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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15 (5&20 ppbv)

INVENTORY SHEET

Work Order #: 1701428C

	Page Nos. From	Page Nos. To
1. Work Order Cover Page & Laboratory Narrative	1	4
a. Lumen Validation Report	--	--
2. Sample Results and Raw Data (Organized by Sample)	5	140
a. ATL Sample Results Form		
b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results+ Raw Data)	141	147
b. Surrogate Recover Summary Form (If Applicable)	148	148
c. Internal Standard Summary Form (If Applicable)	149	149
d. Duplicate Results Summary Sheet	--	--
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data	--	--
f. Initial Calibration Data (Summary Sheet + Raw Data)	150	157
g. MDL Study (If Applicable)	--	--
h. Continuing Calibration Verification Data (Summary Sheet	158	163
i. Second Source LCS(Summary + Raw Data)	--	--
j. Extraction Logs	--	--
k. Instrument Run Logs/Software Verification	164	164
l. GC/MS Tune (Results + Raw Data)	165	168
4. Shipping/Receiving Documents		
a. Login Receipt Summary Sheet	169	170
b. Chain-of-Custody Records	171	172
c. Sample Log-In Sheet	173	174
d. Misc Shipping/Receiving Records (list of individual records)		
Sample Receipt Discrepancy Report	--	--
5. Other Records (describe or list)		
a. Manual Spectral Defense	--	--
b. Manual Integrations	--	--
c. Manual Calculations	--	--
d. Canister Dilution Factors	175	177
e. Laboratory Corrective Action Request	--	--
f. CAS Number Reference	178	178
g. Variance Table	--	--
h. Canister Certification	--	--
i. Data Review Check Sheet	179	180

Comments:

Completed by:

Vera Belitsky	Vera Belitsky / Document Control	2/20/17
(Signature)	(Print Name & Title)	(Date)

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WORK ORDER #: 1701428C

Work Order Summary

CLIENT:	Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577	**BILL TO:**	Accounts Payable Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase, NY 10577
PHONE:	(914) 251-0400	**P.O. #**	
FAX:		**PROJECT #**	BMS VI
DATE RECEIVED:	01/30/2017	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	02/09/2017		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B30IA-1-012117	Modified TO-15 (5&20 ppbv	5.0 "Hg	5 psi
02A	B30IA-2-012117	Modified TO-15 (5&20 ppbv	5.5 "Hg	5 psi
03A	B30IA-3-012117	Modified TO-15 (5&20 ppbv	9.0 "Hg	5 psi
04A	B30IA-4-012117	Modified TO-15 (5&20 ppbv	5.0 "Hg	5 psi
05A	B30IA-4D-012117	Modified TO-15 (5&20 ppbv	6.0 "Hg	5 psi
06A	B30IA-5-012117	Modified TO-15 (5&20 ppbv	5.5 "Hg	5 psi
07A	B1830AA-012117	Modified TO-15 (5&20 ppbv	5.5 "Hg	5 psi
08A	B18IA-1-012117	Modified TO-15 (5&20 ppbv	7.5 "Hg	5 psi
09A	B18IA-1D-012117	Modified TO-15 (5&20 ppbv	6.0 "Hg	5 psi
10A	B18IA-2-012117	Modified TO-15 (5&20 ppbv	7.0 "Hg	5 psi
11A	B18IA-3-012117	Modified TO-15 (5&20 ppbv	4.5 "Hg	5 psi
12A	B18IA-4-012117	Modified TO-15 (5&20 ppbv	1.5 "Hg	5 psi
13A	B8IA-2-012317	Modified TO-15 (5&20 ppbv	7.0 "Hg	5 psi
14A	B8IA-2D-012317	Modified TO-15 (5&20 ppbv	8.5 "Hg	5 psi
15A	B8AA-012317	Modified TO-15 (5&20 ppbv	2.5 "Hg	5 psi
16A	B8SS-2-012417	Modified TO-15 (5&20 ppbv	5.7 "Hg	14.9 psi
17A	B8SS-2D-012417	Modified TO-15 (5&20 ppbv	4.9 "Hg	15.1 psi
18A	B18SS-1-012617	Modified TO-15 (5&20 ppbv	5.5 "Hg	15.3 psi
19A	B18SS-1Dup-012617	Modified TO-15 (5&20 ppbv	5.5 "Hg	14.8 psi
20A	Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
21A	CCV	Modified TO-15 (5&20 ppbv	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 02/09/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15 Soil Gas
Anderson Mulholland & Associates, Inc.
Workorder# 1701428C

Fifteen 6 Liter Summa Canister (100% Certified) and four 1 Liter Summa Canister (100% Certified) samples were received on January 30, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs 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.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for Methanol was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The recovery of surrogate Toluene-d8 in samples B8SS-2-012417 and B8SS-2D-012417 was outside laboratory control limits due to matrix interference. The surrogate recovery is flagged.

Definition of Data Qualifying Flags

Eight 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, LOD, or MDL value. See data page for project specific U-flag definition.

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

N - The identification is based on presumptive evidence.

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 Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B30IA-1-012117	1701428C-01A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B30IA-2-012117	1701428C-02A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B30IA-3-012117	1701428C-03A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B30IA-4-012117	1701428C-04A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B30IA-4D-012117	1701428C-05A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B30IA-5-012117	1701428C-06A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B1830AA-012117	1701428C-07A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B18IA-1-012117	1701428C-08A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B18IA-1D-012117	1701428C-09A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B18IA-2-012117	1701428C-10A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B18IA-3-012117	1701428C-11A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B18IA-4-012117	1701428C-12A	1/21/2017	1/30/2017	NA	17	2/ 7/2017	NA	Good
B8IA-2-012317	1701428C-13A	1/23/2017	1/30/2017	NA	15	2/ 7/2017	NA	Good
B8IA-2D-012317	1701428C-14A	1/23/2017	1/30/2017	NA	15	2/ 7/2017	NA	Good
B8AA-012317	1701428C-15A	1/23/2017	1/30/2017	NA	15	2/ 7/2017	NA	Good
B8SS-2-012417	1701428C-16A	1/24/2017	1/30/2017	NA	14	2/ 7/2017	NA	Good
B8SS-2D-012417	1701428C-17A	1/24/2017	1/30/2017	NA	14	2/ 7/2017	NA	Good
B18SS-1-012617	1701428C-18A	1/26/2017	1/30/2017	NA	12	2/ 7/2017	NA	Good
B18SS-1Dup-012617	1701428C-19A	1/26/2017	1/30/2017	NA	12	2/ 7/2017	NA	Good
Lab Blank	1701428C-20A	NA	NA	NA	NA	2/ 7/2017	NA	Good
CCV	1701428C-21A	NA	NA	NA	NA	2/ 7/2017	NA	Good

Sample Results and Raw Data

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-1-012117

Lab ID#: 1701428C-01A

No Detections Were Found.

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Client Sample ID: B30IA-1-012117

Lab ID#: 1701428C-01A

EPA METHOD TO-15 GC/MS

File Name:	**j020705**	**Date of Collection:**	**1/21/17 6:17:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**2/7/17 01:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	80	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

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AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020705.d
Lab Smp Id: 1701428C-01A
Inj Date : 07-FEB-2017 13:16
Operator : gd Inst ID: msdj.i
Smp Info : 50ml 25236
Misc Info : 5.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.365	5.366 (1.000)	130	138939	400.000		80.00- 120.00	100.00
5.365	5.366 (1.000)	128	107366			50.69- 110.69	77.28
5.365	5.366 (1.000)	49	220240			130.24- 190.24	158.52
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	603292	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	87803			0.00- 44.76	14.55
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	533526	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	277843			22.90- 82.90	52.08
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.102)	65	194353	400.575	400.57	80.00- 120.00	100.00
5.911	5.911 (1.102)	67	98501			23.00- 83.00	50.68
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	595625	388.724	388.72	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	63307			0.00- 40.53	10.63

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	385656			35.34- 95.34	64.75
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	314010	402.357	402.36	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	411784			101.45- 161.45	131.14
9.731	9.745	(1.112)	176	302235			68.09- 128.09	96.25

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020705.d
Lab Smp Id: 1701428C-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	138939	15.28
92 1,4-Difluorobenze	540965	324579	757351	603292	11.52
125 Chlorobenzene-d5	495704	297422	693986	533526	7.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.37	0.00
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 15:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-01A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	400.57	100.14	70-130
$ 107 Toluene-d8	400.00	388.72	97.18	70-130
$ 138 Bromofluorobenzene	400.00	402.36	100.59	70-130

Data File: /chem/msdj.i/07feb17.b/j020705.d

Date : 07-FEB-2017 13:16

Client ID:

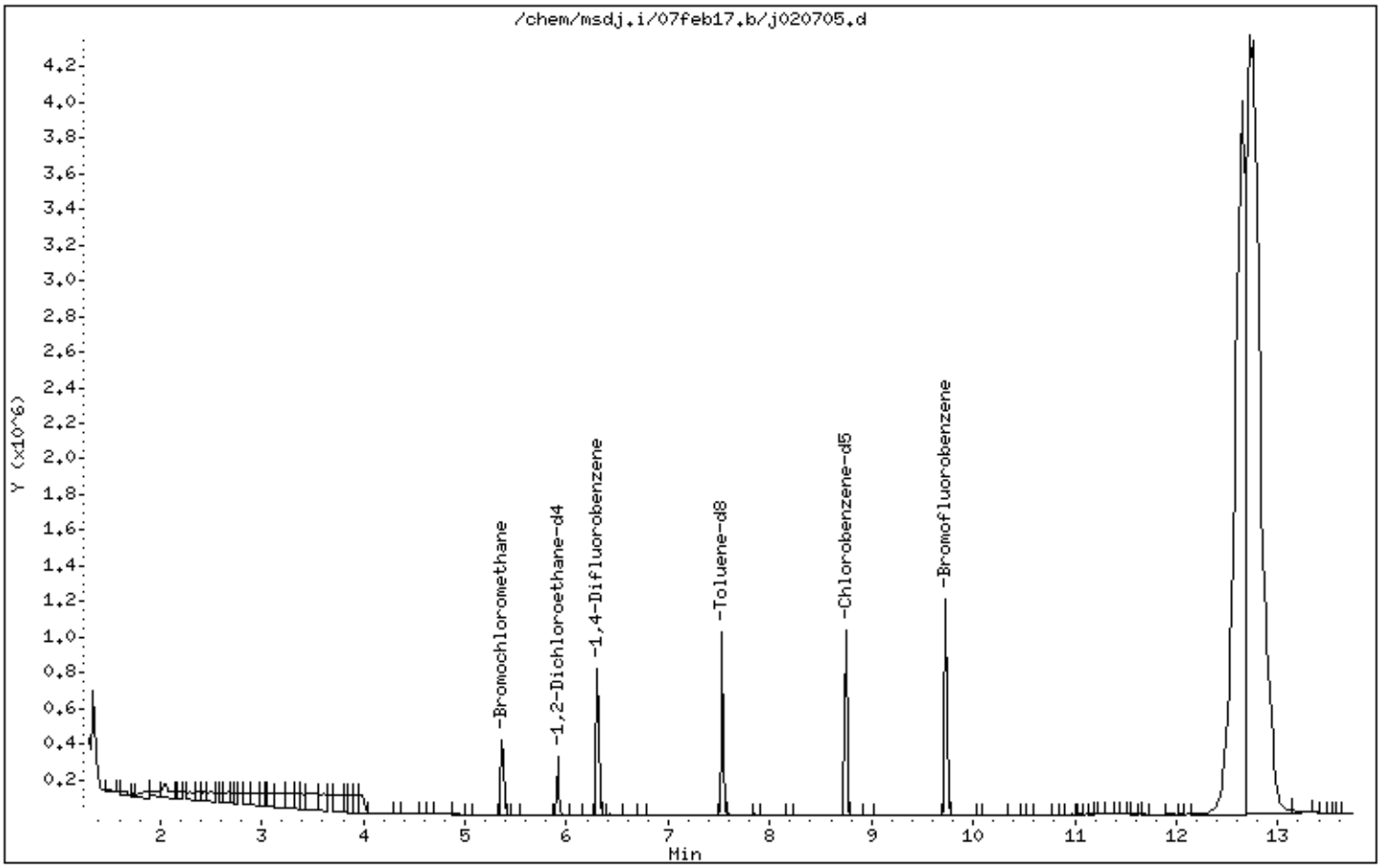
Instrument: msdj.i

Sample Info: 50ml 25236

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-2-012117

Lab ID#: 1701428C-02A

No Detections Were Found.

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Client Sample ID: B30IA-2-012117

Lab ID#: 1701428C-02A

EPA METHOD TO-15 GC/MS

File Name:	**j020706**	**Date of Collection:**	**1/21/17 6:20:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**2/7/17 01:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	82	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

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

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020706.d
Lab Smp Id: 1701428C-02A
Inj Date : 07-FEB-2017 13:39
Operator : gd Inst ID: msdj.i
Smp Info : 50ml N1755
Misc Info : 5.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 3
Dil Factor: 1.64000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.379	5.366 (1.000)	130	131446	400.000		80.00- 120.00	100.00
5.379	5.366 (1.000)	128	104369			50.69- 110.69	79.40
5.365	5.366 (1.000)	49	208018			130.24- 190.24	158.25
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	576534	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	86822			0.00- 44.76	15.06
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.751	8.752 (1.000)	117	523574	400.000		80.00- 120.00	100.00
8.751	8.752 (1.000)	82	275710			22.90- 82.90	52.66
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	186029	405.275	405.28	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	97198			23.00- 83.00	52.25
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	590383	403.185	403.18	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	63176			0.00- 40.53	10.70

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	377902			35.34- 95.34	64.01
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	310418	405.314	405.31	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	402508			101.45- 161.45	129.67
9.731	9.745	(1.112)	176	299448			68.09- 128.09	96.47

Report Date: 07-Feb-2017 15:14

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020706.d
Lab Smp Id: 1701428C-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	131446	9.06
92 1,4-Difluorobenze	540965	324579	757351	576534	6.58
125 Chlorobenzene-d5	495704	297422	693986	523574	5.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 15:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-02A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	405.28	101.32	70-130
$ 107 Toluene-d8	400.00	403.18	100.80	70-130
$ 138 Bromofluorobenzene	400.00	405.31	101.33	70-130

Data File: /chem/msdj.i/07feb17.b/j020706.d

Date : 07-FEB-2017 13:39

Client ID:

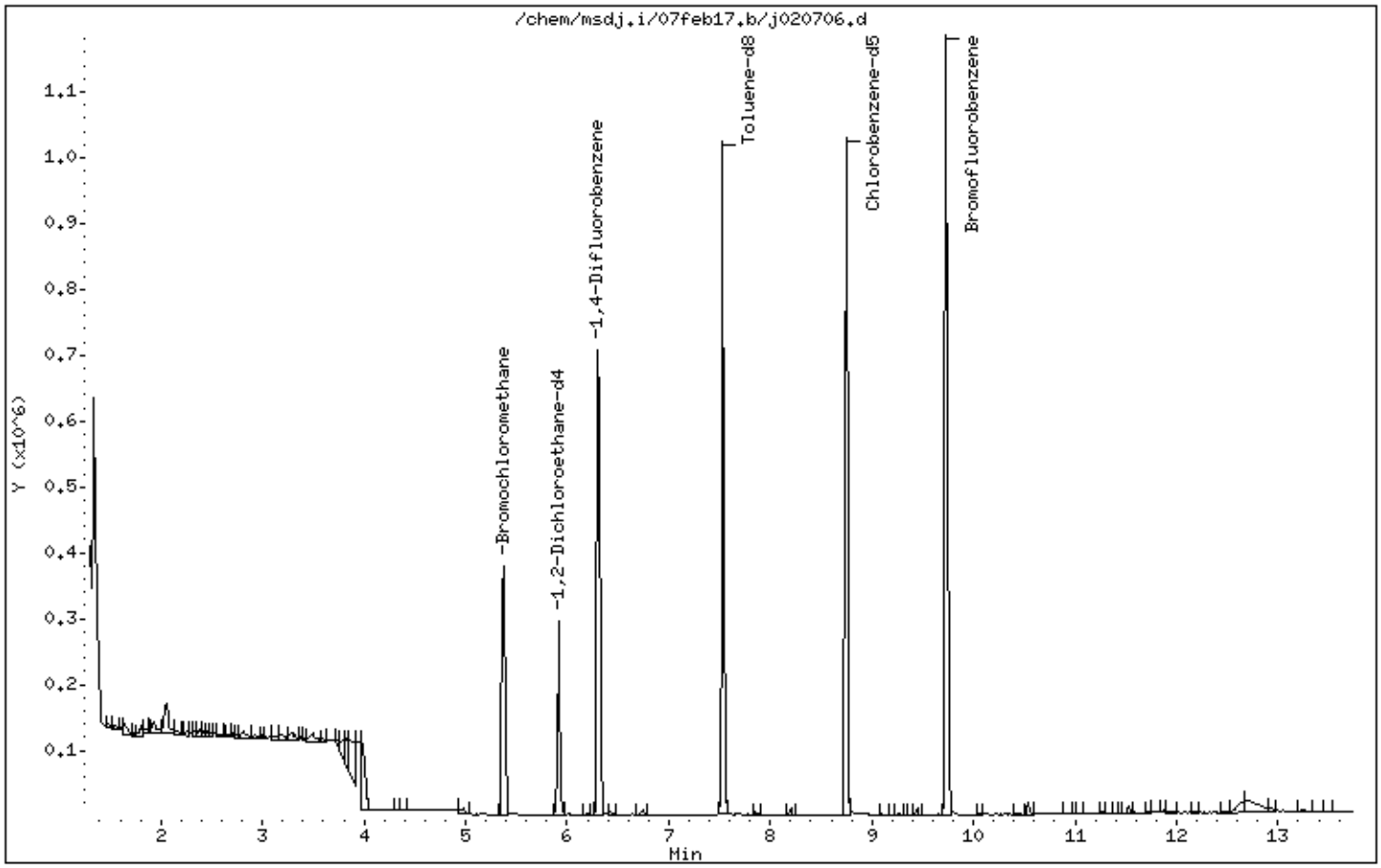
Instrument: msdj.i

Sample Info: 50ml N1755

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-3-012117

Lab ID#: 1701428C-03A

No Detections Were Found.

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Client Sample ID: B30IA-3-012117

Lab ID#: 1701428C-03A

EPA METHOD TO-15 GC/MS

File Name:	**j020707**	**Date of Collection:**	**1/21/17 6:21:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**2/7/17 02:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	96	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020707.d
Lab Smp Id: 1701428C-03A
Inj Date : 07-FEB-2017 14:02
Operator : gd Inst ID: msdj.i
Smp Info : 50ml 9551
Misc Info : 9.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 4
Dil Factor: 1.91000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	128450	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	100079			50.69- 110.69	77.91
5.366	5.366 (1.000)	49	201286			130.24- 190.24	156.70
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	560826	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	82260			0.00- 44.76	14.67
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	508619	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	268408			22.90- 82.90	52.77
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	176888	394.351	394.35	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	92601			23.00- 83.00	52.35
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	567439	398.369	398.37	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	60865			0.00- 40.53	10.73

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	366414			35.34- 95.34	64.57
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	300319	403.658	403.66	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	396388			101.45- 161.45	131.99
9.731	9.745	(1.112)	176	295751			68.09- 128.09	98.48

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020707.d
Lab Smp Id: 1701428C-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 9.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	128450	6.58
92 1,4-Difluorobenze	540965	324579	757351	560826	3.67
125 Chlorobenzene-d5	495704	297422	693986	508619	2.61

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 15:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-03A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 9.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	394.35	98.59	70-130
$ 107 Toluene-d8	400.00	398.37	99.59	70-130
$ 138 Bromofluorobenzene	400.00	403.66	100.91	70-130

Data File: /chem/msdj.i/07feb17.b/j020707.d

Date : 07-FEB-2017 14:02

Client ID:

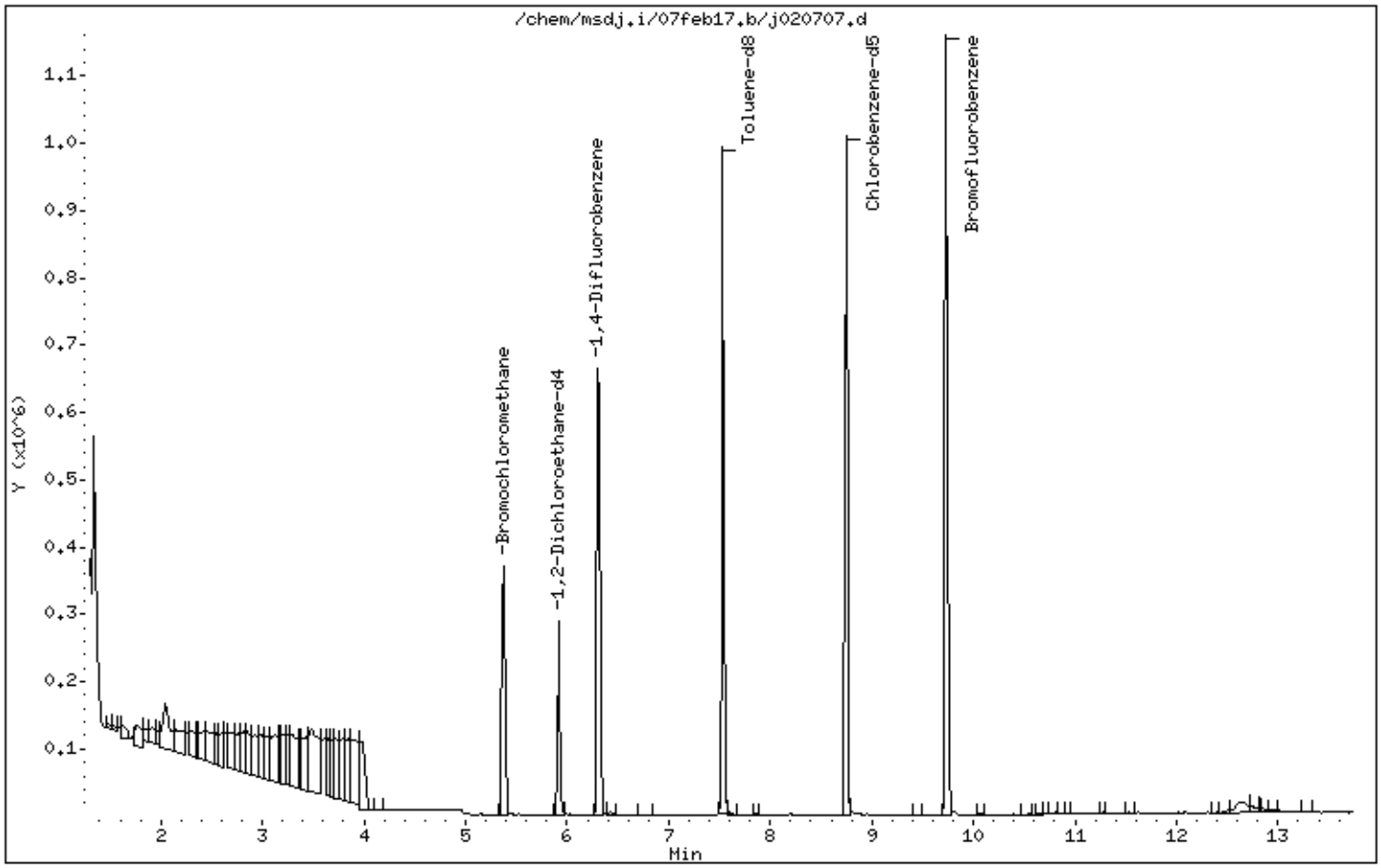
Instrument: msdj.i

Sample Info: 50ml 9551

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-4-012117

Lab ID#: 1701428C-04A

No Detections Were Found.

