

COMPREHENSIVE VALIDATION PACKAGE

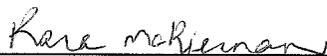
ATL Applications

INVENTORY SHEET

WORK ORDER # 1012040B

	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	16
l. GC/MS Tune (Results + Raw Data)	-	-
4. Shipping/Receiving Documents:		
a. Login Receipt Summary Sheet	17	18
b. Chain-of-Custody Records	19	20
c. Sample Log-In Sheet	21	22
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>	23	24
g. <u>Variance Table</u>	-	-
h. <u>Canister Certification</u>	-	-
i. <u>Data Review Check Sheet</u>	25	25

Completed by:



(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

12/15/10

(Date)

WORK ORDER #: 1012040B

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		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
17A	116777	ATL Applications
18A	116778	ATL Applications
19A	116789	ATL Applications
20A	116790	ATL Applications
21A	116791	ATL Applications
22A	116792	ATL Applications
23A	116793	ATL Applications
24A	116794	ATL Applications
25A	116805	ATL Applications
26A	116806	ATL Applications
27A	116807	ATL Applications
28A	116808	ATL Applications
29A	116809	ATL Applications
30A	116810	ATL Applications
31A	116821	ATL Applications
32A	116822	ATL Applications
33A	116823	ATL Applications
34A	116824	ATL Applications

Continued on next page

WORK ORDER #: 1012040B

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
FAX: 781-247-4305
DATE RECEIVED: 12/02/2010
DATE COMPLETED: 12/13/2010

P.O. # 17131
PROJECT # 17131
CONTACT: Ausha Scott

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
34AA	116824 Lab Duplicate	ATL Applications
35A	116825	ATL Applications
36A	116826	ATL Applications
37A	Lab Blank	ATL Applications
37B	Lab Blank	ATL Applications
38A	LCS	ATL Applications

CERTIFIED BY:

Sandra J. Freeman

Laboratory Director

DATE: 12/13/10

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

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# 1012040B**

Twenty 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 20185 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 Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Sample I.D.	Sample I.D.	Date	Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
116777	1012040B-17A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116778	1012040B-18A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116789	1012040B-19A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.0	0.70
116790	1012040B-20A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.2	0.78
116791	1012040B-21A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.4	0.93
116792	1012040B-22A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.2	0.79
116793	1012040B-23A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116794	1012040B-24A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116805	1012040B-25A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.7	1.1
116806	1012040B-26A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.6	1.1
116807	1012040B-27A	11/30/2010	12/3/2010	1.00	0.80	0.54	2.7	1.8
116808	1012040B-28A	11/30/2010	12/3/2010	1.00	0.80	0.54	1.3	0.88
116809	1012040B-29A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116810	1012040B-30A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116821	1012040B-31A	11/30/2010	12/3/2010	1.00	0.80	0.54	ND	ND
116822	1012040B-32A	11/30/2010	12/3/2010	1.00	0.80	0.54	ND	ND
116823	1012040B-33A	11/30/2010	12/3/2010	1.00	0.80	0.54	ND	ND
116824	1012040B-34A	11/30/2010	12/3/2010	1.00	0.80	0.54	0.84	0.57
116824 Lab Duplicate	1012040B-34AA	11/30/2010	12/3/2010	1.00	0.80	0.54	0.88	0.60
116825	1012040B-35A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
116826	1012040B-36A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
Method Blank	1012040B-37A	NA	12/3/2010	1.00	0.80	0.54	ND	ND
Method Blank	1012040B-37B	NA	12/3/2010	1.00	0.80	0.54	ND	ND
LCS	1012040B-38A	NA	12/3/2010	1.00	0.80	0.54	%Rec 99	

COMMENTS: 1. NA=Not Applicable
 2. ND=Not Detected
 3. Exposure time of 20185 minutes was assumed for the QC samples.
 4. Background subtraction not performed.

