@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0909552D

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-Surrogate Recovery Summary (If Applicable)		
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Completed by:

Kara McKiernan	Kara McKiernan/ Document Control	10/15/09
(Signature)	(Print Name & Title)	(Date)

WORK ORDER #: 0909552D

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:	09/25/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	10/13/2009		

FRACTION #	NAME	TEST
48A	106832	ATL Applications
48AA	106832 Lab Duplicate	ATL Applications
49A	106833	ATL Applications
49AA	106833 Lab Duplicate	ATL Applications
50A	106834	ATL Applications
51A	106835	ATL Applications
52A	106836	ATL Applications
53A	106837	ATL Applications
54A	106861	ATL Applications
55A	106862	ATL Applications
56A	106863	ATL Applications
57A	106864	ATL Applications
58A	106865	ATL Applications
59A	106866	ATL Applications
60A	106880	ATL Applications
61A	106884	ATL Applications
62A	Lab Blank	ATL Applications
62B	Lab Blank	ATL Applications

Continued on next page

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0909552D

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:	09/25/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	10/13/2009		

FRACTION #	NAME	TEST
63A	CCV	ATL Applications

CERTIFIED BY: Linda S. Truman

Laboratory Director

DATE: 10/13/09

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

LABORATORY NARRATIVE
Nitrogen Dioxide by Radiello 166
Environmental Health & Engineering, Inc.
Workorder# 0909552D

Fourteen Radiello 166 (NO2) samples were received on September 25, 2009. The procedure involves extraction of nitrite from reaction of NO2 with triethanolamine. Absorbance of nitrite is then measured at 537 nm using a spectrophotometer. Results are reported in uG and uG/m3.

Sampling rate of 141 mL/min was provided by the manufacturer.

Receiving Notes

There were no receiving discrepancies.

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 # 61 for RAD 166 (Nitrogen Dioxide)

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)
106832	0909552D-48A	9/23/2009	9/29/2009	1.00	0.32	0.22	14	9.5
106832 Lab Duplicate	0909552D-48AA	9/23/2009	9/29/2009	1.00	0.32	0.22	14	9.4
106833	0909552D-49A	9/23/2009	9/29/2009	1.00	0.32	0.22	13	8.7
106833 Lab Duplicate	0909552D-49AA	9/23/2009	9/29/2009	1.00	0.32	0.22	13	8.8
106834	0909552D-50A	9/23/2009	9/29/2009	1.00	0.32	0.22	11	7.3
106835	0909552D-51A	9/23/2009	9/29/2009	1.00	0.32	0.22	14	9.0
106836	0909552D-52A	9/23/2009	9/29/2009	1.00	0.32	0.22	14	9.6
106837	0909552D-53A	NA	9/29/2009	1.00	0.32	0.22	ND	ND
106861	0909552D-54A	9/23/2009	9/29/2009	1.00	0.32	0.22	12	8.0
106862	0909552D-55A	9/23/2009	9/29/2009	1.00	0.32	0.22	9.5	6.3
106863	0909552D-56A	9/23/2009	9/29/2009	1.00	0.32	0.22	10	6.7
106864	0909552D-57A	9/23/2009	9/29/2009	1.00	0.32	0.22	9.7	6.4
106865	0909552D-58A	9/23/2009	9/29/2009	1.00	0.32	0.22	9.3	6.2
106866	0909552D-59A	NA	9/29/2009	1.00	0.32	0.22	ND	ND
106880	0909552D-60A	NA	9/29/2009	1.00	0.32	0.22	ND	ND
106884	0909552D-61A	NA	9/29/2009	1.00	0.32	0.22	ND	ND
Method Blank	0909552D-62A	NA	9/29/2009	1.00	0.32	0.22	ND	ND
Method Blank	0909552D-62B	NA	9/29/2009	1.00	0.32	0.22	ND	ND
							%Rec	
CCV	0909552D-63A	NA	9/29/2009	1.00	0.32	0.22	100	

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.

