

COMPREHENSIVE VALIDATION PACKAGE

ATL Applications

INVENTORY SHEET

WORK ORDER # 0909377B

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Completed by:

Kara McKiernan

(Signature)

Kara McKiernan/ Document Control

(Print Name & Title)

10/08/09

(Date)

WORK ORDER #: 0909377B

Work Order Summary

CLIENT: Mr. Taeko Minegishi
Environmental Health & Engineering,
Inc.
117 Fourth Avenue
Needham, MA 02494

BILL TO: Accounts Payable
Environmental Health & Engineering,
Inc.
117 Fourth Avenue
Needham, MA 02494

PHONE: 800-825-5343
FAX: 781-247-4305
DATE RECEIVED: 09/18/2009
DATE COMPLETED: 10/07/2009

P.O. # 16512
PROJECT # 16512
CONTACT: Ausha Scott

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
17A	102852	ATL Applications
18A	102853	ATL Applications
19A	102854	ATL Applications
20A	102855	ATL Applications
21A	102856	ATL Applications
22A	102857	ATL Applications
23A	102858	ATL Applications
24A	104959	ATL Applications
25A	104960	ATL Applications
25AA	104960 Lab Duplicate	ATL Applications
26A	104961	ATL Applications
27A	104962	ATL Applications
28A	104963	ATL Applications
28AA	104963 Lab Duplicate	ATL Applications
29A	104964	ATL Applications
30A	Lab Blank	ATL Applications
30B	Lab Blank	ATL Applications
31A	CCV	ATL Applications

CERTIFIED BY: *Sinda D. Freeman*
Laboratory Director

DATE: 10/07/09

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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# 0909377B**

Thirteen Radiello 170 (H₂S) samples were received on September 18, 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.

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 20160 minutes was used for the QC samples.

All media used for the sampling were supplied by the client. Blank subtraction was not performed on the sample results since the media used for Method Blanks may be from a different lot than the media used for the samples.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicate as follows:

- B - Compound present in laboratory blank greater than reporting limit.
- J - Estimated value.
- E - Exceeds instrument calibration range.
- S - Saturated peak.
- Q - Exceeds quality control limits.
- U - Compound analyzed for but not detected above the detection limit.
- M - Reported value may be biased due to apparent matrix interferences.
- N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

- a-File was requantified
- b-File was quantified by a second column and detector
- r1-File was requantified for the purpose of reissue

Sample Results and Raw Data

AIR TOXICS LTD.

ATL Application # 59 for RAD 170 (Hydrogen Sulfide)

Spectrophotometer

Field Sample ID.	Lab Sample ID.	Collection Date	Analysis Date	Dilution Factor	Reporting Limit (ug)	Reporting Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
102852	0909377B-17A	9/15/2009	9/25/2009	1.00	0.80	0.58	ND	ND
102853	0909377B-18A	9/15/2009	9/25/2009	1.00	0.80	0.58	ND	ND
102854	0909377B-19A	9/15/2009	9/25/2009	1.00	0.80	0.58	ND	ND
102855	0909377B-20A	9/15/2009	9/25/2009	1.00	0.80	0.58	ND	ND
102856	0909377B-21A	9/15/2009	9/25/2009	1.00	0.80	0.58	1.0	0.75
102857	0909377B-22A	N/A	9/25/2009	1.00	0.80	0.54	ND	ND
102858	0909377B-23A	N/A	9/25/2009	1.00	0.80	0.54	ND	ND
104959	0909377B-24A	N/A	9/25/2009	1.00	0.80	0.54	ND	ND
104960	0909377B-25A	9/16/2009	9/25/2009	1.00	0.80	0.54	1.6	1.1
104960 Lab Duplicate	0909377B-25AA	9/16/2009	9/25/2009	1.00	0.80	0.54	1.6	1.1
104961	0909377B-26A	9/16/2009	9/25/2009	1.00	0.80	0.54	1.7	1.2
104962	0909377B-27A	9/16/2009	9/25/2009	1.00	0.80	0.54	1.2	0.81
104963	0909377B-28A	9/16/2009	9/25/2009	1.00	0.80	0.54	2.9	2.0
104963 Lab Duplicate	0909377B-28AA	9/16/2009	9/25/2009	1.00	0.80	0.54	2.9	2.0
104964	0909377B-29A	9/16/2009	9/25/2009	1.00	0.80	0.54	ND	ND
Method Blank	0909377B-30A	NA	9/25/2009	1.00	0.80	0.54	ND	ND
Method Blank	0909377B-30B	NA	9/25/2009	1.00	0.80	0.54	ND	ND
CCV	0909377B-31A	NA	9/25/2009	1.00	0.80	0.54	%Rec 103	

- COMMENTS:**
1. NA=Not Applicable
 2. ND=Not Detected
 3. Exposure time of 20160 minutes was assumed for the QC samples.
 4. Background subtraction not performed.