Hydrogen Sulfide Radiello Calculation Worksheet

Worker order #: 10120403

0.096 Typically 0.096 for H2S

Sampling Rate (ng/ppb.min) 25 Typically 25

Sampling T (deg C) 10.5 Typically 10.5 for H2S

Volume (mL) 12/3/2010

Date of Analysis: Corrected Q 0.096 Takes into account temp

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
17A	116777	NA	0.017	20185	1.00	-0.008439747	-0.088617347	-0.0941777001	-0.046	-0.064
18A	116778	NA	0.023	20185	1.00	-0.002954799	-0.031025389	-0.032971852	-0.016	-0.022
19A	116789	11/30/2010	0.127	20140	1.00	0.09211764	0.967235218	1.02791739	0.500	0.697
20A	116790	11/30/2010	0.139	20140	1.00	0.103087537	1.082419134	1.150327687	0.560	0.760
21A	116791	11/30/2010	0.161	20140	1.00	0.123199014	1.293589647	1.374746566	0.669	0.933
22A	116792	11/30/2010	0.141	20140	1.00	0.104915853	1.101616454	1.170729404	0.570	0.794
23A	116793	NA	0.024	20185	1.00	-0.002040641	-0.021426729	-0.022770994	-0.011	-0.015
24A	116794	NA	0.024	20185	1.00	-0.002040641	-0.021426729	-0.022770994	-0.011	-0.015
25A	116805	11/30/2010	0.191	20185	1.00	0.150623756	1.581549438	1.680772309	0.816	1.138
26A	116806	11/30/2010	0.187	20185	1.00	0.148967124	1.543154799	1.639968876	0.796	1.110
27A	116807	11/30/2010	0.288	20185	1.00	0.239297088	2.512619427	2.670255514	1.297	1.807
28A	116808	11/30/2010	0.153	20185	1.00	0.11588575	1.21680037	1.293139701	0.628	0.875
29A	116809	NA	0.039	20185	1.00	0.01167173	0.122553166	0.130241877	0.063	0.088
30A	116810	NA	0.027	20185	1.00	0.000701833	0.00736925	0.00783158	0.004	0.005
31A	116821	11/30/2010	0.087	20110	1.00	0.05551317	0.583288831	0.619883066	0.302	0.421
32A	116822	11/30/2010	0.085	20110	1.00	0.053723001	0.564091512	0.59948135	0.292	0.407
33A	116823	11/30/2010	0.102	20110	1.00	0.069263688	0.727268726	0.772895938	0.377	0.525
34A	116824	11/30/2010	0.109	20110	1.00	0.075662795	0.794459344	0.844301944	0.412	0.574
34AA	116824	11/30/2010	0.113	20110	1.00	0.079319427	0.832853983	0.885105377	0.431	0.601
35A	116825	NA	0.038	20185	1.00	0.010757572	0.112954506	0.120041019	0.058	0.081
36A	116826	NA	0.02	20185	1.00	-0.005697273	-0.059821368	-0.063574427	-0.031	-0.043
37A	Method Blank	NA	0.02	20185	1.00	-0.00697273	-0.059821368	-0.063574427	-0.031	-0.043
37B	Method Blank	NA	0.018	20185	1.00	-0.007525589	-0.079018687	-0.083976143	-0.041	-0.057
38A	LCS	NA	0.17	20185	1.00	0.131426437	1.379977585	1.466554289	0.712	0.993

(Abs-Y)mtXDF Slope

Conc(ug/mL)xVol (mL)

conc (ug sulfide) *MW H2S
MW Sulfide

Conc (ug) x 1000
Q x Duration

ppbx mw
24.45

Q includes conversion from Sulfide to H2S

T Corrected, no Blank correction

QC Duration
20185

QC Spike Amt
0.133

Low Point:DF 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
12/3/2010 Linear Regression

Q includes conversion from
Sulfide to H2S

RL(ug/ml) of sulfide	RL (ug) of sulfide	RL (ug) of H2S	RL (ppb) of H2S	RL (ug/ml) of sulfide	Result (ug) H2S	Result (ug/ml) H2S	Result (ppb) H2S	%Rec	ug/ml of sulfide	absorbance	Slope Y-int R2
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND		0	0	1.093902727
0.072	0.752	0.798966249	0.39	0.542	ND	ND	ND		0.0716	0.09	0.026292268
0.072	0.752	0.798966249	0.39	0.542	1.02791739	0.697344871	0.500266477	0.143	0.143	0.18	0.998921703
0.072	0.752	0.798966249	0.39	0.542	1.150327687	0.780386896	0.559841078	0.286	0.286	0.343	
0.072	0.752	0.798966249	0.39	0.542	1.374746566	0.932635711	0.65906118	0.572	0.572	0.678	
0.072	0.752	0.798966249	0.39	0.542	1.170729404	0.794229334	0.569770178	1.145	1.145	1.266	
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	1.680772309	1.137703238	0.816174056				
0.072	0.752	0.798966249	0.39	0.541	1.639968876	1.110083674	0.796360127				
0.072	0.752	0.798966249	0.39	0.541	2.670255544	1.807477647	1.29666183				
0.072	0.752	0.798966249	0.39	0.541	1.293139701	0.875317986	0.627941732				
0.072	0.752	0.798966249	0.39	0.543	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.543	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.543	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.543	0.844301944	0.573633601	0.411517562				
0.072	0.752	0.798966249	0.39	0.541	0.885105377	0.601356171	0.431405386				
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	ND	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	1.466554289	0.99270053	0.712150929	%Rec 99			