Dioxide Radiello Calculation Worksheet

Workorder #:	0909552D	
Sampling Rate (ng/(ppb*min))	0.141	Typically 0.96 for NO2
Sampling T (deg C)	25	Typically 25
Volume (mL)	5	Typically 5 for NO2
Date of Analysis:	9/29/2009	

1000ng/1ug

(Abs-Y-int)xDF	Conc(ug)x5 (mL)	Conc (ug) x 1000	ppbx mw
Slope	0.5mL	Q x Duration	24.45

Corrected Q 0.141 es into account temp

LabSampleID	Client	Date of Collection	Abs	Duration (min)	DF	Conc (ug) (for 0.5mL Aliquot)	Conc (ug) in full 5 mL of sample	Conc (ppb)	Conc (ug/m3)
48A	106832	9/23/2009	0.333	20160	1.00	1.429727798	14.29727798	5.030	9.463
48AA	106832 Lab Duplicate	9/23/2009	0.330	20160	1.00	1.416455548	14.16455548	4.983	9.375
49A	106833	9/23/2009	0.308	20160	1.00	1.319125712	13.19125712	4.641	8.731
49AA	106833 Lab Duplicate	9/23/2009	0.312	20160	1.00	1.336822046	13.36822046	4.703	8.848
50A	106834	9/23/2009	0.259	20160	1.00	1.102345623	11.02345623	3.878	7.296
51A	106835	9/23/2009	0.317	20160	1.00	1.358942463	13.58942463	4.781	8.994
52A	106836	9/23/2009	0.336	20160	1.00	1.443000049	14.43000049	5.076	9.551
53A	106837	NA	0.009	20160	1.00	-0.00367524	-0.036752403	-0.013	-0.024
54A	106861	9/23/2009	0.282	20160	1.00	1.204099542	12.04099542	4.236	7.970
55A	106862	9/23/2009	0.225	20160	1.00	0.951926785	9.519267854	3.349	6.300
56A	106863	9/23/2009	0.239	20160	1.00	1.013863954	10.13863954	3.567	6.710
57A	106864	9/23/2009	0.228	20160	1.00	0.965199036	9.651990357	3.396	6.388
58A	106865	9/23/2009	0.221	20160	1.00	0.934230452	9.342304515	3.287	6.183
59A	106866	NA	0.012	20160	1.00	0.00959701	0.095970101	0.034	0.064
60A	106880	NA	0.011	20160	1.00	0.005172927	0.051729266	0.018	0.034
61A	106884	NA	0.015	20160	1.00	0.02286926	0.228692604	0.080	0.151
					1.00	-0.043491991	-0.434919913	#DIV/0!	#DIV/0!
					1.00	-0.043491991	-0.434919913	#DIV/0!	#DIV/0!
					1.00	-0.043491991	-0.434919913	#DIV/0!	#DIV/0!
					1.00	-0.043491991	-0.434919913	#DIV/0!	#DIV/0!
					1.00	-0.043491991	-0.434919913	#DIV/0!	#DIV/0!
					1.00	-0.043491991	-0.434919913	#DIV/0!	#DIV/0!
62A	Method Blank	NA	0.012	20160	1.00	0.00959701	0.095970101	0.034	0.064
62B	Method Blank	NA	0.015	20160	1.00	0.02286926	0.228692604	0.080	0.151
63A	CCV	NA	0.157	20160	1.00	0.651089111	6.510891106	2.291	4.309

QC Duration	CCV Spike Amt ug per 0.5 mL
20160	0.65

mplate Verified by HH and AW on 9/4/09

1000ng/1ug

Low PointxDF	RL(ug)x5 (mL)	RL (ug) x 1000	ppbx mw
	0.5mL	Q x Duration	24.45

Calibration Data — Calibration Date 9/29/2009 Linear Regression

RL(ug) for 0.5 mL aliquot	RL (ug) in full 5 mL of sample	RL (ppb)	RL (ug/m3)	Result (ug)	Result (ug/m3)	%Rec
0.033	0.325	0.1	0.215	14.29727798	9.462865973	
0.033	0.325	0.1	0.215	14.16455548	9.375021611	
0.033	0.325	0.1	0.215	13.19125712	8.730829623	
0.033	0.325	0.1	0.215	13.36822046	8.847955439	
0.033	0.325	0.1	0.215	11.02345623	7.296038377	
0.033	0.325	0.1	0.215	13.58942463	8.994362709	
0.033	0.325	0.1	0.215	14.43000049	9.550710335	
0.033	0.325	0.1	0.215	ND	ND	
0.033	0.325	0.1	0.215	12.04099542	7.969511819	
0.033	0.325	0.1	0.215	9.519267854	6.300468941	
0.033	0.325	0.1	0.215	10.13863954	6.710409297	
0.033	0.325	0.1	0.215	9.651990357	6.388313303	
0.033	0.325	0.1	0.215	9.342304515	6.183343125	
0.033	0.325	0.1	0.215	ND	ND	
0.033	0.325	0.1	0.215	ND	ND	
0.033	0.325	0.1	0.215	ND	ND	
0.033	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!	
0.033	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!	
0.033	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!	
0.033	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!	
0.033	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!	
0.033	0.325	#DIV/0!	#DIV/0!	ND	#DIV/0!	
0.033	0.325	0.1	0.215	ND	ND	
0.033	0.325	0.1	0.215	ND	ND	%Rec
0.033	0.325	0.1	0.215	6.510891106	4.309330069	100

0.5 mL Aliquot of Cal STD ug/ml of NO2	ug of NO2	absorbance
0	0	0
0.065	0.0325	0.012
0.325	0.1625	0.042
1.3	0.65	0.156
6.5	3.25	0.765
13	6.5	1.469

Slope	0.226035519
Y-int	0.009830735
R2	0.999636861

QC Results and Raw Data

Spectrophotometer Logbook **@Air Toxics Ltd.** **Logbook#: 1875**

Work Order: 0909552D **Date:** 9/29/09 **Method:** Rad 166

Analyst: M.S Kidmore **Wavelength:** 537 nm

Standard ID	Concentration	ABS
Level 1 1858-59 - E	0,065 ug/ML	0,012
Level 2 - D	0,325 ug/ML	0,042
Level 3 - C	1,3 ug/ML	0,156
Level 4 - B	6,5 ug/ML	0,765
Level 5 - A	13 ug/ML	1,469
ICV 1858 - 61	1,3 ug/ML	0,161

r = 0,9996
m = 0,2260
b = 0,00983

ICV % Recovery = 103%

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
48A	1,00	0,333	106832	5,0 ML	
48AA		0,330	106832		
49A		0,308	106833		
49AA		0,312	106833		
50A		0,259	106834		
51A		0,317	106835		
52A		0,336	106836		
53A		0,009	106837		
54A		0,282	106861		
55A		0,225	106862		
56A		0,239	106863		
57A		0,228	106864		
58A		0,221	106865		
59A		0,012	106866		
60A		0,011	106880		
61A		0,015	106884		
BLK		0,012	N/A		
BLK		0,015			
LCS		0,157			
CCV		0,157			
			MJS	9/30/01	

Procedure:

Signed

9/30/09
Date

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

Standard ID: 1858-39
Project: NEDA Solution Red 166
Analyst: M. Skidmore
Preparation Date: 9/18/09
Expiration Date: ~~9/18/10~~ 1 month when solution turns brown

Solvent: DI H_2O
Solvent Lot #: N/A

Procedure/Comments: Dissolve 250 mg of N-(1-Naphthyl)ethylenediamine dihydrochloride, 98% (1476-1105, located ERIA) in 250 mL DI H_2O.

MJS
9/18/09

Page 39 Signed 9/18/09 Date Reviewed 9/24/09 Date

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

Standard ID: 1858-58
Project: Sulfanilamide Solution Rad 166
Analyst: M. Skidmore
Preparation Date: 9/29/09
Expiration Date: 9/29/09

Solvent: HCl/H_2O
Solvent Lot #: HCl: 49198

Procedure/Comments: Dissolve 5.0 g of Sulfanilamide, 99% (1476-1104) (located in ERIA) in 50 mL of concentrated HCl and dilute to 500 mL with D.I. H_2O.

MS
9/24/09

Signed 9/29/09 Date Reviewed 10/5/09 Date

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

Standard ID: 1858-59
Project: Calibration Solutions Rad 166
Analyst: M. Skidmore
Preparation Date: 9/29/09
Expiration Date: 9/29/01

Solvent: D.I. H_2O
Solvent Lot #: N/A

Procedure/Comments:

Dissolve 5 mg of Sodium Nitrate, 97% (located in ER2D) in 250 mL of D.I. H_2O to yield 13 µg/mL or 13 mg/L. From this solution, dilute to make:

6.5 µg/mL	1.3 µg/mL	0.325 µg/mL	0.065µg/mL
(315:630)	(130:650)	(150:600)	(100:500)

Each of these uses serial dilution from the previous solution.

To each of these calibration levels, add 5 mL of sulfanilamide solution, cap tightly, stir and wait 5 minutes. Then add 1 mL of NEDA solution, stir and wait 10 minutes. Measure the absorbance at 537 nm.

MJS 9/29/09

MJS
9/29/09

M. O. Skidmore 9/29/09 — 10/5/09

Page 59 Signed Date Reviewed Date

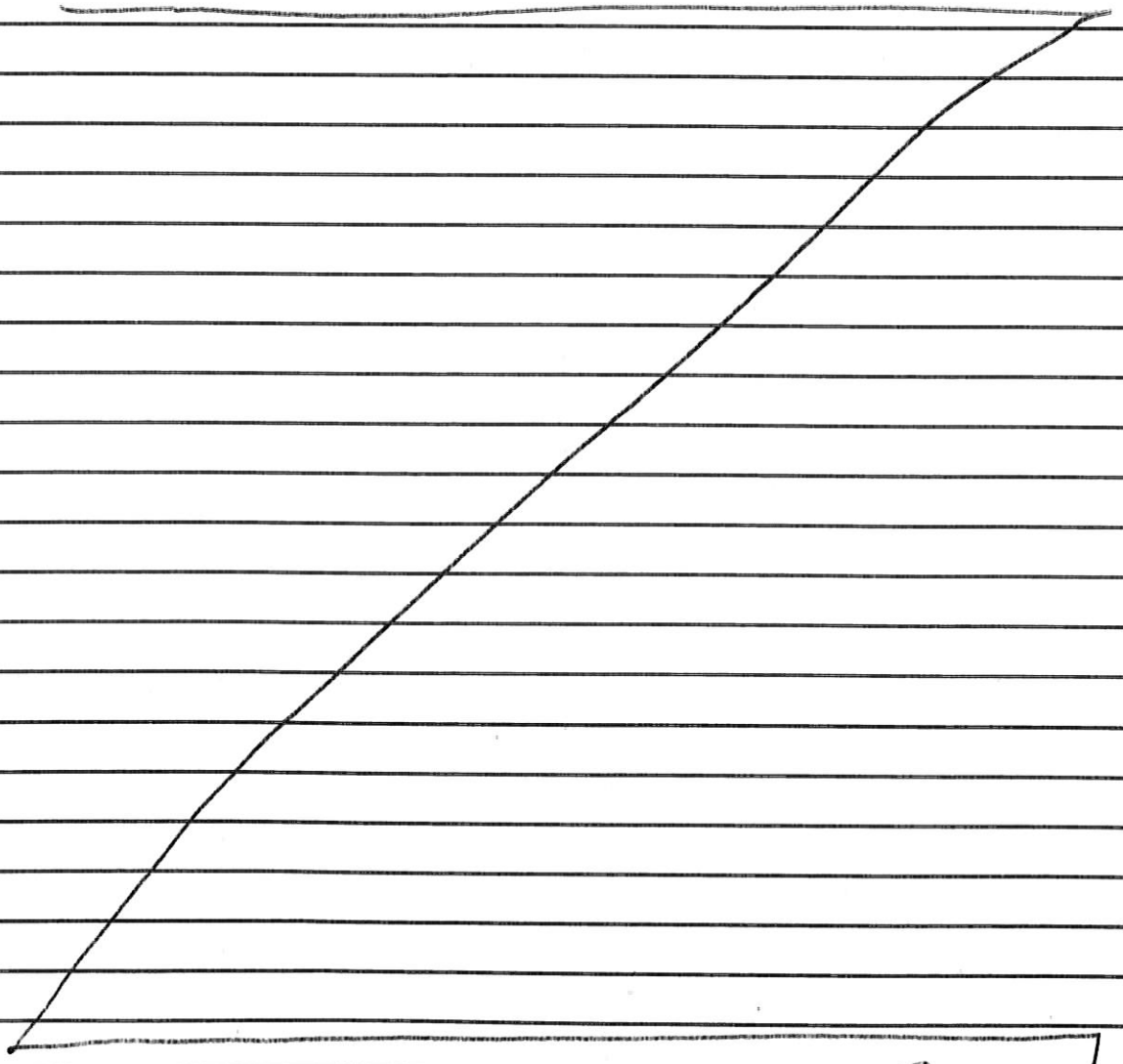
Spectrophotometer Standard Preparation Log **@Air Toxics Ltd.** **Log Book #:** 1858

Standard ID: 1858-61
Project: T.C.V Rad 166
Analyst: Ly
Preparation Date: 9/29/09
Expiration Date: 9/29/09

Solvent: DI H2O
Solvent Lot #: N/A

Procedure/Comments:

Dissolve 5 mg of Sodium Nitrate, 97% (located in ER2D) in 250 mL of D.I. H_2O to yield 13 µg/mL or 13 mg/L. 100 µL of this solution was diluted with D.I. H_2O to a volume of 1.0 mL. 0.5 mL of this solution was added to a cuvette. 5 mL of sulfanilamide solution was added to the cuvette. The solution was parafilmed and stirred and allowed to stand for 5 minutes. 1.0 mL of NEDA solution was then added and was stirred and allowed to sit for 10 minutes. The absorbance was then read at 537 nm.



Ly 9/29/09 — Signed — Date
Reviewed — 9/29/09, 10/9/09 — Date

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 #: 0909552D
# of pages (Including Cover): 4

10/15/2009

Thank you for selecting Air Toxics Ltd. We have received your samples and have found no 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.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 9/24/09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725 0909552

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
48A 106832	AIR/PASSIVE	NO_2, SO_2, HF ANALYSIS	9/4/09	9/23/09	
49A 106833					
50A 106834					
51A 106835					
52A 106836					
53A 106837					
54A 106861			9/9/09	9/23/09	
55A 106862					
56A 106863					
57A 106864					
58A 106865					
59A 106866					
60A 106880			JFM 9/8/09	∅	
61A 106884				∅	
				∅	
			Fed Ex		
				CUSTODY SEAL INTACT? Y N NONE TEMP 3.5°C	

Special Instructions:

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

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfragala@eheinc.com

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

Relinquished by: John McCarthy IV of Environmental Health & Engineering, Inc. Date: 9/24/09

Received by: _____ of (company name) AH Date: 9/25/09

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: _____

Page 4 of 4

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 0909552D

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: 10/06/09 11:59 pm
Date Completed: 10/13/09
Date Received: 9/25/09
PO#: 16512
Project#: 16512

Total $: $ 630.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
48A	106832	ATL Applications	9/23/2009	$40.00
48AA	106832 Lab Duplicate	ATL Applications	9/23/2009	$0.00
49A	106833	ATL Applications	9/23/2009	$40.00
49AA	106833 Lab Duplicate	ATL Applications	9/23/2009	$0.00
50A	106834	ATL Applications	9/23/2009	$40.00
51A	106835	ATL Applications	9/23/2009	$40.00
52A	106836	ATL Applications	9/23/2009	$40.00
53A	106837	ATL Applications	NA	$40.00
54A	106861	ATL Applications	9/23/2009	$40.00
55A	106862	ATL Applications	9/23/2009	$40.00
56A	106863	ATL Applications	9/23/2009	$40.00
57A	106864	ATL Applications	9/23/2009	$40.00
58A	106865	ATL Applications	9/23/2009	$40.00
59A	106866	ATL Applications	NA	$40.00
60A	106880	ATL Applications	NA	$40.00
61A	106884	ATL Applications	NA	$40.00
62A	Lab Blank	ATL Applications	NA	$0.00
62B	Lab Blank	ATL Applications	NA	$0.00
63A	CCV	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 #61 NO2-Radiello 166

SAMPLE RECEIPT SUMMARY Continued

Client

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

Sales Rep:

Phone

800-825-5343

Fax

781-247-4305

Date Promised:
Date Completed: 10/13/09
Date Received: 9/25/09
PO#: 16512
Project#: 16512

Total $: $ 630.00
Logged By: MW

Fraction	Sample #	Analysis	Collected	Amount$
Misc. Charges	eCVP (14) @ $5.00 each.			$70.00

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 #61 NO2-Radiello 166

Other Records

Air Toxics LTD.
Laboratory Services Since 1989

Method : ATL Application #61 NO2-Radiello 166

CAS Number	Compound	Rpt. Limit (ug)
10102-44-0	Nitrogen Dioxide	1.0

@Air Toxics Ltd.

DATA REVIEW CHECKLIST

Work Order #: 09 095S2D

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
☐	☐	☑	☐	☐	☐	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
		☑	☐	☑	☐	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
☐	☐	☑	☐		☐	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
☐	☐	☑	☐	☑	☐	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) 9/21/09
☐	☐	☑				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)
☐	☐	☑				Verify receipt pressures
☐	☐	☑				Verify canister ID #'s
		☐		☑		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
				☑		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:

M/Q:

A_1/A_2 (Analytical Review/Date)	R/T (Reporting Review/Date)	M (Management Review/Date)	Q (QA Review/Date)
A_1:	R: [signature]	[signature] 10/13/09	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply. Rev. 02/20/09

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