Hydrogen Sulfide Radicleo Calculation Worksheet

Workorder #: **09093778**

Sampling Rate (mg/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:

9/25/2009

Corrected Q

0.096

Takes into account temp

(Abs-Y-int)/DF
Slope

Conc (ug/ml) of H2S

Conc (ug sulfide) * MW H2S
MW Sulfide

Q includes conversion from
Sulfide to H2S

Conc (ug) x 1000
Q x Duration

ppb mrv
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
17A	102852	9/15/2009	0.058	18720	1.00	0.038069294	0.399772592	0.424805606	0.222	0.310
18A	102853	9/15/2009	0.055	18720	1.00	0.035162143	0.369202503	0.392365441	0.205	0.286
19A	102854	9/15/2009	0.074	18720	1.00	0.053574102	0.562528066	0.597819818	0.313	0.436
20A	102855	9/15/2009	0.069	18720	1.00	0.048728849	0.511652918	0.543752876	0.285	0.397
21A	102856	9/15/2009	0.114	18720	1.00	0.092336119	0.969529252	1.030355347	0.539	0.752
22A	102857	N/A	0.021	20160	1.00	0.002214428	0.023251494	0.024710241	0.012	0.017
23A	102858	N/A	0.013	20160	1.00	-0.005537976	-0.058148743	-0.061796885	-0.030	-0.042
24A	104659	N/A	0.015	20160	1.00	-0.003599875	-0.037798684	-0.040170088	-0.020	-0.027
25A	104660	9/16/2009	0.165	20160	1.00	0.141757692	1.489455765	1.581838147	0.769	1.072
25AA	104660 Lab Duplicate	9/16/2009	0.169	20160	1.00	0.145633894	1.529155884	1.6250917	0.790	1.101
26A	104661	9/16/2009	0.178	20160	1.00	0.154555348	1.62073115	1.722412194	0.837	1.167
27A	104662	9/16/2009	0.129	20160	1.00	0.106871876	1.122154697	1.192556171	0.580	0.808
28A	104663	9/16/2009	0.287	20160	1.00	0.259981846	2.729809383	2.91071512	1.410	1.966
28AA	104663 Lab Duplicate	9/16/2009	0.286	20160	1.00	0.259012796	2.719634353	2.890258124	1.405	1.959
29A	104664	9/16/2009	0.066	20160	1.00	0.045821698	0.481127829	0.511312712	0.249	0.347
						-0.018135631	-0.190424128	-0.202370912	#DIV/0!	#DIV/0!
						-0.018135631	-0.190424128	-0.202370912	#DIV/0!	#DIV/0!
						-0.018135631	-0.190424128	-0.202370912	#DIV/0!	#DIV/0!
						#VALUE!	#VALUE!	-0.202370912	#VALUE!	#VALUE!
						-0.018135631	-0.190424128	-0.202370912	#DIV/0!	#DIV/0!
						-0.018135631	-0.190424128	-0.202370912	#DIV/0!	#DIV/0!
						-0.005537976	-0.058148743	-0.061796885	-0.030	-0.042
						-0.007476076	-0.078498802	-0.083423641	-0.041	-0.057
						0.293898612	3.085935421	3.2795401	1.595	2.223
30A	Method Blank	NA	0.013	20160	1.00					
30B	Method Blank	NA	0.011	20160	1.00					
31A	CCV	NA	0.322	20160	1.00					

QC Duration
20160

CCV Spike Amt
0.286

Q includes conversion from Sulphide to H₂S

Low PoincDF RI (ug/ml)Vol (ml)

