@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 1012040A

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Completed by:

Kara McKiernan	Kara McKiernan/ Document Control	12/15/10
(Signature)	(Print Name & Title)	(Date)

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1012040A

Work Order Summary

CLIENT:	Mr. Brian Baker 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. #**	17131
FAX:	781-247-4305	**PROJECT #**	17131
DATE RECEIVED:	12/02/2010	**CONTACT:**	Ausha Scott
DATE COMPLETED:	12/13/2010		

FRACTION #	NAME	TEST
01A	116741	ATL Applications
02A	116742	ATL Applications
03A	116743	ATL Applications
04A	116744	ATL Applications
05A	116745	ATL Applications
06A	116746	ATL Applications
07A	116757	ATL Applications
08A	116758	ATL Applications
09A	116759	ATL Applications
10A	116760	ATL Applications
11A	116761	ATL Applications
12A	116762	ATL Applications
13A	116773	ATL Applications
14A	116774	ATL Applications
15A	116775	ATL Applications
16A	116776	ATL Applications
16AA	116776 Lab Duplicate	ATL Applications
17A	Lab Blank	ATL Applications

Continued on next page

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CLIENT:	Mr. Brian Baker 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. #**	17131
FAX:	781-247-4305	**PROJECT #**	17131
DATE RECEIVED:	12/02/2010	**CONTACT:**	Ausha Scott
DATE COMPLETED:	12/13/2010		

FRACTION #	NAME	TEST
17B	Lab Blank	ATL Applications
18A	LCS	ATL Applications

CERTIFIED BY: Linda A. Frumarx

Laboratory Director

DATE: 12/13/10

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# 1012040A

Sixteen Radiello 170 (H2S) samples were received on December 02, 2010. 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 20625 minutes was used for the QC 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)
116741	1012040A-01A	11/29/2010	12/3/2010	1.00	0.80	0.53	ND	ND
116742	1012040A-02A	11/29/2010	12/3/2010	1.00	0.80	0.53	ND	ND
116743	1012040A-03A	11/29/2010	12/3/2010	1.00	0.80	0.53	ND	ND
116744	1012040A-04A	11/29/2010	12/3/2010	1.00	0.80	0.53	0.82	0.55
116745	1012040A-05A	NA	12/3/2010	1.00	0.80	0.53	ND	ND
116746	1012040A-06A	NA	12/3/2010	1.00	0.80	0.53	ND	ND
116757	1012040A-07A	11/29/2010	12/3/2010	1.00	0.80	0.54	1.4	0.97
116758	1012040A-08A	11/29/2010	12/3/2010	1.00	0.80	0.54	1.4	0.94
116759	1012040A-09A	11/29/2010	12/3/2010	1.00	0.80	0.54	1.4	0.95
116760	1012040A-10A	11/29/2010	12/3/2010	1.00	0.80	0.54	ND	ND
116761	1012040A-11A	NA	12/3/2010	1.00	0.80	0.53	ND	ND
116762	1012040A-12A	NA	12/3/2010	1.00	0.80	0.53	ND	ND
116773	1012040A-13A	11/29/2010	12/3/2010	1.00	0.80	0.54	1.8	1.2
116774	1012040A-14A	11/29/2010	12/3/2010	1.00	0.80	0.54	1.6	1.1
116775	1012040A-15A	11/29/2010	12/3/2010	1.00	0.80	0.54	1.8	1.2
116776	1012040A-16A	11/29/2010	12/3/2010	1.00	0.80	0.54	ND	ND
116776 Lab Duplicate	1012040A-16AA	11/29/2010	12/3/2010	1.00	0.80	0.54	ND	ND
Method Blank	1012040A-17A	NA	12/3/2010	1.00	0.80	0.53	ND	ND
Method Blank	1012040A-17B	NA	12/3/2010	1.00	0.80	0.53	ND	ND
							%Rec	
LCS	1012040A-18A	NA	12/3/2010	1.00	0.80	0.53	69	

COMMENTS: 1. NA=Not Applicable
2. ND=Not Detected
3. Exposure time of 20625 minutes was assumed for the QC samples.
4. Background subtraction not performed.