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Client Sample ID: B30IA-4-012117

Lab ID#: 1701428C-04A

EPA METHOD TO-15 GC/MS

File Name:	**j020708**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**2/7/17 02:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	80	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

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AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020708.d
Lab Smp Id: 1701428C-04A
Inj Date : 07-FEB-2017 14:26
Operator : gd Inst ID: msdj.i
Smp Info : 50ml O0895
Misc Info : 5.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 5
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	132674	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	103410			50.69- 110.69	77.94
5.366	5.366 (1.000)	49	207248			130.24- 190.24	156.21
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	573743	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	84470			0.00- 44.76	14.72
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	511860	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	275847			22.90- 82.90	53.89
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	184640	398.527	398.53	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	94972			23.00- 83.00	51.44
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	576707	395.761	395.76	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	61987			0.00- 40.53	10.75

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	373705			35.34- 95.34	64.80
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	306111	408.838	408.84	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	395132			101.45- 161.45	129.08
9.731	9.745	(1.112)	176	298063			68.09- 128.09	97.37

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020708.d
Lab Smp Id: 1701428C-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	132674	10.08
92 1,4-Difluorobenze	540965	324579	757351	573743	6.06
125 Chlorobenzene-d5	495704	297422	693986	511860	3.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 15:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-04A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	398.53	99.63	70-130
$ 107 Toluene-d8	400.00	395.76	98.94	70-130
$ 138 Bromofluorobenzene	400.00	408.84	102.21	70-130

Data File: /chem/msdj.i/07feb17.b/j020708.d

Date : 07-FEB-2017 14:26

Client ID:

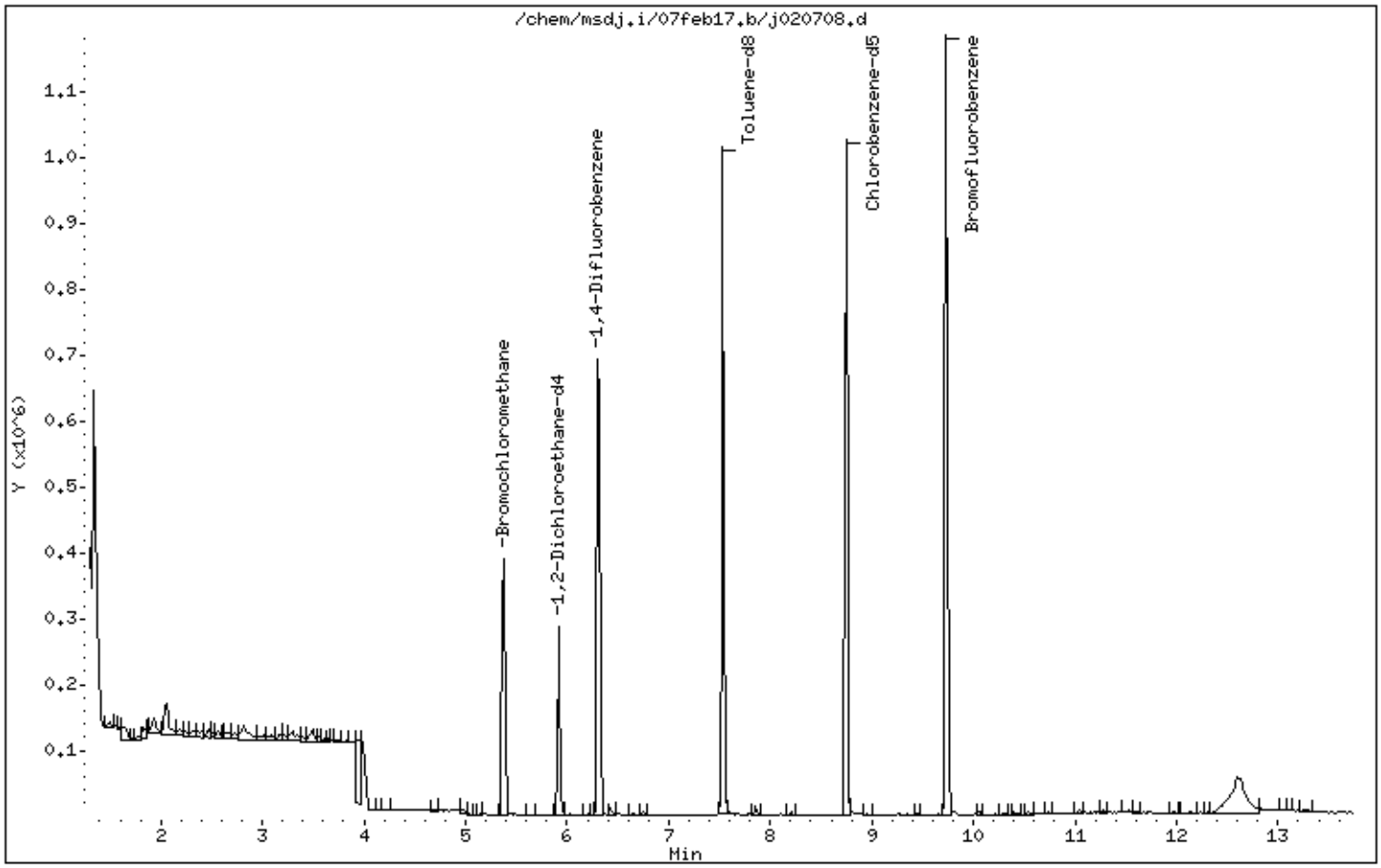
Instrument: msdj.i

Sample Info: 50ml 00895

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428C-05A

No Detections Were Found.

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Client Sample ID: B30IA-4D-012117

Lab ID#: 1701428C-05A

EPA METHOD TO-15 GC/MS

File Name:	**j020709**	**Date of Collection:**	**1/21/17 6:22:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**2/7/17 02:49 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	84	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020709.d
Lab Smp Id: 1701428C-05A
Inj Date : 07-FEB-2017 14:49
Operator : gd Inst ID: msdj.i
Smp Info : 50ml O0898
Misc Info : 6.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 6
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	129026	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	103587			50.69- 110.69	80.28
5.366	5.366 (1.000)	49	207083			130.24- 190.24	160.50
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	566220	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	85144			0.00- 44.76	15.04
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	505465	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	267180			22.90- 82.90	52.86
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	181501	402.828	402.83	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	96931			23.00- 83.00	53.41
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	570211	396.502	396.50	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	60717			0.00- 40.53	10.65

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	372936			35.34- 95.34	65.40
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	304761	412.184	412.18	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	389327			101.45- 161.45	127.75
9.731	9.745	(1.112)	176	291752			68.09- 128.09	95.73

Report Date: 07-Feb-2017 15:21

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020709.d
Lab Smp Id: 1701428C-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 6.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	129026	7.06
92 1,4-Difluorobenze	540965	324579	757351	566220	4.67
125 Chlorobenzene-d5	495704	297422	693986	505465	1.97

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 15:21

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-05A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 6.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	402.83	100.71	70-130
$ 107 Toluene-d8	400.00	396.50	99.13	70-130
$ 138 Bromofluorobenzene	400.00	412.18	103.05	70-130

Data File: /chem/msdj.i/07feb17.b/j020709.d

Date : 07-FEB-2017 14:49

Client ID:

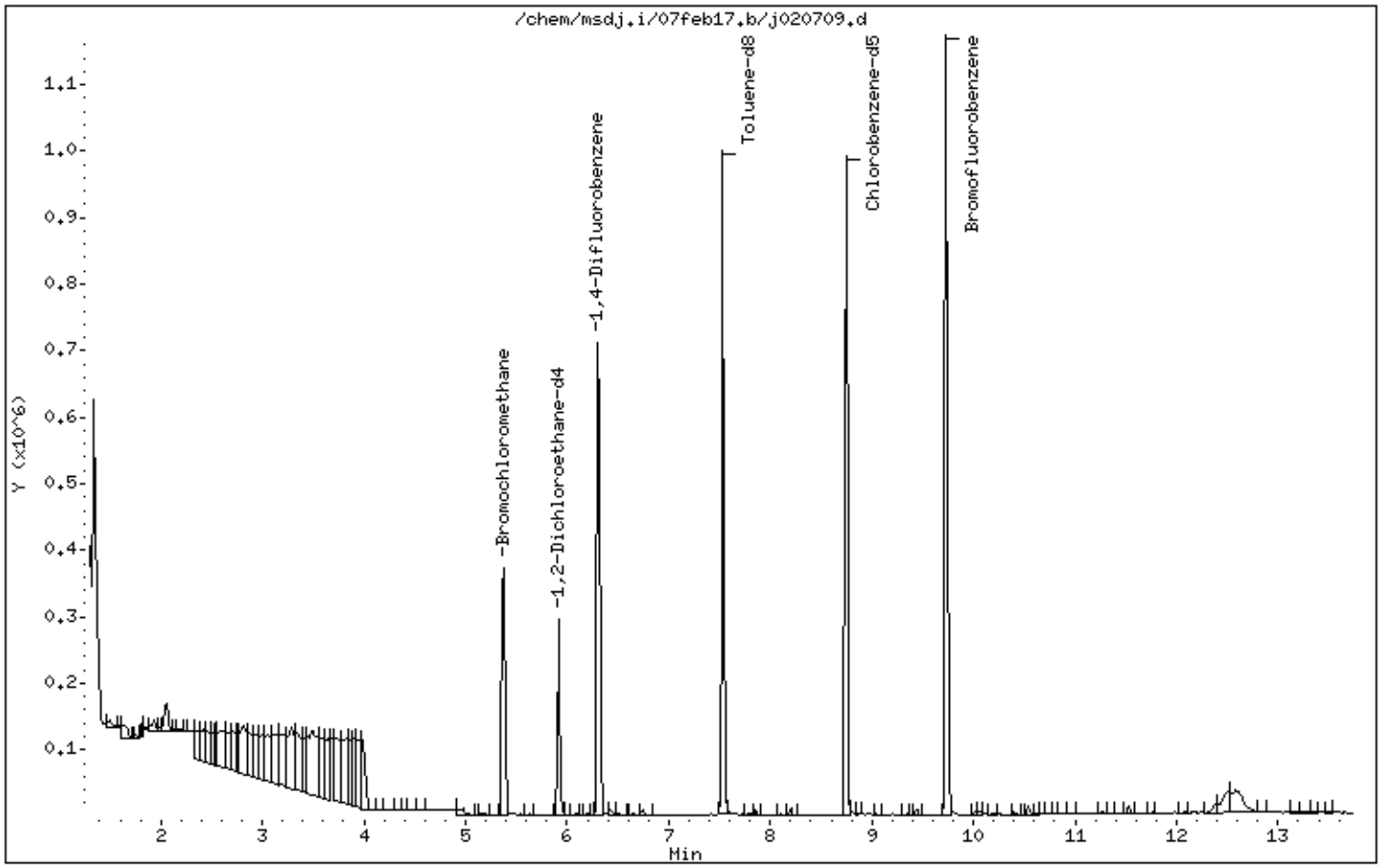
Instrument: msdj.i

Sample Info: 50ml 00898

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B30IA-5-012117

Lab ID#: 1701428C-06A

No Detections Were Found.

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Client Sample ID: B30IA-5-012117

Lab ID#: 1701428C-06A

EPA METHOD TO-15 GC/MS

File Name:	**j020710**	**Date of Collection:**	**1/21/17 6:25:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**2/7/17 03:12 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	82	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

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

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020710.d
Lab Smp Id: 1701428C-06A
Inj Date : 07-FEB-2017 15:12
Operator : gd Inst ID: msdj.i
Smp Info : 50ml 33787
Misc Info : 5.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 7
Dil Factor: 1.64000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	132924	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	102458			50.69- 110.69	77.08
5.366	5.366 (1.000)	49	209414			130.24- 190.24	157.54
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	569113	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	85834			0.00- 44.76	15.08
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	518753	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	273198			22.90- 82.90	52.66
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	185803	400.280	400.28	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	96326			23.00- 83.00	51.84
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	577893	399.801	399.80	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	63137			0.00- 40.53	10.93

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	369840			35.34- 95.34	64.00
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	298572	393.471	393.47	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	393960			101.45- 161.45	131.95
9.731	9.745	(1.112)	176	290113			68.09- 128.09	97.17

Report Date: 07-Feb-2017 16:01

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020710.d
Lab Smp Id: 1701428C-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	132924	10.29
92 1,4-Difluorobenze	540965	324579	757351	569113	5.20
125 Chlorobenzene-d5	495704	297422	693986	518753	4.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 16:01

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-06A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	400.28	100.07	70-130
$ 107 Toluene-d8	400.00	399.80	99.95	70-130
$ 138 Bromofluorobenzene	400.00	393.47	98.37	70-130

Data File: /chem/msdj.i/07feb17.b/j020710.d

Date : 07-FEB-2017 15:12

Client ID:

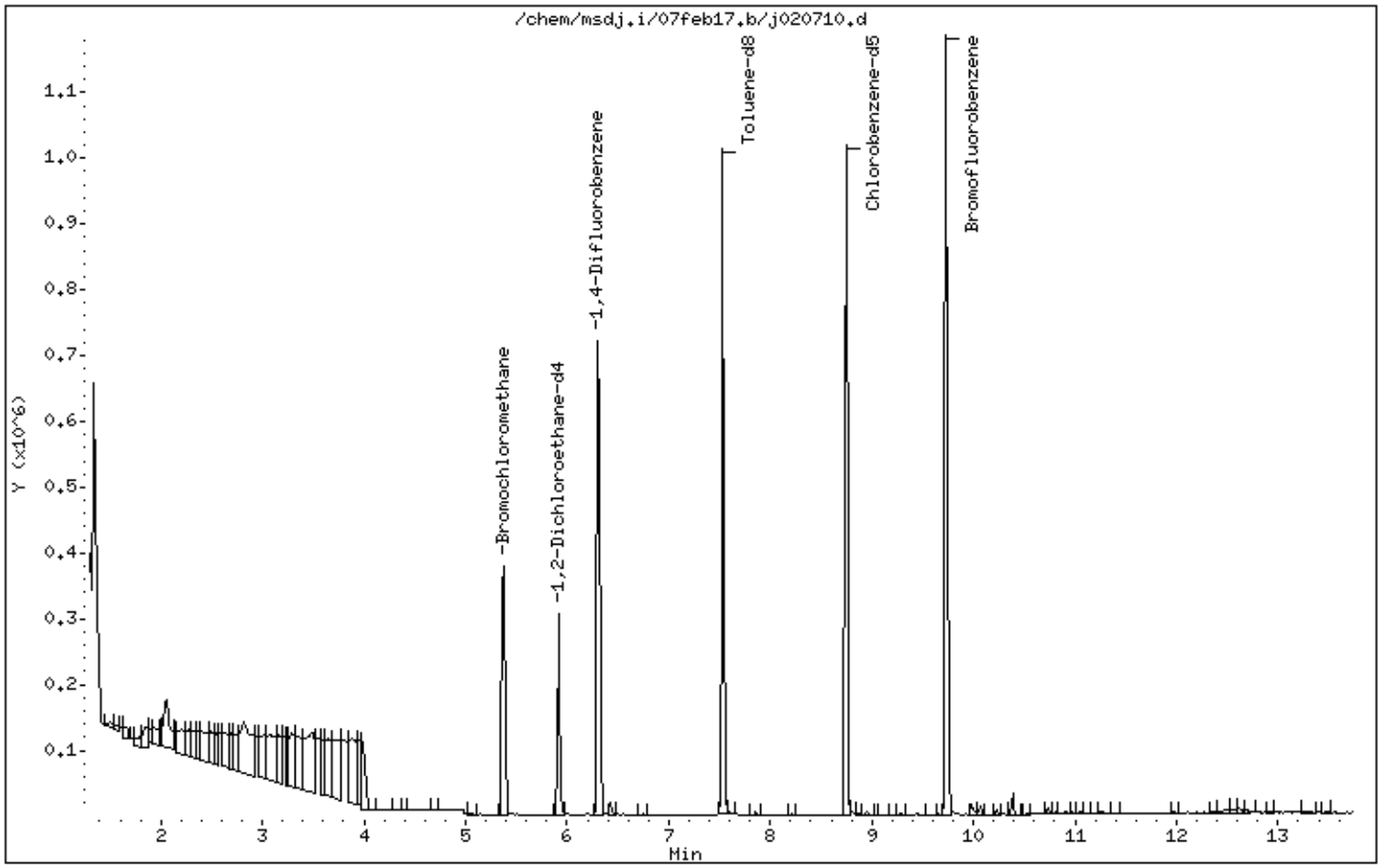
Instrument: msdj.i

Sample Info: 50ml 33787

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B1830AA-012117

Lab ID#: 1701428C-07A

No Detections Were Found.

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Client Sample ID: B1830AA-012117

Lab ID#: 1701428C-07A

EPA METHOD TO-15 GC/MS

File Name:	**j020711**	**Date of Collection:**	**1/21/17 6:42:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**2/7/17 03:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	82	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020711.d
Lab Smp Id: 1701428C-07A
Inj Date : 07-FEB-2017 15:36
Operator : gd Inst ID: msdj.i
Smp Info : 50ml 33585
Misc Info : 5.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 8
Dil Factor: 1.64000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	131375	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	100873			50.69- 110.69	76.78
5.366	5.366 (1.000)	49	207806			130.24- 190.24	158.18
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	563239	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	85096			0.00- 44.76	15.11
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	514174	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	270841			22.90- 82.90	52.68
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	184683	402.563	402.56	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	94628			23.00- 83.00	51.24
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	570406	398.737	398.74	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	59675			0.00- 40.53	10.46

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	371534			35.34- 95.34	65.13
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	304360	404.670	404.67	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	397743			101.45- 161.45	130.68
9.731	9.745	(1.112)	176	292868			68.09- 128.09	96.22

Report Date: 07-Feb-2017 16:01

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020711.d
Lab Smp Id: 1701428C-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	131375	9.01
92 1,4-Difluorobenze	540965	324579	757351	563239	4.12
125 Chlorobenzene-d5	495704	297422	693986	514174	3.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 16:01

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-07A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	402.56	100.64	70-130
$ 107 Toluene-d8	400.00	398.74	99.68	70-130
$ 138 Bromofluorobenzene	400.00	404.67	101.17	70-130

Data File: /chem/msdj.i/07feb17.b/j020711.d

Date : 07-FEB-2017 15:36

Client ID:

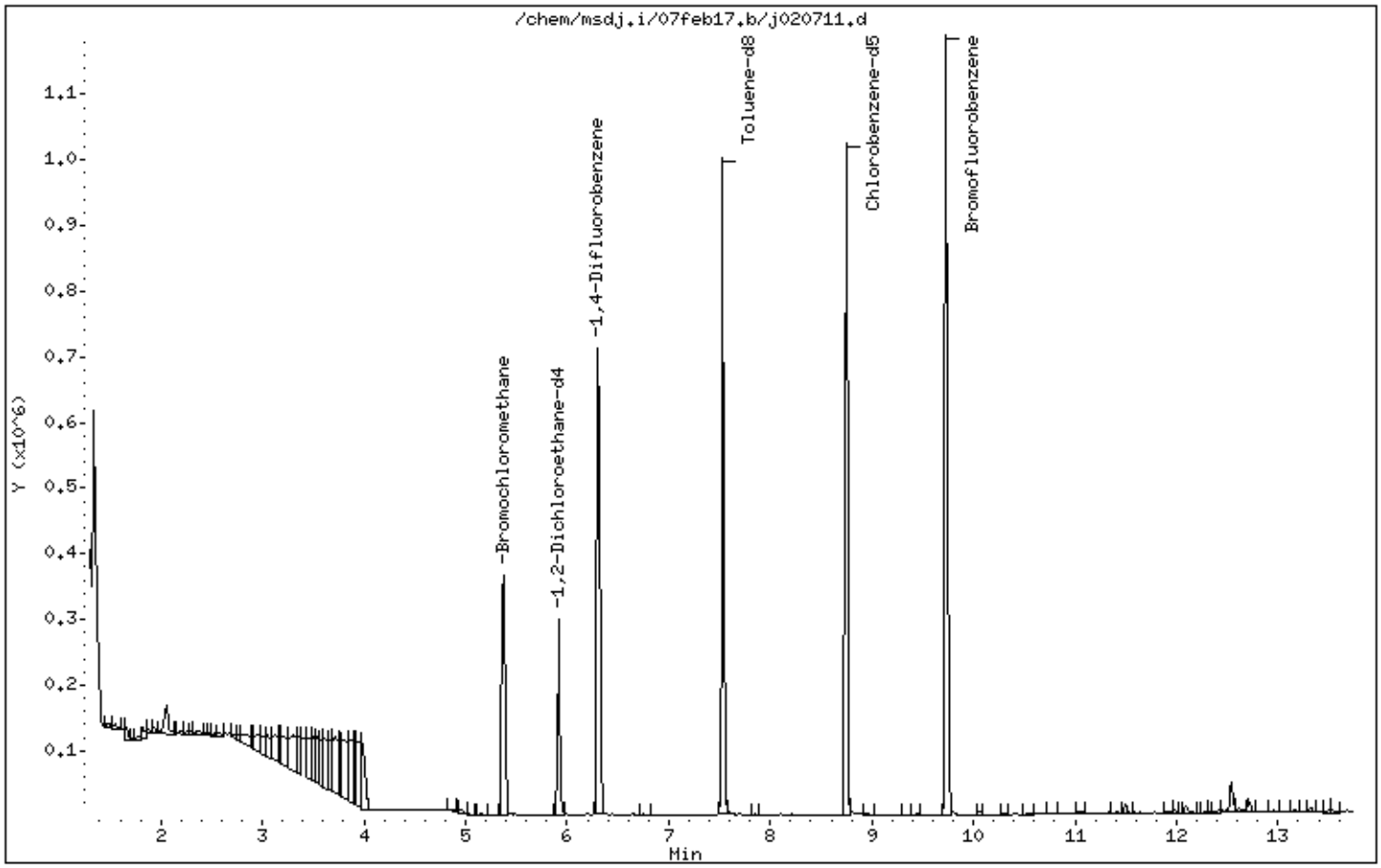
Instrument: msdj.i

Sample Info: 50ml 33585

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18IA-1-012117

Lab ID#: 1701428C-08A

No Detections Were Found.