RI (ug sulphide) *MW H₂S
MW Sulphide

RI (ug) x 1000
Q x Duration

Calibration Data

Calibration Date 9/25/2009 Linear Regression

RI (ug/ml) of sulfide	RI (ug) of sulfide	RI (ug) of H ₂ S	RI (ppb) of H ₂ S	RI (ug/m ³)	Result (ug) H ₂ S	Result (ug/m ³) H ₂ S	%Rec	ug/ml of sulfide	absorbance	Slope Y-int R2
0.072	0.752	0.798966249	0.42	0.583	ND	ND		0	0	1.031938074
0.072	0.752	0.798966249	0.42	0.583	ND	ND		0.0716	0.085	0.018714848
0.072	0.752	0.798966249	0.42	0.583	ND	ND		0.143	0.17	0.999877045
0.072	0.752	0.798966249	0.42	0.583	ND	ND		0.286	0.319	
0.072	0.752	0.798966249	0.39	0.541	1.030355347	0.752021138		0.572	0.609	
0.072	0.752	0.798966249	0.39	0.541	ND	ND		1.145	1.199	
0.072	0.752	0.798966249	0.39	0.541	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	1.581838147	1.07206318				
0.072	0.752	0.798966249	0.39	0.541	1.6250917	1.10137752				
0.072	0.752	0.798966249	0.39	0.541	1.722412194	1.167334785				
0.072	0.752	0.798966249	0.39	0.541	1.19256171	0.808234118				
0.072	0.752	0.798966249	0.39	0.541	2.901071512	1.966150554				
0.072	0.752	0.798966249	0.39	0.541	2.890258124	1.958821969				
0.072	0.752	0.798966249	0.39	0.541	ND	ND				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	#DNV/01	#DNV/01	ND	#DNV/01				
0.072	0.752	0.798966249	0.39	0.541	ND	ND				
0.072	0.752	0.798966249	0.39	0.541	3.2795401	2.222651031	%Rec			103

QC Results and Raw Data

Work Order: 0909377B

Date: 9/25/09

Method: Rad 170

Analyst: M. SKIDMORE

Wavelength: 665 nm

Standard ID	Concentration	ABS
Level 1 1858-52 - E	0,0716 mg/mL	0,085
Level 2 - D	0,143 mg/mL	0,170
Level 3 - C	0,286 mg/mL	0,319
Level 4 - B	0,572 mg/mL	0,609
Level 5 - A	1,145 mg/mL	1,199
ICV 1858-51	0,133 mg/mL	0,150

$$r = \frac{0,9999}{1,03}$$

$$b = \frac{0,01871}{1,03}$$

ICV % Recovery = 104%

Fraction	Dilution	ABS	Sample ID	Sample Volume	Comments
17A	1,00	0,058	102852	10,5 mL	
18A		0,055	102853		
19A		0,074	102854		
20A		0,069	102855		
21A		0,114	102856		
22A		0,021	102857		
23A		0,013	102858		
24A		0,015	104959		
25A		0,165	104960		
25AA		0,169	104960		
26A		0,178	104961		
27A		0,129	104962		
28A		0,14 ^{0,28} 0,485 ^{0,28} 0,485	104963		
28AA		0,286	104963		
29A		0,066	104964		
BLK	1,00 ^{1,00} 0,013 ^{0,013}	0,013	N/A		
BLK	1,00 ^{1,00} 0,011 ^{0,011}	0,011			
CCV	1,00	0,322			
MJS 9/28/09					

Procedure:

M. Skidmore
Signed

9/28/09
Date

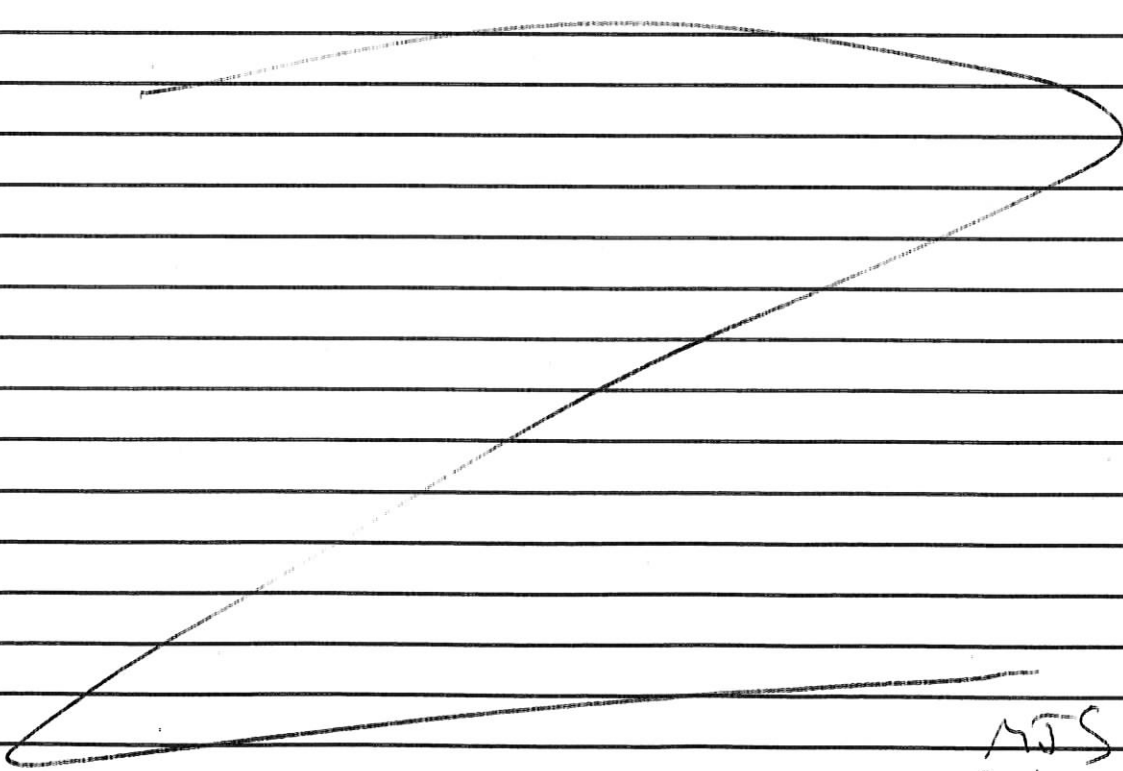
Standard ID: 1858-51
Project: H₂S LCS/ECV Rad 170
Analyst: M. Skidmore
Preparation Date: 9/25/09
Expiration Date: 9/25/09

Solvent: D.I. H₂O
Solvent Lot #: N/A

Procedure/Comments: 25 mL of H₂S gas (1476-835, 1000ppm) was placed into a 1 liter tedlar bag. 1.0 mL of the gas was injected into 10 mL of D.I. H₂O in a 40 mL VOA vial. The vial also contained a Rad 170 cartridge absorbant. The vial was gently shaken for 2 hours.

Cartridge Lot: 09075.

0.5 mL of ferric chloride-amine solution (1858-53) was added to vial and recapped immediately. The solution was allowed to stand for 30 minutes and then the absorbance was measured at 665 nm.



MJS
9/29/09

Spectrophotometer Standard Preparation Log

@Air Toxics Ltd. Log Book #: 1858

Standard ID: 1858-52

Project: Calibration Solution Rad 170

Analyst: M. Skidmore

Preparation Date: 9/25/09

Expiration Date: 9/25/09

Solvent: D.I. H₂O

Solvent Lot #: N/A

Procedure/Comments: _____

Solution A: 2 mL of Code Rad 171 (1476-984, exp 8/6/10) (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

MJS 9/25/09

* Each solution was measured immediately after it was made. The absorbance diminishes rapidly with time. Solution A is stable in the beaker it was in, but was not stable once it was aliquotted into a cuvette. This solution (A) should be measured immediately after its put into the cuvette. All cuvettes were parafilmmed immediately after the ~~S~~MJS 9/24/09

MJS
9/28/09

9/28/09

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 #: 0909377B
of pages (Including Cover): 4

10/8/2009

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 **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

TO: AIR TOXICS

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	START	OTHER: Time/Date/Vol.	STOP
17A 102852	AIR/PASSIVE	H ₂ S ANALYSIS	9/2/09	9/15/09	
18A 102853					
19A 102854					
20A 102855					
21A 102856					
22A 102857				0	
23A 102858				0	
24A 104959				0	
25A 104960				9/16/09	
26A 104961					
27A 104962					
28A 104963					
29A 104964					

Special Instructions:

- Standard turn around time
- Fax results 781-247-4305
- RETURN SAMPLES
- Additional report recipient MFRAGALA @ EHEINC.COM
- Rush by _____ date/time
- Electronic transfer - datacoordinator@ehinc.com

