



AN ENVIRONMENTAL ANALYTICAL LABORATORY

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12/3/2008

Mr. Doug Herlocker

Tetra Tech

3380 Americana Terrace, Suite 201

Boise ID 83706

Project Name: BMI

Project #: 103PO333

Dear Mr. Doug Herlocker

The following report includes the data for the above referenced project for sample(s) received on 11/13/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-4A are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

A handwritten signature in black ink that reads 'Kelly Buettner'. The signature is fluid and cursive, with the first and last names clearly legible.

Kelly Buettner

Project Manager



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## WORK ORDER #: 0811274A

### Work Order Summary

<b>CLIENT:</b>	Mr. Doug Herlocker Tetra Tech 3380 Americana Terrace, Suite 201 Boise, ID 83706	<b>BILL TO:</b>	Mr. Doug Herlocker Tetra Tech 3380 Americana Terrace, Suite 201 Boise, ID 83706
<b>PHONE:</b>	208-389-1030	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	103PO333 BMI
<b>DATE RECEIVED:</b>	11/13/2008	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	12/03/2008		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	OFF01-110708	Modified TO-4A
01AA	OFF01-110708 Lab Duplicate	Modified TO-4A
02A	OFF02-110708	Modified TO-4A
03A	OFF01-111108	Modified TO-4A
04A	OFF02-111108	Modified TO-4A
05A	Lab Blank	Modified TO-4A
06A	LCS	Modified TO-4A

CERTIFIED BY:

Laboratory Director

DATE: 12/03/08

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004  
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09

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

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**LABORATORY NARRATIVE**  
**Modified TO-4A**  
**Tetra Tech**  
**Workorder# 0811274A**

Four PUF Cartridge samples were received on November 13, 2008. The laboratory performed analysis via Modified EPA Method TO-4A using GC/ECD. The PUF samples were extracted using Pressurized Fluid Extraction (PFE) by EPA Method 3545A. Following the extraction, the solvent is switched to hexane and the extract concentrated. Analysis is carried out on a HP 5890 GC/ECD and second column confirmation is used to positively identify pesticide results. Duplicate extraction cannot be performed on PUF media, therefore duplicate results are derived from analyzing the extract twice.

Method modifications taken to run these samples include:

<i><b>Requirement</b></i>	<i><b>Method TO-4A</b></i>	<i><b>ATL Modifications</b></i>
Extraction Solvent	10 % Diethyl Ether in Hexane	DCM, exchanging to Hexane during the concentration step.
Reagent Blank	Set up extraction system without filter/PUF; reflux with solvent	No Reagent Blank is extracted. Reagent lots are certified as acceptable prior to use.
Initial Calibration Verification (ICV)	Second source standard analyzed after ICAL; recovery 85 - 115 %	Recovery limits are 85-115% for pesticides; 80-120% for PCBs.
PCB Quantitation	Requires a minimum of 5 peaks	Use 4 peaks for quantitation.
Frequency of Continuing Calibration Verification	Every 10 samples.	Every 20 samples.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Due to laboratory error, pesticide compounds cannot be reported.

Sampling volume was supplied by the client. A sample volume of 300 m3 was assumed for all QC samples.

**Definition of Data Qualifying Flags**

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

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 detection limit.

M - Reported value may be biased due to apparent matrix interferences.

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



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## **Summary of Detected Compounds MODIFIED EPA METHOD TO-4A GC/ECD**

**Client Sample ID: OFF01-110708**

**Lab ID#: 0811274A-01A**

No Detections Were Found.

**Client Sample ID: OFF01-110708 Lab Duplicate**

**Lab ID#: 0811274A-01AA**

No Detections Were Found.

**Client Sample ID: OFF02-110708**

**Lab ID#: 0811274A-02A**

No Detections Were Found.

**Client Sample ID: OFF01-111108**

**Lab ID#: 0811274A-03A**

No Detections Were Found.

**Client Sample ID: OFF02-111108**

**Lab ID#: 0811274A-04A**

No Detections Were Found.



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Client Sample ID: OFF01-110708

Lab ID#: 0811274A-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8112408	Date of Collection: 11/7/08
Dil. Factor:	1.00	Date of Analysis: 11/24/08 03:49 PM
		Date of Extraction: 11/14/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Aroclor 1016/1242	1.0	0.0033	Not Detected	Not Detected
Aroclor-1221	1.0	0.0033	Not Detected	Not Detected
Aroclor-1232	1.0	0.0033	Not Detected	Not Detected
Aroclor-1248	1.0	0.0033	Not Detected	Not Detected
Aroclor-1254	1.0	0.0033	Not Detected	Not Detected
Aroclor-1260	1.0	0.0033	Not Detected	Not Detected

Air Sample Volume(L): 298000

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	70	60-120
Decachlorobiphenyl	83	60-120



