@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0908628C

	Page Nos. From	Page Nos. To
1. Work Order Cover Page & Laboratory Narrative & Table	1	3
2. Sample Results and Raw Data (Organized By Sample)	4	7
a. ATL Sample Results Form		
b. Target Compound Raw Data		
-Internal Standard Area and Retention Time Summary (If Applicable)		
-Surrogate Recovery Summary (If Applicable)		
-Chromatogram(s) and Ion Profiles (If Applicable)		
3. QC Results and Raw Data		
a. Method Blank (Results + Raw Data)	-	-
b. Surrogate Recovery Summary Form (If Applicable)	-	-
c. Internal Standard Summary Form (If Applicable)	-	-
d. Duplicate Results Summary Sheet	-	-
e. Matrix Spike/Matrix Spike Duplicate (Results + Raw Data)	-	-
f. Initial Calibration Data (Summary Sheet + Raw Data)		
g. MDL Study (If Applicable)	-	-
h. Continuing Calibration Verification Data		
i. Second Source LCS (Summary + Raw Data)	-	-
j. Extraction Logs	-	-
k. Instrument Run Logs/Software Verification	8	11
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	12	13
b. Chain-of-Custody Records	14	14
c. Sample Log-In Sheet	15	16
d. Misc. Shipping/Receiving Records (list individual records)		
Sample Receipt Discrepancy Report	17	18
5. Other Records (describe or list)		
a. Manual Spectral Defense	-	-
b. Manual Intergrations	-	-
c. Manual Calculations	-	-
d. Canister Dilution Factors	-	-
e. Laboratory Corrective Action Request	-	-
f. CAS Number Reference	19	20
g. Variance Table	-	-
h. Canister Certification	-	-
i. Data Review Check Sheet	21	21

Completed by:

Kara McKiernan	Kara McKiernan/ Document Control	09/21/09
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0908628C

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	**BILL TO:**	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	**P.O. #**	16512
FAX:	781-247-4305	**PROJECT #**	16512
DATE RECEIVED:	08/28/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/17/2009		

FRACTION #	NAME	TEST
32A	101311	ATL Applications
33A(cancelled)	101312	ATL Applications
34A	101313	ATL Applications
34AA	101313 Lab Duplicate	ATL Applications
35A	101314	ATL Applications
36A	101315	ATL Applications
37A	101316	ATL Applications
38A	101665	ATL Applications
39A	101666	ATL Applications
40A	101667	ATL Applications
40AA	101667 Lab Duplicate	ATL Applications
41A	101668	ATL Applications
42A	101669	ATL Applications
43A	101670	ATL Applications
44A	101423	ATL Applications
45A	101424	ATL Applications
46A	101425	ATL Applications

Continued on next page

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0908628C

Work Order Summary

CLIENT:	Mr. Taeko Minegishi Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	**BILL TO:**	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
PHONE:	800-825-5343	**P.O. #**	16512
FAX:	781-247-4305	**PROJECT #**	16512
DATE RECEIVED:	08/28/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/17/2009		

FRACTION #	NAME	TEST
47A	101426	ATL Applications
48A	Method Blank	ATL Applications
48B	Method Blank	ATL Applications
48C	Method Blank	ATL Applications
49A	CCV	ATL Applications

CERTIFIED BY: _____ DATE: 09/17/09

Laboratory Director

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Air Toxics LTD.
Laboratory Services Since 1989

LABORATORY NARRATIVE
Ozone by Radiello 172
Environmental Health & Engineering, Inc.
Workorder# 0908628C

Sixteen Radiello 172 (Ozone) samples were received on August 28, 2009. The procedure involves reaction of 4-pyridylaldehyde with 3-methyl-2-benzothiazolinone hydrazone to yield the corresponding azide. The absorbance is then measured at 430 nm using a spectrophotometer. Results are reported in uG and uG/m3.

Sampling rate of 24.6 mL/min was provided by the manufacturer.

Receiving Notes

The cartridge for sample 101312 was received broken. The client was notified that analysis was not possible.

Analytical Notes

Results were calculated based on 25 deg C without temperature correction. The actual exposure time was used to calculate sample concentrations and reporting limits.

An exposure time of 20160 minutes was used for the QC samples.

All media used for the sampling were supplied by the client. Blank subtraction was not performed on the sample results since the media used for Method Blanks may be from a different lot than the media used for the samples.

Definition of Data Qualifying Flags

Eight 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.
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

Sample Results and Raw Data

AIR TOXICS LTD.