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Client Sample ID: B18IA-1-012117

Lab ID#: 1701428C-08A

EPA METHOD TO-15 GC/MS

File Name:	**j020712**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**2/7/17 03:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	90	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020712.d
Lab Smp Id: 1701428C-08A
Inj Date : 07-FEB-2017 15:59
Operator : gd Inst ID: msdj.i
Smp Info : 50ml N1735
Misc Info : 7.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 9
Dil Factor: 1.79000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	125317	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	99858			50.69- 110.69	79.68
5.380	5.366 (1.000)	49	198292			130.24- 190.24	158.23
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	549771	400.000		80.00- 120.00	100.00
6.317	6.303 (1.000)	88	83691			0.00- 44.76	15.22
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	502474	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	265474			22.90- 82.90	52.83
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	179812	410.890	410.89	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	93379			23.00- 83.00	51.93
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	559128	400.429	400.43	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	58871			0.00- 40.53	10.53

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	362611			35.34- 95.34	64.85
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	296758	403.749	403.75	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	383245			101.45- 161.45	129.14
9.731	9.745	(1.112)	176	286030			68.09- 128.09	96.39

Report Date: 07-Feb-2017 16:31

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020712.d
Lab Smp Id: 1701428C-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 7.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	125317	3.98
92 1,4-Difluorobenze	540965	324579	757351	549771	1.63
125 Chlorobenzene-d5	495704	297422	693986	502474	1.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 16:31

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-08A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 7.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	410.89	102.72	70-130
$ 107 Toluene-d8	400.00	400.43	100.11	70-130
$ 138 Bromofluorobenzene	400.00	403.75	100.94	70-130

Data File: /chem/msdj.i/07feb17.b/j020712.d

Date : 07-FEB-2017 15:59

Client ID:

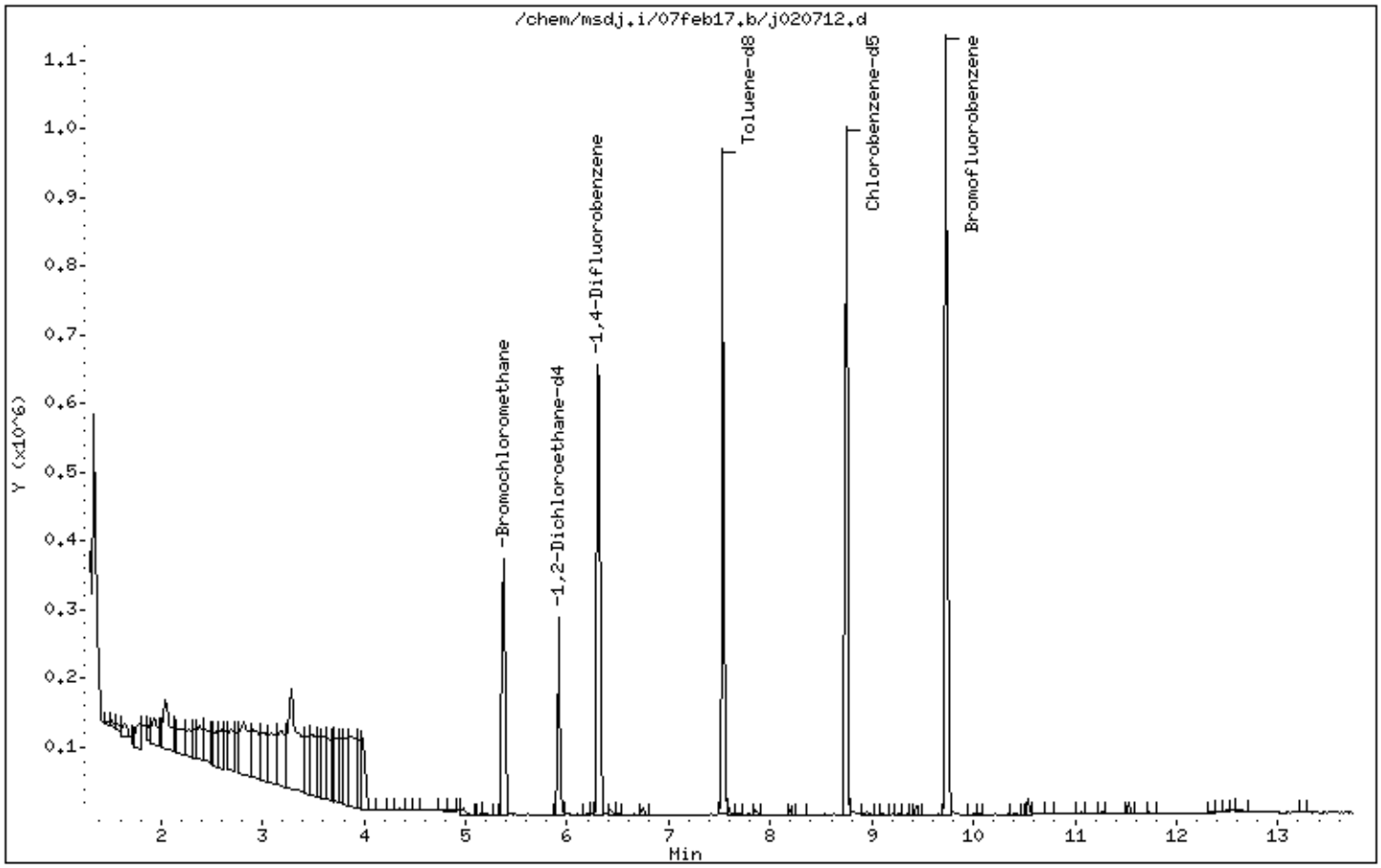
Instrument: msdj.i

Sample Info: 50ml N1735

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428C-09A

No Detections Were Found.

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Client Sample ID: B18IA-1D-012117

Lab ID#: 1701428C-09A

EPA METHOD TO-15 GC/MS

File Name:	**j020713**	**Date of Collection:**	**1/21/17 6:07:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**2/7/17 04:22 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	84	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020713.d
Lab Smp Id: 1701428C-09A
Inj Date : 07-FEB-2017 16:22
Operator : gd Inst ID: msdj.i
Smp Info : 50ml O0138
Misc Info : 6.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 10
Dil Factor: 1.68000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	128161	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	98913			50.69- 110.69	77.18
5.365	5.366 (1.000)	49	197464			130.24- 190.24	154.07
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	554646	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	80739			0.00- 44.76	14.56
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	498293	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	265175			22.90- 82.90	53.22
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	182159	407.017	407.02	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	92193			23.00- 83.00	50.61
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	552856	392.457	392.46	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	59664			0.00- 40.53	10.79

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	359764			35.34- 95.34	65.07
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	300804	412.688	412.69	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	389628			101.45- 161.45	129.53
9.731	9.745	(1.112)	176	295027			68.09- 128.09	98.08

Report Date: 07-Feb-2017 16:55

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020713.d
Lab Smp Id: 1701428C-09A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 6.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	128161	6.34
92 1,4-Difluorobenze	540965	324579	757351	554646	2.53
125 Chlorobenzene-d5	495704	297422	693986	498293	0.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 16:55

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-09A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 6.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	407.02	101.75	70-130
$ 107 Toluene-d8	400.00	392.46	98.11	70-130
$ 138 Bromofluorobenzene	400.00	412.69	103.17	70-130

Data File: /chem/msdj.i/07feb17.b/j020713.d

Date : 07-FEB-2017 16:22

Client ID:

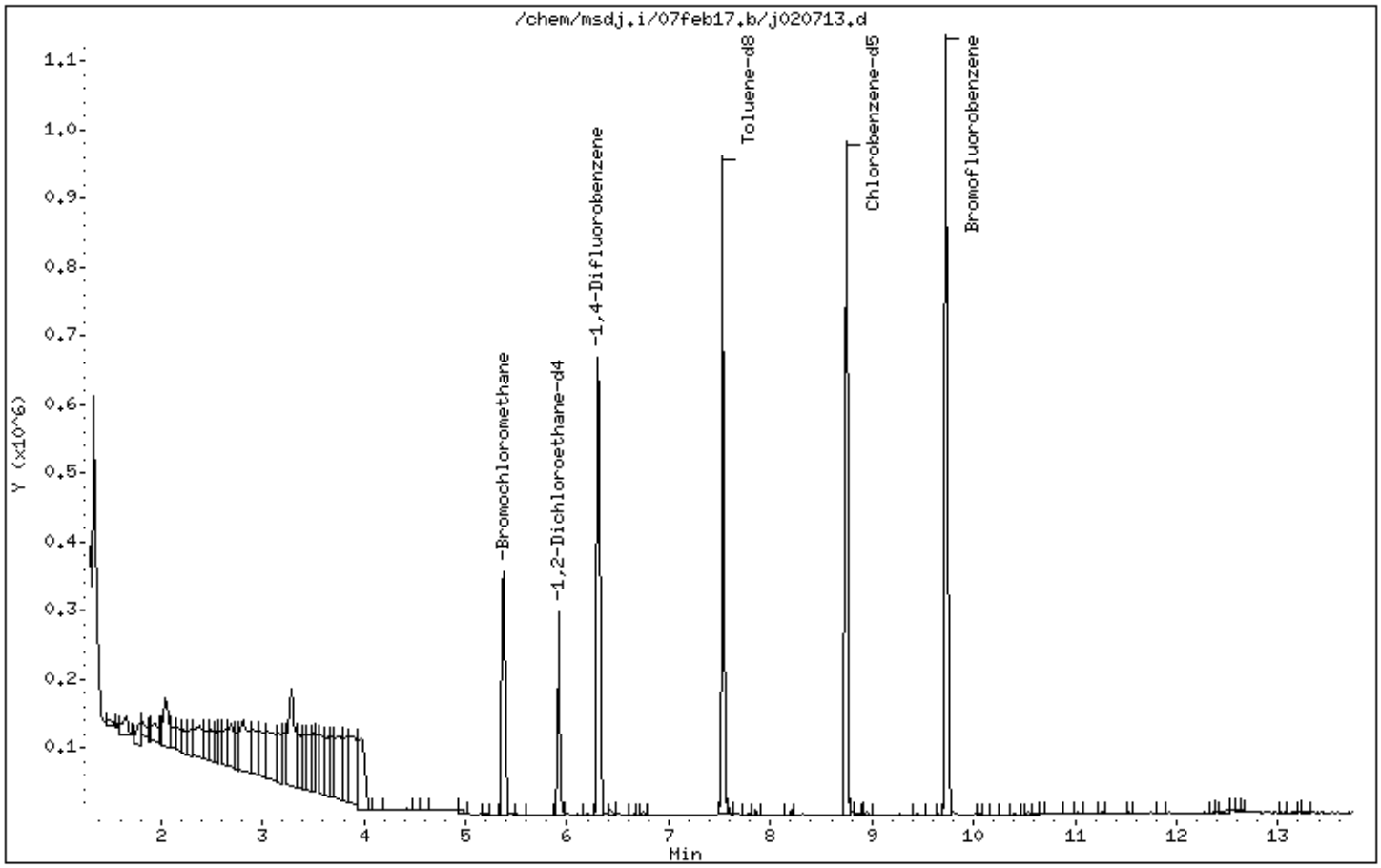
Instrument: msdj.i

Sample Info: 50ml 00138

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18IA-2-012117

Lab ID#: 1701428C-10A

No Detections Were Found.

eurofins | Air Toxics

Client Sample ID: B18IA-2-012117

Lab ID#: 1701428C-10A

EPA METHOD TO-15 GC/MS

File Name:	**j020714**	**Date of Collection:**	**1/21/17 6:00:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/7/17 04:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	88	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020714.d
Lab Smp Id: 1701428C-10A
Inj Date : 07-FEB-2017 16:46
Operator : gd Inst ID: msdj.i
Smp Info : 50ml 6L1216
Misc Info : 7.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 11
Dil Factor: 1.75000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	126924	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	98124			50.69- 110.69	77.31
5.366	5.366 (1.000)	49	200766			130.24- 190.24	158.18
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	558755	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	82893			0.00- 44.76	14.84
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	504317	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	263009			22.90- 82.90	52.15
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	181011	408.394	408.39	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	92916			23.00- 83.00	51.33
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	553921	390.321	390.32	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	61985			0.00- 40.53	11.19

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	360987			35.34- 95.34	65.17
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.745	9.745	(1.113)	174	294609	399.361	399.36	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	386937			101.45- 161.45	131.34
9.745	9.745	(1.113)	176	282094			68.09- 128.09	95.75

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020714.d
Lab Smp Id: 1701428C-10A
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 7.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	126924	5.31
92 1,4-Difluorobenze	540965	324579	757351	558755	3.29
125 Chlorobenzene-d5	495704	297422	693986	504317	1.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 18:07

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-10A
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 7.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	408.39	102.10	70-130
$ 107 Toluene-d8	400.00	390.32	97.58	70-130
$ 138 Bromofluorobenzene	400.00	399.36	99.84	70-130

Data File: /chem/msdj.i/07feb17.b/j020714.d

Date : 07-FEB-2017 16:46

Client ID:

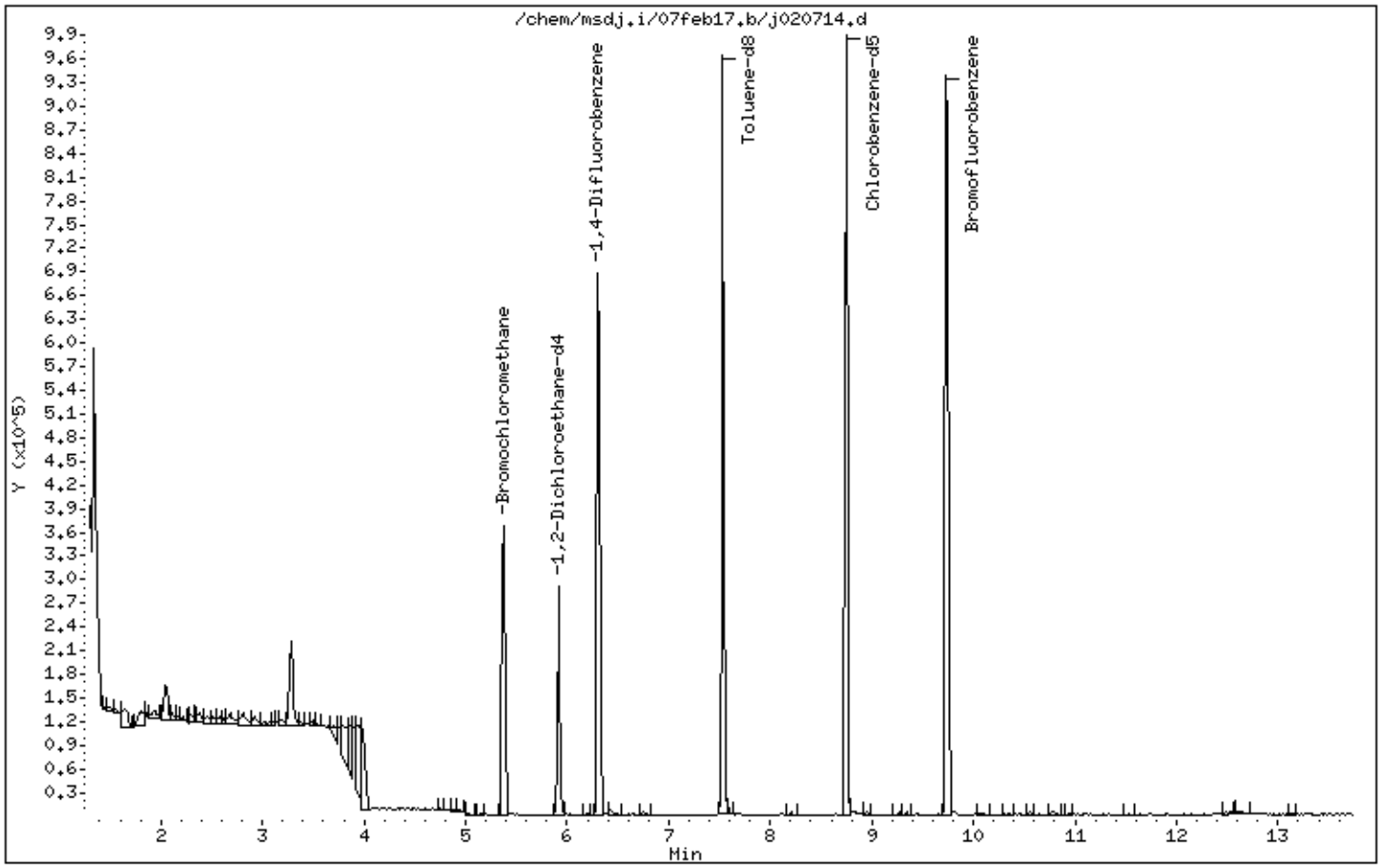
Instrument: msdj.i

Sample Info: 50ml 6L1216

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18IA-3-012117

Lab ID#: 1701428C-11A

No Detections Were Found.

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Client Sample ID: B18IA-3-012117

Lab ID#: 1701428C-11A

EPA METHOD TO-15 GC/MS

File Name:	**j020715**	**Date of Collection:**	**1/21/17 6:10:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/7/17 07:37 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	79	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020715.d
Lab Smp Id: 1701428C-11A
Inj Date : 07-FEB-2017 19:37
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml 34320
Misc Info : 4.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 1
Dil Factor: 1.58000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.366	5.366 (1.000)	130	137905	400.000		80.00- 120.00	100.00
5.366	5.366 (1.000)	128	108731			50.69- 110.69	78.84
5.366	5.366 (1.000)	49	213473			130.24- 190.24	154.80
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	578550	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	85062			0.00- 44.76	14.70
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	519072	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	271375			22.90- 82.90	52.28
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.102)	65	191501	397.656	397.66	80.00- 120.00	100.00
5.911	5.911 (1.102)	67	96783			23.00- 83.00	50.54
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	582449	396.381	396.38	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	62249			0.00- 40.53	10.69

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	379961			35.34- 95.34	65.23
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	308750	406.633	406.63	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	397423			101.45- 161.45	128.72
9.731	9.745	(1.112)	176	298438			68.09- 128.09	96.66

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020715.d
Lab Smp Id: 1701428C-11A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 4.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	137905	14.42
92 1,4-Difluorobenze	540965	324579	757351	578550	6.95
125 Chlorobenzene-d5	495704	297422	693986	519072	4.71

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.37	0.00
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-11A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 4.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	397.66	99.41	70-130
$ 107 Toluene-d8	400.00	396.38	99.10	70-130
$ 138 Bromofluorobenzene	400.00	406.63	101.66	70-130

Data File: /chem/msdj.i/07feb17.b/j020715.d

Date : 07-FEB-2017 19:37

Client ID:

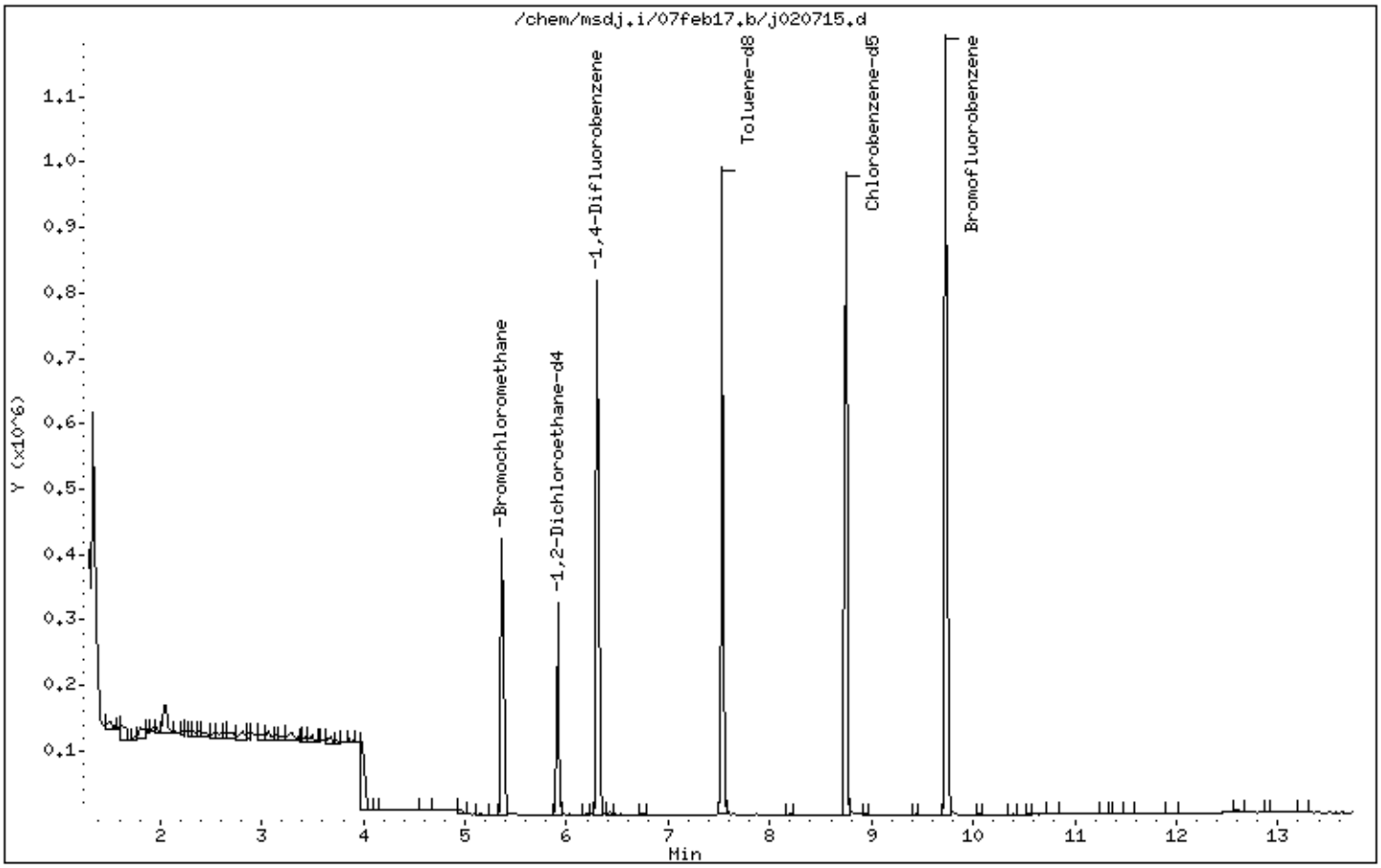
Instrument: msdj.i

Sample Info: 50ml 34320

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18IA-4-012117

Lab ID#: 1701428C-12A

No Detections Were Found.

