

**COMPREHENSIVE VALIDATION PACKAGE**

ATL Applications

INVENTORY SHEET

WORK ORDER # 1012369B

	Page Nos.	
	From	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	15
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	16	17
b. Chain-of-Custody Records	18	19
c. Sample Log-In Sheet	20	21
d. Misc. Shipping/Receiving Records (list individual records)		
<u>Sample Receipt Discrepancy Report</u>	-	-
5. Other Records (describe or list)		
a. <u>Manual Spectral Defense</u>	-	-
b. <u>Manual Intergrations</u>	-	-
c. <u>Manual Calculations</u>	-	-
d. <u>Canister Dilution Factors</u>	-	-
e. <u>Laboratory Corrective Action Request</u>	-	-
f. <u>CAS Number Reference</u>	22	23
g. <u>Variance Table</u>	-	-
h. <u>Canister Certification</u>	-	-
i. <u>Data Review Check Sheet</u>	24	24

Completed by:

V. Belitsky  
(Signature)

Vera Belitsky/ Document Control  
(Print Name & Title)

01/03/11  
(Date)

**WORK ORDER #: 1012369B**

Work Order Summary

<b>CLIENT:</b>	Mr. Brian Baker Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	<b>BILL TO:</b>	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
<b>PHONE:</b>	800-825-5343	<b>P.O. #</b>	17131
<b>FAX:</b>	781-247-4305	<b>PROJECT #</b>	17131
<b>DATE RECEIVED:</b>	12/16/2010	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	12/30/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
17A	120297	ATL Applications
18A	120298	ATL Applications
19A	120309	ATL Applications
20A	120310	ATL Applications
21A	120311	ATL Applications
22A	120312	ATL Applications
23A	120313	ATL Applications
24A	120314	ATL Applications
25A	120325	ATL Applications
26A	120326	ATL Applications
27A	120327	ATL Applications
27AA	120327 Lab Duplicate	ATL Applications
28A	120328	ATL Applications
29A	120329	ATL Applications
30A	120330	ATL Applications
31A	120341	ATL Applications
32A	120342	ATL Applications
33A	120343	ATL Applications

Continued on next page

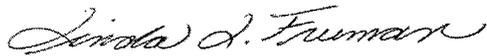
**WORK ORDER #: 1012369B**

Work Order Summary

<b>CLIENT:</b>	Mr. Brian Baker Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494	<b>BILL TO:</b>	Accounts Payable Environmental Health & Engineering, Inc. 117 Fourth Avenue Needham, MA 02494
<b>PHONE:</b>	800-825-5343	<b>P.O. #</b>	17131
<b>FAX:</b>	781-247-4305	<b>PROJECT #</b>	17131
<b>DATE RECEIVED:</b>	12/16/2010	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	12/30/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
34A	120344	ATL Applications
35A	120345	ATL Applications
36A	120346	ATL Applications
37A	Lab Blank	ATL Applications
37B	Lab Blank	ATL Applications
38A	LCS	ATL Applications

CERTIFIED BY:



Laboratory Director

DATE: 12/30/10

**LABORATORY NARRATIVE  
Hydrogen Sulfide by Radiello 170  
Environmental Health & Engineering, Inc.  
Workorder# 1012369B**

Twenty Radiello 170 (H<sub>2</sub>S) samples were received on December 16, 2010. The procedure involves adsorption of H<sub>2</sub>S 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/m<sup>3</sup>.

Sampling rate of 69 mL/min for H<sub>2</sub>S 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 20130 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	Lab	Collection	Analysis	Dilution	Reporting Limit	Reporting Limit	Amount	Amount
Sample I.D.	Sample I.D.	Date	Date	Factor	(ug)	(ug/m3)	(ug)	(ug/m3)
120297	1012369B-17A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120298	1012369B-18A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120309	1012369B-19A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120310	1012369B-20A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120311	1012369B-21A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120312	1012369B-22A	12/14/2010	12/29/2010	1.00	0.80	0.54	0.94	0.64
120313	1012369B-23A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120314	1012369B-24A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120325	1012369B-25A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120326	1012369B-26A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120327	1012369B-27A	12/14/2010	12/29/2010	1.00	0.80	0.54	1.0	0.69
120327 Lab Duplicate	1012369B-27AA	12/14/2010	12/29/2010	1.00	0.80	0.54	0.99	0.68
120328	1012369B-28A	12/14/2010	12/29/2010	1.00	0.80	0.54	0.87	0.59
120329	1012369B-29A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120330	1012369B-30A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120341	1012369B-31A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120342	1012369B-32A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120343	1012369B-33A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120344	1012369B-34A	12/14/2010	12/29/2010	1.00	0.80	0.54	ND	ND
120345	1012369B-35A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
120346	1012369B-36A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
Method Blank	1012369B-37A	NA	12/29/2010	1.00	0.80	0.54	ND	ND
Method Blank	1012369B-37B	NA	12/29/2010	1.00	0.80	0.54	ND	ND
LCS	1012369B-38A	NA	12/29/2010	1.00	0.80	0.54	%Rec 125	