ATL Application # 62 for RAD 172 (Ozone)

Spectrophotometer

Field Sample I.D.	Lab Sample I.D.	Collection Date	Analysis Date	Dilution Factor	Reporting. Limit (ug)	Reporting. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
101311	0908628C-32A	8/25/2009	8/31/2009	1.00	0.64	1.4	ND	ND
101313	0908628C-34A	8/25/2009	8/31/2009	1.00	0.64	1.4	12	25
101313 Lab Duplicate	0908628C-34AA	8/25/2009	8/31/2009	1.00	0.64	1.4	12	25
101314	0908628C-35A	8/25/2009	8/31/2009	1.00	0.64	1.4	ND	ND
101315	0908628C-36A	8/25/2009	8/31/2009	1.00	0.64	1.4	ND	ND
101316	0908628C-37A	NA	8/31/2009	1.00	0.64	1.3	ND	ND
101665	0908628C-38A	8/27/2009	8/31/2009	1.00	0.64	1.3	ND	ND
101666	0908628C-39A	8/27/2009	8/31/2009	1.00	0.64	1.3	ND	ND
101667	0908628C-40A	8/27/2009	8/31/2009	1.00	0.64	1.3	11	23
101667 Lab Duplicate	0908628C-40AA	8/27/2009	8/31/2009	1.00	0.64	1.3	11	23
101668	0908628C-41A	8/27/2009	8/31/2009	1.00	0.64	1.3	ND	ND
101669	0908628C-42A	8/27/2009	8/31/2009	1.00	0.64	1.3	ND	ND
101670	0908628C-43A	NA	8/31/2009	1.00	0.64	1.3	ND	ND
101423	0908628C-44A	8/26/2009	8/31/2009	1.00	0.64	1.4	ND	ND
101424	0908628C-45A	8/26/2009	8/31/2009	1.00	0.64	1.4	ND	ND
101425	0908628C-46A	8/26/2009	8/31/2009	1.00	0.64	1.4	9.6	21
101426	0908628C-47A	8/26/2009	8/31/2009	1.00	0.64	1.4	ND	ND
Method Blank	0908628C-48A	NA	8/31/2009	1.00	0.64	1.3	ND	ND
Method Blank	0908628C-48B	NA	8/31/2009	1.00	0.64	1.3	ND	ND
Method Blank	0908628C-48C	NA	8/31/2009	1.00	0.64	1.3	ND	ND
								%Rec
CCV	0908628C-49A	NA	8/31/2009	1.00	0.64	1.3		104

COMMENTS: 1. NA=Not Applicable
2. ND=Not Detected
3. Exposure time of 20160 minutes was assumed for the QC samples.
4. Background subtraction not performed.

Ozone Radiello Calculation Worksheet

9000

Workorder #:	0908628C		
Sampling Rate (mL/min))	24.6	Typically 24.6 for Ozone	
Sampling T (deg C)	25	Typically 25	(Abs-Y-int)xDF / Slope
Volume (mL)	5	Typically 5 for Ozone	Conc (ug) x 1000000 / Q x Duration
Date of Analysis:	8/31/2009		Low PointxDF

Corrected Q 24.6 Ozone taking into account Temp

LabSampleID	Client	Date of Collection	Abs	Duration (min)	DF	Ozone Conc (ug)	Conc (ug/m3)	RL(ug)
32A	101311	8/25/2009	0.053	18720	1.00	0.268309087	0.583	0.638
33A	101312	8/25/2009	NA	18720	1.00	#VALUE!	#VALUE!	0.638
34A	101313	8/25/2009	1.264	18720	1.00	11.6188254	25.230	0.638
34AA	101313 Lab Duplicate	8/25/2009	1.266	18720	1.00	11.63757109	25.271	0.638
35A	101314	8/25/2009	0.047	18720	1.00	0.212072012	0.461	0.638
36A	101315	8/25/2009	0.059	18720	1.00	0.324546162	0.705	0.638
37A	101316	NA	0.033	20160	1.00	0.08085217	0.163	0.638
38A	101665	8/27/2009	0.046	20160	1.00	0.202699166	0.409	0.638
39A	101666	8/27/2009	0.038	20160	1.00	0.127716399	0.258	0.638
40A	101667	8/27/2009	1.243	20160	1.00	11.42199564	23.031	0.638
40AA	101667 Lab Duplicate	8/27/2009	1.246	20160	1.00	11.45011418	23.088	0.638
41A	101668	8/27/2009	0.049	20160	1.00	0.230817704	0.465	0.638
42A	101669	8/27/2009	0.037	20160	1.00	0.118343554	0.239	0.638
43A	101670	NA	0.032	20160	1.00	0.071479324	0.144	0.638
44A	101423	8/26/2009	0.048	18720	1.00	0.221444858	0.481	0.638
45A	101424	8/26/2009	0.038	18720	1.00	0.127716399	0.277	0.638
46A	101425	8/26/2009	1.049	18720	1.00	9.603663545	20.854	0.638
47A	101426	8/26/2009	0.048	18720	1.00	0.221444858	0.481	0.638
					1.00	-0.228451743	#DIV/0!	0.638
					1.00	-0.228451743	#DIV/0!	0.638
					1.00	-0.228451743	#DIV/0!	0.638
					1.00	-0.228451743	#DIV/0!	0.638
48A	Method Blank	NA	0.035	20160	1.00	0.099597862	0.201	0.638
48B	Method Blank	NA	0.032	20160	1.00	0.071479324	0.144	0.638
48C	Method Blank	NA	0.027	20160	1.00	0.024615095	0.050	0.638
49A	CCV	NA	0.734	20160	1.00	6.651217105	13.411	0.638

QC Duration	CCV Spike Amt
20160	6.384

Verified by HH and AW on 9/4/09

RL (ug) x 1000000
Q x Duration

Calibration Data

Date of Calibration
8/31/2009 Linear Regression

4-PA
ug/ml*0.224*0.5mL

RL (ug/m3)	Result (ug)	Result (ug/m3)	%Rec	4-PA ug/mL	ug Ozone	absorbance		
1.386	ND	ND		0	0	0	Slope	0.106691182
1.386	#VALUE!	#VALUE!		5.7	0.6384	0.078	Y-int	0.024373786
1.386	11.6188254	25.23023374		11.4	1.2768	0.160	R2	0.99920911
1.386	11.63757109	25.27093994		22.8	2.5536	0.300		
1.386	ND	ND		57	6.384	0.729		
1.386	ND	ND		114	12.768	1.375		
1.287	ND	ND						
1.287	ND	ND		hand entry				
1.287	ND	ND						
1.287	11.42199564	23.03118878						
1.287	11.45011418	23.08788669						
1.287	ND	ND						
1.287	ND	ND						
1.287	ND	ND						
1.386	ND	ND						
1.386	ND	ND						
1.386	9.603663545	20.85431768						
1.386	ND	ND						
#DIV/0!	ND	#DIV/0!						
#DIV/0!	ND	#DIV/0!						
#DIV/0!	ND	#DIV/0!						
#DIV/0!	ND	#DIV/0!						
1.287	ND	ND						
1.287	ND	ND						
1.287	ND	ND	%Rec					
1.287	6.651217105	13.41144241	104					

QC Results and Raw Data

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908628C

Date: 8/31/09

Analyst: A. Toyama

Method: Rad 172

Wavelength: 430 nm

Prep. Notes:

Standard ID	Concentration	ABS
1858-24-5.7	5.7 ug/mL	0.078
-11.4	11.4	0.160
-22.8	22.8	0.300
-57	57	0.729
-114	114	1.375

r = 0.99920911
m = 0.10669118
b = 0.02437386

Fraction	Dilution	ABS	Sample ID	Sample Volume
32A	1.00	0.053	101311	5.0mL
34A		1.264	313	
35A		0.047	314	
36A		0.059	315	
37A		0.033	316	
38A		0.046	6665	
39A		0.038	6666	
40A		1.243	6667	
41A		0.049	6668	
42A		0.037	6669	
43A		0.032	6670	
44A		0.048	423	
45A		0.038	424	
46A		1.049	425	
47A		0.048	426	

Notes: Blank Cartridges: Lot 09146

Signed: _____ Date: 8/31/09

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908628C

Date: ~~Method:~~

Analyst: **Wavelength:**

Prep. Notes:

cont. from page 35

Standard ID	Concentration	ABS

8/31/09 AG

r =
m =
b =

Fraction	Dilution	ABS	Sample ID	Sample Volume
34AA	1.00	1.266	101313	5.0 mL
40 AA	↓	1.246	101667	↓
BLK		0.035	NA	
BLK		0.032	↓	
BLK		0.027		
LCS/CCV	↓	0.734		↓
			8/31/09 AG	

Notes: CCV/LCS prepared at 57 ug/mL

Signed: _____ Date: 8/31/09

Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #: 1858**

Standard ID: 1858-24
Project: Rad 172 Calibration Solution
Analyst: A. Toyama
Preparation Date: 8/31/09
Expiration Date: 8/31/09

Solvent: DI H_2O
Solvent Lot #: NA

Procedure/Comments: Dissolve 20 µl of 4-Pyridine-carboxaldehyde, 97% (14776-1103, Located F2214) in 200 mL DI H_2O. From this solution prepare dilutions at 1:2, 1:5, 1:10, 1:20 ~~and 1:40~~. 8/31/09 AT Stock Solution = 114 ug/mL

1:2) 250 µl Pyridine solution with 250 µl of DI H_2O = 57 ug/mL

1:5) 100 µl of Pyridine solution with 400 µl of DI H_2O = 22.8 ug/mL

1:10) 100 µl of Pyridine solution with 900 µl of DI H_2O = 11.4 ug/mL

1:20) 250 µl of Pyridine 1:10 solution with 250 µl of DI H_2O = 5.7 ug/mL (then remove 250 µl of 1:10 solution to yield final volume of 0.5 mL

Then add 4.5 mL of MBTH solution to each level, stir and let stand for 1 hour (cover with parafilm) Then read absorbance at 430 nm.

1 µg of 4-pyridylaldehyde = 0.224 µg of ozone

8/31/09
AT

Signed — Date: 8/31/09 — Reviewed — Date: 8/30/11

Shipping/ Receiving Documents

Air Toxics LTD.
Laboratory Services Since 1989

180 Blue Ravine Road, Suite B
Folsom, CA 95630

Phone (916) 985-1000 FAX (916) 985-1020
Hours 8:00 A.M. to 6:00 P.M. Pacific

COMPANY: Environmental Health & Engineering, Inc.
ATTENTION: Mr. Taeko Minegishi
FAX #: 781-247-4305
FROM: Sample Receiving
Workorder #: 0908628C
# of pages (Including Cover): 4

9/18/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found discrepancies. In order to expedite analysis and reporting, please review the attached information for accuracy. Corrections can be faxed to **Ausha Scott at 916-985-1020.**
ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

The following discrepancy has been observed:

The container for sample 101312 was received broken and cannot be analyzed. This will be noted on the report.

Your prompt response is appreciated.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

0908628

DATE: 27 AUG 09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: AIR TOXICS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☒

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	START	OTHER: Time/Date/Vol. STOP
32A	101311	AIR/PASSIVE	OZONE ANALYSIS	8/12/09	8/25/09
33A	101312				
34A	101313				
35A	101314				
36A	101315				
37A	101316				ϕ
38A	101665			8/13/09	8/27/09
39A	101666				
40A	101667				
41A	101668				
42A	101669				
43A	101670				ϕ
44A	101423			8/13/09	8/26/09
45A	101424				
46A	101425				
47A	101426				

Special Instructions:

Fed ex 8704 2333 1898

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other

CUSTODY SEAL INTACT? Y N NONE TEMP 6°C

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES**

☒ Electronic transfer - datacoordinator@eheinc.com

☐ Additional report recipient mfraglace@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 8/27/09

Received by: _____ 0850 of (company name) AT1 Date: 8/28/09

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Air Toxics LTD.
Laboratory Services Since 1989

SAMPLE RECEIPT SUMMARY

WORKORDER 0908628C

Client

Mr. Taeko Minegishi
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Phone

800-825-5343

Fax

781-247-4305

Sales Rep: TL

Date Promised: 09/09/09 11:59 pm
Date Completed: 9/17/09
Date Received: 8/28/09
PO#: 16512
Project#: 16512

Total $: $ 825.00
Logged By: MG

Fraction	Sample #	Analysis	Collected	Amount$
32A	101311	ATL Applications	8/25/2009	$50.00
33A(cancelled	101312	ATL Applications	8/25/2009	$0.00
34A	101313	ATL Applications	8/25/2009	$50.00
34AA	101313 Lab Duplicate	ATL Applications	8/25/2009	$0.00
35A	101314	ATL Applications	8/25/2009	$50.00
36A	101315	ATL Applications	8/25/2009	$50.00
37A	101316	ATL Applications	NA	$50.00
38A	101665	ATL Applications	8/27/2009	$50.00
39A	101666	ATL Applications	8/27/2009	$50.00
40A	101667	ATL Applications	8/27/2009	$50.00
40AA	101667 Lab Duplicate	ATL Applications	8/27/2009	$0.00
41A	101668	ATL Applications	8/27/2009	$50.00
42A	101669	ATL Applications	8/27/2009	$50.00
43A	101670	ATL Applications	NA	$50.00
44A	101423	ATL Applications	8/26/2009	$50.00
45A	101424	ATL Applications	8/26/2009	$50.00
46A	101425	ATL Applications	8/26/2009	$50.00
47A	101426	ATL Applications	8/26/2009	$50.00
48A	Method Blank	ATL Applications	NA	$0.00
48B	Method Blank	ATL Applications	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#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #62 Ozone-Radiello 172

SAMPLE RECEIPT SUMMARY Continued

Client

Mr. Taeko Minegishi
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Sales Rep: TL

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 09/09/09 11:59 pm
Date Completed: 9/17/09
Date Received: 8/28/09
PO#: 16512
Project#: 16512

Total $: $ 825.00
Logged By: MG

Fraction	Sample #	Analysis	Collected	Amount$
48C	Method Blank	ATL Applications	NA	$0.00
49A	CCV	ATL Applications	NA	$0.00

Misc. Charges eCVP (15) @ $5.00 each. $75.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: CPSC Indoor Air Monitoring/13297

BILL TO: Accounts Payable
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Analysis Code: Other GC

TERMS:

Reporting Method: ATL Application #62 Ozone-Radiello 172

Sample Discrepancy Report

Identification

Initiated By: MG **Project ID:** 13297 **PM:** AS **Date:** 8/31/2009 **Discrepancy Type:** ☐ 1. ☒ 2. ☐ 3.

Workorder(s) affected: 0908628 **Sample(s) affected:** 33A

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☐ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☒ Sample cannot be analyzed. Container was ☒ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (< 25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ Ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Other (describe below)

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

Describe the Discrepancy: 2.8: According to the lab, sample 33A was broken, unable to analyze.

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

_____

_____

How Does this Affect Client: _____

_____

_____

Project Manager Use Only

Project Manager Notification ☒ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☒ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:AS Person notified: B.Baker Date: 9/2/2009

☐ Waiting for Client Reply

Comments: _____

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☒

☐ **Additional notifications attached.**

Additional Comments:

_____

Other Records

Air Toxics LTD.
Laboratory Services Since 1989

Method : ATL Application #62 Ozone-Radiello 172

CAS Number	Compound	Rpt. Limit (ug)
10028-15-6	Ozone	1.0

@Air Toxics Ltd.

DATA REVIEW CHECKLIST

Work Order #: 0908628C

A_1	A_2	R	T	M	Q	
☑	☐	☐	☐	☐	☐	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		☐	☐	☑	☐	The final report has the correct reporting list, special units, and header info.
		☐	☐	☑	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		☐	☐	☑	☐	Sample Discrepancy Report (SDR) is completed
NA	☐	☐	☐	NA	☐	Corrective Action issued - # _____
	☐	☐	☐	☑	☐	Unusual circumstances have been documented in the notes section below

LUMEN *validation report present and initialed* **CIRCLE (YES / (NO)**

☑	☐	☐	☐	☑	☐	Lab Blank, CCV, LCS and DUP met QC criteria
☑	☐	☐	☐	☑	☐	Hold time is met for all samples
		☐	☐	NA	☐	Appropriate data qualifier flags are applied
		☐	☐	☑	☐	Manual integrations for samples and QC are properly documented
☑	☐	☐	☐		☐	Samples analyzed within the project or method specific clock
		☐	☐			Retention times have been verified
NA	☐	☐	☐		☐	Appropriate ICAL(s) included
		☐	☐	☑	☐	At least one result per sample is verified against the target quant sheets/raw data
☑	☐	☐	☐		☐	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
☑	☐	☐	☐			Correct amount of sample analyzed (i.e. sample not over-diluted)
		☐	☐			Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		☐	☐			TICs resemble reference spectra
		☐	☐			TICs between duplicate samples are consistent
NA	☐	☐	☐	☑	☐	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
☐	☐	☐	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		☐		☐		Special units for all samples in the final report are correctly calculated
		☐	☐	☐		Manually entered results checked (i.e. TPH/NMOC)
☑	☐	☐				Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		☐				Chain of Custody scanned correctly
					☐	Verify sample id's vs. chain of custody
		☐				Date MDL(s) performed per instrument(s) _____
NA	☐	☐	☐			Samples pressurized w/ appropriate gas (N_2 or He) ☑ Other (i.e. Tedlar bag, cartridge, sorbent)
	☐	☐	☐			Final pressure consistent with canister size (6L vs. 1L) Rad 172
	☐	☐	☐			Verify receipt pressures
	☐	☐	☐			Verify canister ID #'s
		☐		☑		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
			NA	☐		MDL date(s) present for all instruments utilized
		☐	☐	☐	☐	Client LUMEN report reviewed for accuracy and completeness

Notes: *(to include: noting samples with QA/QC problems, Blanks with positive hits, narratives, etc.)*

A/R:

Dup: 34A, 40A

Cancelled: 33A

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1: 9/11/09	R:	9/17/09	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply. Rev. 07/20/09

Note (2): Management reviewer and reporting reviewer must be separate individuals.