

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications INVENTORY SHEET

WORK ORDER # 0908456B

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Completed by:		
Range Mc Ruman Kara McKiernan/ Documen	t Control	09/17/09
(Signature) (Print Name & Tit	le)	(Date)



WORK ORDER #: 0908456B

Work Order Summary

CLIENT:

Mr. Taeko Minegishi

BILL TO:

Accounts Payable

Environmental Health & Engineering,

Environmental Health & Engineering, Inc.

117 Fourth Avenue

117 Fourth Avenue Needham, MA 02494 Needham, MA 02494

PHONE:

800-825-5343

P.O. # 16512

FAX: DATE RECEIVED: 781-247-4305

PROJECT #

16512

DATE COMPLETED:

08/21/2009 09/16/2009

CONTACT: Ausha Scott

NAME	TEST
100859	ATL Applications
100860	ATL Applications
100861	ATL Applications
100182	ATL Applications
100183	ATL Applications
100185	ATL Applications
100186	ATL Applications
100343	ATL Applications
100344	ATL Applications
100345	ATL Applications
100345 Lab Duplicate	ATL Applications
100346	ATL Applications
100347	ATL Applications
100348	ATL Applications
100698	ATL Applications
100699	ATL Applications
100700	ATL Applications
	100859 100860 100861 100182 100183 100185 100186 100343 100344 100345 100345 Lab Duplicate 100346 100347 100348 100698 100699

Continued on next page



WORK ORDER #: 0908456B

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Inc.

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PHONE:

P.O. #

16512

FAX:

800-825-5343 781-247-4305

16512

DATE RECEIVED:

08/21/2009

PROJECT# CONTACT:

Ausha Scott

DATE COMPLETED:

09/16/2009

NAME FRACTION# TEST 37A 100701 **ATL Applications** 38A 100702 **ATL Applications** 39A 100703 **ATL Applications** 40A 100599 **ATL Applications** 40AA 100599 Lab Duplicate **ATL Applications** 41A Method Blank **ATL Applications**

41B Method Blank 42A **CCV**

ATL Applications ATL Applications

CERTIFIED BY:

Linda d. Fruman

Laboratory Director

DATE:

09/16/09



LABORATORY NARRATIVE Hydrogen Sulfide by Radiello 170 Environmental Health & Engineering, Inc. Workorder# 0908456B

Twenty Radiello 170 (H2S) samples were received on August 21, 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

A Temperature Blank was not included with the shipment. Temperature was measured on a representative sample and was not within 4 ± 2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

Sample collection dates were not provided on the Chain of Custody for all samples. The client was contacted and a dates were provided.

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 22000 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

ATL Application # 59 for RAD 170 (Hydrogen Sulfide) Spectrophotometer AIR TOXICS LTD.

0.50						
0.50	The state of the s	The state of the s				
一日本の日本 日本日本日本 日本	0.80	1.00	8/25/2009	NA	0908456B-41B	Method Blank
0.50	0.80	1.00	8/25/2009	NA	0908456B-41A	Method Blank
0.55	0.30	1.00	8/25/2009	8/19/2009	0908456B-40AA	100599 Lab Duplicate
0.55	0.80	1.00	8/25/2009	8/19/2009	0908456B-40A	100599
	A DESCRIPTION OF THE PERSON OF		THE RESERVE OF THE PARTY OF THE	Applications of the second sec		
0.50	0.80	1.00	8/25/2009	8/19/2009	0908456B-39A	100703
0.59	0.80	1.00	8/25/2009	8/19/2009	0908456B-38A	100702
0.59	0.80	1.00	8/25/2009	8/19/2009	0908456B-37A	100701
0.59	0.80	1.00	8/25/2009	8/19/2009	0908456B-36A	100700
0.59	0.80	1.00	8/25/2009	8/19/2009	0908456B-35A	100699
0.59	0.80	1.00	8/25/2009	8/19/2009	0908456B-34A	100698
0.50	0.80	1.00	8/25/2009	8/19/2009	0908456B-33A	100348
0.63	0.80	1.00	8/25/2009	8/19/2009	0908456B-32A	100347
0.63	0.80	1.00	8/25/2009	8/19/2009	0908456B-31A	100346
0.63	0.80	1.00	8/25/2009	8/19/2009	0908456B-30AA	100345 Lab Duplicate
0.63	0.80	1.00	8/25/2009	8/19/2009	0908456B-30A	100345
0.63	0.80	1.00	8/25/2009	8/19/2009	0908456B-29A	100344
0.63	0.80	1.00	8/25/2009	8/19/2009	0908456B-28A	100343
0.50	0.80	1.00	8/25/2009	8/19/2009	0908456B-27A	100186
0.50	0.80	1.00	8/25/2009	8/19/2009	0908456B-26A	100185
0.50	0.80	1.00	8/25/2009	8/19/2009	0908456B-25A	100183
0.50	0.80	1.00	8/25/2009	8/19/2009	0908456B-24A	100182
0.50	0.80	1.00	8/25/2009	8/18/2009	0908456B-23A	100861
0.63	0.80	1.00	8/25/2009	8/18/2009	0908456B-22A	100860
0.63		1.00	8/25/2009	8/18/2009	0908456B-21A	100859
(ug/m3)	(nd)	Factor	Date	Date	Sample LD.	Sample LD.