COMMENTS: 1. NA=Not Applicable

2. ND=Not Detected

3. Exposure time of 20130 minutes was assumed for the QC samples.

4. Background subtraction not performed.



# Hydrogen Sulfide Radtello Calculation Worksheet

Workorder #: 10123698

Sampling Rate (ng/ppb.min) 0.096 Typically 0.096 for H2S

Sampling T (deg C) 25 Typically 25

Volume (ml) 10.5 Typically 10.5 for H2S

Date of Analysis: 12/29/2010

Corrected Q 0.096 Takes into account temp

(Abs-Y-int)/XDF Slope

Conc(ug/ml) \* Vol (ml)

Conc (ug sulfide) \* MW H2S

ppbb mw 24.45

Q includes conversion from Sulfide to H2S

Conc (ug) x 1000

Q x Duration

T Corrected, no Blank correction

Conc (ppb) of H2S

Conc (ug/ml) of H2S

Lab Sample ID	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/ml) of H2S
17A	120297	NA	0.029	20130	1.00	-0.006622402	-0.069535221	-0.073897706	-0.036	-0.050
18A	120298	NA	0.030	20130	1.00	-0.005637408	-0.059192781	-0.043	-0.031	-0.043
19A	120309	12/14/2010	0.078	20130	1.00	0.041642319	0.437244354	0.464676086	0.226	0.315
20A	120310	12/14/2010	0.077	20130	1.00	0.040657325	0.426901913	0.453684784	0.221	0.308
21A	120311	12/14/2010	0.092	20130	1.00	0.05543224	0.582038518	0.618554312	0.301	0.420
22A	120312	12/14/2010	0.121	20130	1.00	0.083997075	0.881969287	0.937302066	0.456	0.636
23A	120313	12/14/2010	0.026	20130	1.00	-0.009577385	-0.100562542	-0.106871611	-0.052	-0.073
24A	120314	NA	0.029	20130	1.00	-0.006622402	-0.069535221	-0.073897706	-0.036	-0.050
25A	120325	NA	0.101	20130	1.00	0.064297189	0.675120481	0.717476028	0.349	0.487
26A	120326	12/14/2010	0.09	20055	1.00	0.053462251	0.561353637	0.596571708	0.292	0.406
27A	120327	12/14/2010	0.128	20055	1.00	0.090892035	0.954366369	1.014241179	0.496	0.691
28A	120328	12/14/2010	0.126	20055	1.00	0.088922047	0.933681489	0.992258575	0.485	0.676
29A	120329	NA	0.115	20055	1.00	0.078087109	0.819914645	0.871354254	0.426	0.594
30A	120330	NA	0.029	20130	1.00	-0.006622402	-0.069535221	-0.073897706	-0.036	-0.050
31A	120341	12/14/2010	0.066	20130	1.00	0.029822388	0.31313507	0.332780463	0.162	0.226
32A	120342	12/14/2010	0.061	20130	1.00	0.024897416	0.261422868	0.277823954	0.135	0.189
33A	120343	12/14/2010	0.048	20130	1.00	0.01209249	0.126971144	0.13493703	0.066	0.092
34A	120344	12/14/2010	0.099	20130	1.00	0.0623272	0.6544356	0.695493425	0.339	0.472
35A	120345	NA	0.027	20130	1.00	-0.008592391	-0.0902220102	-0.095880399	-0.047	-0.065
36A	120346	NA	0.028	20130	1.00	-0.007607396	-0.079877662	-0.084889007	-0.041	-0.058
37A	Method Blank	NA	0.033	20130	1.00	-0.035187237	-0.36946599	-0.392645459	-0.015	-0.020
37B	Method Blank	NA	0.026	20130	1.00	-0.002682425	-0.02816546	-0.029932488	-0.015	-0.020
38A	LCS	NA	0.205	20130	1.00	0.166736597	1.750734273	1.860571422	0.906	1.263