QC Results and Raw Data

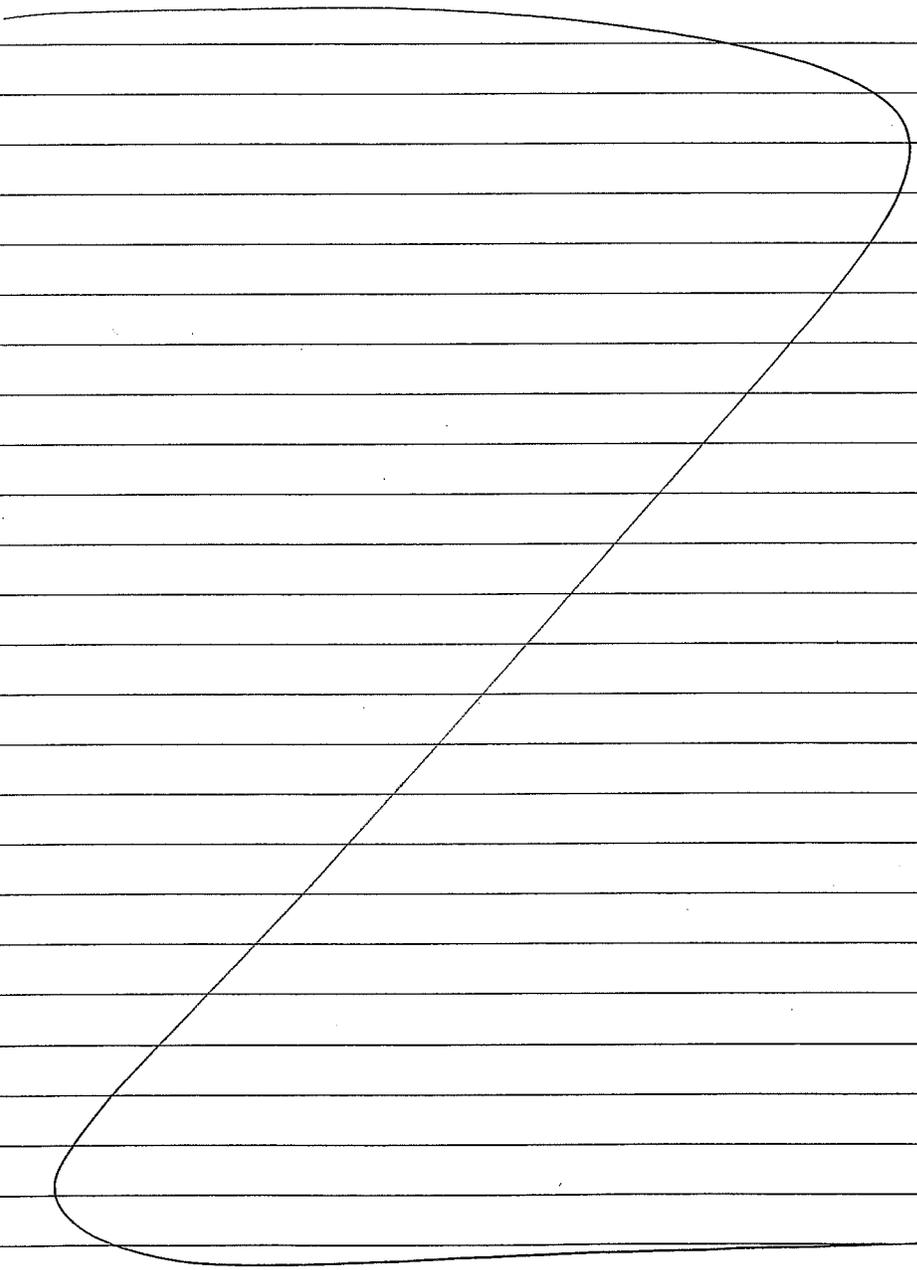
Spectrophotometer Standard Preparation Log