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Client Sample ID: B18IA-4-012117

Lab ID#: 1701428C-12A

EPA METHOD TO-15 GC/MS

File Name:	**j020716**	**Date of Collection:**	**1/21/17 6:12:00 PM**
Dil. Factor:	**1.41**	**Date of Analysis:**	**2/7/17 08:00 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	70	Not Detected	92	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020716.d
Lab Smp Id: 1701428C-12A
Inj Date : 07-FEB-2017 20:00
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml N1591
Misc Info : 1.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 3
Dil Factor: 1.41000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	129862	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	100572			50.69- 110.69	77.45
5.366	5.366 (1.000)	49	206075			130.24- 190.24	158.69
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	560598	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	84468			0.00- 44.76	15.07
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	512349	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	267349			22.90- 82.90	52.18
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	188016	414.602	414.60	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	94969			23.00- 83.00	50.51
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	562941	395.373	395.37	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	62674			0.00- 40.53	11.13

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	369226			35.34- 95.34	65.59
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	304608	406.442	406.44	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	399819			101.45- 161.45	131.26
9.731	9.745	(1.112)	176	289744			68.09- 128.09	95.12

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020716.d
Lab Smp Id: 1701428C-12A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 1.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	129862	7.75
92 1,4-Difluorobenze	540965	324579	757351	560598	3.63
125 Chlorobenzene-d5	495704	297422	693986	512349	3.36

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-12A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 1.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	414.60	103.65	70-130
$ 107 Toluene-d8	400.00	395.37	98.84	70-130
$ 138 Bromofluorobenzene	400.00	406.44	101.61	70-130

Data File: /chem/msdj.i/07feb17.b/j020716.d

Date : 07-FEB-2017 20:00

Client ID:

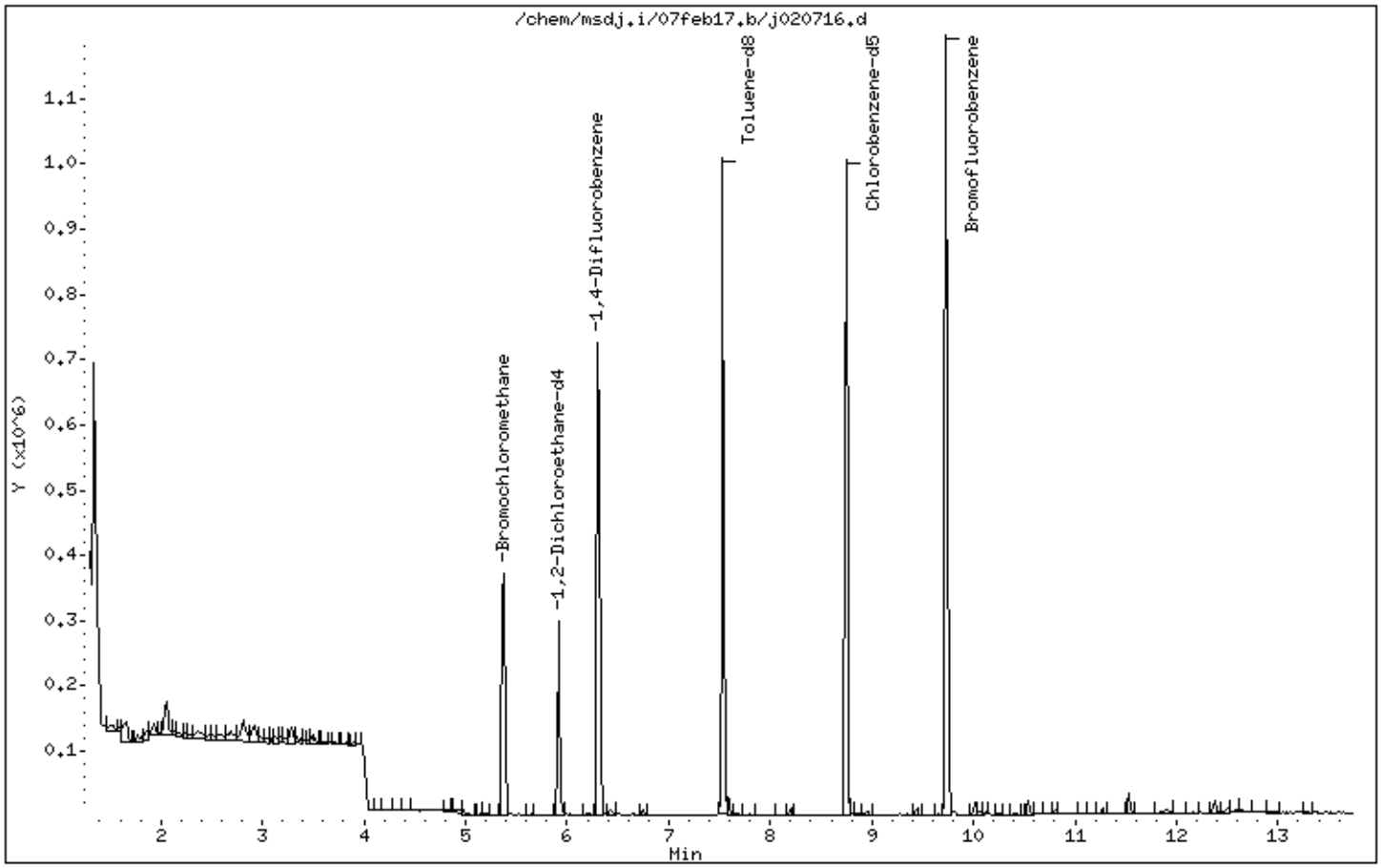
Instrument: msdj.i

Sample Info: 50ml N1591

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8IA-2-012317

Lab ID#: 1701428C-13A

No Detections Were Found.

eurofins | Air Toxics

Client Sample ID: B8IA-2-012317

Lab ID#: 1701428C-13A

EPA METHOD TO-15 GC/MS

File Name:	**j020717**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**2/7/17 08:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	88	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020717.d
Lab Smp Id: 1701428C-13A
Inj Date : 07-FEB-2017 20:23
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml N1726
Misc Info : 7.0 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 4
Dil Factor: 1.75000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	129700	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	100912			50.69- 110.69	77.80
5.366	5.366 (1.000)	49	203306			130.24- 190.24	156.75
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	562669	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	83961			0.00- 44.76	14.92
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	508560	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	262637			22.90- 82.90	51.64
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	180536	398.605	398.60	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	95165			23.00- 83.00	52.71
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	568509	397.814	397.81	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	59238			0.00- 40.53	10.42

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	368865			35.34- 95.34	64.88
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	303794	408.376	408.38	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	394477			101.45- 161.45	129.85
9.731	9.745	(1.112)	176	289003			68.09- 128.09	95.13

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020717.d
Lab Smp Id: 1701428C-13A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 7.0 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	129700	7.62
92 1,4-Difluorobenze	540965	324579	757351	562669	4.01
125 Chlorobenzene-d5	495704	297422	693986	508560	2.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-13A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 7.0 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	398.60	99.65	70-130
$ 107 Toluene-d8	400.00	397.81	99.45	70-130
$ 138 Bromofluorobenzene	400.00	408.38	102.09	70-130

Data File: /chem/msdj.i/07feb17.b/j020717.d

Date : 07-FEB-2017 20:23

Client ID:

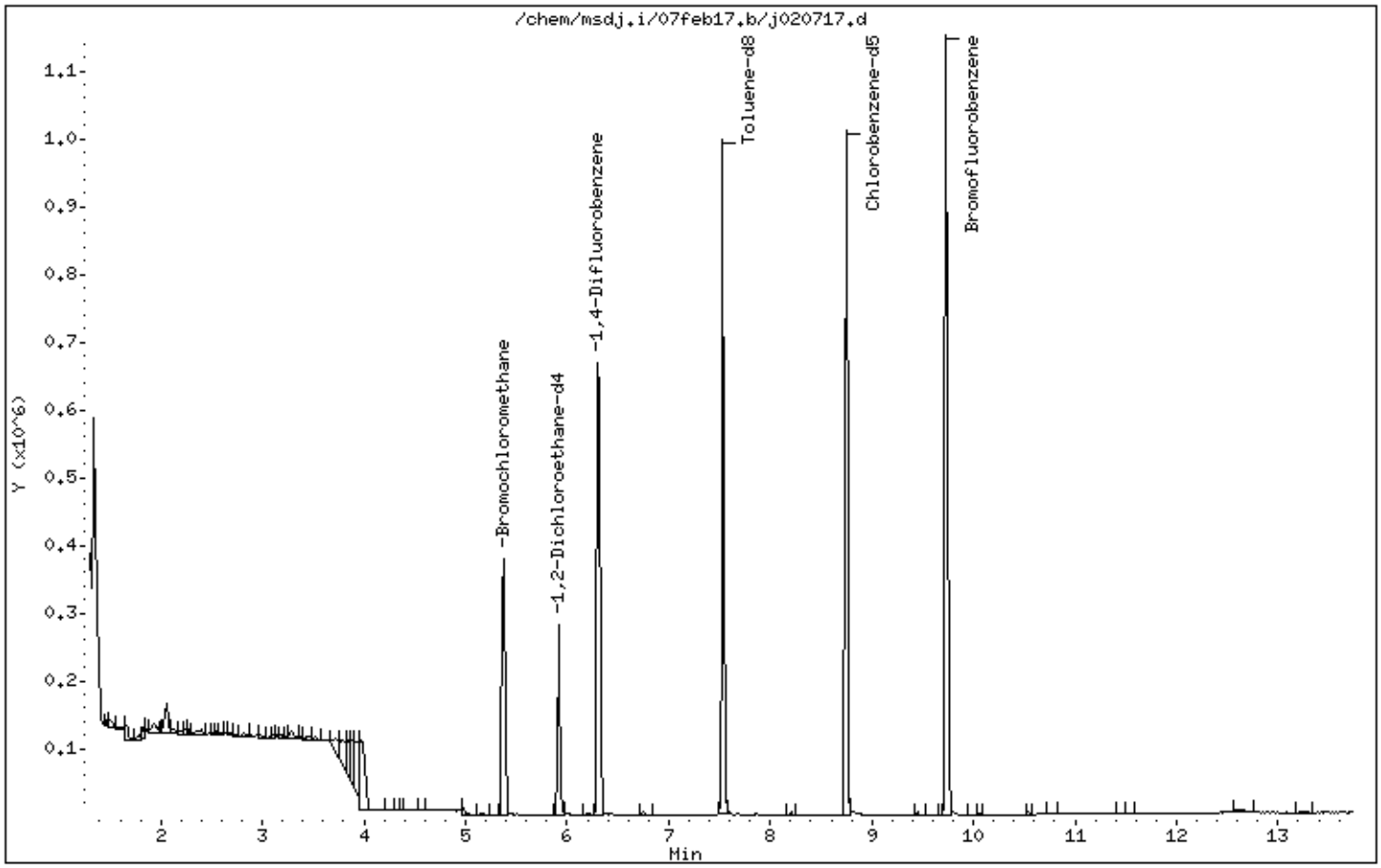
Instrument: msdj.i

Sample Info: 50ml N1726

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428C-14A

No Detections Were Found.

eurofins | Air Toxics

Client Sample ID: B8IA-2D-012317

Lab ID#: 1701428C-14A

EPA METHOD TO-15 GC/MS

File Name:	**j020718**	**Date of Collection:**	**1/23/17 12:23:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**2/7/17 08:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	94	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020718.d
Lab Smp Id: 1701428C-14A
Inj Date : 07-FEB-2017 20:46
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml N0416
Misc Info : 8.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 5
Dil Factor: 1.87000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	128236	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	100692			50.69- 110.69	78.52
5.366	5.366 (1.000)	49	200664			130.24- 190.24	156.48
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	554241	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	82272			0.00- 44.76	14.84
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	499920	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	263584			22.90- 82.90	52.73
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	178926	399.561	399.56	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	94255			23.00- 83.00	52.68
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	556242	395.149	395.15	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	57954			0.00- 40.53	10.42

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	358873			35.34- 95.34	64.52
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	295854	404.575	404.58	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	392770			101.45- 161.45	132.76
9.731	9.745	(1.112)	176	286314			68.09- 128.09	96.78

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020718.d
Lab Smp Id: 1701428C-14A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 8.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	128236	6.40
92 1,4-Difluorobenze	540965	324579	757351	554241	2.45
125 Chlorobenzene-d5	495704	297422	693986	499920	0.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-14A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 8.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	399.56	99.89	70-130
$ 107 Toluene-d8	400.00	395.15	98.79	70-130
$ 138 Bromofluorobenzene	400.00	404.58	101.14	70-130

Data File: /chem/msdj.i/07feb17.b/j020718.d

Date : 07-FEB-2017 20:46

Client ID:

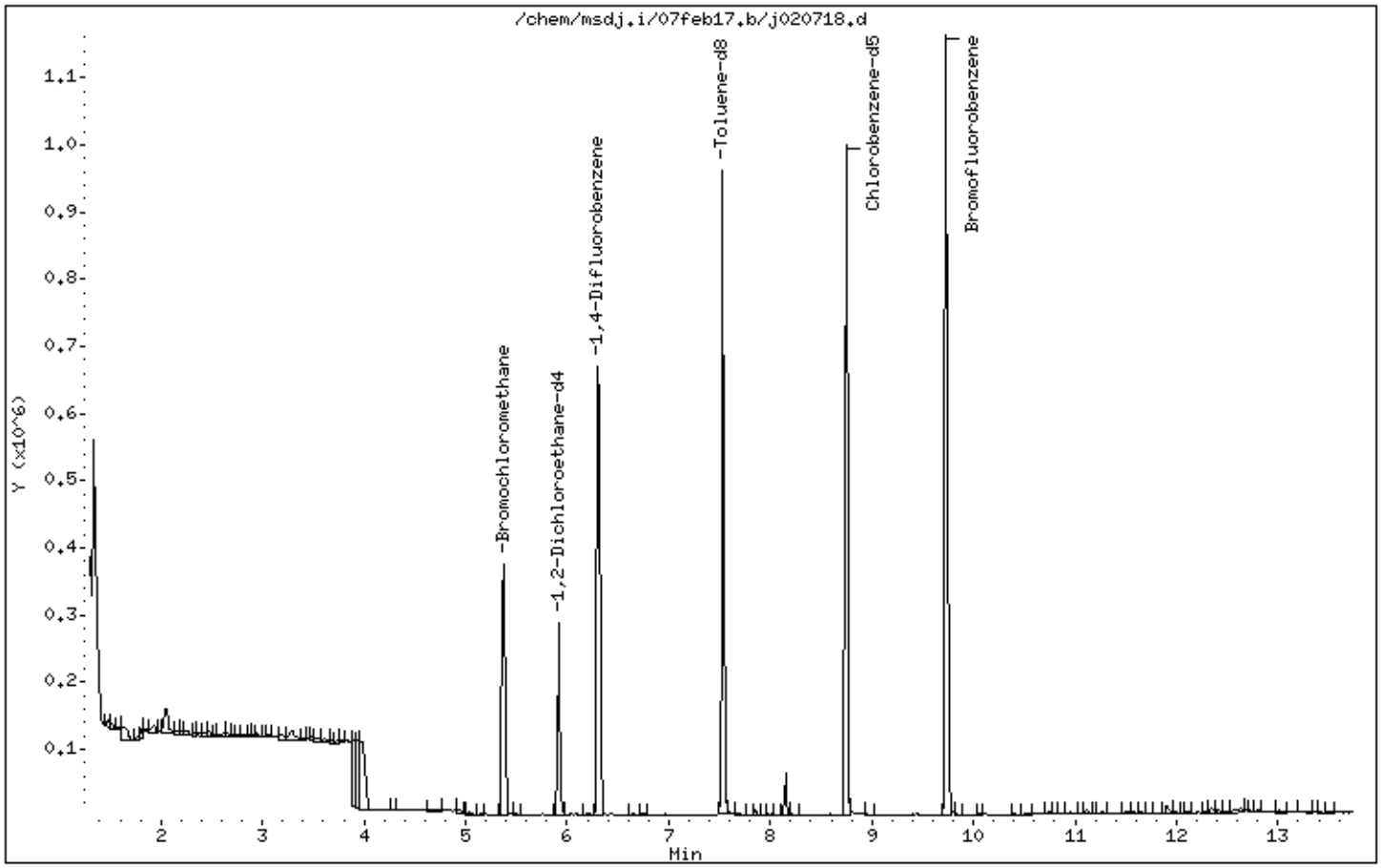
Instrument: msdj.i

Sample Info: 50ml N0416

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8AA-012317

Lab ID#: 1701428C-15A

No Detections Were Found.

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Client Sample ID: B8AA-012317

Lab ID#: 1701428C-15A

EPA METHOD TO-15 GC/MS

File Name:	**j020719**	**Date of Collection:**	**1/23/17 9:20:00 AM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**2/7/17 09:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	73	Not Detected	96	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020719.d
Lab Smp Id: 1701428C-15A
Inj Date : 07-FEB-2017 21:10
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml O0316
Misc Info : 2.5 Hg->5 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 6
Dil Factor: 1.46000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	134111	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	102625			50.69- 110.69	76.52
5.366	5.366 (1.000)	49	207735			130.24- 190.24	154.90
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	575696	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	86789			0.00- 44.76	15.08
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	518317	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	276896			22.90- 82.90	53.42
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	187469	400.296	400.30	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	97074			23.00- 83.00	51.78
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	576374	394.191	394.19	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	61746			0.00- 40.53	10.71

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.193)	100	379933			35.34- 95.34	65.92
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.731	9.745	(1.112)	174	308100	406.368	406.37	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	397699			101.45- 161.45	129.08
9.731	9.745	(1.112)	176	294472			68.09- 128.09	95.58

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020719.d
Lab Smp Id: 1701428C-15A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 2.5 Hg->5 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	134111	11.28
92 1,4-Difluorobenze	540965	324579	757351	575696	6.42
125 Chlorobenzene-d5	495704	297422	693986	518317	4.56

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 21:36

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-15A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 2.5 Hg->5 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	400.30	100.07	70-130
$ 107 Toluene-d8	400.00	394.19	98.55	70-130
$ 138 Bromofluorobenzene	400.00	406.37	101.59	70-130

Data File: /chem/msdj.i/07feb17.b/j020719.d

Page 1

Date : 07-FEB-2017 21:10

Client ID:

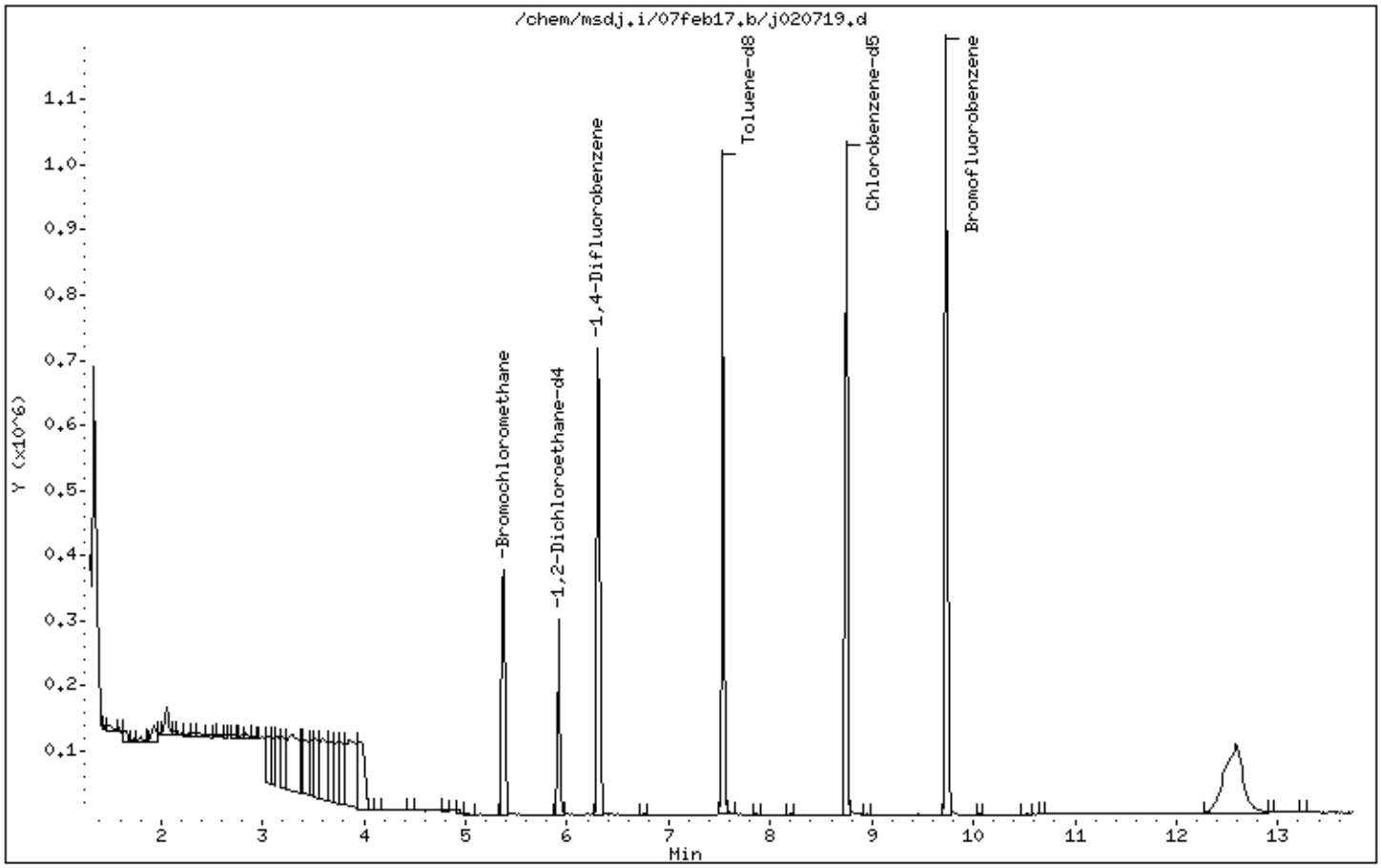
Instrument: msdj.i

Sample Info: 50ml 00316

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8SS-2-012417

Lab ID#: 1701428C-16A

No Detections Were Found.

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Client Sample ID: B8SS-2-012417

Lab ID#: 1701428C-16A

EPA METHOD TO-15 GC/MS

File Name:	**j020722**	**Date of Collection:**	**1/24/17 3:35:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**2/7/17 10:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	Not Detected	160	Not Detected

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	157 Q	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020722.d
Lab Smp Id: 1701428C-16A
Inj Date : 07-FEB-2017 22:20
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml 1L1603
Misc Info : 5.7 Hg->14.9 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 9
Dil Factor: 2.48000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	134427	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	108832			50.69- 110.69	80.96
5.366	5.366 (1.000)	49	217173			130.24- 190.24	161.55
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	604560	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	89974			0.00- 44.76	14.88
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	560722	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	896206			22.90- 82.90	159.83
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	190618	406.066	406.07	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	102822			23.00- 83.00	53.94
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	965100	628.533	628.53	80.00- 120.00	100.00(R)
7.534	7.534 (1.195)	70	758020			0.00- 40.53	78.54

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)							
7.534	7.534 (1.195)	100	395250			35.34- 95.34	40.95
$ 138 Bromofluorobenzene						CAS #: 460-00-4	
9.731	9.745 (1.112)	174	346752	422.760	422.76	80.00- 120.00	100.00
9.731	9.745 (1.112)	95	644675			101.45- 161.45	185.92
9.731	9.745 (1.112)	176	329757			68.09- 128.09	95.10

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date: 07-Feb-2017 22:45

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020722.d
Lab Smp Id: 1701428C-16A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.7 Hg->14.9 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	134427	11.54
92 1,4-Difluorobenze	540965	324579	757351	604560	11.76
125 Chlorobenzene-d5	495704	297422	693986	560722	13.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 22:45

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-16A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.7 Hg->14.9 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	406.07	101.52	70-130
$ 107 Toluene-d8	400.00	628.53	157.13*	70-130
$ 138 Bromofluorobenzene	400.00	422.76	105.69	70-130

Data File: /chem/msdj.i/07feb17.b/j020722.d

Date : 07-FEB-2017 22:20

Client ID:

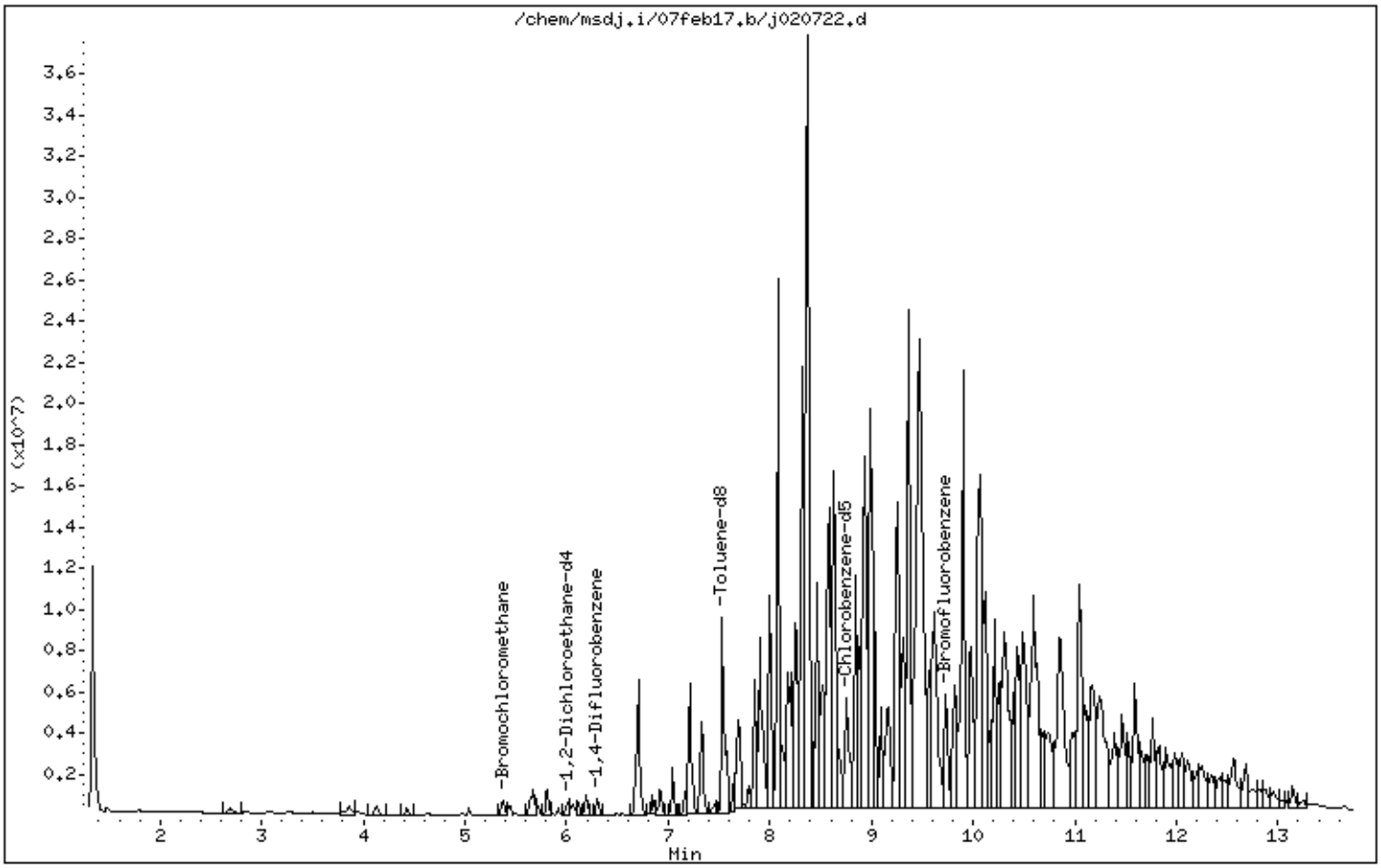
Instrument: msdj.i

Sample Info: 50ml 1L1603

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B8SS-2D-012417

Lab ID#: 1701428C-17A

No Detections Were Found.

eurofins | Air Toxics

Client Sample ID: B8SS-2D-012417

Lab ID#: 1701428C-17A

EPA METHOD TO-15 GC/MS

File Name:	**j020723**	**Date of Collection:**	**1/24/17 3:35:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**2/7/17 10:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	Not Detected	160	Not Detected

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	157 Q	70-130
4-Bromofluorobenzene	106	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020723.d
Lab Smp Id: 1701428C-17A
Inj Date : 07-FEB-2017 22:43
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml 12373
Misc Info : 4.9 Hg->15.1 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 10
Dil Factor: 2.42000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	136785	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	107581			50.69- 110.69	78.65
5.366	5.366 (1.000)	49	217127			130.24- 190.24	158.74
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	617864	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	91942			0.00- 44.76	14.88
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	562742	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	890169			22.90- 82.90	158.18
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	195708	409.721	409.72	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	99946			23.00- 83.00	51.07
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	983019	626.419	626.42	80.00- 120.00	100.00(R)
7.534	7.534 (1.195)	70	768247			0.00- 40.53	78.15

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	399873			35.34- 95.34	40.68
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.745	9.745	(1.113)	174	349388	424.446	424.44	80.00- 120.00	100.00
9.731	9.745	(1.112)	95	696869			101.45- 161.45	199.45
9.745	9.745	(1.113)	176	336301			68.09- 128.09	96.25

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date: 07-Feb-2017 23:08

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020723.d
Lab Smp Id: 1701428C-17A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 4.9 Hg->15.1 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	136785	13.49
92 1,4-Difluorobenze	540965	324579	757351	617864	14.22
125 Chlorobenzene-d5	495704	297422	693986	562742	13.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 23:08

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-17A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 4.9 Hg->15.1 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	409.72	102.43	70-130
$ 107 Toluene-d8	400.00	626.42	156.60*	70-130
$ 138 Bromofluorobenzene	400.00	424.44	106.11	70-130

Data File: /chem/msdj.i/07feb17.b/j020723.d

Date : 07-FEB-2017 22:43

Client ID:

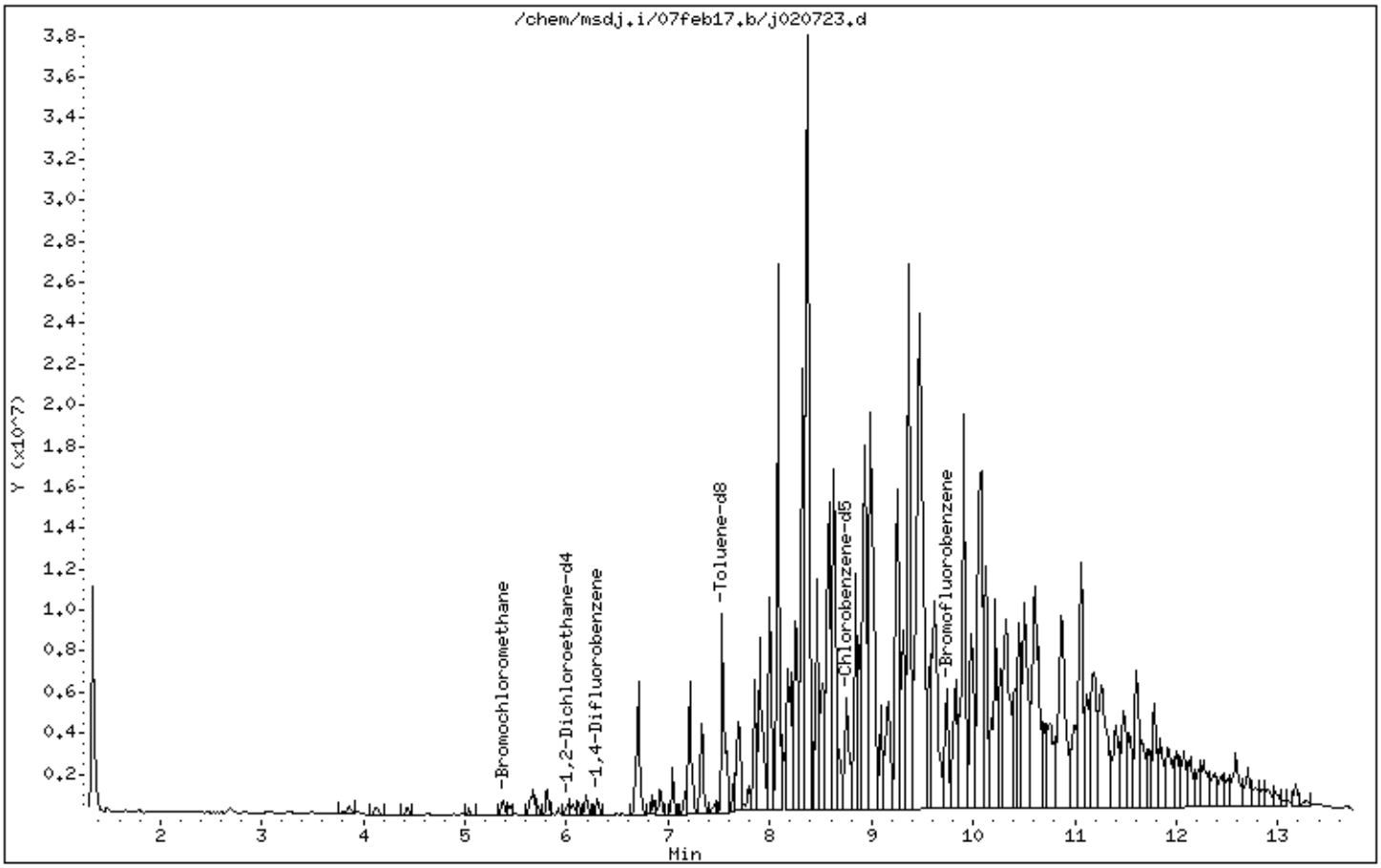
Instrument: msdj.i

Sample Info: 50ml 12373

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18SS-1-012617

Lab ID#: 1701428C-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	150	160	190

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Client Sample ID: B18SS-1-012617

Lab ID#: 1701428C-18A

EPA METHOD TO-15 GC/MS

File Name:	**j020720**	**Date of Collection:**	**1/26/17 5:30:00 PM**
Dil. Factor:	**2.50**	**Date of Analysis:**	**2/7/17 09:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	150	160	190

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020720.d
Lab Smp Id: 1701428C-18A
Inj Date : 07-FEB-2017 21:33
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml 1L1720
Misc Info : 5.5 Hg->15.3 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 7
Dil Factor: 2.50000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	123080	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	95395			50.69- 110.69	77.51
5.366	5.366 (1.000)	49	193332			130.24- 190.24	157.08
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	533194	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	77620			0.00- 44.76	14.56
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	482849	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	255803			22.90- 82.90	52.98
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	170885	397.589	397.59	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	91073			23.00- 83.00	53.29
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	536092	395.868	395.87	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	56947			0.00- 40.53	10.62

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)							
7.534	7.534 (1.193)	100	350243			35.34- 95.34	65.33
$ 138 Bromofluorobenzene					CAS #: 460-00-4		
9.731	9.745 (1.112)	174	296311	419.527	419.53	80.00- 120.00	100.00
9.731	9.745 (1.112)	95	377571			101.45- 161.45	127.42
9.731	9.745 (1.112)	176	281650			68.09- 128.09	95.05
14 Methanol					CAS #: 67-56-1		
2.042	2.042 (0.380)	31	57041	59.4192	148.55	80.00- 120.00	100.00

Report Date: 07-Feb-2017 22:25

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020720.d
Lab Smp Id: 1701428C-18A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->15.3 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	123080	2.12
92 1,4-Difluorobenze	540965	324579	757351	533194	-1.44
125 Chlorobenzene-d5	495704	297422	693986	482849	-2.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 22:25

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-18A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->15.3 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	397.59	99.40	70-130
$ 107 Toluene-d8	400.00	395.87	98.97	70-130
$ 138 Bromofluorobenzene	400.00	419.53	104.88	70-130

Data File: /chem/msdj.i/07feb17.b/j020720.d

Date : 07-FEB-2017 21:33

Client ID:

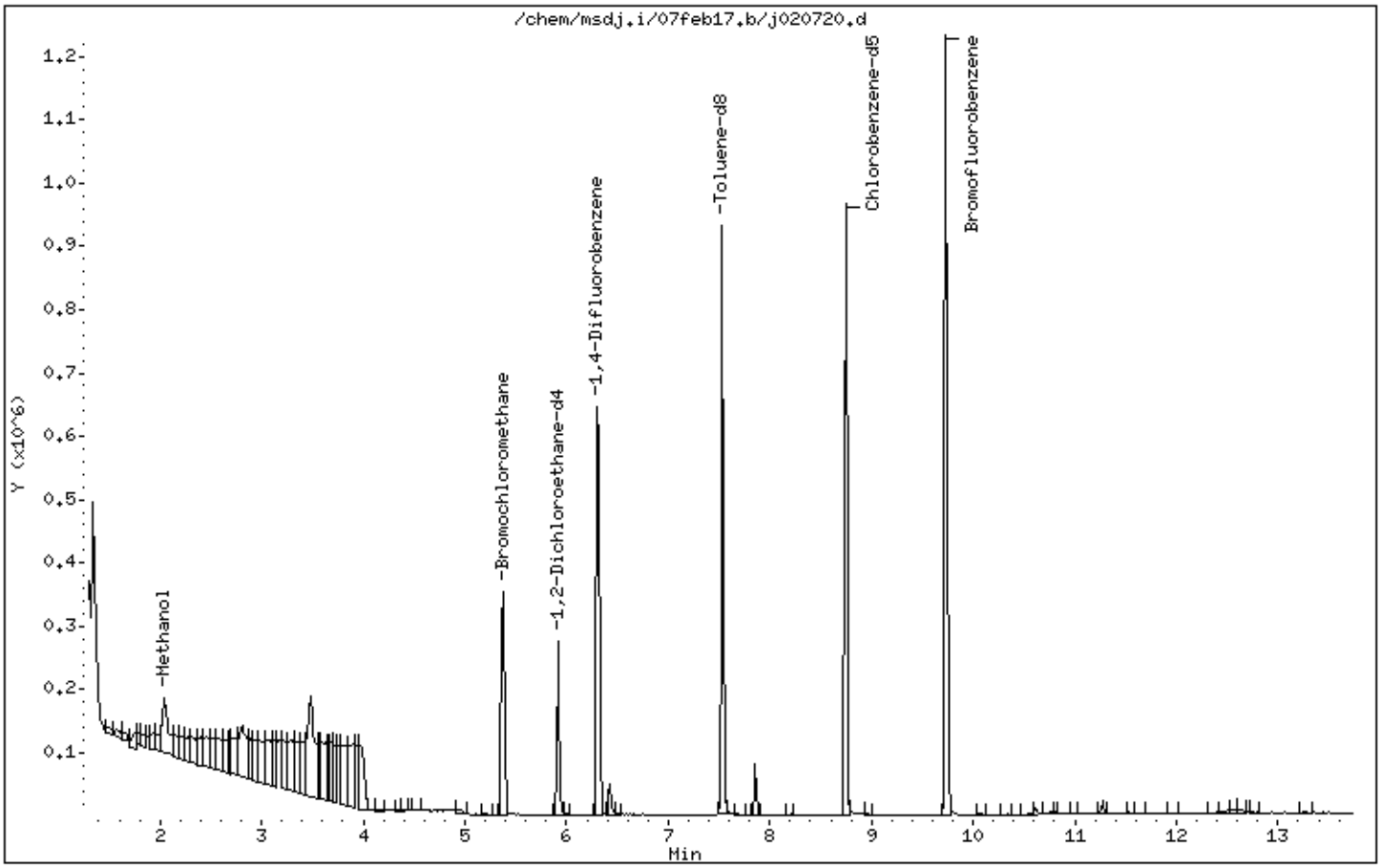
Instrument: msdj.i

Sample Info: 50ml 1L1720

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdj.i/07feb17.b/j020720.d

Date : 07-FEB-2017 21:33

Client ID:

Instrument: msdj.i

Sample Info: 50ml 1L1720

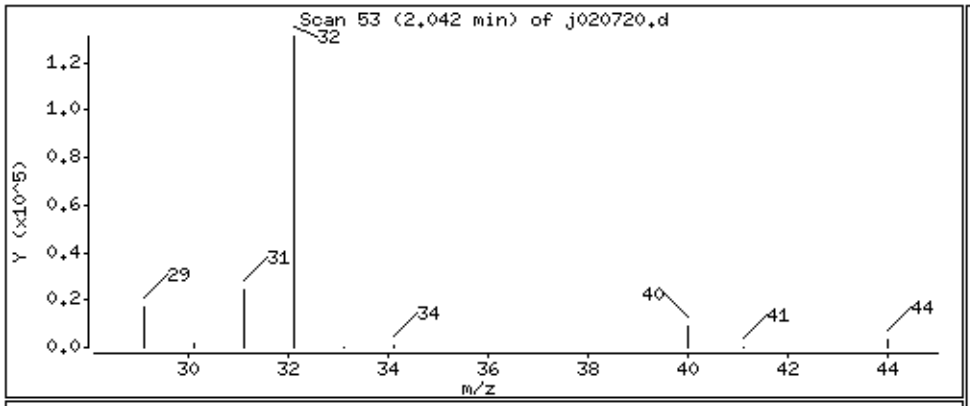
Operator: jlf

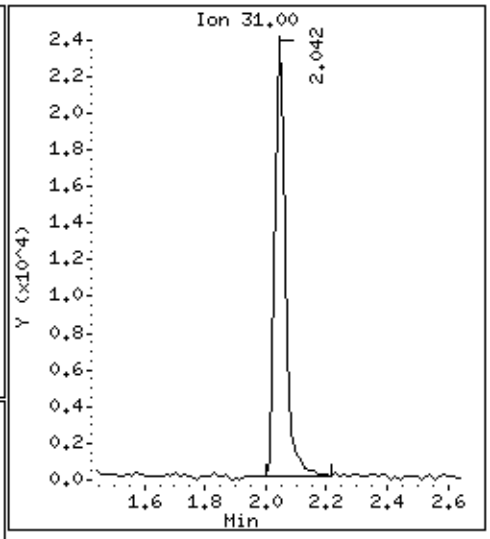
Column phase: RTx-624

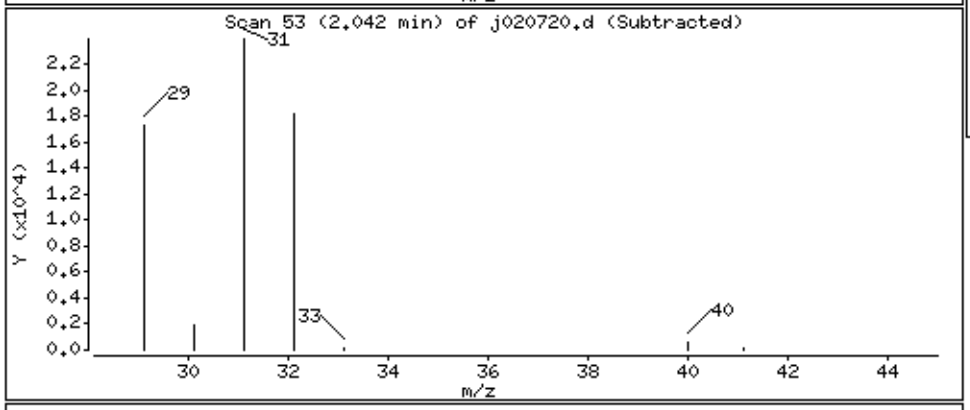
Column diameter: 0.53

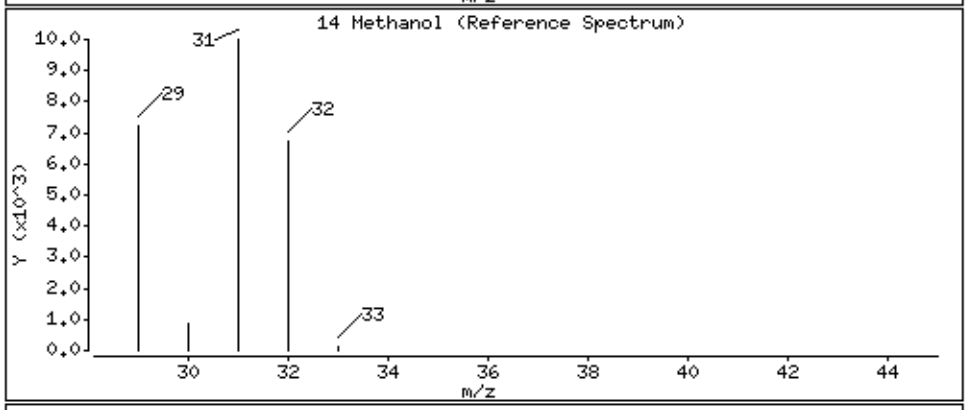
14 Methanol

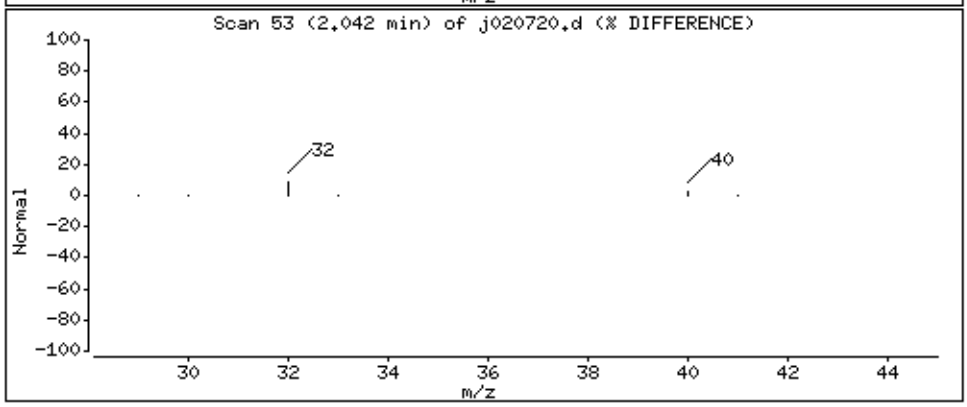
Concentration: 148.55 PPBV











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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS

Client Sample ID: B18SS-1Dup-012617

Lab ID#: 1701428C-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	180	160	230

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Client Sample ID: B18SS-1Dup-012617

Lab ID#: 1701428C-19A

EPA METHOD TO-15 GC/MS

File Name:	**j020721**	**Date of Collection:**	**1/26/17 5:30:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**2/7/17 09:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	120	180	160	230

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020721.d
Lab Smp Id: 1701428C-19A
Inj Date : 07-FEB-2017 21:57
Operator : jlf Inst ID: msdj.i
Smp Info : 50ml N1929
Misc Info : 5.5 Hg->14.8 psi
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 12:47 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 8
Dil Factor: 2.46000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.380	5.366 (1.000)	130	121388	400.000		80.00- 120.00	100.00
5.380	5.366 (1.000)	128	94698			50.69- 110.69	78.01
5.380	5.366 (1.000)	49	188037			130.24- 190.24	154.91
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.317	6.303 (1.000)	114	524151	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	76717			0.00- 44.76	14.64
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	479671	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	253610			22.90- 82.90	52.87
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.099)	65	166467	392.711	392.71	80.00- 120.00	100.00
5.911	5.911 (1.099)	67	87771			23.00- 83.00	52.73
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.193)	98	532195	399.769	399.77	80.00- 120.00	100.00
7.534	7.534 (1.193)	70	58250			0.00- 40.53	10.95

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)							
7.534	7.534 (1.193)	100	348879			35.34- 95.34	65.55
$ 138 Bromofluorobenzene					CAS #: 460-00-4		
9.731	9.745 (1.112)	174	290621	414.197	414.20	80.00- 120.00	100.00
9.731	9.745 (1.112)	95	374404			101.45- 161.45	128.83
9.731	9.745 (1.112)	176	281136			68.09- 128.09	96.74
14 Methanol					CAS #: 67-56-1		
2.042	2.042 (0.380)	31	68183	72.0152	177.16	80.00- 120.00	100.00

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020721.d
Lab Smp Id: 1701428C-19A
Analysis Type: VOA
Quant Type: ISTD
Operator: jlf
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->14.8 psi

Calibration Date: 07-FEB-2017
Calibration Time: 09:50

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	121388	0.72
92 1,4-Difluorobenze	540965	324579	757351	524151	-3.11
125 Chlorobenzene-d5	495704	297422	693986	479671	-3.23

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.38	0.26
92 1,4-Difluorobenze	6.30	5.97	6.63	6.32	0.22
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 22:25

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1701428C-19A
Level: LOW
Operator: jlf
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 5.5 Hg->14.8 psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	392.71	98.18	70-130
$ 107 Toluene-d8	400.00	399.77	99.94	70-130
$ 138 Bromofluorobenzene	400.00	414.20	103.55	70-130

Data File: /chem/msdj.i/07feb17.b/j020721.d

Date : 07-FEB-2017 21:57

Client ID:

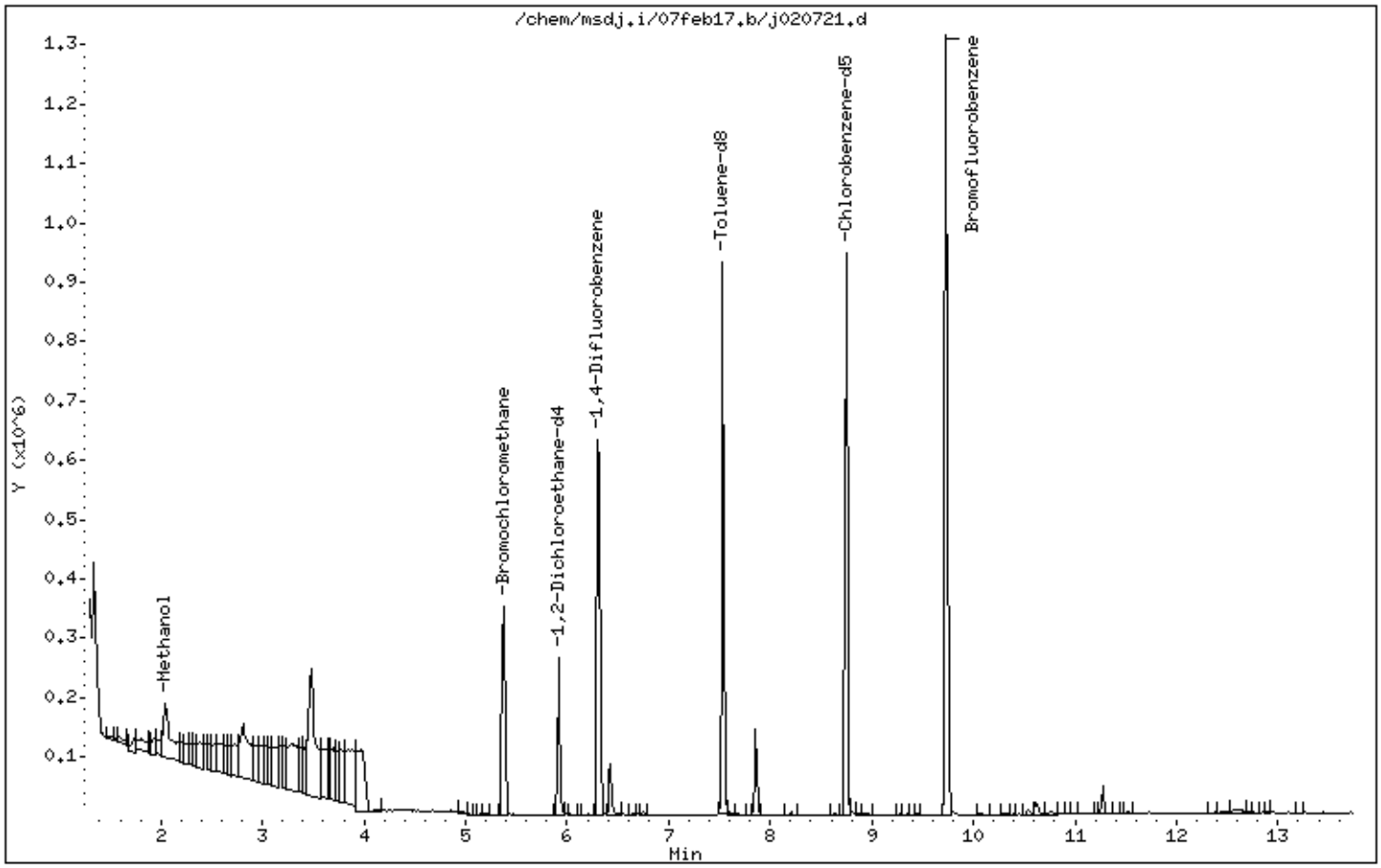
Instrument: msdj.i

Sample Info: 50ml N1929

Operator: jlf

Column phase: RTx-624

Column diameter: 0.53



Data File: /chem/msdj.i/07feb17.b/j020721.d

Date : 07-FEB-2017 21:57

Client ID:

Instrument: msdj.i

Sample Info: 50ml N1929

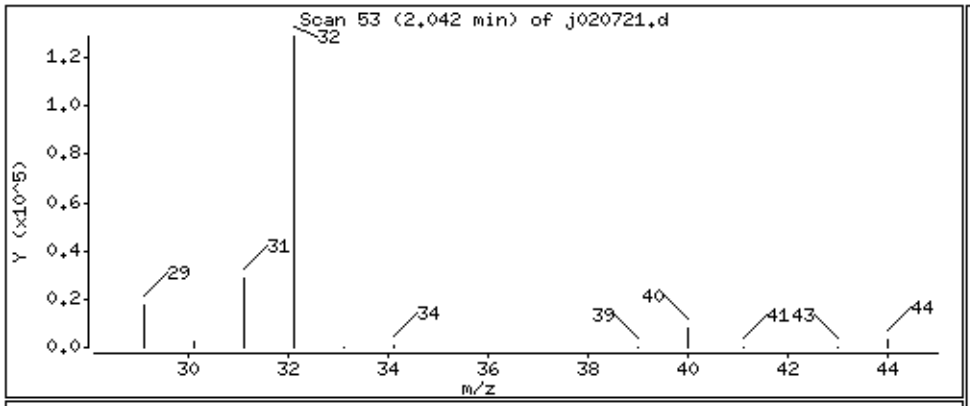
Operator: jlf

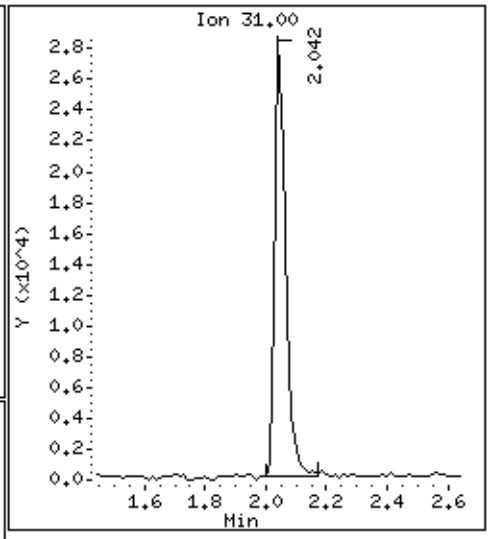
Column phase: RTx-624

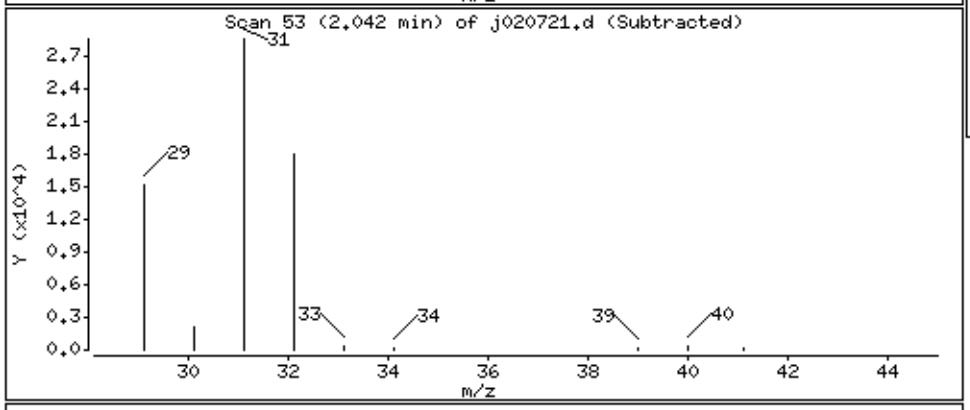
Column diameter: 0.53

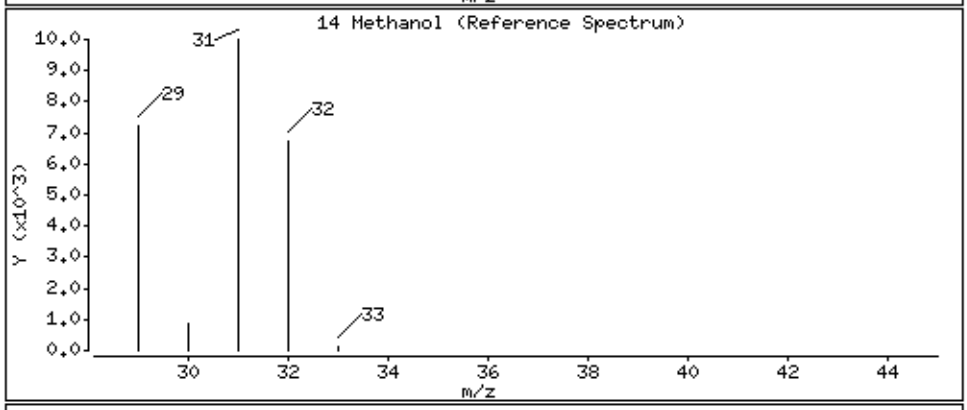
14 Methanol

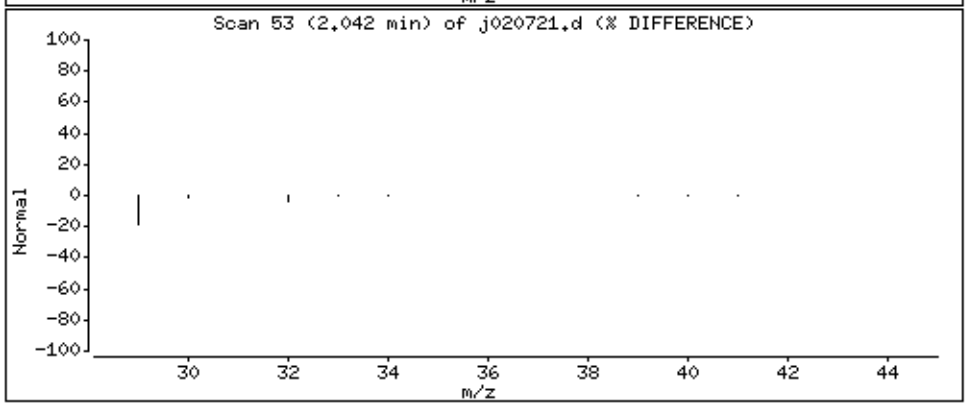
Concentration: 177.16 PPBV











QC Results and Raw Data

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1701428C-20A

EPA METHOD TO-15 GC/MS

File Name:	**j020704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 12:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	50	Not Detected	66	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020704.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 07-FEB-2017 12:04
Operator : gd Inst ID: msdj.i
Smp Info : 50ml #12683
Misc Info : Humid
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 10:25 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.366	5.366 (1.000)	130	130549	400.000		80.00- 120.00	100.00
5.366	5.366 (1.000)	128	101506			50.69- 110.69	77.75
5.366	5.366 (1.000)	49	207346			130.24- 190.24	158.83
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	569673	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	84645			0.00- 44.76	14.86
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	509948	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	269300			22.90- 82.90	52.81
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.102)	65	182638	400.621	400.62	80.00- 120.00	100.00
5.911	5.911 (1.102)	67	92047			23.00- 83.00	50.40
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	560728	387.545	387.54	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	61484			0.00- 40.53	10.97

RT	EXP RT	(REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)								
7.534	7.534	(1.195)	100	372901			35.34- 95.34	66.50
$ 138 Bromofluorobenzene						CAS #: 460-00-4		
9.745	9.745	(1.113)	174	307018	411.586	411.59	80.00- 120.00	100.00
9.731	9.731	(1.112)	95	392717			101.45- 161.45	127.91
9.745	9.745	(1.113)	176	297499			68.09- 128.09	96.90

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020704.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: Humid

Calibration Date: 07-FEB-2017
Calibration Time: 09:50
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	130549	8.32
92 1,4-Difluorobenze	540965	324579	757351	569673	5.31
125 Chlorobenzene-d5	495704	297422	693986	509948	2.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.37	0.00
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Report Date: 07-Feb-2017 12:35

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 07feb17
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: gd
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 200.spk
Quant Type: ISTD
Sublist File: MeOH.sub
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 84 1,2-Dichloroethane	400.00	400.62	100.16	70-130
$ 107 Toluene-d8	400.00	387.54	96.89	70-130
$ 138 Bromofluorobenzene	400.00	411.59	102.90	70-130

Data File: /chem/msdj.i/07feb17.b/j020704.d

Date : 07-FEB-2017 12:04

Client ID: Lab Blank

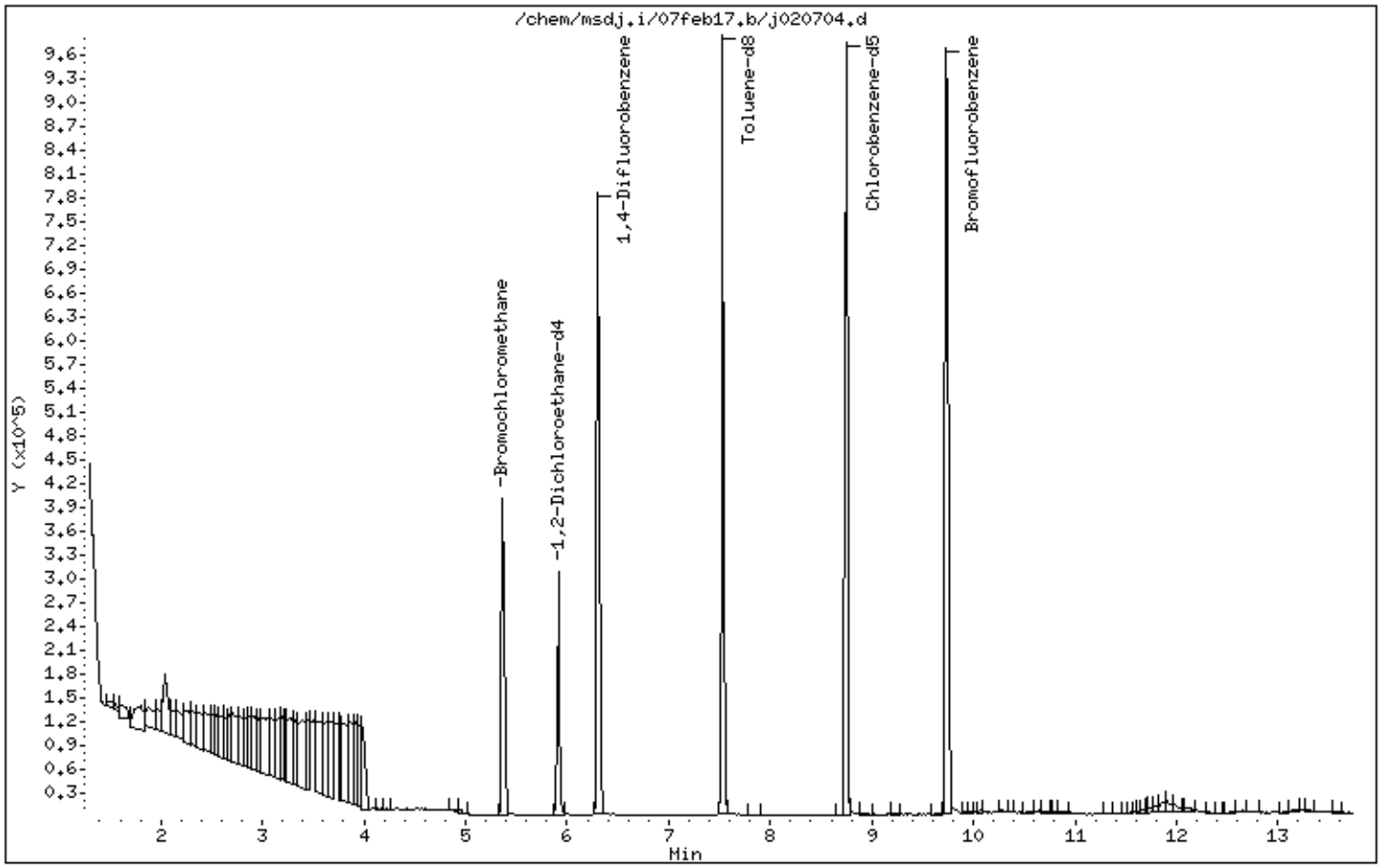
Instrument: msdj.i

Sample Info: 50ml #12683

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



LEVEL-IV VALIDATABLE

EPA METHOD TO-15 GC/MS

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1701428C

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B30IA-1-012117	100		97		100				0
02	B30IA-2-012117	101		101		101				0
03	B30IA-3-012117	98		100		101				0
04	B30IA-4-012117	100		99		102				0
05	B30IA-4D-012117	101		99		103				0
06	B30IA-5-012117	100		100		98				0
07	B1830AA-012117	101		100		101				0
08	B18IA-1-012117	103		100		101				0
09	B18IA-1D-012117	102		98		103				0
10	B18IA-2-012117	102		98		100				0
11	B18IA-3-012117	99		99		102				0
12	B18IA-4-012117	104		99		102				0
13	B8IA-2-012317	100		99		102				0
14	B8IA-2D-012317	100		99		101				0
15	B8AA-012317	100		98		102				0
16	B8SS-2-012417	102		157	*	106				1
17	B8SS-2D-012417	102		157	*	106				1
18	B18SS-1-012617	99		99		105				0
19	B18SS-1Dup-012617	98		100		104				0
20	Lab Blank	100		97		103				0
21	CCV	100		100		100				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

EPA Method TO-15 GC/MS

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1701428C
Lab File ID:	j020702a.d	Date Analyzed:	02/07/2017
Instrument ID:	msdj.i	Time Analyzed:	09:50 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	495704		8.75		540965		6.3		120521		5.37	
	UPPER LIMIT	693986		09.08		757351		06.63		168729		05.70	
	LOWER LIMIT	297422		08.42		324579		05.97		72313		05.04	
	CLIENT SAMPLE NO												
01	B30IA-1-012117	533526		8.75		603292		6.3		138939		5.37	
02	B30IA-2-012117	523574		8.75		576534		6.32		131446		5.38	
03	B30IA-3-012117	508619		8.75		560826		6.32		128450		5.38	
04	B30IA-4-012117	511860		8.75		573743		6.32		132674		5.38	
05	B30IA-4D-012117	505465		8.75		566220		6.3		129026		5.38	
06	B30IA-5-012117	518753		8.75		569113		6.3		132924		5.38	
07	B1830AA-012117	514174		8.75		563239		6.3		131375		5.38	
08	B18IA-1-012117	502474		8.75		549771		6.32		125317		5.38	
09	B18IA-1D-012117	498293		8.75		554646		6.32		128161		5.38	
10	B18IA-2-012117	504317		8.75		558755		6.3		126924		5.38	
11	B18IA-3-012117	519072		8.75		578550		6.3		137905		5.37	
12	B18IA-4-012117	512349		8.75		560598		6.3		129862		5.38	
13	B8IA-2-012317	508560		8.75		562669		6.32		129700		5.38	
14	B8IA-2D-012317	499920		8.75		554241		6.32		128236		5.38	
15	B8AA-012317	518317		8.75		575696		6.32		134111		5.38	
16	B8SS-2-012417	560722		8.75		604560		6.3		134427		5.38	
17	B8SS-2D-012417	562742		8.75		617864		6.3		136785		5.38	
18	B18SS-1-012617	482849		8.75		533194		6.32		123080		5.38	
19	B18SS-1Dup-012617	479671		8.75		524151		6.32		121388		5.38	
20	Lab Blank	509948		8.75		569673		6.3		130549		5.37	
21	CCV	495704		8.75		540965		6.3		120521		5.37	
22													

'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

* Designates values outside of QC limits

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2017 09:50
End Cal Date : 07-FEB-2017 09:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdj.i/07feb17.b/MEOH0207a.m
Cal Date : 07-Feb-2017 10:25 gdelacru
Curve Type : Average

Calibration File Names:
Level 2: /chem/msdj.i/07feb17.b/j020702.d

Compound	50.000 Level 2	___ RRF	% RSD
14 Methanol	3.11985	3.11988	0.000
$ 84 1,2-Dichloroethane-d4	1.39683	1.39683	0.000
$ 107 Toluene-d8	1.01593	1.01593	0.000
$ 138 Bromofluorobenzene	0.58511	0.58511	0.000

Calibration History

Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Start Cal Date: 07-FEB-2017 09:50
End Cal Date : 07-FEB-2017 09:50

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 50.00000		
07-FEB-2017 09:50	MeOHICAL	/chem/msdj.i/07feb17.b/j020702.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 2

Ccal Level: 2 , Ccal Amount: 50.000		
07-FEB-2017 09:50	MeOH	/chem/msdj.i/07feb17.b/j020702a.d
Ccal Level: 2 , Ccal Amount: 50.000		
07-FEB-2017 09:50	MeOHICAL	/chem/msdj.i/07feb17.b/j020702.d

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-FEB-2017 09:50
End Cal Date : 07-FEB-2017 09:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msdj.i/07feb17.b/MEOH0207a.m
Cal Date : 07-Feb-2017 10:25 gdelacru
Curve Type : Average

Calibration File Names:
Level 2: /chem/msdj.i/07feb17.b/j020702.d

gd 2/7/17

Compound	50.000 Level 2	RRF	% RSD
14 Methanol	3.11985	3.11988	0.000
$ 84 1,2-Dichloroethane-d4	1.39683	1.39683	0.000
$ 107 Toluene-d8	1.01593	1.01593	0.000
$ 138 Bromofluorobenzene	0.58511	0.58511	0.000

MEOH0207A.M
Initial Calibration Narrative

A 1-point Methanol initial calibration was analyzed on MSD-J on 2/7/2017.

No ICV needed.

BFB Tune file - J020701

MSDJ

BFB Verification of 176/174 ratio: (103416/109296) * 100 = 94.62%			
IS/S Std.#:	2819-126	Exp. Date:	2/9/2017
BCM	120,521		
1,4-DFB	540,965		
CB-d5	495,704		

Method TO-15/TO-14			
SOP#	91	Load (mLs)	50
Vacuum:	n/a		
Surrogate# 2819-126		Exp. Date:	2/9/17
Surrogate# NA		Exp. Date:	NA

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

Method(*.m): MEOH0207a.m

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init	Date Analyzed	Time Analyzed	Review Init	Comments
√	J020701	BFB	2819-126	1	36ng	1.0ml	1.00	gd	gd	2/7/2017	0854	gd	exp.2/9/17
√	J020702	ICAL level 2	2819-262	2	50ppbv(200ppbv)	12.5ml	1.00	gd	gd	2/7/2017	0950	gd	exp.5/7/17; CCV
X	J020703	Lab blank	12683	1	Humid	50ml	1.00	gd	gd	2/7/2017	1033	gd	>RL
√	J020704	Lab blank	12683	1	Humid	50ml	1.00	gd	gd	2/7/2017	1204	gd	canister remade
	J020705	~~1701428C-01A~~	~~25236~~	~~1~~	~~5.0 Hg->5 psi~~	~~50ml~~	~~1.61~~		~~gd~~	~~2/7/2017~~			
	J020706	1701428C-02A	N1755	3	5.5 Hg->5 psi	50ml	1.64		gd	2/7/2017			
	J020707	1701428C-03A	9551	4	9.0 Hg->5 psi	50ml	1.91		gd	2/7/2017			
	J020708	1701428C-04A	O0895	5	5.0 Hg->5 psi	50ml	1.61		gd	2/7/2017			
	J020709	1701428C-05A	O0898	6	6.0 Hg->5 psi	50ml	1.68		gd	2/7/2017			
	J020710	1701428C-06A	33787	7	5.5 Hg->5 psi	50ml	1.64		gd	2/7/2017			
	J020711	1701428C-07A	33585	8	5.5 Hg->5 psi	50ml	1.64		gd	2/7/2017			
	J020712	1701428C-08A	N1735	9	7.5 Hg->5 psi	50ml	1.79		gd	2/7/2017			
	J020713	1701428C-09A	O0138	10	6.0 Hg->5 psi	50ml	1.68		gd	2/7/2017			
	J020714	1701428C-10A	6L1216	11	7.0 Hg->5 psi	50ml	1.75		gd	2/7/2017			

gd 2/7/17

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020702.d
Lab Smp Id: ICAL Client Smp ID: Level 2
Inj Date : 07-FEB-2017 09:50
Operator : gd Inst ID: msdj.i
Smp Info : 12.5mL 2819-254
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 10:24 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOHICAL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.366	5.366 (1.000)	130	120521	400.000		80.00- 120.00	100.00
5.366	5.366 (1.000)	128	97246			50.69- 110.69	80.69
5.366	5.366 (1.000)	49	193125			130.24- 190.24	160.24
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.102)	65	168347	400.000	400.00	80.00- 120.00	100.00
5.911	5.911 (1.102)	67	89228			23.00- 83.00	53.00
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	540965	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	79835			0.00- 44.76	14.76
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	549583	400.000	400.00	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	57854			0.00- 40.53	10.53
7.534	7.534 (1.195)	100	359079			35.34- 95.34	65.34
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	495704	400.000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 125 Chlorobenzene-d5 (continued)							
8.752	8.752 (1.000)	82	262214			22.90- 82.90	52.90
$ 138 Bromofluorobenzene					CAS #: 460-00-4		
9.745	9.745 (1.113)	174	290041	400.000	400.00	80.00- 120.00	100.00
9.731	9.731 (1.112)	95	381254			101.45- 161.45	131.45
9.745	9.745 (1.113)	176	284488			68.09- 128.09	98.09
14 Methanol					CAS #: 67-56-1		
2.042	2.042 (0.381)	31	47001	50.0000	50.000	80.00- 120.00	100.00(a)

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: msdj.i
Lab File ID: j020702.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 07-FEB-2017
Calibration Time: 09:50
Client Smp ID: Level 2
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	120521	0.00
92 1,4-Difluorobenze	540965	324579	757351	540965	0.00
125 Chlorobenzene-d5	495704	297422	693986	495704	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.37	0.00
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

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Client Sample ID: CCV

Lab ID#: 1701428C-21A

EPA METHOD TO-15 GC/MS

File Name:	**j020702a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/7/17 09:50 AM**	

Compound	**%Recovery**
Methanol	100

Container Type: NA - Not Applicable

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

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msdj.i Injection Date: 07-FEB-2017 09:50
Lab File ID: j020702a.d Init. Cal. Date(s): 07-FEB-2017 07-FEB-2017
Analysis Type: AIR Init. Cal. Times: 09:50 09:50
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msdj.i/07feb17.b/MEOH0207a.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	%D / %DRIFT	MAX	CURVE TYPE
$ 84 1,2-Dichloroethane-d4	1.39683	1.39683	0.010	-0.00011	30.00000		Averaged
$ 107 Toluene-d8	1.01593	1.01593	0.010	0.00008	30.00000		Averaged
$ 138 Bromofluorobenzene	0.58511	0.58511	0.010	7.331e-06	30.00000		Averaged
14 Methanol	3.11988	3.11985	0.010	0.00078	30.00000		Averaged

Eurofins Air Toxics Inc.

AMBIENT AIR METHOD TO14A/TO15

Data file : /chem/msdj.i/07feb17.b/j020702a.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 07-FEB-2017 09:50
Operator : gd Inst ID: msdj.i
Smp Info : 12.5mL 2819-254
Misc Info : 50ppbv(200ppbv)
Comment :
Method : /chem/msdj.i/07feb17.b/MEOH0207a.m
Meth Date : 07-Feb-2017 10:25 gdelacru Quant Type: ISTD
Cal Date : 07-FEB-2017 09:50 Cal File: j020702.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MeOH.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 71 Bromochloromethane						CAS #: 74-97-5	
5.366	5.366 (1.000)	130	120521	400.000		80.00- 120.00	100.00
5.366	5.366 (1.000)	128	97246			50.69- 110.69	80.69
5.366	5.366 (1.000)	49	193125			130.24- 190.24	160.24
* 92 1,4-Difluorobenzene						CAS #: 540-36-3	
6.303	6.303 (1.000)	114	540965	400.000		80.00- 120.00	100.00
6.303	6.303 (1.000)	88	79835			0.00- 44.76	14.76
* 125 Chlorobenzene-d5						CAS #: 3114-55-4	
8.752	8.752 (1.000)	117	495704	400.000		80.00- 120.00	100.00
8.752	8.752 (1.000)	82	262214			22.90- 82.90	52.90
$ 84 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
5.911	5.911 (1.102)	65	168347	400.000	400.00	80.00- 120.00	100.00
5.911	5.911 (1.102)	67	89228			23.00- 83.00	53.00
$ 107 Toluene-d8						CAS #: 2037-26-5	
7.534	7.534 (1.195)	98	549583	400.000	400.00	80.00- 120.00	100.00
7.534	7.534 (1.195)	70	57854			0.00- 40.53	10.53

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 107 Toluene-d8 (continued)							
7.534	7.534 (1.195)	100	359079			35.34- 95.34	65.34
$ 138 Bromofluorobenzene						CAS #: 460-00-4	
9.745	9.745 (1.113)	174	290041	400.000	400.00	80.00- 120.00	100.00
9.731	9.731 (1.112)	95	381254			101.45- 161.45	131.45
9.745	9.745 (1.113)	176	284488			68.09- 128.09	98.09
14 Methanol						CAS #: 67-56-1	
2.042	2.042 (0.381)	31	47001	50.0000	50.000	80.00- 120.00	100.00

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msdj.i
Lab File ID: j020702a.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: gd
Method File: /chem/msdj.i/07feb17.b/MEOH0207a.m
Misc Info: 50ppbv(200ppbv)

Calibration Date: 07-FEB-2017
Calibration Time: 09:50
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	120521	72313	168729	120521	0.00
92 1,4-Difluorobenze	540965	324579	757351	540965	0.00
125 Chlorobenzene-d5	495704	297422	693986	495704	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
71 Bromochloromethan	5.37	5.04	5.70	5.37	0.00
92 1,4-Difluorobenze	6.30	5.97	6.63	6.30	0.00
125 Chlorobenzene-d5	8.75	8.42	9.08	8.75	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.

Data File: /chem/msdj.i/07feb17.b/j020702a.d

Date : 07-FEB-2017 09:50

Client ID: CCV

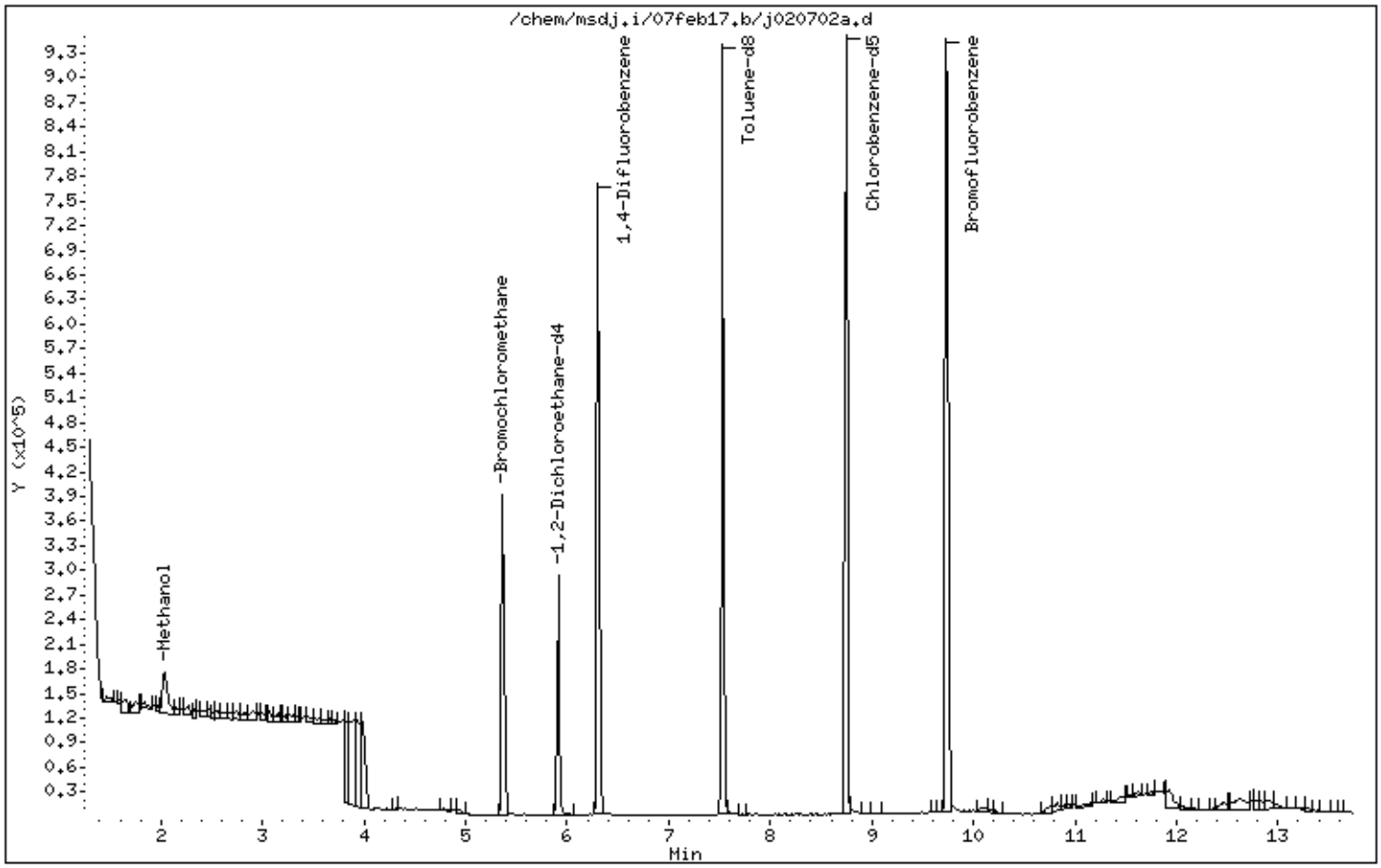
Instrument: msdj.i

Sample Info: 12.5mL 2819-254

Operator: gd

Column phase: RTx-624

Column diameter: 0.53



MSDJ

BFB Verification of 176/174 ratio: (103416/109296) * 100 = 94.62%			
IS/S Std.#:	2819-126	Exp. Date:	2/9/2017
BCM	120,521		
1,4-DFB	540,965		
CB-d5	495,704		

Method TO-15/TO-14			
SOP#	91	Load (mLs)	50
Vacuum:	n/a		
Surrogate# 2819-126		Exp. Date:	2/9/17
Surrogate# NA		Exp. Date:	NA

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

Method(*.m): MEOH0207a.m

Use	File #	Enter/Scan Sample IDs	Canister#	Cart Pos.	Pressure	Amount	DF	Verify Load	Loaded Init	Date Analyzed	Time Analyzed	Review Init	Comments
√	J020701	BFB	2819-126	1	36ng	1.0ml	1.00	gd	gd	2/7/2017	0854	gd	exp.2/9/17
√	J020702	ICAL level 2	2819-262	2	50ppbv(200ppbv)	12.5ml	1.00	gd	gd	2/7/2017	0950	gd	exp.5/7/17; CCV
X	J020703	Lab blank	12683	1	Humid	50ml	1.00	gd	gd	2/7/2017	1033	gd	>RL
√	J020704	Lab blank	12683	1	Humid	50ml	1.00	gd	gd	2/7/2017	1204	gd	canister remade
√	J020705	1701428C-01A	25236	1	5.0 Hg->5 psi	50ml	1.61	gd	gd	2/7/2017	1316	gd	
√	J020706	1701428C-02A	N1755	3	5.5 Hg->5 psi	50ml	1.64	gd	gd	2/7/2017	1339	gd	
√	J020707	1701428C-03A	9551	4	9.0 Hg->5 psi	50ml	1.91	gd	gd	2/7/2017	1402	gd	
√	J020708	1701428C-04A	O0895	5	5.0 Hg->5 psi	50ml	1.61	gd	gd	2/7/2017	1426	gd	
√	J020709	1701428C-05A	O0898	6	6.0 Hg->5 psi	50ml	1.68	gd	gd	2/7/2017	1449	gd	
√	J020710	1701428C-06A	33787	7	5.5 Hg->5 psi	50ml	1.64	gd	gd	2/7/2017	1512	jlf	
√	J020711	1701428C-07A	33585	8	5.5 Hg->5 psi	50ml	1.64	jlf	gd	2/7/2017	1536	jlf	
√	J020712	1701428C-08A	N1735	9	7.5 Hg->5 psi	50ml	1.79	jlf	gd	2/7/2017	1559	jlf	
√	J020713	1701428C-09A	O0138	10	6.0 Hg->5 psi	50ml	1.68	jlf	gd	2/7/2017	1622	jlf	
√	J020714	1701428C-10A	6L1216	11	7.0 Hg->5 psi	50ml	1.75	jlf	gd	2/7/2017	1646	jlf	
√	J020715	1701428C-11A	34320	1	4.5 Hg->5 psi	50ml	1.58	jlf	jlf	2/7/2017	1937	jlf	
√	J020716	1701428C-12A	N1591	3	1.5 Hg->5 psi	50ml	1.41	jlf	jlf	2/7/2017	2000	jlf	
√	J020717	1701428C-13A	N1726	4	7.0 Hg->5 psi	50ml	1.75	jlf	jlf	2/7/2017	2023	jlf	
√	J020718	1701428C-14A	N0416	5	8.5 Hg->5 psi	50ml	1.87	jlf	jlf	2/7/2017	2046	jlf	
√	J020719	1701428C-15A	O0316	6	2.5 Hg->5 psi	50ml	1.46	jlf	jlf	2/7/2017	2110	jlf	
√	J020720	1701428C-18A	1L1720	7	5.5 Hg->15.3 psi	50ml	2.50	jlf	jlf	2/7/2017	2133	jlf	
√	J020721	1701428C-19A	N1929	8	5.5 Hg->14.8 psi	50ml	2.46	jlf	jlf	2/7/2017	2157	jlf	
√	J020722	1701428C-16A	1L1603	9	5.7 Hg->14.9 psi	50ml	2.48	jlf	jlf	2/7/2017	2220	jlf	2nd surr out due to matrix
√	J020723	1701428C-17A	12373	10	4.9 Hg->15.1 psi	50ml	2.42	jlf	jlf	2/7/2017	2243	jlf	2nd surr out due to matrix

JLF 2/7/17

Eurofins Air Toxics Inc.