QC Duration 20130  
CCV Spike Amt 0.133

Verified: HH and AW on 9/4/09

## **QC Results and Raw Data**

Work Order: 1012369BDate: 12/29/10Method: Rad 170Analyst: D. RandolphWavelength: 665

Standard ID	Concentration	ABS
	sulfide (ug/ml)	
Level 1 2061-9-E	0.0716	0.087
Level 2 -D	0.143	0.169
Level 3 -C	0.286	0.343
Level 4 -B	0.572	0.652
Level 5 -A	<del>0.572</del> 1.145	1.171
ICV 2061-N	0.286	0.352

$$r = \frac{0.9968}{0.02} \text{ DR } 12/29/10$$

$$m = \frac{1.0157}{0.02} \text{ DR } 12/29/10$$

$$b = 0.03572$$

$$\text{ICV \% Recovery} = 109$$

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
17A	1.00	0.029	120297	10.5ML	
18A		0.030	8		
19A		0.078	309		
20A		0.077	10		
21A		0.092	1		
22A		0.121	2		
23A		0.026	3		
24A		0.029	4		
25A		0.101	25		
26A		0.090	6		
27A		0.128	7		
27AA		0.126	120327		
28A		0.115	8		
29A		0.029	9		
30A		0.029	30		
31A		0.066	41		
32A		0.061	2		
33A		0.048	3		
34A		0.099	4		
35A		0.027	5		
36A		0.028	6		
BLK-1		0.033	N/A		Lot: 10101

Procedure:

- 1.) Add 10 mL of H<sub>2</sub>O 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.

DR 12/29/10



# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-12  
Project: Rad 170 ICV  
Analyst: FM  
Preparation Date: 12/29/10  
Expiration Date: 12/29/10