@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 H₂O
Solvent Lot #: DB 270

Procedure/Comments: Dissolve 125 g of ferric chloride hexahydrate
(located in ERAC, lot: 732917) in 50 mL of H₂O,



MJS 10/18/10

M. Skidmore 10/18/10
Signed Date

Fauzi
Reviewed

10/22/10
Date

Work Order: 10120405

Date: 12/3/10

Method: Rad 170

Analyst: D. Randolph

Wavelength: 665

Standard ID	Concentration	ABS
	<i>Sulfide (ug/ml)</i>	
Level 1 2061-1-E	0.0766	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	^{OR 12/3/10} 1.266
ICV 2061-2	0.286	0.362

r = 0.9988

m = 1.694

b = 0.02623

ICV % Recovery = 107

Fraction	Dilution	ABS ^{OR 12/3/10}	Sample ID	Sample Volume	Comments
17A	1.00	0.043 ^{0.017}	116777	10.5 mL	
18A		0.023	78 ⁷⁷⁸ OR 12/3/10		
19A		0.127	789		
20A		0.179	790		
21A		0.161	791		
22A		0.141	792		
23A		0.2 ^{OR 12/3/10} 0.024	793		
24A		0.024	794		
25A		0.191	805		
26A		0.187	806		
27A		0.288	807		
28A		0.153	808		
29A		0.039	809		
30A		0.027	810		
31A		0.087	821		
32A		0.085	822		
33A		0.102	823		
34A		0.109	824		
34AA		0.113	825		
35A		0.038	825 ^{1st dupe}		
36A		0.020	826		
BLANK		0.020	N/A		104:10101

Procedure:

- 1.) Add 10 mL of H₂O 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.

MJS 12/4/10

Continued on pg 53

MJS
Signed

12/4/10
Date

Work Order: _____

Date: _____

Method: _____

Analyst: _____

Wavelength: _____

Standard ID	Concentration	ABS
Level 1	See page 82	
Level 2		
Level 3		
Level 4		
Level 5		
ICV		

r = _____
 m = _____
 b = _____

ICV % Recovery = _____

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
Blk-2	1.00	0.018	N/A	10.5 mL	Lot: 10101
LCS	↓	0.170	↓	↓	Lot: 10101 conc: 0.133 µg/mL
CCV	↓	0.356	↓	5.0 mL	Lot: 121310 conc: 0.280 µg/mL
					MOS 12/4/10

Procedure:

See page 82

Signed

12/4/10
 Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-99

Solvent: HPLC H₂O

Project: Anne Solution Rad 170

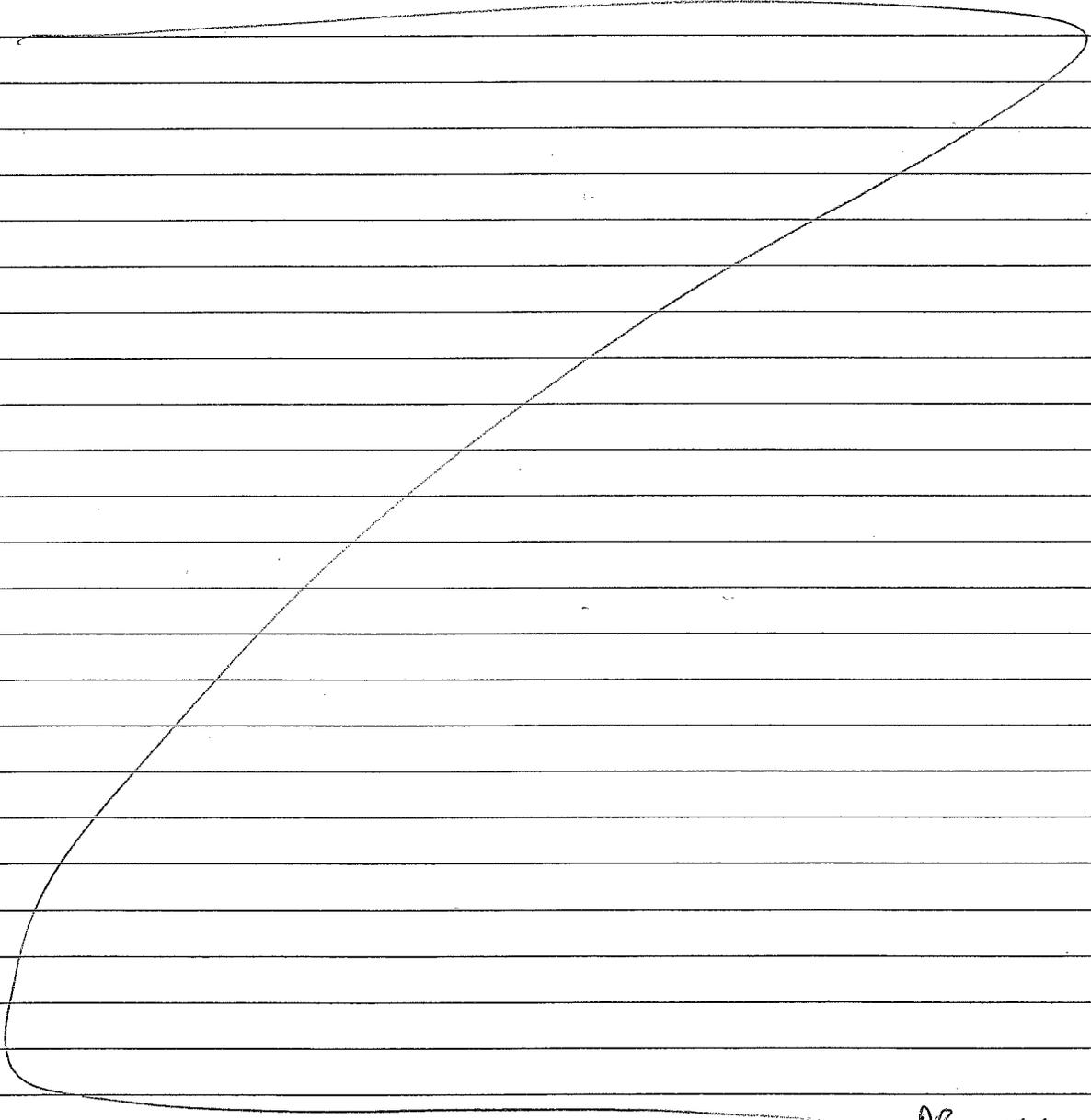
Solvent Lot #: DB812

Analyst: ~~HA~~^{DR 12/31/10} D. Randolph

Preparation Date: 12/31/10

Expiration Date: ~~11/30/11~~^{OR 12/31/10}

Procedure/Comments: 0.1687g of N,N-dimethyl-p-phenyldiammonium oxalate (located in ERIA; Lot: G3797PJ) was dissolved in a solution of 12.5 mL of sulfuric acid (lot: 01428LS) and 12.5 mL of HPLC grade H₂O (lot: DB812) for a total volume of 25 mL.



DR 12/31/10

Daniel Randolph

12/31/10

[Signature]

12/4/10

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1993

Standard ID: 1993-100
Project: Ferric Chloride - Amine solution Rad 570
Analyst: D. Randolph
Preparation Date: 12/3/10
Expiration Date: 12/3/10

Solvent: HPLC H₂O
Solvent Lot #: D18812

Procedure/Comments: Add 4.0 ml of ferric chloride solution (1993-77, exp 10/18/11)
with 20 ml of same solution (1993-99, exp 1/3/11).

(The main body of the page is crossed out with a large diagonal line.)

