



Analysis Report Cover
Final Report

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A Professional Service Corporation in the Northwest

Job Number: 061079 **SEA**
Client: ABC Environmental Company
Address: 123 Laboratory Ave.
Anytown, WA 98000
Project Name: Air Sample Analysis
Project Num: 10102007
PO Number:
Sub Project:

Report Number: 061079R04
Report Date: 10/10/2007

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

THE CUMULATIVE AVERAGE FOR THIS SET OF SAMPLES IS: 43.1 S/MM2 (PASSES AHERA CLEARANCE CRITERIA)

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
061079 - S1	TEM 1 - Clearance #1	AHERA		10/10/2007
061079 - S2	TEM 2 - Clearance #2	AHERA		10/10/2007
061079 - S3	TEM 3 - Clearance #3	AHERA		10/10/2007
061079 - S4	TEM 4 - Clearance #4	AHERA		10/10/2007
061079 - S5	TEM 5 - Clearance #5	AHERA		10/10/2007

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method for the identification of asbestos. Briefly, the samples were collapsed with acetone, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in acetone until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. Grid opening measurements were performed at a magnification of approximately 550X.

Disclaimer The results reported relate only to the samples tested or analyzed. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Reviewed by:


John Harris, M.P.H.
Laboratory Director

AHERA Summary Data

Job Number: 061079 **SEA**
Client: ABC Environmental Company
Project Name: Air Sample Analysis

Report Number: 061079R04
Date Received: 10/10/2007

Lab/Cor Sample No.: S1
Client Sample No.: TEM 1
Description: Clearance #1

Analyst(s) **Analysis Date**
 KM 10/10/2007

Volume (L) : 1200
Lab Filter Area (mm2) : 385
Grid Openings Analyzed : 5
Average Grid Opening Area : 0.013
Area Analyzed (mm2) : 0.065
Analytical Sens. (struc/cc) : 0.00494
Detection Limit. (struc/cc) : 0.01476

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count' Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	30.8	0.01	0.001 - 0.036 - Poisson	2
AHERA >=5.0µm, 5:1	15.4	0.005	0 - 0.028 - Poisson	1
AHERA TOTAL >=0.5, 5:1	46.2	0.015	0.003 - 0.043 - Poisson	3

¹ Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2
Client Sample No.: TEM 2
Description: Clearance #2

Analyst(s) **Analysis Date**
 KM 10/10/2007

Volume (L) : 1200
Lab Filter Area (mm2) : 385
Grid Openings Analyzed : 5
Average Grid Opening Area : 0.013
Area Analyzed (mm2) : 0.065
Analytical Sens. (struc/cc) : 0.00494
Detection Limit. (struc/cc) : 0.01476

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count' Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	15.4	0.005	0 - 0.028 - Poisson	1
AHERA >=5.0µm, 5:1	15.4	0.005	0 - 0.028 - Poisson	1
AHERA TOTAL >=0.5, 5:1	30.8	0.01	0.001 - 0.036 - Poisson	2

¹ Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] * [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

AHERA Summary Data

Job Number: 061079 **SEA**
Client: ABC Environmental Company
Project Name: Air Sample Analysis

Report Number:
Date Received: 10/10/2007

Lab/Cor Sample No.: S3
Client Sample No.: TEM 3
Description: Clearance #3

Volume (L) : 1200
Lab Filter Area (mm²) : 385
Grid Openings Analyzed : 5
Average Grid Opening Area : 0.013
Area Analyzed (mm²) : 0.065
Analytical Sens. (struc/cc) : 0.00494
Detection Limit. (struc/cc) : 0.01476

Analyst(s) **Analysis Date**
 KM 10/10/2007

Structure Type	Filter Density (s/mm ²)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count ¹ Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

¹ Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4
Client Sample No.: TEM 4
Description: Clearance #4

Volume (L) : 1200
Lab Filter Area (mm²) : 385
Grid Openings Analyzed : 5
Average Grid Opening Area : 0.013
Area Analyzed (mm²) : 0.065
Analytical Sens. (struc/cc) : 0.00494
Detection Limit. (struc/cc) : 0.01476

Analyst(s) **Analysis Date**
 KM 10/10/2007

Structure Type	Filter Density (s/mm ²)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count ¹ Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	138.5	0.044	0.02 - 0.084 - Poisson	9
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	138.5	0.044	0.02 - 0.084 - Poisson	9

¹ Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] * [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

AHERA Summary Data

Job Number: 061079 **SEA**
Client: ABC Environmental Company
Project Name: Air Sample Analysis

Report Number:
Date Received: 10/10/2007

Lab/Cor Sample No.: S5
Client Sample No.: TEM 5
Description: Clearance #5

Volume (L) : 1200
Lab Filter Area (mm2) : 385
Grid Openings Analyzed : 5
Average Grid Opening Area : 0.013
Area Analyzed (mm2) : 0.065
Analytical Sens. (struc/cc) : 0.00494
Detection Limit. (struc/cc) : 0.01476

Analyst(s) **Analysis Date**
KM 10/10/2007

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count ¹ Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

¹ Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Reviewed by:

John Harris
John Harris, M.P.H.
Laboratory Director

* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] * [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

AHERA Raw Data

Job Number: 061079 **SEA** **Method** 40-CFR Part 763 App. A, Subpart E **Report Number:**
Client: ABC Environmental Company **Date Received:** 10/10/2007
Project Name: Air Sample Analysis