CUSTODY SEAL INTACT?
Y N NONE TEMP 24°C
Other

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

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 9/17/09
 Received by: [Signature] of (company name) ATT 0856 Date: 9/18/09
 Relinquished by: _____ of (company name) _____ Date: _____
 Received by: _____ of (company name) _____ Date: _____
 Relinquished by: _____ of (company name) _____ Date: _____
 Received by: _____ of (company name) _____ Date: _____
 Lab Data
 Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

SAMPLE RECEIPT SUMMARY

WORKORDER 0909377B

Client	Phone	Date Promised: 09/29/09 11:59 pm
Mr. Taeko Minegishi	800-825-5343	Date Completed: 10/8/09
Environmental Health & Engineering, Inc.	Fax	Date Received: 9/18/09
117 Fourth Avenue	781-247-4305	PO#: 16512
Needham, MA 02494		Project#: 16512
Sales Rep: TL		Total \$: \$ 715.00
		Logged By: MW

<u>Fraction</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Collected</u>	<u>Amount\$</u>
17A	102852	ATL Applications	9/15/2009	\$50.00
18A	102853	ATL Applications	9/15/2009	\$50.00
19A	102854	ATL Applications	9/15/2009	\$50.00
20A	102855	ATL Applications	9/15/2009	\$50.00
21A	102856	ATL Applications	9/15/2009	\$50.00
22A	102857	ATL Applications	NA	\$50.00
23A	102858	ATL Applications	NA	\$50.00
24A	104959	ATL Applications	NA	\$50.00
25A	104960	ATL Applications	9/16/2009	\$50.00
25AA	104960 Lab Duplicate	ATL Applications	9/16/2009	\$0.00
26A	104961	ATL Applications	9/16/2009	\$50.00
27A	104962	ATL Applications	9/16/2009	\$50.00
28A	104963	ATL Applications	9/16/2009	\$50.00
28AA	104963 Lab Duplicate	ATL Applications	9/16/2009	\$0.00
29A	104964	ATL Applications	9/16/2009	\$50.00
30A	Lab Blank	ATL Applications	NA	\$0.00
30B	Lab Blank	ATL Applications	NA	\$0.00
31A	CCV	ATL Applications	NA	\$0.00

Misc. Charges eCVP (13) @ \$5.00 each. \$65.00

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

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

Sample Discrepancy Report

Identification

Initiated By: MW Project ID: 13297 PM: AS Date: 9/18/2009 Discrepancy Type: 1. 2. 3.

Workorder(s) affected: 0909377 Sample(s) affected: all

1. Sample Receipt Discrepancies

Narration Not Required:

- 1.1. Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.
- 1.2. No brass cap on canister.
- 1.3. Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

- 1.4. Tedlar bag received with minimal volume.

Initials: _____ Date: _____

Narration Required In Lab Narrative and Sample Confirmation:

- 1.5. COC was not filled out in Ink.
- 1.6. COC Improperly relinquished / received.
- 1.7. Sample tags / can numbers do not match the COC.
- 1.8. Sample date error / missing on COC but noted on sample tag (check one).
- 1.9. Custody Seal on the outside of the container was broken / Improperly placed (check one).
- 1.10. ID-none on the sample Tag/Blank
- 1.11. Other (describe below).

Describe the Discrepancy: _____

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and In Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of Initiation

- 2.1. COC was not received with samples.
- 2.2. Analysis method(s) is not specified / incorrectly specified (check one) on the COC.
- 2.3. Incorrect sampling media / container for analysis requested.
- 2.4. Number of samples on the COC does not match the number of samples that were received.
- 2.5. Samples were received expired.
- 2.6. Sampling date (time for sulfur) is not documented for some / any samples (check one).
- 2.7. Sample received with amount of H₂O in the Tedlar Bag.
- 2.8. Sample cannot be analyzed. Container was received broken / leaking / flat / defective.
- 2.9. Tedlar bag / canister received emitting a strong odor; Sample can / cannot (check one) be analyzed.
- 2.10. Tedlar Bag for Sulfur analysis has metal fitting.
- 2.11. Environmental Supply Company valves
- 2.12. Sorbent samples-sampling volume was not provided
- 2.13. Flow controller used – canister samples received at ambient or under pressure.
- 2.14. Canister was at ambient pressure at time of pressurization and (check all that apply):
 - Canister failed leak check on two manifolds,
 - Canister valve was open,
 - Brass nut was loose/not present.
 - Sample can be analyzed
 - Cannot be analyzed
- 2.15. Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.
- 2.16. Canister sample received at >15"Hg (not identified as a Trip/Field Blank).
- 2.17. Canister Trip Blank received at low vacuum (< 25"Hg).
- 2.18. Sorbent Sample received outside method required temperature of 2°C to 6°C; Ice / blue Ice (check one) was present. A temp. Blank was / was not present (check one).
- 2.19. Other (describe below)