Solvent: HPLC H<sub>2</sub>O  
Solvent Lot #: DB 812

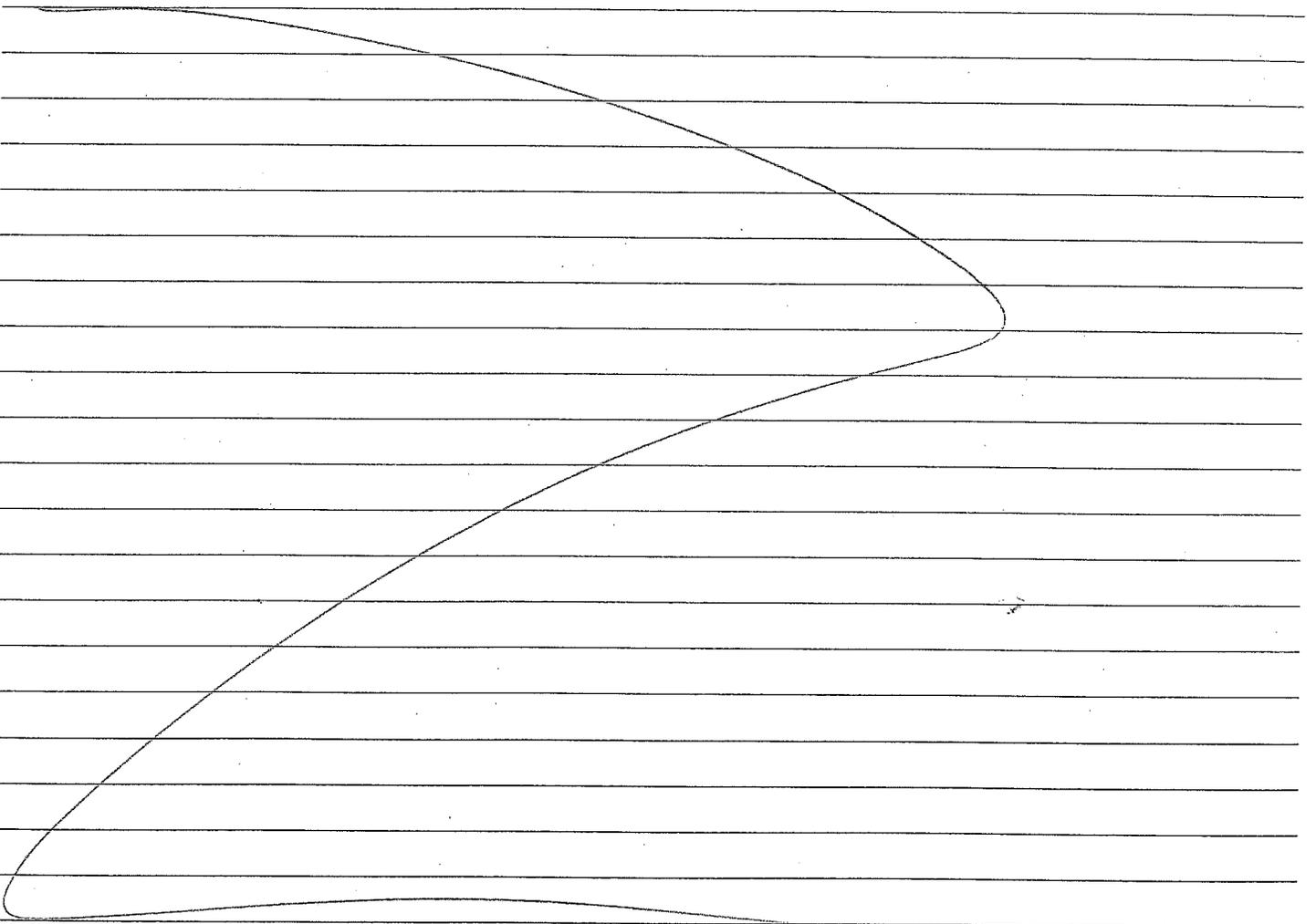
Procedure/Comments: \_\_\_\_\_

\_\_\_\_\_ Solution A: 2 mL of Code Rad 171 (1476-2077, exp 6/16/11) (located in ER1B) with  
\_\_\_\_\_ 98 mL of D.I. H<sub>2</sub>O = 1.145 µg/mL

\_\_\_\_\_ Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H<sub>2</sub>O = 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 12/29/10



FM

12/29/10

Fauzi  
Signed

12/29/10  
Date

Milo  
Reviewed

12/29/10  
Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-11  
Project: Rad 170 LCS  
Analyst: D. Randolph  
Preparation Date: 12/29/10  
Expiration Date: 12/29/10

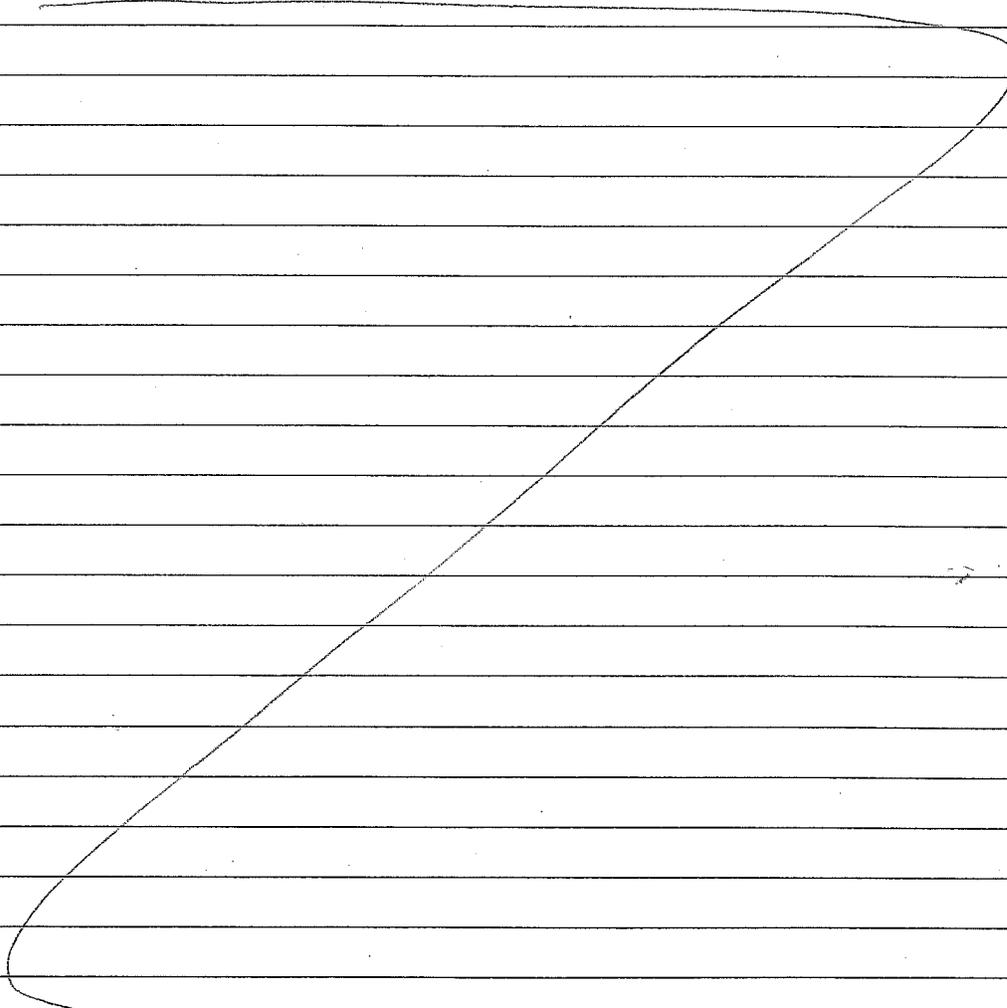
OR 12/29/10  
Solvent: ~~DB812~~ HPLC H2O  
Solvent Lot #: DB812

