@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0909123A

	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	10
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	11	12
b. Chain-of-Custody Records	13	13
c. Sample Log-In Sheet	14	14
d. Misc. Shipping/Receiving Records (list individual records)		
Sample Receipt Discrepancy Report	15	16
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	17	18
g. Variance Table	-	-
h. Canister Certification	-	-
i. Data Review Check Sheet	19	19

Completed by:

Kara McKiernan

(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

09/22/09

(Date)

WORK ORDER #: 0909123A

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:	09/04/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/18/2009		

FRACTION #	NAME	TEST
01A	100794	ATL Applications
02A	100795	ATL Applications
03A	100796	ATL Applications
03AA	100796 Lab Duplicate	ATL Applications
04A	100797	ATL Applications
05A	100798	ATL Applications
06A	100799	ATL Applications
07A	102440	ATL Applications
08A	102441	ATL Applications
09A	102442	ATL Applications
09AA	102442 Lab Duplicate	ATL Applications
10A	102443	ATL Applications
11A	102444	ATL Applications
12A	102445	ATL Applications
13A	102486	ATL Applications
14A	102487	ATL Applications
15A	102488	ATL Applications

Continued on next page

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0909123A

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:	09/04/2009	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/18/2009		

FRACTION #	NAME	TEST
16A	102489	ATL Applications
17A	Method Blank	ATL Applications
17B	Method Blank	ATL Applications
18A	CCV	ATL Applications

CERTIFIED BY: Linda S. Freeman

Laboratory Director

DATE: 09/18/09

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

LABORATORY NARRATIVE
Hydrogen Sulfide by Radiello 170
Environmental Health & Engineering, Inc.
Workorder# 0909123A

Sixteen Radiello 170 (H2S) samples were received on September 04, 2009. The procedure involves adsorption of H2S by zinc acetate to form zinc sulfide. The sulfide is then recovered by extraction with water and addition of ferric chloride in a strongly acidic solution to produce methylene blue. Methylene blue absorbance is then measured at 665 nm using a spectrophotometer. Results are reported in uG and uG/m3.

Sampling rate of 69 mL/min for H2S 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 21600 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 # 59 for RAD 170 (Hydrogen Sulfide)

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)
100794	0909123A-01A	9/1/2009	9/10/2009	1.00	0.80	0.50	1.0	0.64
100795	0909123A-02A	9/1/2009	9/10/2009	1.00	0.80	0.50	ND	ND
100796	0909123A-03A	9/1/2009	9/10/2009	1.00	0.80	0.50	2.9	1.8
100796 Duplicate	0909123A-03AA	9/1/2009	9/10/2009	1.00	0.80	0.50	2.9	1.8
100797	0909123A-04A	9/1/2009	9/10/2009	1.00	0.80	0.50	0.96	0.61
100798	0909123A-05A	9/1/2009	9/10/2009	1.00	0.80	0.50	ND	ND
100799	0909123A-06A	NA	9/10/2009	1.00	0.80	0.50	ND	ND
102440	0909123A-07A	9/1/2009	9/10/2009	1.00	0.80	0.54	ND	ND
102441	0909123A-08A	9/1/2009	9/10/2009	1.00	0.80	0.54	0.83	0.56
102442	0909123A-09A	9/1/2009	9/10/2009	1.00	0.80	0.54	2.4	1.6
102442 Duplicate	0909123A-09AA	9/1/2009	9/10/2009	1.00	0.80	0.54	2.4	1.6
102443	0909123A-10A	9/1/2009	9/10/2009	1.00	0.80	0.54	0.87	0.59
102444	0909123A-11A	9/1/2009	9/10/2009	1.00	0.80	0.54	ND	ND
102445	0909123A-12A	NA	9/10/2009	1.00	0.80	0.50	ND	ND
102486	0909123A-13A	9/1/2009	9/10/2009	1.00	0.80	0.58	1.6	1.2
102487	0909123A-14A	9/1/2009	9/10/2009	1.00	0.80	0.58	1.5	1.1
102488	0909123A-15A	9/1/2009	9/10/2009	1.00	0.80	0.58	2.9	2.1
102489	0909123A-16A	9/1/2009	9/10/2009	1.00	0.80	0.58	1.5	1.1
Method Blank	0909123A-17A	NA	9/10/2009	1.00	0.80	0.50	ND	ND
Method Blank	0909123A-17B	NA	9/10/2009	1.00	0.80	0.50	ND	ND
							%Rec	
CCV	0909123A-18A	NA	9/10/2009	1.00	0.80	0.50	109	

COMMENTS: 1. NA=Not Applicable
2. ND=Not Detected
3. Exposure time of 21600 minutes was assumed for the QC samples.
4. Background subtraction not performed.

Hydrogen Sulfide Radiello Calculation Worksheet

Workorder #:	0909123A	
Sampling Rate (ng/ppb.min)	0.096	Typically0.096 for H2S
Sampling T (deg C)	25	Typically 25
Volume (mL)	10.5	Typically 10.5 for H2S
Date of Analysis:	9/10/2009	
Corrected Q	0.096	Takes into account temp

(Abs-Y-int)xDF / Slope

Conc(ug/mL)xVol (mL)

conc (ug sulfide) *MW H2S / MW Sulfide

Q includes conversion from Sulfide to H2S

Conc (ug) x 1000 / Q x Duration

ppbx mw: 24.45

T Corrected, no Blank correction

LabSampleID	Client	Date of Collection	Abs	Duration (min)	DF	Conc (ug/mL) of sulfide	Conc (ug) of sulfide	Conc (ug) of H2S	Conc (ppb) of H2S	Conc (ug/m3) of H2S
01A	100794	9/1/2009	0.111	21600	1.00	0.090186008	0.946953084	1.0063628	0.457	0.637
02A	100795	9/1/2009	0.088	21600	1.00	0.066534431	0.698611527	0.74244085	0.337	0.470
03A	100796	9/1/2009	0.276	21600	1.00	0.259860364	2.728533821	2.899715924	1.316	1.834
03AA	100796 Duplicate	9/1/2009	0.275	21600	1.00	0.258832034	2.717736362	2.888241056	1.311	1.827
04A	100797	9/1/2009	0.107	21600	1.00	0.08607269	0.903763248	0.960463331	0.436	0.608
05A	100798	9/1/2009	0.087	21600	1.00	0.065506102	0.687814068	0.730965982	0.332	0.462
06A	100799	NA	0.025	21600	1.00	0.001749677	0.018371609	0.019524202	0.009	0.012
07A	102440	9/1/2009	0.089	20160	1.00	0.067562761	0.709408986	0.753915717	0.367	0.511
08A	102441	9/1/2009	0.096	20160	1.00	0.074761067	0.784991199	0.834239789	0.406	0.565
09A	102442	9/1/2009	0.236	20160	1.00	0.218727187	2.29663546	2.440721227	1.187	1.654
09AA	102442 Duplicate	9/1/2009	0.235	20160	1.00	0.217698857	2.285838001	2.42924636	1.181	1.646
10A	102443	9/1/2009	0.099	20160	1.00	0.077846055	0.817383576	0.868664391	0.422	0.589
11A	102444	9/1/2009	0.090	20160	1.00	0.06859109	0.720206445	0.765390584	0.372	0.519
12A	102445	NA	0.027	21600	1.00	0.003806336	0.039966527	0.042473937	0.019	0.027
13A	102486	9/1/2009	0.164	18720	1.00	0.144687468	1.519218411	1.614530773	0.845	1.178
14A	102487	9/1/2009	0.153	18720	1.00	0.133375844	1.400446362	1.488307232	0.779	1.086
15A	102488	9/1/2009	0.274	18720	1.00	0.257803705	2.706938903	2.876766189	1.506	2.100
16A	102489	9/1/2009	0.156	18720	1.00	0.136460832	1.432838739	1.522731834	0.797	1.111
					1.00	-0.023958559	-0.251564866	-0.267347483	#DIV/0!	#DIV/0!
					1.00	-0.023958559	-0.251564866	-0.267347483	#DIV/0!	#DIV/0!
					1.00	-0.023958559	-0.251564866	-0.267347483	#DIV/0!	#DIV/0!
					1.00	-0.023958559	-0.251564866	-0.267347483	#DIV/0!	#DIV/0!
17A	Method Blank	NA	0.021	21600	1.00	-0.002363641	-0.024818227	-0.026375267	-0.012	-0.017
17B	Method Blank	NA	0.022	21600	1.00	-0.001335311	-0.014020768	-0.0149004	-0.007	-0.009
18A	CCV	NA	0.629	21600	1.00	0.622860653	6.540036852	6.950344121	3.154	4.396

QC Duration	CCV Spike Amt
21600	0.572

Verified: HH and AW on 9/4/09

Q includes conversion from Sulfide to H2S

Low PointxDF | RL(ug/mL)xVol (mL) | RL (ug sulfide) *MW H2S / MW Sulfide | RL (ug) x 1000 / Q x Duration | ppbx mw / 24.45

Calibration Data — Calibration Date 9/10/2009 — Linear Regression

T Corrected, no Blank correction

RL(ug/ml) of sulfide	RL (ug) of sulfide	RL (ug) of H2S	RL (ppb) of H2S	RL (ug/m3)	Result (ug) H2S	Result (ug/m3) H2S	%Rec	ug/ml of sulfide	absorbance
0.072	0.752	0.798966249	0.36	0.505	1.0063628	0.636575159		0	0
0.072	0.752	0.798966249	0.36	0.505	ND	ND		0.0716	0.074
0.072	0.752	0.798966249	0.36	0.505	2.899715924	1.834216373		0.143	0.151
0.072	0.752	0.798966249	0.36	0.505	2.888241056	1.826957941		0.286	0.316
0.072	0.752	0.798966249	0.36	0.505	0.960463331	0.607541433		0.572	0.613
0.072	0.752	0.798966249	0.36	0.505	ND	ND		1.145	1.119
0.072	0.752	0.798966249	0.36	0.505	ND	ND			
0.072	0.752	0.798966249	0.39	0.541	ND	ND			
0.072	0.752	0.798966249	0.39	0.541	0.834239789	0.565391448			
0.072	0.752	0.798966249	0.39	0.541	2.440721227	1.654156188			
0.072	0.752	0.798966249	0.39	0.541	2.42924636	1.646379297			
0.072	0.752	0.798966249	0.39	0.541	0.868664391	0.588722121			
0.072	0.752	0.798966249	0.39	0.541	ND	ND			
0.072	0.752	0.798966249	0.36	0.505	ND	ND			
0.072	0.752	0.798966249	0.42	0.583	1.614530773	1.178390808			
0.072	0.752	0.798966249	0.42	0.583	1.488307232	1.086264561			
0.072	0.752	0.798966249	0.42	0.583	2.876766189	2.09965328			
0.072	0.752	0.798966249	0.42	0.583	1.522731834	1.111389901			
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!			
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!			
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!			
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!			
0.072	0.752	0.798966249	0.36	0.505	ND	ND			
0.072	0.752	0.798966249	0.36	0.505	ND	ND	%Rec		
0.072	0.752	0.798966249	0.36	0.505	6.950344121	4.396442727	109		

Slope	0.972451017
Y-int	0.023298525
R2	0.997046605

QC Results and Raw Data

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1873

Work Order: 0909123A

Method: Rad 170

Wavelength: 665 nm

Date: 9/10/09

Analyst: M. Skidmore

Prep. Notes:

Standard ID	Concentration	ABS
1858-36 E	0.0716 ug/mL	0.074
D	0.143 ug/mL	0.151
C	0.286 ug/mL	0.316
B	0.572 ug/mL	0.613
A	1.145 ug/mL	1.119

r = ~~0.9968~~ 0.9970
m = ~~0.9744~~ 0.9724
b = ~~0.02457~~ 0.02329
4/9/16/09

Fraction	Dilution	ABS	Sample ID	Sample Volume
01A	1.00	0.111	100794	10.5 mL
02A		0.088	100795	
03A		0.276	100796	
04A		0.107	100797	
05A		0.087	100798	
06A		0.025	100799	
07A		0.089	102440	
08A		0.096	102441	
09A		0.236	102442	
10A		0.094	102443	
11A		0.090	102444	
12A		0.027	102445	
13A		0.164	102486	
14A		0.153	102487	
15A		0.274	102488	
16A		0.156	102489	
BLK		0.021	N/A	
BLK		0.022		
CCV/LCS		0.629		
03AA		0.275	100796	
09AA		0.235	102442	

MJS 9/11/09

Notes: CCV/LCS @ 0.572 ug/mL
Spiked cartridge: 0.111 (1.0 mL of 1000 ppm)

Signed: [signature] Date: 9/11/09

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

Standard ID: 1858-36
Project: Calibration Solution Rad 170
Analyst: M. Skidmore
Preparation Date: 9/10/09
Expiration Date: 9/10/09

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

Procedure/Comments:

Solution A: 2mL of Code Rad 171 (1476-984, exp 8/6/2010 ERIB) with 98 mL DI water = 1,145 ug/mL

Solution B: 2.5 mL of Solution A with 2.5mL DI water = 0,572 ug/mL.

Solution C: 1,25 mL of Solution A with 3.75mL DI Water = 0,286 ug/mL

Solution D: 0,625 mL of Solution A with 4,375 mL DI water = 0,143 ug/mL

Solution E: 0,375 mL of Solution A with 5,625mL DI water = 0,076 ug/mL

MJS
9/10/09

Page 36 Signed 9/10/09 Date Reviewed 9/10/09 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 #:	0909123A
# of pages (Including Cover):	4

9/22/2009

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.

In accordance with your company's contract, this account is required to have a PO that is fully executed by both parties which also covers the cost of the workorder before any data can be released. Please ensure that you have given all appropriate information to our Project Manager so that there will be no delay in reporting of the data you are requesting.

Your prompt response is appreciated.

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

0909123

DATE: 3 SEP 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
01A	100794	AIR/PASSIVE	H_2S ANALYSIS	8/17/09	9/1/09	
02A	100795					
03A	100796					
04A	100797					
05A	100798					
06A	100799				ϕ	
07A	102440			8/18/09	9/1/09	
08A	102441					
09A	102442					
10A	102443					
11A	102444					
12A	102445				6	
13A	102486			8/19/09	9/1/09	
14A	102487					
15A	102488					
16A	102489					

Special Instructions:

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

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES**

☒ Electronic transfer - datacoordinator@ehsinc.com

☒ Additional report recipient mfragala@ehsinc.com

Fed Ex 8794 2333 1373

CUSTODY SEAL INTACT? Y N NONE TEMP 2°C

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

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 9/3/09

Received by: _____ of (company name) ATI Date: 9/4/09

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 0909123A

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: 09/16/09 11:59 pm
Date Completed:
Date Received: 9/4/09
PO#: 16512
Project#: 16512

Total $: $ 880.00
Logged By: MG

Fraction	Sample #	Analysis	Collected	Amount$
01A	100794	ATL Applications	9/1/2009	$50.00
02A	100795	ATL Applications	NA	$50.00
03A	100796	ATL Applications	NA	$50.00
04A	100797	ATL Applications	NA	$50.00
05A	100798	ATL Applications	NA	$50.00
06A	100799	ATL Applications	NA	$50.00
07A	102440	ATL Applications	9/1/2009	$50.00
08A	102441	ATL Applications	9/1/2009	$50.00
09A	102442	ATL Applications	9/1/2009	$50.00
10A	102443	ATL Applications	9/1/2009	$50.00
11A	102444	ATL Applications	9/1/2009	$50.00
12A	102445	ATL Applications	NA	$50.00
13A	102486	ATL Applications	9/1/2009	$50.00
14A	102487	ATL Applications	9/1/2009	$50.00
15A	102488	ATL Applications	9/1/2009	$50.00
16A	102489	ATL Applications	9/1/2009	$50.00

Misc. Charges eCVP (16) @ $5.00 each. $80.00

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 #59 H2S-Radiello 170

Sample Discrepancy Report

Identification

Initiated By: MW **Project ID:** 13297 **PM:** AS **Date:** 9/4/2009 **Discrepancy Type:** ☒ 1. ☐ 2. ☐ 3.

Workorder(s) affected: 0909123A **Sample(s) affected:** 02A-05A

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: _____

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:_____ Person notified: _____ Date: _____

☐ 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 #59 H2S-Radiello 170

CAS Number	Compound	Rpt. Limit (ug)
7783-06-4	Hydrogen Sulfide	1.2

@Air Toxics Ltd.

DATA REVIEW CHECKLIST

Work Order #: 0909123A

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	☐	A	☐	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)
		NA	☐			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.)
☐	☐	NA	☐			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
		NA				Date MDL(s) performed per instrument(s)
☐	☐	☐				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.)
			NA	☐		MDL date(s) present for all instruments utilized
		NA	☐	☑	☐	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: 03A, 09A

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: LM 9/16/09	9/18/09	
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.