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

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

Solvent: HPLC H₂O
Solvent Lot #: DA812

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. H₂O = 1.145 µg/mL

Solution B: 2.5 mL of Solution A with 2.5 mL of D.I. H₂O = 0.572 µg/mL

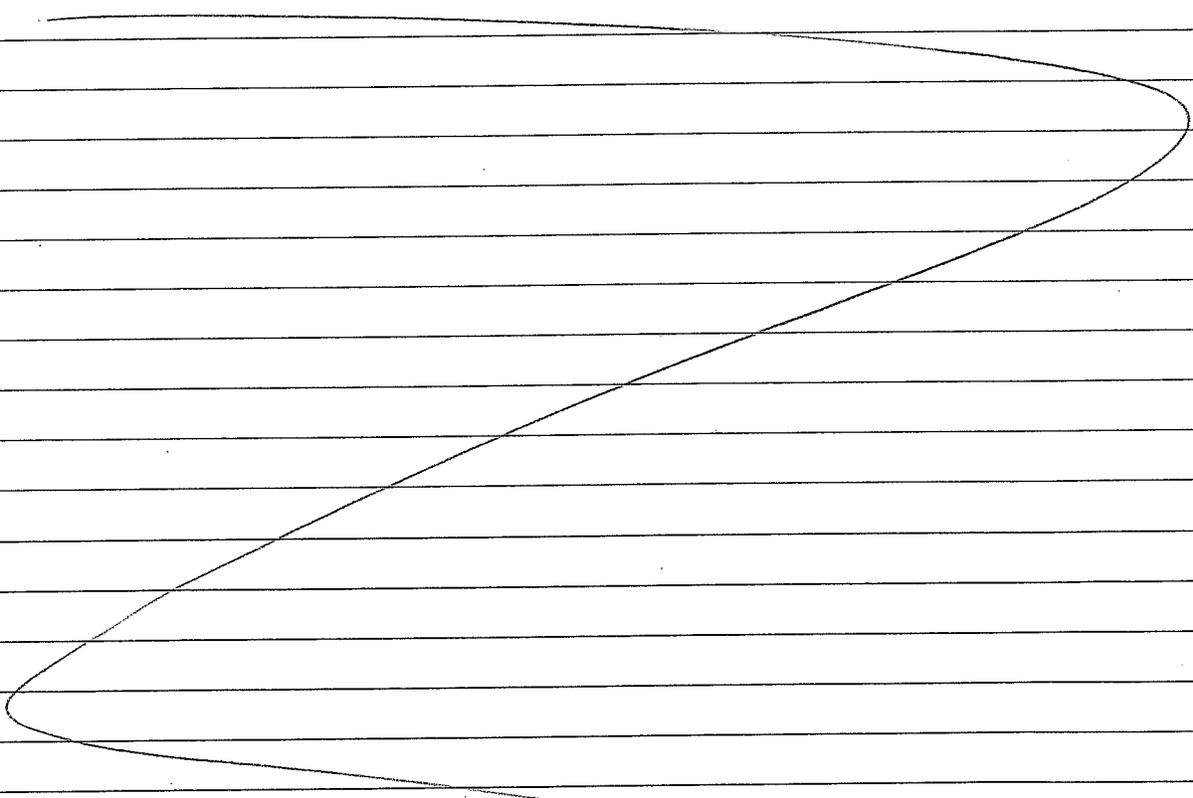
Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H₂O = 0.286 µg/mL

Solution D: 0.625 mL of Solution A with 4.375 mL of D.I. H₂O = 0.143 µg/mL

Solution E: 0.375 mL of Solution A with 5.625 mL of D.I. H₂O = 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

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-2
Project: Rad 170 1CV
Analyst: FM
Preparation Date: 12/3/10
Expiration Date: 12/3/10