Data file : /var/chem/msdj.i/07feb17.b/j020701.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 07-FEB-2017 08:54
Operator : gd Inst ID: msdj.i
Smp Info : 50mL, #2819-126; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msdj.i/07feb17.b/bfb30.m
Meth Date : 07-Feb-2017 09:18 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	
9.738	9.440	0.298	95	141365			100.00- 100.00	100.00
9.738	9.440	0.298	50	29411			8.00- 40.00	20.81
9.738	9.440	0.298	75	64314			30.00- 66.00	45.49
9.738	9.440	0.298	96	9204			5.00- 9.00	6.51
9.738	9.440	0.298	173	1236			0.00- 1.99	1.13
9.738	9.440	0.298	174	109298			50.00- 120.00	77.32
9.738	9.440	0.298	175	7968			4.00- 9.00	7.29
9.738	9.440	0.298	176	103416			93.00- 101.00	94.62
9.738	9.440	0.298	177	6554			5.00- 9.00	6.34

Data File: /var/chem/msdj.i/07feb17.b/j020701.d

Date : 07-FEB-2017 08:54

Client ID: BFB

Instrument: msdj.i

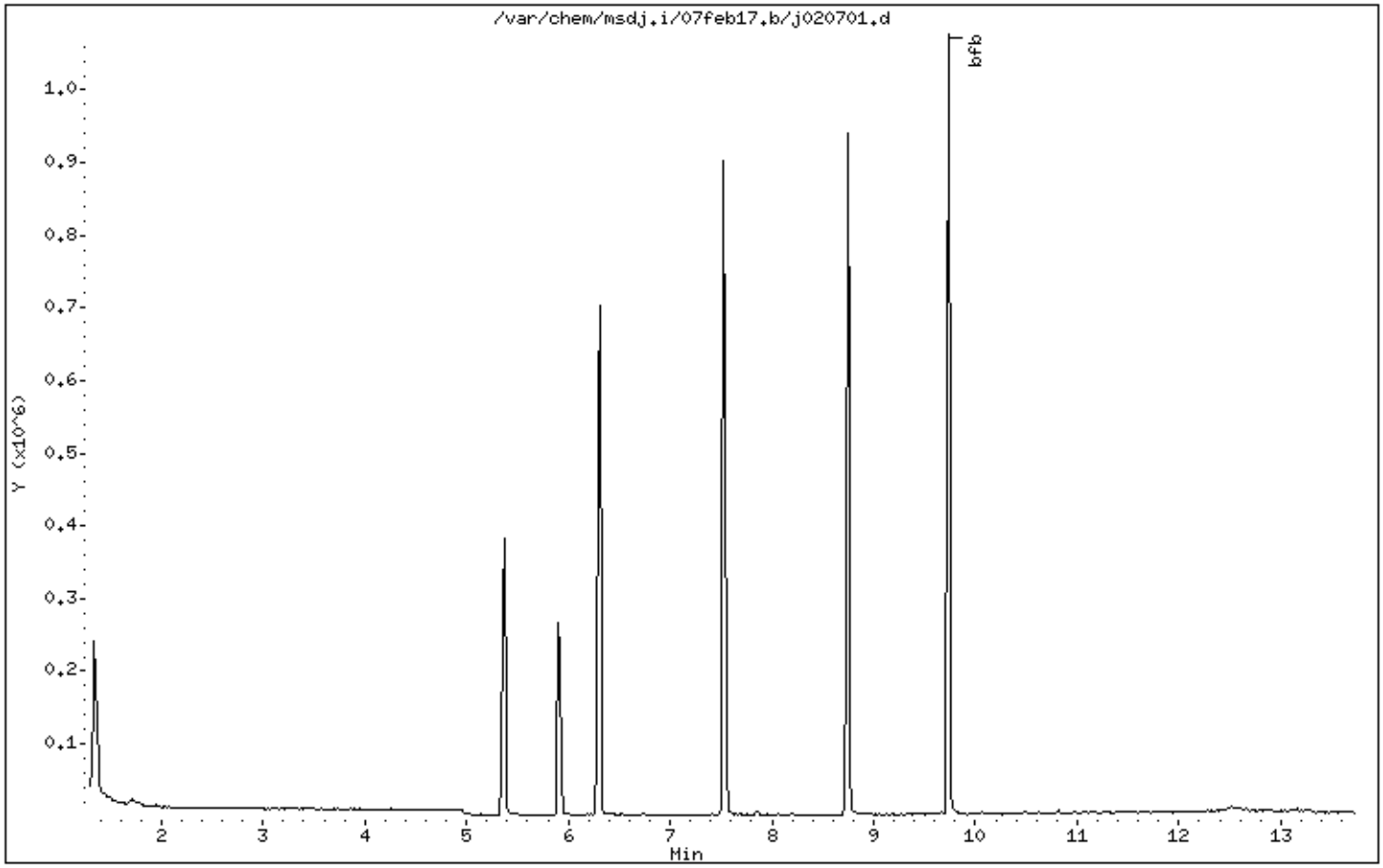
Sample Info: 50mL, #2819-126; BFB; BFB

Volume Injected (uL): 1.0

Operator: gd

Column phase:

Column diameter: 2.00



Data File: /var/chem/msdj.i/07feb17.b/j020701.d

Date : 07-FEB-2017 08:54

Client ID: BFB

Instrument: msdj.i

Sample Info: 50mL, #2819-126; BFB; BFB

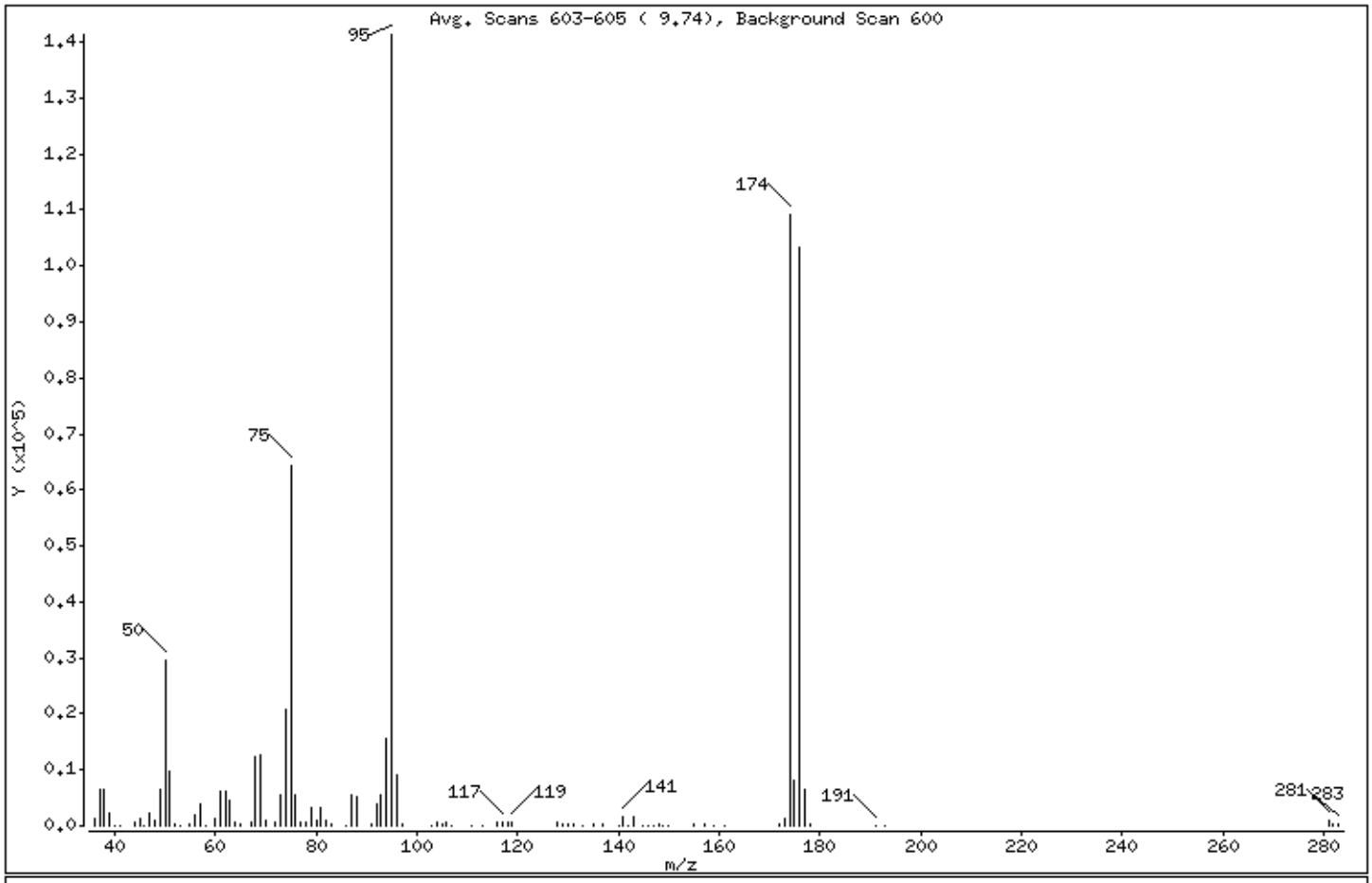
Volume Injected (uL): 1.0

Operator: gd

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	20.81
75	30.00 - 66.00% of mass 95	45.49
96	5.00 - 9.00% of mass 95	6.51
173	Less than 1.99% of mass 174	0.87 (1.13)
174	50.00 - 120.00% of mass 95	77.32
175	4.00 - 9.00% of mass 174	5.64 (7.29)
176	93.00 - 101.00% of mass 174	73.16 (94.62)
177	5.00 - 9.00% of mass 176	4.64 (6.34)

Data File: /var/chem/msdj.i/07feb17.b/j020701.d

Date : 07-FEB-2017 08:54

Client ID: BFB

Instrument: msdj.i

Sample Info: 50mL, #2819-126; BFB; BFB

Volume Injected (uL): 1.0

Operator: gd

Column phase:

Column diameter: 2.00

Data File: j020701.d
Spectrum: Avg. Scans 603-605 (9.74), Background Scan 600
Location of Maximum: 95.00
Number of points: 96

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1235	65.00	253	96.00	9204	146.00	102
37.00	6528	67.00	573	97.00	325	147.00	119
38.00	6412	68.00	12342	103.00	61	148.00	297
39.00	2335	69.00	12588	104.00	641	149.00	66
40.00	95	70.00	993	105.00	237	150.00	117
41.00	114	72.00	697	106.00	571	155.00	404
44.00	675	73.00	5633	107.00	55	157.00	208
45.00	1445	74.00	20704	111.00	51	159.00	113
46.00	124	75.00	64312	113.00	75	161.00	69
47.00	2118	76.00	5536	116.00	580	172.00	360
48.00	884	77.00	772	117.00	659	173.00	1236
49.00	6567	78.00	589	118.00	537	174.00	109296
50.00	29408	79.00	3309	119.00	723	175.00	7968
51.00	9632	80.00	917	128.00	519	176.00	103416
52.00	393	81.00	3359	129.00	165	177.00	6554
53.00	80	82.00	882	130.00	485	178.00	230
55.00	284	83.00	254	131.00	214	191.00	63
56.00	2101	86.00	70	133.00	140	193.00	51
57.00	3892	87.00	5637	135.00	385	281.00	1068
58.00	139	88.00	5269	137.00	216	282.00	246
60.00	1206	91.00	464	140.00	58	283.00	195
61.00	6260	92.00	3884	141.00	1568		
62.00	6289	93.00	5583	142.00	78		
63.00	4395	94.00	15562	143.00	1465		
64.00	536	95.00	141312	145.00	64		

Shipping/ Receiving Documents

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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 Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker 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

eurofins | 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 1 of 2

Project Manager: Terry Taylor
Collected by: (Print and Sign) RO, TT, DL, [signature]
Company: AMAI Email: ttaylor@amiconsult.com
Address: 2700 Westchester Ave. City: Purchase State: NY Zip: 10577
Phone: 914-251-0400 x309 Fax: 914-251-1286

Project Info:
P.O. #
Project # BMS V1
Project Name BMS V1

Turn Around Time: ☒ Normal ☐ Rush _____ specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

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	B301A-1-012117	25236	01/21/17	1817	TO-15, MeOH, CH_4	30"	5"		
02A	B301A-2-012117	N1755	01/21/17	1820	TO-15, MeOH, CH_4	30"	6.5		
03A	B301A-3-012117	9551	01/21/17	1821	TO-15, MeOH, CH_4	28"	10.5"		
04A	B301A-4-012117	00895	01/21/17	1822	TO-15, MeOH, CH_4	30"	5"		
05A	B301A-4D-012117 00898	~~00907~~	01/21/17	1822	TO-15, MeOH, CH_4	30"	6"		
06A	B301A-5-012117	33787	01/21/17	1825	TO-15, MeOH, CH_4	30"+	6"		
07A	B1830AA-012117	33585	1/21/17	1842	TO-15, MeOH, CH_4	30"	6"		
08A	B181A-1-012117	N1735	1/21/17	1807	TO-15, MeOH, CH_4	30"+	8"		
09A	B181A-1D-012117	00138	1/21/17	1807	TO-15, MeOH, CH_4	30"	7.5"		
10A	B181A-2-012117	GL1216	1/21/17	1800	TO-15, MeOH, CH_4	30"+	5"		

Relinquished by: (signature) Date/Time: [signature] 1-27-17 1400
Received by: (signature) Date/Time: Fed EX Track No. 7782 9053 0772
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time: [signature] 1/30/17 0920
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

Notes: Tag for canister 00898 indicated it is N0448. That ID is not on the packing slip. The canister has the serial # 00898, and is listed on the packing slip

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		N/A	good	Yes No (None)	1701428

Form 1293 rev.11

Air Toxics LTD.

Chain-of-Custody Record

Contact Person Terry Taylor
Company Anderson Mulholland & Associates, Inc.
Address 2700 Winchester, Suite 417 City Purchase State NY Zip 10577
Phone 914-251-0400, x 309 FAX
Collected By: (Signature)

Project Information:
P.O. #
Project #
Project Name BMS VI Invest.
Buildings 8,13, 5, 18, and 30

Turn Around Time:
[X] Normal
[ ] Rush
Specify

Pressurized by:
Date:
Press. Gas: N2 He

Lab I.D.	Field Sample I.D.	Canister I.D.	Date & Time	Analysis Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
11A	B18IA-3-012117	34320	1/21/17:1810	TO-15, MeOH, CH_4	29 "Hg	6		
12A	B18IA-4-012117	N1591	1/21/17:1812	TO-15, MeOH, CH_4	29.5 "Hg	6		
13A	B8IA-2-012317	N1726	1/23/17:1223	TO-15, MeOH, CH_4	29 "Hg	8		
14A	B8IA-2D-012317	N0416	1/23/17:1223	TO-15, MeOH, CH_4	29 "Hg	9		
15A	B8AA-012317	0Ø316	1/23/17:0920	TO-15, MeOH, CH_4	29 "Hg	3		
16A	B8SS-2-012417	1L1603	1/24/17:1535	TO-15, MeOH, CH_4	30 "Hg	5		
17A	B8SS-2D-012417	12373	1/24/17:1535	TO-15, MeOH, CH_4	29 "Hg	5		
18A	B18SS-1-012617	1L1720	1/26/17:1730	TO-15, MeOH, CH_4	30 "Hg	5		
VV 1/30/17 ~~19A~~	~~B18SS-1DUP-01266~~				"Hg			
19A ~~20A~~	B18SS-1DUP-012617	N1929	1/26/17:1730	TO-15, MeOH, CH_4	30 "Hg	6		

Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
1-27-17 1400 Fed EX
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
1/30/17 0920
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time

Notes:
FedEX Tracking No. 7782 9053 0772

Shipper Name	Air Bill #	Opened By	Temp ©	Condition	Custody Seals	Work Order #
Fed Ex		EATL	N/A	Good	Yes No (None)	1701428

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SAMPLE RECEIPT SUMMARY

WORKORDER 1701428C

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
Sales Rep: N/A

Phone

(914) 251-0400

Fax

Date Promised: 02/10/17
Date Completed: 2/9/17
Date Received: 1/30/17
PO#:
Project#: BMS VI

Total $: $ 1,520.00
Logged By: JV

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B30IA-1-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	5.0 "Hg	$75.00
02A	B30IA-2-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	5.5 "Hg	$75.00
03A	B30IA-3-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	9.0 "Hg	$75.00
04A	B30IA-4-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	5.0 "Hg	$75.00
05A	B30IA-4D-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	6.0 "Hg	$75.00
06A	B30IA-5-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	5.5 "Hg	$75.00
07A	B1830AA-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	5.5 "Hg	$75.00
08A	B18IA-1-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	7.5 "Hg	$75.00
09A	B18IA-1D-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	6.0 "Hg	$75.00
10A	B18IA-2-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	7.0 "Hg	$75.00
11A	B18IA-3-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	4.5 "Hg	$75.00
12A	B18IA-4-012117	Modified TO-15 (5&20 ppbv)	1/21/2017	1.5 "Hg	$75.00
13A	B8IA-2-012317	Modified TO-15 (5&20 ppbv)	1/23/2017	7.0 "Hg	$75.00
14A	B8IA-2D-012317	Modified TO-15 (5&20 ppbv)	1/23/2017	8.5 "Hg	$75.00
15A	B8AA-012317	Modified TO-15 (5&20 ppbv)	1/23/2017	2.5 "Hg	$75.00
16A	B8SS-2-012417	Modified TO-15 (5&20 ppbv)	1/24/2017	5.7 "Hg	$75.00
17A	B8SS-2D-012417	Modified TO-15 (5&20 ppbv)	1/24/2017	4.9 "Hg	$75.00
18A	B18SS-1-012617	Modified TO-15 (5&20 ppbv)	1/26/2017	5.5 "Hg	$75.00
19A	B18SS-1Dup-012617	Modified TO-15 (5&20 ppbv)	1/26/2017	5.5 "Hg	$75.00
20A	Lab Blank	Modified TO-15 (5&20 ppbv)	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#: BMS/19256

BILL TO: Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Analysis Code: TO-15 (5&20)

TERMS:

Reporting Method: TO-15 (5&20 ppbv) (Sp)-Methanol Only

eurofins | Air Toxics

SAMPLE RECEIPT SUMMARY Continued

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577
Sales Rep: N/A

Phone

(914) 251-0400

Fax

Date Promised: 02/10/17
Date Completed: 2/9/17
Date Received: 1/30/17
PO#:
Project#: BMS VI

Total $: $ 1,520.00
Logged By: JV

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
21A	CCV	Modified TO-15 (5&20 ppbv)	NA	NA	$0.00

Misc. ChargeseCVP (19) @ $5.00 each. $95.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: BMS/19256

BILL TO: Accounts Payable
Anderson Mulholland & Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Analysis Code: TO-15 (5&20)

TERMS:

Reporting Method: TO-15 (5&20 ppbv) (Sp)-Methanol Only

Other Records

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure ("Hg)})*(14.7\text{psi}/30\text{"Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
0.0	1.34	2.02
0.2	1.35	2.03
0.4	1.36	2.05
0.5	1.36	2.05
0.6	1.37	2.06
0.8	1.38	2.08
1.0	1.39	2.09
1.2	1.40	2.10
1.4	1.40	2.12
1.5	1.41	2.13
1.6	1.42	2.13
1.8	1.42	2.15
2.0	1.44	2.16
2.2	1.45	2.18
2.4	1.46	2.20
2.5	1.46	2.20
2.6	1.47	2.21
2.8	1.48	2.23
3.0	1.49	2.24
3.2	1.50	2.26
3.4	1.51	2.28
3.5	1.52	2.29
3.6	1.52	2.30
3.8	1.53	2.31
4.0	1.55	2.33
4.2	1.56	2.35
4.4	1.57	2.37
4.5	1.58	2.38
4.6	1.58	2.39
4.8	1.60	2.40
5.0	1.61	2.42
5.2	1.62	2.44
5.4	1.63	2.46
5.5	1.64	2.47
5.6	1.65	2.48
5.8	1.66	2.50
6.0	1.68	2.52
6.2	1.69	2.55
6.4	1.70	2.57
6.5	1.71	2.58
6.6	1.72	2.59
6.8	1.73	2.61
7.0	1.75	2.64
7.2	1.76	2.66
7.4	1.78	2.68
7.5	1.79	2.69
7.6	1.79	2.70

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
7.7	1.80	2.72
7.8	1.81	2.73
8.0	1.83	2.76
8.2	1.84	2.78
8.4	1.86	2.81
8.5	1.87	2.82
8.6	1.88	2.83
8.8	1.90	2.86
9.0	1.91	2.89
9.2	1.93	2.91
9.4	1.95	2.94
9.5	1.96	2.96
9.6	1.97	2.97
9.8	1.99	3.00
10.0	2.01	3.03
10.2	2.03	3.06
10.4	2.05	3.09
10.5	2.06	3.11
10.6	2.07	3.12
10.8	2.09	3.16
11.0	2.12	3.19
11.2	2.14	3.22
11.4	2.16	3.26
11.5	2.17	3.28
11.6	2.18	3.29
11.8	2.21	3.33
12.0	2.23	3.37
12.2	2.26	3.40
12.4	2.28	3.44
12.5	2.30	3.46
12.6	2.31	3.48
12.8	2.34	3.52
13.0	2.36	3.56
13.2	2.39	3.61
13.4	2.42	3.65
13.5	2.44	3.67
13.6	2.45	3.70
13.8	2.48	3.74
14.0	2.51	3.79
14.2	2.54	3.84
14.4	2.58	3.88
14.5	2.59	3.91
14.6	2.61	3.94
14.8	2.64	3.99
15.0	2.68	4.04
15.2	2.72	4.10
15.4	2.75	4.15

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
15.5	2.77	4.18
15.6	2.79	4.21
15.8	2.83	4.27
16.0	2.87	4.33
16.2	2.91	4.39
16.4	2.96	4.46
16.5	2.98	4.49
16.6	3.00	4.52
16.8	3.05	4.59
17.0	3.09	4.66
17.2	3.14	4.74
17.4	3.19	4.81
17.5	3.22	4.85
17.6	3.24	4.89
17.8	3.30	4.97
18.0	3.35	5.05
18.2	3.41	5.14
18.4	3.47	5.22
18.5	3.50	5.27
18.6	3.53	5.32
18.8	3.59	5.41
19.0	3.65	5.51
19.2	3.72	5.61
19.4	3.79	5.72
19.5	3.83	5.77
19.6	3.87	5.83
19.8	3.94	5.94
20.0	4.02	6.06
20.2	4.10	6.18
20.4	4.19	6.31
20.5	4.23	6.38
20.6	4.28	6.45
20.8	4.37	6.59
21.0	4.47	6.73
21.2	4.57	6.89
21.4	4.67	7.05
21.5	4.73	7.13
21.6	4.79	7.22
21.8	4.90	7.39
22.0	5.03	7.58
22.4	5.29	7.98

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
22.5	5.36	8.08
22.6	5.43	8.19
22.8	5.58	8.42
23.0	5.74	8.66
23.2	5.91	8.91
23.4	6.09	9.18
23.5	6.19	9.32
23.6	6.28	9.47
23.8	6.48	9.78
24.0	6.70	10.10
24.2	6.93	10.45
24.4	7.18	10.82
24.5	7.31	11.02
24.6	7.45	11.22
24.8	7.73	11.66
25.0	8.04	12.12
25.2	8.38	12.63
25.4	8.74	13.18
25.5	8.93	13.47
25.6	9.14	13.78
25.8	9.57	14.43
26.0	10.05	15.15
26.2	10.58	15.95
26.4	11.17	16.84
26.5	11.49	17.32
26.6	11.82	17.83
26.8	12.56	18.94
27.0	13.40	20.20
27.2	14.36	21.65
27.4	15.46	23.31
27.5	16.08	24.24
27.6	16.75	25.26
27.8	18.27	27.55
28.0	20.10	30.31
28.2	22.34	33.67
28.4	25.13	37.88
28.5	26.80	40.41
28.6	28.72	43.29
28.8	33.50	50.51
29.0	40.20	60.61

Compound List

TO-15 (5&20 ppbv) (Sp)-Methanol Only

CAS Number	Compound	Detection Limit ppbv	Type
67-56-1	Methanol	50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 1701428C	Form F1.27	Revision #13	Revision Date: 02/23/16	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out				
					Initials/Instrument/Date	S1: gd 2/7/17	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				
NA ✓					Manual Integrations included and approved				
				✓	Chain of Custody verified for special comments (add comments below)				
NA					Non-standard Target sublist verified (MDL, LOD, RL, control limits, etc.)				

Profile, analyses, reporting, special notes and unusual circumstances:

– Q out OK

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: gd 2/7/17	A2: gd 2/7/17	A3:	A4:
✓	✓			✓	IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
NA	NA			NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
NA	NA			NA	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, samples following bad loads on CIAAs have been verified (system blks, confirmation runs).				
✓	✓			✓	All runs have been evaluated for potential carry-over (TPHg/non-Target/over-range compounds/ etc.)				

Analytical and special notes: A_1 = 01A – 05A OK, 04A & 05A FD ok, gd 2/7/17
A_2: 06A – 10A full loads, 08A & 09A FD okay
11A – 19A full loads, 13A & 14A FD okay, 16A & 17A FD okay, 18A & 19A FD okay

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date	D1: AS 2/9/17	D2:	D3:	D4:
NA						CAR # (if applicable)				
✓						Spectra Verified (documentation of spectral defense included if applicable)				
NA						TICs resemble reference spectra/ TICs between sample dups. are consistent (if applicable)				
✓						Lab Narrative is correct				
NA						TPH/NMOC calculations complete and included in folder				

Special notes:

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: AS 2/9/17	3rd Tier: (needed only for DOD or per client request)	
NA		Sample Discrepancy Report (SDR) complete and approved (if applicable)		
NA		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:

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

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)	***3rd Tier Review** ** 3rd Tier Report Review is for DoD & Client Specific projects only* (Initials/Date)	**QA Review** (Initials/Date)

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)	***3rd Tier Review** ** 3rd 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