Lab/Cor Sample No: S1
Client Sample No: TEM 1
Description: Clearance #1

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	D6				NSD							
G1	2	A4	CD	1		Fiber	0.7	0.08	8.8	Chrysotile			AHERA, AHERA_0.5-5.0
G1	3	H8	CDQ	2		Fiber	7	0.1	70	Chrysotile	Mg, Si		AHERA, AHERA_5.0
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J001 BF						
						Diffraction	J001 DF				KM	10/10/2007	
						Spectra	J001 SP						
G2	4	C6				NSD							
G2	5	E4	CDQ	3		Fiber	2	0.3	6.7	Chrysotile			AHERA, AHERA_0.5-5.0
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J002 BF						
						Diffraction	J002 DF				KM	10/10/2007	
						Spectra	J002 SP						

Count Categories

AHERA AHERA TOTAL >=0.5, 5:1 AHERA_0.5-5.0 AHERA >=0.5 to 5.0µm, 5:1 AHERA_5.0 AHERA >=5.0µm, 5:1

AHERA Raw Data

Job Number: 061079 **SEA** **Method** 40-CFR Part 763 App. A, Subpart E **Report Number:**
Client: ABC Environmental Company **Date Received:** 10/10/2007
Project Name: Air Sample Analysis

Lab/Cor Sample No: S2
Client Sample No: TEM 2
Description: Clearance #2

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	A2	CDQ	1		Fiber	2.6	0.12	21.7	Chrysotile	Mg, Si		AHERA, AHERA_0.5-5.0
						ItemType						Confirmed	Comment
						Brightfield							
						Diffraction						KM 10/10/2007	
						Spectra							
G1	2	D6				NSD							
G1	3	H8				NSD							
G2	4	H8				NSD							
G2	5	D4	CD	2		Matrix 5-0	6	2	3	Chrysotile			AHERA, AHERA_5.0

Count Categories

AHERA AHERA TOTAL >=0.5, 5:1 AHERA_0.5-5.0 AHERA >=0.5 to 5.0µm, 5:1 AHERA_5.0 AHERA >=5.0µm, 5:1

AHERA Raw Data

Job Number: 061079 **SEA** **Method** 40-CFR Part 763 App. A, Subpart E **Report Number:**
Client: ABC Environmental Company **Date Received:** 10/10/2007
Project Name: Air Sample Analysis

Lab/Cor Sample No: S3
Client Sample No: TEM 3
Description: Clearance #3

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	D6				NSD							
G1	2	H9				NSD							
G1	3	F4				NSD							
G2	4	D6				NSD							
G2	5	A4				NSD							

Count Categories

AHERA AHERA TOTAL >=0.5, 5:1 AHERA_0.5-5.0 AHERA >=0.5 to 5.0µm, 5:1 AHERA_5.0 AHERA >=5.0µm, 5:1

AHERA Raw Data

Job Number: 061079 **SEA** **Method** 40-CFR Part 763 App. A, Subpart E **Report Number:**
Client: ABC Environmental Company **Date Received:** 10/10/2007
Project Name: Air Sample Analysis

Lab/Cor Sample No: S4
Client Sample No: TEM 4
Description: Clearance #4

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	D6	CDQ	1		Fiber	1	0.1	10	Chrysotile	Mg, Si		AHERA, AHERA_0.5-5.0
						ItemType						Confirmed	Comment
						Brightfield							
						Diffraction						KM	10/10/2007
						Spectra							
G1	2	E4	CD	2		Fiber	2	0.1	20	Chrysotile			AHERA, AHERA_0.5-5.0
G1	2	E4	CD	3		Bundle	3	0.2	15	Chrysotile			AHERA, AHERA_0.5-5.0
G1	2	E4	CD	4		Matrix 1-0	2	0.8	2.5	Chrysotile			AHERA, AHERA_0.5-5.0
G1	3	G8	CD	5		Fiber	3	0.1	30	Chrysotile			AHERA, AHERA_0.5-5.0
G1	3	G8	CD	6		Matrix 1-0	2	1	2	Chrysotile			AHERA, AHERA_0.5-5.0
G2	4	D6	CD	7		Fiber	3	0.1	30	Chrysotile			AHERA, AHERA_0.5-5.0
G2	4	D6	CD	8		Fiber	2.5	0.08	31.2	Chrysotile			AHERA, AHERA_0.5-5.0
G2	5	E8	CD	9		Matrix 2-0	3	2	1.5	Chrysotile			AHERA, AHERA_0.5-5.0

Count Categories

AHERA AHERA TOTAL >=0.5, 5:1 AHERA_0.5-5.0 AHERA >=0.5 to 5.0µm, 5:1 AHERA_5.0 AHERA >=5.0µm, 5:1

AHERA Raw Data

Job Number: 061079 **SEA** **Method** 40-CFR Part 763 App. A, Subpart E **Report Number:**
Client: ABC Environmental Company **Date Received:** 10/10/2007
Project Name: Air Sample Analysis

Lab/Cor Sample No: S5
Client Sample No: TEM 5
Description: Clearance #5

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	D6				NSD							
G1	2	E8				NSD							
G1	3	G4				NSD							
G2	4	D9				NSD							
G2	5	A4				NSD							

Count Categories

AHERA AHERA TOTAL >=0.5, 5:1 AHERA_0.5-5.0 AHERA >=0.5 to 5.0µm, 5:1 AHERA_5.0 AHERA >=5.0µm, 5:1