Initials: _____ Date: _____ Notify Receiving: Notify PM:

Describe the Discrepancy: samples rec'd at 8.4C

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

- 3.1. Tedlar Bag found to be leaking at the time of analysis; sample can / cannot (check one) be analyzed.
- 3.2. Tedlar Bag found to be flat/low volume; sample cannot be analyzed.
- 3.3. Sulfur samples received with insufficient time to analyze prior to expiration.
- 3.4. Canister found to be leaking at the time of analysis.
- 3.5. VOST tube saturated; bag dilution necessary.
- 3.6. Sample loss due to Instrument malfunction / broken glassware.
- 3.7. Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.
- 3.8. Reporting Limit was raised.
- 3.9. Post weight > Pre weight in field/lab Blank for PM10/TSP samples.
- 3.10. Other (describe below).

Initials: _____ Date: _____ Notify Receiving: Notify PM:

Team Lead Initials: _____ Date: _____

Describe the Discrepancy: _____

How Does this Affect Client: _____

Project Manager Use Only

Project Manager Notification

Section 2 Complete

Section 3 Complete

Action:

It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials: _____ Date: _____

Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials: AS Person notified: _____ Date: 9/22/2009

Waiting for Client Reply

Comments: _____

Notify Lab Name: _____ Date: _____ Notify Receiving:

Additional notifications attached.

Additional Comments:

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 #:

0909377B

A1 A2 R T M Q
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []

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

[] [] [x] [] [x] []
[] [] [x] [] [x] []

Corrective Action issued - #
Unusual circumstances have been documented in the notes section below

LUMEN validation report present and initialed

CIRCLE (YES / NO)

[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []
[] [] [x] [] [x] []

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
Retention times have been verified
Appropriate ICAL(s) included
At least one result per sample is verified against the target quant sheets/raw data

[] [] [x] [] [] []

Dilution factor correctly calculated (sample load volume, syringe and bag dilutions, can pressurization(s))

[] [] [x] [] [] []
[] [] [x] [] [] []

Correct amount of sample analyzed (i.e. sample not over-diluted)
Spectra verified - documentation of spectral defense included (Section 5A of eCVP pkg)

[] [] [x] [] [] []
[] [] [x] [] [] []

TICs resemble reference spectra
TICs between duplicate samples are consistent

[] [] [x] [] [x] []
[] [] [x] [] [] []

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

[] [] [x] [] [x] []
[] [] [x] [] [x] []

Special units for all samples in the final report are correctly calculated
Manually entered results checked (i.e. TPH/NMOC)

[] [] [x] [] [] []
[] [] [x] [] [] []

Chain of Custody verified for any special comments (i.e. different compounds/RLs, action levels)
Chain of Custody scanned correctly

[] [] [x] [] [] []
[] [] [x] [] [] []

Verify sample id's vs. chain of custody
Date MDL(s) performed per instrument(s)

[] [] [x] [] [] []
[] [] [x] [] [] []
[] [] [x] [] [] []

Samples pressurized w/ appropriate gas (N2 or He) Other (i.e. Tedlar bag, cartridge, sorbent)
Final pressure consistent with canister size (6L vs. 1L)
Verify receipt pressures

[] [] [x] [] [] []
[] [] [x] [] [x] []

Verify canister ID #'s
Final invoice amount correct (adjusted for TAT, Penalties, Re-issue Charges etc.)

[] [] [x] [] [] []
[] [] [x] [] [] []

MDL date(s) present for all instruments utilized
Client LUMEN report reviewed for accuracy and completeness

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

A/R:
Dup: 25A & 28A

M/Q:

A1/A2 (Analytical Review/Date) R/T (Reporting Review/Date) M (Management Review/Date) Q (QA Review/Date)
A1: R: Km 9/30/09 M: 10/7/09
A2: T: