275	0.05000	0.06503	80.00- 120.00	100.00(a)
23.896	23.896	(1.085)	120	4866			3.95- 63.95	43.16

190	1,3,5-Trimethylbenzene					CAS #: 108-67-8		
23.947	23.947	(1.087)	105	10018	0.05000	0.06202	80.00- 120.00	100.00(a)
23.947	23.947	(1.087)	120	5283			19.31- 79.31	52.74

196	1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.386	24.386	(1.107)	105	12282	0.05000	0.07452	80.00- 120.00	100.00(a)
24.386	24.386	(1.107)	120	5225			17.64- 77.64	42.54

208	1,3-Dichlorobenzene					CAS #: 541-73-1		
24.756	24.756	(1.124)	146	8486	0.05000	0.07526	80.00- 120.00	100.00(a)
24.756	24.756	(1.124)	148	6521			34.17- 94.17	76.84
24.756	24.756	(1.124)	111	3187			10.53- 70.53	37.56

214	1,2-Dichlorobenzene					CAS #: 95-50-1		
25.271	25.271	(1.147)	146	5837	0.05000	0.05855	80.00- 120.00	100.00(a)
25.294	25.271	(1.148)	148	3242			33.23- 93.23	55.54
25.294	25.271	(1.148)	111	2893			10.17- 70.17	49.56

226	1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.065	27.065	(1.229)	180	7588	0.05000	0.08290	80.00- 120.00	100.00(a)
27.065	27.065	(1.229)	182	4808			66.03- 126.03	63.36

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100806.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 5
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: sab	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m	
Misc Info: 0.05ppbv (0.05ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	142011	-2.78
123 1,4-Difluorobenze	648096	388858	907334	671031	3.54
163 Chlorobenzene-d5	578351	347011	809691	578451	0.02

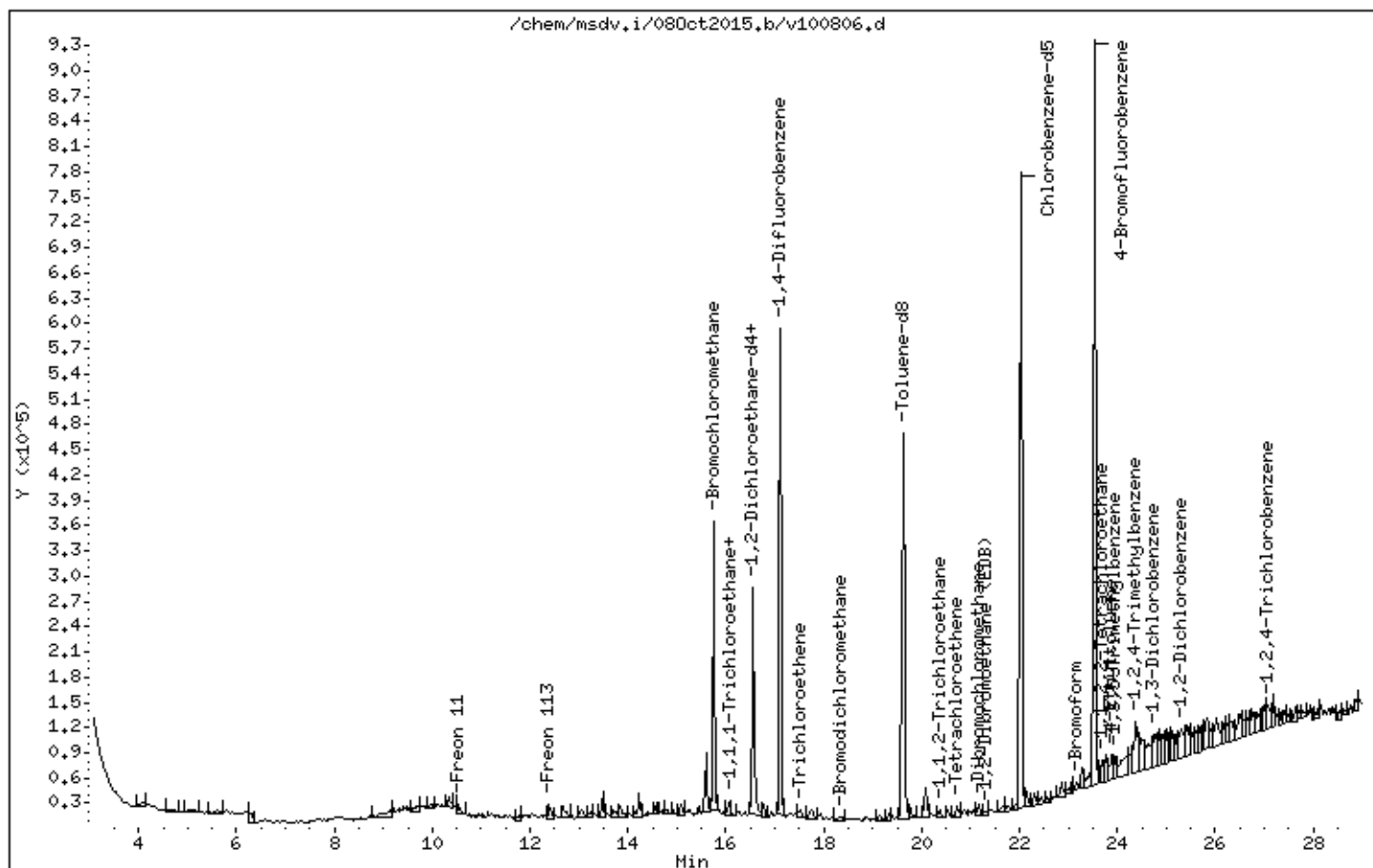
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Instrument: msdv.i

Operator: sab

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100807.d
 Lab Smp Id: ICAL Client Smp ID: Level # 6
 Inj Date : 08-OCT-2015 15:35
 Operator : ef Inst ID: msdv.i
 Smp Info : 25mL# 2736-296
 Misc Info : 0.1ppbv (1.0ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
 Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 15:35 Cal File: v100807.d
 Als bottle: 1 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: Level6.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	

		AMOUNTS						
RT	EXP RT (REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====
15 Freon 114					CAS #: 76-14-2			
6.524	6.524 (0.414)	135	9853	0.10000	0.09818	80.00- 120.00	100.00(a)	
6.524	6.524 (0.414)	137	2981			2.78- 62.78	30.25	
6.486	6.524 (0.412)	85	13709			87.42- 147.42	139.14	
17 Chloromethane					CAS #: 74-87-3			
6.864	6.901 (0.436)	50	13722	0.10000	0.1371	80.00- 120.00	100.00(a)	
6.864	6.901 (0.436)	52	5202			0.67- 60.67	37.91	
25 Vinyl Chloride					CAS #: 75-01-4			
7.813	7.813 (0.496)	62	7257	0.10000	0.1090	80.00- 120.00	100.00(a)	
7.813	7.813 (0.496)	64	1959			0.00- 56.32	26.99	
26 1,3-Butadiene					CAS #: 106-99-0			
8.061	8.061 (0.512)	54	9785	0.10000	0.1179	80.00- 120.00	100.00(a)	
8.061	8.061 (0.512)	39	7695			59.51- 119.51	78.64	

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
35 Freon 11						CAS #:	75-69-4		
10.980	11.004	(0.697)	101	13420	0.10000	0.1012	80.00-	120.00	100.00(a)
10.980	11.004	(0.697)	103	9173			32.43-	92.43	68.35
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	9669	0.10000	0.1024	80.00-	120.00	100.00(a)
12.413	12.413	(0.788)	153	5701			32.55-	92.55	58.96
12.386	12.413	(0.787)	101	10197			82.40-	142.40	105.46
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	4328	0.10000	0.1329	80.00-	120.00	100.00(a)
12.386	12.386	(0.787)	61	13358			344.18-	404.18	308.64
12.386	12.386	(0.787)	96	5735			122.48-	182.48	132.51
58 3-Chloropropene						CAS #:	107-05-1		
13.210	13.210	(0.839)	76	1999	0.10000	0.1042	80.00-	120.00	100.00(a)
13.210	13.210	(0.839)	41	13670			674.37-	734.37	683.84
66 Methylene Chloride						CAS #:	75-09-2		
13.484	13.484	(0.856)	84	5998	0.10000	0.1366	80.00-	120.00	100.00(a)
13.484	13.484	(0.856)	49	14523			288.43-	348.43	242.13
13.484	13.484	(0.856)	51	8306			65.27-	125.27	138.48
72 Methyl tert-butyl ether						CAS #:	1634-04-4		
13.841	13.841	(0.879)	73	14902	0.10000	0.1073	80.00-	120.00	100.00(a)
13.841	13.841	(0.879)	57	11420			17.16-	77.16	76.63
13.841	13.841	(0.879)	41	10564			14.94-	74.94	70.89
73 trans-1,2-Dichloroethene						CAS #:	156-60-5		
13.896	13.896	(0.883)	98	3276	0.10000	0.1021	80.00-	120.00	100.00(a)
13.896	13.869	(0.883)	61	10547			319.94-	379.94	321.95
13.869	13.896	(0.881)	96	5105			133.67-	193.67	155.83
78 Hexane						CAS #:	110-54-3		
14.226	14.226	(0.904)	57	24942	0.10000	0.1428	80.00-	120.00	100.00(a)
14.226	14.226	(0.904)	43	20413			45.57-	105.57	81.84
14.198	14.226	(0.902)	86	3447			0.00-	37.01	13.82
82 1,1-Dichloroethane						CAS #:	75-34-3		
14.582	14.582	(0.926)	63	13191	0.10000	0.1054	80.00-	120.00	100.00(a)
14.582	14.582	(0.926)	65	2740			0.00-	56.80	20.77
91 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.423	15.423	(0.980)	98	4201	0.10000	0.1158	80.00-	120.00	100.00(a)
15.423	15.423	(0.980)	61	10983			282.85-	342.85	261.44
15.423	15.423	(0.980)	96	6568			128.91-	188.91	156.34

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
* 98 Bromochloromethane						CAS #:	74-97-5	
15.743	15.743	(1.000)	130	142320	5.00000		80.00- 120.00	100.00
15.743	15.743	(1.000)	128	116336			45.98- 105.98	81.74
15.743	15.743	(1.000)	49	416190			326.70- 386.70	292.43

100 Chloroform						CAS #:	67-66-3	
15.836	15.836	(1.006)	83	10294	0.10000	0.09740	80.00- 120.00	100.00(a)
15.836	15.836	(1.006)	85	8115			34.80- 94.80	78.83

102 Cyclohexane						CAS #:	110-82-7	
16.052	16.082	(1.020)	84	6013	0.10000	0.09494	80.00- 120.00	100.00(a)
16.082	16.082	(1.022)	56	19884			240.10- 300.10	330.68
16.082	16.082	(1.022)	41	12492			110.99- 170.99	207.75

103 1,1,1-Trichloroethane						CAS #:	71-55-6	
16.052	16.052	(1.020)	97	12227	0.10000	0.1016	80.00- 120.00	100.00(a)
16.052	16.052	(1.020)	99	6763			33.53- 93.53	55.31

106 Carbon Tetrachloride						CAS #:	56-23-5	
16.267	16.267	(1.033)	119	9800	0.10000	0.08353	80.00- 120.00	100.00(a)
16.267	16.267	(1.033)	117	12429			76.59- 136.59	126.83

113 2,2,4-Trimethylpentane						CAS #:	540-84-1	
16.535	16.535	(1.050)	56	17777	0.10000	0.1056	80.00- 120.00	100.00(a)
16.535	16.535	(1.050)	57	52766			265.00- 325.00	296.82
16.535	16.535	(1.050)	41	16288			45.25- 105.25	91.62

116 Benzene						CAS #:	71-43-2	
16.562	16.562	(0.968)	78	16801	0.10000	0.1114	80.00- 120.00	100.00(a)
16.562	16.562	(0.968)	77	5250			0.00- 51.65	31.25

\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0	
16.562	16.562	(1.052)	65	251961	5.00000	4.821	80.00- 120.00	100.00
16.562	16.562	(1.052)	67	108423			15.86- 75.86	43.03

120 1,2-Dichloroethane						CAS #:	107-06-2	
16.672	16.672	(0.974)	62	9992	0.10000	0.09849	80.00- 120.00	100.00(a)
16.672	16.672	(0.974)	64	4783			0.56- 60.56	47.87

121 Heptane						CAS #:	142-82-5	
16.782	16.782	(0.981)	57	11564	0.10000	0.1176	80.00- 120.00	100.00(a)
16.782	16.782	(0.981)	100	1367			0.00- 46.48	11.82
16.782	16.782	(0.981)	43	21922			186.23- 246.23	189.57

* 123 1,4-Difluorobenzene						CAS #:	540-36-3	
17.111	17.111	(1.000)	114	645292	5.00000		80.00- 120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
* 123 1,4-Difluorobenzene (continued)									
17.111	17.111	(1.000)	88	88162			0.00-	43.80	13.66

125 Trichloroethene						CAS #:	79-01-6		
17.523	17.523	(1.024)	130	10476	0.10000	0.1296	80.00-	120.00	100.00(a)
17.523	17.523	(1.024)	95	7994			66.89-	126.89	76.31
17.523	17.523	(1.024)	97	5991			35.91-	95.91	57.19

132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	9841	0.10000	0.1165	80.00-	120.00	100.00(a)
17.907	17.935	(1.047)	62	6011			41.26-	101.26	61.08
17.935	17.935	(1.048)	41	9367			40.22-	100.22	95.18

136 1,4-Dioxane						CAS #:	123-91-1		
18.045	18.045	(1.055)	88	5061	0.10000	0.1293	80.00-	120.00	100.00(a)
18.045	18.045	(1.055)	58	6728			119.94-	179.94	132.94
18.045	18.045	(1.055)	57	3308			14.89-	74.89	65.36

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	11513	0.10000	0.09711	80.00-	120.00	100.00(a)
18.347	18.347	(0.833)	85	7160			34.56-	94.56	62.19

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.145	19.145	(1.119)	75	10985	0.10000	0.1128	80.00-	120.00	100.00(a)
19.167	19.145	(1.120)	77	3294			1.86-	61.86	29.99
19.145	19.145	(1.119)	39	9797			58.69-	118.69	89.19

145 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.346	19.346	(1.131)	43	24525	0.10000	0.08916	80.00-	120.00	100.00(a)
19.346	19.346	(1.131)	58	7168			2.96-	62.96	29.23
19.324	19.346	(1.129)	85	2022			0.00-	37.25	8.24

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.638	19.638	(1.148)	98	597948	5.00000	5.068	80.00-	120.00	100.00
19.638	19.638	(1.148)	70	63173			0.00-	39.58	10.56
19.615	19.638	(1.146)	100	392139			37.10-	97.10	65.58

147 Toluene						CAS #:	108-88-3		
19.772	19.772	(1.155)	91	22500	0.10000	0.1164	80.00-	120.00	100.00(a)
19.750	19.772	(1.154)	92	11138			27.14-	87.14	49.50

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.212	20.211	(0.918)	75	8023	0.10000	0.09517	80.00-	120.00	100.00(a)
20.212	20.211	(0.918)	77	3284			0.00-	59.12	40.93
20.212	20.211	(0.918)	39	10745			53.01-	113.01	133.93

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
155 1,1,2-Trichloroethane				CAS #:		79-00-5		
20.534	20.534	(0.932)	97	7570	0.10000	0.1078	80.00- 120.00	100.00(a)
20.534	20.534	(0.932)	99	5783			31.52- 91.52	76.39
20.534	20.534	(0.932)	83	8420			49.16- 109.16	111.23

156 Tetrachloroethene				CAS #:		127-18-4		
20.714	20.714	(0.940)	166	10203	0.10000	0.09933	80.00- 120.00	100.00(a)
20.714	20.714	(0.940)	129	8159			42.65- 102.65	79.97
20.714	20.714	(0.940)	131	8417			42.72- 102.72	82.50

160 Dibromochloromethane				CAS #:		124-48-1		
21.180	21.180	(0.961)	129	11202	0.10000	0.08881	80.00- 120.00	100.00(a)
21.180	21.180	(0.961)	127	12843			51.36- 111.36	114.65

161 1,2-Dibromoethane (EDB)				CAS #:		106-93-4		
21.395	21.395	(0.971)	107	8891	0.10000	0.08206	80.00- 120.00	100.00(a)
21.395	21.395	(0.971)	109	10385			67.82- 127.82	116.80

* 163 Chlorobenzene-d5				CAS #:		3114-55-4		
22.029	22.029	(1.000)	117	574612	5.00000		80.00- 120.00	100.00
22.029	22.029	(1.000)	82	280299			17.84- 77.84	48.78

165 Chlorobenzene				CAS #:		108-90-7		
22.056	22.056	(1.001)	112	14720	0.10000	0.09360	80.00- 120.00	100.00(a)
22.056	22.056	(1.001)	114	5506			2.39- 62.39	37.40
22.056	22.056	(1.001)	77	16545			23.63- 83.63	112.40

167 Ethyl Benzene				CAS #:		100-41-4		
22.138	22.138	(1.005)	106	9784	0.10000	0.1254	80.00- 120.00	100.00(a)
22.138	22.138	(1.005)	91	23213			289.30- 349.30	237.25

169 m,p-Xylene				CAS #:		108-38-3		
22.303	22.303	(1.012)	106	8654	0.10000	0.1097	80.00- 120.00	100.00(a)
22.303	22.303	(1.012)	91	16676			180.42- 240.42	192.70

171 o-Xylene				CAS #:		95-47-6		
22.852	22.852	(1.037)	106	8309	0.10000	0.1126	80.00- 120.00	100.00(a)
22.852	22.852	(1.037)	91	18521			183.19- 243.19	222.90

172 Styrene				CAS #:		100-42-5		
22.880	22.880	(1.039)	104	14055	0.10000	0.1160	80.00- 120.00	100.00(a)
22.880	22.852	(1.039)	78	7842			21.26- 81.26	55.80

174 Bromoform				CAS #:		75-25-2		
23.173	23.173	(1.052)	173	12520	0.10000	0.09460	80.00- 120.00	100.00(a)
23.173	23.173	(1.052)	171	7414			21.70- 81.70	59.22

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
175	Cumene					CAS #: 98-82-8		
23.277	23.277	(1.057)	105	20716	0.10000	0.09500	80.00- 120.00	100.00(a)
23.277	23.277	(1.057)	120	8485			0.00- 59.53	40.96

\$ 177	4-Bromofluorobenzene					CAS #: 460-00-4		
23.535	23.534	(1.068)	174	283827	5.00000	4.804	80.00- 120.00	100.00
23.535	23.534	(1.068)	95	332872			85.02- 145.02	117.28
23.535	23.534	(1.068)	176	270118			63.61- 123.61	95.17

181	1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
23.689	23.689	(1.075)	83	13224	0.10000	0.1042	80.00- 120.00	100.00(a)
23.689	23.689	(1.075)	85	10078			33.93- 93.93	76.21

182	Propylbenzene					CAS #: 103-65-1		
23.767	23.767	(1.079)	91	27904	0.10000	0.1278	80.00- 120.00	100.00(a)
23.767	23.767	(1.079)	120	7632			0.00- 55.14	27.35

188	4-Ethyltoluene					CAS #: 622-96-8		
23.896	23.896	(1.085)	105	22478	0.10000	0.1305	80.00- 120.00	100.00(a)
23.896	23.896	(1.085)	120	8434			3.95- 63.95	37.52

190	1,3,5-Trimethylbenzene					CAS #: 108-67-8		
23.947	23.947	(1.087)	105	22569	0.10000	0.1406	80.00- 120.00	100.00(a)
23.947	23.947	(1.087)	120	10273			19.31- 79.31	45.52

196	1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.386	24.386	(1.107)	105	22345	0.10000	0.1365	80.00- 120.00	100.00(a)
24.386	24.386	(1.107)	120	13033			17.64- 77.64	58.33

208	1,3-Dichlorobenzene					CAS #: 541-73-1		
24.756	24.756	(1.124)	146	12000	0.10000	0.1071	80.00- 120.00	100.00(a)
24.756	24.756	(1.124)	148	9091			34.17- 94.17	75.76
24.756	24.756	(1.124)	111	5038			10.53- 70.53	41.98

209	1,4-Dichlorobenzene					CAS #: 106-46-7		
24.868	24.868	(1.129)	146	14589	0.10000	0.1488	80.00- 120.00	100.00(a)
24.868	24.868	(1.129)	148	11682			35.60- 95.60	80.07
24.868	24.845	(1.129)	111	5189			7.23- 67.23	35.57

212	alpha-Chlorotoluene					CAS #: 100-44-7		
25.002	25.002	(1.135)	91	17754	0.10000	0.1278	80.00- 120.00	100.00(a)
25.002	25.002	(1.135)	126	4772			0.00- 51.02	26.88

214	1,2-Dichlorobenzene					CAS #: 95-50-1		
25.271	25.271	(1.147)	146	14722	0.10000	0.1487	80.00- 120.00	100.00(a)
25.271	25.271	(1.147)	148	8324			33.23- 93.23	56.54

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
214	1,2-Dichlorobenzene (continued)							
25.271	25.271 (1.147)		111	5269			10.17- 70.17	35.79

226	1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.065	27.065 (1.229)		180	10579	0.10000	0.1163	80.00- 120.00	100.00(a)
27.087	27.065 (1.230)		182	8570			66.03- 126.03	81.01

227	Hexachlorobutadiene					CAS #: 87-68-3		
27.177	27.177 (1.234)		225	9107	0.10000	0.1459	80.00- 120.00	100.00(a)
27.177	27.177 (1.234)		223	5894			33.08- 93.08	64.72

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100807.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 6
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ef	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m	
Misc Info: 0.1ppbv (1.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	142320	-2.57
123 1,4-Difluorobenze	648096	388858	907334	645292	-0.43
163 Chlorobenzene-d5	578351	347011	809691	574612	-0.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100808.d
 Lab Smp Id: ICAL Client Smp ID: Level #7
 Inj Date : 08-OCT-2015 16:30
 Operator : gh Inst ID: msdv.i
 Smp Info : 125mL# 2736-296
 Misc Info : 0.5ppbv (1.0ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
 Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 16:30 Cal File: v100808.d
 Als bottle: 1 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
			AMOUNTS						
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
9 Propylene						CAS #:	115-07-1		
4.523	4.485	(0.287)	41	46285	0.50000	0.5331	80.00- 120.00	100.00(M)	
4.523	4.485	(0.287)	42	20752			37.47- 97.47	44.84	
4.523	4.522	(0.287)	39	7809			32.82- 92.82	16.87	
11 Freon 12						CAS #:	75-71-8		
5.013	5.013	(0.318)	85	59965	0.50000	0.4834	80.00- 120.00	100.00	
4.976	5.013	(0.316)	87	16398			1.30- 61.30	27.35	
15 Freon 114						CAS #:	76-14-2		
6.524	6.524	(0.414)	135	50336	0.50000	0.4925	80.00- 120.00	100.00	
6.524	6.524	(0.414)	137	15502			2.78- 62.78	30.80	
6.486	6.524	(0.412)	85	56144			87.42- 147.42	111.54	
17 Chloromethane						CAS #:	74-87-3		
6.902	6.901	(0.438)	50	52530	0.50000	0.5155	80.00- 120.00	100.00	
6.864	6.901	(0.436)	52	17876			0.67- 60.67	34.03	

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	8247	0.50000	0.4690	80.00- 120.00	100.00	
7.658	7.658	(0.486)	43	85297			986.38-1046.38	1034.28	

25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.813	(0.496)	62	29498	0.50000	0.4351	80.00- 120.00	100.00	
7.813	7.813	(0.496)	64	8617			0.00- 56.32	29.21	

26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	39851	0.50000	0.4716	80.00- 120.00	100.00	
8.061	8.061	(0.512)	39	32050			59.51- 119.51	80.42	

29 Bromomethane						CAS #:	74-83-9		
9.655	9.655	(0.613)	94	15601	0.50000	0.4445	80.00- 120.00	100.00	
9.655	9.655	(0.613)	96	14355			64.14- 124.14	92.01	

30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	12330	0.50000	0.4505	80.00- 120.00	100.00	
10.161	10.161	(0.645)	49	6307			16.17- 76.17	51.15	
10.185	10.161	(0.647)	66	2161			0.00- 53.05	17.53	

31 Isopentane						CAS #:	78-78-4		
10.354	10.330	(0.658)	57	35270	0.50000	0.4772	80.00- 120.00	100.00	
10.330	10.330	(0.656)	43	66782			146.62- 206.62	189.35	
10.330	10.330	(0.656)	42	59702			123.11- 183.11	169.27	

35 Freon 11						CAS #:	75-69-4		
11.004	11.004	(0.699)	101	66653	0.50000	0.4937	80.00- 120.00	100.00	
11.004	11.004	(0.699)	103	41907			32.43- 92.43	62.87	

42 Ethanol						CAS #:	64-17-5		
11.974	11.919	(0.761)	45	22070	0.50000	0.5293	80.00- 120.00	100.00	
11.974	11.919	(0.761)	46	4779			3.52- 63.52	21.65	
12.029	11.919	(0.764)	43	6965			0.00- 49.09	31.56	

49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	41400	0.50000	0.4305	80.00- 120.00	100.00	
12.413	12.413	(0.788)	153	30520			32.55- 92.55	73.72	
12.413	12.413	(0.788)	101	50104			82.40- 142.40	121.02	

50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	15239	0.50000	0.4595	80.00- 120.00	100.00	
12.386	12.386	(0.787)	61	59462			344.18- 404.18	390.20	
12.386	12.386	(0.787)	96	27967			122.48- 182.48	183.52	

52 Acetone						CAS #:	67-64-1		
12.660	12.633	(0.804)	58	21699	0.50000	0.5107	80.00- 120.00	100.00	

RT ==	EXP RT =====	(REL RT) =====	MASS =====	RESPONSE =====	AMOUNTS		TARGET RANGE =====	RATIO =====
					CAL-AMT (PPBV) =====	ON-COL (PPBV) =====		
52 Acetone (continued)								
12.660	12.633	(0.804)	43	79691			308.96- 368.96	367.26
56 Carbon Disulfide								
12.743	12.743	(0.809)	76	62643	0.50000	CAS #: 0.4754	75-15-0 80.00- 120.00	100.00
57 2-Propanol								
13.045	13.017	(0.829)	45	86483	0.50000	CAS #: 0.4502	67-63-0 80.00- 120.00	100.00
13.045	13.017	(0.829)	43	15340			0.00- 46.45	17.74
13.045	13.017	(0.829)	59	3328			0.00- 32.99	3.85
58 3-Chloropropene								
13.210	13.210	(0.839)	76	8919	0.50000	CAS #: 0.4564	107-05-1 80.00- 120.00	100.00
13.210	13.210	(0.839)	41	62709			674.37- 734.37	703.09
66 Methylene Chloride								
13.484	13.484	(0.856)	84	19243	0.50000	CAS #: 0.4302	75-09-2 80.00- 120.00	100.00
13.484	13.484	(0.856)	49	76139			288.43- 348.43	395.67
13.484	13.484	(0.856)	51	23634			65.27- 125.27	122.82
71 tert-Butyl alcohol								
13.704	13.704	(0.870)	59	89101	0.50000	CAS #: 0.4778	75-65-0 80.00- 120.00	100.00
13.704	13.704	(0.870)	41	19681			0.00- 53.16	22.09
13.704	13.704	(0.870)	57	11395			0.00- 40.96	12.79
72 Methyl tert-butyl ether								
13.841	13.841	(0.879)	73	68690	0.50000	CAS #: 0.4855	1634-04-4 80.00- 120.00	100.00
13.841	13.841	(0.879)	57	29558			17.16- 77.16	43.03
13.841	13.841	(0.879)	41	32860			14.94- 74.94	47.84
73 trans-1,2-Dichloroethene								
13.896	13.896	(0.883)	98	15446	0.50000	CAS #: 0.4726	156-60-5 80.00- 120.00	100.00
13.896	13.869	(0.883)	61	52904			319.94- 379.94	342.51
13.896	13.896	(0.883)	96	26394			133.67- 193.67	170.88
78 Hexane								
14.226	14.226	(0.904)	57	87791	0.50000	CAS #: 0.4936	110-54-3 80.00- 120.00	100.00
14.226	14.226	(0.904)	43	65265			45.57- 105.57	74.34
14.226	14.226	(0.904)	86	7463			0.00- 37.01	8.50
83 Isopropyl ether								
14.583	14.582	(0.926)	45	192064	0.50000	CAS #: 0.4772	108-20-3 80.00- 120.00	100.00
14.583	14.582	(0.926)	87	20477			0.00- 40.41	10.66
14.583	14.582	(0.926)	59	15195			0.00- 38.33	7.91
82 1,1-Dichloroethane								
14.583	14.582	(0.926)	63	60973	0.50000	CAS #: 0.4784	75-34-3 80.00- 120.00	100.00

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
82 1,1-Dichloroethane (continued)									
14.610	14.582	(0.928)	65	14805			0.00-	56.80	24.28

86 Vinyl Acetate						CAS #:	108-05-4		
14.665	14.637	(0.931)	86	6048	0.50000	0.5192	80.00-	120.00	100.00
14.637	14.610	(0.930)	42	5940			254.23-	314.23	98.21
14.637	14.610	(0.930)	43	85096			4287.95-	4347.95	1407.01

88 Ethyl-tert-butyl ether						CAS #:	637-92-3		
15.092	15.071	(0.959)	59	136686	0.50000	0.4577	80.00-	120.00	100.00
15.092	15.071	(0.959)	87	29164			0.00-	52.67	21.34
15.071	15.071	(0.957)	41	31333			0.00-	50.06	22.92

91 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.423	15.423	(0.980)	98	19495	0.50000	0.5276	80.00-	120.00	100.00
15.423	15.423	(0.980)	61	51585			282.85-	342.85	264.61
15.423	15.423	(0.980)	96	27058			128.91-	188.91	138.79

92 2-Butanone						CAS #:	78-93-3		
15.444	15.403	(0.981)	72	9936	0.50000	0.4309	80.00-	120.00	100.00
15.423	15.403	(0.980)	43	83372			922.45-	982.45	839.09
15.423	15.403	(0.980)	57	6696			34.83-	94.83	67.39

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	54926	0.50000	0.4067	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	9407			0.00-	44.56	17.13
15.774	15.743	(1.002)	72	9727			0.00-	46.89	17.71

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	144950	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	110435			45.98-	105.98	76.19
15.743	15.743	(1.000)	49	441627			326.70-	386.70	304.68

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	52452	0.50000	0.4873	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	32018			34.80-	94.80	61.04

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	28763	0.50000	0.4459	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	80894			240.10-	300.10	281.24
16.082	16.082	(1.022)	41	48019			110.99-	170.99	166.95

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.052	16.052	(1.020)	97	59239	0.50000	0.4831	80.00-	120.00	100.00
16.052	16.052	(1.020)	99	38253			33.53-	93.53	64.57

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	48482	0.50000	0.4057	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	55287			76.59-	136.59	114.04
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	81485	0.50000	0.4752	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	238992			265.00-	325.00	293.30
16.535	16.535	(1.050)	41	61036			45.25-	105.25	74.90
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	70741	0.50000	0.4545	80.00-	120.00	100.00
16.590	16.562	(0.970)	77	18115			0.00-	51.65	25.61
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	261787	5.00000	4.918	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	119973			15.86-	75.86	45.83
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	17428	0.50000	0.4622	80.00-	120.00	100.00
16.617	16.617	(0.971)	73	74882			370.18-	430.18	429.66
16.617	16.617	(0.971)	55	39661			192.85-	252.85	227.57
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	51959	0.50000	0.4963	80.00-	120.00	100.00
16.672	16.672	(0.974)	64	15689			0.56-	60.56	30.19
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	46507	0.50000	0.4583	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	7638			0.00-	46.48	16.42
16.782	16.782	(0.981)	43	103323			186.23-	246.23	222.17
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	665873	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	97695			0.00-	43.80	14.67
125 Trichloroethene						CAS #:	79-01-6		
17.523	17.523	(1.024)	130	40601	0.50000	0.4866	80.00-	120.00	100.00
17.523	17.523	(1.024)	95	38531			66.89-	126.89	94.90
17.523	17.523	(1.024)	97	23188			35.91-	95.91	57.11
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	43189	0.50000	0.4633	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	86016			146.83-	206.83	199.16
17.743	17.743	(1.037)	56	27959			28.02-	88.02	64.74
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	38881	0.50000	0.4460	80.00-	120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
132 1,2-Dichloropropane (continued)								
17.935	17.935	(1.048)	62	28562			41.26- 101.26	73.46
17.935	17.935	(1.048)	41	26937			40.22- 100.22	69.28

136 1,4-Dioxane						CAS #:	123-91-1	
18.045	18.045	(1.055)	88	17563	0.50000	0.4348	80.00- 120.00	100.00
18.045	18.045	(1.055)	58	26725			119.94- 179.94	152.17
18.045	18.045	(1.055)	57	7837			14.89- 74.89	44.62

138 Bromodichloromethane						CAS #:	75-27-4	
18.347	18.347	(0.833)	83	55797	0.50000	0.4754	80.00- 120.00	100.00
18.347	18.347	(0.833)	85	37920			34.56- 94.56	67.96

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5	
19.145	19.145	(1.119)	75	46312	0.50000	0.4610	80.00- 120.00	100.00
19.145	19.145	(1.119)	77	15458			1.86- 61.86	33.38
19.145	19.145	(1.119)	39	42284			58.69- 118.69	91.30

145 4-Methyl-2-pentanone						CAS #:	108-10-1	
19.346	19.346	(1.131)	43	128961	0.50000	0.4544	80.00- 120.00	100.00
19.346	19.346	(1.131)	58	42012			2.96- 62.96	32.58
19.369	19.346	(1.132)	85	9416			0.00- 37.25	7.30

\$ 146 Toluene-d8						CAS #:	2037-26-5	
19.638	19.638	(1.148)	98	604490	5.00000	4.965	80.00- 120.00	100.00
19.638	19.638	(1.148)	70	62256			0.00- 39.58	10.30
19.638	19.638	(1.148)	100	396427			37.10- 97.10	65.58

147 Toluene						CAS #:	108-88-3	
19.750	19.772	(1.154)	91	91111	0.50000	0.4567	80.00- 120.00	100.00
19.750	19.772	(1.154)	92	55937			27.14- 87.14	61.39

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6	
20.212	20.211	(0.918)	75	39382	0.50000	0.4719	80.00- 120.00	100.00
20.212	20.211	(0.918)	77	12171			0.00- 59.12	30.90
20.212	20.211	(0.918)	39	32974			53.01- 113.01	83.73

155 1,1,2-Trichloroethane						CAS #:	79-00-5	
20.534	20.534	(0.932)	97	34592	0.50000	0.4974	80.00- 120.00	100.00
20.534	20.534	(0.932)	99	20280			31.52- 91.52	58.63
20.534	20.534	(0.932)	83	28927			49.16- 109.16	83.62

156 Tetrachloroethene						CAS #:	127-18-4	
20.714	20.714	(0.940)	166	56257	0.50000	0.5532	80.00- 120.00	100.00
20.714	20.714	(0.940)	129	41525			42.65- 102.65	73.81
20.714	20.714	(0.940)	131	35161			42.72- 102.72	62.50

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE		RATIO
==	=====	=====	===	=====	=====	=====	=====		=====
158 2-Hexanone						CAS #:	591-78-6		
20.857	20.821	(0.947)	58	49485	0.50000	0.4284	80.00- 120.00		100.00
20.857	20.821	(0.947)	43	108694			185.90- 245.90		219.65
20.857	20.821	(0.947)	100	7357			0.00- 39.88		14.87
160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	63358	0.50000	0.5073	80.00- 120.00		100.00
21.180	21.180	(0.961)	127	46765			51.36- 111.36		73.81
161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	52415	0.50000	0.4886	80.00- 120.00		100.00
21.395	21.395	(0.971)	109	48818			67.82- 127.82		93.14
* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	568900	5.00000		80.00- 120.00		100.00
22.029	22.029	(1.000)	82	283356			17.84- 77.84		49.81
165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	76764	0.50000	0.4930	80.00- 120.00		100.00
22.084	22.056	(1.002)	114	25745			2.39- 62.39		33.54
22.056	22.056	(1.001)	77	46540			23.63- 83.63		60.63
167 Ethyl Benzene						CAS #:	100-41-4		
22.139	22.138	(1.005)	106	35962	0.50000	0.4656	80.00- 120.00		100.00
22.139	22.138	(1.005)	91	113535			289.30- 349.30		315.71
169 m,p-Xylene						CAS #:	108-38-3		
22.303	22.303	(1.012)	106	36868	0.50000	0.4720	80.00- 120.00		100.00
22.303	22.303	(1.012)	91	71575			180.42- 240.42		194.14
171 o-Xylene						CAS #:	95-47-6		
22.852	22.852	(1.037)	106	33640	0.50000	0.4606	80.00- 120.00		100.00
22.852	22.852	(1.037)	91	65998			183.19- 243.19		196.19
172 Styrene						CAS #:	100-42-5		
22.880	22.880	(1.039)	104	60386	0.50000	0.5032	80.00- 120.00		100.00
22.852	22.852	(1.037)	78	28793			21.26- 81.26		47.68
174 Bromoform						CAS #:	75-25-2		
23.173	23.173	(1.052)	173	64529	0.50000	0.4924	80.00- 120.00		100.00
23.173	23.173	(1.052)	171	30848			21.70- 81.70		47.80
175 Cumene						CAS #:	98-82-8		
23.277	23.277	(1.057)	105	102086	0.50000	0.4728	80.00- 120.00		100.00
23.277	23.277	(1.057)	120	28454			0.00- 59.53		27.87

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
\$ 177 4-Bromofluorobenzene							CAS #:	460-00-4	
23.535	23.534	(1.068)	174	287907	5.00000	4.922	80.00-	120.00	100.00
23.535	23.534	(1.068)	95	331656			85.02-	145.02	115.20
23.535	23.534	(1.068)	176	263833			63.61-	123.61	91.64

181 1,1,2,2-Tetrachloroethane							CAS #:	79-34-5	
23.689	23.689	(1.075)	83	60864	0.50000	0.4844	80.00-	120.00	100.00
23.689	23.689	(1.075)	85	39210			33.93-	93.93	64.42

182 Propylbenzene							CAS #:	103-65-1	
23.767	23.767	(1.079)	91	95206	0.50000	0.4403	80.00-	120.00	100.00
23.767	23.767	(1.079)	120	29764			0.00-	55.14	31.26

188 4-Ethyltoluene							CAS #:	622-96-8	
23.896	23.896	(1.085)	105	82155	0.50000	0.4818	80.00-	120.00	100.00
23.896	23.896	(1.085)	120	23394			3.95-	63.95	28.48

190 1,3,5-Trimethylbenzene							CAS #:	108-67-8	
23.947	23.947	(1.087)	105	74264	0.50000	0.4674	80.00-	120.00	100.00
23.947	23.947	(1.087)	120	35368			19.31-	79.31	47.62

196 1,2,4-Trimethylbenzene							CAS #:	95-63-6	
24.386	24.386	(1.107)	105	80365	0.50000	0.4958	80.00-	120.00	100.00
24.386	24.386	(1.107)	120	43594			17.64-	77.64	54.25

208 1,3-Dichlorobenzene							CAS #:	541-73-1	
24.756	24.756	(1.124)	146	48861	0.50000	0.4406	80.00-	120.00	100.00
24.756	24.756	(1.124)	148	30238			34.17-	94.17	61.89
24.756	24.756	(1.124)	111	19318			10.53-	70.53	39.54

209 1,4-Dichlorobenzene							CAS #:	106-46-7	
24.868	24.868	(1.129)	146	46066	0.50000	0.4745	80.00-	120.00	100.00
24.868	24.868	(1.129)	148	26166			35.60-	95.60	56.80
24.868	24.845	(1.129)	111	16491			7.23-	67.23	35.80

212 alpha-Chlorotoluene							CAS #:	100-44-7	
25.002	25.002	(1.135)	91	59073	0.50000	0.4295	80.00-	120.00	100.00
25.002	25.002	(1.135)	126	16519			0.00-	51.02	27.96

214 1,2-Dichlorobenzene							CAS #:	95-50-1	
25.271	25.271	(1.147)	146	41696	0.50000	0.4253	80.00-	120.00	100.00
25.271	25.271	(1.147)	148	30575			33.23-	93.23	73.33
25.271	25.271	(1.147)	111	17612			10.17-	70.17	42.24

226 1,2,4-Trichlorobenzene							CAS #:	120-82-1	
27.065	27.065	(1.229)	180	45957	0.50000	0.5105	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE		RATIO
==	=====	=====	====	=====	=====	=====	=====		=====

226	1,2,4-Trichlorobenzene (continued)								
27.065	27.065	(1.229)	182	43477			66.03- 126.03		94.60

227	Hexachlorobutadiene					CAS #:	87-68-3		
27.177	27.177	(1.234)	225	33611	0.50000	0.5440	80.00- 120.00		100.00
27.177	27.177	(1.234)	223	20257			33.08- 93.08		60.27

228	Naphthalene					CAS #:	91-20-3		
27.423	27.401	(1.245)	128	7892	0.05000	0.04676	80.00- 120.00		100.00(a)
27.446	27.401	(1.246)	127	4145			0.00- 42.23		52.52

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100808.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level #7
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m	
Misc Info: 0.5ppbv (1.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	144950	-0.77
123 1,4-Difluorobenze	648096	388858	907334	665873	2.74
163 Chlorobenzene-d5	578351	347011	809691	568900	-1.63

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100809.d
 Lab Smp Id: ICAL Client Smp ID: Level # 8
 Inj Date : 08-OCT-2015 17:24
 Operator : gh Inst ID: msdv.i
 Smp Info : 250mL# 2736-296
 Misc Info : 1.0ppbv (1.0ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
 Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 17:24 Cal File: v100809.d
 Als bottle: 1 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	16607	1.00000	1.011	80.00-	120.00	100.00
7.658	7.658	(0.486)	43	170815			986.38-	1046.38	1028.57
25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.813	(0.496)	62	62355	1.00000	0.9843	80.00-	120.00	100.00
7.813	7.813	(0.496)	64	16520			0.00-	56.32	26.49
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	76358	1.00000	0.9670	80.00-	120.00	100.00
8.061	8.061	(0.512)	39	67543			59.51-	119.51	88.46
29 Bromomethane						CAS #:	74-83-9		
9.655	9.655	(0.613)	94	25540	1.00000	0.7788	80.00-	120.00	100.00
9.655	9.655	(0.613)	96	24763			64.14-	124.14	96.96
30 Chloroethane						CAS #:	75-00-3		
10.185	10.161	(0.647)	64	24347	1.00000	0.9520	80.00-	120.00	100.00
10.161	10.161	(0.645)	49	12855			16.17-	76.17	52.80
10.161	10.161	(0.645)	66	7625			0.00-	53.05	31.32
31 Isopentane						CAS #:	78-78-4		
10.354	10.330	(0.658)	57	71737	1.00000	1.039	80.00-	120.00	100.00
10.330	10.330	(0.656)	43	138116			146.62-	206.62	192.53
10.330	10.330	(0.656)	42	111575			123.11-	183.11	155.53
35 Freon 11						CAS #:	75-69-4		
10.980	11.004	(0.697)	101	130795	1.00000	1.037	80.00-	120.00	100.00
11.004	11.004	(0.699)	103	84813			32.43-	92.43	64.84
42 Ethanol						CAS #:	64-17-5		
11.974	11.919	(0.761)	45	34398	1.00000	0.8829	80.00-	120.00	100.00
11.974	11.919	(0.761)	46	13020			3.52-	63.52	37.85
11.974	11.919	(0.761)	43	7839			0.00-	49.09	22.79
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	87759	1.00000	0.9767	80.00-	120.00	100.00
12.413	12.413	(0.788)	153	55016			32.55-	92.55	62.69
12.413	12.413	(0.788)	101	95559			82.40-	142.40	108.89
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	28490	1.00000	0.9194	80.00-	120.00	100.00
12.386	12.386	(0.787)	61	121282			344.18-	404.18	425.70
12.386	12.386	(0.787)	96	48596			122.48-	182.48	170.57
52 Acetone						CAS #:	67-64-1		
12.660	12.633	(0.804)	58	38579	1.00000	0.9718	80.00-	120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====
52 Acetone (continued)								
12.660	12.633	(0.804)	43	138942			308.96- 368.96	360.15
56 Carbon Disulfide						CAS #:	75-15-0	
12.743	12.743	(0.809)	76	121015	1.00000	0.9828	80.00- 120.00	100.00
57 2-Propanol						CAS #:	67-63-0	
13.045	13.017	(0.829)	45	176806	1.00000	0.9850	80.00- 120.00	100.00
13.045	13.017	(0.829)	43	23183			0.00- 46.45	13.11
13.045	13.017	(0.829)	59	5191			0.00- 32.99	2.94
58 3-Chloropropene						CAS #:	107-05-1	
13.210	13.210	(0.839)	76	16798	1.00000	0.9199	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	120168			674.37- 734.37	715.37
66 Methylene Chloride						CAS #:	75-09-2	
13.484	13.484	(0.856)	84	42703	1.00000	1.022	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	141304			288.43- 348.43	330.90
13.484	13.484	(0.856)	51	39364			65.27- 125.27	92.18
71 tert-Butyl alcohol						CAS #:	75-65-0	
13.704	13.704	(0.870)	59	163944	1.00000	0.9410	80.00- 120.00	100.00
13.704	13.704	(0.870)	41	42703			0.00- 53.16	26.05
13.704	13.704	(0.870)	57	19913			0.00- 40.96	12.15
72 Methyl tert-butyl ether						CAS #:	1634-04-4	
13.841	13.841	(0.879)	73	131570	1.00000	0.9952	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	52456			17.16- 77.16	39.87
13.841	13.841	(0.879)	41	59236			14.94- 74.94	45.02
73 trans-1,2-Dichloroethene						CAS #:	156-60-5	
13.896	13.896	(0.883)	98	31353	1.00000	1.026	80.00- 120.00	100.00
13.896	13.869	(0.883)	61	112319			319.94- 379.94	358.24
13.896	13.896	(0.883)	96	46184			133.67- 193.67	147.30
78 Hexane						CAS #:	110-54-3	
14.225	14.226	(0.904)	57	160145	1.00000	0.9636	80.00- 120.00	100.00
14.225	14.226	(0.904)	43	114690			45.57- 105.57	71.62
14.225	14.226	(0.904)	86	12510			0.00- 37.01	7.81
83 Isopropyl ether						CAS #:	108-20-3	
14.582	14.582	(0.926)	45	371088	1.00000	0.9867	80.00- 120.00	100.00
14.582	14.582	(0.926)	87	41487			0.00- 40.41	11.18
14.582	14.582	(0.926)	59	28970			0.00- 38.33	7.81
82 1,1-Dichloroethane						CAS #:	75-34-3	
14.582	14.582	(0.926)	63	117414	1.00000	0.9859	80.00- 120.00	100.00

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
82 1,1-Dichloroethane (continued)									
14.582	14.582	(0.926)	65	32947			0.00-	56.80	28.06

86 Vinyl Acetate						CAS #:	108-05-4		
14.637	14.637	(0.930)	86	9010	1.00000	0.8279	80.00-	120.00	100.00
14.637	14.610	(0.930)	42	13890			254.23-	314.23	154.16
14.637	14.610	(0.930)	43	205688			4287.95-	4347.95	2282.89

88 Ethyl-tert-butyl ether						CAS #:	637-92-3		
15.071	15.071	(0.957)	59	278882	1.00000	0.9994	80.00-	120.00	100.00
15.092	15.071	(0.959)	87	57444			0.00-	52.67	20.60
15.071	15.071	(0.957)	41	60703			0.00-	50.06	21.77

91 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.423	15.423	(0.980)	98	31108	1.00000	0.9010	80.00-	120.00	100.00
15.423	15.423	(0.980)	61	105208			282.85-	342.85	338.20
15.423	15.423	(0.980)	96	52186			128.91-	188.91	167.76

92 2-Butanone						CAS #:	78-93-3		
15.423	15.403	(0.980)	72	20293	1.00000	0.9419	80.00-	120.00	100.00
15.423	15.403	(0.980)	43	187902			922.45-	982.45	925.94
15.423	15.403	(0.980)	57	15150			34.83-	94.83	74.66

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	129125	1.00000	1.023	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	18631			0.00-	44.56	14.43
15.743	15.743	(1.000)	72	21673			0.00-	46.89	16.78

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	135442	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	103952			45.98-	105.98	76.75
15.743	15.743	(1.000)	49	421113			326.70-	386.70	310.92

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	99632	1.00000	0.9905	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	68638			34.80-	94.80	68.89

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	62520	1.00000	1.037	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	168193			240.10-	300.10	269.02
16.082	16.082	(1.022)	41	93490			110.99-	170.99	149.54

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.052	16.052	(1.020)	97	113255	1.00000	0.9884	80.00-	120.00	100.00
16.052	16.052	(1.020)	99	77760			33.53-	93.53	68.66

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	104370	1.00000	0.9348	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	112598			76.59-	136.59	107.88
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	162446	1.00000	1.014	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	460394			265.00-	325.00	283.41
16.535	16.535	(1.050)	41	117025			45.25-	105.25	72.04
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	143912	1.00000	0.9338	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	31600			0.00-	51.65	21.96
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	247228	5.00000	4.971	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	114779			15.86-	75.86	46.43
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	32865	1.00000	0.8804	80.00-	120.00	100.00
16.617	16.617	(0.971)	73	152502			370.18-	430.18	464.03
16.617	16.617	(0.971)	55	78211			192.85-	252.85	237.98
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	94363	1.00000	0.9104	80.00-	120.00	100.00
16.672	16.672	(0.974)	64	31599			0.56-	60.56	33.49
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	94993	1.00000	0.9454	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	12476			0.00-	46.48	13.13
16.782	16.782	(0.981)	43	198997			186.23-	246.23	209.49
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	659255	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	90928			0.00-	43.80	13.79
125 Trichloroethene						CAS #:	79-01-6		
17.523	17.523	(1.024)	130	74628	1.00000	0.9035	80.00-	120.00	100.00
17.495	17.523	(1.022)	95	74097			66.89-	126.89	99.29
17.523	17.523	(1.024)	97	44374			35.91-	95.91	59.46
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	91283	1.00000	0.9890	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	150930			146.83-	206.83	165.34
17.743	17.743	(1.037)	56	47227			28.02-	88.02	51.74
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	78816	1.00000	0.9132	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
132 1,2-Dichloropropane (continued)									
17.935	17.935	(1.048)	62	64114			41.26-	101.26	81.35
17.935	17.935	(1.048)	41	59718			40.22-	100.22	75.77

136 1,4-Dioxane						CAS #:	123-91-1		
18.045	18.045	(1.055)	88	37990	1.00000	0.9500	80.00-	120.00	100.00
18.045	18.045	(1.055)	58	47812			119.94-	179.94	125.85
18.045	18.045	(1.055)	57	17127			14.89-	74.89	45.08

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	106613	1.00000	0.9243	80.00-	120.00	100.00
18.347	18.347	(0.833)	85	73107			34.56-	94.56	68.57

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.145	19.145	(1.119)	75	87500	1.00000	0.8796	80.00-	120.00	100.00
19.145	19.145	(1.119)	77	28714			1.86-	61.86	32.82
19.145	19.145	(1.119)	39	80257			58.69-	118.69	91.72

145 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.346	19.346	(1.131)	43	274419	1.00000	0.9765	80.00-	120.00	100.00
19.346	19.346	(1.131)	58	89887			2.96-	62.96	32.76
19.346	19.346	(1.131)	85	18134			0.00-	37.25	6.61

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.638	(1.146)	98	590146	5.00000	4.896	80.00-	120.00	100.00
19.615	19.638	(1.146)	70	58712			0.00-	39.58	9.95
19.638	19.638	(1.148)	100	390722			37.10-	97.10	66.21

147 Toluene						CAS #:	108-88-3		
19.772	19.772	(1.155)	91	181633	1.00000	0.9196	80.00-	120.00	100.00
19.772	19.772	(1.155)	92	107888			27.14-	87.14	59.40

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.211	20.211	(0.918)	75	78187	1.00000	0.9533	80.00-	120.00	100.00
20.211	20.211	(0.918)	77	27524			0.00-	59.12	35.20
20.211	20.211	(0.918)	39	66603			53.01-	113.01	85.18

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	62418	1.00000	0.9132	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	38230			31.52-	91.52	61.25
20.534	20.534	(0.932)	83	52247			49.16-	109.16	83.71

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	101356	1.00000	1.014	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	70384			42.65-	102.65	69.44
20.714	20.714	(0.940)	131	77330			42.72-	102.72	76.30

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
158 2-Hexanone						CAS #:	591-78-6		
20.857	20.821	(0.947)	58	104839	1.00000	0.9235	80.00-	120.00	100.00
20.857	20.821	(0.947)	43	224327			185.90-	245.90	213.97
20.857	20.821	(0.947)	100	11701			0.00-	39.88	11.16
160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	119767	1.00000	0.9759	80.00-	120.00	100.00
21.180	21.180	(0.961)	127	100237			51.36-	111.36	83.69
161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	111731	1.00000	1.060	80.00-	120.00	100.00
21.395	21.395	(0.971)	109	104038			67.82-	127.82	93.11
* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	559066	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	271873			17.84-	77.84	48.63
165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	154614	1.00000	1.010	80.00-	120.00	100.00
22.056	22.056	(1.001)	114	51794			2.39-	62.39	33.50
22.056	22.056	(1.001)	77	88180			23.63-	83.63	57.03
167 Ethyl Benzene						CAS #:	100-41-4		
22.138	22.138	(1.005)	106	72461	1.00000	0.9547	80.00-	120.00	100.00
22.138	22.138	(1.005)	91	217076			289.30-	349.30	299.58
169 m,p-Xylene						CAS #:	108-38-3		
22.303	22.303	(1.012)	106	73018	1.00000	0.9512	80.00-	120.00	100.00
22.303	22.303	(1.012)	91	145551			180.42-	240.42	199.34
171 o-Xylene						CAS #:	95-47-6		
22.852	22.852	(1.037)	106	65349	1.00000	0.9105	80.00-	120.00	100.00
22.852	22.852	(1.037)	91	150313			183.19-	243.19	230.02
172 Styrene						CAS #:	100-42-5		
22.880	22.880	(1.039)	104	107733	1.00000	0.9135	80.00-	120.00	100.00
22.852	22.852	(1.037)	78	56815			21.26-	81.26	52.74
174 Bromoform						CAS #:	75-25-2		
23.173	23.173	(1.052)	173	119751	1.00000	0.9299	80.00-	120.00	100.00
23.173	23.173	(1.052)	171	65419			21.70-	81.70	54.63
175 Cumene						CAS #:	98-82-8		
23.276	23.277	(1.057)	105	192063	1.00000	0.9052	80.00-	120.00	100.00
23.276	23.277	(1.057)	120	62127			0.00-	59.53	32.35

RT ==	EXP RT =====	(REL RT) =====	MASS ===	RESPONSE =====	AMOUNTS		TARGET RANGE =====	RATIO =====
					CAL-AMT (PPBV) =====	ON-COL (PPBV) =====		
\$ 177 4-Bromofluorobenzene						CAS #:	460-00-4	
23.534	23.534	(1.068)	174	289791	5.00000	5.041	80.00- 120.00	100.00
23.534	23.534	(1.068)	95	330081			85.02- 145.02	113.90
23.534	23.534	(1.068)	176	274763			63.61- 123.61	94.81

181 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5	
23.689	23.689	(1.075)	83	119835	1.00000	0.9706	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	78983			33.93- 93.93	65.91

182 Propylbenzene						CAS #:	103-65-1	
23.767	23.767	(1.079)	91	185182	1.00000	0.8715	80.00- 120.00	100.00
23.767	23.767	(1.079)	120	53851			0.00- 55.14	29.08

188 4-Ethyltoluene						CAS #:	622-96-8	
23.895	23.896	(1.085)	105	139838	1.00000	0.8345	80.00- 120.00	100.00
23.895	23.896	(1.085)	120	49690			3.95- 63.95	35.53

190 1,3,5-Trimethylbenzene						CAS #:	108-67-8	
23.947	23.947	(1.087)	105	134063	1.00000	0.8587	80.00- 120.00	100.00
23.947	23.947	(1.087)	120	67796			19.31- 79.31	50.57

196 1,2,4-Trimethylbenzene						CAS #:	95-63-6	
24.386	24.386	(1.107)	105	145760	1.00000	0.9150	80.00- 120.00	100.00
24.386	24.386	(1.107)	120	68862			17.64- 77.64	47.24

208 1,3-Dichlorobenzene						CAS #:	541-73-1	
24.756	24.756	(1.124)	146	90077	1.00000	0.8265	80.00- 120.00	100.00
24.756	24.756	(1.124)	148	61449			34.17- 94.17	68.22
24.756	24.756	(1.124)	111	34094			10.53- 70.53	37.85

209 1,4-Dichlorobenzene						CAS #:	106-46-7	
24.868	24.868	(1.129)	146	78864	1.00000	0.8266	80.00- 120.00	100.00
24.868	24.868	(1.129)	148	49298			35.60- 95.60	62.51
24.868	24.845	(1.129)	111	28910			7.23- 67.23	36.66

212 alpha-Chlorotoluene						CAS #:	100-44-7	
25.002	25.002	(1.135)	91	117021	1.00000	0.8658	80.00- 120.00	100.00
25.002	25.002	(1.135)	126	21392			0.00- 51.02	18.28

214 1,2-Dichlorobenzene						CAS #:	95-50-1	
25.271	25.271	(1.147)	146	81613	1.00000	0.8471	80.00- 120.00	100.00
25.271	25.271	(1.147)	148	50086			33.23- 93.23	61.37
25.271	25.271	(1.147)	111	32183			10.17- 70.17	39.43

226 1,2,4-Trichlorobenzene						CAS #:	120-82-1	
27.065	27.065	(1.229)	180	85746	1.00000	0.9692	80.00- 120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====		=====
226 1,2,4-Trichlorobenzene (continued)									
27.065	27.065	(1.229)	182	86039			66.03-	126.03	100.34

227 Hexachlorobutadiene						CAS #:	87-68-3		
27.177	27.177	(1.234)	225	55742	1.00000	0.9180	80.00-	120.00	100.00
27.177	27.177	(1.234)	223	35485			33.08-	93.08	63.66

228 Naphthalene						CAS #:	91-20-3		
27.401	27.401	(1.244)	128	19256	0.10000	0.1161	80.00-	120.00	100.00
27.401	27.401	(1.244)	127	4515			0.00-	42.23	23.45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100809.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 8
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m	
Misc Info: 1.0ppbv (1.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	135442	-7.28
123 1,4-Difluorobenze	648096	388858	907334	659255	1.72
163 Chlorobenzene-d5	578351	347011	809691	559066	-3.33

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 17:24

Client ID: Level # 8

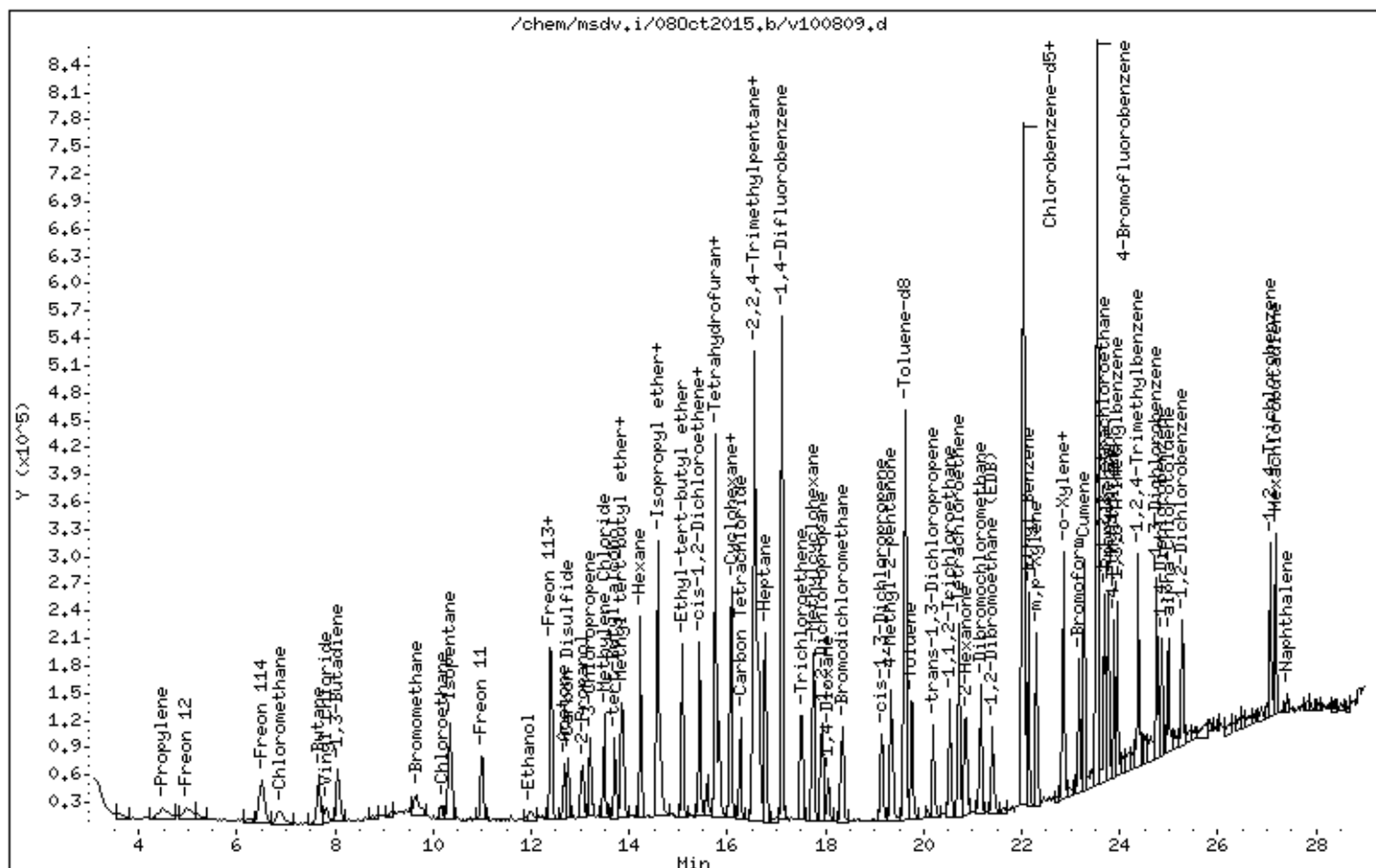
Instrument: msdv.i

Sample Info: 250mL# 2736-296

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100810.d
 Lab Smp Id: ICAL Client Smp ID: Level # 12
 Inj Date : 08-OCT-2015 18:10
 Operator : gh Inst ID: msdv.i
 Smp Info : 25mL# 2736-291
 Misc Info : 5.0ppbv (50ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
 Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 18:10 Cal File: v100810.d
 Als bottle: 1 Calibration Sample, Level: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	
		AMOUNTS		
RT	EXP RT (REL RT)	MASS	RESPONSE (PPBV)	RATIO
9 Propylene				
4.485	4.485 (0.285)	41	452984 5.00000	100.00
4.447	4.447 (0.282)	42	303991	67.11
4.447	4.447 (0.282)	39	284551	62.82
11 Freon 12				
5.013	5.013 (0.318)	85	665655 5.00000	100.00
5.013	5.013 (0.318)	87	208848	31.37
15 Freon 114				
6.524	6.524 (0.414)	135	551755 5.00000	100.00
6.524	6.524 (0.414)	137	180843	32.78
6.486	6.486 (0.412)	85	647870	117.42
17 Chloromethane				
6.864	6.864 (0.436)	50	545889 5.00000	100.00
6.864	6.864 (0.436)	52	167432	30.67

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	88996	5.00000	5.022	80.00-	120.00	100.00
7.658	7.658	(0.486)	43	904539			986.38-	1046.38	1016.38
25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.813	(0.496)	62	360433	5.00000	5.276	80.00-	120.00	100.00
7.813	7.813	(0.496)	64	94869			0.00-	56.32	26.32
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	437575	5.00000	5.138	80.00-	120.00	100.00
8.061	8.061	(0.512)	39	391664			59.51-	119.51	89.51
29 Bromomethane						CAS #:	74-83-9		
9.655	9.655	(0.613)	94	202261	5.00000	5.719	80.00-	120.00	100.00
9.655	9.655	(0.613)	96	190405			64.14-	124.14	94.14
30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	161124	5.00000	5.842	80.00-	120.00	100.00
10.161	10.161	(0.645)	49	74387			16.17-	76.17	46.17
10.161	10.161	(0.645)	66	37141			0.00-	53.05	23.05
31 Isopentane						CAS #:	78-78-4		
10.354	10.354	(0.658)	57	391611	5.00000	5.258	80.00-	120.00	100.00
10.330	10.330	(0.656)	43	691671			146.62-	206.62	176.62
10.330	10.330	(0.656)	42	599600			123.11-	183.11	153.11
35 Freon 11						CAS #:	75-69-4		
10.980	10.980	(0.697)	101	760886	5.00000	5.593	80.00-	120.00	100.00
10.980	10.980	(0.697)	103	475042			32.43-	92.43	62.43
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	218336	5.00000	5.196	80.00-	120.00	100.00
11.919	11.919	(0.757)	46	74921			3.52-	63.52	34.31
11.919	11.919	(0.757)	43	41214			0.00-	49.09	18.88
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	517345	5.00000	5.339	80.00-	120.00	100.00
12.413	12.413	(0.788)	153	323612			32.55-	92.55	62.55
12.413	12.413	(0.788)	101	581477			82.40-	142.40	112.40
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	175841	5.00000	5.262	80.00-	120.00	100.00
12.386	12.386	(0.787)	61	657958			344.18-	404.18	374.18
12.386	12.386	(0.787)	96	268115			122.48-	182.48	152.48
52 Acetone						CAS #:	67-64-1		
12.660	12.660	(0.804)	58	227477	5.00000	5.313	80.00-	120.00	100.00

RT ==	EXP RT =====	(REL RT) =====	MASS =====	RESPONSE =====	AMOUNTS		TARGET RANGE =====	RATIO =====
					CAL-AMT (PPBV) =====	ON-COL (PPBV) =====		
52 Acetone (continued)								
12.633	12.633	(0.802)	43	771047			308.96- 368.96	338.96
56 Carbon Disulfide								
12.743	12.743	(0.809)	76	692247	5.00000	CAS #: 75-15-0 5.213	80.00- 120.00	100.00
57 2-Propanol								
13.018	13.018	(0.827)	45	1036800	5.00000	CAS #: 67-63-0 5.356	80.00- 120.00	100.00
13.018	13.018	(0.827)	43	158587			0.00- 46.45	15.30
13.018	13.018	(0.827)	59	30993			0.00- 32.99	2.99
58 3-Chloropropene								
13.210	13.210	(0.839)	76	102733	5.00000	CAS #: 107-05-1 5.216	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	723619			674.37- 734.37	704.37
66 Methylene Chloride								
13.484	13.484	(0.856)	84	227364	5.00000	CAS #: 75-09-2 5.044	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	723993			288.43- 348.43	318.43
13.484	13.484	(0.856)	51	216614			65.27- 125.27	95.27
71 tert-Butyl alcohol								
13.677	13.677	(0.869)	59	1008077	5.00000	CAS #: 75-65-0 5.365	80.00- 120.00	100.00
13.677	13.677	(0.869)	41	234601			0.00- 53.16	23.27
13.677	13.677	(0.869)	57	110989			0.00- 40.96	11.01
72 Methyl tert-butyl ether								
13.841	13.841	(0.879)	73	743999	5.00000	CAS #: 1634-04-4 5.218	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	350861			17.16- 77.16	47.16
13.841	13.841	(0.879)	41	334318			14.94- 74.94	44.94
73 trans-1,2-Dichloroethene								
13.896	13.896	(0.883)	98	174242	5.00000	CAS #: 156-60-5 5.290	80.00- 120.00	100.00
13.869	13.869	(0.881)	61	609747			319.94- 379.94	349.94
13.869	13.869	(0.881)	96	285179			133.67- 193.67	163.67
78 Hexane								
14.226	14.226	(0.904)	57	862321	5.00000	CAS #: 110-54-3 4.811	80.00- 120.00	100.00
14.226	14.226	(0.904)	43	651693			45.57- 105.57	75.57
14.226	14.226	(0.904)	86	60481			0.00- 37.01	7.01
83 Isopropyl ether								
14.583	14.583	(0.926)	45	2210546	5.00000	CAS #: 108-20-3 5.450	80.00- 120.00	100.00
14.583	14.583	(0.926)	87	230089			0.00- 40.41	10.41
14.583	14.583	(0.926)	59	184107			0.00- 38.33	8.33
82 1,1-Dichloroethane								
14.583	14.583	(0.926)	63	691194	5.00000	CAS #: 75-34-3 5.381	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
82	1,1-Dichloroethane (continued)						
14.583	14.583 (0.926)	65	185250			0.00- 56.80	26.80
86	Vinyl Acetate				CAS #: 108-05-4		
14.637	14.637 (0.930)	86	57620	5.00000	4.909	80.00- 120.00	100.00
14.637	14.637 (0.930)	42	163774			254.23- 314.23	284.23
14.637	14.637 (0.930)	43	2488001			4287.95-4347.95	4317.95
88	Ethyl-tert-butyl ether				CAS #: 637-92-3		
15.071	15.071 (0.957)	59	1608975	5.00000	5.346	80.00- 120.00	100.00
15.071	15.071 (0.957)	87	364785			0.00- 52.67	22.67
15.071	15.071 (0.957)	41	322693			0.00- 50.06	20.06
91	cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.423	15.423 (0.980)	98	191181	5.00000	5.134	80.00- 120.00	100.00
15.423	15.423 (0.980)	61	598118			282.85- 342.85	312.85
15.423	15.423 (0.980)	96	303805			128.91- 188.91	158.91
92	2-Butanone				CAS #: 78-93-3		
15.403	15.403 (0.978)	72	124815	5.00000	5.372	80.00- 120.00	100.00
15.403	15.403 (0.978)	43	1189587			922.45- 982.45	953.08
15.403	15.403 (0.978)	57	81374			34.83- 94.83	65.20
99	Tetrahydrofuran				CAS #: 109-99-9		
15.743	15.743 (1.000)	42	742974	5.00000	5.459	80.00- 120.00	100.00
15.743	15.743 (1.000)	71	108157			0.00- 44.56	14.56
15.743	15.743 (1.000)	72	125477			0.00- 46.89	16.89
* 98	Bromochloromethane				CAS #: 74-97-5		
15.743	15.743 (1.000)	130	146071	5.00000		80.00- 120.00	100.00
15.743	15.743 (1.000)	128	110984			45.98- 105.98	75.98
15.743	15.743 (1.000)	49	521028			326.70- 386.70	356.70
100	Chloroform				CAS #: 67-66-3		
15.836	15.836 (1.006)	83	586115	5.00000	5.403	80.00- 120.00	100.00
15.836	15.836 (1.006)	85	379820			34.80- 94.80	64.80
102	Cyclohexane				CAS #: 110-82-7		
16.082	16.082 (1.022)	84	358040	5.00000	5.508	80.00- 120.00	100.00
16.082	16.082 (1.022)	56	967060			240.10- 300.10	270.10
16.082	16.082 (1.022)	41	504795			110.99- 170.99	140.99
103	1,1,1-Trichloroethane				CAS #: 71-55-6		
16.052	16.052 (1.020)	97	673928	5.00000	5.454	80.00- 120.00	100.00
16.052	16.052 (1.020)	99	428129			33.53- 93.53	63.53

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	673586	5.00000	5.594	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	717975			76.59-	136.59	106.59
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	912428	5.00000	5.280	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	2691618			265.00-	325.00	295.00
16.535	16.535	(1.050)	41	686620			45.25-	105.25	75.25
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	827612	5.00000	5.463	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	179206			0.00-	51.65	21.65
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	258210	5.00000	4.814	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	118416			15.86-	75.86	45.86
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	206349	5.00000	5.623	80.00-	120.00	100.00
16.617	16.617	(0.971)	73	825764			370.18-	430.18	400.18
16.617	16.617	(0.971)	55	459852			192.85-	252.85	222.85
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	562073	5.00000	5.516	80.00-	120.00	100.00
16.672	16.672	(0.974)	64	171755			0.56-	60.56	30.56
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	515652	5.00000	5.220	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	84961			0.00-	46.48	16.48
16.782	16.782	(0.981)	43	1114973			186.23-	246.23	216.23
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	648096	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	89457			0.00-	43.80	13.80
125 Trichloroethene						CAS #:	79-01-6		
17.496	17.496	(1.022)	130	420219	5.00000	5.175	80.00-	120.00	100.00
17.496	17.496	(1.022)	95	407822			66.89-	126.89	97.05
17.496	17.496	(1.022)	97	277745			35.91-	95.91	66.10
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	496454	5.00000	5.471	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	877881			146.83-	206.83	176.83
17.743	17.743	(1.037)	56	288039			28.02-	88.02	58.02
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	453347	5.00000	5.343	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
132 1,2-Dichloropropane (continued)									
17.935	17.935	(1.048)	62	323068			41.26-	101.26	71.26
17.935	17.935	(1.048)	41	318348			40.22-	100.22	70.22

136 1,4-Dioxane						CAS #:	123-91-1		
18.045	18.045	(1.055)	88	198479	5.00000	5.048	80.00-	120.00	100.00
18.045	18.045	(1.055)	58	297599			119.94-	179.94	149.94
18.045	18.045	(1.055)	57	89089			14.89-	74.89	44.89

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	632834	5.00000	5.303	80.00-	120.00	100.00
18.347	18.347	(0.833)	85	408567			34.56-	94.56	64.56

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.145	19.145	(1.119)	75	525650	5.00000	5.375	80.00-	120.00	100.00
19.145	19.145	(1.119)	77	167491			1.86-	61.86	31.86
19.145	19.145	(1.119)	39	466219			58.69-	118.69	88.69

145 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.346	19.346	(1.131)	43	1539218	5.00000	5.572	80.00-	120.00	100.00
19.324	19.324	(1.129)	58	507326			2.96-	62.96	32.96
19.346	19.346	(1.131)	85	111641			0.00-	37.25	7.25

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.615	(1.146)	98	589073	5.00000	4.972	80.00-	120.00	100.00
19.615	19.615	(1.146)	70	56424			0.00-	39.58	9.58
19.615	19.615	(1.146)	100	395265			37.10-	97.10	67.10

147 Toluene						CAS #:	108-88-3		
19.750	19.750	(1.154)	91	1044384	5.00000	5.379	80.00-	120.00	100.00
19.750	19.750	(1.154)	92	596968			27.14-	87.14	57.16

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.212	20.212	(0.918)	75	471401	5.00000	5.556	80.00-	120.00	100.00
20.212	20.212	(0.918)	77	137292			0.00-	59.12	29.12
20.212	20.212	(0.918)	39	391291			53.01-	113.01	83.01

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	393134	5.00000	5.560	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	241874			31.52-	91.52	61.52
20.534	20.534	(0.932)	83	311195			49.16-	109.16	79.16

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	565612	5.00000	5.471	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	410936			42.65-	102.65	72.65
20.714	20.714	(0.940)	131	411334			42.72-	102.72	72.72

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
158	20.821	20.821 (0.945)	58	639600	5.00000	5.446	80.00- 120.00	100.00
20.821	20.821	(0.945)	43	1381554			185.90- 245.90	216.00
20.821	20.821	(0.945)	100	63749			0.00- 39.88	9.97

160	21.180	21.180 (0.961)	129	718135	5.00000	5.656	80.00- 120.00	100.00
21.180	21.180	(0.961)	127	584249			51.36- 111.36	81.36

161	21.395	21.395 (0.971)	107	608604	5.00000	5.581	80.00- 120.00	100.00
21.395	21.395	(0.971)	109	595312			67.82- 127.82	97.82

* 163	22.029	22.029 (1.000)	117	578351	5.00000		80.00- 120.00	100.00
22.029	22.029	(1.000)	82	276687			17.84- 77.84	47.84

165	22.056	22.056 (1.001)	112	835260	5.00000	5.277	80.00- 120.00	100.00
22.056	22.056	(1.001)	114	270514			2.39- 62.39	32.39
22.056	22.056	(1.001)	77	447956			23.63- 83.63	53.63

167	22.139	22.139 (1.005)	106	394329	5.00000	5.022	80.00- 120.00	100.00
22.139	22.139	(1.005)	91	1259098			289.30- 349.30	319.30

169	22.303	22.303 (1.012)	106	405820	5.00000	5.110	80.00- 120.00	100.00
22.303	22.303	(1.012)	91	853941			180.42- 240.42	210.42

171	22.852	22.852 (1.037)	106	396593	5.00000	5.342	80.00- 120.00	100.00
22.852	22.852	(1.037)	91	845504			183.19- 243.19	213.19

172	22.880	22.880 (1.039)	104	595485	5.00000	4.881	80.00- 120.00	100.00
22.852	22.852	(1.037)	78	305259			21.26- 81.26	51.26

174	23.173	23.173 (1.052)	173	728471	5.00000	5.468	80.00- 120.00	100.00
23.173	23.173	(1.052)	171	376621			21.70- 81.70	51.70

175	23.277	23.277 (1.057)	105	1147968	5.00000	5.230	80.00- 120.00	100.00
23.277	23.277	(1.057)	120	338947			0.00- 59.53	29.53

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
\$ 177								
4-Bromofluorobenzene CAS #: 460-00-4								
23.535	23.535	(1.068)	174	292437	5.00000	4.918	80.00- 120.00	100.00
23.535	23.535	(1.068)	95	336355			85.02- 145.02	115.02
23.535	23.535	(1.068)	176	273744			63.61- 123.61	93.61

181 1,1,2,2-Tetrachloroethane CAS #: 79-34-5								
23.689	23.689	(1.075)	83	678264	5.00000	5.310	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	433590			33.93- 93.93	63.93

182 Propylbenzene CAS #: 103-65-1								
23.767	23.767	(1.079)	91	1099586	5.00000	5.002	80.00- 120.00	100.00
23.767	23.767	(1.079)	120	276471			0.00- 55.14	25.14

188 4-Ethyltoluene CAS #: 622-96-8								
23.896	23.896	(1.085)	105	769054	5.00000	4.436	80.00- 120.00	100.00
23.896	23.896	(1.085)	120	261118			3.95- 63.95	33.95

190 1,3,5-Trimethylbenzene CAS #: 108-67-8								
23.947	23.947	(1.087)	105	794368	5.00000	4.918	80.00- 120.00	100.00
23.947	23.947	(1.087)	120	391664			19.31- 79.31	49.31

196 1,2,4-Trimethylbenzene CAS #: 95-63-6								
24.386	24.386	(1.107)	105	778204	5.00000	4.722	80.00- 120.00	100.00
24.386	24.386	(1.107)	120	370721			17.64- 77.64	47.64

208 1,3-Dichlorobenzene CAS #: 541-73-1								
24.756	24.756	(1.124)	146	511560	5.00000	4.538	80.00- 120.00	100.00
24.756	24.756	(1.124)	148	328293			34.17- 94.17	64.17
24.756	24.756	(1.124)	111	207324			10.53- 70.53	40.53

209 1,4-Dichlorobenzene CAS #: 106-46-7								
24.868	24.868	(1.129)	146	447548	5.00000	4.534	80.00- 120.00	100.00
24.868	24.868	(1.129)	148	293597			35.60- 95.60	65.60
24.845	24.845	(1.128)	111	166623			7.23- 67.23	37.23

212 alpha-Chlorotoluene CAS #: 100-44-7								
25.002	25.002	(1.135)	91	667514	5.00000	4.774	80.00- 120.00	100.00
25.002	25.002	(1.135)	126	140318			0.00- 51.02	21.02

214 1,2-Dichlorobenzene CAS #: 95-50-1								
25.271	25.271	(1.147)	146	437106	5.00000	4.385	80.00- 120.00	100.00
25.271	25.271	(1.147)	148	276365			33.23- 93.23	63.23
25.271	25.271	(1.147)	111	175596			10.17- 70.17	40.17

226 1,2,4-Trichlorobenzene CAS #: 120-82-1								
27.065	27.065	(1.229)	180	337966	5.00000	3.693	80.00- 120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
226 1,2,4-Trichlorobenzene (continued)								
27.065	27.065	(1.229)	182	324533			66.03- 126.03	96.03

227 Hexachlorobutadiene						CAS #:	87-68-3	
27.177	27.177	(1.234)	225	240657	5.00000	3.831	80.00- 120.00	100.00
27.177	27.177	(1.234)	223	151818			33.08- 93.08	63.08

228 Naphthalene						CAS #:	91-20-3	
27.401	27.401	(1.244)	128	68595	0.50000	0.3998	80.00- 120.00	100.00
27.401	27.401	(1.244)	127	8391			0.00- 42.23	12.23

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100810.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 12
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/08Oct2015.b/v15l1008a.m	
Misc Info: 5.0ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	146071	0.00
123 1,4-Difluorobenze	648096	388858	907334	648096	0.00
163 Chlorobenzene-d5	578351	347011	809691	578351	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 18:10

Client ID: Level # 12

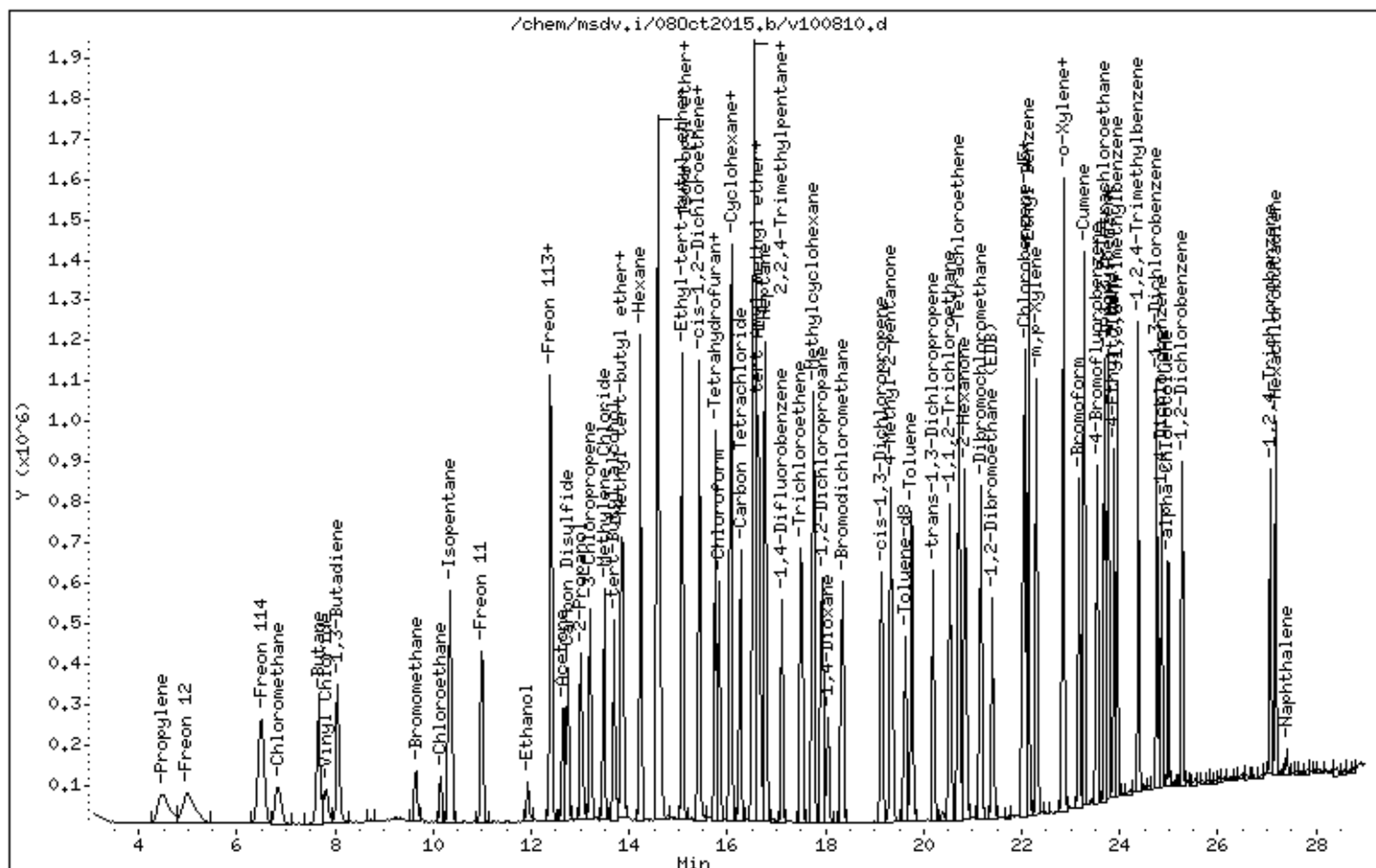
Instrument: msdv.i

Sample Info: 25mL# 2736-291

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100811.d
Lab Smp Id: ICAL Client Smp ID: Level # 13
Inj Date : 08-OCT-2015 18:54
Operator : gh Inst ID: msdv.i
Smp Info : 50mL# 2736-291
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 18:54 Cal File: v100811.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	181215	10.0000	10.676	80.00-	120.00	100.00
7.658	7.658	(0.486)	43	1698711			986.38-	1046.38	937.40
25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.813	(0.496)	62	693469	10.0000	10.596	80.00-	120.00	100.00
7.813	7.813	(0.496)	64	182736			0.00-	56.32	26.35
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	815644	10.0000	9.999	80.00-	120.00	100.00
8.061	8.061	(0.512)	39	736813			59.51-	119.51	90.34
29 Bromomethane						CAS #:	74-83-9		
9.655	9.655	(0.613)	94	391598	10.0000	11.559	80.00-	120.00	100.00
9.655	9.655	(0.613)	96	372723			64.14-	124.14	95.18
30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	275914	10.0000	10.443	80.00-	120.00	100.00
10.161	10.161	(0.645)	49	136444			16.17-	76.17	49.45
10.161	10.161	(0.645)	66	77391			0.00-	53.05	28.05
31 Isopentane						CAS #:	78-78-4		
10.330	10.330	(0.656)	57	739522	10.0000	10.365	80.00-	120.00	100.00
10.330	10.330	(0.656)	43	1272209			146.62-	206.62	172.03
10.330	10.330	(0.656)	42	1122630			123.11-	183.11	151.80
35 Freon 11						CAS #:	75-69-4		
10.980	10.980	(0.697)	101	1358824	10.0000	10.428	80.00-	120.00	100.00
11.004	11.004	(0.699)	103	872443			32.43-	92.43	64.21
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	423215	10.0000	10.515	80.00-	120.00	100.00
11.919	11.919	(0.757)	46	163722			3.52-	63.52	38.69
11.919	11.919	(0.757)	43	82771			0.00-	49.09	19.56
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	954579	10.0000	10.284	80.00-	120.00	100.00
12.413	12.413	(0.788)	153	607053			32.55-	92.55	63.59
12.413	12.413	(0.788)	101	1069060			82.40-	142.40	111.99
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	314199	10.0000	9.815	80.00-	120.00	100.00
12.386	12.386	(0.787)	61	1237420			344.18-	404.18	393.83
12.386	12.386	(0.787)	96	504726			122.48-	182.48	160.64
52 Acetone						CAS #:	67-64-1		
12.633	12.633	(0.802)	58	409609	10.0000	9.988	80.00-	120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
52 Acetone (continued)								
12.633	12.633	(0.802)	43	1459359			308.96- 368.96	356.28
56 Carbon Disulfide								
12.743	12.743	(0.809)	76	1328537	10.0000	CAS #: 75-15-0 10.444	80.00- 120.00	100.00
57 2-Propanol								
13.018	13.018	(0.827)	45	1926266	10.0000	CAS #: 67-63-0 10.387	80.00- 120.00	100.00
13.018	13.018	(0.827)	43	299469			0.00- 46.45	15.55
13.018	13.018	(0.827)	59	60168			0.00- 32.99	3.12
58 3-Chloropropene								
13.210	13.210	(0.839)	76	208419	10.0000	CAS #: 107-05-1 11.048	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	1349302			674.37- 734.37	647.40
66 Methylene Chloride								
13.484	13.484	(0.856)	84	416450	10.0000	CAS #: 75-09-2 9.645	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	1322627			288.43- 348.43	317.60
13.484	13.484	(0.856)	51	395521			65.27- 125.27	94.97
71 tert-Butyl alcohol								
13.677	13.677	(0.869)	59	1892257	10.0000	CAS #: 75-65-0 10.513	80.00- 120.00	100.00
13.677	13.677	(0.869)	41	416369			0.00- 53.16	22.00
13.677	13.677	(0.869)	57	211125			0.00- 40.96	11.16
72 Methyl tert-butyl ether								
13.841	13.841	(0.879)	73	1399796	10.0000	CAS #: 1634-04-4 10.249	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	621907			17.16- 77.16	44.43
13.841	13.841	(0.879)	41	605180			14.94- 74.94	43.23
73 trans-1,2-Dichloroethene								
13.896	13.896	(0.883)	98	323121	10.0000	CAS #: 156-60-5 10.241	80.00- 120.00	100.00
13.869	13.869	(0.881)	61	1132234			319.94- 379.94	350.41
13.896	13.896	(0.883)	96	514450			133.67- 193.67	159.21
78 Hexane								
14.226	14.226	(0.904)	57	1596079	10.0000	CAS #: 110-54-3 9.296	80.00- 120.00	100.00
14.226	14.226	(0.904)	43	1192105			45.57- 105.57	74.69
14.226	14.226	(0.904)	86	114046			0.00- 37.01	7.15
83 Isopropyl ether								
14.582	14.582	(0.926)	45	4049145	10.0000	CAS #: 108-20-3 10.422	80.00- 120.00	100.00
14.582	14.582	(0.926)	87	434907			0.00- 40.41	10.74
14.582	14.582	(0.926)	59	342053			0.00- 38.33	8.45
82 1,1-Dichloroethane								
14.582	14.582	(0.926)	63	1237130	10.0000	CAS #: 75-34-3 10.055	80.00- 120.00	100.00

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
82 1,1-Dichloroethane (continued)									
14.582	14.582	(0.926)	65	330675			0.00-	56.80	26.73

86 Vinyl Acetate						CAS #:	108-05-4		
14.637	14.637	(0.930)	86	119718	10.0000	10.648	80.00-	120.00	100.00
14.610	14.610	(0.928)	42	318517			254.23-	314.23	266.06
14.610	14.610	(0.928)	43	4689000			4287.95-	4347.95	3916.70

88 Ethyl-tert-butyl ether						CAS #:	637-92-3		
15.071	15.071	(0.957)	59	3018285	10.0000	10.470	80.00-	120.00	100.00
15.071	15.071	(0.957)	87	680579			0.00-	52.67	22.55
15.071	15.071	(0.957)	41	587930			0.00-	50.06	19.48

91 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.423	15.423	(0.980)	98	360599	10.0000	10.110	80.00-	120.00	100.00
15.423	15.423	(0.980)	61	1094899			282.85-	342.85	303.63
15.423	15.423	(0.980)	96	556912			128.91-	188.91	154.44

92 2-Butanone						CAS #:	78-93-3		
15.403	15.403	(0.978)	72	237724	10.0000	10.681	80.00-	120.00	100.00
15.403	15.403	(0.978)	43	2299015			922.45-	982.45	967.09
15.403	15.403	(0.978)	57	157961			34.83-	94.83	66.45

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	1402202	10.0000	10.756	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	226463			0.00-	44.56	16.15
15.743	15.743	(1.000)	72	241111			0.00-	46.89	17.20

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	139920	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	110227			45.98-	105.98	78.78
15.743	15.743	(1.000)	49	478408			326.70-	386.70	341.92

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	1071571	10.0000	10.313	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	702165			34.80-	94.80	65.53

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	649316	10.0000	10.428	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	1756976			240.10-	300.10	270.59
16.082	16.082	(1.022)	41	942300			110.99-	170.99	145.12

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.052	16.052	(1.020)	97	1229007	10.0000	10.383	80.00-	120.00	100.00
16.052	16.052	(1.020)	99	787838			33.53-	93.53	64.10

RT	EXP RT	RT (REL	RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
						CAL-AMT (PPBV)	ON-COL (PPBV)		
==	=====	=====		=====	=====	=====		=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	1272579	10.0000	11.033	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	1336492			76.59-	136.59	105.02
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	1692980	10.0000	10.228	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	5109049			265.00-	325.00	301.78
16.535	16.535	(1.050)	41	1287784			45.25-	105.25	76.07
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	1525896	10.0000	10.039	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	346886			0.00-	51.65	22.73
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	265894	5.00000	5.175	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	142786			15.86-	75.86	53.70
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	384409	10.0000	10.441	80.00-	120.00	100.00
16.617	16.617	(0.971)	73	1588010			370.18-	430.18	413.10
16.617	16.617	(0.971)	55	857879			192.85-	252.85	223.17
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	1050501	10.0000	10.276	80.00-	120.00	100.00
16.672	16.672	(0.974)	64	302607			0.56-	60.56	28.81
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	988030	10.0000	9.970	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	167300			0.00-	46.48	16.93
16.782	16.782	(0.981)	43	2173980			186.23-	246.23	220.03
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	650217	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	91560			0.00-	43.80	14.08
125 Trichloroethene						CAS #:	79-01-6		
17.523	17.523	(1.024)	130	771184	10.0000	9.466	80.00-	120.00	100.00
17.496	17.496	(1.022)	95	773315			66.89-	126.89	100.28
17.496	17.496	(1.022)	97	497660			35.91-	95.91	64.53
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	932600	10.0000	10.245	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	1663694			146.83-	206.83	178.39
17.743	17.743	(1.037)	56	525911			28.02-	88.02	56.39
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	855173	10.0000	10.046	80.00-	120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
132 1,2-Dichloropropane (continued)								
17.935	17.935	(1.048)	62	637448			41.26- 101.26	74.54
17.935	17.935	(1.048)	41	606846			40.22- 100.22	70.96
136 1,4-Dioxane								
18.045	18.045	(1.055)	88	380167	10.0000	CAS #: 123-91-1 9.638	80.00- 120.00	100.00
18.045	18.045	(1.055)	58	517703			119.94- 179.94	136.18
18.045	18.045	(1.055)	57	177458			14.89- 74.89	46.68
138 Bromodichloromethane								
18.347	18.347	(0.833)	83	1200194	10.0000	CAS #: 75-27-4 9.882	80.00- 120.00	100.00
18.347	18.347	(0.833)	85	786697			34.56- 94.56	65.55
144 cis-1,3-Dichloropropene								
19.145	19.145	(1.119)	75	983223	10.0000	CAS #: 10061-01-5 10.022	80.00- 120.00	100.00
19.145	19.145	(1.119)	77	316698			1.86- 61.86	32.21
19.145	19.145	(1.119)	39	884732			58.69- 118.69	89.98
145 4-Methyl-2-pentanone								
19.346	19.346	(1.131)	43	2919933	10.0000	CAS #: 108-10-1 10.535	80.00- 120.00	100.00
19.346	19.346	(1.131)	58	984830			2.96- 62.96	33.73
19.346	19.346	(1.131)	85	214266			0.00- 37.25	7.34
\$ 146 Toluene-d8								
19.638	19.638	(1.148)	98	596313	5.00000	CAS #: 2037-26-5 5.016	80.00- 120.00	100.00
19.638	19.638	(1.148)	70	66047			0.00- 39.58	11.08
19.638	19.638	(1.148)	100	390679			37.10- 97.10	65.52
147 Toluene								
19.750	19.750	(1.154)	91	1943202	10.0000	CAS #: 108-88-3 9.975	80.00- 120.00	100.00
19.772	19.772	(1.155)	92	1136017			27.14- 87.14	58.46
150 trans-1,3-Dichloropropene								
20.212	20.212	(0.918)	75	874098	10.0000	CAS #: 10061-02-6 10.122	80.00- 120.00	100.00
20.212	20.212	(0.918)	77	282508			0.00- 59.12	32.32
20.212	20.212	(0.918)	39	734997			53.01- 113.01	84.09
155 1,1,2-Trichloroethane								
20.534	20.534	(0.932)	97	716550	10.0000	CAS #: 79-00-5 9.957	80.00- 120.00	100.00
20.534	20.534	(0.932)	99	448610			31.52- 91.52	62.61
20.534	20.534	(0.932)	83	581329			49.16- 109.16	81.13
156 Tetrachloroethene								
20.714	20.714	(0.940)	166	1060168	10.0000	CAS #: 127-18-4 10.075	80.00- 120.00	100.00
20.714	20.714	(0.940)	129	768996			42.65- 102.65	72.54
20.714	20.714	(0.940)	131	794713			42.72- 102.72	74.96

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
158 2-Hexanone						CAS #:	591-78-6		
20.821	20.821	(0.945)	58	1245124	10.0000	10.417	80.00-	120.00	100.00
20.821	20.821	(0.945)	43	2684890			185.90-	245.90	215.63
20.821	20.821	(0.945)	100	126216			0.00-	39.88	10.14

160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	1381469	10.0000	10.691	80.00-	120.00	100.00
21.180	21.180	(0.961)	127	1084686			51.36-	111.36	78.52

161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	1168607	10.0000	10.528	80.00-	120.00	100.00
21.395	21.395	(0.971)	109	1077424			67.82-	127.82	92.20

* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	588645	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	274965			17.84-	77.84	46.71

165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	1658012	10.0000	10.291	80.00-	120.00	100.00
22.056	22.056	(1.001)	114	526996			2.39-	62.39	31.78
22.056	22.056	(1.001)	77	860483			23.63-	83.63	51.90

167 Ethyl Benzene						CAS #:	100-41-4		
22.139	22.139	(1.005)	106	780776	10.0000	9.770	80.00-	120.00	100.00
22.139	22.139	(1.005)	91	2468735			289.30-	349.30	316.19

169 m,p-Xylene						CAS #:	108-38-3		
22.303	22.303	(1.012)	106	810872	10.0000	10.033	80.00-	120.00	100.00
22.303	22.303	(1.012)	91	1680283			180.42-	240.42	207.22

171 o-Xylene						CAS #:	95-47-6		
22.852	22.852	(1.037)	106	774404	10.0000	10.248	80.00-	120.00	100.00
22.852	22.852	(1.037)	91	1640810			183.19-	243.19	211.88

172 Styrene						CAS #:	100-42-5		
22.880	22.880	(1.039)	104	1223276	10.0000	9.851	80.00-	120.00	100.00
22.852	22.852	(1.037)	78	611807			21.26-	81.26	50.01

174 Bromoform						CAS #:	75-25-2		
23.173	23.173	(1.052)	173	1406379	10.0000	10.373	80.00-	120.00	100.00
23.173	23.173	(1.052)	171	730156			21.70-	81.70	51.92

175 Cumene						CAS #:	98-82-8		
23.277	23.277	(1.057)	105	2378467	10.0000	10.647	80.00-	120.00	100.00
23.277	23.277	(1.057)	120	680567			0.00-	59.53	28.61

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
\$ 177								
4-Bromofluorobenzene CAS #: 460-00-4								
23.535	23.535	(1.068)	174	312729	5.00000	5.167	80.00- 120.00	100.00
23.535	23.535	(1.068)	95	362452			85.02- 145.02	115.90
23.535	23.535	(1.068)	176	304328			63.61- 123.61	97.31

181 1,1,2,2-Tetrachloroethane CAS #: 79-34-5								
23.689	23.689	(1.075)	83	1303874	10.0000	10.030	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	820559			33.93- 93.93	62.93

182 Propylbenzene CAS #: 103-65-1								
23.767	23.767	(1.079)	91	2235564	10.0000	9.992	80.00- 120.00	100.00
23.767	23.767	(1.079)	120	530796			0.00- 55.14	23.74

188 4-Ethyltoluene CAS #: 622-96-8								
23.896	23.896	(1.085)	105	1613366	10.0000	9.144	80.00- 120.00	100.00
23.896	23.896	(1.085)	120	538769			3.95- 63.95	33.39

190 1,3,5-Trimethylbenzene CAS #: 108-67-8								
23.947	23.947	(1.087)	105	1495994	10.0000	9.100	80.00- 120.00	100.00
23.947	23.947	(1.087)	120	773997			19.31- 79.31	51.74

196 1,2,4-Trimethylbenzene CAS #: 95-63-6								
24.386	24.386	(1.107)	105	1429251	10.0000	8.521	80.00- 120.00	100.00
24.386	24.386	(1.107)	120	686931			17.64- 77.64	48.06

208 1,3-Dichlorobenzene CAS #: 541-73-1								
24.756	24.756	(1.124)	146	1094302	10.0000	9.537	80.00- 120.00	100.00
24.756	24.756	(1.124)	148	696404			34.17- 94.17	63.64
24.756	24.756	(1.124)	111	421389			10.53- 70.53	38.51

209 1,4-Dichlorobenzene CAS #: 106-46-7								
24.868	24.868	(1.129)	146	970265	10.0000	9.658	80.00- 120.00	100.00
24.868	24.868	(1.129)	148	599317			35.60- 95.60	61.77
24.845	24.845	(1.128)	111	356801			7.23- 67.23	36.77

212 alpha-Chlorotoluene CAS #: 100-44-7								
25.002	25.002	(1.135)	91	1391087	10.0000	9.775	80.00- 120.00	100.00
25.002	25.002	(1.135)	126	303806			0.00- 51.02	21.84

214 1,2-Dichlorobenzene CAS #: 95-50-1								
25.271	25.271	(1.147)	146	959545	10.0000	9.459	80.00- 120.00	100.00
25.271	25.271	(1.147)	148	569704			33.23- 93.23	59.37
25.271	25.271	(1.147)	111	374846			10.17- 70.17	39.06

226 1,2,4-Trichlorobenzene CAS #: 120-82-1								
27.065	27.065	(1.229)	180	776995	10.0000	8.341	80.00- 120.00	100.00

RT	EXP RT	RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
==	=====	=====	====	=====	=====	=====	=====	=====
226 1,2,4-Trichlorobenzene (continued)								
27.065	27.065	(1.229)	182	727837			66.03- 126.03	93.67

227 Hexachlorobutadiene						CAS #:	87-68-3	
27.177	27.177	(1.234)	225	569846	10.0000	8.913	80.00- 120.00	100.00
27.177	27.177	(1.234)	223	355354			33.08- 93.08	62.36

228 Naphthalene						CAS #:	91-20-3	
27.401	27.401	(1.244)	128	175923	1.00000	1.007	80.00- 120.00	100.00
27.401	27.401	(1.244)	127	23712			0.00- 42.23	13.48

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100811.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 13
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/08Oct2015.b/v15l1008a.m	
Misc Info: 10ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	139920	-4.21
123 1,4-Difluorobenze	648096	388858	907334	650217	0.33
163 Chlorobenzene-d5	578351	347011	809691	588645	1.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100812.d
Lab Smp Id: ICAL Client Smp ID: Level # 15
Inj Date : 08-OCT-2015 19:44
Operator : gh Inst ID: msdv.i
Smp Info : 100mL# 2736-291
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 19:44 Cal File: v100812.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
			AMOUNTS						
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
9 Propylene						CAS #:	115-07-1		
4.485	4.485	(0.285)	41	1704716	20.0000	19.524	80.00-	120.00	100.00
4.522	4.522	(0.287)	42	1164651			37.47-	97.47	68.32
4.522	4.522	(0.287)	39	1083421			32.82-	92.82	63.55
11 Freon 12						CAS #:	75-71-8		
4.976	4.976	(0.316)	85	2479725	20.0000	19.874	80.00-	120.00	100.00
5.013	5.013	(0.318)	87	808584			1.30-	61.30	32.61
15 Freon 114						CAS #:	76-14-2		
6.524	6.524	(0.414)	135	2080280	20.0000	20.237	80.00-	120.00	100.00
6.524	6.524	(0.414)	137	655773			2.78-	62.78	31.52
6.524	6.524	(0.414)	85	2411204			87.42-	147.42	115.91
17 Chloromethane						CAS #:	74-87-3		
6.864	6.864	(0.436)	50	1992681	20.0000	19.444	80.00-	120.00	100.00
6.864	6.864	(0.436)	52	639516			0.67-	60.67	32.09

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	365606	20.0000	20.674	80.00-	120.00	100.00
7.658	7.658	(0.486)	43	3360866			986.38-	1046.38	919.26
25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.813	(0.496)	62	1356873	20.0000	19.900	80.00-	120.00	100.00
7.813	7.813	(0.496)	64	363295			0.00-	56.32	26.77
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	1657350	20.0000	19.501	80.00-	120.00	100.00
8.061	8.061	(0.512)	39	1485154			59.51-	119.51	89.61
29 Bromomethane						CAS #:	74-83-9		
9.655	9.655	(0.613)	94	774031	20.0000	21.929	80.00-	120.00	100.00
9.655	9.655	(0.613)	96	723246			64.14-	124.14	93.44
30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	555676	20.0000	20.186	80.00-	120.00	100.00
10.161	10.161	(0.645)	49	270069			16.17-	76.17	48.60
10.161	10.161	(0.645)	66	158626			0.00-	53.05	28.55
31 Isopentane						CAS #:	78-78-4		
10.330	10.330	(0.656)	57	1496857	20.0000	20.136	80.00-	120.00	100.00
10.330	10.330	(0.656)	43	2569817			146.62-	206.62	171.68
10.330	10.330	(0.656)	42	2230328			123.11-	183.11	149.00
35 Freon 11						CAS #:	75-69-4		
11.004	11.004	(0.699)	101	2719752	20.0000	20.032	80.00-	120.00	100.00
11.004	11.004	(0.699)	103	1755508			32.43-	92.43	64.55
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	862280	20.0000	20.563	80.00-	120.00	100.00
11.919	11.919	(0.757)	46	330473			3.52-	63.52	38.33
11.919	11.919	(0.757)	43	154657			0.00-	49.09	17.94
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	1912443	20.0000	19.775	80.00-	120.00	100.00
12.413	12.413	(0.788)	153	1197547			32.55-	92.55	62.62
12.413	12.413	(0.788)	101	2130738			82.40-	142.40	111.41
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	624096	20.0000	18.711	80.00-	120.00	100.00
12.386	12.386	(0.787)	61	2459471			344.18-	404.18	394.09
12.386	12.386	(0.787)	96	1004007			122.48-	182.48	160.87
52 Acetone						CAS #:	67-64-1		
12.633	12.633	(0.802)	58	849830	20.0000	19.888	80.00-	120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====
52 Acetone (continued)								
12.633	12.633	(0.802)	43	2935399			308.96- 368.96	345.41
56 Carbon Disulfide						CAS #:	75-15-0	
12.743	12.743	(0.809)	76	2706263	20.0000	20.419	80.00- 120.00	100.00
57 2-Propanol						CAS #:	67-63-0	
13.017	13.017	(0.827)	45	4003961	20.0000	20.723	80.00- 120.00	100.00
13.017	13.017	(0.827)	43	614049			0.00- 46.45	15.34
13.017	13.017	(0.827)	59	118916			0.00- 32.99	2.97
58 3-Chloropropene						CAS #:	107-05-1	
13.210	13.210	(0.839)	76	396941	20.0000	20.195	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	2743388			674.37- 734.37	691.13
66 Methylene Chloride						CAS #:	75-09-2	
13.484	13.484	(0.856)	84	823889	20.0000	18.313	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	2664205			288.43- 348.43	323.37
13.484	13.484	(0.856)	51	802671			65.27- 125.27	97.42
71 tert-Butyl alcohol						CAS #:	75-65-0	
13.676	13.676	(0.869)	59	3816121	20.0000	20.349	80.00- 120.00	100.00
13.676	13.676	(0.869)	41	834861			0.00- 53.16	21.88
13.676	13.676	(0.869)	57	405963			0.00- 40.96	10.64
72 Methyl tert-butyl ether						CAS #:	1634-04-4	
13.841	13.841	(0.879)	73	2778651	20.0000	19.526	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	1254274			17.16- 77.16	45.14
13.841	13.841	(0.879)	41	1189379			14.94- 74.94	42.80
73 trans-1,2-Dichloroethene						CAS #:	156-60-5	
13.896	13.896	(0.883)	98	641181	20.0000	19.504	80.00- 120.00	100.00
13.869	13.869	(0.881)	61	2225797			319.94- 379.94	347.14
13.896	13.896	(0.883)	96	1036567			133.67- 193.67	161.67
78 Hexane						CAS #:	110-54-3	
14.225	14.225	(0.904)	57	3195644	20.0000	17.864	80.00- 120.00	100.00
14.225	14.225	(0.904)	43	2352190			45.57- 105.57	73.61
14.225	14.225	(0.904)	86	219638			0.00- 37.01	6.87
83 Isopropyl ether						CAS #:	108-20-3	
14.582	14.582	(0.926)	45	8095353	20.0000	19.999	80.00- 120.00	100.00
14.582	14.582	(0.926)	87	883837			0.00- 40.41	10.92
14.582	14.582	(0.926)	59	665484			0.00- 38.33	8.22
82 1,1-Dichloroethane						CAS #:	75-34-3	
14.582	14.582	(0.926)	63	2564267	20.0000	20.004	80.00- 120.00	100.00

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
82 1,1-Dichloroethane (continued)									
14.582	14.582	(0.926)	65	682267			0.00-	56.80	26.61

86 Vinyl Acetate						CAS #:	108-05-4		
14.637	14.637	(0.930)	86	245595	20.0000	20.966	80.00-	120.00	100.00
14.610	14.610	(0.928)	42	640154			254.23-	314.23	260.65
14.610	14.610	(0.928)	43	9528468			4287.95-	4347.95	3879.75

88 Ethyl-tert-butyl ether						CAS #:	637-92-3		
15.071	15.071	(0.957)	59	6071118	20.0000	20.214	80.00-	120.00	100.00
15.071	15.071	(0.957)	87	1347277			0.00-	52.67	22.19
15.071	15.071	(0.957)	41	1172728			0.00-	50.06	19.32

91 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.423	15.423	(0.980)	98	707666	20.0000	19.044	80.00-	120.00	100.00
15.423	15.423	(0.980)	61	2189297			282.85-	342.85	309.37
15.423	15.423	(0.980)	96	1117587			128.91-	188.91	157.93

92 2-Butanone						CAS #:	78-93-3		
15.423	15.423	(0.980)	72	498443	20.0000	21.495	80.00-	120.00	100.00
15.403	15.403	(0.978)	43	4613857			922.45-	982.45	925.65
15.403	15.403	(0.978)	57	318060			34.83-	94.83	63.81

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	2783015	20.0000	20.489	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	439790			0.00-	44.56	15.80
15.743	15.743	(1.000)	72	472950			0.00-	46.89	16.99

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	145782	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	114437			45.98-	105.98	78.50
15.743	15.743	(1.000)	49	533099			326.70-	386.70	365.68

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	2197299	20.0000	20.296	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	1407975			34.80-	94.80	64.08

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	1320946	20.0000	20.362	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	3541639			240.10-	300.10	268.11
16.082	16.082	(1.022)	41	1881492			110.99-	170.99	142.44

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.052	16.052	(1.020)	97	2487947	20.0000	20.173	80.00-	120.00	100.00
16.052	16.052	(1.020)	99	1598493			33.53-	93.53	64.25

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	2546818	20.0000	21.193	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	2657638			76.59-	136.59	104.35
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	3360124	20.0000	19.484	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	10106194			265.00-	325.00	300.77
16.535	16.535	(1.050)	41	2542449			45.25-	105.25	75.67
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	3050464	20.0000	19.337	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	678824			0.00-	51.65	22.25
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	279069	5.00000	5.213	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	165308			15.86-	75.86	59.24
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	770919	20.0000	20.174	80.00-	120.00	100.00
16.617	16.617	(0.971)	73	3194727			370.18-	430.18	414.41
16.617	16.617	(0.971)	55	1698641			192.85-	252.85	220.34
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	2146358	20.0000	20.230	80.00-	120.00	100.00
16.672	16.672	(0.974)	64	634994			0.56-	60.56	29.58
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	1981543	20.0000	19.266	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	321433			0.00-	46.48	16.22
16.782	16.782	(0.981)	43	4342581			186.23-	246.23	219.15
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	674867	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	94765			0.00-	43.80	14.04
125 Trichloroethene						CAS #:	79-01-6		
17.523	17.523	(1.024)	130	1572437	20.0000	18.596	80.00-	120.00	100.00
17.523	17.523	(1.024)	95	1515254			66.89-	126.89	96.36
17.523	17.523	(1.024)	97	991623			35.91-	95.91	63.06
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	1833280	20.0000	19.403	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	3306489			146.83-	206.83	180.36
17.743	17.743	(1.037)	56	1031799			28.02-	88.02	56.28
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	1717581	20.0000	19.441	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
132 1,2-Dichloropropane (continued)									
17.935	17.935	(1.048)	62	1288293			41.26-	101.26	75.01
17.935	17.935	(1.048)	41	1200716			40.22-	100.22	69.91

136 1,4-Dioxane						CAS #:	123-91-1		
18.045	18.045	(1.055)	88	773140	20.0000	18.885	80.00-	120.00	100.00
18.045	18.045	(1.055)	58	1069733			119.94-	179.94	138.36
18.045	18.045	(1.055)	57	331714			14.89-	74.89	42.90

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	2425436	20.0000	19.245	80.00-	120.00	100.00
18.347	18.347	(0.833)	85	1549651			34.56-	94.56	63.89

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.145	19.145	(1.119)	75	1998886	20.0000	19.630	80.00-	120.00	100.00
19.145	19.145	(1.119)	77	630028			1.86-	61.86	31.52
19.145	19.145	(1.119)	39	1752473			58.69-	118.69	87.67

145 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.346	19.346	(1.131)	43	5896701	20.0000	20.498	80.00-	120.00	100.00
19.346	19.346	(1.131)	58	1965207			2.96-	62.96	33.33
19.346	19.346	(1.131)	85	453026			0.00-	37.25	7.68

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.638	19.638	(1.148)	98	620575	5.00000	5.030	80.00-	120.00	100.00
19.638	19.638	(1.148)	70	67402			0.00-	39.58	10.86
19.638	19.638	(1.148)	100	402044			37.10-	97.10	64.79

147 Toluene						CAS #:	108-88-3		
19.772	19.772	(1.155)	91	3892788	20.0000	19.253	80.00-	120.00	100.00
19.772	19.772	(1.155)	92	2291708			27.14-	87.14	58.87

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.211	20.211	(0.918)	75	1820433	20.0000	20.314	80.00-	120.00	100.00
20.211	20.211	(0.918)	77	565710			0.00-	59.12	31.08
20.211	20.211	(0.918)	39	1461077			53.01-	113.01	80.26

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	1452190	20.0000	19.446	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	885986			31.52-	91.52	61.01
20.534	20.534	(0.932)	83	1134307			49.16-	109.16	78.11

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	2124395	20.0000	19.455	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	1511845			42.65-	102.65	71.17
20.714	20.714	(0.940)	131	1561028			42.72-	102.72	73.48

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
158	20.821	20.821 (0.945)	58	2545471	20.0000	20.523	80.00- 120.00	100.00
20.821	20.821	(0.945)	43	5548232			185.90- 245.90	217.96
20.821	20.821	(0.945)	100	258997			0.00- 39.88	10.17

160	21.180	21.180 (0.961)	129	2798688	20.0000	20.871	80.00- 120.00	100.00
21.180	21.180	(0.961)	127	2196605			51.36- 111.36	78.49

161	21.395	21.395 (0.971)	107	2293320	20.0000	19.910	80.00- 120.00	100.00
21.395	21.395	(0.971)	109	2108434			67.82- 127.82	91.94

* 163	22.029	22.029 (1.000)	117	610846	5.00000		80.00- 120.00	100.00
22.029	22.029	(1.000)	82	291518			17.84- 77.84	47.72

165	22.056	22.056 (1.001)	112	3281533	20.0000	19.628	80.00- 120.00	100.00
22.056	22.056	(1.001)	114	1038628			2.39- 62.39	31.65
22.056	22.056	(1.001)	77	1752278			23.63- 83.63	53.40

167	22.138	22.138 (1.005)	106	1542179	20.0000	18.596	80.00- 120.00	100.00
22.138	22.138	(1.005)	91	4941287			289.30- 349.30	320.41

169	22.303	22.303 (1.012)	106	1625588	20.0000	19.382	80.00- 120.00	100.00
22.303	22.303	(1.012)	91	3453792			180.42- 240.42	212.46

171	22.852	22.852 (1.037)	106	1503661	20.0000	19.175	80.00- 120.00	100.00
22.852	22.852	(1.037)	91	3353902			183.19- 243.19	223.05

172	22.880	22.880 (1.039)	104	2499962	20.0000	19.401	80.00- 120.00	100.00
22.852	22.852	(1.037)	78	1213075			21.26- 81.26	48.52

174	23.173	23.173 (1.052)	173	2830267	20.0000	20.116	80.00- 120.00	100.00
23.173	23.173	(1.052)	171	1467891			21.70- 81.70	51.86

175	23.276	23.276 (1.057)	105	4784748	20.0000	20.640	80.00- 120.00	100.00
23.276	23.276	(1.057)	120	1359539			0.00- 59.53	28.41

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
\$ 177								
4-Bromofluorobenzene						CAS #: 460-00-4		
23.534	23.534	(1.068)	174	303206	5.00000	4.828	80.00- 120.00	100.00
23.534	23.534	(1.068)	95	368405			85.02- 145.02	121.50
23.534	23.534	(1.068)	176	303527			63.61- 123.61	100.11

181								
1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
23.689	23.689	(1.075)	83	2591473	20.0000	19.210	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	1653633			33.93- 93.93	63.81

182								
Propylbenzene						CAS #: 103-65-1		
23.767	23.767	(1.079)	91	4472331	20.0000	19.264	80.00- 120.00	100.00
23.767	23.767	(1.079)	120	1107139			0.00- 55.14	24.76

188								
4-Ethyltoluene						CAS #: 622-96-8		
23.895	23.895	(1.085)	105	3257518	20.0000	17.792	80.00- 120.00	100.00
23.895	23.895	(1.085)	120	1080261			3.95- 63.95	33.16

190								
1,3,5-Trimethylbenzene						CAS #: 108-67-8		
23.947	23.947	(1.087)	105	2947999	20.0000	17.282	80.00- 120.00	100.00
23.947	23.947	(1.087)	120	1462351			19.31- 79.31	49.60

196								
1,2,4-Trimethylbenzene						CAS #: 95-63-6		
24.386	24.386	(1.107)	105	2637776	20.0000	15.155	80.00- 120.00	100.00
24.386	24.386	(1.107)	120	1267644			17.64- 77.64	48.06

208								
1,3-Dichlorobenzene						CAS #: 541-73-1		
24.756	24.756	(1.124)	146	2196536	20.0000	18.447	80.00- 120.00	100.00
24.756	24.756	(1.124)	148	1397040			34.17- 94.17	63.60
24.756	24.756	(1.124)	111	851029			10.53- 70.53	38.74

209								
1,4-Dichlorobenzene						CAS #: 106-46-7		
24.868	24.868	(1.129)	146	1906651	20.0000	18.289	80.00- 120.00	100.00
24.868	24.868	(1.129)	148	1222106			35.60- 95.60	64.10
24.845	24.845	(1.128)	111	704697			7.23- 67.23	36.96

212								
alpha-Chlorotoluene						CAS #: 100-44-7		
25.002	25.002	(1.135)	91	2956924	20.0000	20.023	80.00- 120.00	100.00
25.002	25.002	(1.135)	126	620174			0.00- 51.02	20.97

214								
1,2-Dichlorobenzene						CAS #: 95-50-1		
25.271	25.271	(1.147)	146	1894744	20.0000	17.999	80.00- 120.00	100.00
25.271	25.271	(1.147)	148	1196419			33.23- 93.23	63.14
25.271	25.271	(1.147)	111	765553			10.17- 70.17	40.40

226								
1,2,4-Trichlorobenzene						CAS #: 120-82-1		
27.065	27.065	(1.229)	180	1580478	20.0000	16.350	80.00- 120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
226 1,2,4-Trichlorobenzene (continued)									
27.065	27.065	(1.229)	182	1514790			66.03-	126.03	95.84

227 Hexachlorobutadiene						CAS #:	87-68-3		
27.177	27.177	(1.234)	225	1204626	20.0000	18.157	80.00-	120.00	100.00
27.177	27.177	(1.234)	223	746297			33.08-	93.08	61.95

228 Naphthalene						CAS #:	91-20-3		
27.401	27.401	(1.244)	128	381797	2.00000	2.107	80.00-	120.00	100.00
27.401	27.401	(1.244)	127	44612			0.00-	42.23	11.68

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100812.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 15
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/08Oct2015.b/v15l1008a.m	
Misc Info: 20ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	145782	-0.20
123 1,4-Difluorobenze	648096	388858	907334	674867	4.13
163 Chlorobenzene-d5	578351	347011	809691	610846	5.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100813.d
Lab Smp Id: ICAL Client Smp ID: Level # 16
Inj Date : 08-OCT-2015 20:29
Operator : gh Inst ID: msdv.i
Smp Info : 200mL# 2736-291
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m
Meth Date : 12-Oct-2015 16:39 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 20:29 Cal File: v100813.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
9 Propylene						CAS #:	115-07-1		
4.485	4.485	(0.285)	41	3355021	40.0000	35.756	80.00-	120.00	100.00
4.485	4.485	(0.285)	42	2311347			37.47-	97.47	68.89
4.522	4.522	(0.287)	39	2103649			32.82-	92.82	62.70
11 Freon 12						CAS #:	75-71-8		
5.013	5.013	(0.318)	85	4947102	40.0000	36.897	80.00-	120.00	100.00
5.013	5.013	(0.318)	87	1603974			1.30-	61.30	32.42
15 Freon 114						CAS #:	76-14-2		
6.524	6.524	(0.414)	135	4117506	40.0000	37.274	80.00-	120.00	100.00
6.524	6.524	(0.414)	137	1303601			2.78-	62.78	31.66
6.524	6.524	(0.414)	85	4787239			87.42-	147.42	116.27
17 Chloromethane						CAS #:	74-87-3		
6.901	6.901	(0.438)	50	3920163	40.0000	35.595	80.00-	120.00	100.00
6.901	6.901	(0.438)	52	1242682			0.67-	60.67	31.70

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	718600	40.0000	37.813	80.00- 120.00	100.00	
7.658	7.658	(0.486)	43	6703269			986.38-1046.38	932.82	
25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.813	(0.496)	62	2771455	40.0000	37.823	80.00- 120.00	100.00	
7.813	7.813	(0.496)	64	754414			0.00- 56.32	27.22	
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	3316486	40.0000	36.313	80.00- 120.00	100.00	
8.061	8.061	(0.512)	39	2916741			59.51- 119.51	87.95	
29 Bromomethane						CAS #:	74-83-9		
9.655	9.655	(0.613)	94	1419936	40.0000	37.436	80.00- 120.00	100.00	
9.655	9.655	(0.613)	96	1326851			64.14- 124.14	93.44	
30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	1094515	40.0000	37.000	80.00- 120.00	100.00	
10.161	10.161	(0.645)	49	532016			16.17- 76.17	48.61	
10.161	10.161	(0.645)	66	308454			0.00- 53.05	28.18	
31 Isopentane						CAS #:	78-78-4		
10.330	10.330	(0.656)	57	2914114	40.0000	36.480	80.00- 120.00	100.00	
10.330	10.330	(0.656)	43	5098327			146.62- 206.62	174.95	
10.330	10.330	(0.656)	42	4387726			123.11- 183.11	150.57	
35 Freon 11						CAS #:	75-69-4		
11.004	11.004	(0.699)	101	5466919	40.0000	37.470	80.00- 120.00	100.00	
11.004	11.004	(0.699)	103	3523960			32.43- 92.43	64.46	
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	1693300	40.0000	37.577	80.00- 120.00	100.00	
11.919	11.919	(0.757)	46	680195			3.52- 63.52	40.17	
11.919	11.919	(0.757)	43	307674			0.00- 49.09	18.17	
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	3801083	40.0000	36.575	80.00- 120.00	100.00	
12.413	12.413	(0.788)	153	2401782			32.55- 92.55	63.19	
12.413	12.413	(0.788)	101	4181715			82.40- 142.40	110.01	
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	1237402	40.0000	34.523	80.00- 120.00	100.00	
12.386	12.386	(0.787)	61	4902125			344.18- 404.18	396.16	
12.386	12.386	(0.787)	96	1978175			122.48- 182.48	159.87	
52 Acetone						CAS #:	67-64-1		
12.633	12.633	(0.802)	58	1746725	40.0000	38.040	80.00- 120.00	100.00	

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	AMOUNTS		TARGET RANGE =====	RATIO =====
					CAL-AMT (PPBV) =====	ON-COL (PPBV) =====		
52 Acetone (continued)								
12.633	12.633	(0.802)	43	5951009			308.96- 368.96	340.70
56 Carbon Disulfide								
12.743	12.743	(0.809)	76	5460629	40.0000	CAS #: 75-15-0 38.341	80.00- 120.00	100.00
57 2-Propanol								
13.017	13.017	(0.827)	45	8044988	40.0000	CAS #: 67-63-0 38.747	80.00- 120.00	100.00
13.017	13.017	(0.827)	43	1215788			0.00- 46.45	15.11
13.017	13.017	(0.827)	59	245186			0.00- 32.99	3.05
58 3-Chloropropene								
13.210	13.210	(0.839)	76	817678	40.0000	CAS #: 107-05-1 38.712	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	5509398			674.37- 734.37	673.79
66 Methylene Chloride								
13.484	13.484	(0.856)	84	1669653	40.0000	CAS #: 75-09-2 34.536	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	5296738			288.43- 348.43	317.24
13.484	13.484	(0.856)	51	1591371			65.27- 125.27	95.31
71 tert-Butyl alcohol								
13.704	13.704	(0.870)	59	7751471	40.0000	CAS #: 75-65-0 38.464	80.00- 120.00	100.00
13.704	13.704	(0.870)	41	1628919			0.00- 53.16	21.01
13.704	13.704	(0.870)	57	835263			0.00- 40.96	10.78
72 Methyl tert-butyl ether								
13.841	13.841	(0.879)	73	5605800	40.0000	CAS #: 1634-04-4 36.658	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	2545150			17.16- 77.16	45.40
13.841	13.841	(0.879)	41	2365543			14.94- 74.94	42.20
73 trans-1,2-Dichloroethene								
13.896	13.896	(0.883)	98	1342710	40.0000	CAS #: 156-60-5 38.009	80.00- 120.00	100.00
13.869	13.869	(0.881)	61	4532770			319.94- 379.94	337.58
13.896	13.896	(0.883)	96	2065615			133.67- 193.67	153.84
78 Hexane								
14.226	14.226	(0.904)	57	6428408	40.0000	CAS #: 110-54-3 33.440	80.00- 120.00	100.00
14.226	14.226	(0.904)	43	4639103			45.57- 105.57	72.17
14.226	14.226	(0.904)	86	450529			0.00- 37.01	7.01
83 Isopropyl ether								
14.582	14.582	(0.926)	45	16125227	40.0000	CAS #: 108-20-3 37.069	80.00- 120.00	100.00
14.582	14.582	(0.926)	87	1747094			0.00- 40.41	10.83
14.582	14.582	(0.926)	59	1348164			0.00- 38.33	8.36
82 1,1-Dichloroethane								
14.582	14.582	(0.926)	63	5075507	40.0000	CAS #: 75-34-3 36.846	80.00- 120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
82 1,1-Dichloroethane (continued)								
14.582	14.582	(0.926)	65	1362707			0.00- 56.80	26.85

86 Vinyl Acetate						CAS #:	108-05-4	
14.637	14.637	(0.930)	86	523023	40.0000	41.548	80.00- 120.00	100.00(A)
14.610	14.610	(0.928)	42	1270856			254.23- 314.23	242.98
14.610	14.610	(0.928)	43	19379092			4287.95-4347.95	3705.21

88 Ethyl-tert-butyl ether						CAS #:	637-92-3	
15.071	15.071	(0.957)	59	12368498	40.0000	38.322	80.00- 120.00	100.00
15.071	15.071	(0.957)	87	2740623			0.00- 52.67	22.16
15.071	15.071	(0.957)	41	2334145			0.00- 50.06	18.87

91 cis-1,2-Dichloroethene						CAS #:	156-59-2	
15.423	15.423	(0.980)	98	1430506	40.0000	35.822	80.00- 120.00	100.00
15.423	15.423	(0.980)	61	4470468			282.85- 342.85	312.51
15.423	15.423	(0.980)	96	2273513			128.91- 188.91	158.93

92 2-Butanone						CAS #:	78-93-3	
15.403	15.403	(0.978)	72	975700	40.0000	39.155	80.00- 120.00	100.00
15.403	15.403	(0.978)	43	9311926			922.45- 982.45	954.38
15.403	15.403	(0.978)	57	635889			34.83- 94.83	65.17

99 Tetrahydrofuran						CAS #:	109-99-9	
15.743	15.743	(1.000)	42	5672668	40.0000	38.863	80.00- 120.00	100.00
15.743	15.743	(1.000)	71	925654			0.00- 44.56	16.32
15.743	15.743	(1.000)	72	974588			0.00- 46.89	17.18

* 98 Bromochloromethane						CAS #:	74-97-5	
15.743	15.743	(1.000)	130	156660	5.00000		80.00- 120.00	100.00
15.743	15.743	(1.000)	128	120044			45.98- 105.98	76.63
15.743	15.743	(1.000)	49	456051			326.70- 386.70	291.11

100 Chloroform						CAS #:	67-66-3	
15.836	15.836	(1.006)	83	4347456	40.0000	37.369	80.00- 120.00	100.00
15.836	15.836	(1.006)	85	2833591			34.80- 94.80	65.18

102 Cyclohexane						CAS #:	110-82-7	
16.082	16.082	(1.022)	84	2673945	40.0000	38.356	80.00- 120.00	100.00
16.082	16.082	(1.022)	56	7167939			240.10- 300.10	268.07
16.082	16.082	(1.022)	41	3735120			110.99- 170.99	139.69

103 1,1,1-Trichloroethane						CAS #:	71-55-6	
16.052	16.052	(1.020)	97	5048565	40.0000	38.093	80.00- 120.00	100.00
16.052	16.052	(1.020)	99	3186843			33.53- 93.53	63.12

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	5152479	40.0000	39.898	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	5381691			76.59-	136.59	104.45
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	6869172	40.0000	37.066	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	20685769			265.00-	325.00	301.14
16.535	16.535	(1.050)	41	5072941			45.25-	105.25	73.85
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	6197993	40.0000	39.202	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	1391038			0.00-	51.65	22.44
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	299474	5.00000	5.206	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	234050			15.86-	75.86	78.15
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	1559102	40.0000	40.710	80.00-	120.00	100.00(A)
16.617	16.617	(0.971)	73	6411604			370.18-	430.18	411.24
16.617	16.617	(0.971)	55	3383971			192.85-	252.85	217.05
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	4329771	40.0000	40.719	80.00-	120.00	100.00(A)
16.672	16.672	(0.974)	64	1248053			0.56-	60.56	28.82
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	3948684	40.0000	38.307	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	636245			0.00-	46.48	16.11
16.782	16.782	(0.981)	43	8631689			186.23-	246.23	218.60
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	676351	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	98508			0.00-	43.80	14.56
125 Trichloroethene						CAS #:	79-01-6		
17.523	17.523	(1.024)	130	3137214	40.0000	37.021	80.00-	120.00	100.00
17.523	17.523	(1.024)	95	3093137			66.89-	126.89	98.60
17.523	17.523	(1.024)	97	2000637			35.91-	95.91	63.77
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	3770526	40.0000	39.819	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	6722935			146.83-	206.83	178.30
17.743	17.743	(1.037)	56	2074205			28.02-	88.02	55.01
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	3486705	40.0000	39.378	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
132 1,2-Dichloropropane (continued)									
17.935	17.935	(1.048)	62	2550471			41.26-	101.26	73.15
17.935	17.935	(1.048)	41	2363809			40.22-	100.22	67.79

136 1,4-Dioxane						CAS #:	123-91-1		
18.045	18.045	(1.055)	88	1591496	40.0000	38.790	80.00-	120.00	100.00
18.045	18.045	(1.055)	58	2170734			119.94-	179.94	136.40
18.045	18.045	(1.055)	57	686701			14.89-	74.89	43.15

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	4904167	40.0000	39.048	80.00-	120.00	100.00
18.347	18.347	(0.833)	85	3120707			34.56-	94.56	63.63

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.145	19.145	(1.119)	75	4128382	40.0000	40.454	80.00-	120.00	100.00(A)
19.145	19.145	(1.119)	77	1290939			1.86-	61.86	31.27
19.145	19.145	(1.119)	39	3509693			58.69-	118.69	85.01

145 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.346	19.346	(1.131)	43	11882663	40.0000	41.216	80.00-	120.00	100.00(A)
19.346	19.346	(1.131)	58	4008801			2.96-	62.96	33.74
19.346	19.346	(1.131)	85	883153			0.00-	37.25	7.43

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.638	19.638	(1.148)	98	630316	5.00000	5.097	80.00-	120.00	100.00
19.638	19.638	(1.148)	70	68490			0.00-	39.58	10.87
19.638	19.638	(1.148)	100	419127			37.10-	97.10	66.49

147 Toluene						CAS #:	108-88-3		
19.772	19.772	(1.155)	91	7840383	40.0000	38.692	80.00-	120.00	100.00
19.772	19.772	(1.155)	92	4606548			27.14-	87.14	58.75

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.211	20.211	(0.918)	75	3615371	40.0000	40.485	80.00-	120.00	100.00(A)
20.211	20.211	(0.918)	77	1124878			0.00-	59.12	31.11
20.211	20.211	(0.918)	39	2927490			53.01-	113.01	80.97

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	2872713	40.0000	38.601	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	1815771			31.52-	91.52	63.21
20.534	20.534	(0.932)	83	2273468			49.16-	109.16	79.14

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	4214704	40.0000	38.733	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	3027060			42.65-	102.65	71.82
20.714	20.714	(0.940)	131	3143222			42.72-	102.72	74.58

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
158 2-Hexanone						CAS #:	591-78-6		
20.821	20.821	(0.945)	58	5253150	40.0000	42.501	80.00-	120.00	100.00(A)
20.821	20.821	(0.945)	43	11154986			185.90-	245.90	212.35
20.821	20.821	(0.945)	100	534627			0.00-	39.88	10.18

160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	5755069	40.0000	43.068	80.00-	120.00	100.00(A)
21.180	21.180	(0.961)	127	4460341			51.36-	111.36	77.50

161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	4570549	40.0000	39.820	80.00-	120.00	100.00
21.395	21.395	(0.971)	109	4305759			67.82-	127.82	94.21

* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	608722	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	306669			17.84-	77.84	50.38

165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	6675052	40.0000	40.066	80.00-	120.00	100.00(A)
22.056	22.056	(1.001)	114	2086264			2.39-	62.39	31.25
22.056	22.056	(1.001)	77	3521451			23.63-	83.63	52.76

167 Ethyl Benzene						CAS #:	100-41-4		
22.138	22.138	(1.005)	106	3136446	40.0000	37.952	80.00-	120.00	100.00
22.138	22.138	(1.005)	91	10170303			289.30-	349.30	324.26

169 m,p-Xylene						CAS #:	108-38-3		
22.303	22.303	(1.012)	106	3388286	40.0000	40.539	80.00-	120.00	100.00(A)
22.303	22.303	(1.012)	91	7059625			180.42-	240.42	208.35

171 o-Xylene						CAS #:	95-47-6		
22.852	22.852	(1.037)	106	3094296	40.0000	39.597	80.00-	120.00	100.00
22.852	22.852	(1.037)	91	6911986			183.19-	243.19	223.38

172 Styrene						CAS #:	100-42-5		
22.880	22.880	(1.039)	104	5081799	40.0000	39.574	80.00-	120.00	100.00
22.852	22.852	(1.037)	78	2569293			21.26-	81.26	50.56

174 Bromoform						CAS #:	75-25-2		
23.173	23.173	(1.052)	173	5759121	40.0000	41.075	80.00-	120.00	100.00(A)
23.173	23.173	(1.052)	171	2966274			21.70-	81.70	51.51

175 Cumene						CAS #:	98-82-8		
23.277	23.277	(1.057)	105	9761448	40.0000	42.255	80.00-	120.00	100.00(A)
23.277	23.277	(1.057)	120	2815381			0.00-	59.53	28.84

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
\$ 177								
4-Bromofluorobenzene						CAS #: 460-00-4		
23.534	23.534	(1.068)	174	320735	5.00000	5.125	80.00- 120.00	100.00
23.534	23.534	(1.068)	95	390367			85.02- 145.02	121.71
23.534	23.534	(1.068)	176	312794			63.61- 123.61	97.52

181 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5		
23.689	23.689	(1.075)	83	5109085	40.0000	38.004	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	3282521			33.93- 93.93	64.25

182 Propylbenzene						CAS #: 103-65-1		
23.767	23.767	(1.079)	91	9321065	40.0000	40.289	80.00- 120.00	100.00(A)
23.767	23.767	(1.079)	120	2263598			0.00- 55.14	24.28

188 4-Ethyltoluene						CAS #: 622-96-8		
23.896	23.896	(1.085)	105	6605008	40.0000	36.200	80.00- 120.00	100.00
23.896	23.896	(1.085)	120	2138852			3.95- 63.95	32.38

190 1,3,5-Trimethylbenzene						CAS #: 108-67-8		
23.947	23.947	(1.087)	105	5452605	40.0000	32.075	80.00- 120.00	100.00
23.947	23.947	(1.087)	120	2764684			19.31- 79.31	50.70

196 1,2,4-Trimethylbenzene						CAS #: 95-63-6		
24.386	24.386	(1.107)	105	4745923	40.0000	27.362	80.00- 120.00	100.00
24.386	24.386	(1.107)	120	2289234			17.64- 77.64	48.24

208 1,3-Dichlorobenzene						CAS #: 541-73-1		
24.756	24.756	(1.124)	146	4424711	40.0000	37.289	80.00- 120.00	100.00
24.756	24.756	(1.124)	148	2834403			34.17- 94.17	64.06
24.756	24.756	(1.124)	111	1694057			10.53- 70.53	38.29

209 1,4-Dichlorobenzene						CAS #: 106-46-7		
24.868	24.868	(1.129)	146	3946474	40.0000	37.988	80.00- 120.00	100.00
24.868	24.868	(1.129)	148	2493787			35.60- 95.60	63.19
24.845	24.845	(1.128)	111	1464454			7.23- 67.23	37.11

212 alpha-Chlorotoluene						CAS #: 100-44-7		
25.002	25.002	(1.135)	91	6260704	40.0000	42.543	80.00- 120.00	100.00(A)
25.002	25.002	(1.135)	126	1312414			0.00- 51.02	20.96

214 1,2-Dichlorobenzene						CAS #: 95-50-1		
25.271	25.271	(1.147)	146	3867942	40.0000	36.871	80.00- 120.00	100.00
25.271	25.271	(1.147)	148	2473633			33.23- 93.23	63.95
25.271	25.271	(1.147)	111	1552252			10.17- 70.17	40.13

226 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
27.065	27.065	(1.229)	180	3075836	40.0000	31.931	80.00- 120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
226 1,2,4-Trichlorobenzene (continued)									
27.065	27.065	(1.229)	182	2953921			66.03-	126.03	96.04

227 Hexachlorobutadiene					CAS #:		87-68-3		
27.177	27.177	(1.234)	225	2563373	40.0000	38.773	80.00-	120.00	100.00
27.177	27.177	(1.234)	223	1575856			33.08-	93.08	61.48

228 Naphthalene					CAS #:		91-20-3		
27.401	27.401	(1.244)	128	753670	4.00000	4.173	80.00-	120.00	100.00(A)
27.401	27.401	(1.244)	127	94505			0.00-	42.23	12.54

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100813.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 16
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/08Oct2015.b/v15l1008a.m	
Misc Info: 40ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	146071	87643	204499	156660	7.25
123 1,4-Difluorobenze	648096	388858	907334	676351	4.36
163 Chlorobenzene-d5	578351	347011	809691	608722	5.25

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 20:29

Client ID: Level # 16

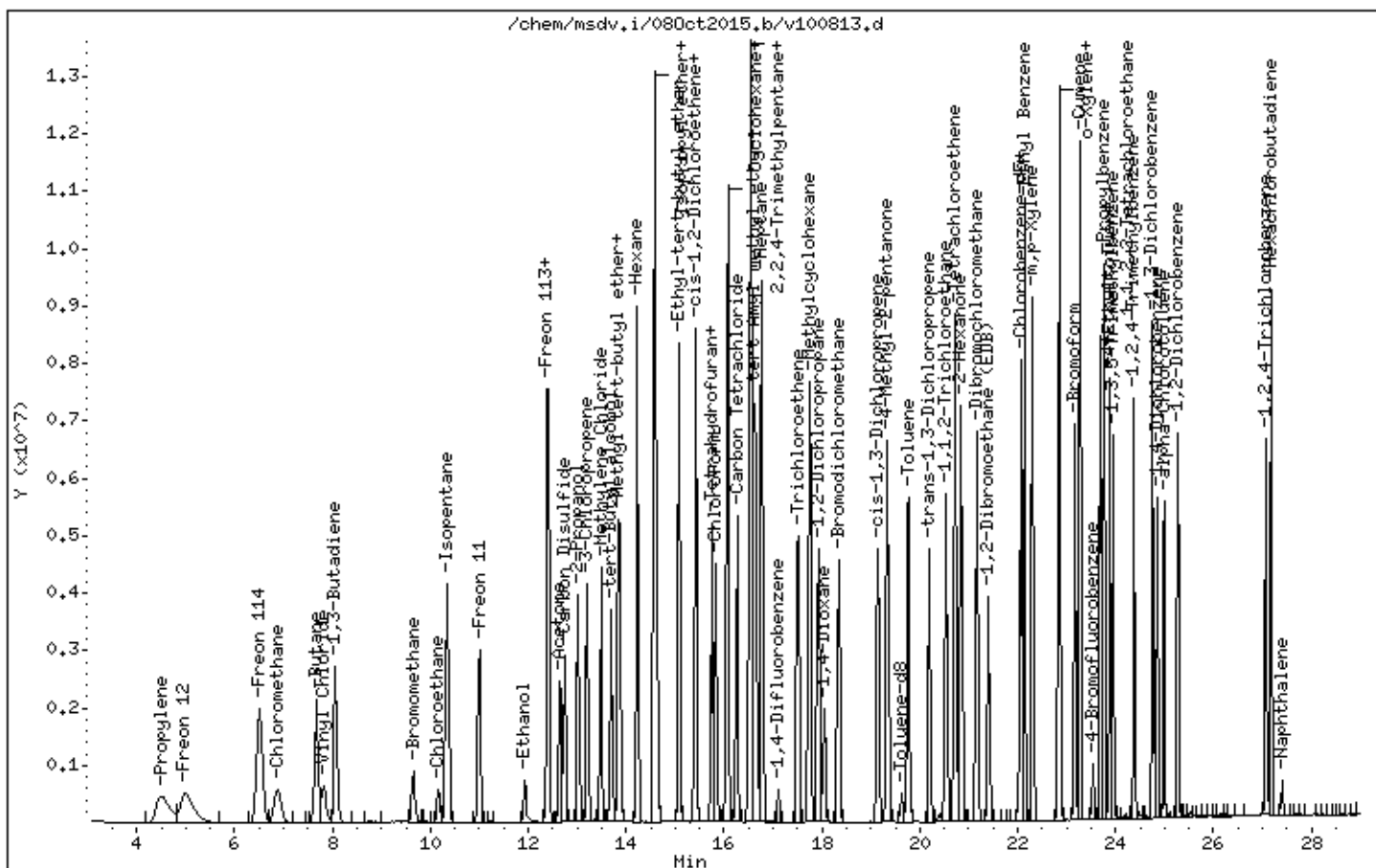
Instrument: msdv.i

Sample Info: 200mL# 2736-291

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/200oct2015.b/v102005.d
Lab Smp Id: ICAL Client Smp ID: Level # 7
Inj Date : 20-OCT-2015 07:51
Operator : act Inst ID: msdv.i
Smp Info : 25mL# 2736-223
Misc Info : 0.5ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/200oct2015.b/v15l1008b.m
Meth Date : 20-Oct-2015 14:29 sblack Quant Type: ISTD
Cal Date : 20-OCT-2015 07:51 Cal File: v102005.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
32 Vinyl Bromide						CAS #:	593-60-2		
10.787	10.787	(0.685)	106	22637	0.50000	0.5000	0.00-	0.00	100.00
10.787	10.787	(0.685)	108	19609			0.00-	0.00	86.62
36 1-Pentene						CAS #:	109-67-1		
11.076	11.077	(0.704)	55	34999	0.50000	0.5000	0.00-	0.00	100.00
11.076	11.077	(0.704)	42	48548			0.00-	0.00	138.71
34 Pentane						CAS #:	109-66-0		
11.221	11.221	(0.713)	43	84738	0.50000	0.5000	0.00-	0.00	100.00
11.245	11.221	(0.714)	57	11204			0.00-	0.00	13.22
11.245	11.221	(0.714)	72	4118			0.00-	0.00	4.86
44 Ethyl Ether						CAS #:	60-29-7		
11.919	11.919	(0.757)	74	8506	0.50000	0.5000	0.00-	0.00	100.00(T)
11.919	11.919	(0.757)	59	23012			0.00-	0.00	270.54
0.000	11.919	(0.000)	31	0			0.00-	0.00	0.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
59 Cyclopentene						CAS #:	142-29-0		
13.237	13.237	(0.841)	67	34928	0.50000	0.5000	0.00-	0.00	100.00
13.237	13.237	(0.841)	68	15523			0.00-	0.00	44.44
13.237	13.237	(0.841)	53	19874			0.00-	0.00	56.90
63 Acetonitrile						CAS #:	75-05-8		
13.319	13.320	(0.846)	41	19534	0.50000	0.5000	0.00-	0.00	100.00
13.347	13.320	(0.848)	40	9581			0.00-	0.00	49.05
13.319	13.320	(0.846)	39	2092			0.00-	0.00	10.71
64 Cyclopentane						CAS #:	287-92-3		
13.429	13.429	(0.853)	70	12045	0.50000	0.5000	0.00-	0.00	100.00
13.429	13.429	(0.853)	55	39508			0.00-	0.00	328.00
74 Acrylonitrile						CAS #:	107-13-1		
14.006	13.979	(0.890)	53	21882	0.50000	0.5000	0.00-	0.00	100.00
14.006	13.979	(0.890)	52	15623			0.00-	0.00	71.40
76 1-Hexene						CAS #:	592-41-6		
14.116	14.116	(0.897)	55	34297	0.50000	0.5000	0.00-	0.00	100.00
14.116	14.116	(0.897)	41	42461			0.00-	0.00	123.80
14.116	14.116	(0.897)	84	5902			0.00-	0.00	17.21
84 1-Propanol						CAS #:	71-23-8		
14.747	14.747	(0.937)	59	7598	0.50000	0.5000	0.00-	0.00	100.00
14.747	14.747	(0.937)	42	5239			0.00-	0.00	68.95
14.747	14.747	(0.937)	41	5272			0.00-	0.00	69.39
90 2,2-Dichloropropane						CAS #:	594-20-7		
15.382	15.382	(0.977)	77	42446	0.50000	0.5000	0.00-	0.00	100.00
15.382	15.382	(0.977)	79	14336			0.00-	0.00	33.77
15.382	15.382	(0.977)	97	9124			0.00-	0.00	21.50
94 Ethyl Acetate						CAS #:	141-78-6		
15.423	15.444	(0.980)	70	2350	0.50000	0.5000	0.00-	0.00	100.00
15.444	15.444	(0.981)	43	53727			0.00-	0.00	2286.26
15.403	15.444	(0.978)	61	14717			0.00-	0.00	626.26
93 Methyl Acrylate						CAS #:	96-33-3		
15.527	15.506	(0.986)	55	85530	0.50000	0.5000	0.00-	0.00	100.00
15.527	15.506	(0.986)	85	5355			0.00-	0.00	6.26
15.527	15.506	(0.986)	58	5470			0.00-	0.00	6.40
* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	121969	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	91770			45.98-	105.98	75.24

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
* 98 Bromochloromethane (continued)									
15.743	15.743	(1.000)	49	357054			326.70-	386.70	292.74

107 1,1-Dichloropropene					CAS #:		563-58-6		
16.298	16.267	(1.035)	110	14556	0.50000	0.5000	0.00-	0.00	100.00
16.298	16.267	(1.035)	75	35600			0.00-	0.00	244.57

115 Isobutanol					CAS #:		78-83-1		
16.360	16.360	(1.039)	43	40799	0.50000	0.5000	0.00-	0.00	100.00
16.360	16.360	(1.039)	41	32015			0.00-	0.00	78.47
16.360	16.360	(1.039)	55	6797			0.00-	0.00	16.66

* 123 1,4-Difluorobenzene					CAS #:		540-36-3		
17.111	17.111	(1.000)	114	571176	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	74933			0.00-	43.80	13.12

124 n-Butanol					CAS #:		71-36-3		
17.276	17.276	(1.010)	56	51047	0.50000	0.5000	0.00-	0.00	100.00
17.276	17.276	(1.010)	41	35974			0.00-	0.00	70.47
17.276	17.276	(1.010)	43	33243			0.00-	0.00	65.12

128 Ethyl acrylate					CAS #:		140-88-5		
17.578	17.551	(1.117)	99	2715	0.50000	0.5000	0.00-	0.00	100.00
17.578	17.551	(1.117)	45	10063			0.00-	0.00	370.64
17.578	17.551	(1.117)	55	77470			0.00-	0.00	2853.41

131 2-Pentanone					CAS #:		107-87-9		
17.743	17.743	(1.127)	43	121271	0.50000	0.5000	0.00-	0.00	100.00
17.743	17.743	(1.127)	58	8946			0.00-	0.00	7.38
17.743	17.743	(1.127)	86	9108			0.00-	0.00	7.51

134 Methyl Methacrylate					CAS #:		80-62-6		
17.935	17.935	(1.139)	41	54158	0.50000	0.5000	0.00-	0.00	100.00
17.935	17.935	(1.139)	69	22214			0.00-	0.00	41.02
17.935	17.935	(1.139)	100	7136			0.00-	0.00	13.18

137 Dibromomethane					CAS #:		74-95-3		
18.155	18.155	(1.061)	174	27439	0.50000	0.5000	0.00-	0.00	100.00
18.155	18.155	(1.061)	93	26045			0.00-	0.00	94.92
18.155	18.155	(1.061)	95	22061			0.00-	0.00	80.40

148 Octane					CAS #:		111-65-9		
19.727	19.727	(1.153)	57	32549	0.50000	0.5000	0.00-	0.00	100.00
19.727	19.727	(1.153)	85	18626			0.00-	0.00	57.22
19.727	19.727	(1.153)	43	87489			0.00-	0.00	268.79

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
157 1,3-Dichloropropane						CAS #:	142-28-9		
20.857	20.857	(1.219)	76	43017	0.50000	0.5000	0.00-	0.00	100.00
20.857	20.857	(1.219)	41	53207			0.00-	0.00	123.69
20.857	20.857	(1.219)	78	12183			0.00-	0.00	28.32
159 Butyl Acetate						CAS #:	123-86-4		
20.965	20.965	(0.952)	56	16816	0.50000	0.5000	0.00-	0.00	100.00
20.965	20.965	(0.952)	73	4666			0.00-	0.00	27.75
20.965	20.965	(0.952)	43	51371			0.00-	0.00	305.49
* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	458217	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	234709			17.84-	77.84	51.22
168 1,1,1,2-Tetrachloroethane						CAS #:	630-20-6		
22.166	22.166	(1.006)	131	39481	0.50000	0.5000	0.00-	0.00	100.00
22.166	22.166	(1.006)	117	25596			0.00-	0.00	64.83
22.166	22.166	(1.006)	95	12833			0.00-	0.00	32.50
170 Nonane						CAS #:	111-84-2		
22.166	22.166	(1.006)	43	81288	0.50000	0.5000	0.00-	0.00	100.00
22.166	22.166	(1.006)	57	71118			0.00-	0.00	87.49
22.166	22.166	(1.006)	85	13824			0.00-	0.00	17.01
173 2-Heptanone						CAS #:	110-43-0		
22.935	22.935	(1.041)	58	62890	0.50000	0.5000	0.00-	0.00	100.00
22.935	22.935	(1.041)	43	109702			0.00-	0.00	174.43
176 Cyclohexanone						CAS #:	108-94-1		
23.483	23.483	(1.066)	55	55799	0.50000	0.5000	0.00-	0.00	100.00
23.483	23.483	(1.066)	98	12259			0.00-	0.00	21.97
23.483	23.483	(1.066)	42	38245			0.00-	0.00	68.54
180 Bromobenzene						CAS #:	108-86-1		
23.741	23.741	(1.078)	156	32228	0.50000	0.5000	0.00-	0.00	100.00
23.741	23.741	(1.078)	158	29425			0.00-	0.00	91.30
23.741	23.741	(1.078)	77	60799			0.00-	0.00	188.65
185 1,2,3-Trichloropropane						CAS #:	96-18-4		
23.767	23.767	(1.079)	110	14956	0.50000	0.5000	0.00-	0.00	100.00
23.767	23.767	(1.079)	75	51257			0.00-	0.00	342.72
23.767	23.767	(1.079)	61	18390			0.00-	0.00	122.96
187 Decane						CAS #:	124-18-5		
23.844	23.844	(1.082)	57	111585	0.50000	0.5000	0.00-	0.00	100.00
23.844	23.844	(1.082)	71	21954			0.00-	0.00	19.67

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
187	Decane (continued)							
23.844	23.844	(1.082)	142	2887			0.00- 0.00	2.59
189	2-Chlorotoluene					CAS #: 95-49-8		
23.921	23.921	(1.086)	126	23898	0.50000	0.5000	0.00- 0.00	100.00
23.921	23.921	(1.086)	91	57229			0.00- 0.00	239.47
23.921	23.921	(1.086)	65	6405			0.00- 0.00	26.80
191	4-Chlorotoluene					CAS #: 106-43-4		
24.050	24.050	(1.092)	126	14910	0.50000	0.5000	0.00- 0.00	100.00
24.050	24.050	(1.092)	91	49188			0.00- 0.00	329.90
24.050	24.050	(1.092)	63	9208			0.00- 0.00	61.76
195	tert-Butylbenzene					CAS #: 98-06-6		
24.308	24.308	(1.103)	119	39275	0.50000	0.5000	0.00- 0.00	100.00
24.308	24.308	(1.103)	134	14093			0.00- 0.00	35.88
24.308	24.308	(1.103)	91	28019			0.00- 0.00	71.34
197	Pentachloroethane					CAS #: 76-01-7		
24.411	24.411	(1.108)	167	9404	0.50000	0.5000	0.00- 0.00	100.00
24.411	24.411	(1.108)	117	10073			0.00- 0.00	107.11
24.411	24.411	(1.108)	169	4945			0.00- 0.00	52.58
203	sec-Butylbenzene					CAS #: 135-98-8		
24.566	24.566	(1.115)	105	53409	0.50000	0.5000	0.00- 0.00	100.00
24.566	24.566	(1.115)	134	14514			0.00- 0.00	27.18
24.566	24.566	(1.115)	91	13398			0.00- 0.00	25.09
206	bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
24.618	24.618	(1.118)	93	36110	0.50000	0.5000	0.00- 0.00	100.00
24.618	24.618	(1.118)	95	12231			0.00- 0.00	33.87
24.618	24.618	(1.118)	63	33065			0.00- 0.00	91.57
207	p-Cymene					CAS #: 99-87-6		
24.688	24.688	(1.121)	119	60166	0.50000	0.5000	0.00- 0.00	100.00
24.688	24.688	(1.121)	134	19251			0.00- 0.00	32.00
24.688	24.688	(1.121)	91	18238			0.00- 0.00	30.31
210	1,2,3-Trimethylbenzene					CAS #: 526-73-8		
24.845	24.845	(1.128)	120	25945	0.50000	0.5000	0.00- 0.00	100.00
24.845	24.845	(1.128)	105	62031			0.00- 0.00	239.09
24.845	24.845	(1.128)	77	11062			0.00- 0.00	42.64
213	Butylbenzene					CAS #: 104-51-8		
25.137	25.137	(1.141)	134	16724	0.50000	0.5000	0.00- 0.00	100.00
25.137	25.137	(1.141)	91	71846			0.00- 0.00	429.60

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
213 Butylbenzene (continued)									
25.137	25.137	(1.141)	92	38514			0.00-	0.00	230.29

215 Undecane						CAS #:	1120-21-4		
25.114	25.114	(1.140)	57	106308	0.50000	0.5000	0.00-	0.00	100.00
25.114	25.114	(1.140)	43	104624			0.00-	0.00	98.42
25.114	25.114	(1.140)	85	15633			0.00-	0.00	14.71

221 1,2-Dibromo-3-chloropropane						CAS #:	96-12-8		
26.145	26.146	(1.187)	157	13924	0.50000	0.5000	0.00-	0.00	100.00
26.145	26.146	(1.187)	75	13307			0.00-	0.00	95.57
26.145	26.146	(1.187)	155	12356			0.00-	0.00	88.74

225 Dodecane						CAS #:	112-40-3		
26.258	26.258	(1.192)	85	14532	0.50000	0.5000	0.00-	0.00	100.00
26.258	26.258	(1.192)	57	87813			0.00-	0.00	604.27
26.258	26.258	(1.192)	43	73895			0.00-	0.00	508.50

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 20-OCT-2015
Lab File ID: v102005.d	Calibration Time: 05:33
Lab Smp Id: ICAL	Client Smp ID: Level # 7
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: act	
Method File: /chem/msdv.i/200ct2015.b/v15l1008b.m	
Misc Info: 0.5ppbv (5.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	117666	70600	164732	121969	3.66
123 1,4-Difluorobenze	536885	322131	751639	571176	6.39
163 Chlorobenzene-d5	473843	284306	663380	458217	-3.30

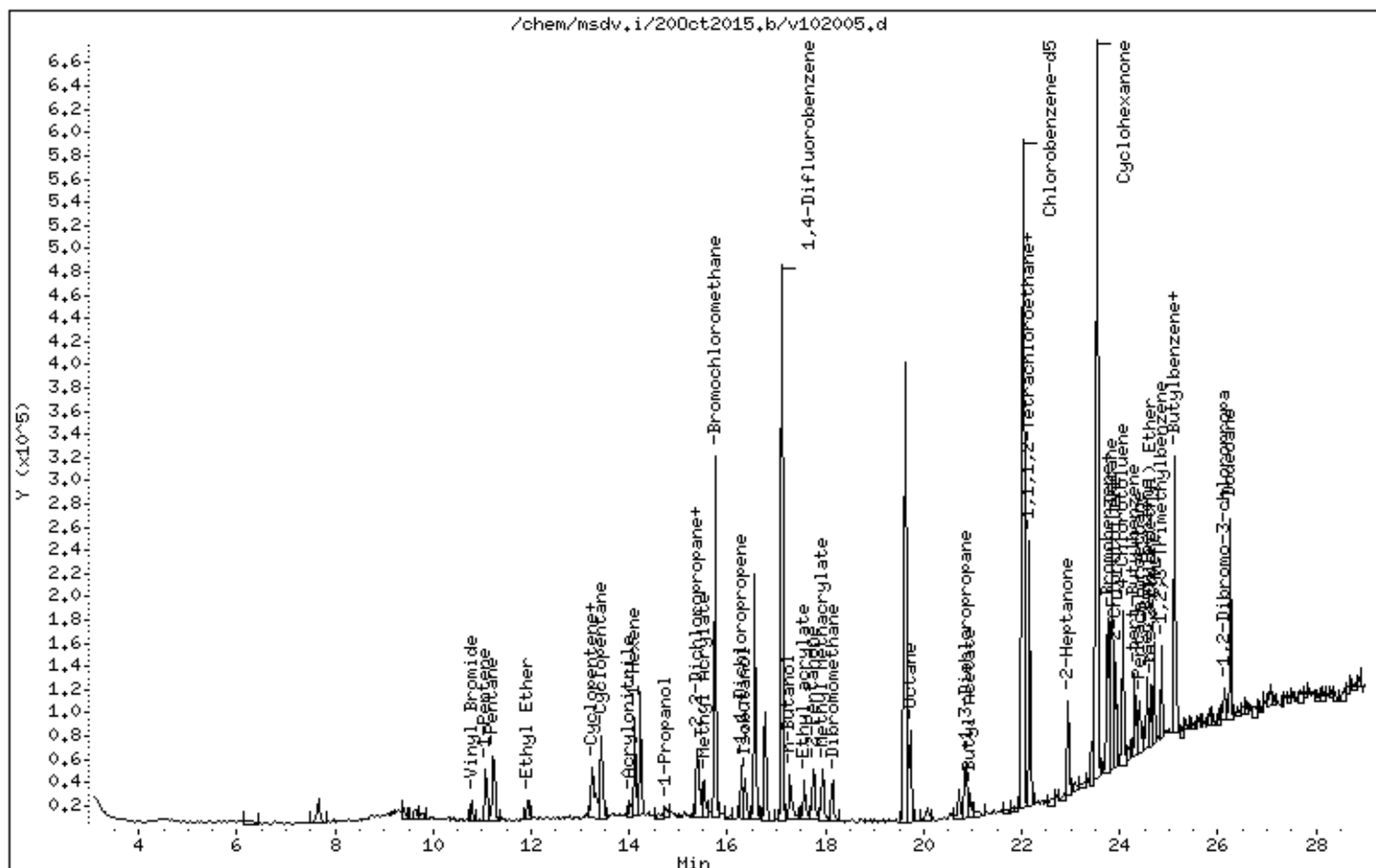
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Instrument: msdv.i

Operator: act

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/200oct2015.b/v102006.d
 Lab Smp Id: ICAL Client Smp ID: Level # 8
 Inj Date : 20-OCT-2015 08:26
 Operator : act Inst ID: msdv.i
 Smp Info : 50mL# 2736-223
 Misc Info : 1.0ppbv (5.0ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/200oct2015.b/v15l1008b.m
 Meth Date : 20-Oct-2015 14:29 sblack Quant Type: ISTD
 Cal Date : 20-OCT-2015 08:26 Cal File: v102006.d
 Als bottle: 1 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: ComboICAL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
32 Vinyl Bromide						CAS #:	593-60-2		
10.787	10.787	(0.685)	106	43070	1.00000	0.9897	0.00-	0.00	100.00
10.787	10.787	(0.685)	108	39409			0.00-	0.00	91.50
36 1-Pentene						CAS #:	109-67-1		
11.077	11.077	(0.704)	55	63967	1.00000	0.9696	0.00-	0.00	100.00
11.077	11.077	(0.704)	42	95809			0.00-	0.00	149.78
34 Pentane						CAS #:	109-66-0		
11.221	11.221	(0.713)	43	159320	1.00000	0.9837	0.00-	0.00	100.00
11.221	11.221	(0.713)	57	23168			0.00-	0.00	14.54
11.221	11.221	(0.713)	72	5647			0.00-	0.00	3.54
44 Ethyl Ether						CAS #:	60-29-7		
11.919	11.919	(0.757)	74	18077	1.00000	1.045	0.00-	0.00	100.00(T)
11.919	11.919	(0.757)	59	46987			0.00-	0.00	259.93
0.000	11.919	(0.000)	31	0			0.00-	0.00	0.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
59 Cyclopentene						CAS #:	142-29-0		
13.237	13.237	(0.841)	67	80953	1.00000	1.088	0.00-	0.00	100.00
13.237	13.237	(0.841)	68	30082			0.00-	0.00	37.16
13.237	13.237	(0.841)	53	33068			0.00-	0.00	40.85
63 Acetonitrile						CAS #:	75-05-8		
13.320	13.320	(0.846)	41	50596	1.00000	1.143	0.00-	0.00	100.00
13.320	13.320	(0.846)	40	25139			0.00-	0.00	49.69
13.320	13.320	(0.846)	39	6698			0.00-	0.00	13.24
64 Cyclopentane						CAS #:	287-92-3		
13.429	13.429	(0.853)	70	22581	1.00000	0.9823	0.00-	0.00	100.00
13.429	13.429	(0.853)	55	70800			0.00-	0.00	313.54
74 Acrylonitrile						CAS #:	107-13-1		
13.979	13.979	(0.888)	53	55451	1.00000	1.132	0.00-	0.00	100.00
14.006	13.979	(0.890)	52	47120			0.00-	0.00	84.98
76 1-Hexene						CAS #:	592-41-6		
14.116	14.116	(0.897)	55	60055	1.00000	0.9482	0.00-	0.00	100.00
14.116	14.116	(0.897)	41	88580			0.00-	0.00	147.50
14.116	14.116	(0.897)	84	11466			0.00-	0.00	19.09
84 1-Propanol						CAS #:	71-23-8		
14.747	14.747	(0.937)	59	15074	1.00000	1.010	0.00-	0.00	100.00
14.747	14.747	(0.937)	42	13480			0.00-	0.00	89.43
14.747	14.747	(0.937)	41	10218			0.00-	0.00	67.79
90 2,2-Dichloropropane						CAS #:	594-20-7		
15.382	15.382	(0.977)	77	79188	1.00000	0.9798	0.00-	0.00	100.00
15.382	15.382	(0.977)	79	25824			0.00-	0.00	32.61
15.382	15.382	(0.977)	97	17051			0.00-	0.00	21.53
94 Ethyl Acetate						CAS #:	141-78-6		
15.444	15.444	(0.981)	70	5732	1.00000	1.113	0.00-	0.00	100.00
15.444	15.444	(0.981)	43	106197			0.00-	0.00	1852.70
15.382	15.444	(0.977)	61	27637			0.00-	0.00	482.15
93 Methyl Acrylate						CAS #:	96-33-3		
15.506	15.506	(0.985)	55	199551	1.00000	1.091	0.00-	0.00	100.00
15.527	15.506	(0.986)	85	11578			0.00-	0.00	5.80
15.506	15.506	(0.985)	58	13024			0.00-	0.00	6.53
* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	118455	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	97894			45.98-	105.98	82.64

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
* 98 Bromochloromethane (continued)									
15.743	15.743	(1.000)	49	360840			326.70-	386.70	304.62

107 1,1-Dichloropropene					CAS #:		563-58-6		
16.267	16.267	(1.033)	110	25377	1.00000	0.9460	0.00-	0.00	100.00
16.267	16.267	(1.033)	75	59202			0.00-	0.00	233.29

115 Isobutanol					CAS #:		78-83-1		
16.360	16.360	(1.039)	43	79097	1.00000	0.9990	0.00-	0.00	100.00
16.360	16.360	(1.039)	41	54771			0.00-	0.00	69.25
16.360	16.360	(1.039)	55	3730			0.00-	0.00	4.72

* 123 1,4-Difluorobenzene					CAS #:		540-36-3		
17.111	17.111	(1.000)	114	568212	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	73036			0.00-	43.80	12.85

124 n-Butanol					CAS #:		71-36-3		
17.276	17.276	(1.010)	56	113843	1.00000	1.057	0.00-	0.00	100.00
17.276	17.276	(1.010)	41	81150			0.00-	0.00	71.28
17.276	17.276	(1.010)	43	66420			0.00-	0.00	58.34

128 Ethyl acrylate					CAS #:		140-88-5		
17.551	17.551	(1.115)	99	5071	1.00000	0.9804	0.00-	0.00	100.00
17.551	17.551	(1.115)	45	19080			0.00-	0.00	376.26
17.551	17.551	(1.115)	55	166040			0.00-	0.00	3274.30

131 2-Pentanone					CAS #:		107-87-9		
17.743	17.743	(1.127)	43	244792	1.00000	1.019	0.00-	0.00	100.00
17.743	17.743	(1.127)	58	18801			0.00-	0.00	7.68
17.743	17.743	(1.127)	86	19237			0.00-	0.00	7.86

134 Methyl Methacrylate					CAS #:		80-62-6		
17.935	17.935	(1.139)	41	123238	1.00000	1.079	0.00-	0.00	100.00
17.935	17.935	(1.139)	69	43378			0.00-	0.00	35.20
17.935	17.935	(1.139)	100	15909			0.00-	0.00	12.91

137 Dibromomethane					CAS #:		74-95-3		
18.155	18.155	(1.061)	174	51490	1.00000	0.9707	0.00-	0.00	100.00
18.127	18.155	(1.059)	93	51866			0.00-	0.00	100.73
18.127	18.155	(1.059)	95	42694			0.00-	0.00	82.92

148 Octane					CAS #:		111-65-9		
19.727	19.727	(1.153)	57	57916	1.00000	0.9442	0.00-	0.00	100.00
19.727	19.727	(1.153)	85	31508			0.00-	0.00	54.40
19.727	19.727	(1.153)	43	183396			0.00-	0.00	316.66

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
157 1,3-Dichloropropane						CAS #:	142-28-9		
20.857	20.857	(1.219)	76	78478	1.00000	0.9567	0.00-	0.00	100.00
20.821	20.857	(1.217)	41	94744			0.00-	0.00	120.73
20.857	20.857	(1.219)	78	24120			0.00-	0.00	30.73
159 Butyl Acetate						CAS #:	123-86-4		
20.965	20.965	(0.952)	56	30028	1.00000	0.9217	0.00-	0.00	100.00
20.965	20.965	(0.952)	73	5507			0.00-	0.00	18.34
20.965	20.965	(0.952)	43	80134			0.00-	0.00	266.86
* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	478599	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	236112			17.84-	77.84	49.33
168 1,1,1,2-Tetrachloroethane						CAS #:	630-20-6		
22.166	22.166	(1.006)	131	79917	1.00000	0.9842	0.00-	0.00	100.00
22.166	22.166	(1.006)	117	55018			0.00-	0.00	68.84
22.166	22.166	(1.006)	95	28489			0.00-	0.00	35.65
170 Nonane						CAS #:	111-84-2		
22.166	22.166	(1.006)	43	151278	1.00000	0.9423	0.00-	0.00	100.00
22.166	22.166	(1.006)	57	114827			0.00-	0.00	75.90
22.166	22.166	(1.006)	85	21550			0.00-	0.00	14.25
173 2-Heptanone						CAS #:	110-43-0		
22.935	22.935	(1.041)	58	115639	1.00000	0.9363	0.00-	0.00	100.00
22.935	22.935	(1.041)	43	199220			0.00-	0.00	172.28
176 Cyclohexanone						CAS #:	108-94-1		
23.483	23.483	(1.066)	55	105648	1.00000	0.9509	0.00-	0.00	100.00
23.483	23.483	(1.066)	98	23600			0.00-	0.00	22.34
23.483	23.483	(1.066)	42	70248			0.00-	0.00	66.49
180 Bromobenzene						CAS #:	108-86-1		
23.741	23.741	(1.078)	156	61948	1.00000	0.9584	0.00-	0.00	100.00
23.741	23.741	(1.078)	158	64578			0.00-	0.00	104.25
23.741	23.741	(1.078)	77	119844			0.00-	0.00	193.46
185 1,2,3-Trichloropropane						CAS #:	96-18-4		
23.767	23.767	(1.079)	110	32452	1.00000	1.019	0.00-	0.00	100.00
23.767	23.767	(1.079)	75	105843			0.00-	0.00	326.15
23.767	23.767	(1.079)	61	36794			0.00-	0.00	113.38
187 Decane						CAS #:	124-18-5		
23.844	23.844	(1.082)	57	215017	1.00000	0.9596	0.00-	0.00	100.00
23.844	23.844	(1.082)	71	42585			0.00-	0.00	19.81

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
187	Decane (continued)							
23.844	23.844	(1.082)	142	5389			0.00- 0.00	2.51
189	2-Chlorotoluene					CAS #: 95-49-8		
23.921	23.921	(1.086)	126	37790	1.00000	0.8617	0.00- 0.00	100.00
23.921	23.921	(1.086)	91	109484			0.00- 0.00	289.72
23.921	23.921	(1.086)	65	11429			0.00- 0.00	30.24
191	4-Chlorotoluene					CAS #: 106-43-4		
24.050	24.050	(1.092)	126	34277	1.00000	1.048	0.00- 0.00	100.00
24.050	24.050	(1.092)	91	89779			0.00- 0.00	261.92
24.050	24.050	(1.092)	63	16083			0.00- 0.00	46.92
195	tert-Butylbenzene					CAS #: 98-06-6		
24.308	24.308	(1.103)	119	80839	1.00000	0.9926	0.00- 0.00	100.00
24.308	24.308	(1.103)	134	18412			0.00- 0.00	22.78
24.308	24.308	(1.103)	91	51330			0.00- 0.00	63.50
197	Pentachloroethane					CAS #: 76-01-7		
24.411	24.411	(1.108)	167	20872	1.00000	1.030	0.00- 0.00	100.00
24.411	24.411	(1.108)	117	18611			0.00- 0.00	89.17
24.411	24.411	(1.108)	169	7986			0.00- 0.00	38.26
203	sec-Butylbenzene					CAS #: 135-98-8		
24.566	24.566	(1.115)	105	107087	1.00000	0.9795	0.00- 0.00	100.00
24.566	24.566	(1.115)	134	21931			0.00- 0.00	20.48
24.540	24.566	(1.114)	91	16052			0.00- 0.00	14.99
206	bis(2-Chloroethyl) Ether					CAS #: 111-44-4		
24.618	24.618	(1.118)	93	70644	1.00000	0.9672	0.00- 0.00	100.00
24.618	24.618	(1.118)	95	19554			0.00- 0.00	27.68
24.618	24.618	(1.118)	63	61747			0.00- 0.00	87.41
207	p-Cymene					CAS #: 99-87-6		
24.688	24.688	(1.121)	119	102996	1.00000	0.9008	0.00- 0.00	100.00
24.688	24.688	(1.121)	134	31639			0.00- 0.00	30.72
24.688	24.688	(1.121)	91	23423			0.00- 0.00	22.74
210	1,2,3-Trimethylbenzene					CAS #: 526-73-8		
24.845	24.845	(1.128)	120	50567	1.00000	0.9653	0.00- 0.00	100.00
24.845	24.845	(1.128)	105	110103			0.00- 0.00	217.74
24.845	24.845	(1.128)	77	15885			0.00- 0.00	31.41
213	Butylbenzene					CAS #: 104-51-8		
25.137	25.137	(1.141)	134	35701	1.00000	1.011	0.00- 0.00	100.00
25.137	25.137	(1.141)	91	122916			0.00- 0.00	344.29

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	AMOUNTS		TARGET RANGE =====	RATIO =====
					CAL-AMT (PPBV) =====	ON-COL (PPBV) =====		
213 Butylbenzene (continued)								
25.137	25.137	(1.141)	92	62515			0.00- 0.00	175.11

215 Undecane						CAS #:	1120-21-4	
25.114	25.114	(1.140)	57	224362	1.00000	1.005	0.00- 0.00	100.00
25.114	25.114	(1.140)	43	201666			0.00- 0.00	89.88
25.114	25.114	(1.140)	85	31743			0.00- 0.00	14.15

221 1,2-Dibromo-3-chloropropane						CAS #:	96-12-8	
26.146	26.146	(1.187)	157	26292	1.00000	0.9495	0.00- 0.00	100.00
26.146	26.146	(1.187)	75	24306			0.00- 0.00	92.45
26.146	26.146	(1.187)	155	19779			0.00- 0.00	75.23

225 Dodecane						CAS #:	112-40-3	
26.258	26.258	(1.192)	85	30532	1.00000	1.003	0.00- 0.00	100.00
26.258	26.258	(1.192)	57	193886			0.00- 0.00	635.03
26.258	26.258	(1.192)	43	171300			0.00- 0.00	561.05

QC Flag Legend

T - Target compound detected outside RT window.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 20-OCT-2015
Lab File ID: v102006.d	Calibration Time: 05:33
Lab Smp Id: ICAL	Client Smp ID: Level # 8
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: act	
Method File: /chem/msdv.i/200ct2015.b/v15l1008b.m	
Misc Info: 1.0ppbv (5.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	117666	70600	164732	118455	0.67
123 1,4-Difluorobenze	536885	322131	751639	568212	5.83
163 Chlorobenzene-d5	473843	284306	663380	478599	1.00

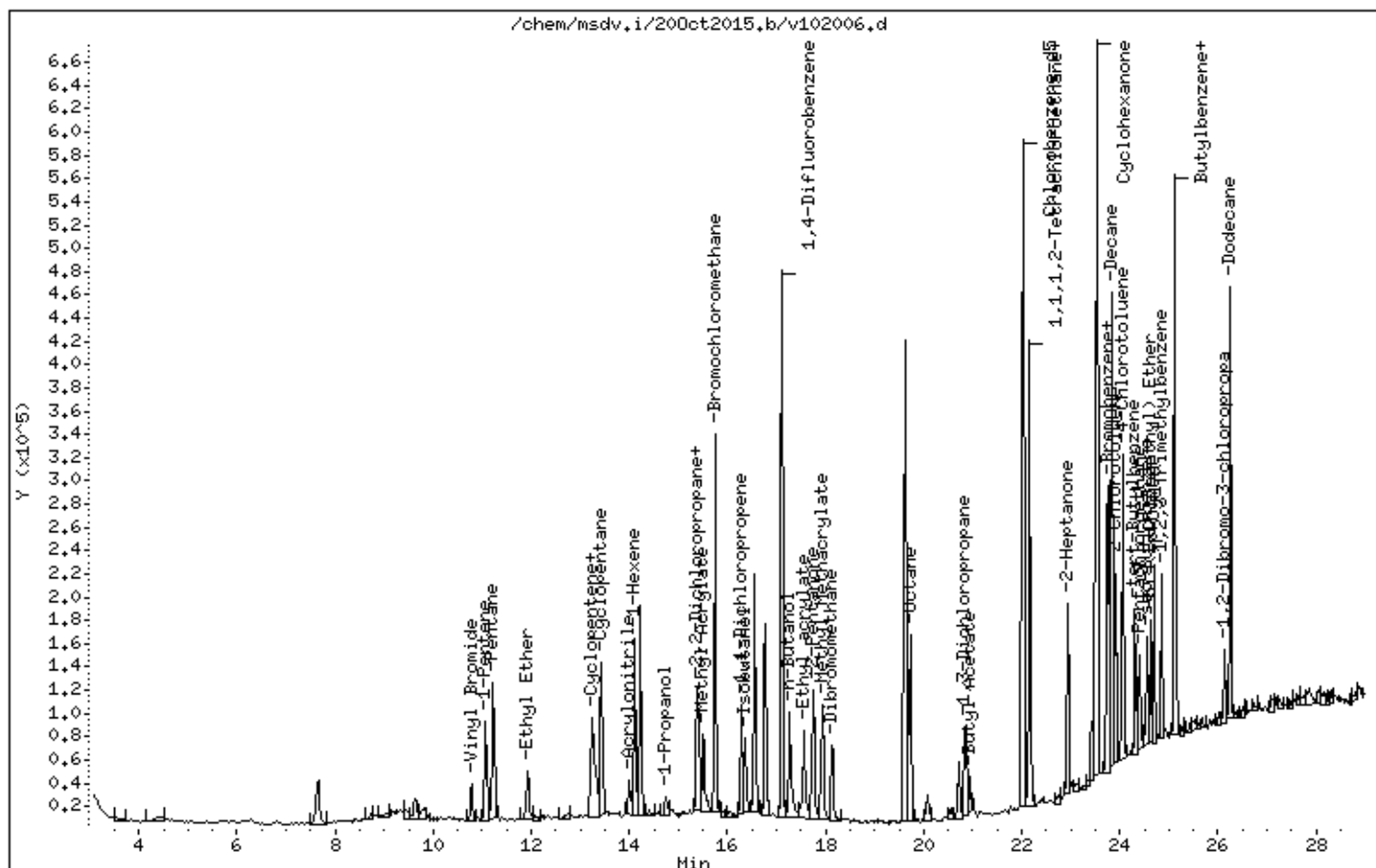
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Instrument: msdv.i

Operator: act

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/200ct2015.b/v102007.d
Lab Smp Id: ICAL Client Smp ID: Level # 12
Inj Date : 20-OCT-2015 09:38
Operator : sab Inst ID: msdv.i
Smp Info : 250mL# 2736-223
Misc Info : 5.0ppbv (5.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msdv.i/200ct2015.b/v15l1008b.m
Meth Date : 20-Oct-2015 14:29 sblack Quant Type: ISTD
Cal Date : 20-OCT-2015 09:38 Cal File: v102007.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ComboICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
32 Vinyl Bromide						CAS #:	593-60-2		
10.787	10.787	(0.685)	106	194784	5.00000	4.877	0.00-	0.00	100.00
10.787	10.787	(0.685)	108	192393			0.00-	0.00	98.77
36 1-Pentene						CAS #:	109-67-1		
11.077	11.077	(0.704)	55	338696	5.00000	5.339	0.00-	0.00	100.00
11.077	11.077	(0.704)	42	466273			0.00-	0.00	137.67
34 Pentane						CAS #:	109-66-0		
11.221	11.221	(0.713)	43	767408	5.00000	5.067	0.00-	0.00	100.00
11.221	11.221	(0.713)	57	105629			0.00-	0.00	13.76
11.221	11.221	(0.713)	72	36099			0.00-	0.00	4.70
44 Ethyl Ether						CAS #:	60-29-7		
11.946	11.919	(0.759)	74	98046	5.00000	5.684	0.00-	0.00	100.00(T)
11.919	11.919	(0.757)	59	231789			0.00-	0.00	236.41
0.000	11.919	(0.000)	31	0			0.00-	0.00	0.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
59 Cyclopentene						CAS #:	142-29-0		
13.237	13.237	(0.841)	67	387830	5.00000	5.392	0.00-	0.00	100.00
13.237	13.237	(0.841)	68	145675			0.00-	0.00	37.56
13.237	13.237	(0.841)	53	149818			0.00-	0.00	38.63
63 Acetonitrile						CAS #:	75-05-8		
13.292	13.320	(0.844)	41	248620	5.00000	5.652	0.00-	0.00	100.00(M)
13.292	13.320	(0.844)	40	174946			0.00-	0.00	70.37
13.237	13.320	(0.841)	39	219096			0.00-	0.00	88.12
64 Cyclopentane						CAS #:	287-92-3		
13.429	13.429	(0.853)	70	109613	5.00000	5.088	0.00-	0.00	100.00
13.429	13.429	(0.853)	55	325863			0.00-	0.00	297.28
74 Acrylonitrile						CAS #:	107-13-1		
13.979	13.979	(0.888)	53	327721	5.00000	6.280	0.00-	0.00	100.00
13.979	13.979	(0.888)	52	281575			0.00-	0.00	85.92
76 1-Hexene						CAS #:	592-41-6		
14.116	14.116	(0.897)	55	291737	5.00000	4.972	0.00-	0.00	100.00
14.116	14.116	(0.897)	41	435361			0.00-	0.00	149.23
14.116	14.116	(0.897)	84	50910			0.00-	0.00	17.45
84 1-Propanol						CAS #:	71-23-8		
14.720	14.747	(0.935)	59	74288	5.00000	5.235	0.00-	0.00	100.00
14.720	14.747	(0.935)	42	84789			0.00-	0.00	114.14
14.720	14.747	(0.935)	41	41547			0.00-	0.00	55.93
90 2,2-Dichloropropane						CAS #:	594-20-7		
15.382	15.382	(0.977)	77	377260	5.00000	5.017	0.00-	0.00	100.00
15.382	15.382	(0.977)	79	117307			0.00-	0.00	31.09
15.382	15.382	(0.977)	97	77808			0.00-	0.00	20.62
94 Ethyl Acetate						CAS #:	141-78-6		
15.423	15.444	(0.980)	70	24639	5.00000	5.100	0.00-	0.00	100.00
15.423	15.444	(0.980)	43	559937			0.00-	0.00	2272.56
15.382	15.444	(0.977)	61	144769			0.00-	0.00	587.56
93 Methyl Acrylate						CAS #:	96-33-3		
15.506	15.506	(0.985)	55	976303	5.00000	5.475	0.00-	0.00	100.00
15.506	15.506	(0.985)	85	66872			0.00-	0.00	6.85
15.506	15.506	(0.985)	58	71656			0.00-	0.00	7.34
* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	110042	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	89383			45.98-	105.98	81.23

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
* 98 Bromochloromethane (continued)									
15.743	15.743	(1.000)	49	330905			326.70-	386.70	300.71

107 1,1-Dichloropropene						CAS #:	563-58-6		
16.267	16.267	(1.033)	110	121975	5.00000	4.929	0.00-	0.00	100.00
16.267	16.267	(1.033)	75	319209			0.00-	0.00	261.70

115 Isobutanol						CAS #:	78-83-1		
16.360	16.360	(1.039)	43	435126	5.00000	5.576	0.00-	0.00	100.00
16.360	16.360	(1.039)	41	283672			0.00-	0.00	65.19
16.360	16.360	(1.039)	55	25869			0.00-	0.00	5.95

* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	566374	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	72257			0.00-	43.80	12.76

124 n-Butanol						CAS #:	71-36-3		
17.249	17.276	(1.008)	56	653352	5.00000	5.675	0.00-	0.00	100.00
17.249	17.276	(1.008)	41	458266			0.00-	0.00	70.14
17.249	17.276	(1.008)	43	397903			0.00-	0.00	60.90

128 Ethyl acrylate						CAS #:	140-88-5		
17.551	17.551	(1.115)	99	32167	5.00000	6.015	0.00-	0.00	100.00
17.551	17.551	(1.115)	45	93144			0.00-	0.00	289.56
17.551	17.551	(1.115)	55	893773			0.00-	0.00	2778.54

131 2-Pentanone						CAS #:	107-87-9		
17.743	17.743	(1.127)	43	1279686	5.00000	5.467	0.00-	0.00	100.00
17.743	17.743	(1.127)	58	84651			0.00-	0.00	6.61
17.743	17.743	(1.127)	86	101835			0.00-	0.00	7.96

134 Methyl Methacrylate						CAS #:	80-62-6		
17.935	17.935	(1.139)	41	587343	5.00000	5.345	0.00-	0.00	100.00
17.935	17.935	(1.139)	69	214623			0.00-	0.00	36.54
17.935	17.935	(1.139)	100	76653			0.00-	0.00	13.05

137 Dibromomethane						CAS #:	74-95-3		
18.155	18.155	(1.061)	174	265749	5.00000	5.018	0.00-	0.00	100.00
18.127	18.155	(1.059)	93	253534			0.00-	0.00	95.40
18.127	18.155	(1.059)	95	216697			0.00-	0.00	81.54

148 Octane						CAS #:	111-65-9		
19.727	19.727	(1.153)	57	311257	5.00000	5.060	0.00-	0.00	100.00
19.727	19.727	(1.153)	85	170590			0.00-	0.00	54.81
19.727	19.727	(1.153)	43	873598			0.00-	0.00	280.67

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
157 1,3-Dichloropropane						CAS #:	142-28-9		
20.821	20.857	(1.217)	76	362642	5.00000	4.609	0.00-	0.00	100.00
20.821	20.857	(1.217)	41	487168			0.00-	0.00	134.34
20.821	20.857	(1.217)	78	115579			0.00-	0.00	31.87
159 Butyl Acetate						CAS #:	123-86-4		
20.929	20.965	(0.950)	56	161851	5.00000	4.939	0.00-	0.00	100.00
20.929	20.965	(0.950)	73	37827			0.00-	0.00	23.37
20.929	20.965	(0.950)	43	415049			0.00-	0.00	256.44
* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	484378	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	236565			17.84-	77.84	48.84
168 1,1,1,2-Tetrachloroethane						CAS #:	630-20-6		
22.166	22.166	(1.006)	131	346820	5.00000	4.452	0.00-	0.00	100.00
22.166	22.166	(1.006)	117	235604			0.00-	0.00	67.93
22.166	22.166	(1.006)	95	131472			0.00-	0.00	37.91
170 Nonane						CAS #:	111-84-2		
22.166	22.166	(1.006)	43	537026	5.00000	3.726	0.00-	0.00	100.00
22.166	22.166	(1.006)	57	411406			0.00-	0.00	76.61
22.166	22.166	(1.006)	85	81437			0.00-	0.00	15.16
173 2-Heptanone						CAS #:	110-43-0		
22.935	22.935	(1.041)	58	521254	5.00000	4.414	0.00-	0.00	100.00
22.935	22.935	(1.041)	43	910756			0.00-	0.00	174.72
176 Cyclohexanone						CAS #:	108-94-1		
23.483	23.483	(1.066)	55	505731	5.00000	4.653	0.00-	0.00	100.00
23.483	23.483	(1.066)	98	115958			0.00-	0.00	22.93
23.483	23.483	(1.066)	42	337946			0.00-	0.00	66.82
180 Bromobenzene						CAS #:	108-86-1		
23.741	23.741	(1.078)	156	293117	5.00000	4.641	0.00-	0.00	100.00
23.741	23.741	(1.078)	158	283431			0.00-	0.00	96.70
23.741	23.741	(1.078)	77	570289			0.00-	0.00	194.56
185 1,2,3-Trichloropropane						CAS #:	96-18-4		
23.767	23.767	(1.079)	110	130622	5.00000	4.326	0.00-	0.00	100.00
23.767	23.767	(1.079)	75	495361			0.00-	0.00	379.23
23.767	23.767	(1.079)	61	161274			0.00-	0.00	123.47
187 Decane						CAS #:	124-18-5		
23.844	23.844	(1.082)	57	835893	5.00000	4.040	0.00-	0.00	100.00
23.844	23.844	(1.082)	71	168075			0.00-	0.00	20.11

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET	RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)			
187	Decane (continued)								
23.844	23.844	(1.082)	142	23226			0.00-	0.00	2.78
189	2-Chlorotoluene					CAS #: 95-49-8			
23.921	23.921	(1.086)	126	178560	5.00000	4.303	0.00-	0.00	100.00
23.921	23.921	(1.086)	91	520269			0.00-	0.00	291.37
23.921	23.921	(1.086)	65	56049			0.00-	0.00	31.39
191	4-Chlorotoluene					CAS #: 106-43-4			
24.050	24.050	(1.092)	126	144423	5.00000	4.556	0.00-	0.00	100.00
24.050	24.050	(1.092)	91	430769			0.00-	0.00	298.27
24.050	24.050	(1.092)	63	64817			0.00-	0.00	44.88
195	tert-Butylbenzene					CAS #: 98-06-6			
24.308	24.308	(1.103)	119	365324	5.00000	4.606	0.00-	0.00	100.00
24.308	24.308	(1.103)	134	88954			0.00-	0.00	24.35
24.308	24.308	(1.103)	91	242219			0.00-	0.00	66.30
197	Pentachloroethane					CAS #: 76-01-7			
24.411	24.411	(1.108)	167	90363	5.00000	4.589	0.00-	0.00	100.00
24.411	24.411	(1.108)	117	95678			0.00-	0.00	105.88
24.411	24.411	(1.108)	169	44962			0.00-	0.00	49.76
203	sec-Butylbenzene					CAS #: 135-98-8			
24.566	24.566	(1.115)	105	465464	5.00000	4.442	0.00-	0.00	100.00
24.566	24.566	(1.115)	134	103612			0.00-	0.00	22.26
24.540	24.566	(1.114)	91	74368			0.00-	0.00	15.98
206	bis(2-Chloroethyl) Ether					CAS #: 111-44-4			
24.618	24.618	(1.118)	93	327384	5.00000	4.604	0.00-	0.00	100.00
24.618	24.618	(1.118)	95	101119			0.00-	0.00	30.89
24.618	24.618	(1.118)	63	293311			0.00-	0.00	89.59
207	p-Cymene					CAS #: 99-87-6			
24.688	24.688	(1.121)	119	340122	5.00000	3.407	0.00-	0.00	100.00
24.688	24.688	(1.121)	134	94916			0.00-	0.00	27.91
24.688	24.688	(1.121)	91	88995			0.00-	0.00	26.17
210	1,2,3-Trimethylbenzene					CAS #: 526-73-8			
24.845	24.845	(1.128)	120	159342	5.00000	3.466	0.00-	0.00	100.00
24.845	24.845	(1.128)	105	383100			0.00-	0.00	240.43
24.845	24.845	(1.128)	77	41958			0.00-	0.00	26.33
213	Butylbenzene					CAS #: 104-51-8			
25.137	25.137	(1.141)	134	95589	5.00000	3.165	0.00-	0.00	100.00
25.137	25.137	(1.141)	91	378316			0.00-	0.00	395.77

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	AMOUNTS		TARGET RANGE =====	RATIO =====
					CAL-AMT (PPBV) =====	ON-COL (PPBV) =====		
213 Butylbenzene (continued)								
25.137	25.137	(1.141)	92	209295			0.00- 0.00	218.95

215 Undecane						CAS #:	1120-21-4	
25.114	25.114	(1.140)	57	1035754	5.00000	4.715	0.00- 0.00	100.00
25.114	25.114	(1.140)	43	989445			0.00- 0.00	95.53
25.114	25.114	(1.140)	85	151117			0.00- 0.00	14.59

221 1,2-Dibromo-3-chloropropane						CAS #:	96-12-8	
26.146	26.146	(1.187)	157	137412	5.00000	4.935	0.00- 0.00	100.00
26.146	26.146	(1.187)	75	117103			0.00- 0.00	85.22
26.146	26.146	(1.187)	155	105245			0.00- 0.00	76.59

225 Dodecane						CAS #:	112-40-3	
26.258	26.258	(1.192)	85	162211	5.00000	5.173	0.00- 0.00	100.00
26.258	26.258	(1.192)	57	1043468			0.00- 0.00	643.28
26.258	26.258	(1.192)	43	929651			0.00- 0.00	573.11

QC Flag Legend

T - Target compound detected outside RT window.
 M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 20-OCT-2015
Lab File ID: v102007.d	Calibration Time: 05:33
Lab Smp Id: ICAL	Client Smp ID: Level # 12
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: sab	
Method File: /chem/msdv.i/200ct2015.b/v15l1008b.m	
Misc Info: 5.0ppbv (5.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	117666	70600	164732	110042	-6.48
123 1,4-Difluorobenze	536885	322131	751639	566374	5.49
163 Chlorobenzene-d5	473843	284306	663380	484378	2.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 20-OCT-2015 09:38

Client ID: Level # 12

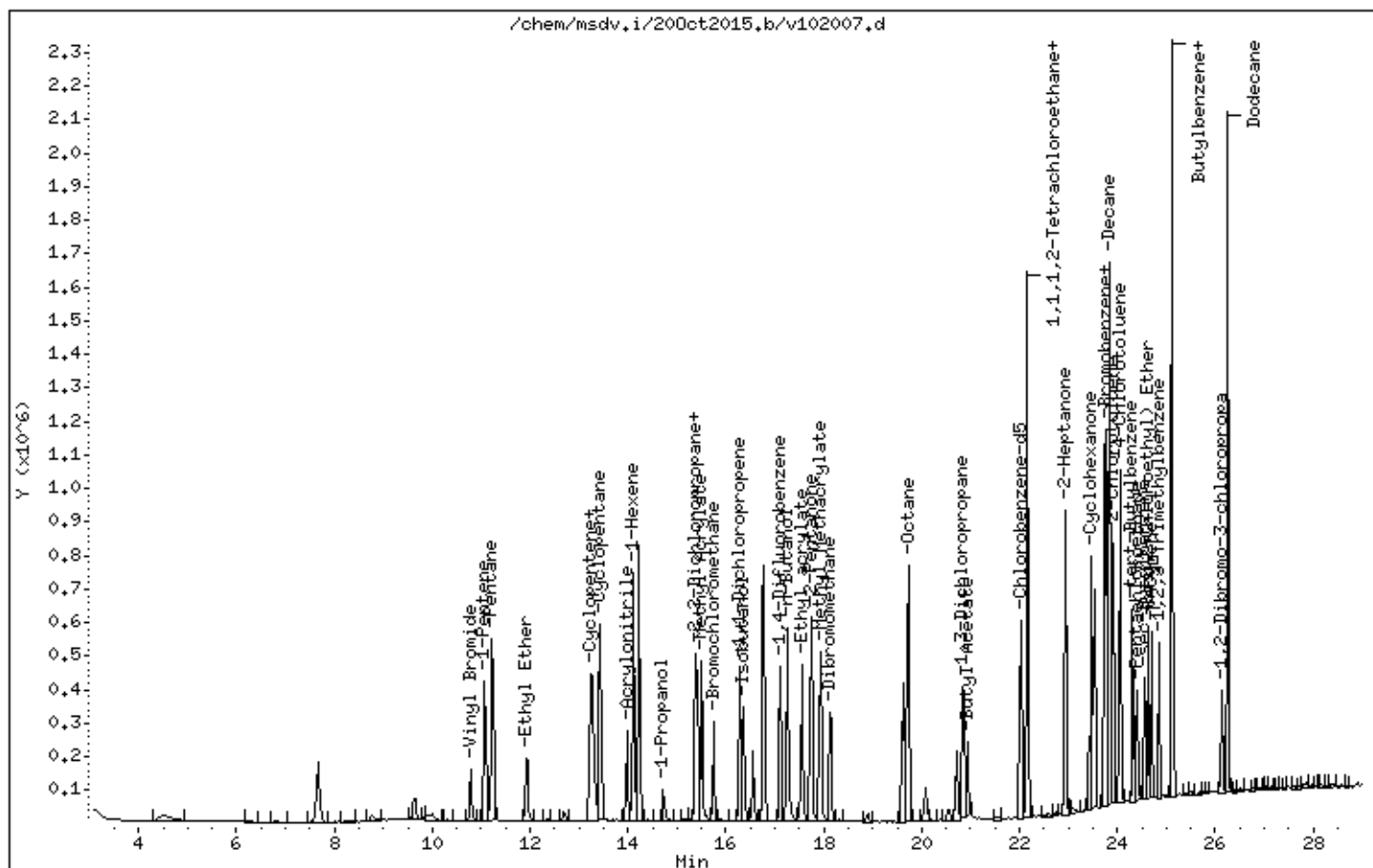
Instrument: msdv.i

Sample Info: 250mL# 2736-223

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 13:11
 End Cal Date : 08-OCT-2015 19:44
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
 Cal Date : 13-Oct-2015 09:46 sblack
 Curve Type : Average

Calibration File Names:

Level 2: /chem/msdv.i/080ct2015.b/v100803sim.d
 Level 3: /chem/msdv.i/080ct2015.b/v100804sim.d
 Level 4: /chem/msdv.i/080ct2015.b/v100805sim.d
 Level 5: /chem/msdv.i/080ct2015.b/v100806sim.d
 Level 6: /chem/msdv.i/080ct2015.b/v100807sim.d
 Level 7: /chem/msdv.i/080ct2015.b/v100808sim.d
 Level 8: /chem/msdv.i/080ct2015.b/v100809sim.d
 Level 12: /chem/msdv.i/080ct2015.b/v100810sim.d
 Level 13: /chem/msdv.i/080ct2015.b/v100811sim.d
 Level 15: /chem/msdv.i/080ct2015.b/v100812sim.d

Compound	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	RRF	% RSD
	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15				
1 Freon 12	+++++ 4.02614	+++++ 4.39224	4.81097 4.24348	4.08105 4.04523	4.41916	4.00212	4.25255	6.565
2 Freon 114	+++++ 3.41396	+++++ 3.68069	4.26309 3.45771	3.66799 3.36163	3.69162	3.31358	3.60628	8.467
3 Chloromethane	+++++ 3.52076	+++++ 3.75138	5.23254 3.56588	4.31168 3.36415	4.31813	3.56400	3.95356	15.924
4 Vinyl Chloride	3.10860 2.19895	2.53547 2.36575	2.65259 2.29938	2.22555 2.22615	2.48765	2.15944	2.42595	11.943
5 Chloroethane	+++++ 0.84445	+++++ 0.98175	+++++ 0.93413	0.78246 0.89632	0.83987	0.80716	0.86945	8.196
6 Freon 11	+++++ 4.64889	+++++ 4.97828	4.34045 4.64502	4.69021 4.49951	4.95691	4.51471	4.65925	4.728

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 13:11
 End Cal Date : 08-OCT-2015 19:44
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/08oct2015.b/v15l1008a.m/v15s1008a.m
 Cal Date : 13-Oct-2015 09:46 sblack
 Curve Type : Average

Compound	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	RRF	% RSD
	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15				
7 Freon 113	+++++ 3.24471	+++++ 3.48195	3.35521 3.25537	3.40087 3.13485	3.55411	3.16582	3.32411	4.499
8 1,1-Dichloroethene	1.91490 1.06131	1.36338 1.13689	1.52682 1.06531	1.16555 1.02847	1.13457	1.03610	1.24333	22.889
9 Methyl tert-butyl ether	+++++ 4.00368	+++++ 4.40165	3.91572 4.15377	4.16379 4.01629	4.27165	3.87621	4.10035	4.399
10 trans-1,2-Dichloroethene	1.39887 1.10415	1.49395 1.17061	1.21103 1.10223	1.14275 1.07242	1.11552	1.06914	1.18807	12.168
11 1,1-Dichloroethane	+++++ 4.23068	+++++ 4.54008	4.46835 4.24577	4.29474 4.12293	4.44498	4.13212	4.30996	3.653
12 cis-1,2-Dichloroethene	1.97707 1.19239	1.35731 1.27922	1.21735 1.21400	1.21441 1.17603	1.26884	1.16731	1.30639	18.555
14 Chloroform	4.50747 3.58995	3.52840 3.87428	3.86520 3.63882	3.69535 3.53353	3.84946	3.46787	3.75503	8.081
15 1,1,1-Trichloroethane	+++++ 4.16509	+++++ 4.44859	4.47308 4.18268	4.28758 4.06010	4.44272	4.01810	4.25974	4.242
16 Carbon Tetrachloride	+++++ 3.98300	+++++ 4.80639	2.54522 4.54900	2.86468 4.43368	4.02698	3.80783	3.87710	20.593
17 Benzene	+++++ 1.06783	1.51336 1.21540	1.35994 1.11815	1.18528 1.07425	1.16921	1.06435	1.19642	12.657

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Cal Date : 13-Oct-2015 09:46 sblack
 Curve Type : Average

Compound	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	RRF	% RSD
	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15				
19 1,2-Dichloroethane	1.00188 0.80464	0.91108 0.92619	0.84455 0.85695	0.82341 0.83836	0.85184	0.81073	0.86696	7.115
21 Trichloroethene	+++++ 0.62237	0.91108 0.71087	0.75051 0.65609	0.68248 0.62916	0.72047	0.62409	0.70079	13.028
23 Toluene	+++++ 1.31294	+++++ 1.49601	1.56707 1.40358	1.45524 1.34246	1.44634	1.33092	1.41932	6.246
24 trans-1,3-Dichloropropene	+++++ 0.74162	+++++ 0.88513	0.73362 0.82318	0.76734 0.80496	0.78091	0.72895	0.78321	6.799
25 1,1,2-Trichloroethane	+++++ 0.64200	0.77471 0.73355	0.68275 0.67570	0.68129 0.65081	0.70225	0.64193	0.68722	6.433
26 Tetrachloroethene	1.49460 1.01236	1.19092 1.11520	1.11694 1.02294	1.05628 0.98259	1.13429	0.99928	1.11254	13.518
27 1,2-Dibromoethane (EDB)	1.23261 1.02752	1.09124 1.17492	1.06785 1.07966	1.05168 1.05293	1.10077	1.01961	1.08988	6.114
29 Chlorobenzene	+++++ 1.45381	+++++ 1.62800	1.59441 1.51790	1.56707 1.46289	1.57777	1.43499	1.52961	4.746
30 Ethyl Benzene	+++++ 0.56877	+++++ 0.64854	0.60689 0.62241	0.62888 0.60898	0.63468	0.56336	0.61032	4.989
31 m,p-Xylene	+++++ 0.57005	+++++ 0.66779	0.64526 0.65941	0.63278 0.63570	0.64396	0.57709	0.62900	5.747

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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 Integrator : HP RTE
 Method file : /chem/msdv.i/08oct2015.b/v15l1008a.m/v15s1008a.m
 Cal Date : 13-Oct-2015 09:46 sblack
 Curve Type : Average

Compound	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	RRF	% RSD
	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15				
32 o-Xylene	+++++ 0.55035	+++++ 0.63139	0.66445 0.62286	0.59878 0.60508	0.64522	0.54790	0.60825	6.911
34 1,1,2,2-Tetrachloroethane	1.76187 1.18247	1.49870 1.26100	1.26687 1.21294	1.29937 1.15449	1.27377	1.16268	1.30742	14.354
35 1,3-Dichlorobenzene	+++++ 0.88857	+++++ 0.98446	1.30347 1.00726	1.24909 0.97663	1.18403	0.90572	1.06240	15.052
36 1,4-Dichlorobenzene	+++++ 0.78420	1.66921 0.87114	1.23385 0.90041	1.11011 0.87083	1.14880	0.81421	1.04475	27.138
37 1,2-Dichlorobenzene	+++++ 0.77332	+++++ 0.84834	1.28651 0.87909	1.13029 0.86195	1.06212	0.79647	0.95476	19.233
38 Naphthalene	+++++ 1.48156	+++++ 1.12500	+++++ 1.44573	+++++ 1.52048	1.52813	1.48220	1.43052	10.669
M 39 Total Xylene	+++++ +++++	+++++ +++++	+++++ +++++	+++++ +++++	+++++	+++++	+++++	+++++
\$ 18 1,2-Dichloroethane-d4	1.71118 1.79371	1.70652 1.72642	1.75921 1.78808	1.80067 1.88417	1.71617	1.74222	1.76284	3.137
\$ 22 Toluene-d8	0.78766 0.79220	0.78410 0.79426	0.78188 0.80698	0.78325 0.79457	0.79698	0.79251	0.79144	0.959
\$ 33 4-Bromofluorobenzene	0.51333 0.53854	0.52837 0.54492	0.54111 0.56689	0.55735 0.57516	0.54250	0.53343	0.54416	3.361

Calibration History

Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
Start Cal Date: 08-OCT-2015 13:11
End Cal Date : 08-OCT-2015 19:44

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.00500		
08-OCT-2015 13:11	Level2	/chem/msdv.i/08Oct2015.b/v100803sim.d
Cal Level: 3 , Cal Amount: 0.01000		
08-OCT-2015 13:47	Level3	/chem/msdv.i/08Oct2015.b/v100804sim.d
Cal Level: 4 , Cal Amount: 0.02000		
08-OCT-2015 14:22	Level4	/chem/msdv.i/08Oct2015.b/v100805sim.d
Cal Level: 5 , Cal Amount: 0.05000		
08-OCT-2015 14:58	HILOcrvFULL	/chem/msdv.i/08Oct2015.b/v100806sim.d
Cal Level: 6 , Cal Amount: 0.10000		
08-OCT-2015 15:35	HILOcrvFULL	/chem/msdv.i/08Oct2015.b/v100807sim.d
Cal Level: 7 , Cal Amount: 0.50000		
08-OCT-2015 16:30	HILOcrvFULL	/chem/msdv.i/08Oct2015.b/v100808sim.d
Cal Level: 8 , Cal Amount: 1.00000		
08-OCT-2015 17:24	HILOcrvFULL	/chem/msdv.i/08Oct2015.b/v100809sim.d
Cal Level: 12, Cal Amount: 5.00000		

```

|08-OCT-2015 18:10 |HILOcrvFULL      |/chem/msdv.i/080ct2015.b/v100810sim.d |
+-----+-----+-----+
+-----+-----+-----+
| Cal Level: 13, Cal Amount: 10.00000 |
+=====+
|08-OCT-2015 18:54 |HILOcrvFULL      |/chem/msdv.i/080ct2015.b/v100811sim.d |
+-----+-----+-----+
+-----+-----+-----+
| Cal Level: 15, Cal Amount: 20.00000 |
+=====+
|08-OCT-2015 19:44 |HILOcrvFULL      |/chem/msdv.i/080ct2015.b/v100812sim.d |
+-----+-----+-----+

```

Continuing Calibration

Ccal Level Mode: GLOBAL LEVEL 12

```

+-----+-----+-----+
| Ccal Level: 12, Ccal Amount: 5.000 |
+=====+
|08-OCT-2015 18:10 |HILOcrvFULL      |/chem/msdv.i/080ct2015.b/v100810sim.d |
+-----+-----+-----+
| Ccal Level: 12, Ccal Amount: 5.000 |
+=====+
|08-OCT-2015 18:10 |HILOcrvFULL      |/chem/msdv.i/080ct2015.b/v100810sima.d |
+-----+-----+-----+
| Ccal Level: 12, Ccal Amount: 5.000 |
+=====+
|08-OCT-2015 18:10 |HILOcrvFULL      |/chem/msdv.i/080ct2015.b/v100810sima.d |
+-----+-----+-----+

```

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 08-OCT-2015 13:11
 End Cal Date : 08-OCT-2015 19:44
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP RTE
 Method file : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Cal Date : 13-Oct-2015 09:46 sblack
 Curve Type : Average

Calibration File Names:

Level 2: /chem/msdv.i/08Oct2015.b/v100803sim.d
 Level 3: /chem/msdv.i/08Oct2015.b/v100804sim.d
 Level 4: /chem/msdv.i/08Oct2015.b/v100805sim.d
 Level 5: /chem/msdv.i/08Oct2015.b/v100806sim.d
 Level 6: /chem/msdv.i/08Oct2015.b/v100807sim.d
 Level 7: /chem/msdv.i/08Oct2015.b/v100808sim.d
 Level 8: /chem/msdv.i/08Oct2015.b/v100809sim.d
 Level 12: /chem/msdv.i/08Oct2015.b/v100810sim.d
 Level 13: /chem/msdv.i/08Oct2015.b/v100811sim.d
 Level 15: /chem/msdv.i/08Oct2015.b/v100812sim.d

 10/13/15

Compound	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	RRF	% RSD
	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15				
1 Freon 12	+++++	+++++	4.81097	4.08105	4.41916	4.00212		
	4.02614	4.39224	4.24348	4.04523			4.25255	6.565
2 Freon 114	+++++	+++++	4.26309	3.66799	3.69162	3.31358		
	3.41396	3.68069	3.45771	3.36163			3.60628	8.467
3 Chloromethane	+++++	+++++	5.23254	4.31168	4.31813	3.56400		
	3.52076	3.75138	3.56588	3.36415			3.95356	15.924
4 Vinyl Chloride	3.10860	2.53547	2.65259	2.22555	2.48765	2.15944		
	2.19895	2.36575	2.29938	2.22615			2.42595	11.943
5 Chloroethane	+++++	+++++	+++++	0.78246	0.83987	0.80716		
	0.84445	0.98175	0.93413	0.89632			0.86945	8.196
6 Freon 11	+++++	+++++	4.34045	4.69021	4.95691	4.51471		
	4.64889	4.97828	4.64502	4.49951			4.65925	4.728

Curve Name: V15S1008A

Initial Calibration Narrative

An initial calibration curve was analyzed on 10/08/15 on MSD-V.

The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

Tune File: v100801.

ICAL: Zero (0) out

ICV: Zero (0) out

- File # v100815sim; standard #2736-276; 5.0ppbv (50ppbv); 25mL load
- DOD & In House controls 0 out

Naphthalene was calibrated at 0.01ppbv, 0.05ppbv, 0.1ppbv, 0.5ppbv, 1.0ppbv, and 2.0ppbv.

Naphthalene is expired in the second source standard: CAR: F9A2A2185

~The quantitation ion peak (128 amu) is sufficiently resolved for accurate quantification of Naphthalene at the special reporting limit of 0.01ppbv and 0.01ppbv. However, the secondary mass ion peak (127 amu) for Naphthalene is not completely baseline-resolved. Identification of Naphthalene based on the presence and abundance ratio of confirmation ion is reliable at the lowest concentrations even when insufficient baseline resolution of the secondary mass ion peak (127 amu). The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

The following compounds were calibrated down to a special RL of 0.005ppbv:

• Vinyl Chloride	• Cis-1,2-Dichloroethene	• 1,2-Dibromoethane
• Trans-1,2-Dichloroethene	• Chloroform	• 1,2-Dichloroethane*
• 1,1-Dichloroethene	• Tetrachloroethene	• 1,1,2,2-Tetrachloroethane

The following compound was calibrated down to a special RL of 0.01ppbv:

• 1,1,2-Trichloroethane	• 1,1,1-Trichloroethane	• Ethyl Benzene
• 1,1-Dichloroethane	• Toluene	• o-Xylene

*The quantitation ion peak (62 amu) is sufficiently resolved for accurate quantification of 1,2-Dichloroethane (1,2-DCA) at the SIM reporting limit of 0.005 ppbv. However, the confirmation mass ion peak (64 amu) for 1,2-DCA is not baseline-resolved from the surrogate 1,2-Dichloroethane-d4 peak. Identification of 1,2-DCA based on the presence and abundance ratio of confirmation ion is less reliable at the lowest concentrations due to this interference with the surrogate's mass ion 64 peak.

MDL 2/19/15.

Naphthalene MDL 5/8/15.

Eurofins Air Toxics, Inc.

*Look expired

9/12/15

MSD-V

Logbook #2757

CAR #F9A2A2185

BFB Verification of 176/174 m/z Ratio: 83.191/85.8920/100-96.89°
 Tekmar Purge Flow: 83.10/8/15
 Vacuum: 83.10/8/15

IS/Std. #: 2736-260	Exp. Date: 12/21/15
BCM UC: 146071	Sm 160006
1,4-DFB 678096	652482
CB-d5 578351	555124

Verified CCV IS vs ICAL mid-point (-40%): 83

Calculation Check:

ppbv of compound = $\frac{\text{Area Sample} \times \text{Conc IS}}{\text{Area IS} \times \text{Conc S}} = \frac{(589073) \times (5000)}{(648096) \times (1091467)}$ = 4.969

Area IS RRF

(648096) (1091467)

4.969

SOP# (Circle one): 6/83/38/91/109

Method (Circle one): TO-14A/TO-15/TO-17

Reported Result: 4.969

83.10/9/15

Method Name: V15-69294/V15-10084/V15-10084

Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
	V100801	BFB Tone Check	2736-805	50.0g	2ul	100	83	10/8/15	1110	83	
	02	ICAL Level #1	2736-295	0.003ppbv	15ml	1.00	83		1155	83	exp. 11/20/15
	03			0.003ppbv	80ml	1.00	83		1311	83	exp. 11/20/15
	04	#2		0.01ppbv	50ml	1.00	83		1347	83	
	05	#4		0.02ppbv	100ml	1.00	83		1422	83	
	06	#5		0.05ppbv	250ml	1.00	83		1459	83	
	07	6		0.1ppbv	25ml	1.00	83		1535	83	
	08	7		0.5ppbv	125ml	1.00	83		1630	83	
	09	8		1.0ppbv	250ml	1.00	83		1724	83	
	10	12		5.0ppbv	25ml	1.00	83		1810	83	
	11	13		10ppbv	50ml	1.00	83		1854	83	
	12	15		20ppbv	100ml	1.00	83		1944	83	
	13	16		40ppbv	200ml	1.00	83		2024	83	
	14	System blank	34094	Humid	250ml	1.00	83		2120	83	

Reviewed

Date

10/9/15

0267 of 0451

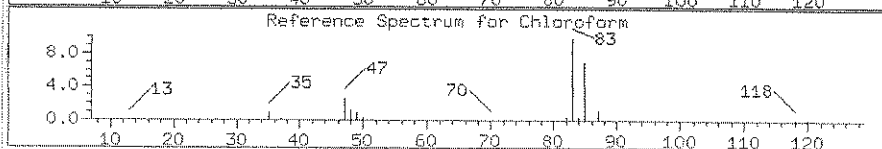
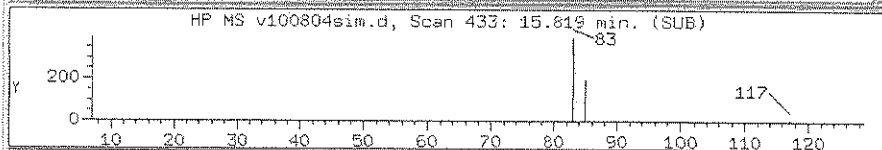
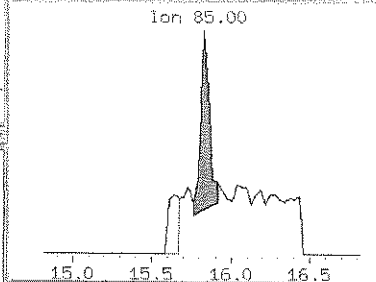
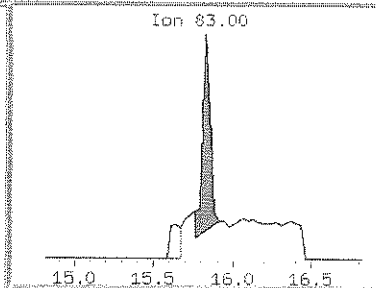
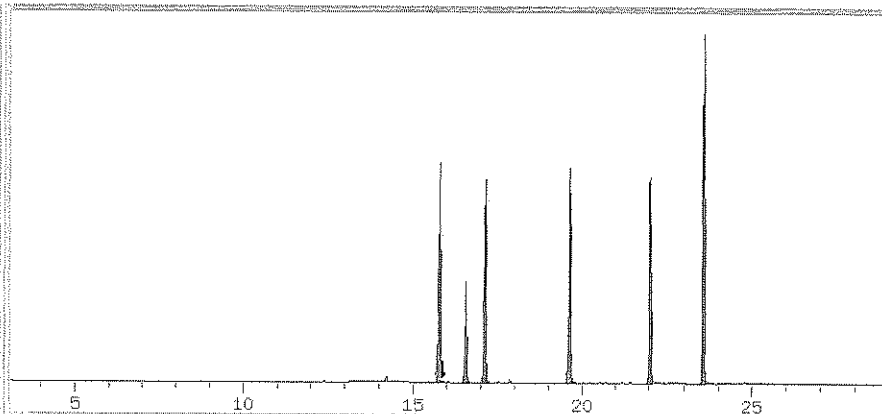
Revision 05/30/13

File Security Edit Display Process Spectra Help

Sample: ICAI Type: SAMPLE Inj.Date: 08-OCT-2015 13:47

- + 4 Vinyl Chloride
- + 8 1,1-Dichloroeth
- + 10 trans-1,2-Dichl
- + 12 cis-1,2-Dichlo
- ** 13 Bromochloromet
- * 14 Chloroform
- + 16 Carbon Tetrach
- + 17 Benzene
- ** 18 1,2-Dichloroeth
- + 19 1,2-Dichloroeth
- ** 20 1,4-Difluorobe
- + 21 Trichloroethene
- ** 22 Toluene-d8
- + 25 1,1,2-Trichlor
- + 26 Tetrachloroeth
- + 27 1,2-Dibromoeth
- ** 28 Chlorobenzene
- ** 33 4-Bromofluorob
- + 34 1,1,2,2-Tetracl
- + 36 1,4-Dichlorobe

- v100803sim.d
- v100804sim.d
- v100805sim.d
- v100806sim.d
- v100807sim.d
- v100808sim.d
- v100809sim.d
- v100810sim.d
- v100811sim.d
- v100812sim.d



Hit# RT(min) Response Amount Conc Ratio Flags Report:

1	15.634	350	0.006973	0.006973	100	a
	15.634	347			99	
2	15.819	1535	0.03050	0.03050	100	
	15.819	893			58	

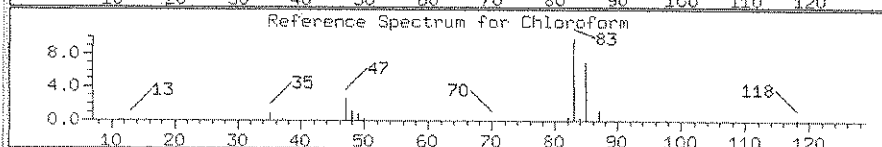
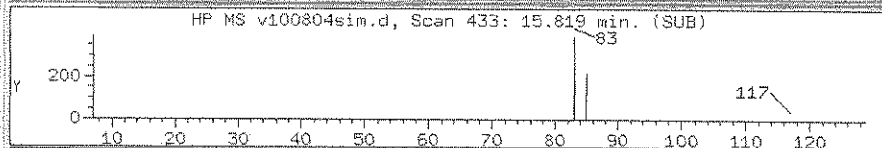
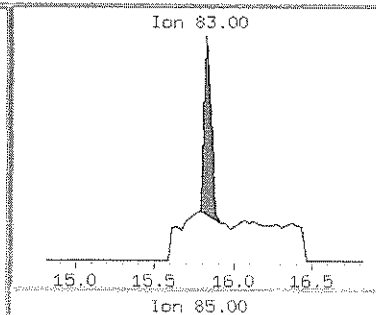
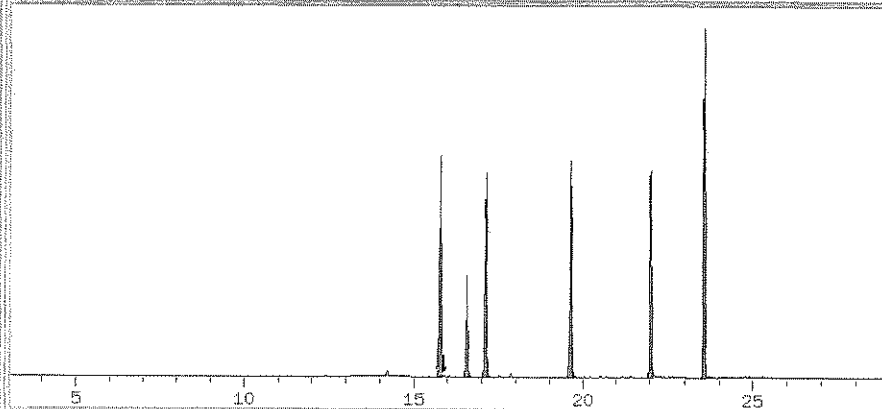
- Mark Chloroform Undetected.

Before

File Security Edit Display Process Spectra Help

Sample: ICAL Type: SAMPLE Inj.Date: 08-OCT-2015 13:47

+ 4 Vinyl Chloride
 + 8 1,1-Dichloroeth
 + 10 trans-1,2-Dichl
 + 12 cis-1,2-Dichlo
 ** 13 Bromochloromet
 * 14 Chloroform
 + 16 Carbon Tetrach
 + 17 Benzene
 ** 18 1,2-Dichloroeth
 + 19 1,2-Dichloroeth
 ** 20 1,4-Difluorobenz
 + 21 Trichloroethene
 ** 22 Toluene-d8
 + 25 1,1,2-Trichloro
 + 26 Tetrachloroeth
 + 27 1,2-Dibromoeth
 ** 28 Chlorobenzene
 ** 33 4-Bromofluorobenz
 + 34 1,1,2,2-Tetracl
 + 36 1,4-Dichlorobenz



Hit# RT(min) Response Amount Conc Ratio Flags Report:

Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	15.819	1162	0.02309	0.02309	100	M	
	15.819	633			54		

- Mark Chloroform Undetected.

v100803sim.d
 v100804sim.d
 v100805sim.d
 v100806sim.d
 v100807sim.d
 v100808sim.d
 v100809sim.d
 v100810sim.d
 v100811sim.d
 v100812sim.d

After

Correct Baseline	☒
Split Peak	☐
Merge Peak	☐
Zoom In	☐
Change Parameter	☐
System Peak Subtraction	☐
Peak Misidentified	☐
Corrected Peak Integration	☐

83 10/12/15

10/12/15

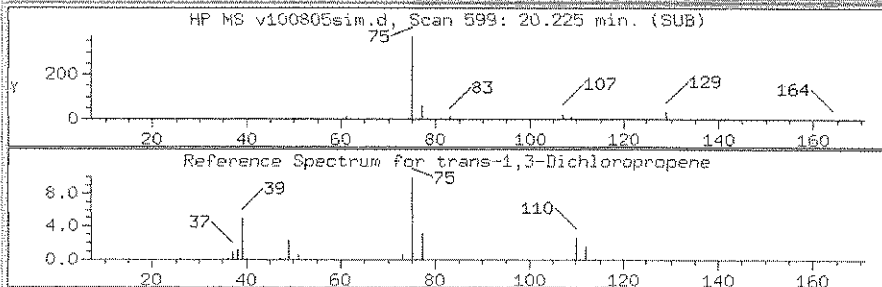
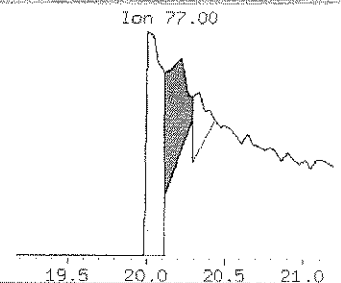
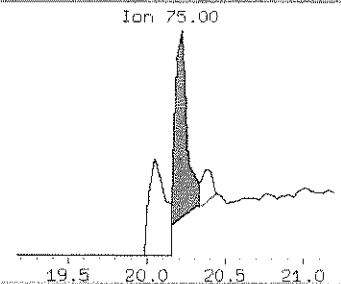
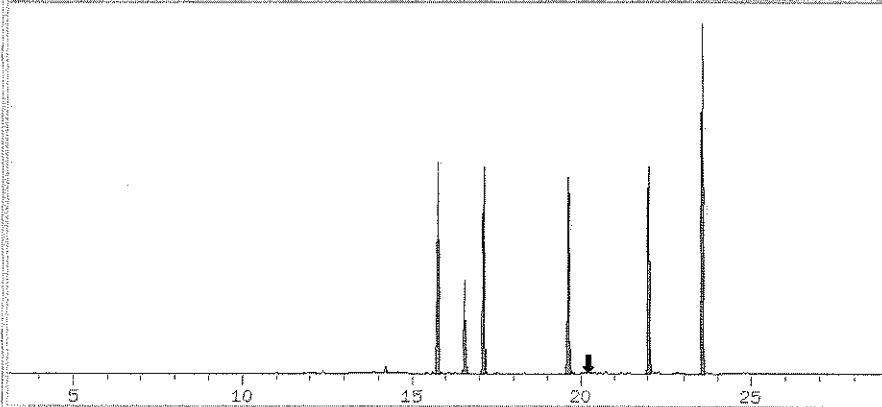
File Security Edit Display Process Spectra Help

Sample: ICAI Type: SAMPLE Inj.Date: 08-OCT-2015 14:22

- + 1 Freon 12
- + 2 Freon 114
- + 3 Chloromethane
- + 4 Vinyl Chloride
- + 6 Freon 11
- + 8 1,1-Dichloroeth
- + 7 Freon 113
- + 9 Methyl tert-but
- + 11 1,1-Dichloroeth
- + 10 trans-1,2-Dich
- + 12 cis-1,2-Dichlo
- * 13 Bromochlorometh
- + 14 Chloroform
- + 15 1,1,1-Trichlor
- + 16 Carbon Tetrach
- + 17 Benzene
- * 18 1,2-Dichloroeth
- + 19 1,2-Dichloroeth
- * 20 1,4-Difluorobenz
- + 21 Trichloroethene
- * 22 Toluene-d8
- + 23 Toluene

- * 24 trans-1,3-Dich
- + 25 1,1,2-Trichlor
- + 26 Tetrachloroeth

- v100803sim.d
- v100804sim.d
- v100805sim.d
- v100806sim.d
- v100807sim.d
- v100808sim.d
- v100809sim.d
- v100810sim.d
- v100811sim.d
- v100812sim.d



Hit# RT(min) Response Amount Conc Ratio Flags Report:

1	20.046	1501	0.04869	0.04869	100	
	20.010	6596			439	
2	20.225	2232	0.07239	0.07239	100	
	20.225	4359			195	
3	20.369	415	0.01347	0.01347	100	a
	20.333	1556			375	

Before

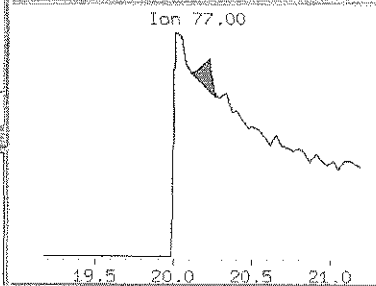
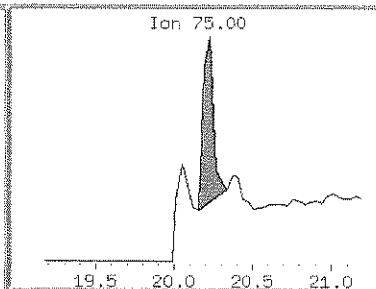
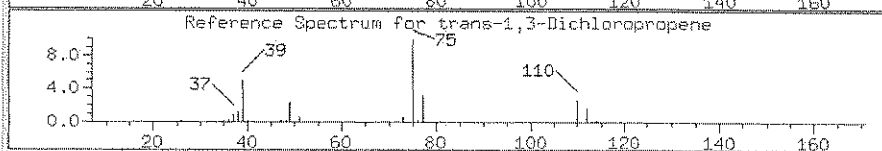
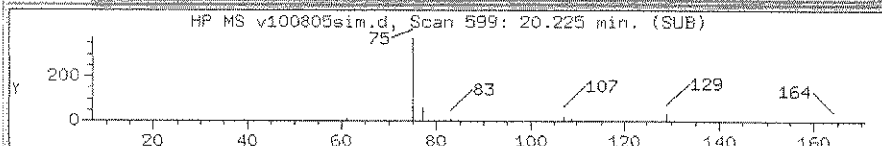
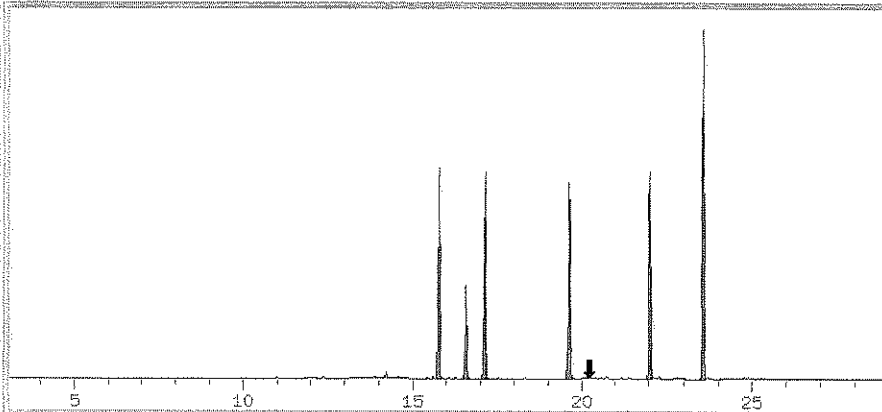
File Security Edit Display Process Spectra Help

Sample: ICAI Type: SAMPLE Inj.Date: 08-OCT-2015 14:22

+ 1 Freon 12
 + 2 Freon 114
 + 3 Chloromethane
 + 4 Vinyl Chloride
 + 6 Freon 11
 + 8 1,1-Dichloroeth
 + 7 Freon 113
 + 9 Methyl tert-but
 + 11 1,1-Dichloroeth
 + 10 trans-1,2-Dich
 + 12 cis-1,2-Dichlor
 + 13 Bromochlorometh
 + 14 Chloroform
 + 15 1,1,1-Trichloro
 + 16 Carbon Tetrach
 + 17 Benzene
 + 18 1,2-Dichloroeth
 + 19 1,2-Dichloroeth
 + 20 1,4-Difluorobenz
 + 21 Trichloroethene
 + 22 Toluene-d8
 + 23 Toluene

+ 24 trans-1,3-Dich
 + 25 1,1,2-Trichloro
 + 26 Tetrachloroeth

v100803sim.d
 v100804sim.d
 v100805sim.d
 v100806sim.d
 v100807sim.d
 v100808sim.d
 v100809sim.d
 v100810sim.d
 v100811sim.d
 v100812sim.d



Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	20.225	1644	0.05333	0.05333	100	N	
	20.225	559			34		

- Mark trans-1,3-Dichloropropene Undetected.

After

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

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Modified EPA Methods TO-14A/TO-15 SIM
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane
Target Compounds:
Dichlorodifluoromethane (Fr12)
Freon 114
Chloromethane
Vinyl Chloride
Chloroethane
1,1-Dichloroethene
trans-1,2-Dichloroethene
Methyl tert-butyl ether
1,1-Dichloroethane
cis-1,2-Dichloroethene
Chloroform
1,1,1-Trichloroethane
Carbon Tetrachloride
Surrogates:
1,2-Dichloroethane-d4

1,4-Difluorobenzene
Target Compounds:
Benzene
1,2-Dichloroethane
Trichloroethene
Toluene
Surrogates:
Toluene-d8

Chlorobenzene-d5
Target Compounds:
1,1,2-Trichloroethane
Tetrachloroethene
1,2-Dibromoethane
Ethyl Benzene
m,p-Xylene
o-Xylene
1,1,2,2-Tetrachloroethane
1,4-Dichlorobenzene
Naphthalene
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100816sim.d
 Lab Smp Id: ICV Client Smp ID: ICV
 Inj Date : 09-OCT-2015 09:06
 Operator : sab Inst ID: msdv.i
 Smp Info : 25mL #2736-276
 Misc Info : 5.0ppbv (25ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Meth Date : 13-Oct-2015 09:46 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	
RT	EXP RT (REL RT)	MASS	RESPONSE	RATIO
==	=====	=====	=====	=====
1 Freon 12				
4.965	5.003 (0.315)	85	763142 5.61914	CAS #: 75-71-8
4.965	5.003 (0.315)	87	244986	5.619 80.00- 120.00 100.00
				1.99- 61.99 32.10
2 Freon 114				
6.513	6.513 (0.413)	135	635725 5.51980	CAS #: 76-14-2
6.513	6.513 (0.413)	137	201330	5.520 80.00- 120.00 100.00
				1.60- 61.60 31.67
3 Chloromethane				
6.853	6.891 (0.435)	50	626153 4.95913	CAS #: 74-87-3
6.853	6.891 (0.435)	52	194920	4.959 80.00- 120.00 100.00
				0.84- 60.84 31.13
4 Vinyl Chloride				
7.809	7.840 (0.496)	62	411037 5.30533	CAS #: 75-01-4
7.809	7.840 (0.496)	64	111608	5.305 80.00- 120.00 100.00
				0.00- 57.01 27.15
5 Chloroethane				
10.151	10.175 (0.644)	64	162943 5.86824	CAS #: 75-00-3
				5.868 80.00- 120.00 100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.151	10.175	(0.644)	66	43643			0.00-	56.81	26.78
6 Freon 11									
10.994	10.994	(0.698)	101	842125	5.65945	CAS #: 75-69-4 5.659	80.00-	120.00	100.00
10.994	10.994	(0.698)	103	544869			34.59-	94.59	64.70
7 Freon 113									
12.399	12.427	(0.787)	151	571004	5.37870	CAS #: 76-13-1 5.379	80.00-	120.00	100.00
12.399	12.427	(0.787)	153	364020			33.91-	93.91	63.75
12.399	12.427	(0.787)	101	636758			81.45-	141.45	111.52
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	190334	4.79341	CAS #: 75-35-4 4.793	80.00-	120.00	100.00
12.372	12.399	(0.785)	61	732980			360.48-	420.48	385.10
12.372	12.399	(0.785)	96	299012			127.96-	187.96	157.10
9 Methyl tert-butyl ether									
13.827	13.855	(0.878)	73	728026	5.55956	CAS #: 1634-04-4 5.560	80.00-	120.00	100.00
13.827	13.855	(0.878)	57	343060			19.14-	79.14	47.12
13.827	13.855	(0.878)	41	320903			17.24-	77.24	44.08
10 trans-1,2-Dichloroethene									
13.882	13.882	(0.881)	98	169616	4.47033	CAS #: 156-60-5 4.470	80.00-	120.00	100.00
13.882	13.882	(0.881)	61	575131			314.49-	374.49	339.08
13.882	13.882	(0.881)	96	266932			126.88-	186.88	157.37
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	749788	5.44728	CAS #: 75-34-3 5.447	80.00-	120.00	100.00
14.596	14.596	(0.926)	65	205666			0.00-	57.13	27.43
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	236223	5.66191	CAS #: 156-59-2 5.662	80.00-	120.00	100.00
15.416	15.437	(0.978)	61	725942			281.52-	341.52	307.31
15.437	15.437	(0.980)	96	369839			128.25-	188.25	156.56
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	159682	5.00000	CAS #: 74-97-5 5.000	80.00-	120.00	100.00
15.757	15.757	(1.000)	128	124684			47.55-	107.55	78.08
15.757	15.757	(1.000)	49	466884			270.30-	330.30	292.38
14 Chloroform									
15.819	15.819	(1.004)	83	632873	5.27736	CAS #: 67-66-3 5.277	80.00-	120.00	100.00
15.819	15.819	(1.004)	85	409390			34.94-	94.94	64.69
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	734998	5.40277	CAS #: 71-55-6 5.403	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL (PPBV)	FINAL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	471620			34.47- 94.47	64.17
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	746753	6.03093	6.031	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	716788			65.95- 125.95	95.99
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	828620	5.17609	5.176	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	188115			0.00- 52.44	22.70
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	275492	4.89341	4.893	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	130379			17.43- 77.43	47.33
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	625114	5.38876	5.389	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	181002			0.00- 58.95	28.96
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	669021	5.00000		80.00- 120.00	100.00
17.097	17.125 (1.000)	88	94251			0.00- 44.06	14.09
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	486454	5.18780	5.188	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	459584			64.51- 124.51	94.48
17.509	17.509 (1.022)	97	296100			31.18- 91.18	60.87
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	532951	5.03269	5.033	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	59041			0.00- 40.98	11.08
19.629	19.629 (1.146)	100	331027			32.48- 92.48	62.11
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	1038167	5.46660	5.466	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	607943			28.76- 88.76	58.56
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	520889	5.86108	5.861	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	164979			1.64- 61.64	31.67
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	426956	5.47520	5.475	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	267110			32.73- 92.73	62.56
20.512	20.548 (0.931)	83	338619			48.90- 108.90	79.31

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL	FINAL	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	(PPBV)	(PPBV)	=====	=====	=====
26 Tetrachloroethene					CAS #:		127-18-4		
20.727	20.727	(0.940)	166	660976	5.23579	5.236	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	468698			41.19-	101.19	70.91
20.727	20.727	(0.940)	131	494231			45.32-	105.32	74.77
27 1,2-Dibromoethane (EDB)					CAS #:		106-93-4		
21.409	21.409	(0.971)	107	680040	5.49882	5.499	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	644094			65.14-	125.14	94.71
* 28 Chlorobenzene-d5					CAS #:		3114-55-4		
22.042	22.042	(1.000)	117	567357	5.00000		80.00-	120.00	100.00
22.015	22.042	(1.000)	82	265567			16.56-	76.56	46.81
29 Chlorobenzene					CAS #:		108-90-7		
22.070	22.070	(1.001)	112	964337	5.55600	5.556	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	308698			2.04-	62.04	32.01
22.070	22.070	(1.001)	77	470840			19.26-	79.26	48.83
30 Ethyl Benzene					CAS #:		100-41-4		
22.152	22.152	(1.005)	106	386010	5.57388	5.574	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	1283500			301.39-	361.39	332.50
31 m,p-Xylene					CAS #:		108-38-3		
22.289	22.317	(1.011)	106	400569	5.61224	5.612	80.00-	120.00	100.00
22.289	22.317	(1.011)	91	871227			185.82-	245.82	217.50
32 o-Xylene					CAS #:		95-47-6		
22.839	22.838	(1.036)	106	391149	5.66722	5.667	80.00-	120.00	100.00
22.839	22.838	(1.036)	91	897654			197.84-	257.84	229.49
\$ 33 4-Bromofluorobenzene					CAS #:		460-00-4		
23.548	23.548	(1.068)	174	314780	5.09794	5.098	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	347707			80.08-	140.08	110.46
23.548	23.548	(1.068)	176	306285			67.26-	127.26	97.30
34 1,1,2,2-Tetrachloroethane					CAS #:		79-34-5		
23.677	23.677	(1.074)	83	798258	5.38074	5.381	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	516041			34.77-	94.77	64.65
35 1,3-Dichlorobenzene					CAS #:		541-73-1		
24.769	24.769	(1.124)	146	639598	5.30556	5.306	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	409360			34.16-	94.16	64.00
24.747	24.769	(1.123)	111	248038			8.33-	68.33	38.78
36 1,4-Dichlorobenzene					CAS #:		106-46-7		
24.859	24.859	(1.128)	146	564352	4.76049	4.760	80.00-	120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET	RANGE	RATIO
					ON-COL	FINAL			
==	=====	=====	=====	=====	(PPBV)	(PPBV)	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	361482			33.79-	93.79	64.05
24.859	24.859	(1.128)	111	209803			6.65-	66.65	37.18

37 1,2-Dichlorobenzene									
25.285	25.285	(1.147)	146	558437	5.15457	CAS #: 95-50-1	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	355739		5.154	33.50-	93.50	63.70
25.285	25.285	(1.147)	111	219732			9.32-	69.32	39.35

38 Naphthalene									
27.415	27.414	(1.244)	128	64276	0.39598	CAS #: 91-20-3	80.00-	120.00	100.00
27.415	27.414	(1.244)	127	7958		0.3960	0.00-	42.14	12.38

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100816sim.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 5.0ppbv (25ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	159682	0.06
20 1,4-Difluorobenze	652482	391489	913475	669021	2.53
28 Chlorobenzene-d5	554576	332746	776406	567357	2.30

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 090ct2015
 Sample Matrix: GAS Fraction: VOA
 Lab Smp Id: ICV Client Smp ID: ICV
 Level: LOW Operator: sab
 Data Type: MS DATA SampleType: LCS
 SpikeList File: AT12.spk Quant Type: ISTD
 Sublist File: AT12.sub
 Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
 Misc Info: 5.0ppbv (25ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1 Freon 12	5.000	5.619	112.38	70-130
2 Freon 114	5.000	5.520	110.40	70-130
3 Chloromethane	5.000	4.959	99.18	70-130
4 Vinyl Chloride	5.000	5.305	106.11	70-130
5 Chloroethane	5.000	5.868	117.36	70-130
6 Freon 11	5.000	5.659	113.19	70-130
7 Freon 113	5.000	5.379	107.57	70-130
8 1,1-Dichloroethene	5.000	4.793	95.87	70-130
9 Methyl tert-butyl	5.000	5.560	111.19	70-130
10 trans-1,2-Dichloro	5.000	4.470	89.41	70-130
11 1,1-Dichloroethane	5.000	5.447	108.95	70-130
12 cis-1,2-Dichloroet	5.000	5.662	113.24	70-130
14 Chloroform	5.000	5.277	105.55	70-130
15 1,1,1-Trichloroeth	5.000	5.403	108.06	70-130
16 Carbon Tetrachlori	5.000	6.031	120.62	60-140
17 Benzene	5.000	5.176	103.52	70-130
19 1,2-Dichloroethane	5.000	5.389	107.78	70-130
21 Trichloroethene	5.000	5.188	103.76	70-130
23 Toluene	5.000	5.466	109.33	70-130
24 trans-1,3-Dichloro	5.000	5.861	117.22	70-130
25 1,1,2-Trichloroeth	5.000	5.475	109.50	70-130
26 Tetrachloroethene	5.000	5.236	104.72	70-130
27 1,2-Dibromoethane	5.000	5.499	109.98	70-130
29 Chlorobenzene	5.000	5.556	111.12	70-130
30 Ethyl Benzene	5.000	5.574	111.48	70-130
31 m,p-Xylene	5.000	5.612	112.24	70-130
32 o-Xylene	5.000	5.667	113.34	70-130
34 1,1,2,2-Tetrachlor	5.000	5.381	107.61	70-130
35 1,3-Dichlorobenzen	5.000	5.306	106.11	70-130
36 1,4-Dichlorobenzen	5.000	4.760	95.21	70-130
37 1,2-Dichlorobenzen	5.000	5.154	103.09	70-130
38 Naphthalene	0.5000	0.3960	79.20	60-140

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 090ct2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: ICV Client Smp ID: ICV
Level: LOW Operator: sab
Data Type: MS DATA SampleType: LCS
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 5.0ppbv (25ppbv)

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	4.893	97.87	70-130
\$ 22 Toluene-d8	5.000	5.033	100.65	70-130
\$ 33 4-Bromofluorobenze	5.000	5.098	101.96	70-130

Date : 09-OCT-2015 09:06

Client ID: ICV

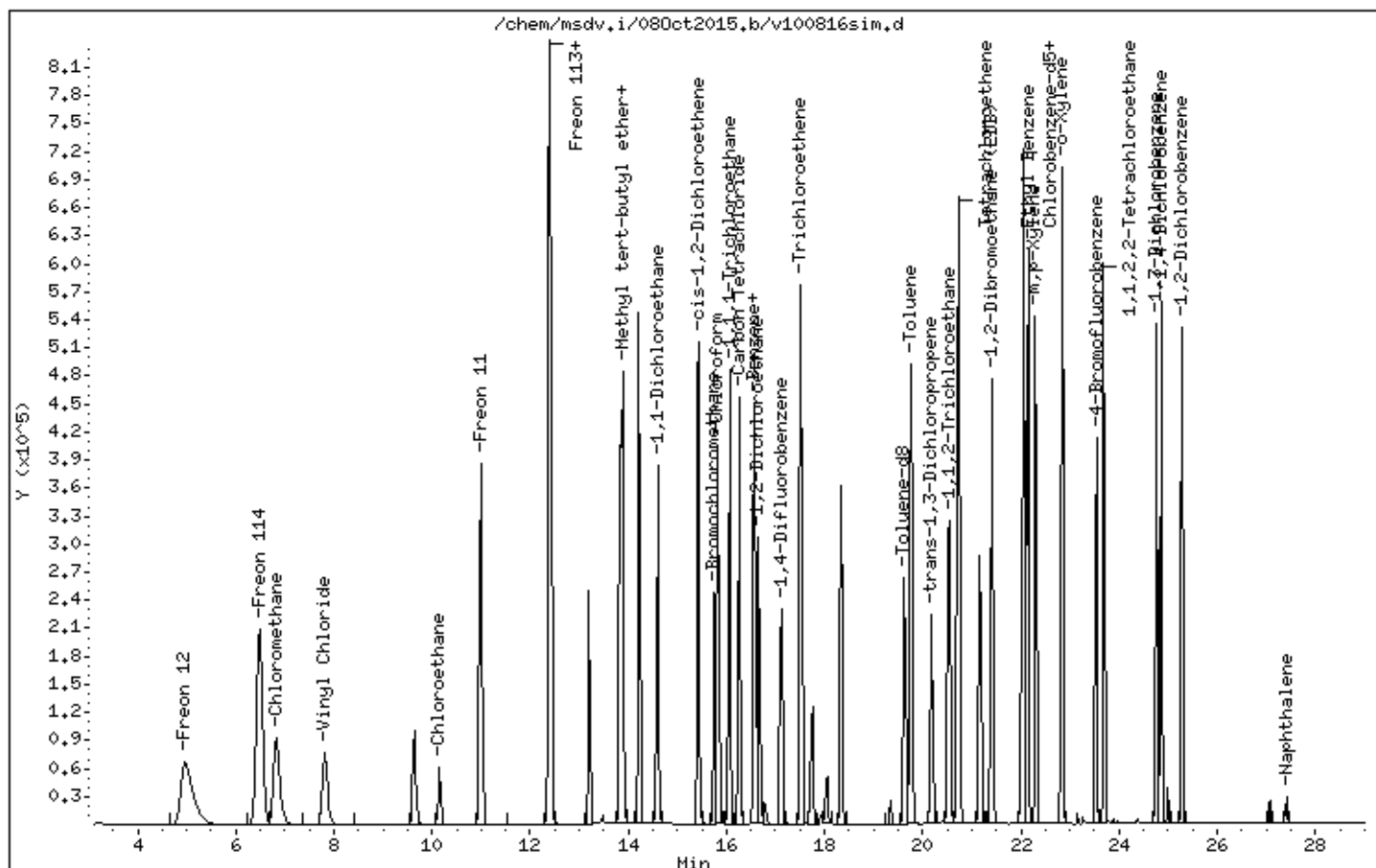
Instrument: msdv.i

Sample Info: 25mL #2736-276

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100803sim.d
Lab Smp Id: ICAL Client Smp ID: Level # 2
Inj Date : 08-OCT-2015 13:11
Operator : sab Inst ID: msdv.i
Smp Info : 25mL# 2736-295
Misc Info : 0.005ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
Meth Date : 13-Oct-2015 09:27 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 13:11 Cal File: v100803sim.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level2.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL -AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
4 Vinyl Chloride						CAS #:	75-01-4		
7.778	7.778	(0.494)	62	500	0.00500	0.006407	80.00-	120.00	100.00(a)
7.809	7.809	(0.496)	64	197			0.00-	57.01	39.40
8 1,1-Dichloroethene						CAS #:	75-35-4		
12.399	12.399	(0.787)	98	308	0.00500	0.007701	80.00-	120.00	100.00(a)
12.399	12.399	(0.787)	61	1148			360.48-	420.48	372.73
12.399	12.399	(0.787)	96	457			127.96-	187.96	148.38
10 trans-1,2-Dichloroethene						CAS #:	156-60-5		
13.910	13.910	(0.883)	98	225	0.00500	0.005887	80.00-	120.00	100.00(a)
13.882	13.882	(0.881)	61	701			314.49-	374.49	311.56
13.910	13.910	(0.883)	96	299			126.88-	186.88	132.89
12 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.437	15.437	(0.980)	98	318	0.00500	0.007567	80.00-	120.00	100.00(a)
15.437	15.437	(0.980)	61	650			281.52-	341.52	204.40

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
12	cis-1,2-Dichloroethene (continued)						
15.437	15.437 (0.980)	96	320			128.25- 188.25	100.63

*	13 Bromochloromethane				CAS #: 74-97-5		
15.757	15.757 (1.000)	130	160844	5.00000		80.00- 120.00	100.00
15.757	15.757 (1.000)	128	124938			47.55- 107.55	77.68
15.757	15.757 (1.000)	49	472118			270.30- 330.30	293.53

14	Chloroform				CAS #: 67-66-3		
15.819	15.819 (1.004)	83	725	0.00500	0.006002	80.00- 120.00	100.00(a)
15.819	15.819 (1.004)	85	379			34.94- 94.94	52.28

16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	308	0.00500	0.002470	80.00- 120.00	100.00(a)
16.250	16.250 (1.031)	119	414			65.95- 125.95	134.42

\$	18 1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	275233	5.00000	4.853	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	120712			17.43- 77.43	43.86

19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	681	0.00500	0.005778	80.00- 120.00	100.00(a)
16.576	16.576 (0.968)	64	2449			0.00- 58.95	359.62

*	20 1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	679722	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	95505			0.00- 44.06	14.05

\$	22 Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	535387	5.00000	4.976	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	58753			0.00- 40.98	10.97
19.629	19.629 (1.146)	100	333931			32.48- 92.48	62.37

26	Tetrachloroethene				CAS #: 127-18-4		
20.727	20.727 (0.940)	166	850	0.00500	0.006717	80.00- 120.00	100.00(a)
20.727	20.727 (0.940)	129	622			41.19- 101.19	73.18
20.727	20.727 (0.940)	131	770			45.32- 105.32	90.59

27	1,2-Dibromoethane (EDB)				CAS #: 106-93-4		
21.409	21.409 (0.971)	107	701	0.00500	0.005655	80.00- 120.00	100.00(a)
21.409	21.409 (0.971)	109	697			65.14- 125.14	99.43

*	28 Chlorobenzene-d5				CAS #: 3114-55-4		
22.042	22.042 (1.000)	117	568713	5.00000		80.00- 120.00	100.00
22.015	22.015 (1.000)	82	263467			16.56- 76.56	46.33

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4		
23.548	23.548	(1.068)	174	291937	5.000000	4.717	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	322840			80.08-	140.08	110.59
23.548	23.548	(1.068)	176	286179			67.26-	127.26	98.03

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	1002	0.00500	0.006738	80.00-	120.00	100.00(a)
23.677	23.677	(1.074)	85	699			34.77-	94.77	69.76

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100803sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 0.005ppbv (0.05ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level # 2
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	160844	0.79
20 1,4-Difluorobenze	652482	391489	913475	679722	4.17
28 Chlorobenzene-d5	554576	332746	776406	568713	2.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 13:11

Client ID: Level # 2

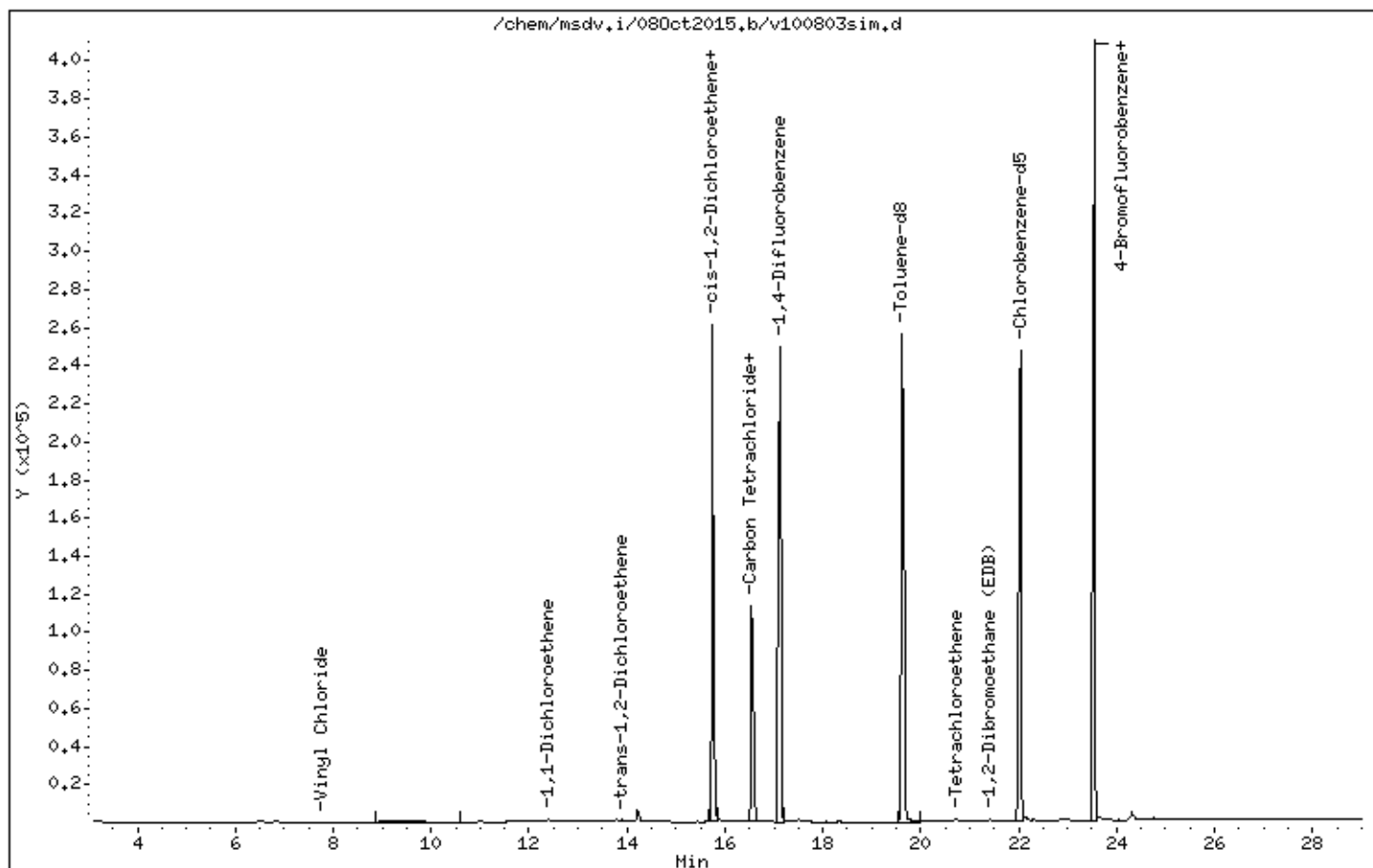
Instrument: msdv.i

Sample Info: 25mL# 2736-295

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100804sim.d
Lab Smp Id: ICAL Client Smp ID: Level # 3
Inj Date : 08-OCT-2015 13:47
Operator : sab Inst ID: msdv.i
Smp Info : 50mL# 2736-295
Misc Info : 0.01ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
Meth Date : 13-Oct-2015 09:27 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 13:47 Cal File: v100804sim.d
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level3.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====		=====
4 Vinyl Chloride						CAS #:	75-01-4		
7.778	7.778	(0.494)	62	835	0.01000	0.01045	80.00-	120.00	100.00
7.778	7.778	(0.494)	64	257			0.00-	57.01	30.78
8 1,1-Dichloroethene						CAS #:	75-35-4		
12.399	12.399	(0.787)	98	449	0.01000	0.01096	80.00-	120.00	100.00
12.372	12.372	(0.785)	61	1888			360.48-	420.48	420.49
12.399	12.399	(0.787)	96	1247			127.96-	187.96	277.73
10 trans-1,2-Dichloroethene						CAS #:	156-60-5		
13.910	13.910	(0.883)	98	492	0.01000	0.01257	80.00-	120.00	100.00(a)
13.882	13.882	(0.881)	61	1263			314.49-	374.49	256.71
13.910	13.910	(0.883)	96	668			126.88-	186.88	135.77
12 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.437	15.437	(0.980)	98	447	0.01000	0.01039	80.00-	120.00	100.00(a)
15.437	15.437	(0.980)	61	1475			281.52-	341.52	329.98

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
12 cis-1,2-Dichloroethene (continued)									
15.437	15.437	(0.980)	96	1040			128.25-	188.25	232.66

* 13 Bromochloromethane					CAS #: 74-97-5				
15.757	15.757	(1.000)	130	164664	5.00000		80.00-	120.00	100.00
15.757	15.757	(1.000)	128	126708			47.55-	107.55	76.95
15.757	15.757	(1.000)	49	479569			270.30-	330.30	291.24

14 Chloroform					CAS #: 67-66-3				
15.819	15.819	(1.004)	83	1162	0.01000	0.009396	80.00-	120.00	100.00(aM)
15.819	15.819	(1.004)	85	632			34.94-	94.94	54.39

16 Carbon Tetrachloride					CAS #: 56-23-5				
16.250	16.250	(1.031)	117	709	0.01000	0.005553	80.00-	120.00	100.00(a)
16.281	16.281	(1.033)	119	776			65.95-	125.95	109.45

17 Benzene					CAS #: 71-43-2				
16.576	16.576	(0.968)	78	2073	0.01000	0.01265	80.00-	120.00	100.00(a)
16.576	16.576	(0.968)	77	787			0.00-	52.44	37.96

\$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0				
16.548	16.548	(1.050)	65	281002	5.00000	4.840	80.00-	120.00	100.00
16.548	16.548	(1.050)	67	122971			17.43-	77.43	43.76

19 1,2-Dichloroethane					CAS #: 107-06-2				
16.658	16.658	(0.973)	62	1248	0.01000	0.01051	80.00-	120.00	100.00(a)
16.658	16.658	(0.973)	64	490			0.00-	58.95	39.26

* 20 1,4-Difluorobenzene					CAS #: 540-36-3				
17.125	17.125	(1.000)	114	684901	5.00000		80.00-	120.00	100.00
17.097	17.097	(1.000)	88	96347			0.00-	44.06	14.07

21 Trichloroethene					CAS #: 79-01-6				
17.509	17.509	(1.022)	130	1248	0.01000	0.01300	80.00-	120.00	100.00(a)
17.509	17.509	(1.022)	95	1105			64.51-	124.51	88.54
17.509	17.509	(1.022)	97	836			31.18-	91.18	66.99

\$ 22 Toluene-d8					CAS #: 2037-26-5				
19.629	19.629	(1.146)	98	537034	5.00000	4.954	80.00-	120.00	100.00
19.629	19.629	(1.146)	70	59647			0.00-	40.98	11.11
19.629	19.629	(1.146)	100	337689			32.48-	92.48	62.88

25 1,1,2-Trichloroethane					CAS #: 79-00-5				
20.548	20.548	(0.932)	97	886	0.01000	0.01127	80.00-	120.00	100.00(a)
20.548	20.548	(0.932)	99	551			32.73-	92.73	62.19
20.548	20.548	(0.932)	83	714			48.90-	108.90	80.59

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	1362	0.01000	0.01070	80.00-	120.00	100.00(a)
20.727	20.727	(0.940)	129	998			41.19-	101.19	73.27
20.727	20.727	(0.940)	131	1162			45.32-	105.32	85.32

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	1248	0.01000	0.01001	80.00-	120.00	100.00(a)
21.409	21.409	(0.971)	109	1211			65.14-	125.14	97.04

* 28 Chlorobenzene-d5						CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	571828	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	265475			16.56-	76.56	46.43

\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4		
23.548	23.548	(1.068)	174	302134	5.00000	4.855	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	334507			80.08-	140.08	110.71
23.548	23.548	(1.068)	176	295139			67.26-	127.26	97.68

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	1714	0.01000	0.01146	80.00-	120.00	100.00(a)
23.677	23.677	(1.074)	85	1078			34.77-	94.77	62.89

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	1909	0.01000	0.01598	80.00-	120.00	100.00(a)
24.881	24.881	(1.129)	148	1515			33.79-	93.79	79.36
24.859	24.859	(1.128)	111	922			6.65-	66.65	48.30

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100804sim.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 3
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: sab	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m	
Misc Info: 0.01ppbv (0.05ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	164664	3.18
20 1,4-Difluorobenze	652482	391489	913475	684901	4.97
28 Chlorobenzene-d5	554576	332746	776406	571828	3.11

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 13:47

Client ID: Level # 3

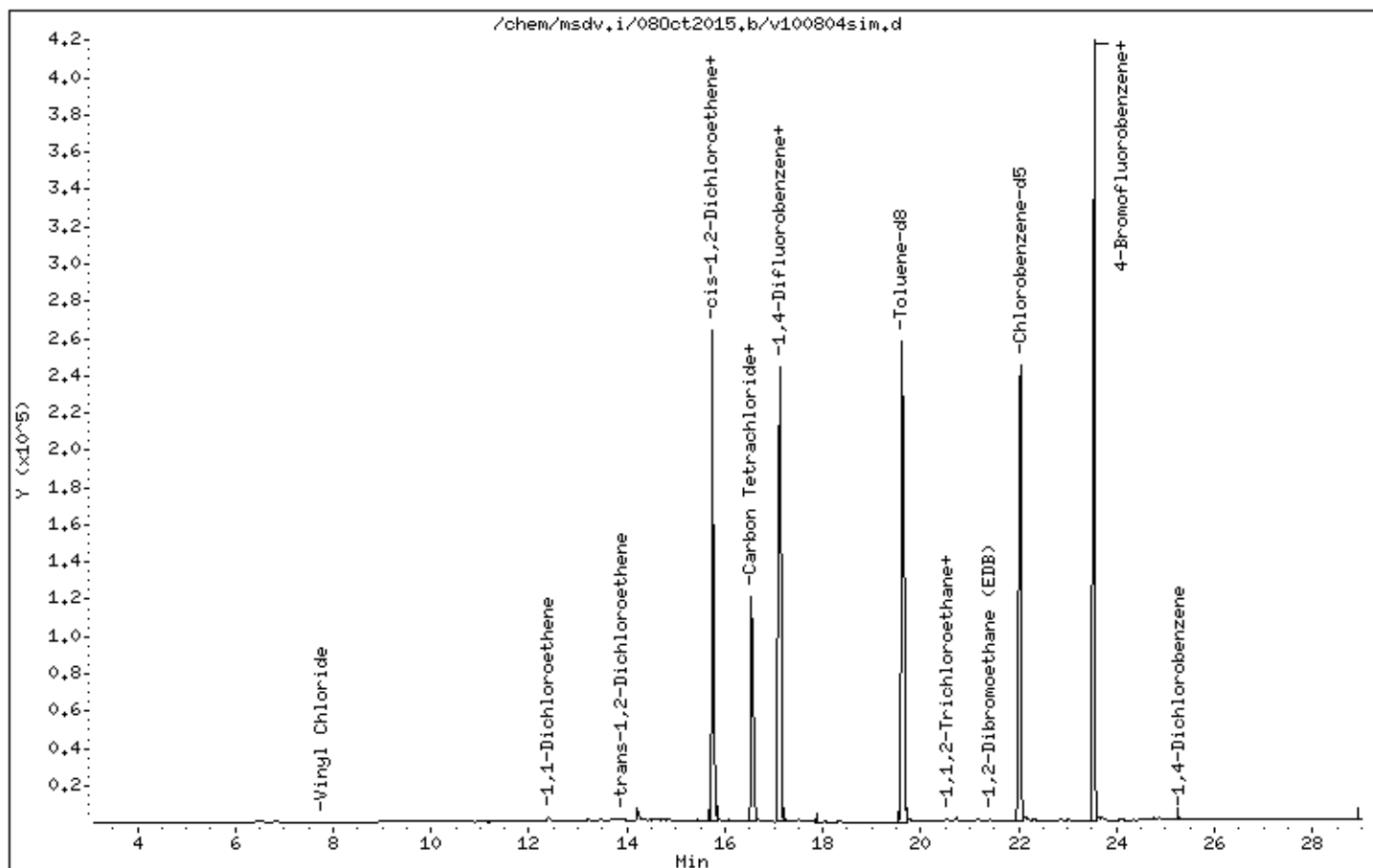
Instrument: msdv.i

Sample Info: 50mL# 2736-295

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100805sim.d
 Lab Smp Id: ICAL Client Smp ID: Level # 4
 Inj Date : 08-OCT-2015 14:22
 Operator : sab Inst ID: msdv.i
 Smp Info : 50mL# 2736-295
 Misc Info : 0.02ppbv (0.05ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Meth Date : 13-Oct-2015 09:27 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 14:22 Cal File: v100805sim.d
 Als bottle: 2 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: Level4.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
			AMOUNTS						
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.003	5.003	(0.318)	85	3047	0.02000	0.02263	80.00-	120.00	100.00
5.041	5.041	(0.320)	87	697			1.99-	61.99	22.87
2 Freon 114						CAS #:	76-14-2		
6.513	6.513	(0.413)	135	2700	0.02000	0.02364	80.00-	120.00	100.00
6.513	6.513	(0.413)	137	779			1.60-	61.60	28.85
3 Chloromethane						CAS #:	74-87-3		
6.891	6.891	(0.437)	50	3314	0.02000	0.02647	80.00-	120.00	100.00(a)
6.891	6.891	(0.437)	52	1293			0.84-	60.84	39.02
4 Vinyl Chloride						CAS #:	75-01-4		
7.809	7.809	(0.496)	62	1680	0.02000	0.02187	80.00-	120.00	100.00
7.809	7.809	(0.496)	64	467			0.00-	57.01	27.80
6 Freon 11						CAS #:	75-69-4		
10.994	10.994	(0.698)	101	2749	0.02000	0.01863	80.00-	120.00	100.00(a)

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====
6 Freon 11 (continued)								
10.994	10.994	(0.698)	103	1896			34.59- 94.59	68.97
8 1,1-Dichloroethene								
12.399	12.399	(0.787)	98	967	0.02000	CAS #: 0.02456	75-35-4 80.00- 120.00	100.00
12.372	12.372	(0.785)	61	3195			360.48- 420.48	330.40
12.372	12.372	(0.785)	96	1730			127.96- 187.96	178.90
7 Freon 113								
12.399	12.399	(0.787)	151	2125	0.02000	CAS #: 0.02019	76-13-1 80.00- 120.00	100.00
12.399	12.399	(0.787)	153	1438			33.91- 93.91	67.67
12.399	12.399	(0.787)	101	2555			81.45- 141.45	120.24
9 Methyl tert-butyl ether								
13.855	13.855	(0.879)	73	2480	0.02000	CAS #: 0.01910	1634-04-4 80.00- 120.00	100.00(a)
13.855	13.855	(0.879)	57	1245			19.14- 79.14	50.20
13.855	13.855	(0.879)	41	2001			17.24- 77.24	80.69
11 1,1-Dichloroethane								
14.596	14.596	(0.926)	63	2830	0.02000	CAS #: 0.02073	75-34-3 80.00- 120.00	100.00
14.596	14.596	(0.926)	65	795			0.00- 57.13	28.09
10 trans-1,2-Dichloroethene								
13.882	13.882	(0.881)	98	767	0.02000	CAS #: 0.02039	156-60-5 80.00- 120.00	100.00(a)
13.882	13.882	(0.881)	61	2508			314.49- 374.49	326.99
13.882	13.882	(0.881)	96	1186			126.88- 186.88	154.63
12 cis-1,2-Dichloroethene								
15.437	15.437	(0.980)	98	771	0.02000	CAS #: 0.01864	156-59-2 80.00- 120.00	100.00(a)
15.437	15.437	(0.980)	61	2616			281.52- 341.52	339.30
15.437	15.437	(0.980)	96	1226			128.25- 188.25	159.01
* 13 Bromochloromethane								
15.757	15.757	(1.000)	130	158336	5.00000	CAS #: 74-97-5	74-97-5 80.00- 120.00	100.00
15.757	15.757	(1.000)	128	122857			47.55- 107.55	77.59
15.757	15.757	(1.000)	49	474814			270.30- 330.30	299.88
14 Chloroform								
15.819	15.819	(1.004)	83	2448	0.02000	CAS #: 0.02059	67-66-3 80.00- 120.00	100.00
15.849	15.849	(1.006)	85	1731			34.94- 94.94	70.71
15 1,1,1-Trichloroethane								
16.065	16.065	(1.020)	97	2833	0.02000	CAS #: 0.02100	71-55-6 80.00- 120.00	100.00
16.065	16.065	(1.020)	99	1716			34.47- 94.47	60.57
16 Carbon Tetrachloride								
16.250	16.250	(1.031)	117	1612	0.02000	CAS #: 0.01313	56-23-5 80.00- 120.00	100.00(a)

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===		=====	=====	=====		=====
16 Carbon Tetrachloride (continued)									
16.281	16.281	(1.033)	119	1448			65.95-	125.95	89.83

17 Benzene						CAS #:	71-43-2		
16.576	16.576	(0.968)	78	3644	0.02000	0.02273	80.00-	120.00	100.00(a)
16.576	16.576	(0.968)	77	1279			0.00-	52.44	35.10

\$ 18 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.576	16.576	(1.052)	65	278547	5.00000	4.990	80.00-	120.00	100.00
16.576	16.576	(1.052)	67	122027			17.43-	77.43	43.81

19 1,2-Dichloroethane						CAS #:	107-06-2		
16.658	16.658	(0.973)	62	2263	0.02000	0.01948	80.00-	120.00	100.00(a)
16.686	16.686	(0.974)	64	782			0.00-	58.95	34.56

* 20 1,4-Difluorobenzene						CAS #:	540-36-3		
17.125	17.125	(1.000)	114	669881	5.00000		80.00-	120.00	100.00
17.125	17.125	(1.000)	88	95160			0.00-	44.06	14.21

21 Trichloroethene						CAS #:	79-01-6		
17.509	17.509	(1.022)	130	2011	0.02000	0.02142	80.00-	120.00	100.00
17.509	17.509	(1.022)	95	2051			64.51-	124.51	101.99
17.509	17.509	(1.022)	97	1400			31.18-	91.18	69.62

\$ 22 Toluene-d8						CAS #:	2037-26-5		
19.629	19.629	(1.146)	98	523767	5.00000	4.940	80.00-	120.00	100.00
19.629	19.629	(1.146)	70	58309			0.00-	40.98	11.13
19.629	19.629	(1.146)	100	328482			32.48-	92.48	62.72

23 Toluene						CAS #:	108-88-3		
19.763	19.763	(1.154)	91	4199	0.02000	0.02208	80.00-	120.00	100.00
19.763	19.763	(1.154)	92	2528			28.76-	88.76	60.20

24 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.225	20.225	(0.918)	75	1644	0.02000	0.01873	80.00-	120.00	100.00(aM)
20.225	20.225	(0.918)	77	558			1.64-	61.64	33.94

25 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.548	20.548	(0.932)	97	1530	0.02000	0.01987	80.00-	120.00	100.00(a)
20.548	20.548	(0.932)	99	1102			32.73-	92.73	72.03
20.548	20.548	(0.932)	83	1272			48.90-	108.90	83.14

26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	2503	0.02000	0.02008	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	1853			41.19-	101.19	74.03
20.727	20.727	(0.940)	131	1988			45.32-	105.32	79.42

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
27	1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.409	21.409 (0.971)	107	2393	0.02000	0.01960	80.00- 120.00	100.00(a)	
21.409	21.409 (0.971)	109	2186			65.14- 125.14	91.35	

* 28	Chlorobenzene-d5					CAS #: 3114-55-4		
22.042	22.042 (1.000)	117	560237	5.00000		80.00- 120.00	100.00	
22.015	22.015 (1.000)	82	259883			16.56- 76.56	46.39	

29	Chlorobenzene					CAS #: 108-90-7		
22.070	22.070 (1.001)	112	3573	0.02000	0.02085	80.00- 120.00	100.00	
22.070	22.070 (1.001)	114	1535			2.04- 62.04	42.96	
22.015	22.015 (0.999)	77	6353			19.26- 79.26	177.81	

30	Ethyl Benzene					CAS #: 100-41-4		
22.152	22.152 (1.005)	106	1360	0.02000	0.01989	80.00- 120.00	100.00(a)	
22.152	22.152 (1.005)	91	5361			301.39- 361.39	394.19	

31	m,p-Xylene					CAS #: 108-38-3		
22.317	22.317 (1.012)	106	1446	0.02000	0.02052	80.00- 120.00	100.00(a)	
22.317	22.317 (1.012)	91	3199			185.82- 245.82	221.23	

32	o-Xylene					CAS #: 95-47-6		
22.838	22.838 (1.036)	106	1489	0.02000	0.02185	80.00- 120.00	100.00	
22.838	22.838 (1.036)	91	3146			197.84- 257.84	211.28	

\$ 33	4-Bromofluorobenzene					CAS #: 460-00-4		
23.548	23.548 (1.068)	174	303151	5.00000	4.972	80.00- 120.00	100.00	
23.548	23.548 (1.068)	95	331767			80.08- 140.08	109.44	
23.548	23.548 (1.068)	176	295779			67.26- 127.26	97.57	

34	1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
23.677	23.677 (1.074)	83	2839	0.02000	0.01938	80.00- 120.00	100.00(a)	
23.677	23.677 (1.074)	85	2020			34.77- 94.77	71.15	

35	1,3-Dichlorobenzene					CAS #: 541-73-1		
24.769	24.769 (1.124)	146	2921	0.02000	0.02454	80.00- 120.00	100.00	
24.769	24.769 (1.124)	148	2846			34.16- 94.16	97.43	
24.769	24.769 (1.124)	111	1229			8.33- 68.33	42.07	

36	1,4-Dichlorobenzene					CAS #: 106-46-7		
24.859	24.859 (1.128)	146	2765	0.02000	0.02362	80.00- 120.00	100.00	
24.881	24.881 (1.129)	148	1698			33.79- 93.79	61.41	
24.859	24.859 (1.128)	111	988			6.65- 66.65	35.73	

37	1,2-Dichlorobenzene					CAS #: 95-50-1		
25.285	25.285 (1.147)	146	2883	0.02000	0.02695	80.00- 120.00	100.00	

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	AMOUNTS		TARGET =====	RANGE =====	RATIO =====
					CAL-AMT (PPBV)	ON-COL (PPBV)			
37 1,2-Dichlorobenzene (continued)									
25.285	25.285	(1.147)	148	1758			33.50-	93.50	60.98
25.285	25.285	(1.147)	111	1363			9.32-	69.32	47.28

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100805sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 0.02ppbv (0.05ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level # 4
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	158336	-0.79
20 1,4-Difluorobenze	652482	391489	913475	669881	2.67
28 Chlorobenzene-d5	554576	332746	776406	560237	1.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 14:22

Client ID: Level # 4

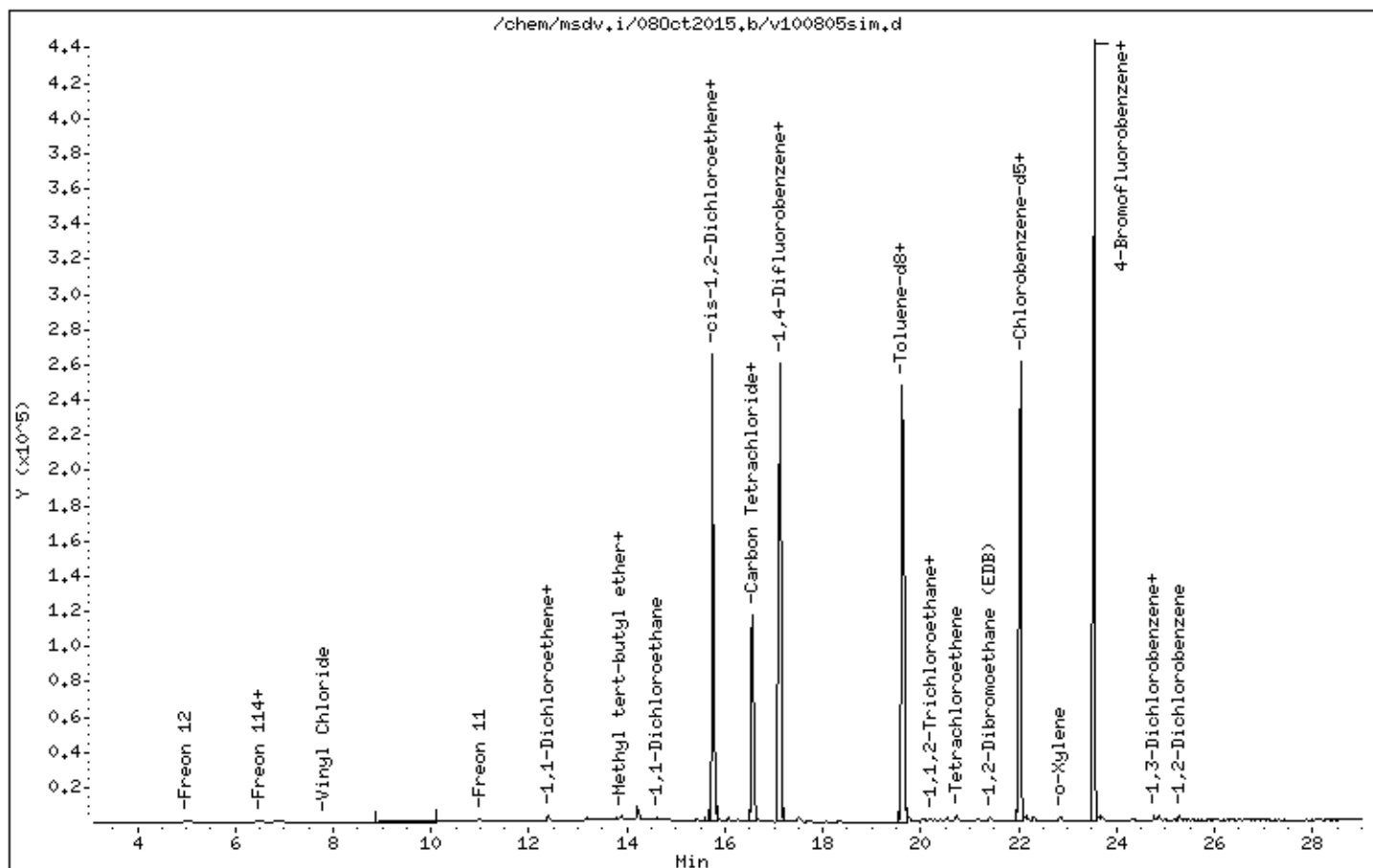
Instrument: msdv.i

Sample Info: 50mL# 2736-295

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/080ct2015.b/v100806sim.d
Lab Smp Id: ICAL Client Smp ID: Level # 5
Inj Date : 08-OCT-2015 14:58
Operator : sab Inst ID: msdv.i
Smp Info : 250mL# 2736-295
Misc Info : 0.05ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 14:58 Cal File: v100806sim.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	
		AMOUNTS		
RT	EXP RT (REL RT)	MASS	RESPONSE (PPBV)	RATIO
1 Freon 12				
5.003	5.003 (0.318)	85	6264 0.05000	100.00(a)
5.003	5.003 (0.318)	87	2099	33.51
2 Freon 114				
6.551	6.551 (0.416)	135	5630 0.05000	100.00
6.551	6.551 (0.416)	137	1787	31.74
3 Chloromethane				
6.891	6.891 (0.437)	50	6618 0.05000	100.00
6.891	6.891 (0.437)	52	1948	29.43
4 Vinyl Chloride				
7.809	7.809 (0.496)	62	3416 0.05000	100.00(a)
7.840	7.840 (0.498)	64	921	26.96
5 Chloroethane				
10.175	10.175 (0.646)	64	1201 0.05000	100.00(a)

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.175	10.175	(0.646)	66	462			0.00-	56.81	38.47

6 Freon 11						CAS #:	75-69-4		
10.994	10.994	(0.698)	101	7199	0.05000	0.05033	80.00-	120.00	100.00
10.994	10.994	(0.698)	103	4567			34.59-	94.59	63.44

7 Freon 113						CAS #:	76-13-1		
12.400	12.400	(0.787)	151	5220	0.05000	0.05115	80.00-	120.00	100.00
12.427	12.427	(0.789)	153	3292			33.91-	93.91	63.07
12.400	12.400	(0.787)	101	5639			81.45-	141.45	108.03

8 1,1-Dichloroethene						CAS #:	75-35-4		
12.400	12.400	(0.787)	98	1789	0.05000	0.04687	80.00-	120.00	100.00(a)
12.400	12.400	(0.787)	61	6755			360.48-	420.48	377.59
12.400	12.400	(0.787)	96	3127			127.96-	187.96	174.79

9 Methyl tert-butyl ether						CAS #:	1634-04-4		
13.855	13.855	(0.879)	73	6391	0.05000	0.05077	80.00-	120.00	100.00
13.855	13.855	(0.879)	57	3628			19.14-	79.14	56.77
13.855	13.855	(0.879)	41	3534			17.24-	77.24	55.30

10 trans-1,2-Dichloroethene						CAS #:	156-60-5		
13.910	13.910	(0.883)	98	1754	0.05000	0.04809	80.00-	120.00	100.00(a)
13.882	13.882	(0.881)	61	6020			314.49-	374.49	343.22
13.882	13.882	(0.881)	96	2848			126.88-	186.88	162.37

11 1,1-Dichloroethane						CAS #:	75-34-3		
14.596	14.596	(0.926)	63	6592	0.05000	0.04982	80.00-	120.00	100.00(a)
14.596	14.596	(0.926)	65	1807			0.00-	57.13	27.41

12 cis-1,2-Dichloroethene						CAS #:	156-59-2		
15.437	15.437	(0.980)	98	1864	0.05000	0.04648	80.00-	120.00	100.00(a)
15.437	15.437	(0.980)	61	5826			281.52-	341.52	312.55
15.437	15.437	(0.980)	96	3246			128.25-	188.25	174.14

* 13 Bromochloromethane						CAS #:	74-97-5		
15.757	15.757	(1.000)	130	153490	5.00000		80.00-	120.00	100.00
15.757	15.757	(1.000)	128	119515			47.55-	107.55	77.87
15.757	15.757	(1.000)	49	459805			270.30-	330.30	299.57

14 Chloroform						CAS #:	67-66-3		
15.819	15.819	(1.004)	83	5672	0.05000	0.04920	80.00-	120.00	100.00(a)
15.819	15.819	(1.004)	85	3733			34.94-	94.94	65.81

15 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.065	16.065	(1.020)	97	6581	0.05000	0.05033	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	4281			34.47- 94.47	65.05
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	4397	0.05000	0.03694	80.00- 120.00	100.00(a)
16.250	16.250 (1.031)	119	4253			65.95- 125.95	96.73
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	7956	0.05000	0.04953	80.00- 120.00	100.00(a)
16.576	16.576 (0.968)	77	1818			0.00- 52.44	22.85
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	276385	5.00000	5.107	80.00- 120.00	100.00
16.576	16.576 (1.052)	67	120381			17.43- 77.43	43.56
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	5527	0.05000	0.04749	80.00- 120.00	100.00(a)
16.658	16.658 (0.973)	64	1617			0.00- 58.95	29.26
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	671231	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	94419			0.00- 44.06	14.07
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	4581	0.05000	0.04869	80.00- 120.00	100.00(a)
17.509	17.509 (1.022)	95	4453			64.51- 124.51	97.21
17.509	17.509 (1.022)	97	2701			31.18- 91.18	58.96
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	525744	5.00000	4.948	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	58281			0.00- 40.98	11.09
19.629	19.629 (1.146)	100	330494			32.48- 92.48	62.86
23	Toluene				CAS #: 108-88-3		
19.764	19.764 (1.154)	91	9768	0.05000	0.05126	80.00- 120.00	100.00
19.764	19.764 (1.154)	92	5717			28.76- 88.76	58.53
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.225	20.225 (0.918)	75	4334	0.05000	0.04899	80.00- 120.00	100.00(a)
20.225	20.225 (0.918)	77	4567			1.64- 61.64	105.38
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	3848	0.05000	0.04957	80.00- 120.00	100.00(a)
20.548	20.548 (0.932)	99	2279			32.73- 92.73	59.23
20.548	20.548 (0.932)	83	2901			48.90- 108.90	75.39

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4	
20.728	20.728	(0.940)	166	5966	0.05000	0.04747	80.00- 120.00	100.00(a)
20.728	20.728	(0.940)	129	4218			41.19- 101.19	70.70
20.728	20.728	(0.940)	131	4532			45.32- 105.32	75.96

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4	
21.409	21.409	(0.971)	107	5940	0.05000	0.04825	80.00- 120.00	100.00(a)
21.409	21.409	(0.971)	109	5585			65.14- 125.14	94.02

* 28 Chlorobenzene-d5						CAS #:	3114-55-4	
22.042	22.042	(1.000)	117	564811	5.00000		80.00- 120.00	100.00
22.015	22.015	(1.000)	82	264121			16.56- 76.56	46.76

29 Chlorobenzene						CAS #:	108-90-7	
22.070	22.070	(1.001)	112	8851	0.05000	0.05122	80.00- 120.00	100.00
22.070	22.070	(1.001)	114	3088			2.04- 62.04	34.89
22.015	22.015	(0.999)	77	9094			19.26- 79.26	102.75

30 Ethyl Benzene						CAS #:	100-41-4	
22.152	22.152	(1.005)	106	3552	0.05000	0.05152	80.00- 120.00	100.00
22.152	22.152	(1.005)	91	11749			301.39- 361.39	330.77

31 m,p-Xylene						CAS #:	108-38-3	
22.317	22.317	(1.012)	106	3574	0.05000	0.05030	80.00- 120.00	100.00
22.317	22.317	(1.012)	91	7692			185.82- 245.82	215.22

32 o-Xylene						CAS #:	95-47-6	
22.839	22.839	(1.036)	106	3382	0.05000	0.04922	80.00- 120.00	100.00(a)
22.839	22.839	(1.036)	91	7788			197.84- 257.84	230.28

\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4	
23.548	23.548	(1.068)	174	314795	5.00000	5.121	80.00- 120.00	100.00
23.548	23.548	(1.068)	95	346455			80.08- 140.08	110.06
23.548	23.548	(1.068)	176	307640			67.26- 127.26	97.73

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5	
23.677	23.677	(1.074)	83	7339	0.05000	0.04969	80.00- 120.00	100.00(a)
23.677	23.677	(1.074)	85	4670			34.77- 94.77	63.63

35 1,3-Dichlorobenzene						CAS #:	541-73-1	
24.769	24.769	(1.124)	146	7055	0.05000	0.05879	80.00- 120.00	100.00
24.769	24.769	(1.124)	148	5062			34.16- 94.16	71.75
24.769	24.769	(1.124)	111	2998			8.33- 68.33	42.49

36 1,4-Dichlorobenzene						CAS #:	106-46-7	
24.859	24.859	(1.128)	146	6270	0.05000	0.05313	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
36	1,4-Dichlorobenzene (continued)							
24.859	24.859	(1.128)	148	4344			33.79- 93.79	69.28
24.859	24.859	(1.128)	111	2527			6.65- 66.65	40.30

37	1,2-Dichlorobenzene				CAS #:	95-50-1		
25.285	25.285	(1.147)	146	6384	0.05000	0.05919	80.00- 120.00	100.00
25.285	25.285	(1.147)	148	4074			33.50- 93.50	63.82
25.285	25.285	(1.147)	111	2685			9.32- 69.32	42.06

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100806sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: sab
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level # 5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	153490	-3.82
20 1,4-Difluorobenze	652482	391489	913475	671231	2.87
28 Chlorobenzene-d5	554576	332746	776406	564811	1.85

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 14:58

Client ID: Level # 5

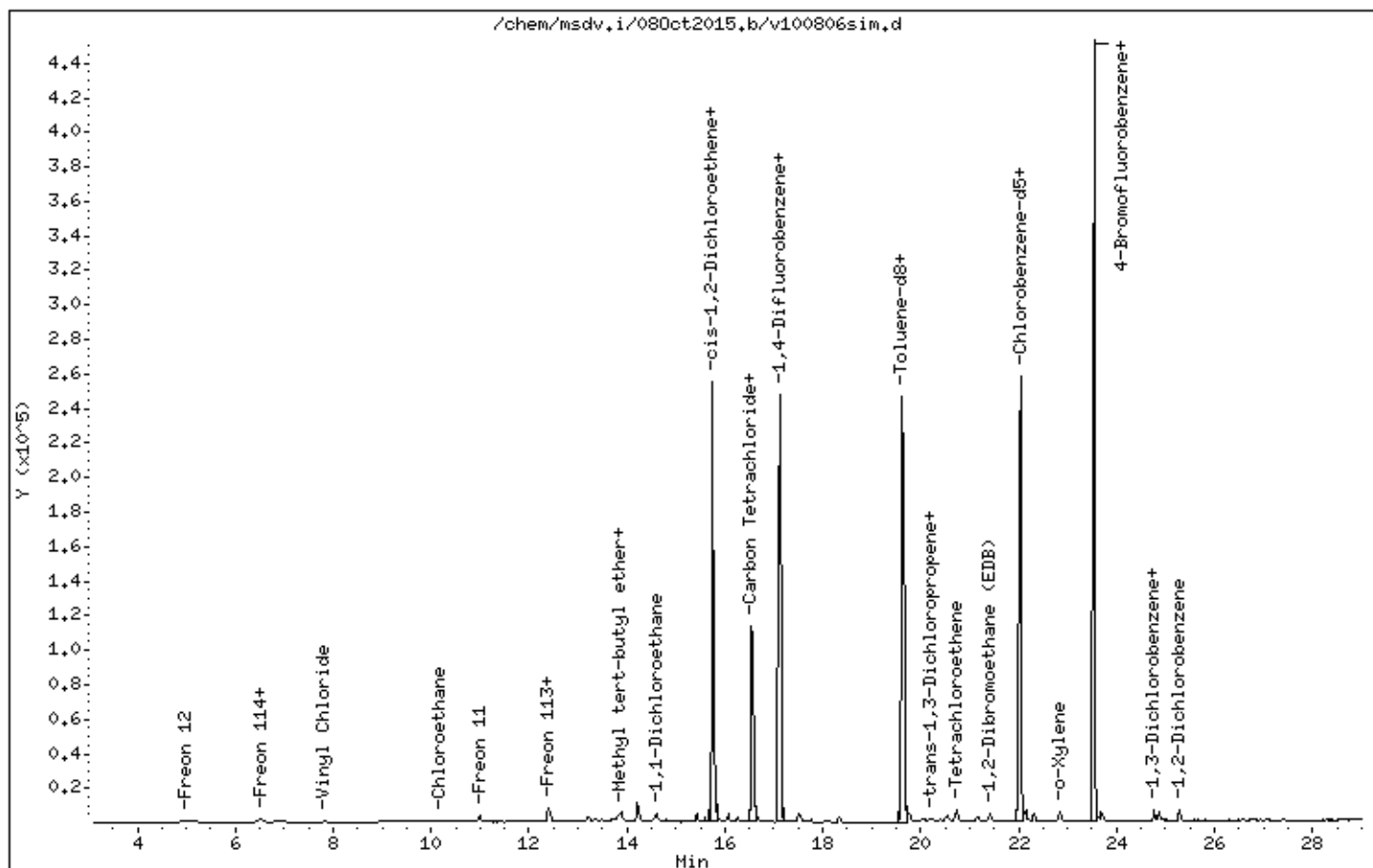
Instrument: msdv.i

Sample Info: 250mL# 2736-295

Operator: sab

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100807sim.d
Lab Smp Id: ICAL Client Smp ID: Level # 6
Inj Date : 08-OCT-2015 15:35
Operator : ef Inst ID: msdv.i
Smp Info : 25mL# 2736-296
Misc Info : 0.1ppbv (1.0ppbv)
Comment : SIM - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 15:35 Cal File: v100807sim.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.003	5.003	(0.318)	85	13691	0.10000	0.1039	80.00-	120.00	100.00
5.041	5.041	(0.320)	87	4664			1.99-	61.99	34.07
2 Freon 114						CAS #:	76-14-2		
6.513	6.513	(0.413)	135	11437	0.10000	0.1024	80.00-	120.00	100.00
6.513	6.513	(0.413)	137	3674			1.60-	61.60	32.12
3 Chloromethane						CAS #:	74-87-3		
6.853	6.853	(0.435)	50	13378	0.10000	0.1092	80.00-	120.00	100.00
6.853	6.853	(0.435)	52	4247			0.84-	60.84	31.75
4 Vinyl Chloride						CAS #:	75-01-4		
7.809	7.809	(0.496)	62	7707	0.10000	0.1025	80.00-	120.00	100.00
7.840	7.840	(0.498)	64	2158			0.00-	57.01	28.00
5 Chloroethane						CAS #:	75-00-3		
10.151	10.151	(0.644)	64	2602	0.10000	0.09660	80.00-	120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
5 Chloroethane (continued)								
10.151	10.151	(0.644)	66	876			0.00- 56.81	33.67
6 Freon 11								
10.994	10.994	(0.698)	101	15357	0.10000	CAS #: 0.1064	75-69-4 80.00- 120.00	100.00
10.994	10.994	(0.698)	103	9865			34.59- 94.59	64.24
7 Freon 113								
12.399	12.399	(0.787)	151	11011	0.10000	CAS #: 0.1069	76-13-1 80.00- 120.00	100.00
12.427	12.427	(0.789)	153	6913			33.91- 93.91	62.78
12.399	12.399	(0.787)	101	12142			81.45- 141.45	110.27
8 1,1-Dichloroethene								
12.399	12.399	(0.787)	98	3515	0.10000	CAS #: 0.09125	75-35-4 80.00- 120.00	100.00
12.399	12.399	(0.787)	61	13813			360.48- 420.48	392.97
12.399	12.399	(0.787)	96	5712			127.96- 187.96	162.50
9 Methyl tert-butyl ether								
13.855	13.855	(0.879)	73	13234	0.10000	CAS #: 0.1042	1634-04-4 80.00- 120.00	100.00
13.855	13.855	(0.879)	57	8588			19.14- 79.14	64.89
13.827	13.827	(0.878)	41	7921			17.24- 77.24	59.85
10 trans-1,2-Dichloroethene								
13.910	13.910	(0.883)	98	3456	0.10000	CAS #: 0.09389	156-60-5 80.00- 120.00	100.00
13.882	13.882	(0.881)	61	12242			314.49- 374.49	354.22
13.910	13.910	(0.883)	96	5705			126.88- 186.88	165.08
11 1,1-Dichloroethane								
14.596	14.596	(0.926)	63	13771	0.10000	CAS #: 0.1031	75-34-3 80.00- 120.00	100.00
14.596	14.596	(0.926)	65	3869			0.00- 57.13	28.10
12 cis-1,2-Dichloroethene								
15.437	15.437	(0.980)	98	3931	0.10000	CAS #: 0.09712	156-59-2 80.00- 120.00	100.00
15.437	15.437	(0.980)	61	11971			281.52- 341.52	304.53
15.437	15.437	(0.980)	96	6639			128.25- 188.25	168.89
* 13 Bromochloromethane								
15.757	15.757	(1.000)	130	154905	5.00000	CAS #: 0.1031	74-97-5 80.00- 120.00	100.00
15.757	15.757	(1.000)	128	120880			47.55- 107.55	78.03
15.757	15.757	(1.000)	49	466159			270.30- 330.30	300.93
14 Chloroform								
15.819	15.819	(1.004)	83	11926	0.10000	CAS #: 0.1025	67-66-3 80.00- 120.00	100.00
15.819	15.819	(1.004)	85	7625			34.94- 94.94	63.94
15 1,1,1-Trichloroethane								
16.065	16.065	(1.020)	97	13764	0.10000	CAS #: 0.1043	71-55-6 80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	8728			34.47- 94.47	63.41
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	12476	0.10000	0.1039	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	11801			65.95- 125.95	94.59
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	15193	0.10000	0.09772	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	4049			0.00- 52.44	26.65
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	265844	5.00000	4.868	80.00- 120.00	100.00
16.576	16.576 (1.052)	67	115543			17.43- 77.43	43.46
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	11069	0.10000	0.09826	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	3260			0.00- 58.95	29.45
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	649711	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	91325			0.00- 44.06	14.06
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	9362	0.10000	0.1028	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	8931			64.51- 124.51	95.40
17.509	17.509 (1.022)	97	5574			31.18- 91.18	59.54
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	517804	5.00000	5.035	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	57112			0.00- 40.98	11.03
19.629	19.629 (1.146)	100	325506			32.48- 92.48	62.86
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	18794	0.10000	0.1019	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	11252			28.76- 88.76	59.87
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.225	20.225 (0.918)	75	8667	0.10000	0.09971	80.00- 120.00	100.00
20.225	20.225 (0.918)	77	5836			1.64- 61.64	67.34
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	7794	0.10000	0.1022	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	4895			32.73- 92.73	62.80
20.548	20.548 (0.932)	83	6055			48.90- 108.90	77.69

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	12589	0.10000	0.1020	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	9078			41.19-	101.19	72.11
20.727	20.727	(0.940)	131	9350			45.32-	105.32	74.27

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	12217	0.10000	0.1010	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	11427			65.14-	125.14	93.53

* 28	Chlorobenzene-d5					CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	554928	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	257785			16.56-	76.56	46.45

29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	17511	0.10000	0.1031	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	5890			2.04-	62.04	33.64
22.070	22.070	(1.001)	77	13936			19.26-	79.26	79.58

30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	7044	0.10000	0.1040	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	23266			301.39-	361.39	330.30

31 m,p-Xylene						CAS #:	108-38-3		
22.317	22.317	(1.012)	106	7147	0.10000	0.1024	80.00-	120.00	100.00
22.317	22.317	(1.012)	91	15778			185.82-	245.82	220.76

32 o-Xylene						CAS #:	95-47-6		
22.838	22.838	(1.036)	106	7161	0.10000	0.1061	80.00-	120.00	100.00
22.838	22.838	(1.036)	91	16121			197.84-	257.84	225.12

\$ 33	4-Bromofluorobenzene					CAS #:	460-00-4		
23.548	23.548	(1.068)	174	301049	5.00000	4.985	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	332124			80.08-	140.08	110.32
23.548	23.548	(1.068)	176	292879			67.26-	127.26	97.29

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	14137	0.10000	0.09743	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	9131			34.77-	94.77	64.59

35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	13141	0.10000	0.1114	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	8699			34.16-	94.16	66.20
24.769	24.769	(1.124)	111	5289			8.33-	68.33	40.25

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	12750	0.10000	0.1100	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	7932			33.79-	93.79	62.21
24.859	24.859	(1.128)	111	4675			6.65-	66.65	36.67

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	11788	0.10000	0.1112	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	7347			33.50-	93.50	62.33
25.285	25.285	(1.147)	111	4532			9.32-	69.32	38.45

38 Naphthalene						CAS #:	91-20-3		
27.415	27.415	(1.244)	128	1696	0.01000	0.01068	80.00-	120.00	100.00(aH)
27.415	27.415	(1.244)	127	287			0.00-	42.14	16.92

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- H - Operator selected an alternate compound hit.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100807sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level # 6
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	154905	-2.94
20 1,4-Difluorobenze	652482	391489	913475	649711	-0.42
28 Chlorobenzene-d5	554576	332746	776406	554928	0.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 15:35

Client ID: Level # 6

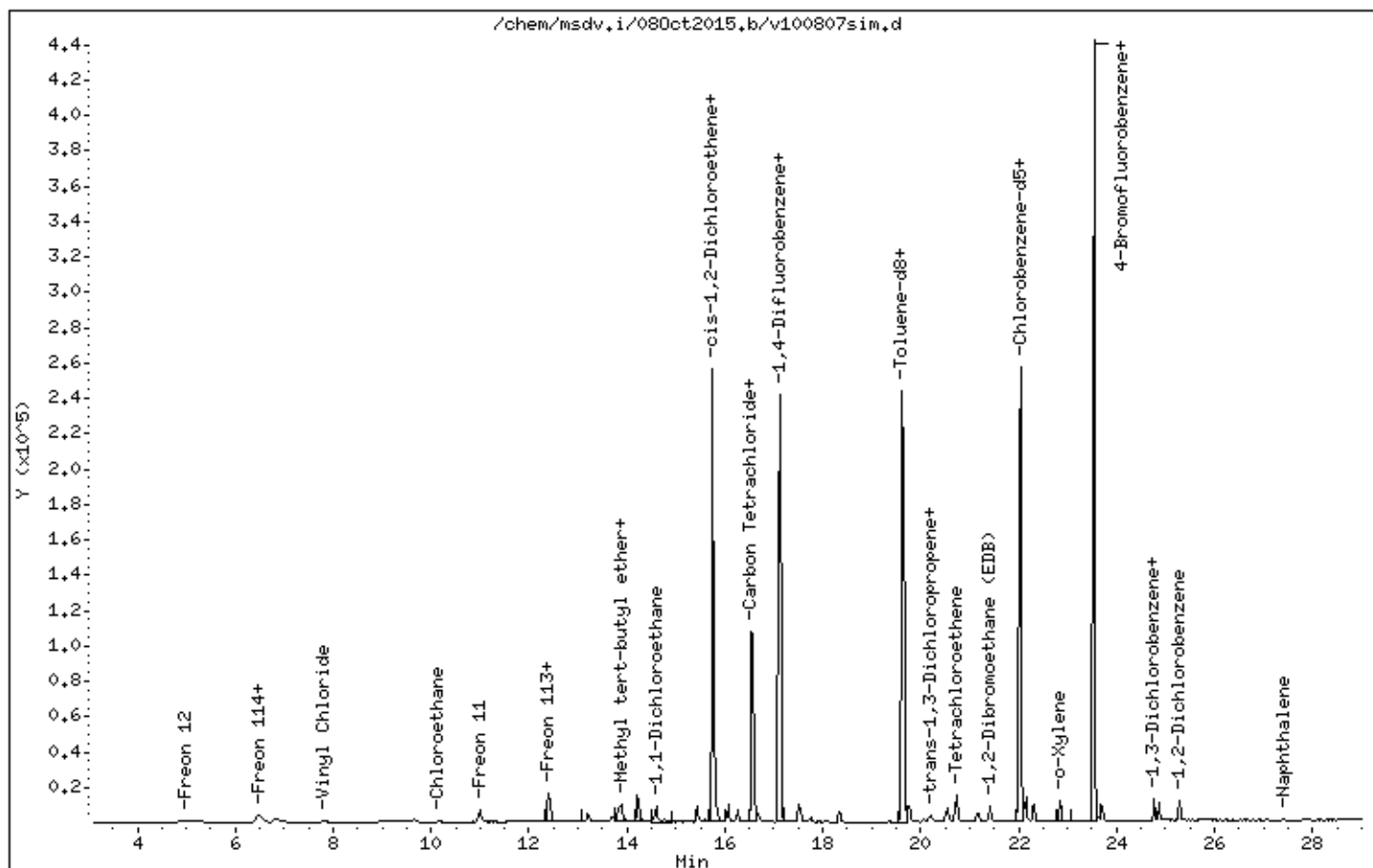
Instrument: msdv.i

Sample Info: 25mL# 2736-296

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100808sim.d
 Lab Smp Id: ICAL Client Smp ID: Level #7
 Inj Date : 08-OCT-2015 16:30
 Operator : gh Inst ID: msdv.i
 Smp Info : 125mL# 2736-296
 Misc Info : 0.5ppbv (1.0ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 16:30 Cal File: v100808sim.d
 Als bottle: 1 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.041	5.041	(0.320)	85	62618	0.50000	0.4706	80.00-	120.00	100.00
5.041	5.041	(0.320)	87	20311			1.99-	61.99	32.44
2 Freon 114						CAS #:	76-14-2		
6.551	6.551	(0.416)	135	51845	0.50000	0.4594	80.00-	120.00	100.00
6.551	6.551	(0.416)	137	16378			1.60-	61.60	31.59
3 Chloromethane						CAS #:	74-87-3		
6.891	6.891	(0.437)	50	55763	0.50000	0.4507	80.00-	120.00	100.00
6.891	6.891	(0.437)	52	17271			0.84-	60.84	30.97
4 Vinyl Chloride						CAS #:	75-01-4		
7.840	7.840	(0.498)	62	33787	0.50000	0.4451	80.00-	120.00	100.00
7.840	7.840	(0.498)	64	9325			0.00-	57.01	27.60
5 Chloroethane						CAS #:	75-00-3		
10.175	10.175	(0.646)	64	12629	0.50000	0.4642	80.00-	120.00	100.00

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====
5 Chloroethane (continued)								
10.175	10.175	(0.646)	66	3603			0.00- 56.81	28.53
6 Freon 11								
10.994	10.994	(0.698)	101	70638	0.50000	CAS #: 0.4845	75-69-4 80.00- 120.00	100.00
10.994	10.994	(0.698)	103	45637			34.59- 94.59	64.61
7 Freon 113								
12.427	12.427	(0.789)	151	49533	0.50000	CAS #: 0.4762	76-13-1 80.00- 120.00	100.00
12.427	12.427	(0.789)	153	31735			33.91- 93.91	64.07
12.399	12.399	(0.787)	101	55977			81.45- 141.45	113.01
8 1,1-Dichloroethene								
12.399	12.399	(0.787)	98	16211	0.50000	CAS #: 0.4167	75-35-4 80.00- 120.00	100.00
12.399	12.399	(0.787)	61	63263			360.48- 420.48	390.25
12.399	12.399	(0.787)	96	25759			127.96- 187.96	158.90
9 Methyl tert-butyl ether								
13.855	13.855	(0.879)	73	60648	0.50000	CAS #: 0.4727	1634-04-4 80.00- 120.00	100.00
13.827	13.827	(0.878)	57	32128			19.14- 79.14	52.97
13.827	13.827	(0.878)	41	30722			17.24- 77.24	50.66
10 trans-1,2-Dichloroethene								
13.910	13.910	(0.883)	98	16728	0.50000	CAS #: 0.4499	156-60-5 80.00- 120.00	100.00
13.882	13.882	(0.881)	61	56548			314.49- 374.49	338.04
13.882	13.882	(0.881)	96	25724			126.88- 186.88	153.78
11 1,1-Dichloroethane								
14.596	14.596	(0.926)	63	64652	0.50000	CAS #: 0.4794	75-34-3 80.00- 120.00	100.00
14.596	14.596	(0.926)	65	17455			0.00- 57.13	27.00
12 cis-1,2-Dichloroethene								
15.437	15.437	(0.980)	98	18264	0.50000	CAS #: 0.4468	156-59-2 80.00- 120.00	100.00
15.437	15.437	(0.980)	61	56219			281.52- 341.52	307.81
15.437	15.437	(0.980)	96	28332			128.25- 188.25	155.12
* 13 Bromochloromethane								
15.757	15.757	(1.000)	130	156462	5.00000	CAS #: 0.4468	74-97-5 80.00- 120.00	100.00
15.757	15.757	(1.000)	128	121827			47.55- 107.55	77.86
15.757	15.757	(1.000)	49	472660			270.30- 330.30	302.09
14 Chloroform								
15.819	15.819	(1.004)	83	54259	0.50000	CAS #: 0.4618	67-66-3 80.00- 120.00	100.00
15.819	15.819	(1.004)	85	35116			34.94- 94.94	64.72
15 1,1,1-Trichloroethane								
16.065	16.065	(1.020)	97	62868	0.50000	CAS #: 0.4716	71-55-6 80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	40038			34.47- 94.47	63.69
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	59578	0.50000	0.4911	80.00- 120.00	100.00
16.281	16.281 (1.033)	119	57072			65.95- 125.95	95.79
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	69630	0.50000	0.4448	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	15636			0.00- 52.44	22.46
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	272591	5.00000	4.942	80.00- 120.00	100.00
16.576	16.576 (1.052)	67	120977			17.43- 77.43	44.38
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	53038	0.50000	0.4676	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	15653			0.00- 58.95	29.51
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	654202	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	92446			0.00- 44.06	14.13
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	40828	0.50000	0.4453	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	38680			64.51- 124.51	94.74
17.509	17.509 (1.022)	97	24554			31.18- 91.18	60.14
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	518464	5.00000	5.007	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	57512			0.00- 40.98	11.09
19.629	19.629 (1.146)	100	324146			32.48- 92.48	62.52
23	Toluene				CAS #: 108-88-3		
19.764	19.764 (1.154)	91	87069	0.50000	0.4688	80.00- 120.00	100.00
19.764	19.764 (1.154)	92	50861			28.76- 88.76	58.41
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	40628	0.50000	0.4654	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	14679			1.64- 61.64	36.13
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	35778	0.50000	0.4670	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	21879			32.73- 92.73	61.15
20.548	20.548 (0.932)	83	28186			48.90- 108.90	78.78

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	55695	0.50000	0.4491	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	39843			41.19-	101.19	71.54
20.727	20.727	(0.940)	131	41586			45.32-	105.32	74.67

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	56828	0.50000	0.4678	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	53823			65.14-	125.14	94.71

* 28	Chlorobenzene-d5					CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	557349	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	256867			16.56-	76.56	46.09

29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	79979	0.50000	0.4691	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	25287			2.04-	62.04	31.62
22.070	22.070	(1.001)	77	43736			19.26-	79.26	54.68

30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	31399	0.50000	0.4615	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	104597			301.39-	361.39	333.12

31 m,p-Xylene						CAS #:	108-38-3		
22.317	22.317	(1.012)	106	32164	0.50000	0.4587	80.00-	120.00	100.00
22.289	22.289	(1.011)	91	68251			185.82-	245.82	212.20

32 o-Xylene						CAS #:	95-47-6		
22.839	22.839	(1.036)	106	30537	0.50000	0.4504	80.00-	120.00	100.00
22.839	22.839	(1.036)	91	70297			197.84-	257.84	230.20

\$ 33	4-Bromofluorobenzene					CAS #:	460-00-4		
23.548	23.548	(1.068)	174	297305	5.00000	4.901	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	326908			80.08-	140.08	109.96
23.548	23.548	(1.068)	176	288669			67.26-	127.26	97.10

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	64802	0.50000	0.4446	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	40984			34.77-	94.77	63.24

35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	50480	0.50000	0.4262	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	31935			34.16-	94.16	63.26
24.769	24.769	(1.124)	111	19338			8.33-	68.33	38.31

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	45380	0.50000	0.3897	80.00-	120.00	100.00

RT ==	EXP RT =====	(REL RT) =====	MASS =====	RESPONSE =====	AMOUNTS		TARGET =====	RANGE =====	RATIO =====
					CAL-AMT (PPBV)	ON-COL (PPBV)			
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	28917			33.79-	93.79	63.72
24.859	24.859	(1.128)	111	16766			6.65-	66.65	36.95

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	44391	0.50000	0.4171	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	28281			33.50-	93.50	63.71
25.285	25.285	(1.147)	111	17397			9.32-	69.32	39.19

38 Naphthalene						CAS #:	91-20-3		
27.415	27.415	(1.244)	128	8261	0.05000	0.05181	80.00-	120.00	100.00
27.415	27.415	(1.244)	127	1394			0.00-	42.14	16.87

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100808sim.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level #7
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m	
Misc Info: 0.5ppbv (1.0ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	156462	-1.96
20 1,4-Difluorobenze	652482	391489	913475	654202	0.26
28 Chlorobenzene-d5	554576	332746	776406	557349	0.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 16:30

Client ID: Level #7

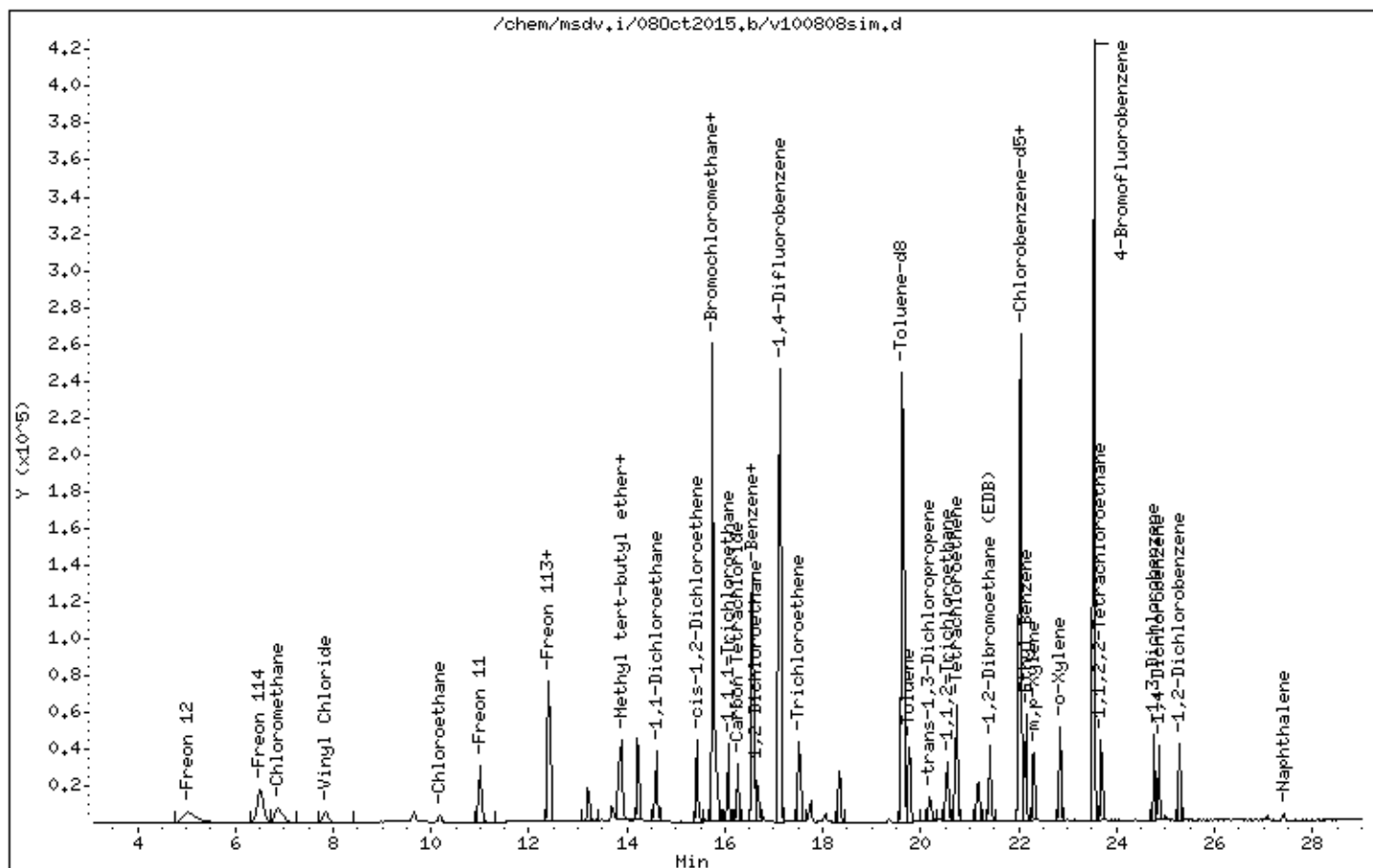
Instrument: msdv.i

Sample Info: 125mL# 2736-296

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100809sim.d
 Lab Smp Id: ICAL Client Smp ID: Level # 8
 Inj Date : 08-OCT-2015 17:24
 Operator : gh Inst ID: msdv.i
 Smp Info : 250mL# 2736-296
 Misc Info : 1.0ppbv (1.0ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 17:24 Cal File: v100809sim.d
 Als bottle: 1 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.041	5.041	(0.320)	85	120677	1.00000	0.9468	80.00-	120.00	100.00
5.041	5.041	(0.320)	87	39243			1.99-	61.99	32.52
2 Freon 114						CAS #:	76-14-2		
6.551	6.551	(0.416)	135	102328	1.00000	0.9467	80.00-	120.00	100.00
6.551	6.551	(0.416)	137	32438			1.60-	61.60	31.70
3 Chloromethane						CAS #:	74-87-3		
6.929	6.929	(0.440)	50	105529	1.00000	0.8905	80.00-	120.00	100.00
6.929	6.929	(0.440)	52	33387			0.84-	60.84	31.64
4 Vinyl Chloride						CAS #:	75-01-4		
7.840	7.840	(0.498)	62	65910	1.00000	0.9064	80.00-	120.00	100.00
7.840	7.840	(0.498)	64	18086			0.00-	57.01	27.44
5 Chloroethane						CAS #:	75-00-3		
10.175	10.175	(0.646)	64	25311	1.00000	0.9712	80.00-	120.00	100.00

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.175	10.175	(0.646)	66	6779			0.00-	56.81	26.78
6 Freon 11									
10.994	10.994	(0.698)	101	139343	1.00000	CAS #: 0.9978	75-69-4		
10.994	10.994	(0.698)	103	89240			80.00- 120.00		100.00
							34.59- 94.59		64.04
7 Freon 113									
12.427	12.427	(0.789)	151	97255	1.00000	CAS #: 0.9761	76-13-1		
12.427	12.427	(0.789)	153	62845			80.00- 120.00		100.00
12.399	12.399	(0.787)	101	109560			33.91- 93.91		64.62
							81.45- 141.45		112.65
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	31811	1.00000	CAS #: 0.8536	75-35-4		
12.399	12.399	(0.787)	61	123775			80.00- 120.00		100.00
12.399	12.399	(0.787)	96	50629			360.48- 420.48		389.09
							127.96- 187.96		159.16
9 Methyl tert-butyl ether									
13.855	13.855	(0.879)	73	120004	1.00000	CAS #: 0.9764	1634-04-4		
13.827	13.827	(0.878)	57	59854			80.00- 120.00		100.00
13.827	13.827	(0.878)	41	59203			19.14- 79.14		49.88
							17.24- 77.24		49.33
10 trans-1,2-Dichloroethene									
13.910	13.910	(0.883)	98	33095	1.00000	CAS #: 0.9294	156-60-5		
13.882	13.882	(0.881)	61	112625			80.00- 120.00		100.00
13.882	13.882	(0.881)	96	51338			314.49- 374.49		340.31
							126.88- 186.88		155.12
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	126808	1.00000	CAS #: 0.9816	75-34-3		
14.596	14.596	(0.926)	65	34308			80.00- 120.00		100.00
							0.00- 57.13		27.06
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	35740	1.00000	CAS #: 0.9127	156-59-2		
15.437	15.437	(0.980)	61	110791			80.00- 120.00		100.00
15.437	15.437	(0.980)	96	55691			281.52- 341.52		309.99
							128.25- 188.25		155.82
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	149867	5.00000	CAS #: 0.9127	74-97-5		
15.757	15.757	(1.000)	128	117137			80.00- 120.00		100.00
15.757	15.757	(1.000)	49	465660			47.55- 107.55		78.16
							270.30- 330.30		310.72
14 Chloroform									
15.819	15.819	(1.004)	83	107603	1.00000	CAS #: 0.9560	67-66-3		
15.819	15.819	(1.004)	85	69176			80.00- 120.00		100.00
							34.94- 94.94		64.29
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	124842	1.00000	CAS #: 0.9778	71-55-6		
							80.00- 120.00		100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	79547			34.47- 94.47	63.72
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	119384	1.00000	1.027	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	113386			65.95- 125.95	94.98
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	138279	1.00000	0.8925	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	30953			0.00- 52.44	22.38
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	268818	5.00000	5.088	80.00- 120.00	100.00
16.576	16.576 (1.052)	67	119419			17.43- 77.43	44.42
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	104197	1.00000	0.9281	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	30121			0.00- 58.95	28.91
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	647477	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	90790			0.00- 44.06	14.02
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	80594	1.00000	0.8881	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	76056			64.51- 124.51	94.37
17.509	17.509 (1.022)	97	48657			31.18- 91.18	60.37
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	512929	5.00000	5.005	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	56825			0.00- 40.98	11.08
19.629	19.629 (1.146)	100	322249			32.48- 92.48	62.83
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	170020	1.00000	0.9250	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	99942			28.76- 88.76	58.78
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	80882	1.00000	0.9469	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	26517			1.64- 61.64	32.78
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	70017	1.00000	0.9342	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	43179			32.73- 92.73	61.67
20.548	20.548 (0.932)	83	55904			48.90- 108.90	79.84

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	110409	1.00000	0.9100	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	77103			41.19-	101.19	69.83
20.727	20.727	(0.940)	131	81508			45.32-	105.32	73.82

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	112062	1.00000	0.9428	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	105017			65.14-	125.14	93.71

* 28	Chlorobenzene-d5					CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	545304	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	254320			16.56-	76.56	46.64

29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	158554	1.00000	0.9504	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	50470			2.04-	62.04	31.83
22.070	22.070	(1.001)	77	81246			19.26-	79.26	51.24

30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	62031	1.00000	0.9319	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	207127			301.39-	361.39	333.91

31 m,p-Xylene						CAS #:	108-38-3		
22.317	22.317	(1.012)	106	62170	1.00000	0.9063	80.00-	120.00	100.00
22.289	22.289	(1.011)	91	136174			185.82-	245.82	219.03

32 o-Xylene						CAS #:	95-47-6		
22.838	22.838	(1.036)	106	60022	1.00000	0.9048	80.00-	120.00	100.00
22.838	22.838	(1.036)	91	139097			197.84-	257.84	231.74

\$ 33	4-Bromofluorobenzene					CAS #:	460-00-4		
23.548	23.548	(1.068)	174	293667	5.00000	4.948	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	323084			80.08-	140.08	110.02
23.548	23.548	(1.068)	176	286460			67.26-	127.26	97.55

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	128961	1.00000	0.9044	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	82214			34.77-	94.77	63.75

35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	96908	1.00000	0.8364	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	60998			34.16-	94.16	62.94
24.769	24.769	(1.124)	111	36632			8.33-	68.33	37.80

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	85525	1.00000	0.7506	80.00-	120.00	100.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	53853			33.79-	93.79	62.97
24.859	24.859	(1.128)	111	31400			6.65-	66.65	36.71

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	84339	1.00000	0.8100	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	53986			33.50-	93.50	64.01
25.285	25.285	(1.147)	111	33401			9.32-	69.32	39.60

38 Naphthalene						CAS #:	91-20-3		
27.414	27.414	(1.244)	128	16158	0.10000	0.1036	80.00-	120.00	100.00
27.414	27.414	(1.244)	127	2776			0.00-	42.14	17.18

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100809sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level # 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	149867	-6.09
20 1,4-Difluorobenze	652482	391489	913475	647477	-0.77
28 Chlorobenzene-d5	554576	332746	776406	545304	-1.67

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 17:24

Client ID: Level # 8

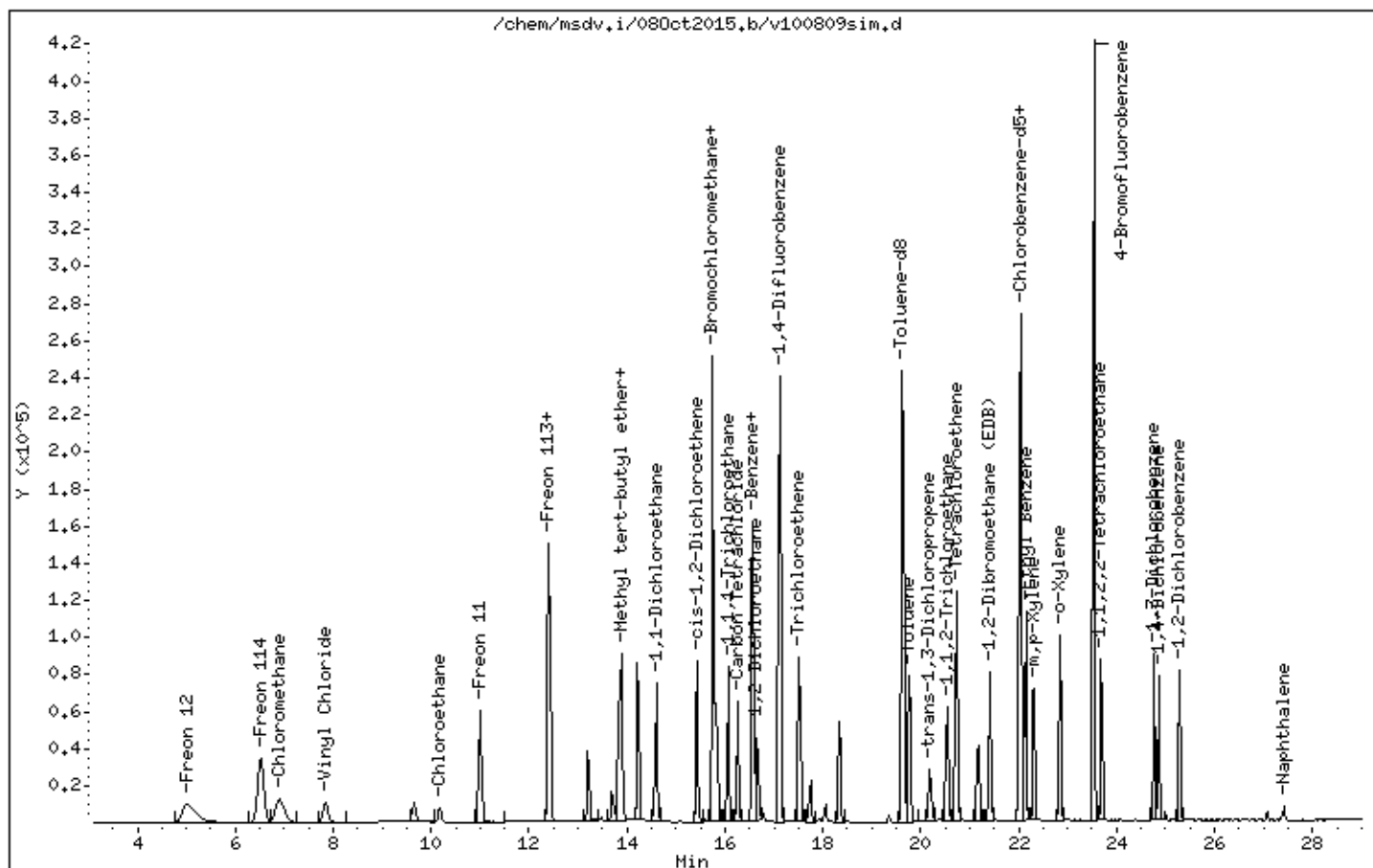
Instrument: msdv.i

Sample Info: 250mL# 2736-296

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100810sim.d
 Lab Smp Id: ICAL Client Smp ID: Level 12
 Inj Date : 08-OCT-2015 18:10
 Operator : gh Inst ID: msdv.i
 Smp Info : 25mL# 2736-291
 Misc Info : 5.0ppbv (50ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 18:10 Cal File: v100810sim.d
 Als bottle: 1 Calibration Sample, Level: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.003	5.003	(0.318)	85	700958	5.00000	5.164	80.00-	120.00	100.00
5.003	5.003	(0.318)	87	224203			1.99-	61.99	31.99
2 Freon 114						CAS #:	76-14-2		
6.513	6.513	(0.413)	135	587402	5.00000	5.103	80.00-	120.00	100.00
6.513	6.513	(0.413)	137	185603			1.60-	61.60	31.60
3 Chloromethane						CAS #:	74-87-3		
6.853	6.853	(0.435)	50	598682	5.00000	4.744	80.00-	120.00	100.00
6.853	6.853	(0.435)	52	184660			0.84-	60.84	30.84
4 Vinyl Chloride						CAS #:	75-01-4		
7.840	7.840	(0.498)	62	377550	5.00000	4.876	80.00-	120.00	100.00
7.840	7.840	(0.498)	64	101958			0.00-	57.01	27.01
5 Chloroethane						CAS #:	75-00-3		
10.151	10.151	(0.644)	64	156678	5.00000	5.646	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.151	10.151	(0.644)	66	41999			0.00-	56.81	26.81
6 Freon 11									
10.994	10.994	(0.698)	101	794484	5.00000	CAS #: 75-69-4 5.342	80.00-	120.00	100.00
10.994	10.994	(0.698)	103	513180			34.59-	94.59	64.59
7 Freon 113									
12.399	12.399	(0.787)	151	555684	5.00000	CAS #: 76-13-1 5.237	80.00-	120.00	100.00
12.427	12.427	(0.789)	153	355140			33.91-	93.91	63.91
12.399	12.399	(0.787)	101	619314			81.45-	141.45	111.45
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	181436	5.00000	CAS #: 75-35-4 4.572	80.00-	120.00	100.00
12.399	12.399	(0.787)	61	708470			360.48-	420.48	390.48
12.399	12.399	(0.787)	96	286598			127.96-	187.96	157.96
9 Methyl tert-butyl ether									
13.855	13.855	(0.879)	73	702460	5.00000	CAS #: 1634-04-4 5.367	80.00-	120.00	100.00
13.827	13.827	(0.878)	57	345172			19.14-	79.14	49.14
13.827	13.827	(0.878)	41	331822			17.24-	77.24	47.24
10 trans-1,2-Dichloroethene									
13.882	13.882	(0.881)	98	186818	5.00000	CAS #: 156-60-5 4.926	80.00-	120.00	100.00
13.882	13.882	(0.881)	61	643569			314.49-	374.49	344.49
13.882	13.882	(0.881)	96	293073			126.88-	186.88	156.88
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	724552	5.00000	CAS #: 75-34-3 5.267	80.00-	120.00	100.00
14.596	14.596	(0.926)	65	196556			0.00-	57.13	27.13
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	204150	5.00000	CAS #: 156-59-2 4.896	80.00-	120.00	100.00
15.437	15.437	(0.980)	61	635961			281.52-	341.52	311.52
15.437	15.437	(0.980)	96	323075			128.25-	188.25	158.25
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	159590	5.00000	CAS #: 74-97-5 5.159	80.00-	120.00	100.00
15.757	15.757	(1.000)	128	123761			47.55-	107.55	77.55
15.757	15.757	(1.000)	49	479253			270.30-	330.30	300.30
14 Chloroform									
15.819	15.819	(1.004)	83	618296	5.00000	CAS #: 67-66-3 5.159	80.00-	120.00	100.00
15.819	15.819	(1.004)	85	401497			34.94-	94.94	64.94
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	709951	5.00000	CAS #: 71-55-6 5.222	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	457698			34.47- 94.47	64.47
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	767051	5.00000	6.198	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	735952			65.95- 125.95	95.95
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	793025	5.00000	5.079	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	177964			0.00- 52.44	22.44
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	275519	5.00000	4.897	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	130669			17.43- 77.43	47.43
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	604320	5.00000	5.342	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	174959			0.00- 58.95	28.95
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	652482	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	91755			0.00- 44.06	14.06
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	463832	5.00000	5.072	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	438381			64.51- 124.51	94.51
17.509	17.509 (1.022)	97	283787			31.18- 91.18	61.18
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	518240	5.00000	5.018	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	56911			0.00- 40.98	10.98
19.629	19.629 (1.146)	100	323778			32.48- 92.48	62.48
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	976121	5.00000	5.270	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	573559			28.76- 88.76	58.76
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	490872	5.00000	5.651	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	155321			1.64- 61.64	31.64
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	406810	5.00000	5.337	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	255201			32.73- 92.73	62.73
20.548	20.548 (0.932)	83	320991			48.90- 108.90	78.90

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	618465	5.00000	5.012	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	440284			41.19-	101.19	71.19
20.727	20.727	(0.940)	131	465842			45.32-	105.32	75.32

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	651580	5.00000	5.390	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	619901			65.14-	125.14	95.14

* 28	Chlorobenzene-d5					CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	554576	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	258228			16.56-	76.56	46.56

29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	902848	5.00000	5.322	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	289283			2.04-	62.04	32.04
22.070	22.070	(1.001)	77	444754			19.26-	79.26	49.26

30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	359667	5.00000	5.313	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	1191905			301.39-	361.39	331.39

31 m,p-Xylene						CAS #:	108-38-3		
22.317	22.317	(1.012)	106	370338	5.00000	5.308	80.00-	120.00	100.00
22.289	22.289	(1.011)	91	799275			185.82-	245.82	215.82

32 o-Xylene						CAS #:	95-47-6		
22.839	22.839	(1.036)	106	350153	5.00000	5.190	80.00-	120.00	100.00
22.839	22.839	(1.036)	91	797783			197.84-	257.84	227.84

\$ 33	4-Bromofluorobenzene					CAS #:	460-00-4		
23.548	23.548	(1.068)	174	302199	5.00000	5.007	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	332659			80.08-	140.08	110.08
23.548	23.548	(1.068)	176	293926			67.26-	127.26	97.26

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	699318	5.00000	4.822	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	452928			34.77-	94.77	64.77

35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	545957	5.00000	4.633	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	350290			34.16-	94.16	64.16
24.747	24.747	(1.123)	111	209279			8.33-	68.33	38.33

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	483113	5.00000	4.169	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	308198			33.79-	93.79	63.79
24.859	24.859	(1.128)	111	177061			6.65-	66.65	36.65

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	470467	5.00000	4.443	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	298754			33.50-	93.50	63.50
25.285	25.285	(1.147)	111	184989			9.32-	69.32	39.32

38 Naphthalene						CAS #:	91-20-3		
27.415	27.415	(1.244)	128	62390	0.50000	0.3932	80.00-	120.00	100.00
27.415	27.415	(1.244)	127	7572			0.00-	42.14	12.14

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100810sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	159590	0.00
20 1,4-Difluorobenze	652482	391489	913475	652482	0.00
28 Chlorobenzene-d5	554576	332746	776406	554576	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 18:10

Client ID: Level 12

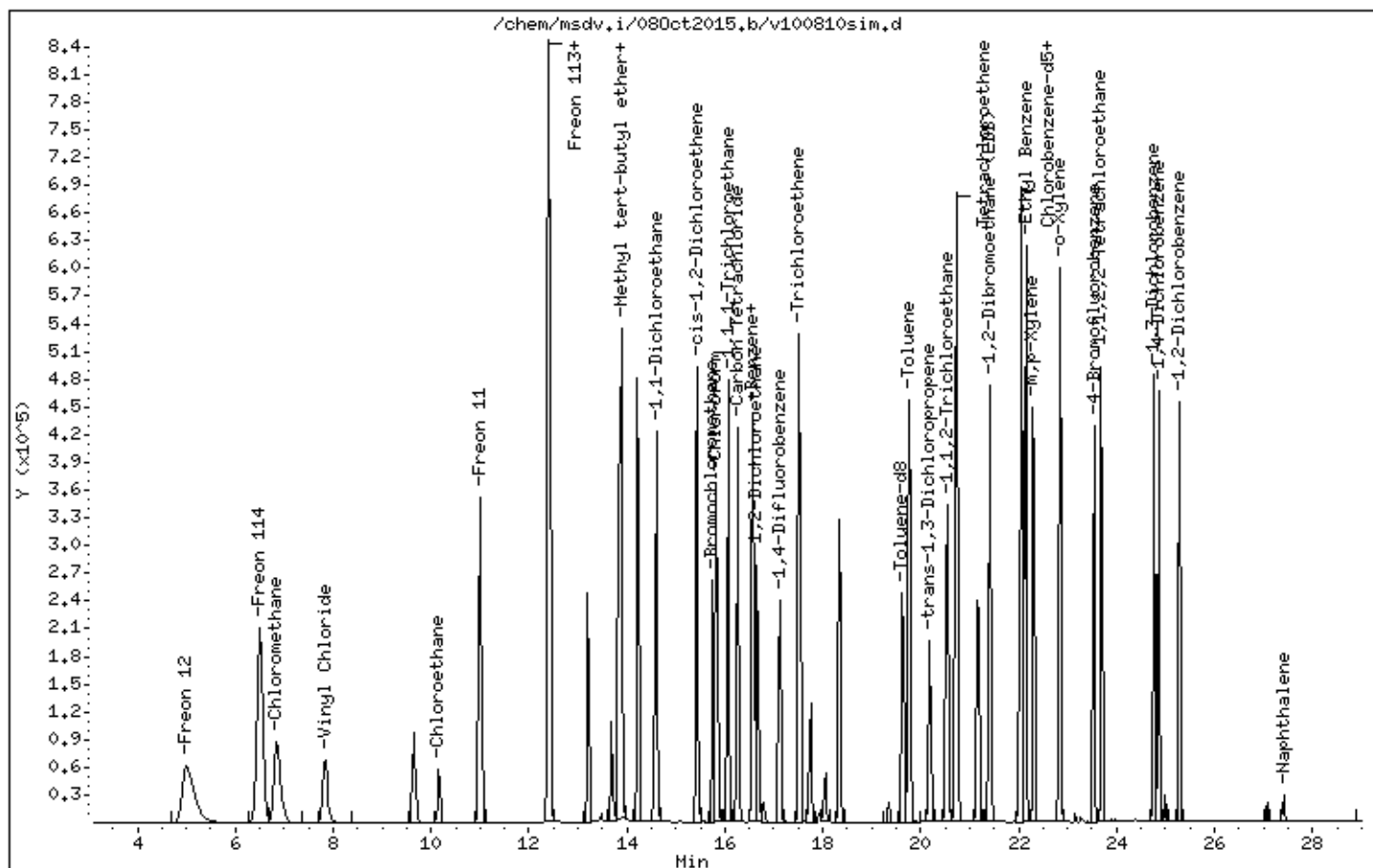
Instrument: msdv.i

Sample Info: 25mL# 2736-291

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100811sim.d
Lab Smp Id: ICAL Client Smp ID: Level # 13
Inj Date : 08-OCT-2015 18:54
Operator : gh Inst ID: msdv.i
Smp Info : 50mL# 2736-291
Misc Info : 10ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
Cal Date : 08-OCT-2015 18:54 Cal File: v100811sim.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.003	5.003	(0.318)	85	1336010	10.0000	9.979	80.00-	120.00	100.00
5.003	5.003	(0.318)	87	426659			1.99-	61.99	31.94
						CAS #:	76-14-2		
6.513	6.513	(0.413)	135	1088620	10.0000	9.588	80.00-	120.00	100.00
6.513	6.513	(0.413)	137	343094			1.60-	61.60	31.52
						CAS #:	74-87-3		
6.853	6.853	(0.435)	50	1122675	10.0000	9.019	80.00-	120.00	100.00
6.853	6.853	(0.435)	52	348719			0.84-	60.84	31.06
						CAS #:	75-01-4		
7.809	7.809	(0.496)	62	723932	10.0000	9.478	80.00-	120.00	100.00
7.840	7.840	(0.498)	64	195412			0.00-	57.01	26.99
						CAS #:	75-00-3		
10.151	10.151	(0.644)	64	294100	10.0000	10.744	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.151	10.151	(0.644)	66	78127			0.00-	56.81	26.56
6 Freon 11									
10.994	10.994	(0.698)	101	1462429	10.0000	CAS #: 75-69-4 9.969	80.00-	120.00	100.00
10.994	10.994	(0.698)	103	947796			34.59-	94.59	64.81
7 Freon 113									
12.427	12.427	(0.789)	151	1024914	10.0000	CAS #: 76-13-1 9.793	80.00-	120.00	100.00
12.427	12.427	(0.789)	153	654597			33.91-	93.91	63.87
12.399	12.399	(0.787)	101	1138903			81.45-	141.45	111.12
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	335400	10.0000	CAS #: 75-35-4 8.568	80.00-	120.00	100.00
12.399	12.399	(0.787)	61	1293356			360.48-	420.48	385.62
12.399	12.399	(0.787)	96	530417			127.96-	187.96	158.14
9 Methyl tert-butyl ether									
13.855	13.855	(0.879)	73	1307765	10.0000	CAS #: 1634-04-4 10.130	80.00-	120.00	100.00
13.827	13.827	(0.878)	57	637999			19.14-	79.14	48.79
13.827	13.827	(0.878)	41	605363			17.24-	77.24	46.29
10 trans-1,2-Dichloroethene									
13.882	13.882	(0.881)	98	347023	10.0000	CAS #: 156-60-5 9.277	80.00-	120.00	100.00
13.882	13.882	(0.881)	61	1187084			314.49-	374.49	342.08
13.882	13.882	(0.881)	96	546007			126.88-	186.88	157.34
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	1336730	10.0000	CAS #: 75-34-3 9.851	80.00-	120.00	100.00
14.596	14.596	(0.926)	65	363195			0.00-	57.13	27.17
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	382212	10.0000	CAS #: 156-59-2 9.293	80.00-	120.00	100.00
15.437	15.437	(0.980)	61	1170651			281.52-	341.52	306.28
15.437	15.437	(0.980)	96	597015			128.25-	188.25	156.20
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	157419	5.00000	CAS #: 74-97-5	80.00-	120.00	100.00
15.757	15.757	(1.000)	128	122069			47.55-	107.55	77.54
15.757	15.757	(1.000)	49	478541			270.30-	330.30	303.99
14 Chloroform									
15.819	15.819	(1.004)	83	1145640	10.0000	CAS #: 67-66-3 9.690	80.00-	120.00	100.00
15.819	15.819	(1.004)	85	743699			34.94-	94.94	64.92
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	1316868	10.0000	CAS #: 71-55-6 9.819	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	852051			34.47- 94.47	64.70
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	1432199	10.0000	11.733	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	1377333			65.95- 125.95	96.17
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	1473877	10.0000	9.346	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	333202			0.00- 52.44	22.61
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	281478	5.00000	5.072	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	144092			17.43- 77.43	51.19
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	1129580	10.0000	9.884	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	326621			0.00- 58.95	28.92
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	659072	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	92955			0.00- 44.06	14.10
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	864815	10.0000	9.362	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	814810			64.51- 124.51	94.22
17.509	17.509 (1.022)	97	525685			31.18- 91.18	60.79
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	531857	5.00000	5.098	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	58794			0.00- 40.98	11.05
19.629	19.629 (1.146)	100	332324			32.48- 92.48	62.48
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	1850127	10.0000	9.889	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	1091328			28.76- 88.76	58.99
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	930452	10.0000	10.510	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	294996			1.64- 61.64	31.70
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	763759	10.0000	9.832	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	478973			32.73- 92.73	62.71
20.548	20.548 (0.932)	83	600947			48.90- 108.90	78.68

AMOUNTS								
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4	
20.727	20.727	(0.940)	166	1156252	10.0000	9.195	80.00- 120.00	100.00
20.727	20.727	(0.940)	129	819057			41.19- 101.19	70.84
20.727	20.727	(0.940)	131	863665			45.32- 105.32	74.70

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4	
21.409	21.409	(0.971)	107	1220354	10.0000	9.906	80.00- 120.00	100.00
21.409	21.409	(0.971)	109	1156596			65.14- 125.14	94.78

* 28 Chlorobenzene-d5						CAS #:	3114-55-4	
22.042	22.042	(1.000)	117	565159	5.00000		80.00- 120.00	100.00
22.015	22.015	(1.000)	82	264237			16.56- 76.56	46.75

29 Chlorobenzene						CAS #:	108-90-7	
22.070	22.070	(1.001)	112	1715712	10.0000	9.923	80.00- 120.00	100.00
22.070	22.070	(1.001)	114	546133			2.04- 62.04	31.83
22.070	22.070	(1.001)	77	846413			19.26- 79.26	49.33

30 Ethyl Benzene						CAS #:	100-41-4	
22.152	22.152	(1.005)	106	703525	10.0000	10.198	80.00- 120.00	100.00
22.152	22.152	(1.005)	91	2318242			301.39- 361.39	329.52

31 m,p-Xylene						CAS #:	108-38-3	
22.317	22.317	(1.012)	106	745348	10.0000	10.483	80.00- 120.00	100.00
22.289	22.289	(1.011)	91	1589955			185.82- 245.82	213.32

32 o-Xylene						CAS #:	95-47-6	
22.839	22.839	(1.036)	106	704029	10.0000	10.240	80.00- 120.00	100.00
22.839	22.839	(1.036)	91	1610653			197.84- 257.84	228.78

\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4	
23.548	23.548	(1.068)	174	320382	5.00000	5.209	80.00- 120.00	100.00
23.548	23.548	(1.068)	95	354577			80.08- 140.08	110.67
23.548	23.548	(1.068)	176	314038			67.26- 127.26	98.02

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5	
23.677	23.677	(1.074)	83	1371010	10.0000	9.277	80.00- 120.00	100.00
23.677	23.677	(1.074)	85	886601			34.77- 94.77	64.67

35 1,3-Dichlorobenzene						CAS #:	541-73-1	
24.769	24.769	(1.124)	146	1138520	10.0000	9.481	80.00- 120.00	100.00
24.769	24.769	(1.124)	148	729230			34.16- 94.16	64.05
24.769	24.769	(1.124)	111	437433			8.33- 68.33	38.42

36 1,4-Dichlorobenzene						CAS #:	106-46-7	
24.859	24.859	(1.128)	146	1017746	10.0000	8.618	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET	RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)			
==	=====	=====	====	=====	=====	=====	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	649720			33.79-	93.79	63.84
24.859	24.859	(1.128)	111	373388			6.65-	66.65	36.69

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	993654	10.0000	9.207	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	635295			33.50-	93.50	63.94
25.285	25.285	(1.147)	111	389232			9.32-	69.32	39.17

38 Naphthalene						CAS #:	91-20-3		
27.415	27.415	(1.244)	128	163414	1.00000	1.011	80.00-	120.00	100.00
27.415	27.415	(1.244)	127	19286			0.00-	42.14	11.80

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v100811sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gh
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 08-OCT-2015
Calibration Time: 18:10
Client Smp ID: Level # 13
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	157419	-1.36
20 1,4-Difluorobenze	652482	391489	913475	659072	1.01
28 Chlorobenzene-d5	554576	332746	776406	565159	1.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 18:54

Client ID: Level # 13

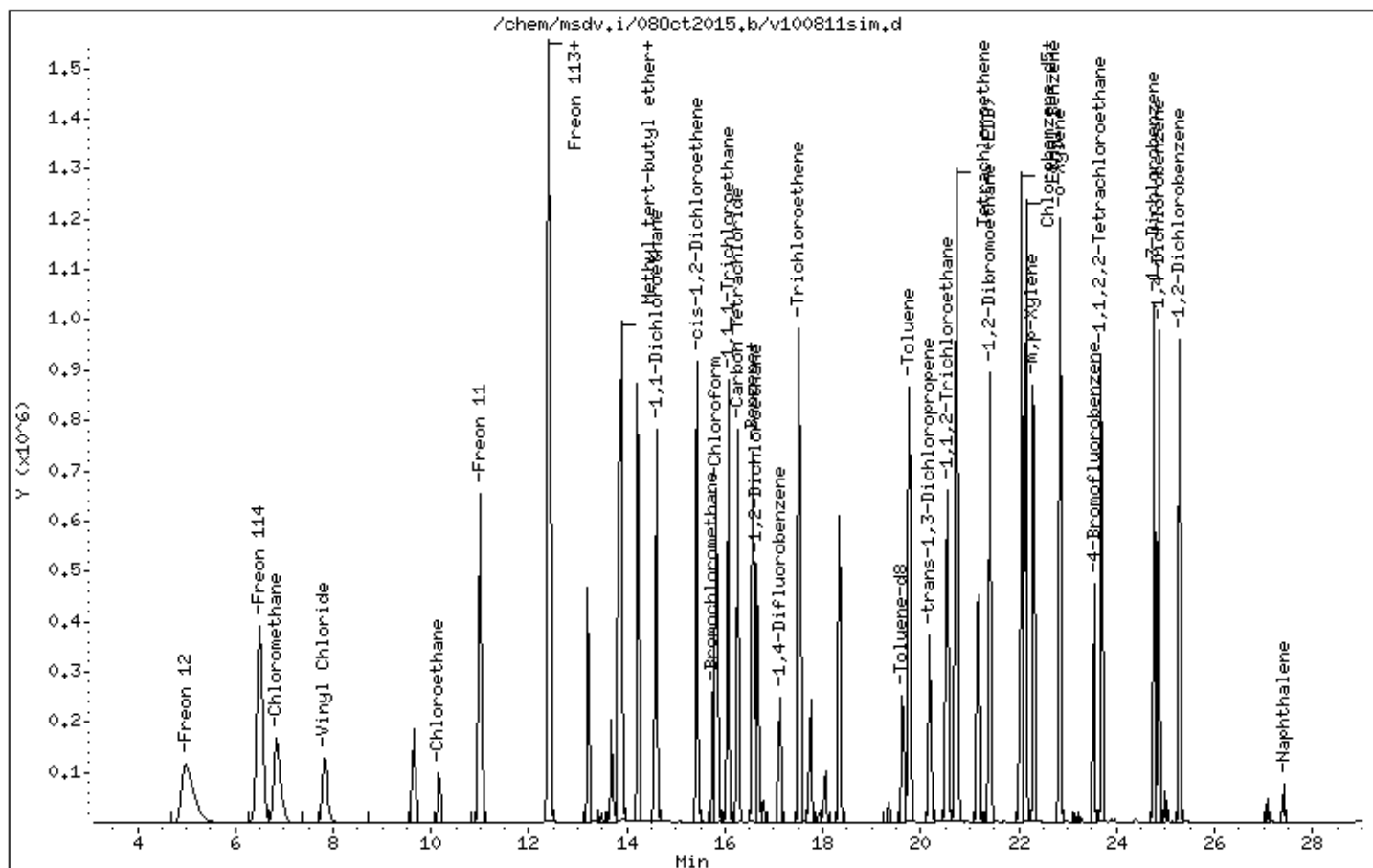
Instrument: msdv.i

Sample Info: 50mL# 2736-291

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/08Oct2015.b/v100812sim.d
 Lab Smp Id: ICAL Client Smp ID: Level # 15
 Inj Date : 08-OCT-2015 19:44
 Operator : gh Inst ID: msdv.i
 Smp Info : 100mL# 2736-291
 Misc Info : 20ppbv (50ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/08Oct2015.b/v15l1008a.m/v15s1008a.m
 Meth Date : 13-Oct-2015 09:28 sblack Quant Type: ISTD
 Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
 Als bottle: 1 Calibration Sample, Level: 15
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	

		AMOUNTS							
RT	EXP RT (REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	=====	=====	
1 Freon 12									
5.003	5.003 (0.318)	85	2626841	20.0000	19.025	80.00-	120.00	100.00	
5.003	5.003 (0.318)	87	841724			1.99-	61.99	32.04	
2 Freon 114									
6.513	6.513 (0.413)	135	2182934	20.0000	18.643	80.00-	120.00	100.00	
6.551	6.551 (0.416)	137	693201			1.60-	61.60	31.76	
3 Chloromethane									
6.891	6.891 (0.437)	50	2184573	20.0000	17.018	80.00-	120.00	100.00	
6.891	6.891 (0.437)	52	682061			0.84-	60.84	31.22	
4 Vinyl Chloride									
7.840	7.840 (0.498)	62	1445593	20.0000	18.353	80.00-	120.00	100.00	
7.840	7.840 (0.498)	64	390640			0.00-	57.01	27.02	
5 Chloroethane									
10.175	10.175 (0.646)	64	582039	20.0000	20.618	80.00-	120.00	100.00(A)	

				AMOUNTS					
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE		RATIO
==	=====	=====	===	=====	=====	=====	=====		=====
5 Chloroethane (continued)									
10.175	10.175	(0.646)	66	156659			0.00-	56.81	26.92
6 Freon 11									
10.994	10.994	(0.698)	101	2921837	20.0000	CAS #: 19.314	75-69-4		
10.994	10.994	(0.698)	103	1895723			80.00-	120.00	100.00
							34.59-	94.59	64.88
7 Freon 113									
12.427	12.427	(0.789)	151	2035672	20.0000	CAS #: 18.861	76-13-1		
12.427	12.427	(0.789)	153	1304393			80.00-	120.00	100.00
12.399	12.399	(0.787)	101	2262306			33.91-	93.91	64.08
							81.45-	141.45	111.13
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	667856	20.0000	CAS #: 16.544	75-35-4		
12.399	12.399	(0.787)	61	2589986			80.00-	120.00	100.00
12.399	12.399	(0.787)	96	1050041			360.48-	420.48	387.81
							127.96-	187.96	157.23
9 Methyl tert-butyl ether									
13.855	13.855	(0.879)	73	2608051	20.0000	CAS #: 19.590	1634-04-4		
13.827	13.827	(0.878)	57	1256506			80.00-	120.00	100.00
13.827	13.827	(0.878)	41	1190703			19.14-	79.14	48.18
							17.24-	77.24	45.65
10 trans-1,2-Dichloroethene									
13.882	13.882	(0.881)	98	696397	20.0000	CAS #: 18.053	156-60-5		
13.882	13.882	(0.881)	61	2388570			80.00-	120.00	100.00
13.882	13.882	(0.881)	96	1089089			314.49-	374.49	342.99
							126.88-	186.88	156.39
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	2677302	20.0000	CAS #: 19.132	75-34-3		
14.596	14.596	(0.926)	65	731458			80.00-	120.00	100.00
							0.00-	57.13	27.32
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	763677	20.0000	CAS #: 18.004	156-59-2		
15.437	15.437	(0.980)	61	2349740			80.00-	120.00	100.00
15.437	15.437	(0.980)	96	1182685			281.52-	341.52	307.69
							128.25-	188.25	154.87
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	162342	5.00000	CAS #: 74-97-5			
15.757	15.757	(1.000)	128	127410			80.00-	120.00	100.00
15.757	15.757	(1.000)	49	507236			47.55-	107.55	78.48
							270.30-	330.30	312.45
14 Chloroform									
15.819	15.819	(1.004)	83	2294561	20.0000	CAS #: 18.820	67-66-3		
15.819	15.819	(1.004)	85	1491737			80.00-	120.00	100.00
							34.94-	94.94	65.01
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	2636502	20.0000	CAS #: 19.063	71-55-6		
							80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	1697155			34.47- 94.47	64.37
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	2879090	20.0000	22.871	80.00- 120.00	100.00(A)
16.281	16.281 (1.033)	119	2779343			65.95- 125.95	96.54
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	2929172	20.0000	17.958	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	659892			0.00- 52.44	22.53
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	305880	5.00000	5.344	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	174750			17.43- 77.43	57.13
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	2285966	20.0000	19.340	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	662719			0.00- 58.95	28.99
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	681679	5.00000		80.00- 120.00	100.00
17.125	17.125 (1.000)	88	96161			0.00- 44.06	14.11
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	1715530	20.0000	17.956	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	1619551			64.51- 124.51	94.41
17.509	17.509 (1.022)	97	1050193			31.18- 91.18	61.22
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	541643	5.00000	5.020	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	59918			0.00- 40.98	11.06
19.629	19.629 (1.146)	100	339322			32.48- 92.48	62.65
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	3660494	20.0000	18.917	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	2156216			28.76- 88.76	58.91
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	1867148	20.0000	20.555	80.00- 120.00	100.00(A)
20.189	20.189 (0.916)	77	593875			1.64- 61.64	31.81
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	1509573	20.0000	18.940	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	948913			32.73- 92.73	62.86
20.548	20.548 (0.932)	83	1194660			48.90- 108.90	79.14

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	2279167	20.0000	17.664	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	1624166			41.19-	101.19	71.26
20.727	20.727	(0.940)	131	1709089			45.32-	105.32	74.99
27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	2442316	20.0000	19.322	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	2320950			65.14-	125.14	95.03
* 28 Chlorobenzene-d5						CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	579885	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	270018			16.56-	76.56	46.56
29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	3393242	20.0000	19.128	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	1088084			2.04-	62.04	32.07
22.070	22.070	(1.001)	77	1665895			19.26-	79.26	49.09
30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	1412559	20.0000	19.956	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	4658635			301.39-	361.39	329.80
31 m,p-Xylene						CAS #:	108-38-3		
22.317	22.317	(1.012)	106	1474539	20.0000	20.213	80.00-	120.00	100.00(A)
22.289	22.289	(1.011)	91	3183875			185.82-	245.82	215.92
32 o-Xylene						CAS #:	95-47-6		
22.838	22.838	(1.036)	106	1403502	20.0000	19.896	80.00-	120.00	100.00
22.838	22.838	(1.036)	91	3193511			197.84-	257.84	227.54
\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4		
23.548	23.548	(1.068)	174	333529	5.00000	5.285	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	368005			80.08-	140.08	110.34
23.548	23.548	(1.068)	176	325384			67.26-	127.26	97.56
34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	2677894	20.0000	17.661	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	1736739			34.77-	94.77	64.85
35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	2265328	20.0000	18.385	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	1453940			34.16-	94.16	64.18
24.769	24.769	(1.124)	111	867748			8.33-	68.33	38.31
36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	2019916	20.0000	16.670	80.00-	120.00	100.00

AMOUNTS									
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	1290304			33.79-	93.79	63.88
24.859	24.859	(1.128)	111	752008			6.65-	66.65	37.23

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	1999339	20.00000	18.056	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	1275160			33.50-	93.50	63.78
25.285	25.285	(1.147)	111	785843			9.32-	69.32	39.31

38 Naphthalene						CAS #:	91-20-3		
27.414	27.414	(1.244)	128	352681	2.000000	2.126	80.00-	120.00	100.00
27.414	27.414	(1.244)	127	41688			0.00-	42.14	11.82

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 08-OCT-2015
Lab File ID: v100812sim.d	Calibration Time: 18:10
Lab Smp Id: ICAL	Client Smp ID: Level # 15
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: gh	
Method File: /chem/msdv.i/080ct2015.b/v15l1008a.m/v15s1008a.m	
Misc Info: 20ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	159590	95754	223426	162342	1.72
20 1,4-Difluorobenze	652482	391489	913475	681679	4.47
28 Chlorobenzene-d5	554576	332746	776406	579885	4.56

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 08-OCT-2015 19:44

Client ID: Level # 15

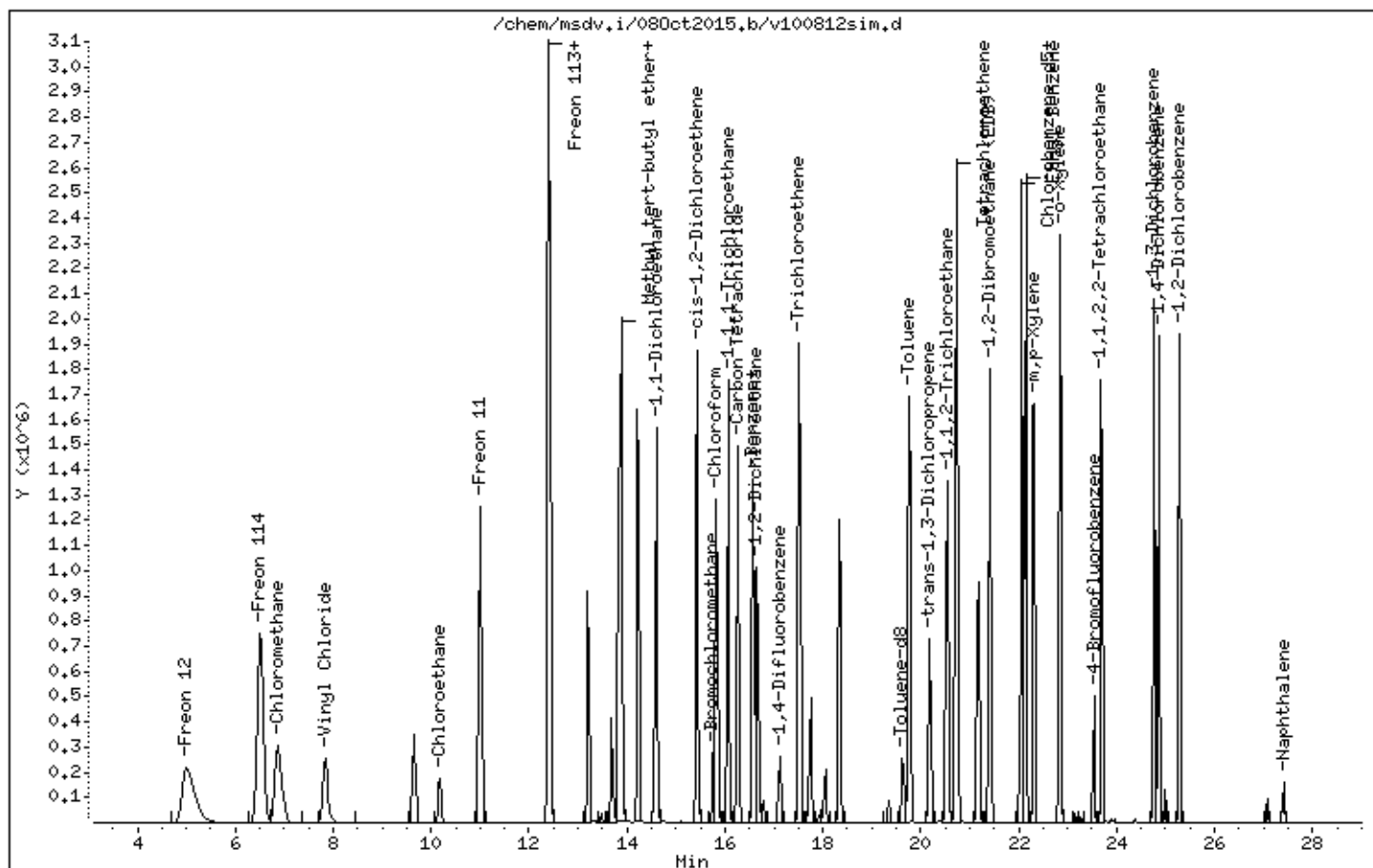
Instrument: msdv.i

Sample Info: 100mL# 2736-291

Operator: gh

Column phase: RTX-624

Column diameter: 0.32



Client Sample ID: CCV

Lab ID#: 1511365R1-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 07:38 AM

Compound	%Recovery
Freon 12	105
Freon 11	92
Freon 113	87
1,1-Dichloroethene	94
Acetone	98
Methylene Chloride	92
cis-1,2-Dichloroethene	89
1,1,1-Trichloroethane	89
Benzene	99
Toluene	93
Tetrachloroethene	90
Chlorobenzene	92
Ethyl Benzene	88
m,p-Xylene	90
o-Xylene	89
1,3-Dichlorobenzene	82
1,4-Dichlorobenzene	78
1,2-Dichlorobenzene	80
1,2,4-Trichlorobenzene	66 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	92	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdv.i Injection Date: 25-NOV-2015 07:38
Lab File ID: v112502.d Init. Cal. Date(s): 08-OCT-2015 20-OCT-2015
Analysis Type: AIR Init. Cal. Times: 14:58 09:38
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdv.i/25Nov2015.b/v15l1008c.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
9 Propylene	2.99469	3.35808	0.010	-12.13447	40.00000	Averaged
11 Freon 12	4.27930	4.51068	0.010	-5.40705	30.00000	Averaged
15 Freon 114	3.52566	3.41246	0.010	3.21079	30.00000	Averaged
17 Chloromethane	3.51502	3.70009	0.010	-5.26524	30.00000	Averaged
23 Butane	0.60653	0.65229	0.010	-7.54457	40.00000	Averaged
25 Vinyl Chloride	2.33862	2.58439	0.010	-10.50924	30.00000	Averaged
26 1,3-Butadiene	2.91493	2.93523	0.010	-0.69639	30.00000	Averaged
29 Bromomethane	1.21059	1.30253	0.010	-7.59484	30.00000	Averaged
30 Chloroethane	0.94412	1.03426	0.010	-9.54789	30.00000	Averaged
31 Isopentane	2.54954	2.50535	0.010	1.73353	40.00000	Averaged
35 Freon 11	4.65657	4.30740	0.010	7.49827	30.00000	Averaged
42 Ethanol	1.43822	1.45077	0.010	-0.87238	30.00000	Averaged
49 Freon 113	3.31693	2.87421	0.010	13.34711	30.00000	Averaged
50 1,1-Dichloroethene	1.14397	1.07013	0.010	6.45450	30.00000	Averaged
52 Acetone	1.46555	1.44417	0.010	1.45917	30.00000	Averaged
56 Carbon Disulfide	4.54562	4.80983	0.010	-5.81231	30.00000	Averaged
57 2-Propanol	6.62671	6.61903	0.010	0.11589	30.00000	Averaged
58 3-Chloropropene	0.67414	0.60773	0.010	9.85072	30.00000	Averaged
66 Methylene Chloride	1.54300	1.42513	0.010	7.63898	30.00000	Averaged
71 tert-Butyl alcohol	6.43193	6.07713	0.010	5.51626	40.00000	Averaged
72 Methyl tert-butyl ether	4.88069	4.70232	0.010	3.65460	30.00000	Averaged
73 trans-1,2-Dichloroethene	1.12749	1.04937	0.010	6.92847	30.00000	Averaged
78 Hexane	6.13538	5.20537	0.010	15.15809	30.00000	Averaged
83 Isopropyl ether	13.88357	14.28813	0.010	-2.91395	40.00000	Averaged
82 1,1-Dichloroethane	4.39646	4.25839	0.010	3.14053	30.00000	Averaged
86 Vinyl Acetate	0.40177	0.32162	0.010	19.94859	40.00000	Averaged
88 Ethyl-tert-butyl ether	10.30102	9.87506	0.010	4.13508	40.00000	Averaged
91 cis-1,2-Dichloroethene	1.27452	1.12943	0.010	11.38356	30.00000	Averaged
92 2-Butanone	0.79532	0.89321	0.010	-12.30955	30.00000	Averaged
99 Tetrahydrofuran	4.65867	4.82953	0.010	-3.66742	30.00000	Averaged
100 Chloroform	3.71313	3.49037	0.010	5.99927	30.00000	Averaged
102 Cyclohexane	2.22502	2.19457	0.010	1.36846	30.00000	Averaged
103 1,1,1-Trichloroethane	4.22994	3.76100	0.010	11.08625	30.00000	Averaged
106 Carbon Tetrachloride	4.12170	3.46288	0.010	15.98428	30.00000	Averaged
113 2,2,4-Trimethylpentane	5.91477	5.47490	0.010	7.43678	30.00000	Averaged
116 Benzene	1.16879	1.15638	0.010	1.06154	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdv.i Injection Date: 25-NOV-2015 07:38
Lab File ID: v112502.d Init. Cal. Date(s): 08-OCT-2015 20-OCT-2015
Analysis Type: AIR Init. Cal. Times: 14:58 09:38
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdv.i/25Nov2015.b/v15l1008c.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
\$ 117 1,2-Dichloroethane-d4	1.83598	1.85578	0.010	-1.07813	30.00000	Averaged
119 tert-Amyl methyl ether	0.28312	0.24109	0.010	14.84544	40.00000	Averaged
120 1,2-Dichloroethane	0.78607	0.70169	0.010	10.73435	30.00000	Averaged
121 Heptane	0.76202	0.70927	0.010	6.92262	30.00000	Averaged
125 Trichloroethene	0.62647	0.56628	0.010	9.60641	30.00000	Averaged
127 Methylcyclohexane	0.70001	0.66090	0.010	5.58655	40.00000	Averaged
132 1,2-Dichloropropane	0.65457	0.61348	0.010	6.27689	30.00000	Averaged
136 1,4-Dioxane	0.30331	0.27863	0.010	8.13786	30.00000	Averaged
138 Bromodichloromethane	1.03161	0.97154	0.010	5.82252	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.75441	0.69906	0.010	7.33683	30.00000	Averaged
145 4-Methyl-2-pentanone	2.13130	2.14450	0.010	-0.61898	30.00000	Averaged
\$ 146 Toluene-d8	0.91414	0.91713	0.010	-0.32799	30.00000	Averaged
147 Toluene	1.49801	1.38810	0.010	7.33717	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.73352	0.70977	0.010	3.23716	30.00000	Averaged
155 1,1,2-Trichloroethane	0.61128	0.60440	0.010	1.12587	30.00000	Averaged
156 Tetrachloroethene	0.89379	0.80520	0.010	9.91197	30.00000	Averaged
158 2-Hexanone	1.01525	0.97095	0.010	4.36316	30.00000	Averaged
160 Dibromochloromethane	1.09760	1.02249	0.010	6.84323	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.94280	0.95578	0.010	-1.37663	30.00000	Averaged
165 Chlorobenzene	1.36847	1.25506	0.010	8.28728	30.00000	Averaged
167 Ethyl Benzene	0.67883	0.59920	0.010	11.72957	30.00000	Averaged
169 m,p-Xylene	0.68652	0.61581	0.010	10.30029	30.00000	Averaged
171 o-Xylene	0.64187	0.56984	0.010	11.22208	30.00000	Averaged
172 Styrene	1.05476	0.85661	0.010	18.78673	30.00000	Averaged
174 Bromoform	1.15167	0.98730	0.010	14.27238	30.00000	Averaged
175 Cumene	1.89753	1.77632	0.010	6.38778	30.00000	Averaged
\$ 177 4-Bromofluorobenzene	0.51408	0.47092	0.010	8.39583	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	1.10423	1.12239	0.010	-1.64493	30.00000	Averaged
182 Propylbenzene	1.90034	1.77368	0.010	6.66493	30.00000	Averaged
188 4-Ethyltoluene	1.49869	1.28874	0.010	14.00878	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.39632	1.29728	0.010	7.09273	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.42469	1.29632	0.010	9.01051	30.00000	Averaged
208 1,3-Dichlorobenzene	0.97466	0.79812	0.010	18.11319	30.00000	Averaged
209 1,4-Dichlorobenzene	0.85332	0.66983	0.010	21.50343	30.00000	Averaged
212 alpha-Chlorotoluene	1.15275	0.99328	0.010	13.83368	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdv.i Injection Date: 25-NOV-2015 07:38
Lab File ID: v112502.d Init. Cal. Date(s): 08-OCT-2015 20-OCT-2015
Analysis Type: AIR Init. Cal. Times: 14:58 09:38
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdv.i/25Nov2015.b/v15l1008c.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	0.86169	0.69259	0.010	19.62449	30.00000	Averaged
226 1,2,4-Trichlorobenzene	0.79123	0.52341	0.010	33.84770	30.00000	Averaged <-
227 Hexachlorobutadiene	0.54305	0.37491	0.010	30.96126	30.00000	Averaged <-
228 Naphthalene	1.48333	0.99620	0.010	32.84043	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112502.d
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 25-NOV-2015 07:38
 Operator : ef Inst ID: msdv.i
 Smp Info : 25mL# 2759-291
 Misc Info : 5.0ppbv (50ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
 Meth Date : 25-Nov-2015 08:15 efinn Quant Type: ISTD
 Cal Date : 20-OCT-2015 09:38 Cal File: v102007.d
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	

		AMOUNTS						
RT	EXP RT (REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
9 Propylene								
4.447	4.447 (0.282)	41	336295	5.00000	5.607	80.00- 120.00	100.00	CAS #: 115-07-1
4.447	4.447 (0.282)	42	225598			37.47- 97.47	67.08	
4.447	4.447 (0.282)	39	229166			32.82- 92.82	68.14	
11 Freon 12								
4.938	4.938 (0.314)	85	451722	5.00000	5.270	80.00- 120.00	100.00	CAS #: 75-71-8
4.976	4.976 (0.316)	87	137395			1.30- 61.30	30.42	
15 Freon 114								
6.486	6.486 (0.412)	135	341741	5.00000	4.839	80.00- 120.00	100.00	CAS #: 76-14-2
6.524	6.524 (0.414)	137	106245			2.78- 62.78	31.09	
6.486	6.486 (0.412)	85	447607			87.42- 147.42	130.98	
17 Chloromethane								
6.826	6.826 (0.434)	50	370546	5.00000	5.263	80.00- 120.00	100.00	CAS #: 74-87-3
6.826	6.826 (0.434)	52	113749			0.67- 60.67	30.70	

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO	
==	=====	=====	====	=====	=====	=====	=====	=====	
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	65324	5.00000	5.377	80.00- 120.00	100.00	
7.658	7.658	(0.486)	43	632585			986.38-1046.38	968.38	
25 Vinyl Chloride						CAS #:	75-01-4		
7.782	7.782	(0.494)	62	258814	5.00000	5.525	80.00- 120.00	100.00	
7.782	7.782	(0.494)	64	69787			0.00- 56.32	26.96	
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	293949	5.00000	5.035	80.00- 120.00	100.00	
8.030	8.030	(0.510)	39	288107			59.51- 119.51	98.01	
29 Bromomethane						CAS #:	74-83-9		
9.631	9.631	(0.612)	94	130442	5.00000	5.380	80.00- 120.00	100.00	
9.631	9.631	(0.612)	96	131352			64.14- 124.14	100.70	
30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	103576	5.00000	5.477	80.00- 120.00	100.00	
10.161	10.161	(0.645)	49	48139			16.17- 76.17	46.48	
10.161	10.161	(0.645)	66	30453			0.00- 53.05	29.40	
31 Isopentane						CAS #:	78-78-4		
10.330	10.330	(0.656)	57	250898	5.00000	4.913	80.00- 120.00	100.00	
10.330	10.330	(0.656)	43	468224			146.62- 206.62	186.62	
10.330	10.330	(0.656)	42	408796			123.11- 183.11	162.93	
35 Freon 11						CAS #:	75-69-4		
10.980	10.980	(0.697)	101	431365	5.00000	4.625	80.00- 120.00	100.00	
10.980	10.980	(0.697)	103	279187			32.43- 92.43	64.72	
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	145287	5.00000	5.044	80.00- 120.00	100.00	
11.919	11.919	(0.757)	46	52796			3.52- 63.52	36.34	
11.919	11.919	(0.757)	43	26685			0.00- 49.09	18.37	
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	287838	5.00000	4.333	80.00- 120.00	100.00	
12.413	12.413	(0.788)	153	183819			32.55- 92.55	63.86	
12.413	12.413	(0.788)	101	357686			82.40- 142.40	124.27	
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	107168	5.00000	4.677	80.00- 120.00	100.00	
12.386	12.386	(0.787)	61	420785			344.18- 404.18	392.64	
12.386	12.386	(0.787)	96	163229			122.48- 182.48	152.31	
52 Acetone						CAS #:	67-64-1		
12.660	12.660	(0.804)	58	144626	5.00000	4.927	80.00- 120.00	100.00	

				AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====
52 Acetone (continued)								
12.660	12.660	(0.804)	43	523764			308.96- 368.96	362.15
56 Carbon Disulfide						CAS #:	75-15-0	
12.743	12.743	(0.809)	76	481680	5.00000	5.291	80.00- 120.00	100.00
57 2-Propanol						CAS #:	67-63-0	
13.018	13.018	(0.827)	45	662863	5.00000	4.994	80.00- 120.00	100.00
13.018	13.018	(0.827)	43	111454			0.00- 46.45	16.81
12.990	12.990	(0.825)	59	18713			0.00- 32.99	2.82
58 3-Chloropropene						CAS #:	107-05-1	
13.210	13.210	(0.839)	76	60861	5.00000	4.507	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	435374			674.37- 734.37	715.36
66 Methylene Chloride						CAS #:	75-09-2	
13.484	13.484	(0.856)	84	142720	5.00000	4.618	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	463828			288.43- 348.43	324.99
13.484	13.484	(0.856)	51	139824			65.27- 125.27	97.97
71 tert-Butyl alcohol						CAS #:	75-65-0	
13.676	13.676	(0.869)	59	608594	5.00000	4.724	80.00- 120.00	100.00
13.676	13.676	(0.869)	41	156358			0.00- 53.16	25.69
13.676	13.676	(0.869)	57	64993			0.00- 40.96	10.68
72 Methyl tert-butyl ether						CAS #:	1634-04-4	
13.841	13.841	(0.879)	73	470914	5.00000	4.817	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	199592			17.16- 77.16	42.38
13.841	13.841	(0.879)	41	220889			14.94- 74.94	46.91
73 trans-1,2-Dichloroethene						CAS #:	156-60-5	
13.869	13.869	(0.881)	98	105089	5.00000	4.654	80.00- 120.00	100.00
13.869	13.869	(0.881)	61	364521			319.94- 379.94	346.87
13.869	13.869	(0.881)	96	164296			133.67- 193.67	156.34
78 Hexane						CAS #:	110-54-3	
14.226	14.226	(0.904)	57	521292	5.00000	4.242	80.00- 120.00	100.00
14.226	14.226	(0.904)	43	436644			45.57- 105.57	83.76
14.226	14.226	(0.904)	86	37379			0.00- 37.01	7.17
83 Isopropyl ether						CAS #:	108-20-3	
14.582	14.582	(0.926)	45	1430885	5.00000	5.146	80.00- 120.00	100.00
14.582	14.582	(0.926)	87	147080			0.00- 40.41	10.28
14.582	14.582	(0.926)	59	120429			0.00- 38.33	8.42
82 1,1-Dichloroethane						CAS #:	75-34-3	
14.582	14.582	(0.926)	63	426456	5.00000	4.843	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
82	1,1-Dichloroethane (continued)						
14.582	14.582 (0.926)	65	115483			0.00- 56.80	27.08
86	Vinyl Acetate				CAS #: 108-05-4		
14.637	14.637 (0.930)	86	32209	5.00000	4.002	80.00- 120.00	100.00
14.637	14.637 (0.930)	42	119591			254.23- 314.23	371.30
14.637	14.637 (0.930)	43	1576550			4287.95-4347.95	4894.75
88	Ethyl-tert-butyl ether				CAS #: 637-92-3		
15.071	15.071 (0.957)	59	988938	5.00000	4.793	80.00- 120.00	100.00
15.071	15.071 (0.957)	87	214525			0.00- 52.67	21.69
15.071	15.071 (0.957)	41	218518			0.00- 50.06	22.10
91	cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.423	15.423 (0.980)	98	113107	5.00000	4.431	80.00- 120.00	100.00
15.423	15.423 (0.980)	61	375622			282.85- 342.85	332.09
15.423	15.423 (0.980)	96	191167			128.91- 188.91	169.01
92	2-Butanone				CAS #: 78-93-3		
15.423	15.423 (0.980)	72	89451	5.00000	5.615	80.00- 120.00	100.00
15.403	15.403 (0.978)	43	758755			922.45- 982.45	848.24
15.403	15.403 (0.978)	57	52776			34.83- 94.83	59.00
99	Tetrahydrofuran				CAS #: 109-99-9		
15.743	15.743 (1.000)	42	483653	5.00000	5.183	80.00- 120.00	100.00
15.743	15.743 (1.000)	71	85528			0.00- 44.56	17.68
15.743	15.743 (1.000)	72	81583			0.00- 46.89	16.87
* 98	Bromochloromethane				CAS #: 74-97-5		
15.743	15.743 (1.000)	130	100145	5.00000		80.00- 120.00	100.00
15.743	15.743 (1.000)	128	79936			45.98- 105.98	79.82
15.743	15.743 (1.000)	49	372720			326.70- 386.70	372.18
100	Chloroform				CAS #: 67-66-3		
15.836	15.836 (1.006)	83	349543	5.00000	4.700	80.00- 120.00	100.00
15.836	15.836 (1.006)	85	222566			34.80- 94.80	63.67
102	Cyclohexane				CAS #: 110-82-7		
16.082	16.082 (1.022)	84	219775	5.00000	4.932	80.00- 120.00	100.00
16.082	16.082 (1.022)	56	573221			240.10- 300.10	260.82
16.082	16.082 (1.022)	41	355970			110.99- 170.99	161.97
103	1,1,1-Trichloroethane				CAS #: 71-55-6		
16.052	16.052 (1.020)	97	376645	5.00000	4.446	80.00- 120.00	100.00
16.052	16.052 (1.020)	99	255743			33.53- 93.53	67.90

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	346790	5.00000	4.201	80.00-	120.00	100.00
16.267	16.267	(1.033)	117	362402			76.59-	136.59	104.50
113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	548284	5.00000	4.628	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	1671105			265.00-	325.00	304.79
16.535	16.535	(1.050)	41	477224			45.25-	105.25	87.04
116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	535133	5.00000	4.947	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	125074			0.00-	51.65	23.37
\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	185847	5.00000	5.054	80.00-	120.00	100.00
16.562	16.562	(1.052)	67	96413			15.86-	75.86	51.88
119 tert-Amyl methyl ether						CAS #:	994-05-8		
16.617	16.617	(0.971)	87	111567	5.00000	4.258	80.00-	120.00	100.00
16.617	16.617	(0.971)	73	537699			370.18-	430.18	481.95
16.617	16.617	(0.971)	55	271674			192.85-	252.85	243.51
120 1,2-Dichloroethane						CAS #:	107-06-2		
16.672	16.672	(0.974)	62	324717	5.00000	4.463	80.00-	120.00	100.00
16.672	16.672	(0.974)	64	95212			0.56-	60.56	29.32
121 Heptane						CAS #:	142-82-5		
16.782	16.782	(0.981)	57	328225	5.00000	4.654	80.00-	120.00	100.00
16.782	16.782	(0.981)	100	53199			0.00-	46.48	16.21
16.782	16.782	(0.981)	43	742077			186.23-	246.23	226.09
* 123 1,4-Difluorobenzene						CAS #:	540-36-3		
17.111	17.111	(1.000)	114	462764	5.00000		80.00-	120.00	100.00
17.111	17.111	(1.000)	88	63863			0.00-	43.80	13.80
125 Trichloroethene						CAS #:	79-01-6		
17.496	17.496	(1.022)	130	262056	5.00000	4.520	80.00-	120.00	100.00
17.496	17.496	(1.022)	95	253054			66.89-	126.89	96.56
17.496	17.496	(1.022)	97	149622			35.91-	95.91	57.10
127 Methylcyclohexane						CAS #:	108-87-2		
17.743	17.743	(1.037)	83	305843	5.00000	4.721	80.00-	120.00	100.00
17.743	17.743	(1.037)	55	531147			146.83-	206.83	173.67
17.743	17.743	(1.037)	56	171882			28.02-	88.02	56.20
132 1,2-Dichloropropane						CAS #:	78-87-5		
17.935	17.935	(1.048)	63	283897	5.00000	4.686	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
132 1,2-Dichloropropane (continued)									
17.935	17.935	(1.048)	62	219359			41.26-	101.26	77.27
17.907	17.907	(1.047)	41	223610			40.22-	100.22	78.76

136 1,4-Dioxane						CAS #:	123-91-1		
18.045	18.045	(1.055)	88	128938	5.00000	4.593	80.00-	120.00	100.00
18.045	18.045	(1.055)	58	158120			119.94-	179.94	122.63
18.045	18.045	(1.055)	57	55728			14.89-	74.89	43.22

138 Bromodichloromethane						CAS #:	75-27-4		
18.347	18.347	(0.833)	83	385994	5.00000	4.709	80.00-	120.00	100.00
18.347	18.347	(0.833)	85	242733			34.56-	94.56	62.89

144 cis-1,3-Dichloropropene						CAS #:	10061-01-5		
19.145	19.145	(1.119)	75	323502	5.00000	4.633	80.00-	120.00	100.00
19.145	19.145	(1.119)	77	102569			1.86-	61.86	31.71
19.145	19.145	(1.119)	39	334450			58.69-	118.69	103.38

145 4-Methyl-2-pentanone						CAS #:	108-10-1		
19.324	19.324	(1.129)	43	992396	5.00000	5.031	80.00-	120.00	100.00
19.324	19.324	(1.129)	58	307088			2.96-	62.96	30.94
19.324	19.324	(1.129)	85	65235			0.00-	37.25	6.57

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.615	(1.146)	98	424417	5.00000	5.016	80.00-	120.00	100.00
19.615	19.615	(1.146)	70	50760			0.00-	39.58	11.96
19.615	19.615	(1.146)	100	272646			37.10-	97.10	64.24

147 Toluene						CAS #:	108-88-3		
19.750	19.750	(1.154)	91	642362	5.00000	4.633	80.00-	120.00	100.00
19.750	19.750	(1.154)	92	390025			27.14-	87.14	60.72

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.212	20.212	(0.918)	75	281994	5.00000	4.838	80.00-	120.00	100.00
20.212	20.212	(0.918)	77	90349			0.00-	59.12	32.04
20.212	20.212	(0.918)	39	261596			53.01-	113.01	92.77

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	240128	5.00000	4.944	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	143496			31.52-	91.52	59.76
20.534	20.534	(0.932)	83	198993			49.16-	109.16	82.87

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	319906	5.00000	4.504	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	228496			42.65-	102.65	71.43
20.714	20.714	(0.940)	131	235332			42.72-	102.72	73.56

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
158	20.821	20.821 (0.945)	58	385760	5.00000	4.782	CAS #: 591-78-6 80.00- 120.00	100.00
20.821	20.821	(0.945)	43	877832			185.90- 245.90	227.56
20.821	20.821	(0.945)	100	40916			0.00- 39.88	10.61

160	21.180	21.180 (0.961)	129	406236	5.00000	4.658	CAS #: 124-48-1 80.00- 120.00	100.00
21.180	21.180	(0.961)	127	313304			51.36- 111.36	77.12

161	21.395	21.395 (0.971)	107	379733	5.00000	5.069	CAS #: 106-93-4 80.00- 120.00	100.00
21.395	21.395	(0.971)	109	338103			67.82- 127.82	89.04

* 163	22.029	22.029 (1.000)	117	397301	5.00000		CAS #: 3114-55-4 80.00- 120.00	100.00
22.029	22.029	(1.000)	82	204354			17.84- 77.84	51.44

165	22.056	22.056 (1.001)	112	498636	5.00000	4.586	CAS #: 108-90-7 80.00- 120.00	100.00
22.056	22.056	(1.001)	114	165525			2.39- 62.39	33.20
22.056	22.056	(1.001)	77	281940			23.63- 83.63	56.54

167	22.138	22.138 (1.005)	106	238064	5.00000	4.414	CAS #: 100-41-4 80.00- 120.00	100.00
22.138	22.138	(1.005)	91	774380			289.30- 349.30	325.28

169	22.303	22.303 (1.012)	106	244661	5.00000	4.485	CAS #: 108-38-3 80.00- 120.00	100.00
22.303	22.303	(1.012)	91	522033			180.42- 240.42	213.37

171	22.852	22.852 (1.037)	106	226398	5.00000	4.439	CAS #: 95-47-6 80.00- 120.00	100.00
22.852	22.852	(1.037)	91	534546			183.19- 243.19	236.11

172	22.852	22.852 (1.037)	104	340331	5.00000	4.061	CAS #: 100-42-5 80.00- 120.00	100.00
22.852	22.852	(1.037)	78	178345			21.26- 81.26	52.40

174	23.148	23.148 (1.051)	173	392254	5.00000	4.286	CAS #: 75-25-2 80.00- 120.00	100.00
23.148	23.148	(1.051)	171	211700			21.70- 81.70	53.97

175	23.277	23.277 (1.057)	105	705733	5.00000	4.681	CAS #: 98-82-8 80.00- 120.00	100.00
23.277	23.277	(1.057)	120	190517			0.00- 59.53	27.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
\$ 177								
4-Bromofluorobenzene					CAS #: 460-00-4			
23.535	23.535	(1.068)	174	187098	5.00000	4.580	80.00- 120.00	100.00
23.535	23.535	(1.068)	95	238183			85.02- 145.02	127.30
23.535	23.535	(1.068)	176	178868			63.61- 123.61	95.60

181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5			
23.689	23.689	(1.075)	83	445928	5.00000	5.082	80.00- 120.00	100.00
23.689	23.689	(1.075)	85	285009			33.93- 93.93	63.91

182 Propylbenzene					CAS #: 103-65-1			
23.767	23.767	(1.079)	91	704685	5.00000	4.667	80.00- 120.00	100.00
23.767	23.767	(1.079)	120	151613			0.00- 55.14	21.52

188 4-Ethyltoluene					CAS #: 622-96-8			
23.896	23.896	(1.085)	105	512018	5.00000	4.300	80.00- 120.00	100.00
23.896	23.896	(1.085)	120	160249			3.95- 63.95	31.30

190 1,3,5-Trimethylbenzene					CAS #: 108-67-8			
23.947	23.947	(1.087)	105	515410	5.00000	4.645	80.00- 120.00	100.00
23.947	23.947	(1.087)	120	240029			19.31- 79.31	46.57

196 1,2,4-Trimethylbenzene					CAS #: 95-63-6			
24.386	24.386	(1.107)	105	515030	5.00000	4.549	80.00- 120.00	100.00
24.386	24.386	(1.107)	120	258532			17.64- 77.64	50.20

208 1,3-Dichlorobenzene					CAS #: 541-73-1			
24.756	24.756	(1.124)	146	317093	5.00000	4.094	80.00- 120.00	100.00
24.756	24.756	(1.124)	148	207081			34.17- 94.17	65.31
24.756	24.756	(1.124)	111	126681			10.53- 70.53	39.95

209 1,4-Dichlorobenzene					CAS #: 106-46-7			
24.845	24.845	(1.128)	146	266123	5.00000	3.925	80.00- 120.00	100.00
24.845	24.845	(1.128)	148	176044			35.60- 95.60	66.15
24.845	24.845	(1.128)	111	113088			7.23- 67.23	42.49

212 alpha-Chlorotoluene					CAS #: 100-44-7			
24.980	24.980	(1.134)	91	394633	5.00000	4.308	80.00- 120.00	100.00
25.002	25.002	(1.135)	126	76723			0.00- 51.02	19.44

214 1,2-Dichlorobenzene					CAS #: 95-50-1			
25.271	25.271	(1.147)	146	275165	5.00000	4.019	80.00- 120.00	100.00
25.271	25.271	(1.147)	148	168584			33.23- 93.23	61.27
25.271	25.271	(1.147)	111	111215			10.17- 70.17	40.42

226 1,2,4-Trichlorobenzene					CAS #: 120-82-1			
27.065	27.065	(1.229)	180	207953	5.00000	3.308	80.00- 120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)		
226	1,2,4-Trichlorobenzene (continued)							
27.065	27.065	(1.229)	182	200521			66.03- 126.03	96.43

227	Hexachlorobutadiene					CAS #: 87-68-3		
27.177	27.177	(1.234)	225	148953	5.00000	3.452	80.00- 120.00	100.00
27.177	27.177	(1.234)	223	91476			33.08- 93.08	61.41

228	Naphthalene					CAS #: 91-20-3		
27.401	27.401	(1.244)	128	39579	0.50000	0.3358	80.00- 120.00	100.00(a)
27.401	27.401	(1.244)	127	5448			0.00- 42.23	13.76

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 25-NOV-2015
Lab File ID: v112502.d	Calibration Time: 07:38
Lab Smp Id: CCV	Client Smp ID: CCV
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ef	
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m	
Misc Info: 5.0ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	100145	0.00
123 1,4-Difluorobenze	462764	277658	647870	462764	0.00
163 Chlorobenzene-d5	397301	238381	556221	397301	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Client Sample ID: CCV

Lab ID#: 1511365R1-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112502sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 07:38 AM

Compound	%Recovery

Vinyl Chloride	102
Carbon Tetrachloride	95
Trichloroethene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdv.i Injection Date: 25-NOV-2015 07:38
Lab File ID: v112502sim.d Init. Cal. Date(s): 08-OCT-2015 08-OCT-2015
Analysis Type: AIR Init. Cal. Times: 13:11 19:44
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Freon 12	4.25255	4.23880	0.010	0.32340	30.00000	Averaged
2 Freon 114	3.60628	3.23764	0.010	10.22229	30.00000	Averaged
3 Chloromethane	3.95356	3.75714	0.010	4.96820	30.00000	Averaged
4 Vinyl Chloride	2.42595	2.46748	0.010	-1.71184	30.00000	Averaged
5 Chloroethane	0.86945	0.98590	0.010	-13.39380	30.00000	Averaged
6 Freon 11	4.65925	4.22545	0.010	9.31046	30.00000	Averaged
7 Freon 113	3.32411	2.83734	0.010	14.64374	30.00000	Averaged
8 1,1-Dichloroethene	1.24333	1.01804	0.010	18.11958	30.00000	Averaged
9 Methyl tert-butyl ether	4.10035	3.78839	0.010	7.60808	30.00000	Averaged
10 trans-1,2-Dichloroethene	1.18807	1.05098	0.010	11.53847	30.00000	Averaged
11 1,1-Dichloroethane	4.30996	4.18907	0.010	2.80489	30.00000	Averaged
12 cis-1,2-Dichloroethene	1.30639	1.14699	0.010	12.20201	30.00000	Averaged
14 Chloroform	3.75503	3.48172	0.010	7.27847	30.00000	Averaged
15 1,1,1-Trichloroethane	4.25974	3.68169	0.010	13.57013	30.00000	Averaged
16 Carbon Tetrachloride	3.87710	3.67466	0.010	5.22147	40.00000	Averaged
17 Benzene	1.19642	1.12759	0.010	5.75263	30.00000	Averaged
\$ 18 1,2-Dichloroethane-d4	1.76284	1.73977	0.010	1.30826	30.00000	Averaged
19 1,2-Dichloroethane	0.86696	0.81623	0.010	5.85213	30.00000	Averaged
21 Trichloroethene	0.70079	0.60741	0.010	13.32463	30.00000	Averaged
\$ 22 Toluene-d8	0.79144	0.79901	0.010	-0.95661	30.00000	Averaged
23 Toluene	1.41932	1.32601	0.010	6.57455	30.00000	Averaged
24 trans-1,3-Dichloropropene	0.78321	0.79275	0.010	-1.21711	30.00000	Averaged
25 1,1,2-Trichloroethane	0.68722	0.66435	0.010	3.32790	30.00000	Averaged
26 Tetrachloroethene	1.11254	0.92473	0.010	16.88154	30.00000	Averaged
27 1,2-Dibromoethane (EDB)	1.08988	1.03650	0.010	4.89743	30.00000	Averaged
29 Chlorobenzene	1.52961	1.41826	0.010	7.27951	30.00000	Averaged
30 Ethyl Benzene	0.61032	0.55335	0.010	9.33429	30.00000	Averaged
31 m,p-Xylene	0.62900	0.57106	0.010	9.21288	30.00000	Averaged
32 o-Xylene	0.60825	0.55095	0.010	9.42071	30.00000	Averaged
\$ 33 4-Bromofluorobenzene	0.54416	0.52855	0.010	2.86865	30.00000	Averaged
34 1,1,2,2-Tetrachloroethane	1.30742	1.29133	0.010	1.23010	30.00000	Averaged
35 1,3-Dichlorobenzene	1.06240	0.88884	0.010	16.33651	30.00000	Averaged
36 1,4-Dichlorobenzene	1.04475	0.78643	0.010	24.72522	30.00000	Averaged
37 1,2-Dichlorobenzene	0.95476	0.77780	0.010	18.53481	30.00000	Averaged
38 Naphthalene	1.43052	0.94354	0.010	34.04181	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112502sim.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 25-NOV-2015 07:38
Operator : ef Inst ID: msdv.i
Smp Info : 25mL# 2759-291
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Meth Date : 25-Nov-2015 08:15 efinn Quant Type: ISTD
Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name			Value		Description				
DF			1.00000		Dilution Factor				
					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 Freon 12						CAS #:	75-71-8		
5.003	5.003	(0.318)	85	472914	5.00000	4.984	80.00-	120.00	100.00
5.003	5.003	(0.318)	87	151563			1.99-	61.99	32.05
2 Freon 114						CAS #:	76-14-2		
6.513	6.513	(0.413)	135	361217	5.00000	4.489	80.00-	120.00	100.00
6.513	6.513	(0.413)	137	113630			1.60-	61.60	31.46
3 Chloromethane						CAS #:	74-87-3		
6.853	6.853	(0.435)	50	419177	5.00000	4.752	80.00-	120.00	100.00
6.853	6.853	(0.435)	52	128647			0.84-	60.84	30.69
4 Vinyl Chloride						CAS #:	75-01-4		
7.809	7.809	(0.496)	62	275292	5.00000	5.086	80.00-	120.00	100.00
7.809	7.809	(0.496)	64	75629			0.00-	57.01	27.47
5 Chloroethane						CAS #:	75-00-3		
10.151	10.151	(0.644)	64	109995	5.00000	5.670	80.00-	120.00	100.00

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.151	10.151	(0.644)	66	30121			0.00-	56.81	27.38
6 Freon 11									
10.994	10.994	(0.698)	101	471425	5.00000	CAS #: 75-69-4 4.534	80.00-	120.00	100.00
10.994	10.994	(0.698)	103	302924			34.59-	94.59	64.26
7 Freon 113									
12.399	12.399	(0.787)	151	316556	5.00000	CAS #: 76-13-1 4.268	80.00-	120.00	100.00
12.399	12.399	(0.787)	153	201477			33.91-	93.91	63.65
12.399	12.399	(0.787)	101	389305			81.45-	141.45	122.98
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	113581	5.00000	CAS #: 75-35-4 4.094	80.00-	120.00	100.00
12.372	12.372	(0.785)	61	451426			360.48-	420.48	397.45
12.399	12.399	(0.787)	96	180788			127.96-	187.96	159.17
9 Methyl tert-butyl ether									
13.855	13.855	(0.879)	73	422663	5.00000	CAS #: 1634-04-4 4.620	80.00-	120.00	100.00
13.827	13.827	(0.878)	57	205077			19.14-	79.14	48.52
13.827	13.827	(0.878)	41	214476			17.24-	77.24	50.74
10 trans-1,2-Dichloroethene									
13.882	13.882	(0.881)	98	117256	5.00000	CAS #: 156-60-5 4.423	80.00-	120.00	100.00
13.882	13.882	(0.881)	61	404438			314.49-	374.49	344.92
13.882	13.882	(0.881)	96	185501			126.88-	186.88	158.20
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	467366	5.00000	CAS #: 75-34-3 4.860	80.00-	120.00	100.00
14.596	14.596	(0.926)	65	128584			0.00-	57.13	27.51
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	127967	5.00000	CAS #: 156-59-2 4.390	80.00-	120.00	100.00
15.437	15.437	(0.980)	61	399374			281.52-	341.52	312.09
15.437	15.437	(0.980)	96	200264			128.25-	188.25	156.50
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	111568	5.00000	CAS #: 74-97-5	80.00-	120.00	100.00
15.757	15.757	(1.000)	128	87251			47.55-	107.55	78.20
15.757	15.757	(1.000)	49	366955			270.30-	330.30	328.91
14 Chloroform									
15.819	15.819	(1.004)	83	388449	5.00000	CAS #: 67-66-3 4.636	80.00-	120.00	100.00
15.819	15.819	(1.004)	85	251549			34.94-	94.94	64.76
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	410759	5.00000	CAS #: 71-55-6 4.321	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS		TARGET RANGE	RATIO
				CAL-AMT (PPBV)	ON-COL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	263046			34.47- 94.47	64.04
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	409974	5.00000	4.739	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	396174			65.95- 125.95	96.63
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	504828	5.00000	4.712	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	115127			0.00- 52.44	22.81
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	194103	5.00000	4.934	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	94989			17.43- 77.43	48.94
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	365428	5.00000	4.707	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	104623			0.00- 58.95	28.63
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	447704	5.00000		80.00- 120.00	100.00
17.097	17.097 (1.000)	88	62618			0.00- 44.06	13.99
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	271941	5.00000	4.334	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	266665			64.51- 124.51	98.06
17.509	17.509 (1.022)	97	171975			31.18- 91.18	63.24
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	357720	5.00000	5.048	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	41979			0.00- 40.98	11.74
19.629	19.629 (1.146)	100	216195			32.48- 92.48	60.44
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	593658	5.00000	4.671	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	341185			28.76- 88.76	57.47
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	299575	5.00000	5.061	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	94135			1.64- 61.64	31.42
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	251055	5.00000	4.834	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	155906			32.73- 92.73	62.10
20.512	20.512 (0.931)	83	210806			48.90- 108.90	83.97

					AMOUNTS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	349450	5.00000	4.156	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	256975			41.19-	101.19	73.54
20.727	20.727	(0.940)	131	266925			45.32-	105.32	76.38

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	391689	5.00000	4.755	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	370341			65.14-	125.14	94.55

* 28	Chlorobenzene-d5					CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	377895	5.00000		80.00-	120.00	100.00
22.015	22.015	(1.000)	82	181417			16.56-	76.56	48.01

29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	535953	5.00000	4.636	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	169805			2.04-	62.04	31.68
22.070	22.070	(1.001)	77	273051			19.26-	79.26	50.95

30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	209107	5.00000	4.533	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	718966			301.39-	361.39	343.83

31 m,p-Xylene						CAS #:	108-38-3		
22.289	22.289	(1.011)	106	215799	5.00000	4.539	80.00-	120.00	100.00
22.289	22.289	(1.011)	91	477218			185.82-	245.82	221.14

32 o-Xylene						CAS #:	95-47-6		
22.838	22.838	(1.036)	106	208202	5.00000	4.529	80.00-	120.00	100.00
22.838	22.838	(1.036)	91	485008			197.84-	257.84	232.95

\$ 33	4-Bromofluorobenzene					CAS #:	460-00-4		
23.548	23.548	(1.068)	174	199736	5.00000	4.856	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	223463			80.08-	140.08	111.88
23.548	23.548	(1.068)	176	194197			67.26-	127.26	97.23

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	487989	5.00000	4.938	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	311832			34.77-	94.77	63.90

35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	335889	5.00000	4.183	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	215069			34.16-	94.16	64.03
24.747	24.747	(1.123)	111	128668			8.33-	68.33	38.31

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	297189	5.00000	3.764	80.00-	120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS		TARGET	RANGE	RATIO
					CAL-AMT (PPBV)	ON-COL (PPBV)			
==	=====	=====	====	=====	=====	=====	=====	=====	=====
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	188747			33.79-	93.79	63.51
24.859	24.859	(1.128)	111	110375			6.65-	66.65	37.14

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	293926	5.00000	4.073	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	185774			33.50-	93.50	63.20
25.285	25.285	(1.147)	111	115891			9.32-	69.32	39.43

38 Naphthalene						CAS #:	91-20-3		
27.415	27.415	(1.244)	128	35656	0.50000	0.3298	80.00-	120.00	100.00
27.415	27.415	(1.244)	127	4213			0.00-	42.14	11.82

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112502sim.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 25-NOV-2015
Calibration Time: 07:38
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	111568	0.00
20 1,4-Difluorobenze	447704	268622	626786	447704	0.00
28 Chlorobenzene-d5	377895	226737	529053	377895	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 25-NOV-2015 07:38

Client ID: CCV

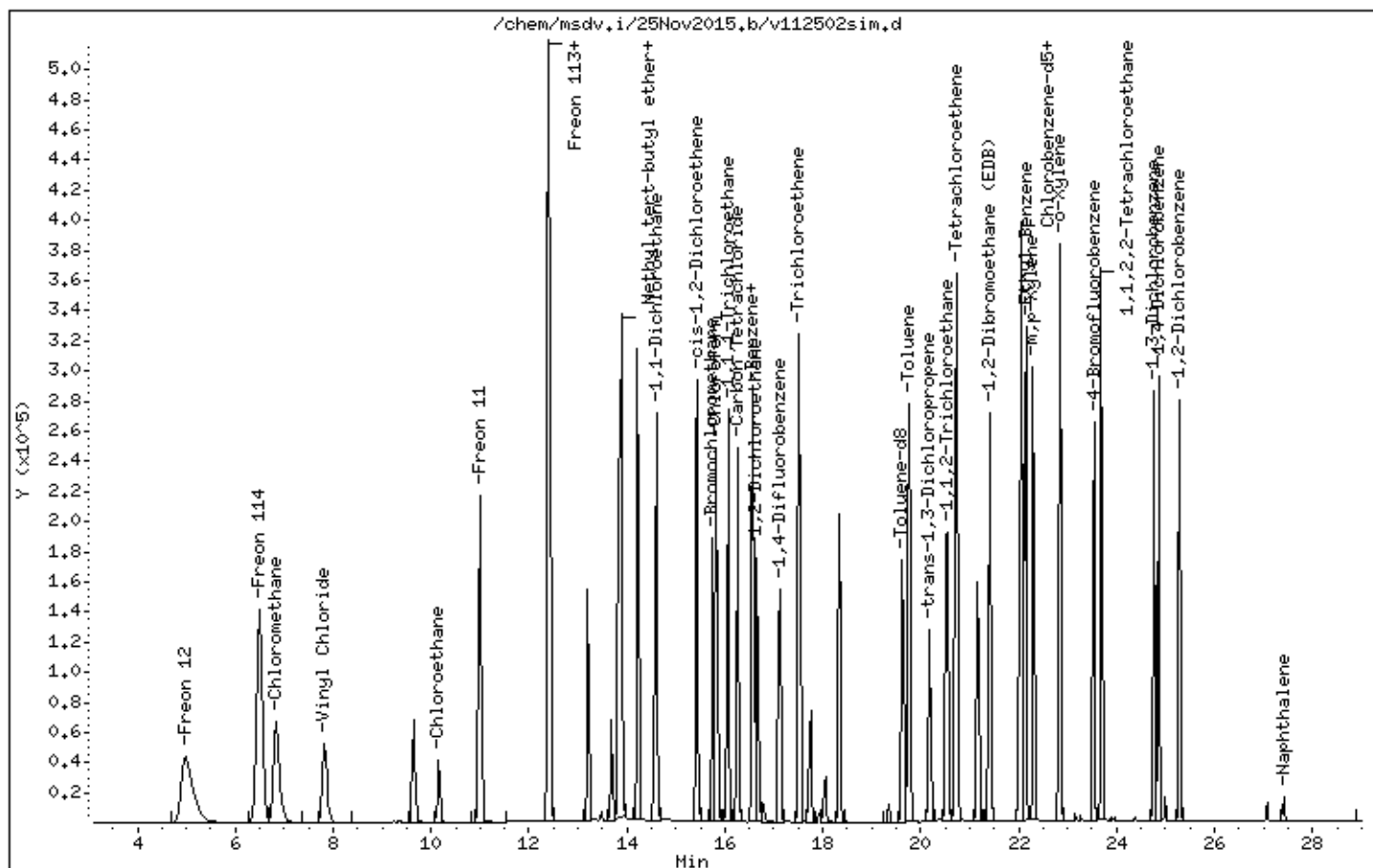
Instrument: msdv.i

Sample Info: 25mL# 2759-291

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Client Sample ID: LCS

Lab ID#: 1511365R1-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 08:18 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 11	97	70-130
Freon 113	85	70-130
1,1-Dichloroethene	89	70-130
Acetone	98	70-130
Methylene Chloride	91	70-130
cis-1,2-Dichloroethene	98	70-130
1,1,1-Trichloroethane	88	70-130
Benzene	100	70-130
Toluene	92	70-130
Tetrachloroethene	91	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	89	70-130
m,p-Xylene	87	70-130
o-Xylene	93	70-130
1,3-Dichlorobenzene	83	70-130
1,4-Dichlorobenzene	84	70-130
1,2-Dichlorobenzene	83	70-130
1,2,4-Trichlorobenzene	80	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
 Sample Matrix: GAS Fraction: VOA
 Lab Smp Id: LCS Client Smp ID: LCS
 Level: LOW Operator: ef
 Data Type: MS DATA SampleType: LCS
 SpikeList File: AT12.spk Quant Type: ISTD
 Sublist File: AT12.sub
 Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m
 Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.129	102.58	60-140
11 Freon 12	5.000	5.112	102.24	70-130
15 Freon 114	5.000	4.934	98.69	70-130
17 Chloromethane	5.000	5.217	104.34	70-130
23 Butane	5.000	5.220	104.40	60-140
25 Vinyl Chloride	5.000	5.437	108.75	70-130
26 1,3-Butadiene	5.000	4.837	96.73	70-130
29 Bromomethane	5.000	5.510	110.21	70-130
30 Chloroethane	5.000	5.527	110.55	70-130
31 Isopentane	5.000	4.817	96.33	60-140
35 Freon 11	5.000	4.844	96.87	70-130
42 Ethanol	5.000	4.690	93.81	70-130
49 Freon 113	5.000	4.246	84.93	70-130
50 1,1-Dichloroethene	5.000	4.456	89.11	70-130
52 Acetone	5.000	4.876	97.52	70-130
56 Carbon Disulfide	5.000	4.594	91.88	70-130
57 2-Propanol	5.000	4.903	98.06	70-130
58 3-Chloropropene	5.000	4.664	93.29	70-130
66 Methylene Chloride	5.000	4.558	91.16	70-130
72 Methyl tert-butyl	5.000	4.608	92.16	70-130
73 trans-1,2-Dichloro	5.000	3.916	78.31	70-130
78 Hexane	5.000	4.271	85.43	70-130
82 1,1-Dichloroethane	5.000	4.876	97.52	70-130
86 Vinyl Acetate	5.000	4.378	87.57	60-140
91 cis-1,2-Dichloroet	5.000	4.887	97.74	70-130
92 2-Butanone	5.000	5.101	102.01	70-130
99 Tetrahydrofuran	5.000	4.984	99.68	70-130
100 Chloroform	5.000	4.708	94.17	70-130
103 1,1,1-Trichloroeth	5.000	4.387	87.74	70-130
106 Carbon Tetrachlori	5.000	3.118	62.36*	70-130
102 Cyclohexane	5.000	4.985	99.70	70-130
113 2,2,4-Trimethylpen	5.000	4.704	94.08	70-130
116 Benzene	5.000	5.020	100.40	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.690	93.81	70-130
121 Heptane	5.000	4.623	92.46	70-130
125 Trichloroethene	5.000	4.166	83.31	70-130
127 Methylcyclohexane	5.000	4.808	96.17	60-140
132 1,2-Dichloropropan	5.000	5.006	100.12	70-130
136 1,4-Dioxane	5.000	4.204	84.08	70-130
138 Bromodichlorometha	5.000	4.878	97.57	70-130
144 cis-1,3-Dichloropr	5.000	4.274	85.48	70-130
145 4-Methyl-2-pentano	5.000	5.146	102.93	70-130
147 Toluene	5.000	4.598	91.96	70-130
150 trans-1,3-Dichloro	5.000	5.097	101.93	70-130
155 1,1,2-Trichloroeth	5.000	5.055	101.10	70-130
156 Tetrachloroethene	5.000	4.535	90.70	70-130
158 2-Hexanone	5.000	4.834	96.68	70-130
160 Dibromochlorometha	5.000	4.797	95.94	70-130
161 1,2-Dibromoethane	5.000	5.051	101.01	70-130
165 Chlorobenzene	5.000	4.677	93.54	70-130
167 Ethyl Benzene	5.000	4.457	89.15	70-130
169 m,p-Xylene	5.000	4.367	87.35	70-130
171 o-Xylene	5.000	4.662	93.24	70-130
172 Styrene	5.000	4.371	87.43	70-130
174 Bromoform	5.000	4.230	84.61	70-130
175 Cumene	5.000	4.748	94.96	70-130
181 1,1,2,2-Tetrachlor	5.000	5.208	104.17	70-130
182 Propylbenzene	5.000	4.749	94.99	70-130
188 4-Ethyltoluene	5.000	4.153	83.07	70-130
190 1,3,5-Trimethylben	5.000	4.431	88.62	70-130
196 1,2,4-Trimethylben	5.000	4.604	92.08	70-130
208 1,3-Dichlorobenzen	5.000	4.162	83.24	70-130
209 1,4-Dichlorobenzen	5.000	4.214	84.28	70-130
212 alpha-Chlorotoluen	5.000	4.915	98.31	70-130
214 1,2-Dichlorobenzen	5.000	4.153	83.07	70-130
226 1,2,4-Trichloroben	5.000	4.006	80.12	70-130
227 Hexachlorobutadien	5.000	3.671	73.43	70-130
228 Naphthalene	0.5000	0.3501	70.03	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	4.525	90.50	70-130
\$ 146 Toluene-d8	5.000	5.039	100.77	70-130
\$ 177 4-Bromofluorobenze	5.000	4.656	93.13	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112503.d
 Lab Smp Id: LCS Client Smp ID: LCS
 Inj Date : 25-NOV-2015 08:18
 Operator : ef Inst ID: msdv.i
 Smp Info : 25mL# 2736-276
 Misc Info : 5.0ppbv (50ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
 Meth Date : 25-Nov-2015 08:51 efinn Quant Type: ISTD
 Cal Date : 20-OCT-2015 09:38 Cal File: v102007.d
 Als bottle: 1 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	(PPBV)	(PPBV)	=====	=====
9 Propylene								
4.447	4.447	(0.282)	41	329500	5.12923	5.129	80.00- 120.00	100.00
4.447	4.447	(0.282)	42	234327			37.47- 97.47	71.12
4.485	4.447	(0.285)	39	228693			32.82- 92.82	69.41
11 Freon 12								
4.976	4.938	(0.316)	85	469277	5.11217	5.112	80.00- 120.00	100.00
4.976	4.938	(0.316)	87	145170			1.30- 61.30	30.93
15 Freon 114								
6.524	6.486	(0.414)	135	373196	4.93452	4.934	80.00- 120.00	100.00
6.486	6.486	(0.412)	137	112335			2.78- 62.78	30.10
6.486	6.486	(0.412)	85	462411			87.42- 147.42	123.91
17 Chloromethane								
6.826	6.826	(0.434)	50	393383	5.21719	5.217	80.00- 120.00	100.00
6.826	6.826	(0.434)	52	118914			0.67- 60.67	30.23

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO	
=====	=====	=====	=====	=====	=====	=====	=====	=====	
23 Butane						CAS #:	106-97-8		
7.658	7.658	(0.486)	58	67915	5.21989	5.220	80.00- 120.00	100.00	
7.658	7.658	(0.486)	43	675874			986.38-1046.38	995.17	
25 Vinyl Chloride						CAS #:	75-01-4		
7.813	7.782	(0.496)	62	272777	5.43748	5.437	80.00- 120.00	100.00	
7.813	7.782	(0.496)	64	76669			0.00- 56.32	28.11	
26 1,3-Butadiene						CAS #:	106-99-0		
8.061	8.061	(0.512)	54	302432	4.83670	4.837	80.00- 120.00	100.00	
8.061	8.061	(0.512)	39	287861			59.51- 119.51	95.18	
29 Bromomethane						CAS #:	74-83-9		
9.655	9.631	(0.613)	94	143097	5.51040	5.510	80.00- 120.00	100.00	
9.631	9.631	(0.612)	96	145475			64.14- 124.14	101.66	
30 Chloroethane						CAS #:	75-00-3		
10.161	10.161	(0.645)	64	111943	5.52741	5.527	80.00- 120.00	100.00	
10.161	10.161	(0.645)	49	54068			16.17- 76.17	48.30	
10.161	10.161	(0.645)	66	30919			0.00- 53.05	27.62	
31 Isopentane						CAS #:	78-78-4		
10.330	10.330	(0.656)	57	263425	4.81663	4.817	80.00- 120.00	100.00	
10.330	10.330	(0.656)	43	493643			146.62- 206.62	187.39	
10.330	10.330	(0.656)	42	414028			123.11- 183.11	157.17	
35 Freon 11						CAS #:	75-69-4		
10.980	10.980	(0.697)	101	483820	4.84359	4.844	80.00- 120.00	100.00	
10.980	10.980	(0.697)	103	301482			32.43- 92.43	62.31	
42 Ethanol						CAS #:	64-17-5		
11.919	11.919	(0.757)	45	144710	4.69056	4.690	80.00- 120.00	100.00	
11.919	11.919	(0.757)	46	60747			3.52- 63.52	41.98	
11.946	11.919	(0.759)	43	29782			0.00- 49.09	20.58	
49 Freon 113						CAS #:	76-13-1		
12.413	12.413	(0.788)	151	302135	4.24634	4.246	80.00- 120.00	100.00	
12.413	12.413	(0.788)	153	185457			32.55- 92.55	61.38	
12.413	12.413	(0.788)	101	368397			82.40- 142.40	121.93	
50 1,1-Dichloroethene						CAS #:	75-35-4		
12.386	12.386	(0.787)	98	109336	4.45553	4.456	80.00- 120.00	100.00	
12.386	12.386	(0.787)	61	439907			344.18- 404.18	402.34	
12.386	12.386	(0.787)	96	176447			122.48- 182.48	161.38	
52 Acetone						CAS #:	67-64-1		
12.660	12.660	(0.804)	58	153284	4.87579	4.876	80.00- 120.00	100.00	

				CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 Acetone (continued)								
12.660	12.660	(0.804)	43	554673			308.96- 368.96	361.86
56 Carbon Disulfide								
12.743	12.743	(0.809)	76	447976	4.59421	CAS #: 4.594	75-15-0 80.00- 120.00	100.00
57 2-Propanol								
13.018	13.018	(0.827)	45	696994	4.90320	CAS #: 4.903	67-63-0 80.00- 120.00	100.00
13.018	13.018	(0.827)	43	128613			0.00- 46.45	18.45
13.018	13.018	(0.827)	59	19731			0.00- 32.99	2.83
58 3-Chloropropene								
13.210	13.210	(0.839)	76	67453	4.66450	CAS #: 4.664	107-05-1 80.00- 120.00	100.00
13.210	13.210	(0.839)	41	448608			674.37- 734.37	665.06
66 Methylene Chloride								
13.484	13.484	(0.856)	84	150858	4.55777	CAS #: 4.558	75-09-2 80.00- 120.00	100.00
13.484	13.484	(0.856)	49	491646			288.43- 348.43	325.90
13.484	13.484	(0.856)	51	144350			65.27- 125.27	95.69
72 Methyl tert-butyl ether								
13.841	13.841	(0.879)	73	482432	4.60790	CAS #: 4.608	1634-04-4 80.00- 120.00	100.00
13.841	13.841	(0.879)	57	221218			17.16- 77.16	45.85
13.841	13.841	(0.879)	41	225813			14.94- 74.94	46.81
73 trans-1,2-Dichloroethene								
13.869	13.869	(0.881)	98	94705	3.91574	CAS #: 3.916	156-60-5 80.00- 120.00	100.00
13.869	13.869	(0.881)	61	332121			319.94- 379.94	350.69
13.896	13.869	(0.883)	96	150367			133.67- 193.67	158.77
78 Hexane								
14.226	14.226	(0.904)	57	562165	4.27141	CAS #: 4.271	110-54-3 80.00- 120.00	100.00
14.226	14.226	(0.904)	43	416897			45.57- 105.57	74.16
14.226	14.226	(0.904)	86	42064			0.00- 37.01	7.48
82 1,1-Dichloroethane								
14.582	14.582	(0.926)	63	459849	4.87598	CAS #: 4.876	75-34-3 80.00- 120.00	100.00
14.582	14.582	(0.926)	65	122022			0.00- 56.80	26.54
86 Vinyl Acetate								
14.637	14.637	(0.930)	86	37735	4.37843	CAS #: 4.378	108-05-4 80.00- 120.00	100.00
14.637	14.637	(0.930)	42	76923			254.23- 314.23	203.85
14.637	14.637	(0.930)	43	1022618			4287.95-4347.95	2709.98
91 cis-1,2-Dichloroethene								
15.423	15.423	(0.980)	98	133609	4.88698	CAS #: 4.887	156-59-2 80.00- 120.00	100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
91 cis-1,2-Dichloroethene (continued)									
15.423	15.423	(0.980)	61	420114			282.85-	342.85	314.43
15.423	15.423	(0.980)	96	210529			128.91-	188.91	157.57

92 2-Butanone						CAS #:	78-93-3		
15.423	15.423	(0.980)	72	87020	5.10070	5.101	80.00-	120.00	100.00
15.403	15.423	(0.978)	43	803287			922.45-	982.45	923.10
15.403	15.423	(0.978)	57	45227			34.83-	94.83	51.97

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	498067	4.98396	4.984	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	78548			0.00-	44.56	15.77
15.743	15.743	(1.000)	72	81670			0.00-	46.89	16.40

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	107255	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	81340			45.98-	105.98	75.84
15.743	15.743	(1.000)	49	395415			326.70-	386.70	368.67

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	375043	4.70858	4.708	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	247505			34.80-	94.80	65.99

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	237938	4.98517	4.985	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	613778			240.10-	300.10	257.96
16.082	16.082	(1.022)	41	354999			110.99-	170.99	149.20

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.052	16.052	(1.020)	97	398074	4.38711	4.387	80.00-	120.00	100.00
16.052	16.052	(1.020)	99	248667			33.53-	93.53	62.47

106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	275695	3.11819	3.118	80.00-	120.00	100.00(R)
16.267	16.267	(1.033)	117	276679			76.59-	136.59	100.36

113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	596808	4.70376	4.704	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	1729595			265.00-	325.00	289.81
16.535	16.535	(1.050)	41	474930			45.25-	105.25	79.58

116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	561321	5.02005	5.020	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	122424			0.00-	51.65	21.81

\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	178208	4.52490	4.525	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL (PPBV)	FINAL (PPBV)		
\$ 117	1,2-Dichloroethane-d4 (continued)						
16.562	16.562 (1.052)	67	93799			15.86- 75.86	52.63
120	1,2-Dichloroethane				CAS #: 107-06-2		
16.672	16.672 (0.974)	62	352729	4.69044	4.690	80.00- 120.00	100.00
16.672	16.672 (0.974)	64	100146			0.56- 60.56	28.39
121	Heptane				CAS #: 142-82-5		
16.782	16.782 (0.981)	57	337026	4.62306	4.623	80.00- 120.00	100.00
16.782	16.782 (0.981)	100	48191			0.00- 46.48	14.30
16.782	16.782 (0.981)	43	765657			186.23- 246.23	227.18
* 123	1,4-Difluorobenzene				CAS #: 540-36-3		
17.111	17.111 (1.000)	114	478340	5.00000		80.00- 120.00	100.00
17.111	17.111 (1.000)	88	61422			0.00- 43.80	12.84
125	Trichloroethene				CAS #: 79-01-6		
17.496	17.496 (1.022)	130	249653	4.16556	4.166	80.00- 120.00	100.00
17.496	17.496 (1.022)	95	256938			66.89- 126.89	102.92
17.496	17.496 (1.022)	97	157934			35.91- 95.91	63.26
127	Methylcyclohexane				CAS #: 108-87-2		
17.743	17.743 (1.037)	83	322018	4.80850	4.808	80.00- 120.00	100.00
17.743	17.743 (1.037)	55	560543			146.83- 206.83	174.07
17.743	17.743 (1.037)	56	187386			28.02- 88.02	58.19
132	1,2-Dichloropropane				CAS #: 78-87-5		
17.935	17.935 (1.048)	63	313481	5.00600	5.006	80.00- 120.00	100.00
17.935	17.935 (1.048)	62	226046			41.26- 101.26	72.11
17.935	17.935 (1.048)	41	226055			40.22- 100.22	72.11
136	1,4-Dioxane				CAS #: 123-91-1		
18.045	18.045 (1.055)	88	121984	4.20390	4.204	80.00- 120.00	100.00
18.045	18.045 (1.055)	58	163471			119.94- 179.94	134.01
18.045	18.045 (1.055)	57	59415			14.89- 74.89	48.71
138	Bromodichloromethane				CAS #: 75-27-4		
18.347	18.347 (0.833)	83	410409	4.87833	4.878	80.00- 120.00	100.00
18.347	18.347 (0.833)	85	253068			34.56- 94.56	61.66
144	cis-1,3-Dichloropropene				CAS #: 10061-01-5		
19.145	19.145 (1.119)	75	308451	4.27376	4.274	80.00- 120.00	100.00
19.145	19.145 (1.119)	77	102106			1.86- 61.86	33.10
19.145	19.145 (1.119)	39	325340			58.69- 118.69	105.48
145	4-Methyl-2-pentanone				CAS #: 108-10-1		
19.324	19.324 (1.129)	43	1049362	5.14651	5.146	80.00- 120.00	100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
145 4-Methyl-2-pentanone (continued)									
19.324	19.324	(1.129)	58	311237			2.96-	62.96	29.66
19.346	19.324	(1.131)	85	68526			0.00-	37.25	6.53
\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.615	(1.146)	98	440647	5.03864	5.039	80.00-	120.00	100.00
19.615	19.615	(1.146)	70	47928			0.00-	39.58	10.88
19.615	19.615	(1.146)	100	274272			37.10-	97.10	62.24
147 Toluene						CAS #:	108-88-3		
19.750	19.750	(1.154)	91	658956	4.59807	4.598	80.00-	120.00	100.00
19.750	19.750	(1.154)	92	387894			27.14-	87.14	58.86
150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.212	20.212	(0.918)	75	304878	5.09663	5.097	80.00-	120.00	100.00
20.212	20.212	(0.918)	77	96339			0.00-	59.12	31.60
20.212	20.212	(0.918)	39	280830			53.01-	113.01	92.11
155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	252008	5.05524	5.055	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	150423			31.52-	91.52	59.69
20.534	20.534	(0.932)	83	216067			49.16-	109.16	85.74
156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	330563	4.53510	4.535	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	231903			42.65-	102.65	70.15
20.714	20.714	(0.940)	131	244635			42.72-	102.72	74.01
158 2-Hexanone						CAS #:	591-78-6		
20.821	20.821	(0.945)	58	400220	4.83387	4.834	80.00-	120.00	100.00
20.821	20.821	(0.945)	43	938025			185.90-	245.90	234.38
20.821	20.821	(0.945)	100	37270			0.00-	39.88	9.31
160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	429388	4.79705	4.797	80.00-	120.00	100.00
21.180	21.180	(0.961)	127	326460			51.36-	111.36	76.03
161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	388336	5.05074	5.051	80.00-	120.00	100.00
21.395	21.395	(0.971)	109	359704			67.82-	127.82	92.63
* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	407757	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	218680			17.84-	77.84	53.63
165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	521977	4.67719	4.677	80.00-	120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET	RANGE	RATIO
					ON-COL	FINAL			
==	=====	=====	=====	=====	(PPBV)	(PPBV)	=====	=====	=====
165 Chlorobenzene (continued)									
22.056	22.056	(1.001)	114	166833			2.39-	62.39	31.96
22.056	22.056	(1.001)	77	292764			23.63-	83.63	56.09

167 Ethyl Benzene									
22.138	22.138	(1.005)	106	246752	4.45728	CAS #: 100-41-4	4.457	80.00-	120.00
22.138	22.138	(1.005)	91	804542			289.30-	349.30	326.05

169 m,p-Xylene									
22.303	22.303	(1.012)	106	244520	4.36745	CAS #: 108-38-3	4.367	80.00-	120.00
22.303	22.303	(1.012)	91	544880			180.42-	240.42	222.84

171 o-Xylene									
22.852	22.852	(1.037)	106	244026	4.66182	CAS #: 95-47-6	4.662	80.00-	120.00
22.852	22.852	(1.037)	91	541714			183.19-	243.19	221.99

172 Styrene									
22.852	22.852	(1.037)	104	376025	4.37150	CAS #: 100-42-5	4.371	80.00-	120.00
22.852	22.852	(1.037)	78	190720			21.26-	81.26	50.72

174 Bromoform									
23.148	23.148	(1.051)	173	397313	4.23033	CAS #: 75-25-2	4.230	80.00-	120.00
23.173	23.148	(1.052)	171	211676			21.70-	81.70	53.28

175 Cumene									
23.277	23.277	(1.057)	105	734753	4.74811	CAS #: 98-82-8	4.748	80.00-	120.00
23.277	23.277	(1.057)	120	203890			0.00-	59.53	27.75

\$ 177 4-Bromofluorobenzene									
23.534	23.535	(1.068)	174	195211	4.65627	CAS #: 460-00-4	4.656	80.00-	120.00
23.534	23.535	(1.068)	95	233858			85.02-	145.02	119.80
23.534	23.535	(1.068)	176	179211			63.61-	123.61	91.80

181 1,1,2,2-Tetrachloroethane									
23.689	23.689	(1.075)	83	469026	5.20841	CAS #: 79-34-5	5.208	80.00-	120.00
23.689	23.689	(1.075)	85	300447			33.93-	93.93	64.06

182 Propylbenzene									
23.767	23.767	(1.079)	91	736019	4.74927	CAS #: 103-65-1	4.749	80.00-	120.00
23.767	23.767	(1.079)	120	156669			0.00-	55.14	21.29

188 4-Ethyltoluene									
23.896	23.896	(1.085)	105	507640	4.15348	CAS #: 622-96-8	4.153	80.00-	120.00
23.896	23.896	(1.085)	120	165515			3.95-	63.95	32.60

190 1,3,5-Trimethylbenzene									
23.947	23.947	(1.087)	105	504584	4.43117	CAS #: 108-67-8	4.431	80.00-	120.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL (PPBV)	FINAL (PPBV)		
190	1,3,5-Trimethylbenzene (continued)							
23.947	23.947 (1.087)		120	256852			19.31- 79.31	50.90
196	1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.386	24.386 (1.107)		105	534942	4.60419	4.604	80.00- 120.00	100.00
24.386	24.386 (1.107)		120	253174			17.64- 77.64	47.33
208	1,3-Dichlorobenzene					CAS #: 541-73-1		
24.756	24.756 (1.124)		146	330834	4.16222	4.162	80.00- 120.00	100.00
24.756	24.756 (1.124)		148	212561			34.17- 94.17	64.25
24.756	24.756 (1.124)		111	129137			10.53- 70.53	39.03
209	1,4-Dichlorobenzene					CAS #: 106-46-7		
24.845	24.845 (1.128)		146	293267	4.21425	4.214	80.00- 120.00	100.00
24.845	24.845 (1.128)		148	187759			35.60- 95.60	64.02
24.845	24.845 (1.128)		111	109953			7.23- 67.23	37.49
212	alpha-Chlorotoluene					CAS #: 100-44-7		
24.980	24.980 (1.134)		91	462089	4.91539	4.915	80.00- 120.00	100.00
25.002	24.980 (1.135)		126	97764			0.00- 51.02	21.16
214	1,2-Dichlorobenzene					CAS #: 95-50-1		
25.271	25.271 (1.147)		146	291865	4.15336	4.153	80.00- 120.00	100.00
25.271	25.271 (1.147)		148	184048			33.23- 93.23	63.06
25.271	25.271 (1.147)		111	117019			10.17- 70.17	40.09
226	1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.065	27.065 (1.229)		180	258487	4.00596	4.006	80.00- 120.00	100.00
27.065	27.065 (1.229)		182	252046			66.03- 126.03	97.51
227	Hexachlorobutadiene					CAS #: 87-68-3		
27.177	27.177 (1.234)		225	162588	3.67132	3.671	80.00- 120.00	100.00
27.177	27.177 (1.234)		223	101417			33.08- 93.08	62.38
228	Naphthalene					CAS #: 91-20-3		
27.401	27.401 (1.244)		128	42355	0.35014	0.3501	80.00- 120.00	100.00(a)
27.401	27.401 (1.244)		127	8801			0.00- 42.23	20.78

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 25-NOV-2015
Lab File ID: v112503.d	Calibration Time: 07:38
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ef	
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m	
Misc Info: 5.0ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	107255	7.10
123 1,4-Difluorobenze	462764	277658	647870	478340	3.37
163 Chlorobenzene-d5	397301	238381	556221	407757	2.63

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1511365R1-07AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v112504

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 11/25/15 08:57 AM

Compound	%Recovery	Method Limits
Freon 12	106	70-130
Freon 11	97	70-130
Freon 113	89	70-130
1,1-Dichloroethene	101	70-130
Acetone	100	70-130
Methylene Chloride	97	70-130
cis-1,2-Dichloroethene	100	70-130
1,1,1-Trichloroethane	90	70-130
Benzene	102	70-130
Toluene	91	70-130
Tetrachloroethene	91	70-130
Chlorobenzene	93	70-130
Ethyl Benzene	86	70-130
m,p-Xylene	87	70-130
o-Xylene	93	70-130
1,3-Dichlorobenzene	79	70-130
1,4-Dichlorobenzene	77	70-130
1,2-Dichlorobenzene	83	70-130
1,2,4-Trichlorobenzene	79	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:	Client SDG: 25Nov2015
Sample Matrix: GAS	Fraction: VOA
Lab Smp Id: LCSD	Client Smp ID: LCSD
Level: LOW	Operator: ef
Data Type: MS DATA	SampleType: LCSD
SpikeList File: AT12.spk	Quant Type: ISTD
Sublist File: AT12.sub	
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m	
Misc Info: 5.0ppbv (50ppbv)	

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.500	110.00	60-140
11 Freon 12	5.000	5.284	105.68	70-130
15 Freon 114	5.000	5.260	105.20	70-130
17 Chloromethane	5.000	5.268	105.37	70-130
23 Butane	5.000	5.348	106.96	60-140
25 Vinyl Chloride	5.000	5.615	112.30	70-130
26 1,3-Butadiene	5.000	4.965	99.29	70-130
29 Bromomethane	5.000	5.611	112.22	70-130
30 Chloroethane	5.000	5.592	111.84	70-130
31 Isopentane	5.000	5.082	101.65	60-140
35 Freon 11	5.000	4.873	97.45	70-130
42 Ethanol	5.000	5.208	104.17	70-130
49 Freon 113	5.000	4.450	89.01	70-130
50 1,1-Dichloroethene	5.000	5.030	100.61	70-130
52 Acetone	5.000	4.992	99.84	70-130
56 Carbon Disulfide	5.000	4.765	95.29	70-130
57 2-Propanol	5.000	5.045	100.90	70-130
58 3-Chloropropene	5.000	4.743	94.86	70-130
66 Methylene Chloride	5.000	4.863	97.27	70-130
72 Methyl tert-butyl	5.000	4.782	95.64	70-130
73 trans-1,2-Dichloro	5.000	4.273	85.46	70-130
78 Hexane	5.000	4.365	87.30	70-130
82 1,1-Dichloroethane	5.000	4.946	98.92	70-130
86 Vinyl Acetate	5.000	5.255	105.10	60-140
91 cis-1,2-Dichloroet	5.000	5.021	100.42	70-130
92 2-Butanone	5.000	5.373	107.47	70-130
99 Tetrahydrofuran	5.000	5.033	100.67	70-130
100 Chloroform	5.000	4.922	98.43	70-130
103 1,1,1-Trichloroeth	5.000	4.478	89.57	70-130
106 Carbon Tetrachlori	5.000	3.118	62.37*	70-130
102 Cyclohexane	5.000	5.090	101.81	70-130
113 2,2,4-Trimethylpen	5.000	4.697	93.95	70-130
116 Benzene	5.000	5.077	101.53	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	4.464	89.29	70-130
121 Heptane	5.000	4.412	88.23	70-130
125 Trichloroethene	5.000	4.095	81.91	70-130
127 Methylcyclohexane	5.000	4.638	92.75	60-140
132 1,2-Dichloropropan	5.000	4.869	97.38	70-130
136 1,4-Dioxane	5.000	4.326	86.51	70-130
138 Bromodichlorometha	5.000	4.843	96.85	70-130
144 cis-1,3-Dichloropr	5.000	4.387	87.74	70-130
145 4-Methyl-2-pentano	5.000	5.059	101.17	70-130
147 Toluene	5.000	4.530	90.60	70-130
150 trans-1,3-Dichloro	5.000	4.813	96.26	70-130
155 1,1,2-Trichloroeth	5.000	5.096	101.92	70-130
156 Tetrachloroethene	5.000	4.532	90.64	70-130
158 2-Hexanone	5.000	4.827	96.54	70-130
160 Dibromochlorometha	5.000	4.749	94.99	70-130
161 1,2-Dibromoethane	5.000	4.847	96.94	70-130
165 Chlorobenzene	5.000	4.650	92.99	70-130
167 Ethyl Benzene	5.000	4.312	86.24	70-130
169 m,p-Xylene	5.000	4.357	87.14	70-130
171 o-Xylene	5.000	4.668	93.36	70-130
172 Styrene	5.000	4.339	86.77	70-130
174 Bromoform	5.000	4.268	85.37	70-130
175 Cumene	5.000	4.630	92.61	70-130
181 1,1,2,2-Tetrachlor	5.000	5.342	106.85	70-130
182 Propylbenzene	5.000	4.427	88.55	70-130
188 4-Ethyltoluene	5.000	4.015	80.30	70-130
190 1,3,5-Trimethylben	5.000	4.326	86.53	70-130
196 1,2,4-Trimethylben	5.000	4.336	86.71	70-130
208 1,3-Dichlorobenzen	5.000	3.938	78.75	70-130
209 1,4-Dichlorobenzen	5.000	3.843	76.86	70-130
212 alpha-Chlorotoluen	5.000	4.702	94.05	70-130
214 1,2-Dichlorobenzen	5.000	4.144	82.87	70-130
226 1,2,4-Trichloroben	5.000	3.961	79.23	70-130
227 Hexachlorobutadien	5.000	3.335	66.71*	70-130
228 Naphthalene	0.5000	0.3332	66.65	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 117 1,2-Dichloroethane	5.000	4.891	97.81	70-130
\$ 146 Toluene-d8	5.000	4.887	97.75	70-130
\$ 177 4-Bromofluorobenze	5.000	4.597	91.95	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112504.d
 Lab Smp Id: LCSD Client Smp ID: LCSD
 Inj Date : 25-NOV-2015 08:57
 Operator : ef Inst ID: msdv.i
 Smp Info : 25mL# 2736-276
 Misc Info : 5.0ppbv (50ppbv)
 Comment : LOW LEVEL - GC/MS
 Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m
 Meth Date : 25-Nov-2015 08:51 efinn Quant Type: ISTD
 Cal Date : 20-OCT-2015 09:38 Cal File: v102007.d
 Als bottle: 1 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL	FINAL		
==	=====	=====	=====	=====	(PPBV)	(PPBV)	=====	=====
9 Propylene								
4.485	4.447	(0.285)	41	345189	5.50008	CAS #: 115-07-1	80.00- 120.00	100.00
4.485	4.447	(0.285)	42	226690		5.500	37.47- 97.47	65.67
4.485	4.447	(0.285)	39	228392			32.82- 92.82	66.16
11 Freon 12								
5.013	4.938	(0.318)	85	473885	5.28401	CAS #: 75-71-8	80.00- 120.00	100.00
5.013	4.938	(0.318)	87	148703		5.284	1.30- 61.30	31.38
15 Freon 114								
6.524	6.486	(0.414)	135	388636	5.25976	CAS #: 76-14-2	80.00- 120.00	100.00
6.524	6.486	(0.414)	137	107441		5.260	2.78- 62.78	27.65
6.486	6.486	(0.412)	85	447371			87.42- 147.42	115.11
17 Chloromethane								
6.826	6.826	(0.434)	50	388100	5.26841	CAS #: 74-87-3	80.00- 120.00	100.00
6.864	6.826	(0.436)	52	121778		5.268	0.67- 60.67	31.38

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
23 Butane							CAS #:	106-97-8	
7.658	7.658	(0.486)	58	67980	5.34800	5.348	80.00-	120.00	100.00
7.658	7.658	(0.486)	43	663314			986.38-	1046.38	975.74
25 Vinyl Chloride							CAS #:	75-01-4	
7.813	7.782	(0.496)	62	275210	5.61522	5.615	80.00-	120.00	100.00
7.813	7.782	(0.496)	64	74785			0.00-	56.32	27.17
26 1,3-Butadiene							CAS #:	106-99-0	
8.061	8.061	(0.512)	54	303292	4.96473	4.965	80.00-	120.00	100.00
8.061	8.061	(0.512)	39	293257			59.51-	119.51	96.69
29 Bromomethane							CAS #:	74-83-9	
9.655	9.631	(0.613)	94	142357	5.61106	5.611	80.00-	120.00	100.00
9.655	9.631	(0.613)	96	132652			64.14-	124.14	93.18
30 Chloroethane							CAS #:	75-00-3	
10.161	10.161	(0.645)	64	110642	5.59191	5.592	80.00-	120.00	100.00
10.161	10.161	(0.645)	49	52988			16.17-	76.17	47.89
10.161	10.161	(0.645)	66	30277			0.00-	53.05	27.37
31 Isopentane							CAS #:	78-78-4	
10.354	10.330	(0.658)	57	271564	5.08245	5.082	80.00-	120.00	100.00
10.330	10.330	(0.656)	43	502885			146.62-	206.62	185.18
10.330	10.330	(0.656)	42	424064			123.11-	183.11	156.16
35 Freon 11							CAS #:	75-69-4	
10.980	10.980	(0.697)	101	475525	4.87271	4.873	80.00-	120.00	100.00
10.980	10.980	(0.697)	103	304662			32.43-	92.43	64.07
42 Ethanol							CAS #:	64-17-5	
11.919	11.919	(0.757)	45	156983	5.20826	5.208	80.00-	120.00	100.00
11.919	11.919	(0.757)	46	57467			3.52-	63.52	36.61
11.919	11.919	(0.757)	43	31620			0.00-	49.09	20.14
49 Freon 113							CAS #:	76-13-1	
12.413	12.413	(0.788)	151	309364	4.45038	4.450	80.00-	120.00	100.00
12.413	12.413	(0.788)	153	198060			32.55-	92.55	64.02
12.413	12.413	(0.788)	101	373807			82.40-	142.40	120.83
50 1,1-Dichloroethene							CAS #:	75-35-4	
12.386	12.386	(0.787)	98	120602	5.03046	5.030	80.00-	120.00	100.00
12.386	12.386	(0.787)	61	446611			344.18-	404.18	370.32
12.386	12.386	(0.787)	96	174349			122.48-	182.48	144.57
52 Acetone							CAS #:	67-64-1	
12.660	12.660	(0.804)	58	153330	4.99218	4.992	80.00-	120.00	100.00

				CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
52 Acetone (continued)								
12.660	12.660	(0.804)	43	559045			308.96- 368.96	364.60
56 Carbon Disulfide								
12.743	12.743	(0.809)	76	453903	4.76467	CAS #: 75-15-0 4.765	80.00- 120.00	100.00
57 2-Propanol								
13.017	13.018	(0.827)	45	700642	5.04500	CAS #: 67-63-0 5.045	80.00- 120.00	100.00
13.017	13.018	(0.827)	43	118546			0.00- 46.45	16.92
13.017	13.018	(0.827)	59	20216			0.00- 32.99	2.89
58 3-Chloropropene								
13.210	13.210	(0.839)	76	67011	4.74314	CAS #: 107-05-1 4.743	80.00- 120.00	100.00
13.210	13.210	(0.839)	41	448459			674.37- 734.37	669.23
66 Methylene Chloride								
13.484	13.484	(0.856)	84	157267	4.86334	CAS #: 75-09-2 4.863	80.00- 120.00	100.00
13.484	13.484	(0.856)	49	479225			288.43- 348.43	304.72
13.484	13.484	(0.856)	51	147454			65.27- 125.27	93.76
72 Methyl tert-butyl ether								
13.841	13.841	(0.879)	73	489136	4.78201	CAS #: 1634-04-4 4.782	80.00- 120.00	100.00
13.841	13.841	(0.879)	57	219547			17.16- 77.16	44.88
13.841	13.841	(0.879)	41	230351			14.94- 74.94	47.09
73 trans-1,2-Dichloroethene								
13.896	13.869	(0.883)	98	100969	4.27307	CAS #: 156-60-5 4.273	80.00- 120.00	100.00
13.869	13.869	(0.881)	61	348177			319.94- 379.94	344.84
13.869	13.869	(0.881)	96	155287			133.67- 193.67	153.80
78 Hexane								
14.225	14.226	(0.904)	57	561237	4.36484	CAS #: 110-54-3 4.365	80.00- 120.00	100.00
14.225	14.226	(0.904)	43	425316			45.57- 105.57	75.78
14.225	14.226	(0.904)	86	34581			0.00- 37.01	6.16
82 1,1-Dichloroethane								
14.582	14.582	(0.926)	63	455700	4.94583	CAS #: 75-34-3 4.946	80.00- 120.00	100.00
14.582	14.582	(0.926)	65	125480			0.00- 56.80	27.54
86 Vinyl Acetate								
14.637	14.637	(0.930)	86	44249	5.25523	CAS #: 108-05-4 5.255	80.00- 120.00	100.00
14.637	14.637	(0.930)	42	75800			254.23- 314.23	171.30
14.637	14.637	(0.930)	43	1040935			4287.95-4347.95	2352.42
91 cis-1,2-Dichloroethene								
15.423	15.423	(0.980)	98	134112	5.02095	CAS #: 156-59-2 5.021	80.00- 120.00	100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
91 cis-1,2-Dichloroethene (continued)									
15.423	15.423	(0.980)	61	419734			282.85-	342.85	312.97
15.423	15.423	(0.980)	96	223368			128.91-	188.91	166.55

92 2-Butanone						CAS #:	78-93-3		
15.423	15.423	(0.980)	72	89562	5.37339	5.373	80.00-	120.00	100.00
15.403	15.423	(0.978)	43	805561			922.45-	982.45	899.44
15.423	15.423	(0.980)	57	50697			34.83-	94.83	56.61

99 Tetrahydrofuran						CAS #:	109-99-9		
15.743	15.743	(1.000)	42	491438	5.03349	5.033	80.00-	120.00	100.00
15.743	15.743	(1.000)	71	80003			0.00-	44.56	16.28
15.743	15.743	(1.000)	72	88069			0.00-	46.89	17.92

* 98 Bromochloromethane						CAS #:	74-97-5		
15.743	15.743	(1.000)	130	104787	5.00000		80.00-	120.00	100.00
15.743	15.743	(1.000)	128	78344			45.98-	105.98	74.77
15.743	15.743	(1.000)	49	408705			326.70-	386.70	390.03

100 Chloroform						CAS #:	67-66-3		
15.836	15.836	(1.006)	83	382995	4.92172	4.922	80.00-	120.00	100.00
15.836	15.836	(1.006)	85	238705			34.80-	94.80	62.33

102 Cyclohexane						CAS #:	110-82-7		
16.082	16.082	(1.022)	84	237363	5.09029	5.090	80.00-	120.00	100.00
16.082	16.082	(1.022)	56	600256			240.10-	300.10	252.89
16.082	16.082	(1.022)	41	369105			110.99-	170.99	155.50

103 1,1,1-Trichloroethane						CAS #:	71-55-6		
16.051	16.052	(1.020)	97	397011	4.47849	4.478	80.00-	120.00	100.00
16.051	16.052	(1.020)	99	246673			33.53-	93.53	62.13

106 Carbon Tetrachloride						CAS #:	56-23-5		
16.267	16.267	(1.033)	119	269355	3.11825	3.118	80.00-	120.00	100.00(R)
16.267	16.267	(1.033)	117	269109			76.59-	136.59	99.91

113 2,2,4-Trimethylpentane						CAS #:	540-84-1		
16.535	16.535	(1.050)	56	582268	4.69730	4.697	80.00-	120.00	100.00
16.535	16.535	(1.050)	57	1717336			265.00-	325.00	294.94
16.535	16.535	(1.050)	41	463740			45.25-	105.25	79.64

116 Benzene						CAS #:	71-43-2		
16.562	16.562	(0.968)	78	576354	5.07665	5.077	80.00-	120.00	100.00
16.562	16.562	(0.968)	77	125708			0.00-	51.65	21.81

\$ 117 1,2-Dichloroethane-d4						CAS #:	17060-07-0		
16.562	16.562	(1.052)	65	188182	4.89073	4.891	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL (PPBV)	FINAL (PPBV)		
\$ 117	1,2-Dichloroethane-d4 (continued)						
16.562	16.562 (1.052)	67	99673			15.86- 75.86	52.97
120	1,2-Dichloroethane				CAS #: 107-06-2		
16.672	16.672 (0.974)	62	340877	4.46439	4.464	80.00- 120.00	100.00
16.672	16.672 (0.974)	64	112186			0.56- 60.56	32.91
121	Heptane				CAS #: 142-82-5		
16.782	16.782 (0.981)	57	326544	4.41162	4.412	80.00- 120.00	100.00
16.782	16.782 (0.981)	100	51607			0.00- 46.48	15.80
16.782	16.782 (0.981)	43	760444			186.23- 246.23	232.88
* 123	1,4-Difluorobenzene				CAS #: 540-36-3		
17.111	17.111 (1.000)	114	485674	5.00000		80.00- 120.00	100.00
17.111	17.111 (1.000)	88	61756			0.00- 43.80	12.72
125	Trichloroethene				CAS #: 79-01-6		
17.495	17.496 (1.022)	130	249215	4.09546	4.095	80.00- 120.00	100.00
17.495	17.496 (1.022)	95	262309			66.89- 126.89	105.25
17.495	17.496 (1.022)	97	168676			35.91- 95.91	67.68
127	Methylcyclohexane				CAS #: 108-87-2		
17.743	17.743 (1.037)	83	315346	4.63775	4.638	80.00- 120.00	100.00
17.743	17.743 (1.037)	55	545006			146.83- 206.83	172.83
17.743	17.743 (1.037)	56	180699			28.02- 88.02	57.30
132	1,2-Dichloropropane				CAS #: 78-87-5		
17.935	17.935 (1.048)	63	309581	4.86907	4.869	80.00- 120.00	100.00
17.935	17.935 (1.048)	62	234755			41.26- 101.26	75.83
17.935	17.935 (1.048)	41	226811			40.22- 100.22	73.26
136	1,4-Dioxane				CAS #: 123-91-1		
18.045	18.045 (1.055)	88	127442	4.32567	4.326	80.00- 120.00	100.00
18.045	18.045 (1.055)	58	172569			119.94- 179.94	135.41
18.045	18.045 (1.055)	57	57433			14.89- 74.89	45.07
138	Bromodichloromethane				CAS #: 75-27-4		
18.347	18.347 (0.833)	83	411216	4.84265	4.843	80.00- 120.00	100.00
18.347	18.347 (0.833)	85	260649			34.56- 94.56	63.39
144	cis-1,3-Dichloropropene				CAS #: 10061-01-5		
19.145	19.145 (1.119)	75	321495	4.38722	4.387	80.00- 120.00	100.00
19.145	19.145 (1.119)	77	94967			1.86- 61.86	29.54
19.145	19.145 (1.119)	39	318797			58.69- 118.69	99.16
145	4-Methyl-2-pentanone				CAS #: 108-10-1		
19.324	19.324 (1.129)	43	1047283	5.05875	5.059	80.00- 120.00	100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	===	=====	=====	=====	=====	=====	=====
145 4-Methyl-2-pentanone (continued)									
19.346	19.324	(1.131)	58	337088			2.96-	62.96	32.19
19.324	19.324	(1.129)	85	64922			0.00-	37.25	6.20

\$ 146 Toluene-d8						CAS #:	2037-26-5		
19.615	19.615	(1.146)	98	433979	4.88745	4.887	80.00-	120.00	100.00
19.615	19.615	(1.146)	70	50855			0.00-	39.58	11.72
19.615	19.615	(1.146)	100	284861			37.10-	97.10	65.64

147 Toluene						CAS #:	108-88-3		
19.750	19.750	(1.154)	91	659184	4.53019	4.530	80.00-	120.00	100.00
19.750	19.750	(1.154)	92	392809			27.14-	87.14	59.59

150 trans-1,3-Dichloropropene						CAS #:	10061-02-6		
20.211	20.212	(0.918)	75	290608	4.81309	4.813	80.00-	120.00	100.00
20.211	20.212	(0.918)	77	88958			0.00-	59.12	30.61
20.211	20.212	(0.918)	39	281505			53.01-	113.01	96.87

155 1,1,2-Trichloroethane						CAS #:	79-00-5		
20.534	20.534	(0.932)	97	256414	5.09599	5.096	80.00-	120.00	100.00
20.534	20.534	(0.932)	99	157511			31.52-	91.52	61.43
20.534	20.534	(0.932)	83	209726			49.16-	109.16	81.79

156 Tetrachloroethene						CAS #:	127-18-4		
20.714	20.714	(0.940)	166	333415	4.53186	4.532	80.00-	120.00	100.00
20.714	20.714	(0.940)	129	247777			42.65-	102.65	74.32
20.714	20.714	(0.940)	131	247173			42.72-	102.72	74.13

158 2-Hexanone						CAS #:	591-78-6		
20.821	20.821	(0.945)	58	403393	4.82707	4.827	80.00-	120.00	100.00
20.821	20.821	(0.945)	43	940438			185.90-	245.90	233.13
20.821	20.821	(0.945)	100	40146			0.00-	39.88	9.95

160 Dibromochloromethane						CAS #:	124-48-1		
21.180	21.180	(0.961)	129	429087	4.74929	4.749	80.00-	120.00	100.00
21.180	21.180	(0.961)	127	341768			51.36-	111.36	79.65

161 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.395	21.395	(0.971)	107	376157	4.84704	4.847	80.00-	120.00	100.00
21.395	21.395	(0.971)	109	357702			67.82-	127.82	95.09

* 163 Chlorobenzene-d5						CAS #:	3114-55-4		
22.029	22.029	(1.000)	117	411569	5.00000		80.00-	120.00	100.00
22.029	22.029	(1.000)	82	212284			17.84-	77.84	51.58

165 Chlorobenzene						CAS #:	108-90-7		
22.056	22.056	(1.001)	112	523738	4.64951	4.650	80.00-	120.00	100.00

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	CONCENTRATIONS		TARGET =====	RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====			
165 Chlorobenzene (continued)									
22.056	22.056	(1.001)	114	171290			2.39-	62.39	32.71
22.056	22.056	(1.001)	77	300810			23.63-	83.63	57.44
167 Ethyl Benzene									
22.138	22.138	(1.005)	106	240932	4.31185	CAS #: 100-41-4 4.312	80.00-	120.00	100.00
22.138	22.138	(1.005)	91	816357			289.30-	349.30	338.83
169 m,p-Xylene									
22.303	22.303	(1.012)	106	246217	4.35704	CAS #: 108-38-3 4.357	80.00-	120.00	100.00
22.303	22.303	(1.012)	91	523962			180.42-	240.42	212.80
171 o-Xylene									
22.852	22.852	(1.037)	106	246645	4.66823	CAS #: 95-47-6 4.668	80.00-	120.00	100.00
22.852	22.852	(1.037)	91	547416			183.19-	243.19	221.94
172 Styrene									
22.852	22.852	(1.037)	104	376696	4.33874	CAS #: 100-42-5 4.339	80.00-	120.00	100.00
22.852	22.852	(1.037)	78	186832			21.26-	81.26	49.60
174 Bromoform									
23.173	23.148	(1.052)	173	404644	4.26849	CAS #: 75-25-2 4.268	80.00-	120.00	100.00
23.173	23.148	(1.052)	171	209353			21.70-	81.70	51.74
175 Cumene									
23.276	23.277	(1.057)	105	723253	4.63052	CAS #: 98-82-8 4.630	80.00-	120.00	100.00
23.276	23.277	(1.057)	120	200592			0.00-	59.53	27.73
\$ 177 4-Bromofluorobenzene									
23.534	23.535	(1.068)	174	194543	4.59738	CAS #: 460-00-4 4.597	80.00-	120.00	100.00
23.534	23.535	(1.068)	95	239410			85.02-	145.02	123.06
23.534	23.535	(1.068)	176	182791			63.61-	123.61	93.96
181 1,1,2,2-Tetrachloroethane									
23.689	23.689	(1.075)	83	485588	5.34240	CAS #: 79-34-5 5.342	80.00-	120.00	100.00
23.689	23.689	(1.075)	85	318448			33.93-	93.93	65.58
182 Propylbenzene									
23.766	23.767	(1.079)	91	692534	4.42729	CAS #: 103-65-1 4.427	80.00-	120.00	100.00
23.766	23.767	(1.079)	120	158493			0.00-	55.14	22.89
188 4-Ethyltoluene									
23.895	23.896	(1.085)	105	495323	4.01518	CAS #: 622-96-8 4.015	80.00-	120.00	100.00
23.895	23.896	(1.085)	120	147337			3.95-	63.95	29.75
190 1,3,5-Trimethylbenzene									
23.947	23.947	(1.087)	105	497278	4.32656	CAS #: 108-67-8 4.326	80.00-	120.00	100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL (PPBV)	FINAL (PPBV)		
190	1,3,5-Trimethylbenzene (continued)							
23.947	23.947 (1.087)		120	247842			19.31- 79.31	49.84
196	1,2,4-Trimethylbenzene					CAS #: 95-63-6		
24.385	24.386 (1.107)		105	508434	4.33551	4.336	80.00- 120.00	100.00
24.385	24.386 (1.107)		120	238932			17.64- 77.64	46.99
208	1,3-Dichlorobenzene					CAS #: 541-73-1		
24.756	24.756 (1.124)		146	315900	3.93753	3.938	80.00- 120.00	100.00
24.756	24.756 (1.124)		148	203802			34.17- 94.17	64.51
24.756	24.756 (1.124)		111	129243			10.53- 70.53	40.91
209	1,4-Dichlorobenzene					CAS #: 106-46-7		
24.845	24.845 (1.128)		146	269928	3.84293	3.843	80.00- 120.00	100.00
24.845	24.845 (1.128)		148	170254			35.60- 95.60	63.07
24.845	24.845 (1.128)		111	104554			7.23- 67.23	38.73
212	alpha-Chlorotoluene					CAS #: 100-44-7		
24.980	24.980 (1.134)		91	446195	4.70236	4.702	80.00- 120.00	100.00
25.002	24.980 (1.135)		126	90174			0.00- 51.02	20.21
214	1,2-Dichlorobenzene					CAS #: 95-50-1		
25.271	25.271 (1.147)		146	293894	4.14351	4.144	80.00- 120.00	100.00
25.271	25.271 (1.147)		148	175697			33.23- 93.23	59.78
25.271	25.271 (1.147)		111	116435			10.17- 70.17	39.62
226	1,2,4-Trichlorobenzene					CAS #: 120-82-1		
27.064	27.065 (1.229)		180	258005	3.96147	3.961	80.00- 120.00	100.00
27.064	27.065 (1.229)		182	244827			66.03- 126.03	94.89
227	Hexachlorobutadiene					CAS #: 87-68-3		
27.177	27.177 (1.234)		225	149091	3.33536	3.335	80.00- 120.00	100.00(R)
27.177	27.177 (1.234)		223	98787			33.08- 93.08	66.26
228	Naphthalene					CAS #: 91-20-3		
27.401	27.401 (1.244)		128	40690	0.33326	0.3332	80.00- 120.00	100.00(a)
27.401	27.401 (1.244)		127	10836			0.00- 42.23	26.63

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 25-NOV-2015
Lab File ID: v112504.d	Calibration Time: 07:38
Lab Smp Id: LCSD	Client Smp ID: LCSD
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ef	
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m	
Misc Info: 5.0ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	100145	60087	140203	104787	4.64
123 1,4-Difluorobenze	462764	277658	647870	485674	4.95
163 Chlorobenzene-d5	397301	238381	556221	411569	3.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
98 Bromochloromethan	15.74	15.41	16.07	15.74	0.00
123 1,4-Difluorobenze	17.11	16.78	17.44	17.11	0.00
163 Chlorobenzene-d5	22.03	21.70	22.36	22.03	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 25-NOV-2015 08:57

Client ID: LCSD

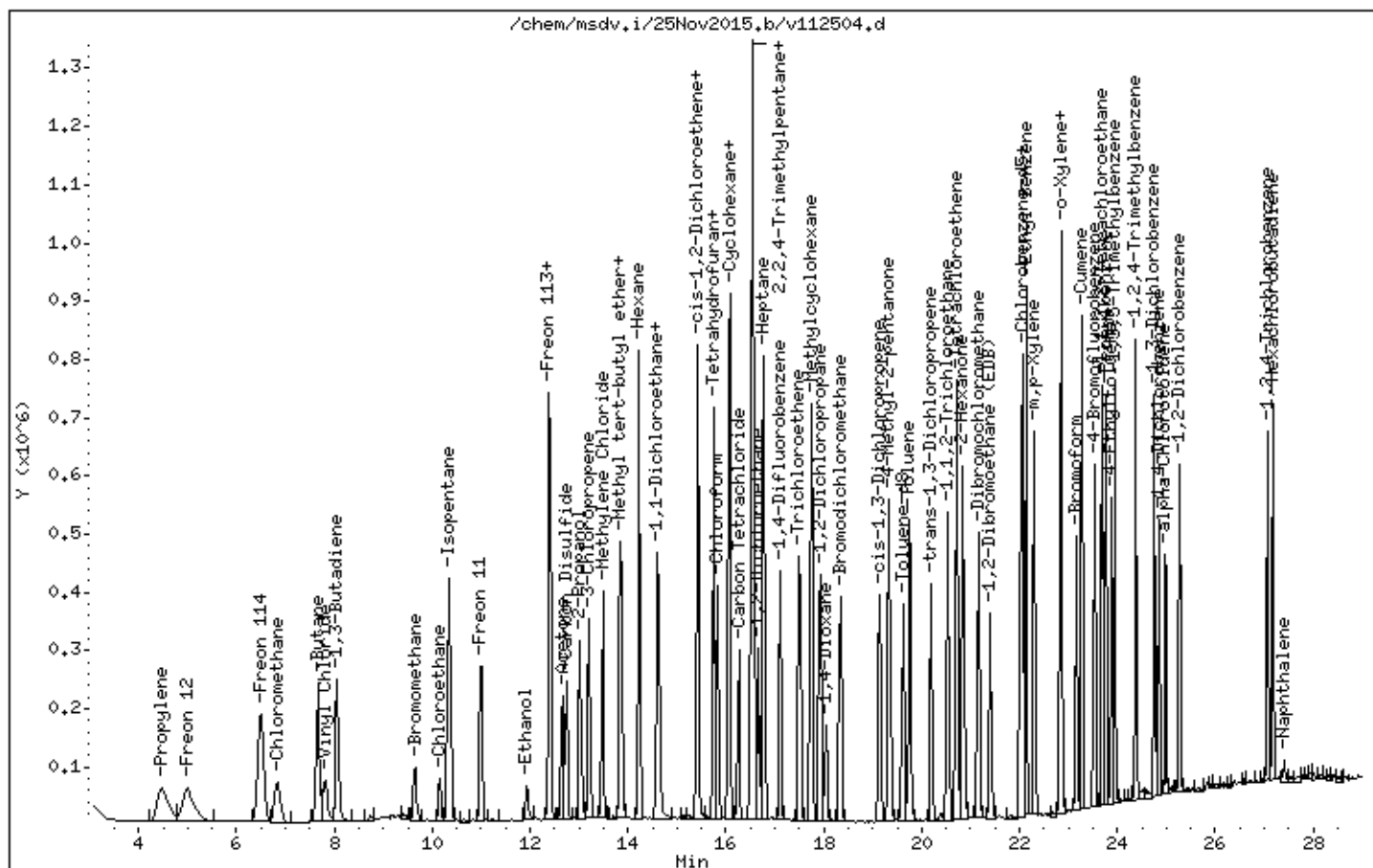
Instrument: msdv.i

Sample Info: 25mL# 2736-276

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Client Sample ID: LCS

Lab ID#: 1511365R1-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112503sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 08:18 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	105	70-130
Carbon Tetrachloride	69	60-140
Trichloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
 Sample Matrix: GAS Fraction: VOA
 Lab Smp Id: LCS Client Smp ID: LCS
 Level: LOW Operator: ef
 Data Type: MS DATA SampleType: LCSD
 SpikeList File: AT12.spk Quant Type: ISTD
 Sublist File: AT12.sub
 Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
 Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1 Freon 12	5.000	5.117	102.35	70-130
2 Freon 114	5.000	4.786	95.73	70-130
3 Chloromethane	5.000	4.809	96.18	70-130
4 Vinyl Chloride	5.000	5.236	104.72	70-130
5 Chloroethane	5.000	5.782	115.63	70-130
6 Freon 11	5.000	4.713	94.26	70-130
7 Freon 113	5.000	4.267	85.34	70-130
8 1,1-Dichloroethene	5.000	4.151	83.02	70-130
9 Methyl tert-butyl	5.000	4.640	92.80	70-130
10 trans-1,2-Dichloro	5.000	3.865	77.30	70-130
11 1,1-Dichloroethane	5.000	4.930	98.60	70-130
12 cis-1,2-Dichloroet	5.000	4.857	97.13	70-130
14 Chloroform	5.000	4.626	92.52	70-130
15 1,1,1-Trichloroeth	5.000	4.333	86.66	70-130
16 Carbon Tetrachlori	5.000	3.468	69.37	60-140
17 Benzene	5.000	4.763	95.27	70-130
19 1,2-Dichloroethane	5.000	4.770	95.40	70-130
21 Trichloroethene	5.000	4.377	87.53	70-130
23 Toluene	5.000	4.678	93.56	70-130
24 trans-1,3-Dichloro	5.000	5.181	103.61	70-130
25 1,1,2-Trichloroeth	5.000	4.919	98.38	70-130
26 Tetrachloroethene	5.000	4.235	84.71	70-130
27 1,2-Dibromoethane	5.000	4.820	96.39	70-130
29 Chlorobenzene	5.000	4.647	92.94	70-130
30 Ethyl Benzene	5.000	4.620	92.41	70-130
31 m,p-Xylene	5.000	4.613	92.26	70-130
32 o-Xylene	5.000	4.659	93.18	70-130
34 1,1,2,2-Tetrachlor	5.000	5.086	101.72	70-130
35 1,3-Dichlorobenzen	5.000	4.279	85.58	70-130
36 1,4-Dichlorobenzen	5.000	3.882	77.65	70-130
37 1,2-Dichlorobenzen	5.000	4.212	84.23	70-130
38 Naphthalene	0.5000	0.3261	65.22	60-140

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: ef
Data Type: MS DATA SampleType: LCSD
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.0ppbv (50ppbv)

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	4.941	98.82	70-130
\$ 22 Toluene-d8	5.000	5.011	100.22	70-130
\$ 33 4-Bromofluorobenze	5.000	4.809	96.18	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112503sim.d
 Lab Smp Id: LCS Client Smp ID: LCS
 Inj Date : 25-NOV-2015 08:18
 Operator : ef Inst ID: msdv.i
 Smp Info : 25mL# 2736-276
 Misc Info : 5.0ppbv (50ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
 Meth Date : 25-Nov-2015 08:52 efinn Quant Type: ISTD
 Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
 Als bottle: 1 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	
RT	EXP RT (REL RT)	MASS	RESPONSE	RATIO
==	=====	=====	=====	=====
1 Freon 12				
5.003	5.003 (0.318)	85	501303 5.11748	CAS #: 75-71-8
5.003	5.003 (0.318)	87	159753	5.117 80.00- 120.00 100.00
				1.99- 61.99 31.87
2 Freon 114				
6.513	6.513 (0.413)	135	397616 4.78639	CAS #: 76-14-2
6.513	6.513 (0.413)	137	124385	4.786 80.00- 120.00 100.00
				1.60- 61.60 31.28
3 Chloromethane				
6.853	6.853 (0.435)	50	437980 4.80918	CAS #: 74-87-3
6.853	6.853 (0.435)	52	134763	4.809 80.00- 120.00 100.00
				0.84- 60.84 30.77
4 Vinyl Chloride				
7.809	7.809 (0.496)	62	292614 5.23622	CAS #: 75-01-4
7.809	7.809 (0.496)	64	81402	5.236 80.00- 120.00 100.00
				0.00- 57.01 27.82
5 Chloroethane				
10.151	10.151 (0.644)	64	115793 5.78154	CAS #: 75-00-3
				5.782 80.00- 120.00 100.00

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
					ON-COL (PPBV)	FINAL (PPBV)		
5 Chloroethane (continued)								
10.151	10.151	(0.644)	66	31814			0.00- 56.81	27.47
6 Freon 11								
10.994	10.994	(0.698)	101	505849	4.71313	CAS #: 4.713	75-69-4 80.00- 120.00	100.00
10.994	10.994	(0.698)	103	326005			34.59- 94.59	64.45
7 Freon 113								
12.399	12.399	(0.787)	151	326731	4.26697	CAS #: 4.267	76-13-1 80.00- 120.00	100.00
12.427	12.399	(0.789)	153	207433			33.91- 93.91	63.49
12.399	12.399	(0.787)	101	401566			81.45- 141.45	122.90
8 1,1-Dichloroethene								
12.399	12.399	(0.787)	98	118887	4.15101	CAS #: 4.151	75-35-4 80.00- 120.00	100.00
12.399	12.399	(0.787)	61	470627			360.48- 420.48	395.86
12.399	12.399	(0.787)	96	188366			127.96- 187.96	158.44
9 Methyl tert-butyl ether								
13.855	13.855	(0.879)	73	438275	4.64014	CAS #: 4.640	1634-04-4 80.00- 120.00	100.00
13.827	13.855	(0.878)	57	208973			19.14- 79.14	47.68
13.827	13.855	(0.878)	41	221923			17.24- 77.24	50.64
10 trans-1,2-Dichloroethene								
13.882	13.882	(0.881)	98	105776	3.86503	CAS #: 3.865	156-60-5 80.00- 120.00	100.00
13.882	13.882	(0.881)	61	368168			314.49- 374.49	348.06
13.882	13.882	(0.881)	96	166470			126.88- 186.88	157.38
11 1,1-Dichloroethane								
14.596	14.596	(0.926)	63	489473	4.93016	CAS #: 4.930	75-34-3 80.00- 120.00	100.00
14.596	14.596	(0.926)	65	136199			0.00- 57.13	27.83
12 cis-1,2-Dichloroethene								
15.437	15.437	(0.980)	98	146154	4.85671	CAS #: 4.857	156-59-2 80.00- 120.00	100.00
15.437	15.437	(0.980)	61	462135			281.52- 341.52	316.20
15.437	15.437	(0.980)	96	231282			128.25- 188.25	158.25
* 13 Bromochloromethane								
15.757	15.757	(1.000)	130	115176	5.00000	CAS #: 74-97-5	80.00- 120.00	100.00
15.757	15.757	(1.000)	128	89740			47.55- 107.55	77.92
15.757	15.757	(1.000)	49	380603			270.30- 330.30	330.45
14 Chloroform								
15.819	15.819	(1.004)	83	400132	4.62588	CAS #: 4.626	67-66-3 80.00- 120.00	100.00
15.819	15.819	(1.004)	85	259039			34.94- 94.94	64.74
15 1,1,1-Trichloroethane								
16.065	16.065	(1.020)	97	425198	4.33324	CAS #: 4.333	71-55-6 80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL (PPBV)	FINAL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	271711			34.47- 94.47	63.90
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	309778	3.46856	3.468	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	297069			65.95- 125.95	95.90
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	526070	4.76346	4.763	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	118686			0.00- 52.44	22.56
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	200650	4.94120	4.941	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	97606			17.43- 77.43	48.64
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	381718	4.76985	4.770	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	109054			0.00- 58.95	28.57
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	461538	5.00000		80.00- 120.00	100.00
17.097	17.125 (1.000)	88	64265			0.00- 44.06	13.92
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	283120	4.37668	4.377	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	277664			64.51- 124.51	98.07
17.509	17.509 (1.022)	97	179208			31.18- 91.18	63.30
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	366083	5.01100	5.011	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	43129			0.00- 40.98	11.78
19.629	19.629 (1.146)	100	221531			32.48- 92.48	60.51
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	612902	4.67814	4.678	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	353616			28.76- 88.76	57.70
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	312995	5.18071	5.181	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	96888			1.64- 61.64	30.96
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	260752	4.91885	4.919	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	162377			32.73- 92.73	62.27
20.548	20.548 (0.932)	83	218647			48.90- 108.90	83.85

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene					CAS #:		127-18-4		
20.727	20.727	(0.940)	166	363479	4.23540	4.235	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	266184			41.19-	101.19	73.23
20.727	20.727	(0.940)	131	279588			45.32-	105.32	76.92

27 1,2-Dibromoethane (EDB)					CAS #:		106-93-4		
21.409	21.409	(0.971)	107	405182	4.81953	4.820	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	382397			65.14-	125.14	94.38

* 28 Chlorobenzene-d5					CAS #:		3114-55-4		
22.042	22.042	(1.000)	117	385690	5.00000		80.00-	120.00	100.00
22.015	22.042	(1.000)	82	185622			16.56-	76.56	48.13

29 Chlorobenzene					CAS #:		108-90-7		
22.070	22.070	(1.001)	112	548328	4.64721	4.647	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	174764			2.04-	62.04	31.87
22.070	22.070	(1.001)	77	279861			19.26-	79.26	51.04

30 Ethyl Benzene					CAS #:		100-41-4		
22.152	22.152	(1.005)	106	217524	4.62046	4.620	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	749471			301.39-	361.39	344.55

31 m,p-Xylene					CAS #:		108-38-3		
22.289	22.289	(1.011)	106	223826	4.61306	4.613	80.00-	120.00	100.00
22.289	22.289	(1.011)	91	494239			185.82-	245.82	220.81

32 o-Xylene					CAS #:		95-47-6		
22.838	22.838	(1.036)	106	218608	4.65922	4.659	80.00-	120.00	100.00
22.838	22.838	(1.036)	91	512980			197.84-	257.84	234.66

\$ 33 4-Bromofluorobenzene					CAS #:		460-00-4		
23.548	23.548	(1.068)	174	201850	4.80878	4.809	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	226271			80.08-	140.08	112.10
23.548	23.548	(1.068)	176	195986			67.26-	127.26	97.09

34 1,1,2,2-Tetrachloroethane					CAS #:		79-34-5		
23.677	23.677	(1.074)	83	512918	5.08587	5.086	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	327047			34.77-	94.77	63.76

35 1,3-Dichlorobenzene					CAS #:		541-73-1		
24.769	24.769	(1.124)	146	350675	4.27905	4.279	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	224374			34.16-	94.16	63.98
24.747	24.769	(1.123)	111	135391			8.33-	68.33	38.61

36 1,4-Dichlorobenzene					CAS #:		106-46-7		
24.859	24.859	(1.128)	146	312877	3.88235	3.882	80.00-	120.00	100.00

RT ==	EXP RT =====	(REL RT) =====	MASS ====	RESPONSE =====	CONCENTRATIONS		TARGET =====	RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====			
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	199171			33.79-	93.79	63.66
24.859	24.859	(1.128)	111	114897			6.65-	66.65	36.72

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	310185	4.21170	4.212	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	196663			33.50-	93.50	63.40
25.285	25.285	(1.147)	111	121543			9.32-	69.32	39.18

38 Naphthalene						CAS #:	91-20-3		
27.415	27.415	(1.244)	128	35984	0.32610	0.3261	80.00-	120.00	100.00
27.415	27.415	(1.244)	127	4234			0.00-	42.14	11.77

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i	Calibration Date: 25-NOV-2015
Lab File ID: v112503sim.d	Calibration Time: 07:38
Lab Smp Id: LCS	Client Smp ID: LCS
Analysis Type: VOA	Level: LOW
Quant Type: ISTD	Sample Type: AIR
Operator: ef	
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m	
Misc Info: 5.0ppbv (50ppbv)	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	115176	3.23
20 1,4-Difluorobenze	447704	268622	626786	461538	3.09
28 Chlorobenzene-d5	377895	226737	529053	385690	2.06

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 25-NOV-2015 08:18

Client ID: LCS

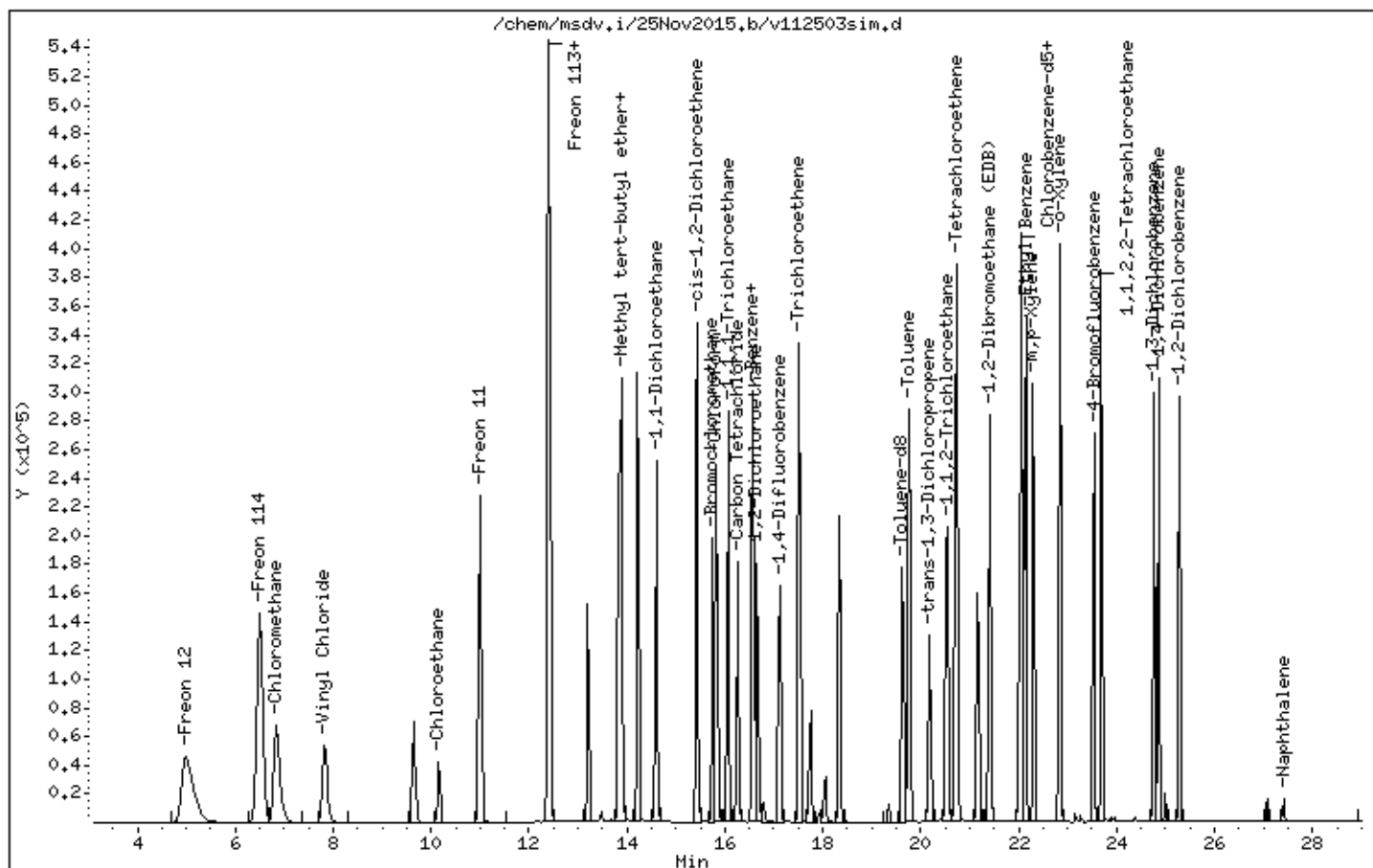
Instrument: msdv.i

Sample Info: 25mL# 2736-276

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Client Sample ID: LCSD

Lab ID#: 1511365R1-07BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v112504sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/15 08:57 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	101	70-130
Carbon Tetrachloride	68	60-140
Trichloroethene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
 Sample Matrix: GAS Fraction: VOA
 Lab Smp Id: LCSD Client Smp ID: LCSD
 Level: LOW Operator: ef
 Data Type: MS DATA SampleType: LCSD
 SpikeList File: AT12.spk Quant Type: ISTD
 Sublist File: AT12.sub
 Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
 Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1 Freon 12	5.000	4.903	98.07	70-130
2 Freon 114	5.000	4.684	93.68	70-130
3 Chloromethane	5.000	4.615	92.30	70-130
4 Vinyl Chloride	5.000	5.044	100.88	70-130
5 Chloroethane	5.000	5.746	114.93	70-130
6 Freon 11	5.000	4.680	93.60	70-130
7 Freon 113	5.000	4.221	84.43	70-130
8 1,1-Dichloroethene	5.000	4.102	82.03	70-130
9 Methyl tert-butyl	5.000	4.571	91.42	70-130
10 trans-1,2-Dichloro	5.000	3.806	76.13	70-130
11 1,1-Dichloroethane	5.000	4.899	97.97	70-130
12 cis-1,2-Dichloroet	5.000	4.795	95.91	70-130
14 Chloroform	5.000	4.560	91.20	70-130
15 1,1,1-Trichloroeth	5.000	4.259	85.18	70-130
16 Carbon Tetrachlori	5.000	3.420	68.41	60-140
17 Benzene	5.000	4.719	94.37	70-130
19 1,2-Dichloroethane	5.000	4.766	95.32	70-130
21 Trichloroethene	5.000	4.337	86.74	70-130
23 Toluene	5.000	4.584	91.69	70-130
24 trans-1,3-Dichloro	5.000	5.221	104.42	70-130
25 1,1,2-Trichloroeth	5.000	4.938	98.76	70-130
26 Tetrachloroethene	5.000	4.246	84.93	70-130
27 1,2-Dibromoethane	5.000	4.850	97.01	70-130
29 Chlorobenzene	5.000	4.598	91.96	70-130
30 Ethyl Benzene	5.000	4.530	90.61	70-130
31 m,p-Xylene	5.000	4.498	89.96	70-130
32 o-Xylene	5.000	4.560	91.19	70-130
34 1,1,2,2-Tetrachlor	5.000	5.043	100.87	70-130
35 1,3-Dichlorobenzen	5.000	4.153	83.06	70-130
36 1,4-Dichlorobenzen	5.000	3.711	74.22	70-130
37 1,2-Dichlorobenzen	5.000	4.048	80.96	70-130
38 Naphthalene	0.5000	0.3127	62.54	60-140

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Nov2015
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCSD Client Smp ID: LCSD
Level: LOW Operator: ef
Data Type: MS DATA SampleType: LCSD
SpikeList File: AT12.spk Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.0ppbv (50ppbv)

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
\$ 18 1,2-Dichloroethane	5.000	4.934	98.69	70-130
\$ 22 Toluene-d8	5.000	4.991	99.83	70-130
\$ 33 4-Bromofluorobenze	5.000	4.754	95.08	70-130

Eurofins Air Toxics Inc.

EPA T0-15/MODIFIED T014A

Data file : /chem/msdv.i/25Nov2015.b/v112504sim.d
 Lab Smp Id: LCSD Client Smp ID: LCSD
 Inj Date : 25-NOV-2015 08:57
 Operator : ef Inst ID: msdv.i
 Smp Info : 25mL# 2736-276
 Misc Info : 5.0ppbv (50ppbv)
 Comment : SIM - GC/MS
 Method : /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
 Meth Date : 25-Nov-2015 08:52 efinn Quant Type: ISTD
 Cal Date : 08-OCT-2015 19:44 Cal File: v100812sim.d
 Als bottle: 1 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: AT12.sub
 Target Version: 3.50 Sample Matrix: AIR
 Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name		Value	Description	
DF		1.00000	Dilution Factor	

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
1 Freon 12							
5.003	5.003 (0.318)	85	492497	4.90334	4.903	80.00- 120.00	100.00
5.003	5.003 (0.318)	87	156915			1.99- 61.99	31.86
2 Freon 114							
6.513	6.513 (0.413)	135	398968	4.68400	4.684	80.00- 120.00	100.00
6.513	6.513 (0.413)	137	124021			1.60- 61.60	31.09
3 Chloromethane							
6.853	6.853 (0.435)	50	430923	4.61475	4.615	80.00- 120.00	100.00
6.853	6.853 (0.435)	52	133256			0.84- 60.84	30.92
4 Vinyl Chloride							
7.809	7.809 (0.496)	62	289013	5.04398	5.044	80.00- 120.00	100.00
7.840	7.809 (0.498)	64	79717			0.00- 57.01	27.58
5 Chloroethane							
10.150	10.151 (0.644)	64	118006	5.74644	5.746	80.00- 120.00	100.00

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	====	=====	=====	=====	=====	=====	=====
5 Chloroethane (continued)									
10.150	10.151	(0.644)	66	32675			0.00-	56.81	27.69
6 Freon 11									
10.994	10.994	(0.698)	101	515021	4.68001	CAS #: 75-69-4 4.680	80.00-	120.00	100.00
10.994	10.994	(0.698)	103	330709			34.59-	94.59	64.21
7 Freon 113									
12.399	12.399	(0.787)	151	331434	4.22143	CAS #: 76-13-1 4.221	80.00-	120.00	100.00
12.427	12.399	(0.789)	153	210344			33.91-	93.91	63.46
12.399	12.399	(0.787)	101	405698			81.45-	141.45	122.41
8 1,1-Dichloroethene									
12.399	12.399	(0.787)	98	120450	4.10167	CAS #: 75-35-4 4.102	80.00-	120.00	100.00
12.399	12.399	(0.787)	61	478065			360.48-	420.48	396.90
12.399	12.399	(0.787)	96	190974			127.96-	187.96	158.55
9 Methyl tert-butyl ether									
13.855	13.855	(0.879)	73	442663	4.57078	CAS #: 1634-04-4 4.571	80.00-	120.00	100.00
13.827	13.855	(0.878)	57	211817			19.14-	79.14	47.85
13.827	13.855	(0.878)	41	223595			17.24-	77.24	50.51
10 trans-1,2-Dichloroethene									
13.882	13.882	(0.881)	98	106807	3.80626	CAS #: 156-60-5 3.806	80.00-	120.00	100.00
13.882	13.882	(0.881)	61	371908			314.49-	374.49	348.20
13.882	13.882	(0.881)	96	169589			126.88-	186.88	158.78
11 1,1-Dichloroethane									
14.596	14.596	(0.926)	63	498677	4.89874	CAS #: 75-34-3 4.899	80.00-	120.00	100.00
14.596	14.596	(0.926)	65	137394			0.00-	57.13	27.55
12 cis-1,2-Dichloroethene									
15.437	15.437	(0.980)	98	147967	4.79546	CAS #: 156-59-2 4.795	80.00-	120.00	100.00
15.437	15.437	(0.980)	61	467662			281.52-	341.52	316.06
15.437	15.437	(0.980)	96	232933			128.25-	188.25	157.42
* 13 Bromochloromethane									
15.757	15.757	(1.000)	130	118095	5.00000	CAS #: 74-97-5 5.000	80.00-	120.00	100.00
15.757	15.757	(1.000)	128	91588			47.55-	107.55	77.55
15.757	15.757	(1.000)	49	388751			270.30-	330.30	329.18
14 Chloroform									
15.819	15.819	(1.004)	83	404411	4.55982	CAS #: 67-66-3 4.560	80.00-	120.00	100.00
15.819	15.819	(1.004)	85	260685			34.94-	94.94	64.46
15 1,1,1-Trichloroethane									
16.065	16.065	(1.020)	97	428494	4.25891	CAS #: 71-55-6 4.259	80.00-	120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS		TARGET RANGE	RATIO
				ON-COL (PPBV)	FINAL (PPBV)		
15	1,1,1-Trichloroethane (continued)						
16.065	16.065 (1.020)	99	274174			34.47- 94.47	63.99
16	Carbon Tetrachloride				CAS #: 56-23-5		
16.250	16.250 (1.031)	117	313212	3.42034	3.420	80.00- 120.00	100.00
16.250	16.250 (1.031)	119	300423			65.95- 125.95	95.92
17	Benzene				CAS #: 71-43-2		
16.576	16.576 (0.968)	78	528477	4.71873	4.719	80.00- 120.00	100.00
16.576	16.576 (0.968)	77	119340			0.00- 52.44	22.58
\$ 18	1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.548	16.548 (1.050)	65	205448	4.93434	4.934	80.00- 120.00	100.00
16.548	16.548 (1.050)	67	99854			17.43- 77.43	48.60
19	1,2-Dichloroethane				CAS #: 107-06-2		
16.658	16.658 (0.973)	62	386798	4.76613	4.766	80.00- 120.00	100.00
16.658	16.658 (0.973)	64	110920			0.00- 58.95	28.68
* 20	1,4-Difluorobenzene				CAS #: 540-36-3		
17.125	17.125 (1.000)	114	468046	5.00000		80.00- 120.00	100.00
17.097	17.125 (1.000)	88	65206			0.00- 44.06	13.93
21	Trichloroethene				CAS #: 79-01-6		
17.509	17.509 (1.022)	130	284503	4.33692	4.337	80.00- 120.00	100.00
17.509	17.509 (1.022)	95	280420			64.51- 124.51	98.57
17.509	17.509 (1.022)	97	179793			31.18- 91.18	63.20
\$ 22	Toluene-d8				CAS #: 2037-26-5		
19.629	19.629 (1.146)	98	369782	4.99126	4.991	80.00- 120.00	100.00
19.629	19.629 (1.146)	70	43239			0.00- 40.98	11.69
19.629	19.629 (1.146)	100	224337			32.48- 92.48	60.67
23	Toluene				CAS #: 108-88-3		
19.763	19.763 (1.154)	91	609080	4.58433	4.584	80.00- 120.00	100.00
19.763	19.763 (1.154)	92	350227			28.76- 88.76	57.50
24	trans-1,3-Dichloropropene				CAS #: 10061-02-6		
20.189	20.189 (0.916)	75	315840	5.22097	5.221	80.00- 120.00	100.00
20.189	20.189 (0.916)	77	99204			1.64- 61.64	31.41
25	1,1,2-Trichloroethane				CAS #: 79-00-5		
20.548	20.548 (0.932)	97	262113	4.93807	4.938	80.00- 120.00	100.00
20.548	20.548 (0.932)	99	162125			32.73- 92.73	61.85
20.548	20.548 (0.932)	83	221059			48.90- 108.90	84.34

					CONCENTRATIONS				
RT	EXP RT	(REL RT)	MASS	RESPONSE	ON-COL (PPBV)	FINAL (PPBV)	TARGET	RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====	=====
26 Tetrachloroethene						CAS #:	127-18-4		
20.727	20.727	(0.940)	166	364911	4.24654	4.246	80.00-	120.00	100.00
20.727	20.727	(0.940)	129	266611			41.19-	101.19	73.06
20.727	20.727	(0.940)	131	278539			45.32-	105.32	76.33

27 1,2-Dibromoethane (EDB)						CAS #:	106-93-4		
21.409	21.409	(0.971)	107	408315	4.85046	4.850	80.00-	120.00	100.00
21.409	21.409	(0.971)	109	386230			65.14-	125.14	94.59

* 28 Chlorobenzene-d5						CAS #:	3114-55-4		
22.042	22.042	(1.000)	117	386194	5.00000		80.00-	120.00	100.00
22.015	22.042	(1.000)	82	186945			16.56-	76.56	48.41

29 Chlorobenzene						CAS #:	108-90-7		
22.070	22.070	(1.001)	112	543237	4.59806	4.598	80.00-	120.00	100.00
22.070	22.070	(1.001)	114	173683			2.04-	62.04	31.97
22.070	22.070	(1.001)	77	278970			19.26-	79.26	51.35

30 Ethyl Benzene						CAS #:	100-41-4		
22.152	22.152	(1.005)	106	213566	4.53046	4.530	80.00-	120.00	100.00
22.152	22.152	(1.005)	91	734010			301.39-	361.39	343.69

31 m,p-Xylene						CAS #:	108-38-3		
22.289	22.289	(1.011)	106	218534	4.49810	4.498	80.00-	120.00	100.00
22.289	22.289	(1.011)	91	486839			185.82-	245.82	222.78

32 o-Xylene						CAS #:	95-47-6		
22.838	22.838	(1.036)	106	214211	4.55955	4.560	80.00-	120.00	100.00
22.838	22.838	(1.036)	91	499885			197.84-	257.84	233.36

\$ 33 4-Bromofluorobenzene						CAS #:	460-00-4		
23.548	23.548	(1.068)	174	199820	4.75421	4.754	80.00-	120.00	100.00
23.548	23.548	(1.068)	95	224154			80.08-	140.08	112.18
23.548	23.548	(1.068)	176	194296			67.26-	127.26	97.24

34 1,1,2,2-Tetrachloroethane						CAS #:	79-34-5		
23.677	23.677	(1.074)	83	509284	5.04325	5.043	80.00-	120.00	100.00
23.677	23.677	(1.074)	85	325203			34.77-	94.77	63.85

35 1,3-Dichlorobenzene						CAS #:	541-73-1		
24.769	24.769	(1.124)	146	340788	4.15298	4.153	80.00-	120.00	100.00
24.769	24.769	(1.124)	148	217879			34.16-	94.16	63.93
24.747	24.769	(1.123)	111	130346			8.33-	68.33	38.25

36 1,4-Dichlorobenzene						CAS #:	106-46-7		
24.859	24.859	(1.128)	146	299446	3.71084	3.711	80.00-	120.00	100.00

RT ==	EXP RT =====	(REL RT) =====	MASS ===	RESPONSE =====	CONCENTRATIONS		TARGET =====	RANGE =====	RATIO =====
					ON-COL (PPBV) =====	FINAL (PPBV) =====			
36 1,4-Dichlorobenzene (continued)									
24.859	24.859	(1.128)	148	190235			33.79-	93.79	63.53
24.859	24.859	(1.128)	111	111261			6.65-	66.65	37.16

37 1,2-Dichlorobenzene						CAS #:	95-50-1		
25.285	25.285	(1.147)	146	298500	4.04776	4.048	80.00-	120.00	100.00
25.285	25.285	(1.147)	148	189644			33.50-	93.50	63.53
25.285	25.285	(1.147)	111	117247			9.32-	69.32	39.28

38 Naphthalene						CAS #:	91-20-3		
27.414	27.415	(1.244)	128	34553	0.31272	0.3127	80.00-	120.00	100.00
27.414	27.415	(1.244)	127	4174			0.00-	42.14	12.08

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdv.i
Lab File ID: v112504sim.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msdv.i/25Nov2015.b/v15l1008c.m/v15s1008a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 25-NOV-2015
Calibration Time: 07:38
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	111568	66941	156195	118095	5.85
20 1,4-Difluorobenze	447704	268622	626786	468046	4.54
28 Chlorobenzene-d5	377895	226737	529053	386194	2.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
13 Bromochloromethan	15.76	15.43	16.09	15.76	0.00
20 1,4-Difluorobenze	17.12	16.79	17.45	17.12	0.00
28 Chlorobenzene-d5	22.04	21.71	22.37	22.04	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Date : 25-NOV-2015 08:57

Client ID: LCSD

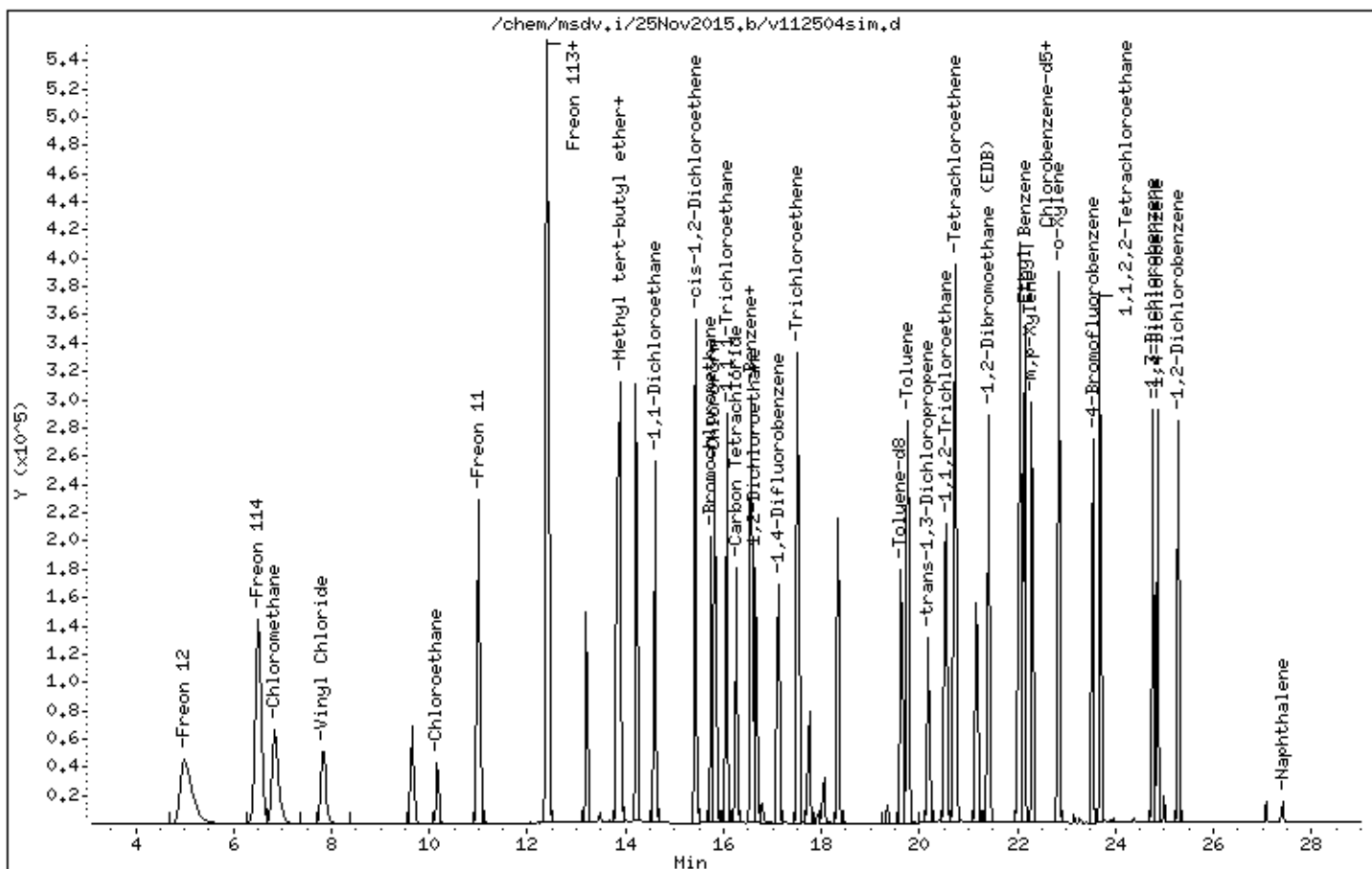
Instrument: msdv.i

Sample Info: 25mL# 2736-276

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



BFB Verification of 176/174 m/z Ratio	(264/178 / 313/174) x 100 = 74.35
Tekmar Purge Flow:	
Vacuum:	11/25/15

IS/Std. #: 2759-53A	Exp. Date: 1/28/16
BCM 4.1 10045	Sum: 115128
1,4-DFB 402264	447204
CB-d5 397301	377895

Verified CCV IS vs ICAL mid-point (-40%D): 58

File ID:	11/25/02
Compound:	1,4-DFB
Initials:	ST

Calculation Check:

$$\text{ppbv of compound} = \frac{\text{Area Sample}}{\text{Area IS}} \times \text{Conc IS} = \left(\frac{424417}{462764} \right) \times \left(\frac{5.000}{0.01414} \right) = 5.016$$

SOP# (Circle one): 6/83/88/91/109

Method (Circle one): 10-14A/10-15/10-17

Reported Result: 5.016

Method Name: 115110084/115110084

Use	File	Lab ID#	Can#/Standard ID#	Pressure	Am't. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
✓	112601	349 TUNE CALIB	1299-1208	50.7	2µL	1.00	ST	11/25/15	0720	ST	ELI 2000
✓	02	CV (50 ppb)	1236-271	5.0 ppb	25µL	1.00	ST		0738	ST	Exp. 12/10/15 Sum: 1000
✓	03	KS (50 ppb)	1236-270	5.0 ppb	25µL	1.00	ST		0818	ST	Exp. 12/24/15 Sum: 1000
✓	04	LSO (50 ppb)	1236-270	5.0 ppb	25µL	1.00	ST		0857	ST	Exp. 12/24/15
✓	05	LAB Brame	34034	Humid	250µL	1.00	ST		0934	ST	
✓	06	LAB Brame	34034	Humid	250µL	1.00	ST		1001	ST	
✓	07	1511345 - 01A5	60079	5.9" H ₂ O 48.9 psi	250µL	1.05	ST		1045	ST	
✓	08	-02A5	60129	5.5" H ₂ O 4.9 psi	250µL	1.03	ST		1121	ST	
✓	09	-03A5	32127	5.7" H ₂ O 5.1 psi	250µL	1.00	ST		1157	ST	
✓	10	-04A5	25314	4.9" H ₂ O 5.1 psi	250µL	1.57	ST		1238	ST	Time for 2000 = 4.9 psi
✓	11	1511342 - 01A5	1400	6.9" H ₂ O 5.1 psi	250µL	1.74	ST				
✓	12										
✓	13										
✓	14										

Reviewed

Date

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/08Oct2015.b/v100801.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 08-OCT-2015 11:10
Operator : sab Inst ID: msdv.i
Smp Info : 2.0uL# 2299-805; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/08Oct2015.b/bfb60.m
Meth Date : 08-Oct-2015 11:26 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb					CAS #: 460-00-4			
6.500	6.640	-0.140	95	1068928			100.00- 100.00	100.00
6.500	6.640	-0.140	50	325989			8.00- 40.00	30.50
6.500	6.640	-0.140	75	495475			30.00- 66.00	46.35
6.500	6.640	-0.140	96	69792			5.00- 9.00	6.53
6.500	6.640	-0.140	173	4628			0.00- 1.99	0.54
6.500	6.640	-0.140	174	858920			50.00- 120.00	80.35
6.500	6.640	-0.140	175	59592			4.00- 9.00	6.94
6.500	6.640	-0.140	176	832192			93.00- 101.00	96.89
6.500	6.640	-0.140	177	52757			5.00- 9.00	6.34

Date : 08-OCT-2015 11:10

Client ID: BFB

Instrument: msdv.i

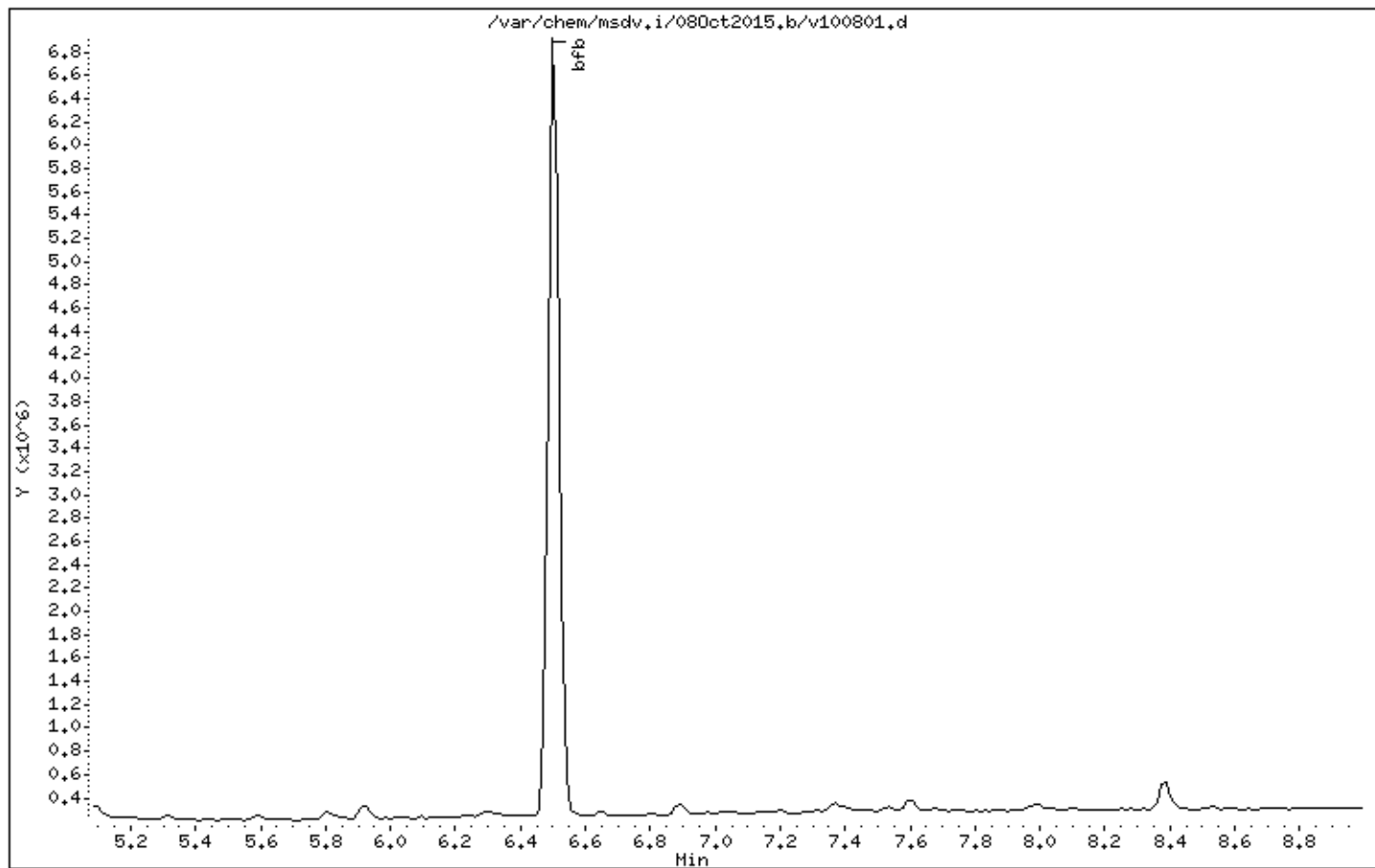
Sample Info: 2.0uL# 2299-805; BFB; BFB

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00



Date : 08-OCT-2015 11:10

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-805; BFB; BFB

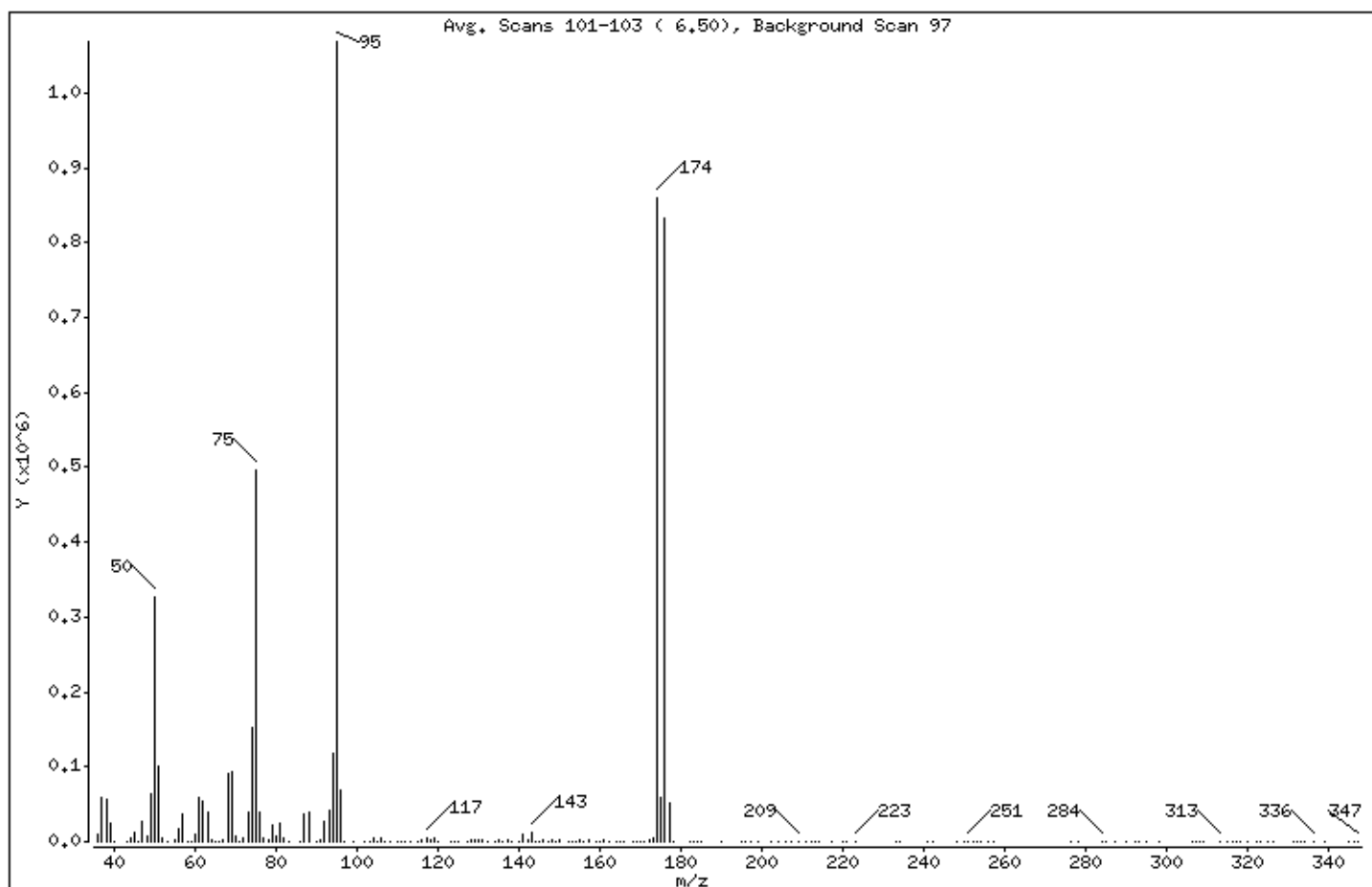
Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	30.50
75	30.00 - 66.00% of mass 95	46.35
96	5.00 - 9.00% of mass 95	6.53
173	Less than 1.99% of mass 174	0.43 (0.54)
174	50.00 - 120.00% of mass 95	80.35
175	4.00 - 9.00% of mass 174	5.57 (6.94)
176	93.00 - 101.00% of mass 174	77.85 (96.89)
177	5.00 - 9.00% of mass 176	4.94 (6.34)

Date : 08-OCT-2015 11:10

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-805; BFB; BFB

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: v100801.d

Spectrum: Avg. Scans 101-103 (6.50), Background Scan 97

Location of Maximum: 95.00

Number of points: 190

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	9532	90.00	384	148.00	2296	223.00	428
37.00	59824	91.00	3248	149.00	701	233.00	20
38.00	56600	92.00	27008	150.00	1274	234.00	212
39.00	23584	93.00	40680	152.00	361	241.00	137
40.00	1065	94.00	118264	153.00	817	242.00	56

43.00	1077	95.00	1068544	154.00	592	248.00	36
44.00	4536	96.00	69792	155.00	2488	250.00	33
45.00	12976	97.00	808	156.00	286	251.00	407
46.00	941	99.00	60	157.00	1739	252.00	292
47.00	27984	102.00	85	159.00	1216	253.00	108

48.00	8217	103.00	390	160.00	128	254.00	13
49.00	64008	104.00	4339	161.00	1490	256.00	66
50.00	325952	105.00	948	162.00	145	257.00	213
51.00	99928	106.00	3806	164.00	53	276.00	86
52.00	3868	107.00	856	165.00	626	278.00	96

53.00	16	108.00	762	166.00	345	284.00	577
55.00	2744	110.00	567	168.00	118	285.00	181
56.00	18032	111.00	773	169.00	564	287.00	65
57.00	37688	112.00	473	170.00	316	290.00	96
58.00	1038	113.00	503	171.00	881	292.00	172

59.00	6	115.00	322	172.00	1348	293.00	57
60.00	10801	116.00	3312	173.00	4628	295.00	109
61.00	59664	117.00	5548	174.00	858880	298.00	53
62.00	54560	118.00	3326	175.00	59592	306.00	272
63.00	39768	119.00	4524	176.00	832192	307.00	115

64.00	3416	120.00	101	177.00	52752	308.00	83
65.00	574	123.00	419	178.00	920	309.00	136
66.00	91	124.00	918	182.00	28	313.00	296
67.00	2121	125.00	671	183.00	244	315.00	88
68.00	90592	127.00	88	184.00	76	316.00	59

69.00	93488	128.00	2815	185.00	87	317.00	69
70.00	6915	129.00	1597	190.00	58	318.00	73
71.00	105	130.00	3582	195.00	93	320.00	71
72.00	4491	131.00	1577	196.00	73	322.00	260
73.00	39272	132.00	231	197.00	100	323.00	391

Date : 08-OCT-2015 11:10

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-805; BFB; BFB

Volume Injected (uL): 1.0

Operator: sab

Column phase:

Column diameter: 2.00

Data File: v100801.d

Spectrum: Avg. Scans 101-103 (6.50), Background Scan 97

Location of Maximum: 95.00

Number of points: 190

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	152384	134.00	187	199.00	54	325.00	50
75.00	495424	135.00	1363	202.00	200	326.00	146
76.00	39232	136.00	324	204.00	340	331.00	126
77.00	3981	137.00	1673	206.00	119	332.00	145
78.00	3455	138.00	277	207.00	520	333.00	178
79.00	22944	140.00	639	209.00	562	334.00	38
80.00	6318	141.00	10383	211.00	274	336.00	412
81.00	24064	142.00	1273	212.00	106	339.00	51
82.00	5511	143.00	11840	213.00	63	345.00	130
83.00	118	144.00	767	214.00	56	346.00	66
86.00	940	145.00	734	217.00	211	347.00	112
87.00	37240	146.00	1254	220.00	107		
88.00	38536	147.00	859	221.00	322		

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/200ct2015.b/v102001.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 20-OCT-2015 05:07
Operator : act Inst ID: msdv.i
Smp Info : 2.0uL# 2299-1268; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/200ct2015.b/bfb60.m
Meth Date : 20-Oct-2015 05:23 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb					CAS #: 460-00-4			
6.500	6.640	-0.140	95	749168			100.00- 100.00	100.00
6.500	6.640	-0.140	50	212738			8.00- 40.00	28.40
6.500	6.640	-0.140	75	333583			30.00- 66.00	44.53
6.500	6.640	-0.140	96	46915			5.00- 9.00	6.26
6.500	6.640	-0.140	173	2948			0.00- 1.99	0.47
6.500	6.640	-0.140	174	622570			50.00- 120.00	83.10
6.500	6.640	-0.140	175	42872			4.00- 9.00	6.89
6.500	6.640	-0.140	176	603186			93.00- 101.00	96.89
6.500	6.640	-0.140	177	38654			5.00- 9.00	6.41

Date : 20-OCT-2015 05:07

Client ID: BFB

Instrument: msdv.i

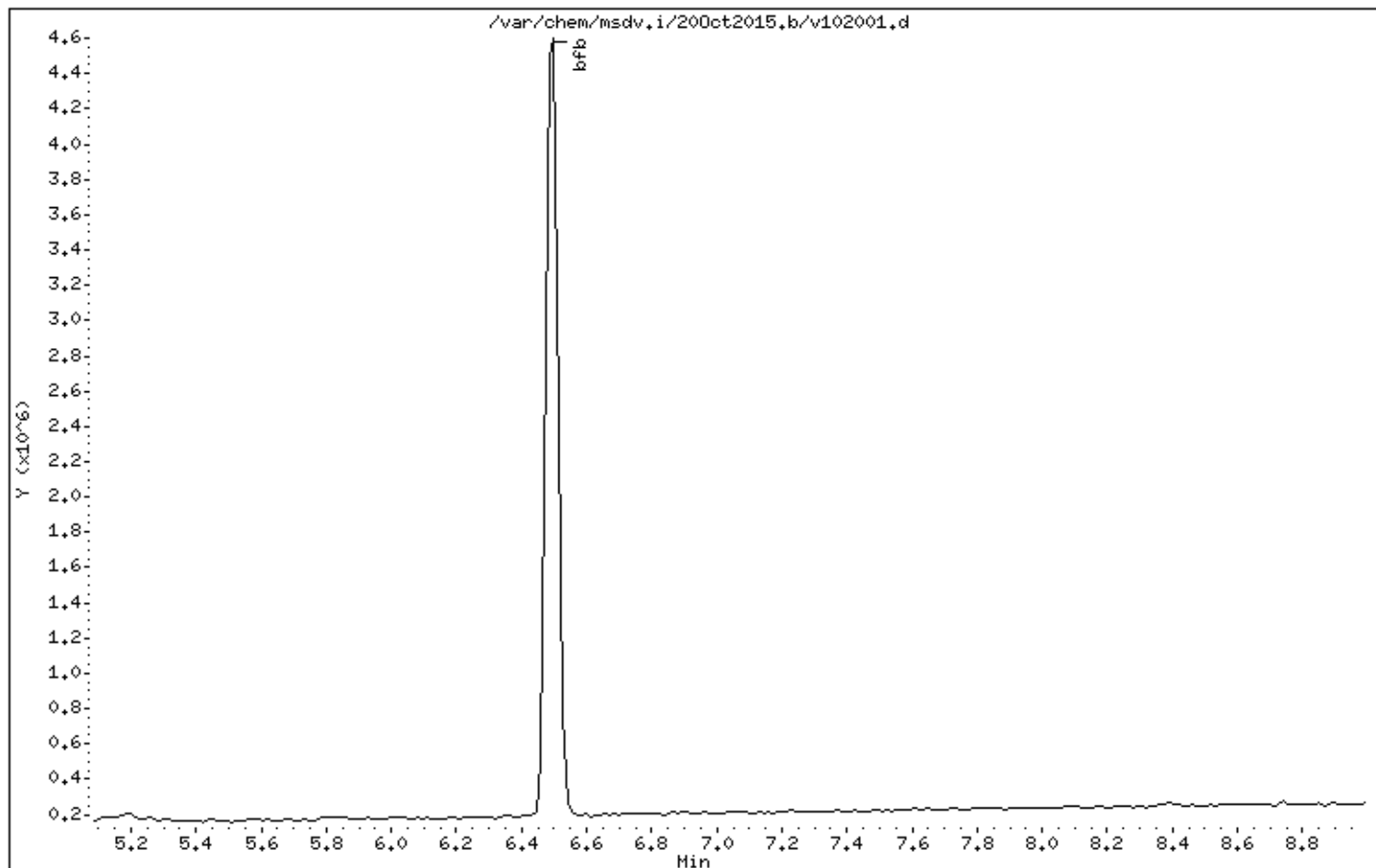
Sample Info: 2.0uL# 2299-1268; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00



Date : 20-OCT-2015 05:07

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-1268; BFB; BFB

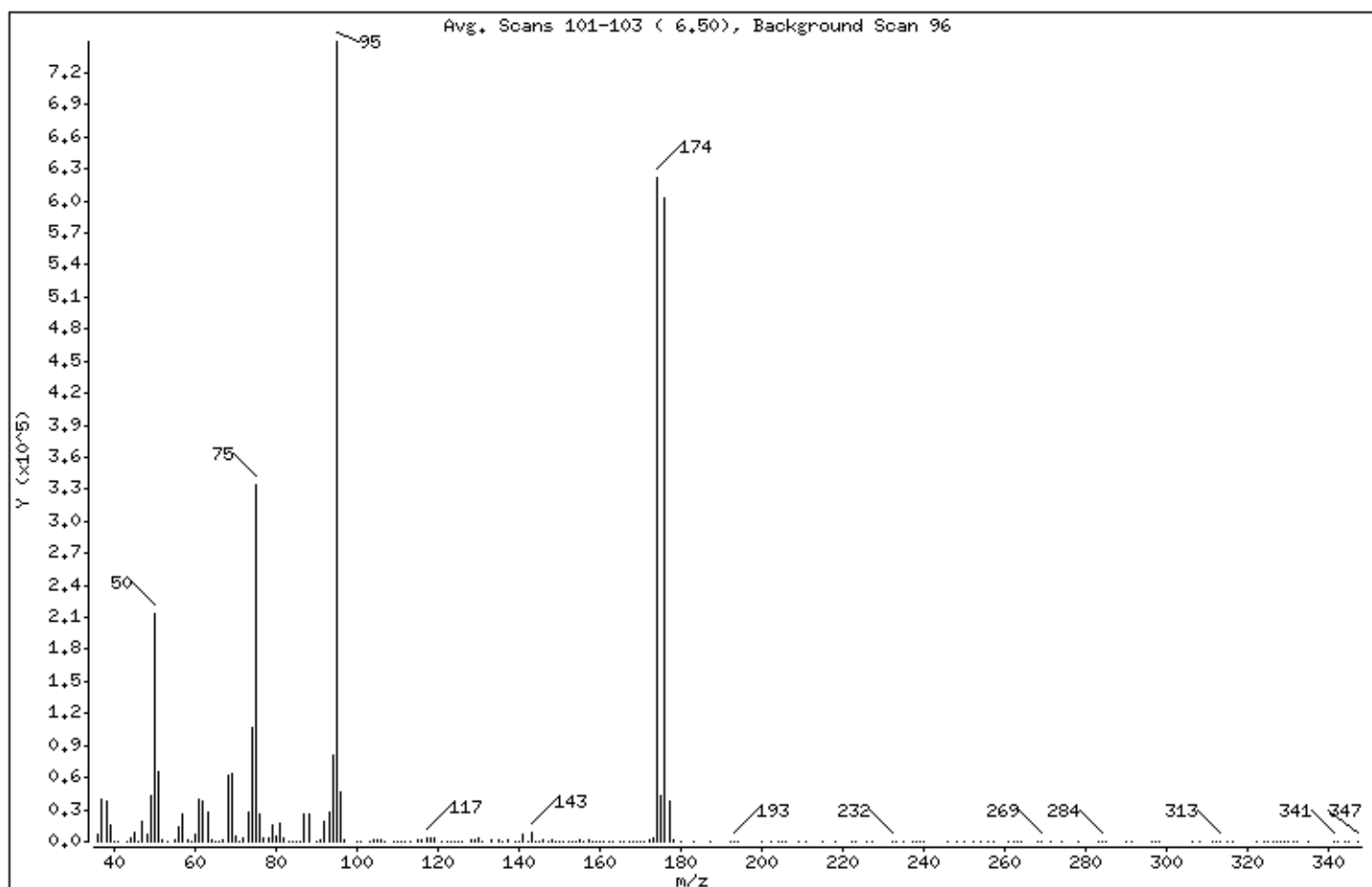
Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	28.40
75	30.00 - 66.00% of mass 95	44.53
96	5.00 - 9.00% of mass 95	6.26
173	Less than 1.99% of mass 174	0.39 (0.47)
174	50.00 - 120.00% of mass 95	83.10
175	4.00 - 9.00% of mass 174	5.72 (6.89)
176	93.00 - 101.00% of mass 174	80.51 (96.89)
177	5.00 - 9.00% of mass 176	5.16 (6.41)

Date : 20-OCT-2015 05:07

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-1268; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00

Data File: v102001.d

Spectrum: Avg. Scans 101-103 (6.50), Background Scan 96

Location of Maximum: 95.00

Number of points: 202

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	6765	90.00	281	151.00	23	239.00	47
37.00	39856	91.00	1907	152.00	464	240.00	65
38.00	38024	92.00	19584	153.00	565	246.00	54
39.00	15295	93.00	27392	154.00	633	248.00	143
40.00	788	94.00	80904	155.00	2026	250.00	21

41.00	668	95.00	749120	156.00	825	252.00	255
43.00	446	96.00	46912	157.00	1133	254.00	70
44.00	3412	97.00	988	158.00	247	256.00	62
45.00	9396	100.00	63	159.00	546	257.00	107
46.00	487	101.00	166	160.00	108	261.00	253

47.00	19704	103.00	193	161.00	842	262.00	111
48.00	6071	104.00	2445	162.00	82	263.00	188
49.00	42640	105.00	1054	163.00	347	264.00	119
50.00	212736	106.00	2539	165.00	239	268.00	39
51.00	66200	107.00	635	166.00	152	269.00	783

52.00	2529	109.00	287	167.00	307	271.00	64
53.00	35	110.00	453	168.00	247	274.00	113
55.00	2417	111.00	271	169.00	462	278.00	74
56.00	12960	112.00	267	170.00	727	283.00	153
57.00	25472	113.00	486	171.00	720	284.00	187

58.00	1021	115.00	1324	172.00	1143	285.00	90
59.00	213	116.00	2173	173.00	2948	290.00	178
60.00	7716	117.00	3753	174.00	622528	291.00	54
61.00	40320	118.00	2921	175.00	42872	296.00	64
62.00	38456	119.00	3444	176.00	603136	297.00	55

63.00	26920	121.00	196	177.00	38648	298.00	55
64.00	2299	122.00	319	178.00	1134	306.00	71
65.00	763	123.00	304	180.00	17	308.00	164
66.00	334	124.00	447	183.00	82	311.00	68
67.00	1025	125.00	342	187.00	199	312.00	54

68.00	61680	126.00	291	192.00	124	313.00	517
69.00	64360	128.00	1969	193.00	728	315.00	163
70.00	4315	129.00	1453	194.00	171	316.00	60
71.00	251	130.00	2708	200.00	70	322.00	16
72.00	3075	131.00	756	202.00	134	324.00	158

Date : 20-OCT-2015 05:07

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-1268; BFB; BFB

Volume Injected (uL): 1.0

Operator: act

Column phase:

Column diameter: 2.00

Data File: v102001.d

Spectrum: Avg. Scans 101-103 (6.50), Background Scan 96

Location of Maximum: 95.00

Number of points: 202

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	26696	133.00	1210	204.00	291	325.00	198
74.00	106480	135.00	1021	205.00	40	326.00	52
75.00	333568	136.00	103	206.00	122	327.00	230
76.00	26592	137.00	1450	209.00	504	328.00	70
77.00	3898	139.00	297	211.00	10	329.00	15
78.00	2722	140.00	370	215.00	70	330.00	156
79.00	15181	141.00	6935	218.00	166	331.00	125
80.00	4872	142.00	746	222.00	74	332.00	131
81.00	16448	143.00	7933	223.00	154	335.00	122
82.00	3464	144.00	771	226.00	56	341.00	353
83.00	188	145.00	172	227.00	50	342.00	223
84.00	138	146.00	1439	232.00	480	344.00	230
85.00	136	147.00	657	233.00	150	345.00	139
86.00	741	148.00	1561	235.00	27	347.00	69
87.00	25248	149.00	264	237.00	194		
88.00	25352	150.00	757	238.00	50		

Eurofins Air Toxics Inc.

Data file : /var/chem/msdv.i/25Nov2015.b/v112501.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 25-NOV-2015 07:20
Operator : ef Inst ID: msdv.i
Smp Info : 2.0uL# 2299-1268; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdv.i/25Nov2015.b/bfb60.m
Meth Date : 25-Nov-2015 07:36 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb					CAS #: 460-00-4			
6.500	6.640	-0.140	95	486001			100.00- 100.00	100.00
6.500	6.640	-0.140	50	179434			8.00- 40.00	36.92
6.500	6.640	-0.140	75	244945			30.00- 66.00	50.40
6.500	6.640	-0.140	96	31511			5.00- 9.00	6.48
6.500	6.640	-0.140	173	2134			0.00- 1.99	0.56
6.500	6.640	-0.140	174	377834			50.00- 120.00	77.74
6.500	6.640	-0.140	175	25240			4.00- 9.00	6.68
6.500	6.640	-0.140	176	356478			93.00- 101.00	94.35
6.500	6.640	-0.140	177	22181			5.00- 9.00	6.22

Date : 25-NOV-2015 07:20

Client ID: BFB

Instrument: msdv.i

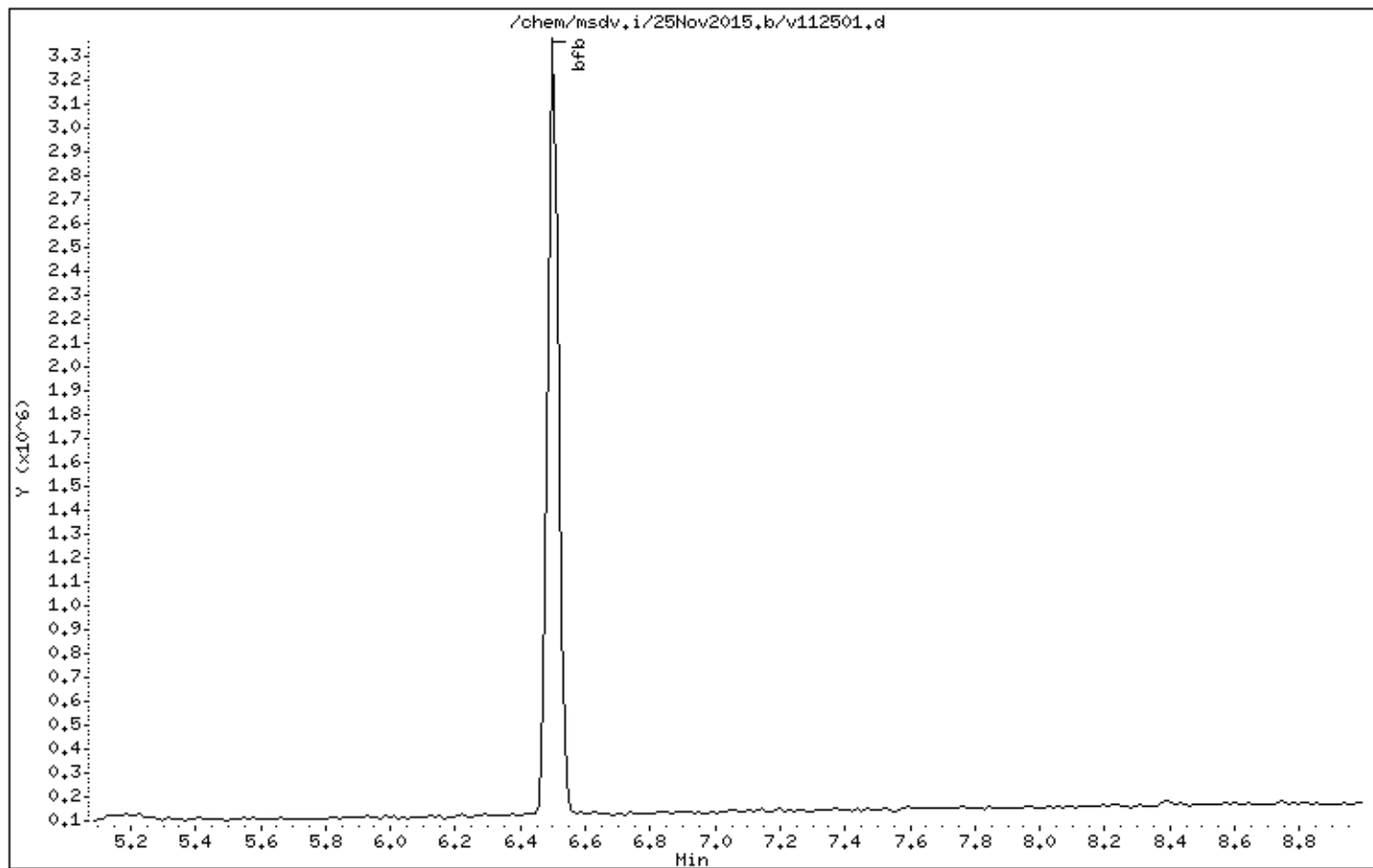
Sample Info: 2.0uL# 2299-1268; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Date : 25-NOV-2015 07:20

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-1268; BFB; BFB

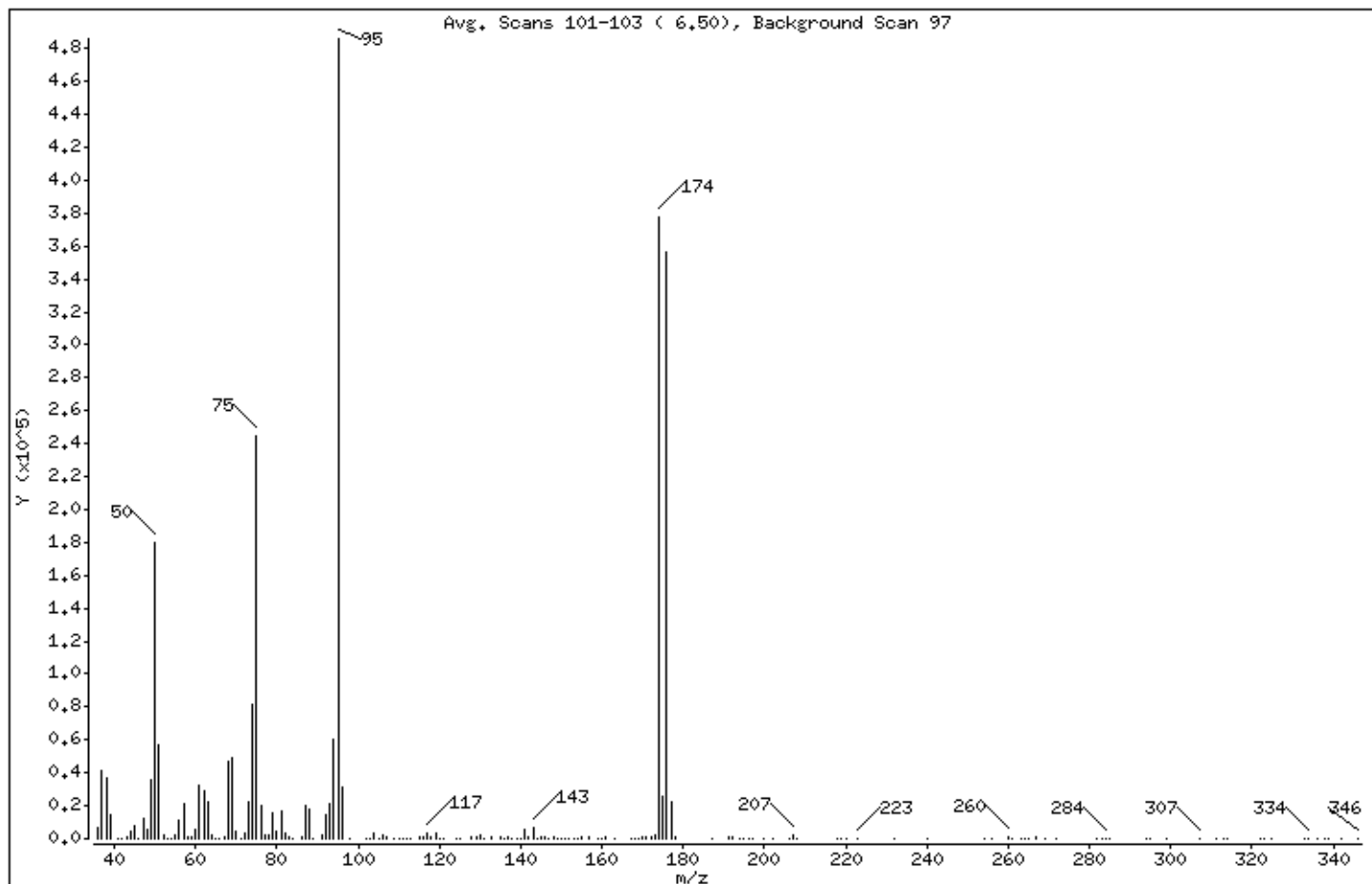
Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	36.92
75	30.00 - 66.00% of mass 95	50.40
96	5.00 - 9.00% of mass 95	6.48
173	Less than 1.99% of mass 174	0.44 (0.56)
174	50.00 - 120.00% of mass 95	77.74
175	4.00 - 9.00% of mass 174	5.19 (6.68)
176	93.00 - 101.00% of mass 174	73.35 (94.35)
177	5.00 - 9.00% of mass 176	4.56 (6.22)

Date : 25-NOV-2015 07:20

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-1268; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v112501.d

Spectrum: Avg. Scans 101-103 (6.50), Background Scan 97

Location of Maximum: 95.00

Number of points: 171

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	6334	80.00	4506	137.00	1041	200.00	114
37.00	41280	81.00	17304	138.00	252	202.00	59
38.00	36440	82.00	3716	139.00	93	206.00	18
39.00	14323	83.00	588	140.00	336	207.00	2178
41.00	313	84.00	327	141.00	5970	208.00	399

42.00	13	86.00	658	142.00	714	218.00	9
43.00	1138	87.00	20488	143.00	6156	219.00	186
44.00	4118	88.00	18272	144.00	459	220.00	202
45.00	8349	89.00	290	145.00	627	223.00	379
46.00	454	91.00	1706	146.00	826	232.00	302

47.00	12207	92.00	14516	147.00	200	240.00	55
48.00	5703	93.00	20952	148.00	1101	254.00	260
49.00	36256	94.00	60032	149.00	516	256.00	61
50.00	179392	95.00	485952	150.00	543	260.00	624
51.00	56920	96.00	31504	151.00	162	261.00	60

52.00	2369	98.00	147	152.00	194	263.00	56
53.00	136	102.00	23	153.00	432	264.00	50
54.00	21	103.00	9	154.00	249	265.00	66
55.00	1987	104.00	2906	155.00	868	267.00	578
56.00	11135	105.00	263	157.00	885	269.00	317

57.00	21544	106.00	2520	159.00	146	272.00	116
58.00	880	107.00	754	160.00	156	282.00	169
59.00	735	109.00	370	161.00	987	283.00	252
60.00	5476	110.00	431	163.00	142	284.00	345
61.00	32312	111.00	452	167.00	70	285.00	55

62.00	29472	112.00	155	168.00	352	294.00	244
63.00	22360	113.00	382	169.00	531	295.00	64
64.00	2260	115.00	715	170.00	685	299.00	88
65.00	393	116.00	1562	171.00	690	307.00	91
66.00	180	117.00	3269	172.00	876	311.00	69

67.00	1085	118.00	1651	173.00	2134	313.00	88
68.00	46896	119.00	2858	174.00	377792	314.00	57
69.00	49664	120.00	59	175.00	25240	322.00	37
70.00	4265	121.00	208	176.00	356416	323.00	127
71.00	111	124.00	488	177.00	22176	325.00	202

Data File: /chem/msdv.i/25Nov2015.b/v112501.d

Page 4

Date : 25-NOV-2015 07:20

Client ID: BFB

Instrument: msdv.i

Sample Info: 2.0uL# 2299-1268; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: v112501.d

Spectrum: Avg. Scans 101-103 (6.50), Background Scan 97

Location of Maximum: 95.00

Number of points: 171

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	2809	125.00	424	178.00	1175	333.00	70
73.00	21800	128.00	1583	187.00	50	334.00	333
74.00	81536	129.00	848	191.00	857	336.00	161
75.00	244928	130.00	1725	192.00	626	338.00	116
76.00	19896	131.00	410	194.00	312	339.00	51
77.00	2020	133.00	635	195.00	71	342.00	59
78.00	1984	135.00	688	196.00	228	346.00	57
79.00	15624	136.00	47	197.00	238		

Shipping/ Receiving Documents

Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Discrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Ausha Scott at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020

Hours 6:30 A.M to 5:30 P.M. PST



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page ____ of ____

Project Manager John Sabin

Collected by: (Print and Sign) James Flood

Company Sabin Head

Email James.Flood@eurofins.com

Address 20 Sandy St City Concord State MA Zip 03301

Phone 603-729-1900 Fax _____

Project Info:

P.O. # _____

Project # _____

Project Name _____

Turn Around Time:

☐ Normal

☐ Rush

Pressurized by: _____

Date: _____

Pressurization Gas: _____

specify N₂ He

Lab I.D. Field Sample I.D. (Location)

QA 1A 2003 2033

QA 1A 2037

QA 1A 2037 Dup

QA Ambient Air

Can #

N0446

64299

32127

35314

Date of Collection of Collection

11/20/15

11/20/15

11/20/15

11/20/15

Analyses Requested

To-15 H₂SO₄ Sulfate Specimen

To-15 H₂SO₄ Sulfate Specimen

To-15 H₂SO₄ Sulfate Specimen

To-15 H₂SO₄ Sulfate Specimen

Canister Pressure/Vacuum

Initial

Final

Receipt

Final (psi)

Relinquished by: (signature) Date/Time

Relinquished by: (signature) Date/Time

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Received by: (signature) Date/Time

Received by: (signature) Date/Time

Notes:

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

Lab Use Only

Federal

N/A

Good

Yes

No

None

1511365

Revised CCL received 12/10/15



Sample Transportation Notice

**180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020**

Page _____ of _____

Project Manager Jen Sander

Collected by: (Print and Sign)

Company Sabam Fleet

Address 20 Kurney St City Levens State NY Zip 03301

Phone 603-724-1900

F-3

Project Info
P.O. # _____
Project # _____
Project Name _____

Project Info:

P.O.#

Project

Project Name

Turn Around Time:

☐ Normal

☐ Push

specify

Lab Use Only
Pressurized by
Date:
Pressurization

$$\begin{array}{c} \text{He} \\ \text{N}_2 \end{array}$$

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	1A ZOO3	N0446	11/20/15	17:27	To-15 HILLO Site SPECIFIC ANALYTE LIST				
01A	1A ZOO3	64299	11/20/15	17:20	To-15 HILLO Site SPECIFIC ANALYTE LIST				
03A	1A ZOO3 DEP	32127	11/20/15	17:20	To-15 HILLO Site SPECIFIC ANALYTE LIST				
04A	Ambient Air	85314	11/20/15	17:48	To-15 HILLO Site SPECIFIC ANALYTE LIST				
Relinquished by: (signature) Date/Time		Received by: (signature) Date/Time	Notes:						
Relinquished by: (signature) Date/Time		Received by: (signature) Date/Time							
Relinquished by: (signature) Date/Time		Received by: (signature) Date/Time							
Shipper Name		Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #			
Fedex			N/A	Good	Yes No None	1511365			

SAMPLE RECEIPT SUMMARY

WORKORDER 1511365R1

Client

Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road
Latham, NY

Phone

518-207-0769

Fax

Date Promised: 12/14/15

Date Completed: 12/14/15

Date Received: 11/23/15

PO#:

Project#:

Sales Rep:

Total \$: \$ 0.00

Logged By: AS

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Receipt Vac./Pres.</u>	<u>Amount\$</u>
01A	IA 2033	Modified TO-15	11/20/2015	5.9 "Hg	\$0.00
01B	IA 2033	Modified TO-15	11/20/2015	5.9 "Hg	\$0.00
02A	IA 2037	Modified TO-15	11/20/2015	5.5 "Hg	\$0.00
02B	IA 2037	Modified TO-15	11/20/2015	5.5 "Hg	\$0.00
03A	IA 2037 Dup	Modified TO-15	11/20/2015	5.7 "Hg	\$0.00
03B	IA 2037 Dup	Modified TO-15	11/20/2015	5.7 "Hg	\$0.00
04A	Ambient Air	Modified TO-15	11/20/2015	4.9 "Hg	\$0.00
04B	Ambient Air	Modified TO-15	11/20/2015	4.9 "Hg	\$0.00
05A	Lab Blank	Modified TO-15	NA	NA	\$0.00
05B	Lab Blank	Modified TO-15	NA	NA	\$0.00
06A	CCV	Modified TO-15	NA	NA	\$0.00
06B	CCV	Modified TO-15	NA	NA	\$0.00
07A	LCS	Modified TO-15	NA	NA	\$0.00
07AA	LCSD	Modified TO-15	NA	NA	\$0.00
07B	LCS	Modified TO-15	NA	NA	\$0.00
07BB	LCSD	Modified TO-15	NA	NA	\$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: IBM - East Fishkill Facility/12642

BILL TO: Accounts Payable
Sanborn, Head & Associates
20 Foundry Street
Concord, NH 03301

Analysis Code: pptv

TERMS: NET 60

Reporting Method: Modified TO-15 Hi/Lo (Sh)/SpRL-SHA (IBM Fishkill)-Carbon
Tot. TCE & VC @ SIM
180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

@ Air Toxics Ltd	Title: Sample Discrepancy Report			Release Date: 04/05/11
	Form #: F1.3	Revision #: 2	Revision Date: 04/05/11	Page #: 1 of 2

Sample Discrepancy Report

Identification

Initiated By: JCW Project ID: 12642 PM: AS Date: 11/24/2015 Discrepancy Type: ☒ 1. ☐ 2. ☐ 3.

Workorder(s) affected: 1511365 Sample(s) affected: 01A and 03A

1. Sample Receipt Discrepancies

Narration Not Required:

- 1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.
- 1.2. ☐ No brass cap on canister.
- 1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

- 1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

- 1.5. ☐ COC was not filled out in ink.
- 1.6. ☐ COC improperly relinquished / received.
- 1.7. ☒ Sample tags / can numbers do not match the COC.
- 1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).
- 1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).
- 1.10. ☒ ID-none on the sample Tag/Blank
- 1.11. ☐ Other (describe below).

Describe the Discrepancy: 1.7:-03A, Sample ID discrepancy, matched by can#.

1.10: 01A-ID missing on tag, matched by can#

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples. 2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC. 2.3. ☐ Incorrect sampling media / container for analysis requested. 2.4. ☐ Number of samples on the COC does not match the number of samples that were received. 2.5. ☐ Samples were received expired. 2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ <u>some</u> / ☐ <u>any</u> samples (check one). 2.7. ☐ Sample received with amount of H₂O in the Tedlar Bag. 2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective. 2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed. 2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting. 2.11. ☐ Environmental Supply Company valves 2.12. ☐ Sorbent samples-sampling volume was not provided	2.13. ☐ Flow controller used – canister samples received at ambient or under pressure. 2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply): ☐ Canister failed leak check on two manifolds, ☐ Canister valve was open, ☐ Brass nut was loose/not present. ☐ Sample can be analyzed ☐ Cannot be analyzed 2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum. 2.16. ☐ Canister sample received at >15"Hg (<u>not</u> identified as a Trip/Field Blank). 2.17. ☐ Canister Trip Blank received at low vacuum (<25"Hg). 2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one). 2.19. ☐ Flow Controller RPD of = 20% was not met. 2.20. ☐ Other (describe below)

Initials: _____ Date: _____ Notify Receiving: ☐ Notify PM: ☐

Describe the Discrepancy: _____

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.	3.6. ☐ Sample loss due to instrument malfunction / broken glassware.
3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.	3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.
3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.	3.8. ☐ Reporting Limit was raised.
3.4. ☐ Canister found to be leaking at the time of analysis.	3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.
3.5. ☐ VOST tube saturated; bag dilution necessary.	3.10. ☐ Other (describe below).

Initials: _____ Date: _____ Notify Receiving: ☐ Notify PM: ☐

Team Lead Initials: _____ Date: _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification

☐ Section 2 Complete

☐ Section 3 Complete

Action:

- ☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: _____ Date: _____

- ☐ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: _____ Person notified: _____ Date: _____

- ☐ Waiting for Client Reply

Comments: _____

☐ Notify Lab Name: _____ Date: _____ Notify Receiving: ☐

- ☐ Additional notifications attached.

Additional Comments:

Other Records

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} - [(\text{Initial Pressure ("Hg)}) (14.7 \text{ psi} / 30 \text{ "Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum ("Hg)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.5	1.36	1.71	2.05
1.0	1.39	1.74	2.09
1.5	1.41	1.77	2.13
2.0	1.44	1.80	2.16
2.5	1.46	1.83	2.20
3.0	1.49	1.87	2.24
3.5	1.52	1.90	2.29
4.0	1.55	1.94	2.33
4.5	1.58	1.98	2.38
5.0	1.61	2.02	2.42
5.5	1.64	2.06	2.47
6.0	1.68	2.10	2.53
6.5	1.71	2.15	2.58
7.0	1.75	2.19	2.64
7.5	1.79	2.24	2.69
8.0	1.83	2.29	2.76
8.5	1.87	2.34	2.82
9.0	1.91	2.40	2.89
9.5	1.96	2.46	2.96
10.0	2.01	2.52	3.03
10.5	2.06	2.59	3.11
11.0	2.12	2.65	3.19
11.5	2.17	2.72	3.28
12.0	2.23	2.80	3.37
12.5	2.30	2.88	3.46
13.0	2.36	2.97	3.57
13.5	2.44	3.06	3.67
14.0	2.51	3.15	3.79
14.5	2.59	3.25	3.91
15.0	2.68	3.36	4.04
15.5	2.77	3.48	4.18
16.0	2.87	3.60	4.33
16.5	2.98	3.73	4.49
17.0	3.09	3.88	4.66
17.5	3.22	4.03	4.85
18.0	3.35	4.20	5.05
18.5	3.50	4.38	5.27
19.0	3.65	4.58	5.51
19.5	3.83	4.80	5.77
20.0	4.02	5.04	6.06
20.5	4.23	5.31	6.38

Initial Vacuum ("Hg)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
21.0	4.47	5.60	6.73
21.5	4.73	5.93	7.13
22.0	5.03	6.30	7.58
22.5	5.36	6.72	8.08
23.0	5.74	7.20	8.66
23.5	6.19	7.76	9.32
24.0	6.70	8.40	10.10
24.5	7.31	9.17	11.02
25.0	8.04	10.08	12.12
25.5	8.93	11.20	13.47
26.0	10.05	12.60	15.15
26.5	11.49	14.40	17.32
27.0	13.40	16.80	20.20
27.5	16.08	20.16	24.24
28.0	20.10	25.20	30.31
28.5	26.80	33.61	40.41
29.0	40.20	50.41	60.61

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59

DILUTION FACTORS

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7 \text{ psi} + \text{Final Pressure (psi)}}{14.7 \text{ psi} + \text{Initial Pressure (psi)}}$$

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
0.0	1.34	1.68	2.02
0.2	1.32	1.66	1.99
0.4	1.30	1.64	1.97
0.6	1.29	1.61	1.94
0.8	1.27	1.59	1.92
1.0	1.25	1.57	1.89
1.2	1.24	1.55	1.87
1.4	1.22	1.53	1.84
1.6	1.21	1.52	1.82
1.8	1.19	1.50	1.80
2.0	1.18	1.48	1.78
2.2	1.17	1.46	1.76
2.4	1.15	1.44	1.74
2.6	1.14	1.43	1.72
2.8	1.13	1.41	1.70
3.0	1.11	1.40	1.68
3.2	1.10	1.38	1.66
3.4	1.09	1.36	1.64
3.6	1.08	1.35	1.62
3.8	1.06	1.34	1.61
4.0	1.05	1.32	1.59
4.2	1.04	1.31	1.57
4.4	1.03	1.29	1.55
4.6	1.02	1.28	1.54
4.8	1.01	1.27	1.52
5.0	1.00	1.25	1.51
5.2	NA	1.24	1.49
5.4	NA	1.23	1.48
5.6	NA	1.22	1.46
5.8	NA	1.20	1.45
6.0	NA	1.19	1.43
6.2	NA	1.18	1.42
6.4	NA	1.17	1.41
6.6	NA	1.16	1.39
6.8	NA	1.15	1.38
7.0	NA	1.14	1.37
7.2	NA	1.13	1.36
7.4	NA	1.12	1.34

Initial Pressure (psi)	5 psi Final Press. Dil. Factor	10 psi Final Press. Dil. Factor	15 psi Final Press. Dil. Factor
7.6	NA	1.11	1.33
7.8	NA	1.10	1.32
8.0	NA	1.09	1.31
8.2	NA	1.08	1.30
8.4	NA	1.07	1.29
8.6	NA	1.06	1.27
8.8	NA	1.05	1.26
9.0	NA	1.04	1.25
9.2	NA	1.03	1.24
9.4	NA	1.02	1.23
9.6	NA	1.02	1.22
9.8	NA	1.01	1.21
10.0	NA	1.00	1.20
10.2	NA	NA	1.19
10.4	NA	NA	1.18
10.6	NA	NA	1.17
10.8	NA	NA	1.16
11.0	NA	NA	1.16
11.2	NA	NA	1.15
11.4	NA	NA	1.14
11.6	NA	NA	1.13
11.8	NA	NA	1.12
12.0	NA	NA	1.11
12.2	NA	NA	1.10
12.4	NA	NA	1.10
12.6	NA	NA	1.09
12.8	NA	NA	1.08
13.0	NA	NA	1.07
13.2	NA	NA	1.06
13.4	NA	NA	1.06
13.6	NA	NA	1.05
13.8	NA	NA	1.04
14.0	NA	NA	1.03
14.2	NA	NA	1.03
14.4	NA	NA	1.02
14.6	NA	NA	1.01
14.8	NA	NA	1.01

Compound Listing

Modified TO-15 Hi/Lo (Sh)/SpRL-SHA (IBM Fishkill)-Carbon Tet, TCE & VC @

CAS Number	Compound	Detection Limit	Type
		ppbv	
75-01-4	Vinyl Chloride	0.010	
71-55-6	1,1,1-Trichloroethane	0.10	
56-23-5	Carbon Tetrachloride	0.020	
79-01-6	Trichloroethene	0.020	
127-18-4	Tetrachloroethene	0.10	
75-71-8	Freon 12	0.10	
75-69-4	Freon 11	0.10	
76-13-1	Freon 113	0.10	
75-35-4	1,1-Dichloroethene	0.10	
67-64-1	Acetone	0.50	
75-09-2	Methylene Chloride	0.20	
156-59-2	cis-1,2-Dichloroethene	0.10	
71-43-2	Benzene	0.10	
108-88-3	Toluene	0.10	
108-90-7	Chlorobenzene	0.10	
100-41-4	Ethyl Benzene	0.10	
108-38-3	m,p-Xylene	0.10	
95-47-6	o-Xylene	0.10	
541-73-1	1,3-Dichlorobenzene	0.10	
106-46-7	1,4-Dichlorobenzene	0.10	
95-50-1	1,2-Dichlorobenzene	0.10	
120-82-1	1,2,4-Trichlorobenzene	0.50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		



Air Toxics

Media Certification Report

Canister Number: 6L# 0446

Can#: 104451-0446

Date : 11/13/15 22:47

Data File: o111318.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.100	ND	ppbv
1,1-Dichloroethene	75-35-4	0.100	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.500	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.100	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.100	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.100	ND	ppbv
Acetone	67-64-1	0.500	ND	ppbv
Benzene	71-43-2	0.100	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chlorobenzene	108-90-7	0.100	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.100	ND	ppbv
Ethyl Benzene	100-41-4	0.100	ND	ppbv
Freon 11	75-69-4	0.100	ND	ppbv
Freon 113	76-13-1	0.100	ND	ppbv
Freon 12	75-71-8	0.100	ND	ppbv
m,p-Xylene	108-38-3	0.100	ND	ppbv
Methylene Chloride	75-09-2	0.200	ND	ppbv
o-Xylene	95-47-6	0.100	ND	ppbv
Tetrachloroethene	127-18-4	0.100	ND	ppbv
Toluene	108-88-3	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
4-Bromofluorobenzene	460-00-4		106.00	% Recovery



Air Toxics

Media Certification Report

Canister Number: 6L# 6L1299

Can#: 104451-6L1299

Date : 11/16/15 20:57

Data File: d111616.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.100	ND	ppbv
1,1-Dichloroethene	75-35-4	0.100	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.500	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.100	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.100	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.100	ND	ppbv
Acetone	67-64-1	0.500	ND	ppbv
Benzene	71-43-2	0.100	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chlorobenzene	108-90-7	0.100	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.100	ND	ppbv
Ethyl Benzene	100-41-4	0.100	ND	ppbv
Freon 11	75-69-4	0.100	ND	ppbv
Freon 113	76-13-1	0.100	ND	ppbv
Freon 12	75-71-8	0.100	ND	ppbv
m,p-Xylene	108-38-3	0.100	ND	ppbv
Methylene Chloride	75-09-2	0.200	ND	ppbv
o-Xylene	95-47-6	0.100	ND	ppbv
Tetrachloroethene	127-18-4	0.100	ND	ppbv
Toluene	108-88-3	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
4-Bromofluorobenzene	460-00-4		99.00	% Recovery



Air Toxics

Media Certification Report

Canister Number: 6L# 32127 W/CHAIN 3

Can#: 104451-32127

Date : 11/16/15 19:06

Data File: d111613.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.100	ND	ppbv
1,1-Dichloroethene	75-35-4	0.100	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.500	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.100	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.100	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.100	ND	ppbv
Acetone	67-64-1	0.500	ND	ppbv
Benzene	71-43-2	0.100	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chlorobenzene	108-90-7	0.100	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.100	ND	ppbv
Ethyl Benzene	100-41-4	0.100	ND	ppbv
Freon 11	75-69-4	0.100	ND	ppbv
Freon 113	76-13-1	0.100	ND	ppbv
Freon 12	75-71-8	0.100	ND	ppbv
m,p-Xylene	108-38-3	0.100	ND	ppbv
Methylene Chloride	75-09-2	0.200	ND	ppbv
o-Xylene	95-47-6	0.100	ND	ppbv
Tetrachloroethene	127-18-4	0.100	ND	ppbv
Toluene	108-88-3	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
4-Bromofluorobenzene	460-00-4		100.00	% Recovery

Media Certification Report

Canister Number: 6L# 25314W/CHAIN 2

Can#: 104451-25314

Date : 11/16/15 18:30

Data File: d111612.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.100	ND	ppbv
1,1-Dichloroethene	75-35-4	0.100	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.500	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.100	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.100	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.100	ND	ppbv
Acetone	67-64-1	0.500	ND	ppbv
Benzene	71-43-2	0.100	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chlorobenzene	108-90-7	0.100	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.100	ND	ppbv
Ethyl Benzene	100-41-4	0.100	ND	ppbv
Freon 11	75-69-4	0.100	ND	ppbv
Freon 113	76-13-1	0.100	ND	ppbv
Freon 12	75-71-8	0.100	ND	ppbv
m,p-Xylene	108-38-3	0.100	ND	ppbv
Methylene Chloride	75-09-2	0.200	ND	ppbv
o-Xylene	95-47-6	0.100	ND	ppbv
Tetrachloroethene	127-18-4	0.100	ND	ppbv
Toluene	108-88-3	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
4-Bromofluorobenzene	460-00-4		99.00	% Recovery

Eurofins Air Toxics, Inc.		Data Review Checklist		Release Date: 11/11/15
Workorder # 1511305	Form F1.27	Revision #12	Revision Date: 11/11/15	Page 1 of 2

S	S	S	S	D	Section 1 - Spec Out
1	2	3	4		Initials/Instrument/Date
					S1: <i>MSB 11/25/15</i> S2: S3: S4:
☒					Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria
☒					Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder
☒					Manual Integrations included and approved
☒					Chain of Custody verified for special comments (add comments below)
☒					Non-standard Target sublimit verified (MDL, LOD, RL, control limits, etc.)

Profile, analyses, reporting, special notes and unusual circumstances:

1 OUT IN COX. 12 HOUR CLOCK

A	A	A	A	D	Section 2 - Sample Analysis
1	2	3	4		Initials/Date
					A1: <i>MSB 11/25/15</i> A2: A3: A4:
☒					IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified
☒					a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument
☒					Manual Integrations/Bag or Can Dilution Forms/Re-pressurization Forms/Bag-Can Transfer Forms present (circle all that apply)
☒					12/24 Hr clock time & Hold Time met for all samples
☒					Re-analysis of sample(s) has been evaluated for comparability and/or sample(s) has/have been checked for trends
☒					Inf/Eff field dups/trip blanks.
☒					All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)

Analytical and special notes:

DIAB - COC = Full range. DIAB, BAB - Field Dups.

D	D	D	D	T	3	Section 3 - Target	Technical Review Needed?	T:
1	2	3	4			Data Reduction	Circle one: Yes/No	
						Initials/Instrument/Date	D1: D2: D3: D4:	
☒						CAR # <i>MSB 11/25/15</i> (if applicable)		
☒						Spectra Verified (documentation of spectral defense included if applicable)		
☒						TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)		
☒						Lab Narrative is correct		
☒						TPH/NMOC calculations complete and included in folder		

Special notes:

A	3	T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
			Initials/Date: <i>MSB 12/8/15</i> 3 rd Tier: (needed only for DOD or per client request)		
☒			Sample Discrepancy Report (SDR) complete and approved (if applicable)		
☒			Manually entered results are checked		
☒			At least one result per sample is verified against Target quant sheets		
☒			Appropriate data qualifier flags are applied		
☒			Final Invoice is correct/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Single report delivery

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply
 Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Eurofins Air Toxics, Inc. Reissued	Data Review Checklist			Release Date: 11/11/15
	Form F1.27	Revision #12	Revision Date: 11/11/15	Page 2 of 2

Workorder # :					Reason for Reissue:					
15113652					Client ID change per revised COC					
W	T	3T	Q							
✓				Reissue Request form Present						
✓				Client or QA or Lab contact present with reason for reissue						
✓				Review all affected data						
✓				Report header has correct R1, R2 etc						
✓				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)						
✓				Date for Reissue in Report Header matches date in Lab Narrative						
✓				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)						
NA				Corrective Action issued - #						
NA				The reissued workorder has been approved by QA Manager or a Technical Director						
Additional Comments:										
Write Up (Initials/Date)			Tech Review (Initials/Date)			*3 rd Tier Review * 3 rd Tier Report Review is for DoD & Client Specific projects only (Initials/Date)			QA Review (Initials/Date)	
ATL 12/14/15										

Workorder # :					Reason for Reissue:					
W	T	3T	Q							
				Reissue Request form Present						
				Client or QA or Lab contact present with reason for reissue						
				Review all affected data						
				Report header has correct R1, R2 etc						
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)						
				Date for Reissue in Report Header matches date in Lab Narrative						
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)						
				Corrective Action issued - #						
				The reissued workorder has been approved by QA Manager or a Technical Director						
Additional Comments:										
Write Up (Initials/Date)			Tech Review (Initials/Date)			*3 rd Tier Review * 3 rd Tier Report Review is for DoD & Client Specific projects only (Initials/Date)			QA Review (Initials/Date)	

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Not Applicable

APPENDIX D

DATA VALIDATION REPORT



Data Usability Review Method TO-15 Hi/Lo Analysis

Client: Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)

Site: IBM East Fishkills Facility, Hopewell Junction, New York
Linkway between Buildings 308 and 310

Laboratory: Eurofins Air Toxics, Inc. (EATL), Folsom, California

SDG / Work Order: 1511365R1

Date(s) of Collection: November 20, 2015

**Number and type
Samples & analyses:** 3 Indoor Air and 1 Ambient Air samples for twenty-two project-specific VOCs
by Method TO-15 Hi/Lo

Senior Data Reviewers: Dr. Nancy C. Rothman, New Environmental Horizons, Inc.
Susan D. Chapnick, New Environmental Horizons, Inc.

Date Completed: December 31, 2015

This Data Usability Report was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this In-Depth data usability review are listed in Table 1. Any deviations noted for sample collection and receipt (e.g., temperature or preservation issues) are included in Section III, below.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA 2033	1511365R1-01	11/20/15	Indoor Air	VOCs	Field Sample
IA 2037	1511365R1-02	11/20/15	Indoor Air	VOCs	Field Sample
IA 2037 Dup	1511365R1-03	11/20/15	Indoor Air	VOCs	Field Duplicate of IA 2037
Ambient Air	1511365R1-04	11/20/15	Ambient Air	VOCs	Field Sample

Analytical method reference:

VOC: TO-15 Hi/Lo – Method TO-15 with simultaneous Full Scan and Selected Ion Monitoring (SIM) analysis for twenty-two project-specific VOCs

II. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Problems

The following QC elements, as applicable to the analytical methods, were reviewed during this validation:

- Data package completeness and reporting protocols
- Sample receipt, holding times, and canister condition
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method and field blank results
- Laboratory Control Sample (LCS) recoveries
- Internal Standard (IS) Recoveries
- Sample/Laboratory Duplicate (LD) or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs several results were estimated (J or UJ) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated validated data spreadsheets based on the electronic project database files received from SHA for this Work Order. All results were

considered acceptable compared to QAPP and method criteria and usable for project decisions with the understanding of the potential uncertainty (bias) in the qualified results.

The laboratory reported results for 22 project-specific VOCs from a single analysis with two mass spectrometer (MS) detectors, each operated in a different detection mode: one operated in the full scan electron impact mode and the other operated in the Selected Ion Monitoring (SIM) mode. This analysis, called TO-15 Hi/Lo by ATL, allowed the sensitivity requirements of the project, unless otherwise discussed in this report, to be met for all of the compounds. The Data Review Checklist (page 4) indicates the compounds reported from each of the two modes of MS operation. The full scan analysis was reported with an “A” suffix and the SIM analysis with a “B” suffix appended to the laboratory sample ID.

There were several issues with sample receiving and Chain-of-Custody (COC) documentation as follows:

- The sample tag on the canister associated with sample IA 2033 did not list the sample ID on the tag (COC was used to match client ID to canister number).
- The sample tag on the canister and the COC information for IA 2037 DUP did not match; however, the COC ID was used for reporting of results.
- The sample listed on the original COC as IA 2003 was changed after sample receipt to IA 2033. A revised COC with this change was sent from SHA to ATL on 12/14/15, which necessitated the lab reissuing the data as Work Order #1511365R1.
- The COCs (original and revised from 12/14/15) did not contain the Initial and Final field vacuums. On 12/23/15, SHA provided NEH with a revised COC that included these vacuums based on information documented on the field forms.

Accuracy was compromised for the analysis of target compound 1,2,4-trichlorobenzene since the initial and continuing calibrations did not meet method acceptance criteria. All results for this compound were estimated (UJ) with indeterminate bias due to calibration issues, as shown in Table 2.

Two results were reported at levels below the reporting limit and flagged “J” by the laboratory. These data were accepted as estimated results (J) with indeterminate bias due to uncertainty in quantitation below the instrument calibration range, as shown in Table 2.

There were no Field Blanks associated with the samples in this Work Order.

Precision was acceptable for all VOCs in the Field Duplicate pair IA 2037 and IA 2037 Dup. These results are an indication of acceptable precision and representativeness of the samples for this site location for the project-specific VOCs.

All reporting limits were at a level below the Project required RL (as shown in Table B.1 of the QAPP) except for Freon 12, which had RLs exceeding the expected RL due to an instrument calibration issue. The data users will need to evaluate the non-detects for Freon 12 at the elevated levels (~5 times higher than expected) for project use.

All other quality control information associated with accuracy, precision, and sensitivity for the VOCs reported met method criteria for the samples in this Work Order with the exceptions included in Table 2.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
All 4 samples	1,2,4-Trichlorobenzene	UJ	I	Initial Calibration outside criteria + Low Calibration verification
IA 2037 IA 2037 Dup	Benzene	J	I	Result < RL

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

*Abbreviations used in Table 2:
RL = Reporting Limit*

The attached Data Review Checklist documents the method and matrix-specific QC reviewed and the issues that required action (as listed in Table 2) or affected the data certainty in terms of data quality objectives (DQO) of accuracy, precision, and sensitivity.

Date Sampled: 11/20/15

No. Samples

2 IA + 1 FD + AA

Method of Analysis: TO-15 Hi/Lo

Data Element Acceptable	Canister Receipt	HT	GC/MS Tunes + Calibrations	Internal Stds + Surrogates	LCS	Lab Dup (LCS and LD)	Field Duplicates	RL & Quant.
Yes	✓	✓		✓	✓	✓	✓	
No			Estimate (UJ) 4 results					Accept 2 "J" values

Other Issues : _____

A combined Full Scan and SIM Analysis was performed for each sample for 22 Project-specific VOCs listed in Table B.1 of the Work Plan, as shown on page 4 of this checklist. The full scan analysis was reported with an "A" suffix and the SIM analysis with a "B" suffix appended to the laboratory sample ID.

The samples were received intact and in good condition on 11/23/15. The sample tag on the canister did not identify sample IA 2033 (COC was used to match client ID to canister number) and the COC information for IA 2037 DUP didn't match the sample tag information for this sample - the COC ID was used. One sample ID was changed after sample receipt from IA 2003 to IA 2033 - a revised COC with this change was sent from SHA to ATL on 12/14/15, which necessitated the lab reissuing the data as W.O. #1511365R1.

Canisters were Certified pre-cleaned - certificates of analysis were reported and indicate that all Target compounds were non-detect in the canisters prior to being sent to the field.

The COC in the data package did not contain the Initial and Final field vacuums. On 12/23/15, SHA provided NEH with a revised COC which contained these vacuums based on the information which was documented on the field forms. The canister vacuums (field initial, field final and lab receipt) were all acceptable; therefore, no action required.

Samples were analyzed on 11/25/15; therefore HT was met. No Action required.

Associated Blanks: Method Blank: v112506 & v112506sim
Field Blanks: none

Blank ID	Contaminant / Level ($\mu\text{g}/\text{m}^3$)	Action Level DF=	Sample and reported result ($\mu\text{g}/\text{m}^3$)	Corrected Database Result
v112506	None		No Blank Action Required	
v112506sim	None		No Blank Action Required	

Additional Notes:

ICALs: Instrument V Full Scan and SIM performed on 10/8/15. Full Scan = 6- to 9-level calibration from 0.05, 0.1, 0.2, or 0.5 to 40 ppbV for all 22 Target compounds plus several non-target compounds. SIM = 9- to 11-level calibration from 0.003, 0.005, or 0.01 to 20 ppbV for 3 Target plus several other non-target compounds. %RSD $\leq$ 30% for all 22 Target Compounds except 1,2,4-Trichlorobenzene by Full Scan had %RSD = 30.019%. RLs reported (as indicated in the table on page 4 of this checklist for DF=2 analysis) were supported by the ICALs.

***ACTION: 1,2,4-Trichlorobenzene results estimated (UJ) with indeterminate bias in all samples due to the Initial Calibration being outside criteria for this compound.**

CCALs: v112502 / v112502sim - % Recovery 70-130% for all 22 Target compounds except 1,2,4-Trichlorobenzene %Rec low (66%)

***ACTION: 1,2,4-Trichlorobenzene estimated (UJ) in all samples due to low Calibration verification. Overall bias is indeterminate due to ICAL exceedance.**

FBF Tunes: Instrument V 3 Tunes (2 for ICAL + 1 for CCAL) - all criteria in all tunes were met and all samples were analyzed within 12 hours of tune; therefore, No Action Required.

Surrogates & Internal Standards: All 3 Surrogates had %Recovery within criteria and all IS' had areas and RTs within criteria in all analyses; therefore, No Action Required.

LCS/LCSD: v112503/v112504 & v112503sim/v112504sim - %Recovery acceptable for all 22 Targets in LCS and LCSD and LCS/LCSD RPDs all OK; therefore, acceptable accuracy and precision demonstrated for analysis of the 22 VOCs by Full Scan + SIM analysis.

LD analysis not performed for the samples in this Work Order. LCS/LCSD reported instead, which reported acceptable precision except as listed above.

There were 2 "J" results reported. These "J" data were accepted with indeterminate bias due to uncertainty in quantitation at a level below the Reporting limit (Result < RL). There were no other qualifiers (except "U") reported on the data.

All reporting limits were at a level below the Project required RL (as shown in Table B.1, which is reproduced on page 4 of this Checklist) except for Freon 12, which had RLs exceeding the expected RL since the lowest calibration standard was 0.5 ppbV rather than 0.1 ppbV (0.1 ppbV standard was not reported in the data and narrative indicated there was a calibration linearity problem). The data users will need to evaluate the non-detects for Freon 12 at the elevated level (~5 times higher than expected) for project use.

The narrative did not raise any additional issues that would affect data quality.

Date: 12/23/15

Data Reviewer: Nancy C. Rothman, Ph.D.

Additional Notes:

Field Duplicate Evaluation_ Sample IDs:

Sample = IA 2037

FD = IA 2037 Dup

Analyte Name	CAS No.	DF = 1.63* RL (µg/m ³)	Sample Result µg/m ³	Q	FD Level	FD Result µg/m ³	Q	Level	RPD	Action
Freon 12	75-71-8	4	4	U	RL	4.1	U	RL	NA	None
Freon 11	75-69-4	0.92	1.7		< 5xRL	1.7		< 5xRL	0.0	None
Freon 113	76-13-1	1.2	1.2	U	RL	1.3	U	RL	NA	None
1,1-Dichloroethene	75-35-4	0.65	0.65	U	RL	0.66	U	RL	NA	None
Acetone	67-64-1	1.9	10		> 5xRL	8.3		> 5xRL	18.6	None
Methylene Chloride	75-09-2	1.1	1.1	U	RL	1.2	U	RL	NA	None
cis-1,2-Dichloroethene	156-59-2	0.65	0.65	U	RL	0.66	U	RL	NA	None
1,1,1-Trichloroethane	71-55-6	0.89	0.89	U	RL	0.9	U	RL	NA	None
Benzene	71-43-2	0.52	0.5	J	< 5xRL	0.52	J	< 5xRL	3.9	None
Toluene	108-88-3	0.61	1.1		< 5xRL	1.4		< 5xRL	24.0	None **
Tetrachloroethene	127-18-4	1.1	1.1	U	RL	1.1	U	RL	NA	None
Chlorobenzene	108-90-7	0.75	0.75	U	RL	0.76	U	RL	NA	None
Ethyl Benzene	100-41-4	0.71	0.71	U	RL	0.72	U	RL	NA	None
m,p-Xylene	108-38-3/ 106-42-3	0.71	0.71	U	RL	0.86		< 5xRL	NA	None
o-Xylene	95-47-6	0.71	0.71	U	RL	0.72	U	RL	NA	None
1,3-Dichlorobenzene	541-73-1	0.98	0.98	U	RL	1	U	RL	NA	None
1,4-Dichlorobenzene	106-46-7	0.98	0.98	U	RL	1	U	RL	NA	None
1,2-Dichlorobenzene	95-50-1	0.98	0.98	U	RL	1	U	RL	NA	None
1,2,4-Trichlorobenzene	120-82-1	6	6	UJ	RL	6.2	UJ	RL	NA	None
Vinyl Chloride	75-01-4	0.042	0.042	U	RL	0.042	U	RL	NA	None
Carbon Tetrachloride	56-23-5	0.2	0.38		< 5xRL	0.38		< 5xRL	0.0	None
Trichloroethene	79-01-6	0.18	0.18	U	RL	0.26		< 5xRL	NA	None

*The FD DF was 1.66

** Action only taken for RPD > 20% if one or both results are > 5 x RL

Q = Data Qualifier as reported by EATL and/or NEH; U = non-detect, J = estimated result; UJ = non-detect is estimated

NA = Not Applicable. RPD not calculated since one or both results were non-detect.

FD precision was acceptable for all 22 Target VOCs in the FD pair of IA 2037 and IA 2037 Dup- No Action required.

Date: 12/23/15Data Reviewer: Nancy C. Rothman, Ph.D.

Method of Analysis: TO-15 Hi/Lo

Compound List and Project-required Reporting Limits (RL)

Target Analyte Name		Full Scan (Full) or SIM		RL ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene (PCE)		Full		1.4
Trichloroethene (TCE)		SIM		0.22
cis-1,2-Dichloroethene (cDCE)		Full		0.8
1,1-Dichloroethene (DCE)		Full		0.8
Vinyl chloride (VC)		SIM		0.06
1,1,1-Trichloroethane (TCA)		Full		1.1
Carbon Tetrachloride		SIM		0.2
Methylene chloride (MeCL)		Full		1.4
Chlorobenzene		Full		0.92
1,2,4-Trichlorobenzene		Full		7.4
1,2-Dichlorobenzene		Full		1.2
1,3-Dichlorobenzene		Full		1.2
1,4-Dichlorobenzene		Full		1.2
Acetone		Full		2.4
Benzene		Full		0.64
Ethylbenzene		Full		0.86
m-Xylene		Full		0.86
p-Xylene				
o-Xylene		Full		0.86
Toluene		Full		0.77
Trichlorofluoromethane (Freon 11)		Full		1.1
Dichlorodifluoromethane (Freon 12)		Full		1
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		Full		1.5

Date: 12/23/15Data Reviewer: Nancy C. Rothman, Ph.D.

Actions (see References below):

Canister Integrity: If certification forms indicate issues, J/U or UJ results in samples

Canister Vacuum (Vac): Initial Field Vac < 25" Hg, J/UJ all results; Lab Receipt Vac > 15" Hg, J/UJ results; Lab Receipt Vac > ± 5" Hg of Final Field Vac, J/UJ results

Hold Time (HT): HT > 30 days, J detects/ UJ non-detects

Blank Actions: Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)

Method Blank (MB): Result < RL, U result at RL; RL < Result < Blank Action, U result at level reported

Equipment Blank (EB): Result < Blank Action, EB result at level reported

BFB Tune: SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 12-hours after tune; professional judgment on J/UJ or R of results

LCS and CCV: Percent Recovery (%Rec) < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Initial Calibration (ICAL): %RSD > 30%, J/UJ associated results

Internal Standard (IS): RT > ± 0.33 min of IS RT in daily CCV, J/UJ associated results;

Area < 25% Area in CCV, J detects, R non-detects (or professional judgment); 25% < Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

Surrogates: %Rec < 10%, J detects, R non-detects; 10% < %Rec < 70%; J/UJ all associated data; %Rec > 130%, J detects - no action for non-detects

Laboratory Duplicates: LCS/LCSD RPD or Sample/LD RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

Field Duplicates: RPD > 20% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

RLs + Quant: Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data. Note if RL > expected RL from Table B.1 of Work Plan (see above)

References: *Work Plan, RCRA Facility Investigation (RFI), VOC Source Assessment IBM East Fishkill Facility, Hopewell Junction, New York*, prepared by Sanborn, Head & Associates, June 2009; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region II SOP HW-31, Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15, Rev. 4, October 2006; and Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), Publication EPA/625/R-96/010b, January 1999