COMMENTS: 1. NA=Not Applicable

2. ND=Not Detected

3. Exposure time of 22000 minutes was assumed for the QC samples and client samples 100861, 100348 and 100703.

4. Background subtraction not performed.

32A 33A 35A 35A 35A 37A 37A 37A 40A 40A 41B

BOAA 314

> Sulfide to HZS Q includes conversion from

Hydrogen Sulfide Radiello Calculation Worksheet
Workorder #: 09084568

Sampling Rate (ng/ppb.min)
Sampling T (deg C)

0.096 Typically0.096 for H2S

Date of Analysis: Volume (mL) Corrected Q

0.096

Takes into account temp Date of

8/25/2009

10.5 Typically 10.5 for H2S 25 Typically 25

(Abs-Y-int)xDF Slope

LabSampleID

Conc(ug/mt)xVol (mt) conc (ug sulfide) *MW H2S Conc (ug) x 1000 Q x Duration ppbx mw 24.45

MW Sulfide

b) of HZS Conc (ug/m3) of HZS	nc (ug) of H2S Conc (ppb) of H2S

Client	Date of	ř	Duration	ţ	Conc (ug/ml) of			
								Sell for (dark) and USE
	Collection	ě	(min)	Ş	sulfide	Court (nB) or serving	Cours (ag) or nex	Court (ppu) or n.23
100859	8/18/2009	0.093	17280	100	0.066788221	0.701276316	0.7452772822	0.423
	8/18/2009	0.072	17280	100	0.046688202	0.490226119	0.520981809	0.296
	8/18/2009	0.016	22000	100	-0.006911848	-0.072574405	-0.077127561	-0.034
	8/19/2009	0.355	21827	100	0.317559883	3.334378768	3.543570227	1591
	8/19/2009	0.344	21827	100	0.307031301	3.223828665	3.426084458	1539
	8/19/2009	0.269	21827	100	0.23524552	2.470077963	2.625045125	1179
	8/19/2009	0.249	21827	100	0.216102645	2.269077776	2.411434636	1.083
	8/19/2009	0.181	17294	100	0.15101687	158567714	1.685158973	0.955
	8/19/2009	0.188	17294	100	0.157716877	1.656027205	1.759922644	0.997
	8/19/2009	0.177	17294	100	0.147188295	1.545477102	1.642436875	0.931
	8/19/2009	0.174	17294	100	0.144316864	1.515327074	1.610395302	0.913
	8/19/2009	0.172	17294	100	0.142402577	1.495227055	1.589034253	0.901
	8/19/2009	0.122	17794	100	0.094545389	0.992726587	1.055008031	0.598
	8/19/2009	0.019	21827	100	-0.004040417	-0.042424377	-0.045085987	-0.020
	8/19/2009	0.138	18412	100	0.109859689	1.153526737	1.225896422	0.653
	8/19/2009	0.143	18412	100	0.114645408	1.203776784	1279299044	0.681
	8/19/2009	013	18412	100	0.102202539	1.073126662	1.140452226	0.607
	8/19/2009	0.218	18412	100	0.186431189	1.957527486	2.080338378	1.107
	8/19/2009	0.122	18412	1.00	0.094545389	0.992726587	1.055008031	0.562
	8/19/2009	0.022	21827	100	-0.001168986	-0.012274349	-0.013044414	-0.006
	8/19/2009	0.46	19850	100	0.418059976	4.389629751	4.665025294	2.304
100599 Lab Duplicate	8/19/2009	0.456	19850	1.00	0.414231401	4.349429714	4,622303196	2282
Method Blank	N	0.018	21827	100	-0.004997561	-0.052474386	-0.055766512	-0.025
Method Blank	R	0.016	21827	100	-0.006911848	-0.072574405	-0.077127561	-0.035
CCV	N	0.593	21827	100	0.545360095	5.726280996	6.085535045	2.733
			QC Duration		CCV Spike Amt			
			21827		0572			

		VI	3.809373732 95	6.085535045	0.500	94	0.798966249	0.752	0.072
			D %Rec	ND	0.500	0.4	0.798966249	0.752	0.072
			0	ND	0.500	0,4	0.798966249	0.752	0.072
			3.181608818	4.622303196	0.550	0.4	0.798966249	0.752	0.072
			3.211015154	4.665025294	0.550	2	0.798966249	0.752	0.072
			9	ND	0.500	0.4	0.798966249	0.752	0.072
			0.782895258	1.055008031	0.593	0.4	0.798966249	0.752	0.072
			1.543767445	2.080338378	0.593	0.4	0.798966249	0.752	0.072
			0.846301274	1.140452226	0.593	0.4	0.798966249	0.752	0.072
			0.949336049	1.279299044	0.593	0.4	0.798966249	0.752	0.072
			0.909707289	1.225896422	0.593	0.4	0.798966249	0.752	0.072
			0	ND ND	0.500	0.4	0.798966249	0.752	0.072
			0.833506852	1.055008031	0.631	0.5	0.798966249	0.752	0.072
			1.255413134	1.589034253	0.631	0.5	0.798966249	0.752	0.072
			1.2772289385	1.610395302	0.631	0.5	0.798966249	0.752	0.072
			1.297603762	1.642436875	0.631	0.5	0.798966249	0.752	0.072
			1.390423144	1.759922644	0.631	0.5	0.798966249	0.752	0.072
			1.331356264	1.685158973	0.631	0.5	0.798966249	0.752	0.072
			1.50949024	2.411434636	0.500	0.4	0.798966249	0.752	0.072
	1211		1.643204397	2.625045125	0.500	0.4	0.798966249	0.752	0.072
	0.637	0.572 0.0	2.144632484	3.426084458	0.500	0.4	0.798966249	0.752	0.072
100	0.328		2.21817527	3.543570227	0.500	0.4	0.798966249	0.752	0.072
19.55	169		D	ND ND	0.496	0.4	0.798966249	0.752	0.072
(ESI)	0.088	0.0716 0.0	D	ND ND	0.632	0.5	0.798966249	0.752	0.072
Slope 1.044775146	0	0	Ð	ND	0.632	0.5	0.798966249	0.752	0.072
	bance	ug/ml of sulfide absorbance	Result (ug/m3) HZS %Rec	Result (ug) HZS	RL (ug/m3)	RL (ppb) of HZS	Conc (ug) of HZS	RL (ug) of sulfide	RL(ug/ml) of sulfide
			ank correction	T Corrected, no Blank correction					
					24.45	Q x Duration	MW Sulfide		
8/25/2009 Linear Regression	8/25/2	Calibration Data			ppbx mw	RL (ug) x 1000	RL (ug sulfide) *MW H2S	RL(ug/mL)xVol (mL)	Low PointxDF
Date	Calibration Date					Sulfide to HZS			

QC Results and Raw Data

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908456 BL

Wavelength:

Method: Rad 170

Analyst: A. Toyama

Prep. Notes:

Star	ndard ID	Concentration	ABS	
185	8-20-E	0.071605 mL	0.088	
	1 D	0.143	0.169	$r = \underline{c}$
	C	0, 286	0.328	m =
	В	0.572	0.637	b =
	↓ A	1.145	1.2.1	

Fraction	Dilution	ABS	Sample ID	Sample Volume
ZIA	1.00	0.093	100 859	10.55 inL
22A		0.072	1860	
23A		0.016	- 861	
24A		0.355	182	
2\$A		0.344	183	
- 564		0.269	185	
27A		0.249	186	
28A		0.181	343	
- 29A		0.188	344	
30 A		0.177	348	
3\A		0.172	346	
32A		0.122	2110	
33A		0.019	698	
25A		0 (38	1 699	
<u>3614</u>		0.143	10 (00)	4

Notes:	Code 170	L+ 09075	Exp	04/010	used	for	Blanks.	Sample	10+5
	unknown.								

Date: 8/26/09

Spectrophotometer Logbook

@Air Toxics Ltd.

Log Book #: 1564

Work Order: 0908456BLC

Date: 825/09

Analyst: A. Toyama

Method: Rad 17()
Wavelength: (065

Prep. Notes: cont. from page 26

Standard ID	Concentration	ABS	
1858 - 20 - E	0.0716 UJ mL	0.088	
Q- 1	0.143	0.169	r =
	0.286	8.56.0	m =
-3	0.572	0,637	b =
\ _A_	1.145	1.211	

Fraction	Dilution	ABS	Sample ID	Sample Volume
36 A 37 A 38 A 39 A 40 A 30 A A 40 A A B \ Y	1.00	0.130 0.218 0.122 0.022 0.460 0.174 0.456 0.018	100700 1701 1702 1703 599 345 V 599 NA	10.5mL
slulon CCV LCS/CCV	The same of the sa	O. 593	A	

Notes:	LCS CCV	prepared	at c	0.572 5/mL	 	
				~~~~		
				and the same of th	 	

Page 27

Signed:

Date: 8/0/09

Revised 05/07

Spectro	ophotometer S	tandard Preparation Log	@Air Toxic	Ltd.	Log Book #: <u>1858</u>
Project: Analyst: Preparation	ID: 1858-18 Ferric Chloride A Tompama on Date: 8	25/09 25/09	Solvent: Solvent Lot #	DE:	H _C NA
Procedure		Dissolve 25 q at -	ferric chloride h	exah-1 di	rate Clorated ER
***************************************					
1					
		,			
			8/24/09		
			Acr		
=					
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18	Signed	V/25/3 7 Date	Reviewed		25/0 9   Date   Rev. 8/97

Spectrophotometer Standard Pre	paration Log	@Air Toxics Ltd.	Log Book #:1858
Standard ID: 1858-19 Project: Ferric Chloride - amine		Solvent: DE	1420 VA
Analyst: A. To-fames  Preparation Date: 82509  Expiration Date: 82509			
Procedure/Comments: Mix 10 ml	of femic	chloride solution	with some
	THE STREET STREET, STREET, M. STREET,	The case the state of	
	8/24/0	7	
	Act		
Marie & String and Marie Andrews of the String of String Street String String Street String S	What to the con-	,	
	The state of the s		
Lyol than 8/2	5/05		slecks
age 19 Signed Da	15/05 ate	Reviewed	8/CS /09 Date Rev. 8/97

Spectrophotometer Standard Preparation Log	@Air Toxics Ltd.	Log Book #: <u>1858</u>
Standard ID: 1858-20 Project: Calibration Solution RAD 170 Analyst: A. Toyama Preparation Date: 812509 Expiration Date: 812509	Solvent: DI	He O NA
Procedure/Comments:		
Solution A: Eml of Coole RAD 171/1476-984  DI HZO : 1.145 43/ml 50/18		ERIB) with 98m
Solution B: 25 mL of Solution A with 25	int of DI 110	. 0.572 bg/mL
Solution C: 1.25 mL of Solution A with 3.79	5 mL of DI Hzo	= 0.286 45/mL
Solution D: 0.625ml of Solution A with 4	.375 mL of DI 4.0	. O. 143 " )mL
Solution E: 0.375 of Solution A with 5:62		. 0.0716 00/mL
1990年(1990年) 1990年 日本本語 1990年 日本本語 1990年 日本語	· · · · · · · · · · · · · · · · · · ·	No.
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		7/6
Page 20 Signed Date	Reviewed	B/cs (0 9

## Shipping/ Receiving Documents



## 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 #:	0908456B	
# of pages (Including Cover):	4	
0/47/0000		

9/17/2009

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 <u>Ausha Scott at 916-985-1020.</u>

ATL will proceed with the analysis as specified on the Chain of Custody and Sample Login page.

## Environmental Health & Engineering, Inc.

18A 20A 21A 23A 25A 25A 26A 26A 26A 30A 31A

32A

## **CHAIN OF CUSTODY FORM**

20 0908456 E:r27 Aug 09

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

	1	-				Needilaili, Wir	102484-2120		
TO: _	AIR	16x	ادي			Please send invoice Please send reports			
In all c	orrespoi	ndence	regarding tl	his matter, pleas	se refe	r to EH&E Project #	16512		
						nase Order #	16512		
				RGENT DATA		1856 O1061 #	10012		
	PLE ID		PLE TYPE	1		ICAL METHOD/NUMBER	?	OTHER:	Time/Date/Vol.
100	527	Sia	PLESIVE			KLYS15			SHOUZE SHITT
100	19:36	7.114	1	1,7,0	1-41-4	we1012		All the same of	DYS JAIK
	857							1	
	858								
	859								
11	260								
100								-	L \$
	182							15p 3	34 47mm
1001	.83								
1001	28.								
1001	86							-	_
1003	543							120	14-MIN
1003	44								
1003	45								
1003	546		\						
100	347		1		<	الم		_	
Specia	i instru						_		
				turn around tim		☐ Rush bydate/time	Ed	Other —	2332 7271
				ts 781-247-430 SAMPLES	5	Electronic transfer - da	atacoord Call	of Children	2332 7271
					t_mf	Electronic transfer - de	com	NON TE	T INTACT?
Each	signat		N	1	of th	nls form to the above	address	C C	Commence of the Commence of th
Relingu	ished b	v:	All	of Er	vtronm	nental Health & Engineerir	na. Inc. D	ate: 820	09
			- 0850			y name) Arc		ate: \$/21/	
	1.0					y name)		ate:	
						y name)		ate:	
						y name)		ate:	
Receive	ed by:					y name)		ate:	
ab Da	ta					ental Health & Engineerin		ate:	
								age 2 c	

Environmer Health &			CHAIN C	F CUSTODY FORM	DATE: 2th Lucy 09
Engineering		-		FROM: Environmental Health 117 Fourth Avenue Needham, MA 02494	
го: <u>Air</u>	16	NCS		Please send invoices to ATT Please send reports to ATT	
n all correspor	ndence r	egarding thi	is matter nlease	efer to EH&E Project #	
			GENT DATA	urchase Order #16512	
SAMPLE ID		LE TYPE		YTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
100348	. 1				OTHER: TIME/Date/VOI.
100678	MEN A	NSSIVE.	1-125	MOLYSIS	12-19, 52,
100699					12D 18H 52M
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## SAMPLE RECEIPT SUMMARY

### WORKORDER 0908456B

Client Date Promised: 09/01/09 11:59 pm
Phone Pete Completed: 0/16/09

Mr. Taeko Minegishi
Environmental Health & Boo-825-5343
Engineering Inc.

Phone
Date Completed: 9/16/09
Date Received: 8/21/09
PO#: 16512

Engineering, Inc. Fax PO#: 16512
117 Fourth Avenue 781 247 4205 Project#: 16512

Needham, MA 02494 781-247-4305

Sales Rep: TL Total \$: \$ 1,100.00
Logged By: MW

<b>Fraction</b>	Sample #	<u>Analysis</u>	Collected	Amount\$
21A	100859	ATL Applications	8/18/2009	\$50.00
22A	100860	ATL Applications	8/18/2009	\$50.00
23A	100861	ATL Applications	8/18/2009	\$50.00
24A	100182	ATL Applications	8/19/2009	\$50.00
25A	100183	ATL Applications	8/19/2009	\$50.00
26A	100185	ATL Applications	8/19/2009	\$50.00
27A	100186	ATL Applications	8/19/2009	\$50.00
28A	100343	ATL Applications	8/19/2009	\$50.00
29A	100344	ATL Applications	8/19/2009	\$50.00
30A	100345	ATL Applications	8/19/2009	\$50.00
30AA	100345 Lab Duplicate	ATL Applications	8/19/2009	\$0.00
31A	100346	ATL Applications	8/19/2009	\$50.00
32A	100347	ATL Applications	8/19/2009	\$50.00
33A	100348	ATL Applications	8/19/2009	\$50.00
34A	100698	ATL Applications	8/19/2009	\$50.00
35A	100699	ATL Applications	8/19/2009	\$50.00
36A	100700	ATL Applications	8/19/2009	\$50.00
37A	100701	ATL Applications	8/19/2009	\$50.00
38A	100702	ATL Applications	8/19/2009	\$50.00
39A	100703	ATL Applications	8/19/2009	\$50.00

**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

TERMS:

Reporting Method: ATL Application #59 H2S-Radiello 170

Analysis Code: Other GC



## SAMPLE RECEIPT SUMMARY Continued

Client Phone Pate Completed: 9/16/09 11:59 pm

Mr. Taeko Minegishi
800-825-5343
Date Received: 8/21/09

Environmental Health & 800-825-5343 Date Received: 8/21/09
Engineering, Inc. Fax PO#: 16512
117 Fourth Avenue Project#: 16512

117 Fourth Avenue 781-247-4305 Project#: 16512 Needham, MA 02494

Sales Rep: TL

Logged By: MW

<b>Fraction</b>	Sample #	<b>Analysis</b>	Collected	Amount\$
40A	100599	ATL Applications	8/19/2009	\$50.00
40AA	100599 Lab Duplicate	ATL Applications	8/19/2009	\$0.00
41A	Method Blank	ATL Applications	NA	\$0.00
41B	Method Blank	ATL Applications	NA	\$0.00
42A	CCV	ATL Applications	NA	\$0.00

Misc. Charges eCVP (20) @ \$5.00 each. \$100.00

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 Discrepancy Type: $\square$ 1. $\boxtimes$ 2. $\square$ 3. Initiated By: MW Project ID:13297 **PM**: BL **Date**: 8/21/2009 Workorder(s) affected:0908456 Sample(s) affected: all 1. Sample Receipt Discrepancies Narration Required in Lab Narrative and **Narration Not Required:** Sample Confirmation: 1.1. Sample container (cartridge/tube/VOA vial) was 1.5. COC was not filled out in ink. received broken, however sample was intact. 1.6. COC improperly relinquished / received. 1.2. No brass cap on canister. 1.7. Sample tags / can numbers do not match the COC. 1.3. Date of Collection noted on first sample, but no 1.8. ☐ Sample date ☐ error / ☐ missing on COC but arrow down to indicate all samples. noted on sample tag (check one). Notify Lab for further determination: 1.9. Custody Seal on the outside of the container was □ broken / □ improperly placed (check one). 1.4. Tedlar bag received with minimal volume. 1.10. ☐ ID-none on the sample Tag/Blank Initials: ____ Date: 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. 2.12. Sorbent samples-sampling volume was not provided 2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC. 2.13. Flow controller used – canister samples 2.3. Incorrect sampling media / container for analysis received at ambient or under pressure. requested. 2.14. Canister was at ambient pressure at time of 2.4. Number of samples on the COC does not match the pressurization and (check all that apply): number of samples that were received. ☐ Canister failed leak check on two manifolds, Canister valve was open, 2.5. Samples were received expired. ☐ Brass nut was loose/not present. 2.6. Sampling date (time for sulfur) is not documented ☐ Sample can be analyzed ☐ Cannot be analyzed $\square$ some $/ \boxtimes$ any samples (check one). 2.15. Canister sample received with a vacuum difference 2.7. $\square$ Sample received with amount of H₂O in the Tedlar >5.0"Hg between the receipt vac. And the final vac. Bag. reported on the COC, indicating loss of vacuum. 2.8. Sample cannot be analyzed. Container was 2.16. Canister sample received at >15"Hg (not identified $\square$ received broken / $\square$ leaking / $\square$ flat / $\square$ defective. as a Trip/Field Blank). 2.9. Tedlar bag / canister received emitting a strong 2.17. Canister Trip Blank received at low vacuum (< odor; Sample $\square$ can / $\square$ cannot (check one) be 25"Ha). analyzed. 2.18. Sorbent Sample received outside method required

2.10. Tedlar Bag for Sulfur analysis has metal fitting.

2.11. Environmental Supply Company valves

temperature of 2°C to 6°C;  $\square$  ice /  $\boxtimes$  blue ice (check one) was present. A temp. Blank  $\square$  was /  $\boxtimes$  was not

Other (describe below)

present (check one).

2.19.

Initials:	Date:	Notify Receiving:	Notify PM:	
Describe the Discrepancy:	samples rec'd at 8C			

# 3. <u>Lab Discrepancies requiring Team Leader/PM notification</u> Document in Analytical Notes of Lab Narrative

If Section	on III. is filled out PM must be	notified within 24 hrs	s of initiation
	to be leaking at the time of can / ☐ cannot (check one) be	glassware.	e to instrument malfunction / broken
<u> </u>	I to be flat/low volume; sample	_	xtractable samples.
•	eceived with insufficient time to ation.	<ul><li>3.8. ☐ Reporting Limit</li><li>3.9. ☐ Post weight &gt; PM10/TSP samples</li></ul>	re weight in field/lab Blank for
3.4.   Canister found to	be leaking at the time of analysis.		
3.5.  VOST tube satura	ated; bag dilution necessary.	3.10. ☐ Other (describe	below).
Initials:	Date:	Notify Receiving:	Notify PM: _
Team Lead Initials:	Date:		<u>_</u>
Describe the Discrepar			
Describe the Discrepar	icy:		
How Does this Affect C	lient:		
	Project Manag	er Use Only	
Project Manager Notific		Section 2 Complet	te Section 3
Complete	<del>ution</del>	2 occiton 2 complet	
Action:			
☐ It is not necessary to r	notify the client. Narrate the discrepan	cy in Receiving Notes/Analy	tical Notes of Lab Narrative.
PM Initials:	Date:		
	juired. See attached client contact	/ email, or comments belo	ow:
Client Notification:			
PM Initials:BL P	erson notified: David Shore	Date: 8/21/2009	
☐ Waiting for Client Re	eply		
-	•		
Comments: Proce	eed and narrate temperature dis	crepancy. See table for	time of collection.
— Notify Lab			Notify Receiving: ⊠
•	Name:	Date:	Notify Receiving.
Additional notificat	Name:tions attached.	Date:	Notiny Receiving.
Additional notificat		Date:	Notify Receiving.
		Date:	Notify Receiving.
☐ Additional notificate  Additional Comments:		Date:	Notify Receiving.

## Other Records



## Method: ATL Application #59 H2S-Radiello 170

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

@Air Toxics Ltd.

	945	DATA REVIEW CHECKLIST Work Order #: 0908456B
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
	LU	MEN validation report present and initialed CIRCLE (YES /NO)
	0 0 0 0	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
П		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
	0 2 0	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)
	<b>4</b> 2	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.)
	ם אמים	Data for multiple analyses of sample(s) has been evaluated for comparability of results
E 14 CO S A S A S A S A S A S A S A S A S A S	200	Special units for all samples in the final report are correctly calculated Manually entered results checked (i.e. TPH/NMOC)
	0 @	Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
	<b>2</b>	Chain of Custody scanned correctly Verify sample id's vs. chain of custody
	~ <b>₫</b>	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.)
	MI	MDL date(s) present for all instruments utilized
	~ to 0	Client LUMEN report reviewed for accuracy and completeness
	to include: noting so	amples with QA/QC problems, Blanks with positive hits, narratives, etc.)
A/R:		
M/Q:		
	A ₁ /A ₂	R/T M Q
$A_1$ :	Analytical Review/Date	(QA Review/Date) R: 49/16/09  (Management Review/Date) (QA Review/Date)
A ₂ :		T:

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

Rev. 02/20/09

Rev. 02/20/09