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: OFF01-110708 Lab Duplicate

Lab ID#: 0811274A-01AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8112409	Date of Collection: 11/7/08
Dil. Factor:	1.00	Date of Analysis: 11/24/08 04:28 PM
		Date of Extraction: 11/14/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Aroclor 1016/1242	1.0	0.0033	Not Detected	Not Detected
Aroclor-1221	1.0	0.0033	Not Detected	Not Detected
Aroclor-1232	1.0	0.0033	Not Detected	Not Detected
Aroclor-1248	1.0	0.0033	Not Detected	Not Detected
Aroclor-1254	1.0	0.0033	Not Detected	Not Detected
Aroclor-1260	1.0	0.0033	Not Detected	Not Detected

Air Sample Volume(L): 298000

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	75	60-120
Decachlorobiphenyl	82	60-120



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Client Sample ID: OFF02-110708

Lab ID#: 0811274A-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8112410	Date of Collection: 11/7/08
Dil. Factor:	1.00	Date of Analysis: 11/24/08 05:08 PM
		Date of Extraction: 11/14/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Aroclor 1016/1242	1.0	0.0088	Not Detected	Not Detected
Aroclor-1221	1.0	0.0088	Not Detected	Not Detected
Aroclor-1232	1.0	0.0088	Not Detected	Not Detected
Aroclor-1248	1.0	0.0088	Not Detected	Not Detected
Aroclor-1254	1.0	0.0088	Not Detected	Not Detected
Aroclor-1260	1.0	0.0088	Not Detected	Not Detected

Air Sample Volume(L): 113000

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	78	60-120
Decachlorobiphenyl	84	60-120





AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: OFF01-111108

Lab ID#: 0811274A-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8112411	Date of Collection: 11/11/08
Dil. Factor:	1.00	Date of Analysis: 11/24/08 05:47 PM
		Date of Extraction: 11/14/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Aroclor 1016/1242	1.0	0.0034	Not Detected	Not Detected
Aroclor-1221	1.0	0.0034	Not Detected	Not Detected
Aroclor-1232	1.0	0.0034	Not Detected	Not Detected
Aroclor-1248	1.0	0.0034	Not Detected	Not Detected
Aroclor-1254	1.0	0.0034	Not Detected	Not Detected
Aroclor-1260	1.0	0.0034	Not Detected	Not Detected

Air Sample Volume(L): 296000

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	73	60-120
Decachlorobiphenyl	85	60-120



AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: OFF02-111108

Lab ID#: 0811274A-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8112412	Date of Collection: 11/11/08
Dil. Factor:	1.00	Date of Analysis: 11/24/08 06:26 PM
		Date of Extraction: 11/14/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Aroclor 1016/1242	1.0	0.0091	Not Detected	Not Detected
Aroclor-1221	1.0	0.0091	Not Detected	Not Detected
Aroclor-1232	1.0	0.0091	Not Detected	Not Detected
Aroclor-1248	1.0	0.0091	Not Detected	Not Detected
Aroclor-1254	1.0	0.0091	Not Detected	Not Detected
Aroclor-1260	1.0	0.0091	Not Detected	Not Detected

Air Sample Volume(L): 110000

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	76	60-120
Decachlorobiphenyl	85	60-120



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Client Sample ID: Lab Blank

Lab ID#: 0811274A-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8112507a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/25/08 07:22 PM
		Date of Extraction: 11/14/08

Compound	Rpt. Limit (ug)	Rpt. Limit (uG/m3)	Amount (ug)	Amount (uG/m3)
Aroclor 1016/1242	1.0	0.0033	Not Detected	Not Detected
Aroclor-1221	1.0	0.0033	Not Detected	Not Detected
Aroclor-1232	1.0	0.0033	Not Detected	Not Detected
Aroclor-1248	1.0	0.0033	Not Detected	Not Detected
Aroclor-1254	1.0	0.0033	Not Detected	Not Detected
Aroclor-1260	1.0	0.0033	Not Detected	Not Detected

Air Sample Volume(L): 300000

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	82	60-120
Decachlorobiphenyl	89	60-120



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Client Sample ID: LCS

Lab ID#: 0811274A-06A

**MODIFIED EPA METHOD TO-4A GC/ECD**

<b>File Name:</b>	<b>8112407</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/24/08 03:10 PM</b>
		<b>Date of Extraction: 11/14/08</b>

Compound	%Recovery
Aroclor 1016/1242	77
Aroclor-1221	Not Spiked
Aroclor-1232	Not Spiked
Aroclor-1248	Not Spiked
Aroclor-1254	Not Spiked
Aroclor-1260	95

**Air Sample Volume(L): 300000**  
**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	70	60-120
Decachlorobiphenyl	85	60-120