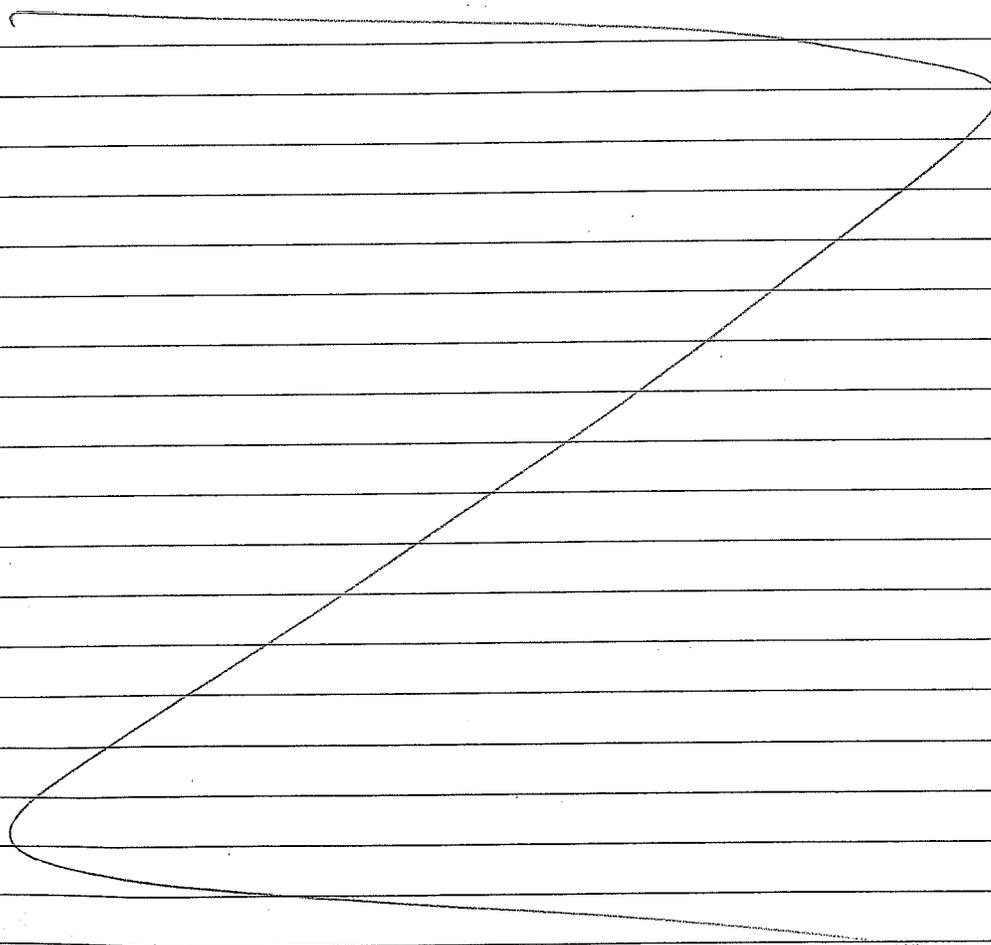
Solvent: MPLC H₂O
Solvent Lot #: DB 812

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. H₂O = 1.145 µg/mL

_____ Solution C: 1.25 mL of Solution A with 3.75 mL of D.I. H₂O = 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

Fauzi
Signed

12/6/10
Date

Mil. P. R.
Reviewed

12/6/10
Date

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 2061

Standard ID: 2061-3

Solvent: HPLC H₂O

Project: Rad 170 H₂S LCS

Solvent Lot #: 0B812

Analyst: D. Randolph

Preparation Date: 12/3/10

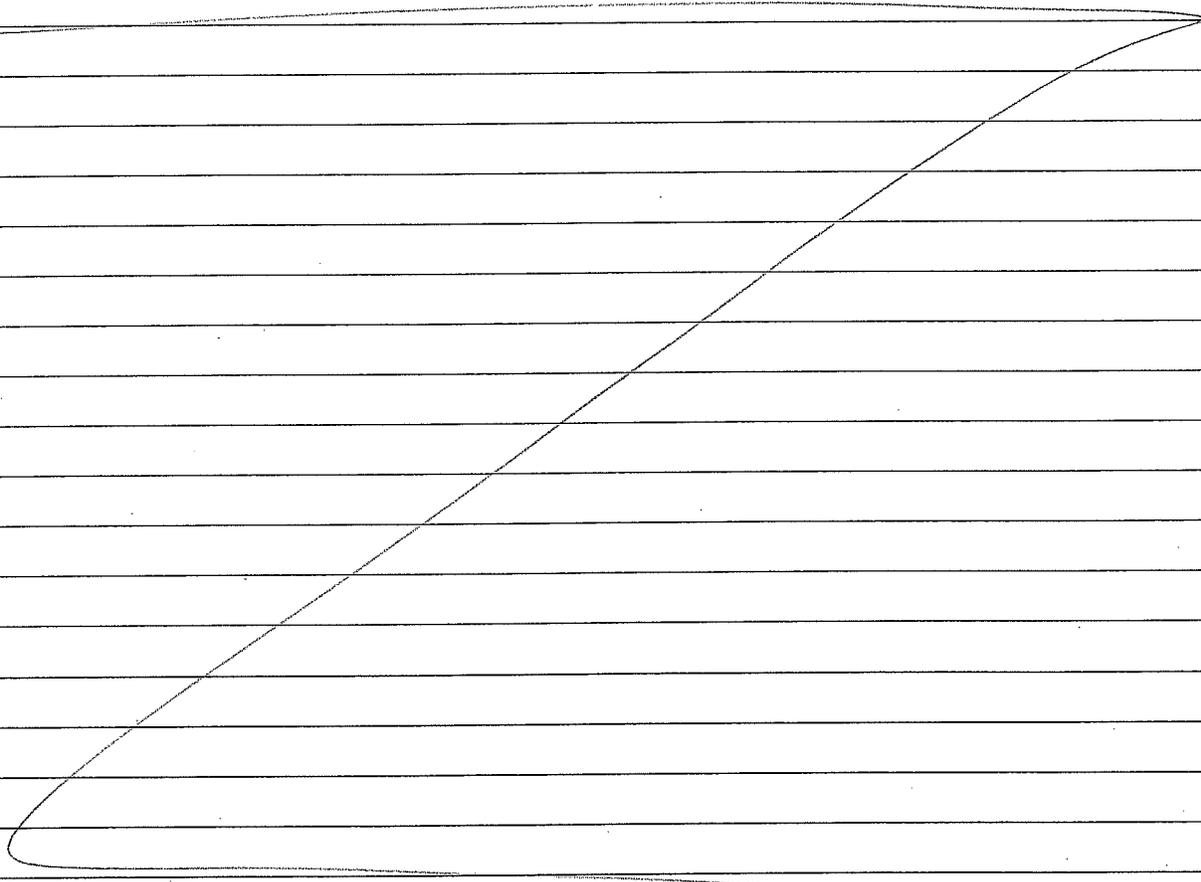
Expiration Date: 12/3/10

Procedure/Comments:

A Rad 170 cartridge (lot: 10101) was placed in a 40 mL VOA vial. 10.0 mL of D.I. H₂O was aliquoted into the vial. 1.0 mL of H₂S gas (1476-1497; 100%) was injected into the vial, into the H₂O. 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

[Signature]

12/4/10

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 #: 1012040B
of pages (Including Cover): 4

12/15/2010

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.

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

1012040B

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 116777	Air PASSIVE	H ₂ S ANALYSIS	Ø		
18A 116778	↓	↓	↓		
19A 116789			11/16/10 - 11/30/10	13D 23H 40M	
20A 116790			↓	↓	
21A 116791			↓	↓	
22A 116792			↓	↓	
23A 116793			↓	↓	
24A 116794			↓	↓	
25A 116805			↓	11/16/10 - 11/30/10	14D 25M
26A 116806			↓	↓	↓
27A 116807			↓	↓	↓
28A 116808			↓	↓	↓
29A 116809			↓	↓	Ø
30A 116810			↓	↓	↓
31A 116821			↓	11/16/10 - 11/30/10	13D 23H 10M
32A 116822			↓	↓	↓

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 blakere@ehinc.com

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

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 12/1/10
 Received by: Brian Whittaker of (company name) ATL Date: 12/2/10
 Relinquished by: _____ of (company name) Fedex Date: _____
 Received by: _____ of (company name) CUST 30C 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 1012040B

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

Phone
800-825-5343
Fax
781-247-4305

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

Sales Rep: TL

Total \$: \$ 1,700.00
Logged By: AW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
17A	116777	ATL Applications	NA	\$80.00
18A	116778	ATL Applications	NA	\$80.00
19A	116789	ATL Applications	11/30/2010	\$80.00
20A	116790	ATL Applications	11/30/2010	\$80.00
21A	116791	ATL Applications	11/30/2010	\$80.00
22A	116792	ATL Applications	11/30/2010	\$80.00
23A	116793	ATL Applications	NA	\$80.00
24A	116794	ATL Applications	NA	\$80.00
25A	116805	ATL Applications	11/30/2010	\$80.00
26A	116806	ATL Applications	11/30/2010	\$80.00
27A	116807	ATL Applications	11/30/2010	\$80.00
28A	116808	ATL Applications	11/30/2010	\$80.00
29A	116809	ATL Applications	NA	\$80.00
30A	116810	ATL Applications	NA	\$80.00
31A	116821	ATL Applications	11/30/2010	\$80.00
32A	116822	ATL Applications	11/30/2010	\$80.00
33A	116823	ATL Applications	11/30/2010	\$80.00
34A	116824	ATL Applications	11/30/2010	\$80.00
34AA	116824 Lab Duplicate	ATL Applications	11/30/2010	\$0.00
35A	116825	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

Client

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

Phone

800-825-5343

Fax

781-247-4305

Date Promised: 12/15/10 11:59 pm

Date Completed: 12/13/10

Date Received: 12/2/10

PO#: 17131

Project#: 17131

Total \$: \$ 1,700.00

Logged By: AW

Sales Rep: TL

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
36A	116826	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 #: 1012040B

- | | | | | | | |
|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--|
| A ₁ | A ₂ | 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 checked="" 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 |

LUMEN validation report present and initialed **CIRCLE (YES / NO)**

- | | | | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--|
| <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 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 type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Samples analyzed within the project or method specific clock |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Retention times have been verified |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Appropriate ICAL(s) included, %RSD Recalculation |

- | | | | | | | |
|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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>10/25/10</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 ₂ 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: 34A - Duplicate

T/Q:

A ₁ / (Analytical Review/Date)	W/T (Write-up/Tech Review/Date)	R* (Report Review/Date)	Q (QA Review/Date)
A ₁ :	<u>W: Mike Allen 12/13/10</u>	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.