Hydrogen Sulfide Radiello Calculation Worksheet

Workorder #: 1012040A

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:	12/3/2010	
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	116741	11/29/2010	0.043	20625	1.00	0.015328362	0.160947805	0.17104531	0.081	0.113
02A	116742	11/29/2010	0.046	20625	1.00	0.018070837	0.189743784	0.201647884	0.096	0.134
03A	116743	11/29/2010	0.048	20625	1.00	0.019899153	0.208941103	0.2220496	0.106	0.147
04A	116744	11/29/2010	0.107	20625	1.00	0.073834479	0.775262025	0.823900228	0.392	0.546
05A	116745	NA	0.021	20625	1.00	-0.004783115	-0.050222708	-0.053373568	-0.025	-0.035
06A	116746	NA	0.021	20625	1.00	-0.004783115	-0.050222708	-0.053373568	-0.025	-0.035
07A	116757	11/29/2010	0.166	20170	1.00	0.127769804	1.341582946	1.425750856	0.693	0.966
08A	116758	11/29/2010	0.162	20170	1.00	0.124113172	1.303188307	1.384947424	0.673	0.938
09A	116759	11/29/2010	0.164	20170	1.00	0.125941488	1.322385626	1.40534914	0.683	0.952
10A	116760	11/29/2010	0.052	20170	1.00	0.023555785	0.247335742	0.262853033	0.128	0.178
11A	116761	NA	0.017	20625	1.00	-0.008439747	-0.088617347	-0.094177001	-0.045	-0.062
12A	116762	NA	0.019	20625	1.00	-0.006611431	-0.069420028	-0.073775285	-0.035	-0.049
13A	116773	11/29/2010	0.204	20135	1.00	0.162507811	1.706332014	1.813383464	0.883	1.231
14A	116774	11/29/2010	0.185	20135	1.00	0.145138808	1.52395748	1.61956716	0.788	1.099
15A	116775	11/29/2010	0.201	20135	1.00	0.159765337	1.677536035	1.78278089	0.868	1.210
16A	116776	11/29/2010	0.072	20135	1.00	0.041838946	0.439308936	0.466870195	0.227	0.317
16AA	116776 Lab Duplicate	11/29/2010	0.07	20135	1.00	0.04001063	0.420111616	0.446468479	0.217	0.303
					1.00	-0.023980434	-0.251794561	-0.267591589	#DIV/0!	#DIV/0!
					1.00	-0.023980434	-0.251794561	-0.267591589	#DIV/0!	#DIV/0!
					1.00	-0.023980434	-0.251794561	-0.267591589	#DIV/0!	#DIV/0!
					1.00	-0.023980434	-0.251794561	-0.267591589	#DIV/0!	#DIV/0!
					1.00	-0.023980434	-0.251794561	-0.267591589	#DIV/0!	#DIV/0!
17A	Method Blank	NA	0.022	20625	1.00	-0.003868957	-0.040624048	-0.04317271	-0.021	-0.029
17B	Method Blank	NA	0.018	20625	1.00	-0.007525589	-0.079018687	-0.083976143	-0.040	-0.056
18A	LCS	NA	0.127	20625	1.00	0.09211764	0.967235218	1.02791739	0.489	0.681

QC Duration 20625

CCV Spike Amt 0.133

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

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	Result (ppb) H2S	%Rec
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	0.823900228	0.545794971	0.391546477	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.39	0.541	1.425750856	0.965798677	0.692851877	
0.072	0.752	0.798966249	0.39	0.541	1.384947424	0.938158574	0.673023213	
0.072	0.752	0.798966249	0.39	0.541	1.40534914	0.951978626	0.682937545	
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.39	0.542	1.813383464	1.230514911	0.882755988	
0.072	0.752	0.798966249	0.39	0.542	1.61956716	1.098996202	0.788406113	
0.072	0.752	0.798966249	0.39	0.542	1.78278089	1.209748799	0.867858639	
0.072	0.752	0.798966249	0.39	0.542	ND	ND	ND	
0.072	0.752	0.798966249	0.39	0.542	ND	ND	ND	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	#DIV/0!	#DIV/0!	ND	#DIV/0!	#DIV/0!	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	
0.072	0.752	0.798966249	0.38	0.529	ND	ND	ND	%Rec
0.072	0.752	0.798966249	0.38	0.529	1.02791739	0.6809467	0.488502635	69

Calibration Data

ug/ml of sulfide	absorbance
0	0
0.0716	0.09
0.143	0.18
0.286	0.343
0.572	0.678
1.145	1.266

Calibration Date 12/3/2010 Linear Regression

Slope	1.093902727
Y-int	0.026232263
R2	0.998821703

QC Results and Raw Data

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-77
Project: Ferric Chloride Solution Rad 170
Analyst: M. Skidmore
Preparation Date: 10/18/10
Expiration Date: 10/18/11

Solvent: HPLC H_2O
Solvent Lot #: DB270

Procedure/Comments: Dissolve 125 g of ferric chloride hexahydrate (located in ERA, lot#: 73297) in 50 mL of H_2O.

MJS 10/18/10

Signed 10/18/10 Date

Reviewed 10/22/10 Date

Spectrophotometer Logbook **@Air Toxics Ltd.** **Logbook#: 1927**

Work Order: 101204A **Date:** 12/3/10 **Method:** Rad 170

Analyst: J. Randolph **Wavelength:** 665

Standard ID	Concentration	ABS
	Sulfide (ug/mL)	
Level 1 2061-1-E	0.0718	0.090
Level 2 -D	0.143	0.180
Level 3 -C	0.286	0.343
Level 4 -B	0.572	0.678
Level 5 -A	1.145	1.266
ICV 2061-2	0.286	0.362

r = 0.9988

m = ~~1.08439~~ OK 12/3/10 1.074

b = 0.02623

ICV % Recovery = 107

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
01A	1.00	~~0.0173~~ 0.093	116741	10.5mL	
02A		0.046	116742		
03A		0.048	43		
04A		0.107	44		
05A		0.021	45		
06A		0.021	46		
07A		0.166	57		
08A		0.162	58		
09A		0.164	59		
10A		0.052	60		
11A		0.017	61		
12A		0.019	62		
13A		0.204	73		
14A		0.185	74		
15A		0.201	75		
16A		0.072	76		
16AA		0.070	lab dupe 116776		
BLK-1		0.022	N/A		lot: 10101
BLK-2		0.018			lot: 10101
LCS		0.127			lot: 10101 conc: 0.133 ug/mL
CCV		0.340		5.0mL	conc: 0.286 mg/mL

Procedure:

1.) Add 10 mL of H_20 to sample tube, cap and vortex for 1 minute.
2.) Add 0.5 mL of Ferric Chloride-Amine solution and cap immediately.
3.) Allow color to develop for 30 minutes.
4.) Measure absorbance at 665nm. DL 12/3/10

Signed

12/4/10
Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-99
Project: Arsine Solution Rad 170
Analyst: ~~AA~~ DR 12/3/10 D. Randolph
Preparation Date: 12/3/10
Expiration Date: ~~12/3/10~~ 11/3/11 DR 12/3/10

Solvent: HPLC H_2O
Solvent Lot #: DB812

Procedure/Comments: 0.1687g of N,N-dimethyl-p-phenylendiammonium oxalate (located in ERIA; Lot: 63797PJ) was dissolved in a solution of 12.5mL of sulfuric acid (lot: 0142815) and 12.5mL of HPLC grade H_2O (lot: DB812) for a total volume of 25.mL.

DR 12/3/10

David Randolph 12/3/10
Signed Date

Reviewed 12/4/10
Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-100
Project: Ferric Chloride – Amine Solution Red 170
Analyst: D. Randolph
Preparation Date: 12/3/10
Expiration Date: 12/3/10

Solvent: HPLC H_2O
Solvent Lot #: DB8V2

Procedure/Comments: Add 40 mL of ferric chloride solution (1993-77, exp 10/18/11) with 20 mL of amine solution (1993-99, exp 1/3/11).

DR 12/3/10

David Randolph 12/3/10 Signed Date

Reviewed 12/4/10 Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-1
Project: Rad 170 calibration curve
Analyst: D. Randall
Preparation Date: 12/3/10
Expiration Date: 12/3/10

Solvent: HPLC H_2O
Solvent Lot #: OB812

Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with 98 mL of D.I. H_2O = 1.145 µg/mL

Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H_2O = 0.572 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H_2O = 0.286 µg/mL

Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H_2O = 0.143 µg/mL

Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H_2O = 0.0716 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only stable in the flask it was prepared in.

DR 12/3/10

DR 12/3/10

David Randall 12/3/10
Signed Date

12/4/10
Reviewed Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-2
Project: Rad 170 ICV
Analyst: FM
Preparation Date: 12/3/10
Expiration Date: 12/3/10

Solvent: HPLC H2O
Solvent Lot #: DB 812

Procedure/Comments:

Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with 98 mL of D.I. H_2O = 1.145 µg/mL

Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H_2O = 0.286 µg/mL

Note: Each solution was measured immediately after it was prepared. Solution A is only stable in the flask it was prepared in. DR 12/3/10

DR 12/3/10

FM 12/6/10 Signed Date

Reviewed 12/6/10 Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-3
Project: Rad 170 H_2S LCS
Analyst: D. Randolph
Preparation Date: 12/3/10
Expiration Date: 12/3/10

Solvent: HPLC H_2O
Solvent Lot #: DB812

Procedure/Comments:

A Rad 170 cartridge (lot: 10101) was placed in a 40 mL VOA vial. 10.0 mL of D.I. H_2O was aliquoted into the vial. 1.0 mL of H_2S gas (1476-1497; 1000ppm) was injected into the vial, into the H_2O. The solution was allowed to gently shake for 2 hours. Then 0.5 of the ferric-chloride-amine (1993-100) was added to the vial and capped immediately. The solution was allowed to sit for 30 minutes and the absorbance was measured at 665 nm.

~~This~~ DR 12/3/10

This procedure was performed once for each laboratory batch.

DR 12/3/10

David Randolph 12/3/10
Signed Date

12/4/10
Reviewed 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. Brian Baker
FAX #:	781-247-4305
FROM:	Sample Receiving
Workorder #:	1012040A
# of pages (Including Cover):	4

12/15/2010

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

DATE: 1 Dec 10

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

1012040A

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 # 17131

The cost of this analysis will be covered by EH&E Purchase Order # 17131

For EH & E Data Coordinator - URGENT DATA ☐

	SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER: Time/Date/Vol.
01A	116741	Air | Passive	H_2S Analysis 11/15/10 - 11/29/10	14D 7H 45M
02A	116742			
03A	116743			
04A	116744			
05A	116745			Ø
06A	116746			
07A	116757		11/15/10 - 11/29/10	14D 10M
08A	116758			
09A	116759			
10A	116760			
11A	116761			Ø
12A	116762			
13A	116773		11/15/10 - 11/29/10	13D 23H 35M
14A	116774			
15A	116775			
16A	116776			

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 bbakere.eheinc.com

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

Relinquished by: _____ of Environmental Health & Engineering, Inc. Date: 12/1/10

Received by: Tonal Whittaker of (company name) ATL Date: 12/2/10

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

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

CUSTODY SEAL INTACT 3°C

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 1012040A

Client

Mr. Brian Baker
Environmental Health &
Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

Phone

800-825-5343

Fax

781-247-4305

Sales Rep: TL

Date Promised: 12/15/10 11:59 pm
Date Completed: 12/13/10
Date Received: 12/2/10
PO#: 17131
Project#: 17131

Total $: $ 1,360.00
Logged By: AW

Fraction	Sample #	Analysis	Collected	Amount$
01A	116741	ATL Applications	11/29/2010	$80.00
02A	116742	ATL Applications	11/29/2010	$80.00
03A	116743	ATL Applications	11/29/2010	$80.00
04A	116744	ATL Applications	11/29/2010	$80.00
05A	116745	ATL Applications	NA	$80.00
06A	116746	ATL Applications	NA	$80.00
07A	116757	ATL Applications	11/29/2010	$80.00
08A	116758	ATL Applications	11/29/2010	$80.00
09A	116759	ATL Applications	11/29/2010	$80.00
10A	116760	ATL Applications	11/29/2010	$80.00
11A	116761	ATL Applications	NA	$80.00
12A	116762	ATL Applications	NA	$80.00
13A	116773	ATL Applications	11/29/2010	$80.00
14A	116774	ATL Applications	11/29/2010	$80.00
15A	116775	ATL Applications	11/29/2010	$80.00
16A	116776	ATL Applications	11/29/2010	$80.00
16AA	116776 Lab Duplicate	ATL Applications	11/29/2010	$0.00
17A	Lab Blank	ATL Applications	NA	$0.00
17B	Lab Blank	ATL Applications	NA	$0.00
18A	LCS	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/14482

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 RECEIPT SUMMARY Continued

Client

Phone

Fax

Date Promised:
Date Completed:
Date Received:
PO#:
Project#:

Sales Rep:

Total $: $ 1,360.00
Logged By: AW

Fraction	Sample #	Analysis	Collected	Amount$
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/14482

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

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	Title: Data Review Checklist			Release Date: 07/28/10
	Form #: F1.27	Revision #: 2	Revision Date:07/27/10	Page #: 1 of 2

DATA REVIEW CHECKLIST

Work Order #: 1012040A

A_1	A_2	W	T	R	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.
☐	☐	NA				Non-Standard sublist printed/verified, LOQ and LOD verified
		☑	☐	☐	☐	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		NA	☐	☐	☐	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
		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
☐	☐	☐	☐		☐	Appropriate ICAL(s) included, %RSD Recalculation
		☑	☐		☐	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.)
☐	☐	☐	☐			Data for multiple analyses of sample(s) has been evaluated for comparability of results
		NA	☐			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) 10/25/10
☐	☐	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)
☐	☐	☐				Verify receipt pressures
☐	☐	☐				Verify canister ID #'s
		☑	☐	☐		Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		☑	☐	☐		Final PDF report reviewed for correctness

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

A/R: 16A - Duplicate

T/Q:

A_1/A_2 (Analytical Review/Date)	W/T (Write-up/Tech Review/Date)	R* (Report Review/Date)	Q (QA Review/Date)
A_1:	W: [signature] 12/13/10	R:	
A_2:	T:		

Note (1): Please check all the appropriate boxes. Indicate "NA" for any statement that does not apply.
Note (2): Report reviewer and write-up reviewer must be separate individuals for DoD & Client Specific projects.
* Report Review is completed for DoD & Client Specific projects only.