Procedure/Comments:

A Rad 170 cartridge (lot: 10101 ) was placed in a 40 mL VOA vial. 10.0 mL of D.I. H<sub>2</sub>O was aliquoted into the vial. 1.0 mL of H<sub>2</sub>S gas (1476-1498, 1000 ppm) was injected into the vial, into the H<sub>2</sub>O. The solution was allowed to gently shake for 2 hours. Then 0.5 of the ferric-chloride-amine (2061-10 ) 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.

OR 12/29/10

\*Syringe would not push back from positive pressure in canister\*



OR 12/29/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-10

Solvent: HPLC H<sub>2</sub>O

Project: Ferric Chloride Amine sol

Solvent Lot #: DB812

Analyst: A. Randolph

Preparation Date: 12/29/10

Expiration Date: 12/29/10

Procedure/Comments: 20ml of Ferric chloride solution (1993-72, exp 10/13/11) was added to 10ml of amine solution (2061-6; exp 1/28/11).

*[A large handwritten scribble or signature spans across the middle of the page, starting from the left margin and extending towards the right, partially overlapping the procedure text.]*

# Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-9  
Project: Rad 170 Calibration Curve  
Analyst: D. Randolph  
Preparation Date: 12/29/10  
Expiration Date: 12/29/10

Solvent: HPLC H<sub>2</sub>O  
Solvent Lot #: DB312

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<sub>2</sub>O = 1.145 µg/mL

\_\_\_\_\_ Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H<sub>2</sub>O = 0.572 µg/mL

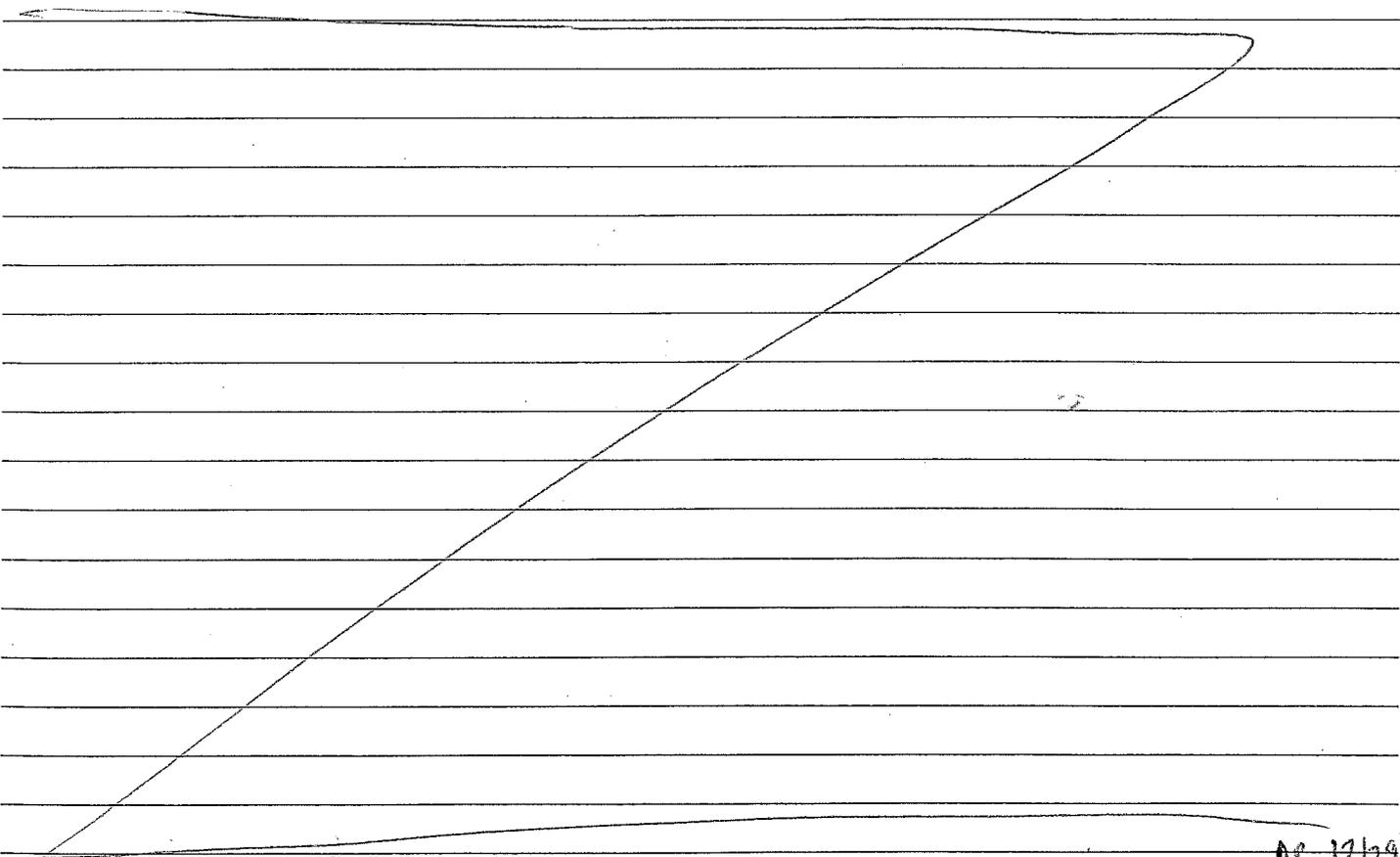
\_\_\_\_\_ Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H<sub>2</sub>O = 0.286 µg/mL

\_\_\_\_\_ Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H<sub>2</sub>O = 0.143 µg/mL

\_\_\_\_\_ Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H<sub>2</sub>O = 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 12/29/10



DR 12/29/10

Page 9 David Randolph  
Signed \_\_\_\_\_ Date 12/29/10

Mike [Signature]  
Reviewed \_\_\_\_\_ Date 12/29/10  
Rev.12/09

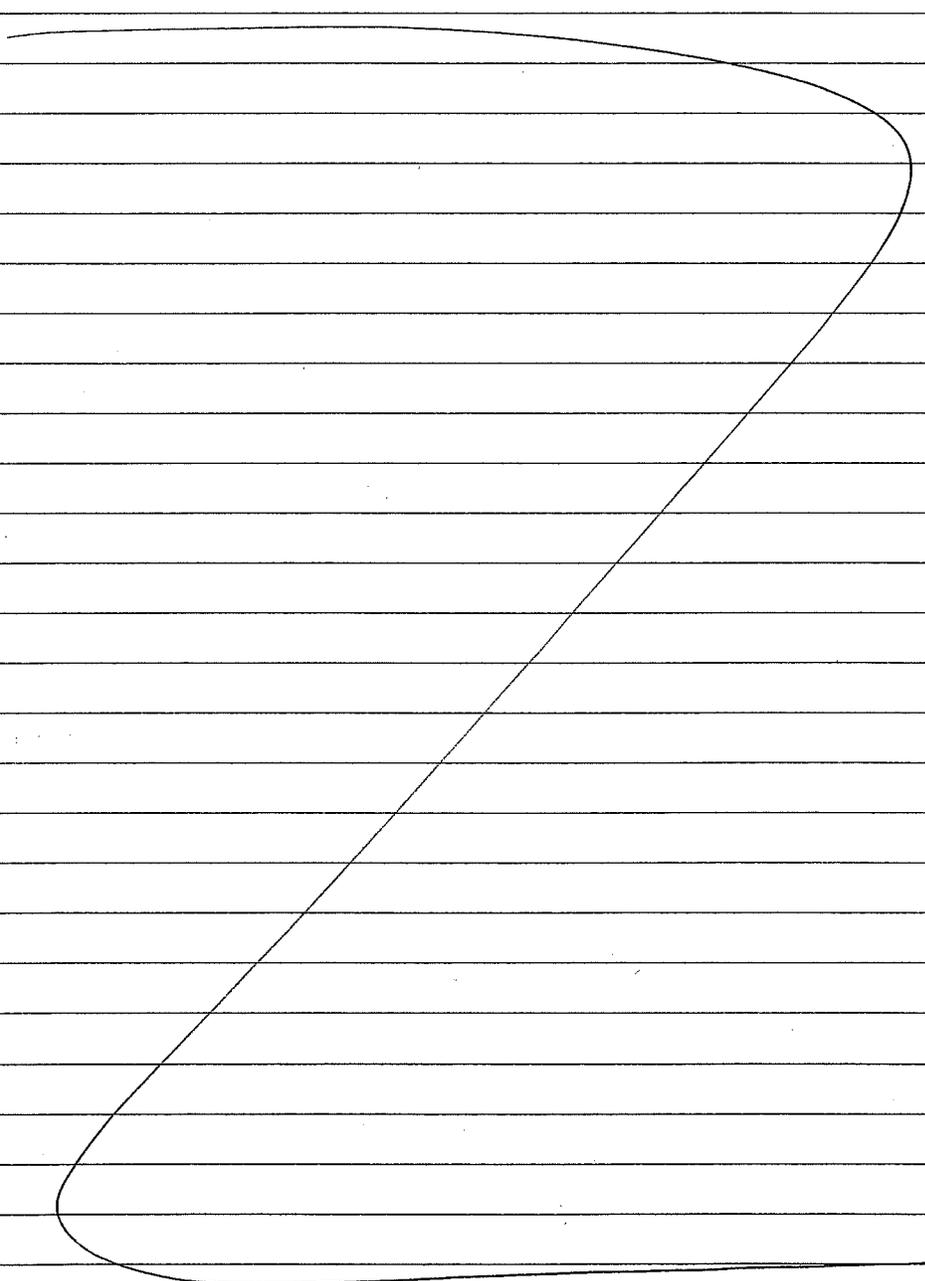
Spectrophotometer Standard Preparation Log

@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<sub>2</sub>O  
Solvent Lot #: OB270

Procedure/Comments: Dissolve 125 g of ferric chloride hexahydrate  
(located in ERAC, lot: 732917) in 50 mL of H<sub>2</sub>O,



MJS 10/18/10

## **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. Brian Baker  
FAX #: 781-247-4305  
FROM: Sample Receiving  
Workorder #: 1012369B  
# of pages (Including Cover): 4

1/3/2011

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.

CHAIN OF CUSTODY FORM

DATE: 15 DEC 10

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

1012369

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

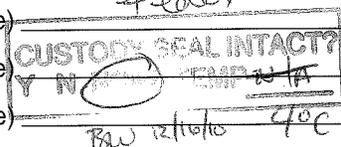
SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.	
17A 120297	AIR/PASSIVE	H <sub>2</sub> S ANALYSIS	∅	
18A 120298			I	
19A 120309			11/30/10-12/14/10	13D 23H 30M
20A 120310			I	I
21A 120311			I	I
22A 120312			I	I
23A 120313			I	∅
24A 120314			I	I
25A 120325			11/30/10-12/14/10	13D 22H 15M
26A 120326			I	I
27A 120327			I	I
28A 120328	I	I		
29A 120329	I	I		
30A 120330	I	I	I	

Special instructions:

- Standard turn around time
- Fax results 781-247-4305
- RETURN SAMPLES
- Additional report recipient bbaker@ehinc.com
- Rush by \_\_\_\_\_ date/time
- Other \_\_\_\_\_
- Electronic transfer - datacoordinator@ehinc.com

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

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 12/15/10  
 Received by: Brian Whittaker of (company name) ATC Date: 12/16/10  
 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: \_\_\_\_\_





**SAMPLE RECEIPT SUMMARY**

**WORKORDER 1012369B**

<b>Client</b>	<b>Phone</b>	<b>Date Promised:</b> 12/30/10 11:59 pm
Mr. Brian Baker	800-825-5343	<b>Date Completed:</b> 12/30/10
Environmental Health & Engineering, Inc.	<b>Fax</b>	<b>Date Received:</b> 12/16/10
117 Fourth Avenue	781-247-4305	<b>PO#:</b> 17131
Needham, MA 02494		<b>Project#:</b> 17131
<b>Sales Rep:</b> TL		<b>Total \$:</b> \$ 1,700.00
		<b>Logged By:</b> MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
17A	120297	ATL Applications	NA	\$80.00
18A	120298	ATL Applications	NA	\$80.00
19A	120309	ATL Applications	12/14/2010	\$80.00
20A	120310	ATL Applications	12/14/2010	\$80.00
21A	120311	ATL Applications	12/14/2010	\$80.00
22A	120312	ATL Applications	12/14/2010	\$80.00
23A	120313	ATL Applications	12/14/2010	\$80.00
24A	120314	ATL Applications	NA	\$80.00
25A	120325	ATL Applications	NA	\$80.00
26A	120326	ATL Applications	12/14/2010	\$80.00
27A	120327	ATL Applications	12/14/2010	\$80.00
27AA	120327 Lab Duplicate	ATL Applications	12/14/2010	\$0.00
28A	120328	ATL Applications	12/14/2010	\$80.00
29A	120329	ATL Applications	NA	\$80.00
30A	120330	ATL Applications	NA	\$80.00
31A	120341	ATL Applications	12/14/2010	\$80.00
32A	120342	ATL Applications	12/14/2010	\$80.00
33A	120343	ATL Applications	12/14/2010	\$80.00
34A	120344	ATL Applications	12/14/2010	\$80.00
35A	120345	ATL Applications	NA	\$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

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

**SAMPLE RECEIPT SUMMARY Continued**

<b>Client</b>	<b>Phone</b>	<b>Date Promised:</b> 12/30/10 11:59 pm
Mr. Brian Baker	800-825-5343	<b>Date Completed:</b> 12/30/10
Environmental Health & Engineering, Inc.	<b>Fax</b>	<b>Date Received:</b> 12/16/10
117 Fourth Avenue	781-247-4305	<b>PO#:</b> 17131
Needham, MA 02494		<b>Project#:</b> 17131
<b>Sales Rep:</b> TL		<b>Total \$:</b> \$ 1,700.00
		<b>Logged By:</b> MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
36A	120346	ATL Applications	NA	\$80.00
37A	Lab Blank	ATL Applications	NA	\$0.00
37B	Lab Blank	ATL Applications	NA	\$0.00
38A	LCS	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/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

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

## **Other Records**



---

Method : ATL Application #59 H2S-Radiello 170

---

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

---

**DATA REVIEW CHECKLIST**      Work Order #: 1012369B

A <sub>1</sub>	A <sub>2</sub>	W	T	R	Q	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Analysis/Reporting vs. Project Profile/SOP requirements checked (i.e. 100% Dups, J-Flag to MDL, etc)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The final report has the correct reporting list, special units, and header info.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-Standard sublist printed/verified, LOQ and LOD verified
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Narrative is correct (proper method & description/Receiving & Analytical notes correct)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample Discrepancy Report (SDR) is completed
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corrective Action issued - # _____
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unusual circumstances have been documented in the notes section below
						<b>LUMEN validation report present and initialed      CIRCLE (YES / NO)</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lab Blank, CCV, LCS and DUP met QC criteria
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hold time is met for all samples
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate data qualifier flags are applied
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manual integrations for samples and QC are properly documented
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples analyzed within the project or method specific clock
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Retention times have been verified
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate ICAL(s) included, %RSD Recalculation
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At least one result per sample is verified against the target quant sheets/raw data
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Correct amount of sample analyzed (i.e. sample not over-diluted)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs resemble reference spectra
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICs between duplicate samples are consistent
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Checked samples for trends (i.e. Influent vs. Effluent, Field Dups, Field/Trip Blank, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Data for multiple analyses of sample(s) has been evaluated for comparability of results
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special units for all samples in the final report are correctly calculated
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manually entered results checked (i.e. TPH/NMOC)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chain of Custody scanned correctly
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify sample id's vs. chain of custody
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date MDL(s) performed per instrument(s) <u>10/29/10</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Samples pressurized w/ appropriate gas (N <sub>2</sub> or He) <input type="checkbox"/> Other (i.e. Tedlar bag, cartridge, sorbent)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final pressure consistent with canister size (6L vs. 1L)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify receipt pressures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Verify canister ID #'s
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Final PDF report reviewed for correctness

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

A/R: 27A - DUP

T/Q: \_\_\_\_\_

A <sub>1</sub> /A <sub>2</sub> (Analytical Review/Date)	W/T (Write-up/Tech Review/Date)	R* (Report Review/Date)	Q (QA Review/Date)
A <sub>1</sub> : _____	W: <u>[Signature]</u> <u>10/30/10</u>	R*: _____	Q: _____
A <sub>2</sub> : _____	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.