

EMSL Analytical Inc.
 107 Haddon Avenue
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Report Date 4/16/2010
 Project Name 20092474V1 SUNSET NORTH COMMERCIAL SUB-AREA SOIL SAMPLI
 Methods Draft Modified Elutriator Method for the Determination
 of Asbestos in Soils and Bulk Material Method
 (dated May 23, 2000, Revision 1)
 EMSL Order ID 040901515

Date Started 4/10/2009
 Date Completed 4/23/2009
 Analyst Jason McGriff
 Lab Sample# 040901515-0001
 Field Subsample# UPC1-BB28-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 82.12
 <3/8" Not Used (g) 605.59
 <3/8" In Tumbler(g) 41.38
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1460
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 71
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1531

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000144

	Total	Protocol Structures	
		Long(>10um)	
Asbestos Analysis Results			
No. of Chrysotile Asbestos Structures	0		0
No. of Amphibole Asbestos Structures	0		0
Amphibole Mineral Type(s)			
Total Asbestos Structures	0		0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Long Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Total Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Total Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.981E+06	

ELUTRATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL 09
Instrument	JEOL 100 CX II #
Voltage (KV)	10 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.006
Scale: 1L =	1
Scale: 1D =	1
Primary filter area (mm ²)	385
Secondary Filter Area (mm ²)	1295
Category (Field, Rep., Dup., Blank)	Field
Primary filter pore size (um)	0.45

Sample Number:	80001515-1
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²):	
Date received by lab:	9/17/09
Lab Job Number:	
Lab Sample Number:	
Number of grids prepared:	3
Prepared by:	JA
Preparation date:	9/23/09
COC Number:	
Secondary filter pore size (um)	

Analyzed by:	WJ
Analysis date:	9/23/09
Method (D=Direct, I=Indirect, IA=Indirect, ashed):	D
Counting rules (ISO, AHERA, ASTM):	ISO
Grid storage location:	MSR-1

OA Type (Not OA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconfirmation, Lab Blank, Interlab)	Not OA
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Elutinator Sample Information	
Run analyzed:	99
GO Read:	99
GO needed:	99

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification			Mineral Class (see below)			1 = yes, blank = no			Fract GO Chrys.		
			Primary	Total	Length	Width	LA	OA	C	NAI	Sketch/Comments	Sketch	Photo	EDS				
I1	510	MSD																
	58	}																
	56																	
	54																	
	52																	
	I-1																	
	I-3																	
	I-5																	
	I-7																	
	I-9	MSD																

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthropyllite	N
Non Reg Amph	N

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAI = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME

EMSL 09

LAB SAMPLE NO:

226

EPA SAMPLE NO:

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SAMPLE TYPE

Elutriator

LAB JOB NUMBER

0402515

GRID STORAGE LOC.

0453-1

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Proto	EDS		
Ia	Ia	ASD															
Iy	Iy																
Ib	Ib																
I8	I8																
I10	I10																
I9	I9																
I7	I7																
I5	I5																
I3	I3																
I1	I1																
I3	I3																
I5	I5																
I7	I7																
I9	I9																
I10	I10																
I11	I11																

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 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040901515

Date Started 4/22/2009
 Date Completed 5/5/2009
 Analyst Kelly Favero
 Lab Sample# 040901515-0015
 Field Subsample# UPC1-BB33-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 65
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category
 >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 81.59
 <3/8" Not Used (g) 292.01
 <3/8" in Tumbler(q) 50.72
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1472
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 85
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1557

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000152

	Total	Protocol Structures
		Long(>10um)
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	1	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	1	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	< 1.421E+07	8.963E+06
Long Chrysotile Protocol Structures	< 8.963E+06	8.963E+06
Total Amphibole Protocol Structures	< 8.963E+06	8.963E+06
Long Amphibole Protocol Structures	< 8.963E+06	8.963E+06
Long Asbestos Protocol Structures	< 8.963E+06	8.963E+06
Total Asbestos Protocol Structures	< 1.421E+07	8.963E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.998E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL 09
Instrument	JEOL 100 CX II #
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	23.0005
Scale: 1L =	1
Scale: 1D =	1
Primary filter area (mm ²)	385
Secondary Filter Area (mm ²)	1295
Category (Field, Rep., Dup., Blank)	Field
Primary filter pore size (um)	0.45

Sample Number	0901515-2015
Sample Type (A=Air, D=Dust)	
Air volume (L) or dust area (cm ²)	
Date received by lab	4/29/09
Lab Job Number:	
Lab Sample Number:	3
Number of grids prepared	2
Prepared by	KW/GD
Preparation date	4/29/09
COC Number:	
Secondary filter pore size (um)	

Analyzed by	[Signature]
Analysis date	5/5/09
Method (D=Direct, I=Indirect, IA=Indirect, ashd)	I
Counting rules (ISO, AHERA, ASTM)	ISO
Grid storage location	0937C 4-6

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)	Not QA
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Elutriator Sample Information	
Run analyzed:	9
GO Read:	605
GO needed:	605

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)				NAM	Sketch/Comments	1 = yes, blank = no			Frac GO Chys.
			Primary	Total	Length	Width		LA	OA	C	Sketch			Photo	EDS		
C4	H10	NSG															
	H8																
	H6																
	H4																
	H2																
	G1																
	G3																
	G5																
	G7																
	G9																

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	N
Crocidolite	Y
Actinolite	Y
Tremolite	Y
Anthophyllite	Y
Non Reg Amph	Y

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

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 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040901515

Date Started 4/22/2009
 Date Completed 5/5/2009
 Analyst Ken Dunbar
 Lab Sample# 040901515-0016
 Field Subsample# UPC1-BB32-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 74
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category
 >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 51.88
 <3/8" Not Used (g) 322.7
 <3/8" in Tumbler(q) 52.39
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1475
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 76
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1551

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000135

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.864E+06	8.864E+06
Long Chrysotile Protocol Structures	< 8.864E+06	8.864E+06
Total Amphibole Protocol Structures	< 8.864E+06	8.864E+06
Long Amphibole Protocol Structures	< 8.864E+06	8.864E+06
Long Asbestos Protocol Structures	< 8.864E+06	8.864E+06
Total Asbestos Protocol Structures	< 8.864E+06	8.864E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.965E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMSL 09
 Instrument: 2
 Voltage (KV): 100
 Magnification: 10,000 X
 Grid opening area (mm²): 0.013
 Scale: 1L = 1
 Scale: 1D = 1
 Primary filter area (mm²): 385
 Secondary Filter Area (mm²): 1295
 Category (Field, Rep., Dup., Blank): Field
 Primary filter pore size (um): 0.45

Sample Number: 040901515-16
 Sample Type (A=Air, D=Dust):
 Air volume (L) or dust area (cm²):
 Date received by lab: 29 APR 09
 Lab Job Number:
 Lab Sample Number: 3
 Number of grids prepared: KW/GD
 Prepared by: Z9APR09
 Preparation date:
 COC Number:
 Secondary filter pore size (um):

Analyzed by: 1SD
 Analysis date: 5 MAY 09
 Method (D=Direct, I=Indirect): D
 IA=Induct. ashed:
 Counting rules: ISO
 (ISO, AHERA, ASTM): 937-D
 Grid storage location:

OA Type (Not OA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab):
 Not OA

Elutriator Sample Information

Run analyzed:	11
GO Read:	34
GO needed:	34

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS		
D1	J1	ASD															
	J3																
	J5																
	J7																
	J9																
	H1D																
	H5																
	H6																
	H7																
	H2																

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

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 Project Name 20092474V1 SUNSET NORTH COMMERCIAL SUB-AREA SOIL SAMPLING EVENT
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040901515

Date Started 4/22/2009
 Date Completed 5/5/2009
 Analyst Ken Dunbar
 Lab Sample# 040901515-0017
 Field Subsample# UPC1-BB31-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category
 >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 15.29
 <3/8" Not Used (g) 360.38
 <3/8" In Tumbler(q) 58.05

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1468
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 78
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1546

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000144

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Long Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Total Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Total Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.981E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMSL 09
 Instrument: Z
 Voltage (KV): 100
 Magnification: 10,000 X
 Grid opening area (mm²): 0.13
 Scale: 1L = 1
 Scale: 1D = 1
 Primary filter area (mm²): 385
 Secondary filter area (mm²): 1295
 Category (Field, Rep., Dup., Blank): Field
 Primary filter pore size (um): 0.45

Sample Number: 010901515-17
 Sample Type (A=Air, D=Dust):
 Air volume (L) or dust area (cm²): 294PR09
 Date received by lab:
 Lab Job Number:
 Lab Sample Number:
 Number of grids prepared: 3
 Prepared by: KW/GD
 Preparation date: 29APR09
 COC Number:
 Secondary filter pore size (um):

Analyzed by: KD
 Analysis date: 5MAY09
 Method (D=Direct, I=Indirect, IA=Indirect, ashd): I
 Counting rules: ISO
 (ISO, AHERA, ASTM): 937-D
 Grid storage location:

OA Type (Not OA, Repeat Same, Repeat Different, Re-prep, Verify Analysis, Reconciliation, Lab Blank, Interlab):
 Not OA

Elutriator Sample Information	
Run analyzed:	9
GO Read:	69
GO needed:	69

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	Sketch Photo EDS			Fract GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
D4	J1	ASD														
	J3															
	J5															
	J7															
	H8															
	H6															
	H4															
	H2															
	F1															
	F3															

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

LA = Libby-type amphibole
 OA = Other (non-Libby type) amphibole
 C = Chrysotile
 NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO: 0017

EPA SAMPLE NO:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 40901515
GRID STORAGE LOC: 937-D

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS		
DS45		ASB															
A7																	
A9																	
C10																	
C8																	
C6																	
C4																	
C2																	
E1																	
E3																	
E5																	
E7																	
E9																	
G10	NSD																
G8	F		2	2	10	2	NAM					X					

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/21/2009
 Date Completed 6/4/2009
 Analyst Jason McGriff
 Lab Sample# 040902981-0003
 Field Subsample# GNC1-JP04-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 70
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 82.32
 <3/8" Not Used (g) 236.58
 <3/8" In Tumbler(g) 49.16
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1434
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 77
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1511

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000143

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.846E+06	8.846E+06
Long Chrysotile Protocol Structures	< 8.846E+06	8.846E+06
Total Amphibole Protocol Structures	< 8.846E+06	8.846E+06
Long Amphibole Protocol Structures	< 8.846E+06	8.846E+06
Long Asbestos Protocol Structures	< 8.846E+06	8.846E+06
Total Asbestos Protocol Structures	< 8.846E+06	8.846E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.959E+06	

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 1003

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 0190991
GRID STORAGE LOC.: 019-17

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.		
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS			
V7	F10	ASD																
	F8	~~~~~~																
	F6																	
	F4																	
	F7																	
	G1																	
	G5																	
	G7																	
	G9																	
	H10																	
	H8																	
	H6																	
	H4																	
	F7	NSD																

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/21/2009
 Date Completed 6/5/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0004
 Field Subsample# GNC1-BC22-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 78
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 67.58
 <3/8" Not Used (g) 227.92
 <3/8" In Tumbler(g) 52.63
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1466
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 83
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1549

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000128

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.869E+06	8.869E+06
Long Chrysotile Protocol Structures	< 8.869E+06	8.869E+06
Total Amphibole Protocol Structures	< 8.869E+06	8.869E+06
Long Amphibole Protocol Structures	< 8.869E+06	8.869E+06
Long Asbestos Protocol Structures	< 8.869E+06	8.869E+06
Total Asbestos Protocol Structures	< 8.869E+06	8.869E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.966E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm2)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm2)	
Secondary Filter Area (mm2)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	040902451-4
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm2)	
Date received by lab	2/10/09
Lab Job Number:	
Lab Sample Number:	
Number of grids prepared	3
Prepared by	TA
Preparation date	2/5/09
COC Number:	
Secondary filter pore size (um)	

Analyzed by	KD
Analysis date	2/10/09
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	ISO - Elutriator
Grid storage location	944-A

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)
NOT QA

Elutriator Sample Information	
Run Analyzed:	12
GO Read:	78
GO Needed:	75

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
A7	J1	ASD														
	J3															
	J5															
	J7															
	J9															
	J10															
	J8															
	J6															
	J4															
	J2															

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	Y
Crocidolite	Y
Actinolite	Y
Tremolite	Y
Anthophyllite	Y
Non Reg Amph	Y

A = Libby-type amphibole
OA = Other (non-Libby type) amphibole
C = Chrysotile
NAM = Non-asbestos material

EMSL Analytical Inc.
 107 Haddon Avenue
 Westmont, NJ 08108
 Contacts: Stephen Siegel, CIH
 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/21/2009
 Date Completed 6/4/2009
 Analyst Jason McGriff
 Lab Sample# 040902981-0005
 Field Subsample# GNC1-JB02-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 98.7
 <3/8" Not Used (g) 268.58
 <3/8" In Tumbler(g) 62.58
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1458
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 84
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1542

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000144

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Long Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Total Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Total Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.981E+06	

**ELUTRIATOR
TEM Asbestos Structure Count**

Laboratory name:	EMSL09
Instrument	JEOL100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm2)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm2)	
Secondary Filter Area (mm2)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	0409	<i>040921-2285</i>
Sample Type (A=Air, D=Dust):		
Air volume (L) or dust area (cm2)		
Date received by lab		<i>5/29/09</i>
Lab Job Number:		
Lab Sample Number:		
Number of grids prepared		<i>3</i>
Prepared by		<i>TA</i>
Preparation date		<i>6/2/09</i>
COC Number:		
Secondary filter pore size (um)		

Analyzed by	<i>Jason Mark</i>
Analysis date	<i>6/4/09</i>
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	<i>D</i>
Counting rules (ISO, AHERA, ASTM)	<i>ISO - Elutriator</i>
Grid storage location	<i>0409-13</i>

Elutriator Sample Information	
Run Analyzed:	<i>15</i>
GO Read:	<i>69</i>
GO Needed:	<i>69</i>

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
<i>B1</i>	<i>A1</i>	<i>MSD</i>														
	<i>A3</i>	<i>MSD</i>														
	<i>A5</i>	<i>MSD</i>														
	<i>A7</i>	<i>MSD</i>														
	<i>A9</i>	<i>MSD</i>														
	<i>B10</i>	<i>MSD</i>														
	<i>B8</i>	<i>MSD</i>														
	<i>B6</i>	<i>MSD</i>														
	<i>B4</i>	<i>MSD</i>														
	<i>B2</i>	<i>MSD</i>														

Asbestos Detected (Y/N)	
Chrysotile	<i>N</i>
Amosite	<i>N</i>
Crocidolite	<i>N</i>
Actinolite	<i>N</i>
Tremolite	<i>N</i>
Anthophyllite	<i>N</i>
Non Reg Amph	<i>N</i>

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME EMSL 09
LAB SAMPLE NO: 2225

EPA SAMPLE NO:
SAMPLE TYPE Elutriator

LAB JOB NUMBER 14120781
GRID STORAGE LOC. 04443

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS		
03	D1	NSD															
	D3	}															
	D5																
	D7																
	D9																
	E8																
	E6																
	E4																
	E2																
	F1	NSD															
	F3	MD11	1		11.25	30											
		MF		1	9	.49											
	F5	NSD															
	F7	}															
	F4																

✓

 Pro-active

EMSL Analytical Inc.
 107 Haddon Avenue
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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/22/2009
 Date Completed 6/5/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0008
 Field Subsample# GNC1-BC23-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 70
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 52.18
 <3/8" Not Used (g) 292.03
 <3/8" In Tumbler(g) 40.77
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1480
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 74
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1554

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000142

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.908E+06	8.908E+06
Long Chrysotile Protocol Structures	< 8.908E+06	8.908E+06
Total Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Asbestos Protocol Structures	< 8.908E+06	8.908E+06
Total Asbestos Protocol Structures	< 8.908E+06	8.908E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.979E+06	

**ELUTRIATOR
TEM Asbestos Structure Count**

Laboratory name:	EMSL09
Instrument	JEOL100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	040902451-8
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²)	
Date received by lab	29 MAY 09
Lab Job Number:	
Lab Sample Number:	3
Number of grids prepared	3
Prepared by	TTA
Preparation date	25 Jun 09
COC Number:	
Secondary filter pore size (um)	

Analyzed by	KD
Analysis date	5 Jun 09
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	
Grid storage location	944-C

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)

AOTQA

Elutriator Sample Information	
Run Analyzed:	140
GO Read:	70
GO Needed:	70

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = Yes, blank = no			Fract GO Chys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
C4	A1	ASD														
A3																
A5																
A7																
A9																
C10																
C8																
C10																
C4																
C2																

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	Y
Crocidolite	Y
Actinolite	Y
Tremolite	Y
Anthophyllite	Y
Non Reg Amph	Y

A = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

EMSL Analytical Inc.
 107 Haddon Avenue
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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/22/2009
 Date Completed 6/6/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0010
 Field Subsample# GNC1-JP02-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 46.11
 <3/8" Not Used (g) 269.99
 <3/8" In Tumbler(g) 64.67
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1453
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 84
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1537

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000145

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.851E+06	8.851E+06
Long Chrysotile Protocol Structures	< 8.851E+06	8.851E+06
Total Amphibole Protocol Structures	< 8.851E+06	8.851E+06
Long Amphibole Protocol Structures	< 8.851E+06	8.851E+06
Long Asbestos Protocol Structures	< 8.851E+06	8.851E+06
Total Asbestos Protocol Structures	< 8.851E+06	8.851E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.960E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL 100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	04092951-10
Sample Type (A=Air, D=Dust)	
Air volume (L) or dust area (cm ²)	
Date received by lab	30 MAY 09
Lab Job Number:	
Lab Sample Number:	3
Number of grids prepared	TA
Prepared by	Z. J. W. 09
Preparation date	
COC Number:	
Secondary filter pore size (um)	

Analyzed by	KP
Analysis date	6 Jun 09
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	ISO - Elutriator
Grid storage location	9441-D

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)

OUT QA

Elutriator Sample Information	
Run Analyzed:	7
GO Read:	69
GO Needed:	69

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract GO Chys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
D1	A1	NSD														
	A3															
	AS															
	A7															
	A9															
	A10															
	C8															
	C4															
	C4															
	C2															

Asbestos Detected (Y/N)	N
Chrysotile	
Amosite	
Crocidolite	
Actinolite	
Tremolite	
Anthophyllite	
Non Reg Amph	

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

EMSL Analytical Inc.
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 Contacts: Stephen Siegel, CIH
 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/22/2009
 Date Completed 6/6/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0011
 Field Subsample# GNC1-JP02-FD
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 70
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 56.14
 <3/8" Not Used (g) 297.05
 <3/8" In Tumbler(g) 44.25
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1433
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 73
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1506

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000142

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.908E+06	8.908E+06
Long Chrysotile Protocol Structures	< 8.908E+06	8.908E+06
Total Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Asbestos Protocol Structures	< 8.908E+06	8.908E+06
Total Asbestos Protocol Structures	< 8.908E+06	8.908E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.979E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	040902451-11
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²)	
Date received by lab	30 MAY 09
Lab Job Number:	
Lab Sample Number:	3
Number of grids prepared	TA
Prepared by	ZTCW09
Preparation date	
COC Number:	
Secondary filter pore size (um)	

Analyzed by	RD
Analysis date	6 JUN 09
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	
Grid storage location	944-D

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)

NOT QA

Elutriator Sample Information	
Run Analyzed:	13
GO Read:	70
GO Needed:	70

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
D4	570	NSD														
	578															
	576															
	574															
	572															
	H1															
	H3															
	H5															
	H7															
	H9															

L = Libby-type amphibole
 OA = Other (non-Libby type) amphibole
 C = Chrysotile
 NAM = Non-asbestos material

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthrophyllite	N
Non Reg Amph	N

EMSL Analytical Inc.
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 Westmont, NJ 08108
 Contacts: Stephen Siegel, CIH
 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination
 of Asbestos in Soils and Bulk Material Method
 (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/27/2009
 Date Completed 6/11/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0025
 Field Subsample# GNC1-BC28-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 67
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category
 >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 62.73
 <3/8" Not Used (g) 255.66
 <3/8" In Tumbler(g) 50.66
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1453
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 81
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1534

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000149

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.870E+06	8.870E+06
Long Chrysotile Protocol Structures	< 8.870E+06	8.870E+06
Total Amphibole Protocol Structures	< 8.870E+06	8.870E+06
Long Amphibole Protocol Structures	< 8.870E+06	8.870E+06
Long Asbestos Protocol Structures	< 8.870E+06	8.870E+06
Total Asbestos Protocol Structures	< 8.870E+06	8.870E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.967E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL 100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm2)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm2)	
Secondary Filter Area (mm2)	
Category (Field, Rep., Pup., Blank)	
Primary filter pore size (um)	

Sample Number:	0409	02951-25
Sample Type (A=Air, D=Dust):		
Air volume (L) or dust area (cm2)		
Date received by lab		5JW09
Lab Job Number:		
Lab Sample Number:		
Number of grids prepared	3	
Prepared by	TA	
Preparation date	5JW09	
COC Number:		
Secondary filter pore size (um)		

Analyzed by	APD
Analysis date	11JW09
Method (D=Direct, I=Indirect, IA=Indirect, ashd)	D
Counting rules (ISO, AHERA, ASTM)	ISO - Elutriator
Grid storage location	9441-I

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab) **NOT QA**

Elutriator Sample Information	
Run Analyzed:	10
GO Read:	67
GO Needed:	67

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			Sketch/Comments	1 = Yes, blank = no			Fract GO Chrys.	
			Primary	Total	Length	Width		LA	QA	C		NAM	Sketch	Photo		EDS
F4	JL	NSD														
	J3															
	J5															
	J7															
	J9															
	H0															
	H8															
	H6															
	H4															
	H2															

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthrophyllite	N
Non Reg Amph	

LA = Libby-type amphibole

QA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME _____
LAB SAMPLE NO: _____

EPA SAMPLE NO: _____
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 04090298-1
GRID STORAGE LOC: 0944-1

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS		
IS	BZ	NSD															
	B4																
	B6																
	B8																
	B10																
	D10																
	D8																
	D6																
	D4																
	D2																
	F2																
	F4																
	F6																
	F8																
	F10																

EMSL Analytical Inc.
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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/28/2009
 Date Completed 6/9/2009
 Analyst Kelly Favero

Lab Sample# 040902981-0027
 Field Subsample# GNC1-BC27-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 19,000 X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 67
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category
 >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 40.66
 <3/8" Not Used (g) 296.82
 <3/8" In Tumbler(g) 57.81
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1475
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 81
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1556

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000149

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No.of Chrysotile Asbestos Structures	1	0
No.of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	1	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 1.095E+07	1.095E+07
Long Chrysotile Protocol Structures	< 8.912E+06	1.095E+07
Total Amphibole Protocol Structures	< 8.912E+06	1.095E+07
Long Amphibole Protocol Structures	< 8.912E+06	1.095E+07
Long Asbestos Protocol Structures	< 8.912E+06	1.095E+07
Total Asbestos Protocol Structures	< 1.095E+07	1.095E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.967E+06	1.095E+07

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL 100 CX II
Voltage (KV)	100 kV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category /Field, Rep., Dup, Blank)	
Primary filter pore size (um)	

Sample Number:	0409 0	902981-27
Sample Type (A=Air, D=Dust):		
Air volume (L) or dust area (cm ²)		
Date received by lab		6/5/09
Lab Job Number:		
Lab Sample Number:		
Number of grids prepared		3
Prepared by		TJ
Preparation date		6/5/09
COC Number:		
Secondary filter pore size (um)		

Analyzed by		APL
Analysis date		6/9/09
Method (D=Direct, I=Indirect, IA=Indirect, ashed)		
Counting rules (ISO, AHERA, ASTM)		ISO - Elutriator
Grid storage location		8944 J2-4

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)

Elutriator Sample Information	
Run Analyzed:	16
GO Read:	67
GO Needed:	

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
J2	J1	NA														
	J3															
	J5															
	J2															
	J9															
	J10															
	J8															
	J4															
	J2															

Asbestos Detected (Y/N)
Chrysotile
Amosite
Crocidolite
Actinolite
Tremolite
Anthrophyllite
Non Reg Amph

LA = Libby-type amphibole OA = Other (non-Libby type) amphibole C = Chrysotile NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME
LAB SAMPLE NO:

EMSL 09
27

EPA SAMPLE NO:
SAMPLE TYPE

Elutriator

LAB JOB NUMBER
GRID STORAGE LOC:

902981
0944J2-4

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract GO Chrys.			
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS				
J2	E10	MD10	1		5	1	ODG												
		MF		1	4.5	.1				✓		✓							
	E8	MD																	
	E6	MD11	2		6	1.2													
		MF		2	6	.8					✓		cont. w/ H + Mn.						
	E4	MD																	
	E2	MD																	
J3	J9																		
	J7																		
	J5																		
	J3																		
	J1																		
	I2																		
	I4																		
	I6																		

EMSL Analytical Inc.
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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/28/2009
 Date Completed 6/10/2009
 Analyst Kelly Favero

Lab Sample# 040902981-0028
 Field Subsample# GNC1-JB03-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 74
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 50.26
 <3/8" Not Used (g) 307.3
 <3/8" In Tumbler(g) 53.24
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1449
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 79
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1528

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000135

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	1	1
Amphibole Mineral Type(s)	Actinolite	
Total Asbestos Structures	1	1

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.864E+06	8.864E+06
Long Chrysotile Protocol Structures	< 8.864E+06	8.864E+06
Total Amphibole Protocol Structures	< 1.405E+07	1.405E+07
Long Amphibole Protocol Structures	< 1.405E+07	1.405E+07
Long Asbestos Protocol Structures	< 1.405E+07	1.405E+07
Total Asbestos Protocol Structures	< 1.405E+07	1.405E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.965E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL-100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (µm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (µm)	

Sample Number:	0409 D	2981-28
Sample Type (A=Air, D=Dust):		
Air volume (L) or dust area (cm ²)		
Date received by lab		6/6/09
Lab Job Number:		
Lab Sample Number:		
Number of grids prepared		3
Prepared by		TA
Preparation date		6/5/09
COC Number:		
Secondary filter pore size (µm)		

Analyzed by		AP
Analysis date		6/10/09
Method (D=Direct, I=Indirect, IA=Indirect, ashd)		D
Counting rules (ISO, AHERA, ASTM)		
Grid storage location		0944J 5-7

OA Type (Not OA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)

Elutriator Sample Information	
Run Analyzed:	10
GO Read:	74
GO Needed:	74

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract GO Chys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
J5	J1	NB														
	J3															
	J7	↓														
	J9	MD11	1		11	10										
		MB		1	6.5	.5	NAM									
	J10	MD1	2		18	2	Actinolite									
		NF		2	18	.15	ADX									
	J8															
	J6															
	J10															

Asbestos Detected (Y/N)	Fract GO Chys.
Chrysotile	N
Amosite	↓
Crocidolite	
Actinolite	Y
Tremolite	↓
Anthrophyllite	
Non Reg Amph	Y

A = Libby-type amphibole OA = Other (non-Libby type) amphibole C = Chrysotile NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 28

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 902981
GRID STORAGE LOC.: 0944 JS-7

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract GO Chrys
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS	
J5	I4	B	3	3	8.5	.2	NAM					✓	✓	✓		
	I2	NAD														
	H1															
	H3															
	H5															
	H7															
	H9															
	G10															
	G8															
	G6															
	G4															
	G2	F	4	4	5.7	.25	FRPP - Amosite NAM					✓	✓	✓		
	F1	NAD														
	F3															
	F5															

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/1/2009
 Date Completed 6/11/2009
 Analyst Kelly Favero
 Lab Sample# 040902981-0029
 Field Subsample# GNC1-JP06-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 71
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 13.55
 <3/8" Not Used (g) 190.19
 <3/8" In Tumbler(g) 41.16
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1444
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 79
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1523

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000141

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.845E+06	8.845E+06
Long Chrysotile Protocol Structures	< 8.845E+06	8.845E+06
Total Amphibole Protocol Structures	< 8.845E+06	8.845E+06
Long Amphibole Protocol Structures	< 8.845E+06	8.845E+06
Long Asbestos Protocol Structures	< 8.845E+06	8.845E+06
Total Asbestos Protocol Structures	< 8.845E+06	8.845E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.958E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument:	JEOL 100 CX II
Voltage (KV):	100 KV
Magnification:	10,000 X
Grid opening area (mm ²):	0.013
Scale - 1L =	
Scale - 1D =	
Primary filter area (mm ²):	
Secondary Filter Area (mm ²):	
Category/Field, Rep., Dup., Blank:	
Primary filter pore size (um):	

Sample Number:	0409	2981-0029
Sample Type (A=Air, D=Dust):		
Air volume (L) or dust area (cm ²):		
Date received by lab:		6/6/09
Lab Job Number:		
Lab Sample Number:		
Number of grids prepared:	3	
Prepared by:	TH	
Preparation date:	6/8/09	
COC Number:		
Secondary filter pore size (um):		

Analyzed by:	W. Peterson
Analysis date:	6/11/09
Method (D=Direct, I=Indirect):	I
IA=Indirect, ashed):	
Counting rules (ISO, AHERA, ASTM):	ISO - Elutriator
Grid storage location:	944 T8-10

OA Type (Not OA, Recount Same, Recount Different, Re-prep, Verified Analysis Reconciliation, Lab Blank, Interlab)

Elutriator Sample Information	
Run Analyzed:	9
GO Read:	7/1
GO Needed:	7/1

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														
J8	J10	NA														

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

L1 = Libby-type amphibole
OA = Other (non-Libby type) amphibole
C = Chrysotile
NAM = Non-asbestos material

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/1/2009
 Date Completed 6/11/2009
 Analyst Kelly Favero
 Lab Sample# 040902981-0030
 Field Subsample# GNC1-JP05-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 69.34
 <3/8" Not Used (g) 273.13
 <3/8" In Tumbler(g) 42.54
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1470
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 85
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1555

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000145

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.851E+06	8.851E+06
Long Chrysotile Protocol Structures	< 8.851E+06	8.851E+06
Total Amphibole Protocol Structures	< 8.851E+06	8.851E+06
Long Amphibole Protocol Structures	< 8.851E+06	8.851E+06
Long Asbestos Protocol Structures	< 8.851E+06	8.851E+06
Total Asbestos Protocol Structures	< 8.851E+06	8.851E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.960E+06	

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/1/2009
 Date Completed 6/11/2009
 Analyst Kelly Favero

Lab Sample# 040902981-0031
 Field Subsample# GNC1-JB06-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 67
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 37
 <3/8" Not Used (g) 280.49
 <3/8" In Tumbler(g) 66.12
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1469
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 75
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1544

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000148

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.930E+06	8.930E+06
Long Chrysotile Protocol Structures	< 8.930E+06	8.930E+06
Total Amphibole Protocol Structures	< 8.930E+06	8.930E+06
Long Amphibole Protocol Structures	< 8.930E+06	8.930E+06
Long Asbestos Protocol Structures	< 8.930E+06	8.930E+06
Total Asbestos Protocol Structures	< 8.930E+06	8.930E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.987E+06	

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/1/2009
 Date Completed 6/11/2009
 Analyst Kelly Favero

Lab Sample# 040902981-0032
 Field Subsample# GNC1-JB07-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 73
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 98.86
 <3/8" Not Used (g) 264.92
 <3/8" In Tumbler(g) 44.43
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1439
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 75
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1514

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000136

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Long Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Total Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Total Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.983E+06	

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 Contacts: Stephen Siegel, CIH
 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/1/2009
 Date Completed 6/14/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0033
 Field Subsample# GNC1-JB07-FD
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 66
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 82.83
 <3/8" Not Used (g) 250.83
 <3/8" In Tumbler(g) 45.96
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1476
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 76
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1552

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000150

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.944E+06	8.944E+06
Long Chrysotile Protocol Structures	< 8.944E+06	8.944E+06
Total Amphibole Protocol Structures	< 8.944E+06	8.944E+06
Long Amphibole Protocol Structures	< 8.944E+06	8.944E+06
Long Asbestos Protocol Structures	< 8.944E+06	8.944E+06
Total Asbestos Protocol Structures	< 8.944E+06	8.944E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.991E+06	

**ELUTRIATOR
TEM Asbestos Structure Count**

Laboratory name:	EMSL09
Instrument	JEOL 100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category (Field, Rep., DUP., Blank)	
Primary filter pore size (µm)	

Sample Number:	040902981-0033
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²)	
Date received by lab	6/6/2009
Lab Job Number:	
Lab Sample Number:	
Number of grids prepared	3
Prepared by	TA
Preparation date	6/8/2009
COC Number:	
Secondary filter pore size (µm)	

Analyzed by	KD
Analysis date	6/14/2009
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	ISO - Elutriator
Grid storage location	944-L

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)	Not QA
--	--------

Elutriator Sample Information	
Run Analyzed:	13
GO Read:	66
GO Needed:	66

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract: GO Chys
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
L2	J10	USD														
	J8	USD														
	J6															
	J4															
	H1															
	H3															
	H5															
	H7															
	H9															

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 33

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 040902981
GRID STORAGE LOC.: 944-L

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS		
L3	I1	NSD															
	I3																
	I5																
	I7																
	I9	NSD															
	G10	F	1	1	21.4	.35	NAM						1			1	
	G8	NSD															
	G6																
	G4																
	G2																
	E1																
	E3																
	E5																
	E7																
	E9																

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 33

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 040902981
GRID STORAGE LOC.: 944-L

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS	
L3	C10	MSD														
	C8															
	C6															
	C4															
	C2															
	A1															
	A3															
	A5															
	A7															
	A9															
	L4															
	A1															
	A3															
	A5															
	A7															
	A9															

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/1/2009
 Date Completed 6/14/2009
 Analyst Ken Dunbar
 Lab Sample# 040902981-0034
 Field Subsample# GNC1-JS17-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 33.52
 <3/8" Not Used (g) 281.58
 <3/8" In Tumbler(g) 52.71
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1464
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 83
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1547

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000144

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Long Chrysotile Protocol Structures	< 8.912E+06	8.912E+06
Total Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Amphibole Protocol Structures	< 8.912E+06	8.912E+06
Long Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Total Asbestos Protocol Structures	< 8.912E+06	8.912E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.981E+06	

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Report Date 4/17/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 6/2/2009
 Date Completed 6/14/2009
 Analyst Ken Dunbar

Lab Sample# 040902981-0035
 Field Subsample# GNC1-BC29-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 68
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 79.82
 <3/8" Not Used (g) 248.46
 <3/8" In Tumbler(g) 60.19
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1455
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 80
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1535

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000147

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.859E+06	8.859E+06
Long Chrysotile Protocol Structures	< 8.859E+06	8.859E+06
Total Amphibole Protocol Structures	< 8.859E+06	8.859E+06
Long Amphibole Protocol Structures	< 8.859E+06	8.859E+06
Long Asbestos Protocol Structures	< 8.859E+06	8.859E+06
Total Asbestos Protocol Structures	< 8.859E+06	8.859E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.963E+06	

**ELUTRIATOR
TEM Asbestos Structure Count**

Laboratory name:	EMSL09
Instrument	JEOL 100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	040902981-0035
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²)	
Date received by lab	6/6/2009
Lab Job Number:	
Lab Sample Number:	
Number of grids prepared	3
Prepared by	TA
Preparation date	6/9/2009
COC Number:	
Secondary filter pore size (um)	

Analyzed by	KD
Analysis date	6/14/2009
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	ISO - Elutriator
Grid storage location	944-L

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)	Not QA
--	--------

Elutriator Sample Information	
Run Analyzed:	8
GO Read:	68
GO Needed:	68

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
L7	J71	ASPD														
	J33															
	J35															
	J77															
	J79															
	I/10															
	I/8															
	I/10															
	I/10															
	I/10															

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	Y
Crocidolite	Y
Actinolite	Y
Tremolite	Y
Anthophyllite	Y
Non Reg Amph	Y

IA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 35

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 040902981
GRID STORAGE LOC.: 944-L

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS		
L7	H1	NSD															
	H3	NSD															
	H5	NSD															
	G4	F	1	1	8.8	0.25	NAM				Fer	/	1			1	
	G2	NSD															
	F1																
	F3																
	F8																
	F10																
	F9																
	F2																
	D1																
	D3																
	D8																
	B5																

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/11/2009
 Date Completed 5/18/2009
 Analyst Ken Dunbar
 Lab Sample# 040902987-0001
 Field Subsample# GNC1-JD02-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 67
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 38.45
 <3/8" Not Used (g) 309.95
 <3/8" In Tumbler(g) 48.02
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1477
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 70
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1547

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000149

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.870E+06	8.870E+06
Long Chrysotile Protocol Structures	< 8.870E+06	8.870E+06
Total Amphibole Protocol Structures	< 8.870E+06	8.870E+06
Long Amphibole Protocol Structures	< 8.870E+06	8.870E+06
Long Asbestos Protocol Structures	< 8.870E+06	8.870E+06
Total Asbestos Protocol Structures	< 8.870E+06	8.870E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.967E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL 09
Instrument:	TEM 150KV II #
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	1
Scale: 1D =	1
Primary filter area (mm ²)	385
Secondary Filter Area (mm ²)	1295
Category (Field, Rep., Dup., Blank)	Field
Primary filter pore size (um)	0.45

Sample Number:	040602987-1
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²):	
Date received by lab:	15 MAY 09
Lab Job Number:	040602987
Lab Sample Number:	0001
Number of grids prepared:	3
Prepared by:	KW
Preparation date:	15 MAY 09
COC Number:	
Secondary filter pore size (um)	

Analyzed by:	KD
Analysis date:	15 MAY 09
Method (D=Direct, I=Indirect, IA=Indirect, ashed):	D
Counting rules (ISO, AHERA, ASTM):	FSD
Grid storage location:	939-1

OA Type (Not OA, Recount Same, Recount Different, Re-prep, Verified Analysis, Recount/Retest, Lab Blank, Interlab)	Not OA
--	--------

Elutriator Sample Information	
Run analyzed:	13
GO Read:	67
GO needed:	67

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fact GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
I1	B1	NSP														
	B3															
	B5															
	B7															
	B9															
	D10															
	D8															
	D6															
	D4															
	D2															

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/12/2009
 Date Completed 5/19/2009
 Analyst Ken Dunbar

Lab Sample# 040902987-0002
 Field Subsample# GNC1-JD01-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 71
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category
 >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 13.59
 <3/8" Not Used (g) 309.6
 <3/8" In Tumbler(g) 44.31
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1463
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 76
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1539

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000140

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	4	2
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	4	2

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	1.192E+07	3.052E+07
Long Chrysotile Protocol Structures	< 1.877E+07	1.877E+07
Total Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Asbestos Protocol Structures	< 1.877E+07	1.877E+07
Total Asbestos Protocol Structures	1.192E+07	3.052E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.979E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMSL 09
 Instrument: Z
 Voltage (KV): 100
 Magnification: 10000 X
 Grid opening area (mm²): 1000-1013
 Scale: 1L = 1
 Scale: 1D = 1
 Primary filter area (mm²): 385
 Secondary Filter Area (mm²): 1295
 Category (Field, Rep., Dup., Blank): Field
 Primary filter pore size (um): 0.45

Sample Number: 040902987-2
 Sample Type (A=Air, D=Dust):
 Air volume (L) or dust area (cm²):
 Date received by lab: 15 MAY 09
 Lab Job Number: 440902987
 Lab Sample Number: 3
 Number of grids prepared: 3
 Prepared by: RW
 Preparation date: 15 MAY 09
 COC Number:
 Secondary filter pore size (um):

Analyzed by: RW
 Analysis date: 15 MAY 09
 Method (D=Direct, I=Indirect): D
 Counting rules (ISO, AHERA, ASTM): ISO
 Grid storage location: 939-F
 Not OA

Elutriator Sample Information	
Run analyzed:	18
GO Read:	71
GO needed:	71

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS		
IV	A1	NSD															
	A3	NSD															
	A5	B	1	1	7.4	2	CD/KR				X						1
	A7	NSD															
	A9																
	C10																
	C8																
	C6	NSD															
	C4	B	2	2	213	25	CD				X						1
	C2	NSD															

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

LA = Libby-type amphibole
 OA = Other (non-Libby type) amphibole
 C = Chrysotile
 NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 0002

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 040302987
GRID STORAGE LOC.: 939-E

Grid	Grid Opening	Structure Type	Nc. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = Yes, blank = no			Fract: GC Chns:	
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS		
I6	A9	NSD															
	C10																
	C8																
	C6																
	C4																
	C2																
	E1	NSD															
	E3	MD11	4		11	2.8	CD			X							
		MRB			4	.2				X							
	E5	NSD															
	E7																
	E9																
	G10	NSD															
	G8	MD11	5		10	3	CD										
		MRB	5		9.8	.4											

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EMSL Analytical Inc.
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 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/12/2009
 Date Completed 5/19/2009
 Analyst Ken Dunbar
 Lab Sample# 040902987-0003
 Field Subsample# GNC1-BB16-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 76
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

Dust Generator-Total Dried Sample Weights 29.19
 <3/8" Not Used (g) 292.69
 <3/8" In Tumbler(g) 5530
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1461
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 78
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1539

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000130

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.963E+06	8.963E+06
Long Chrysotile Protocol Structures	< 8.963E+06	8.963E+06
Total Amphibole Protocol Structures	< 8.963E+06	8.963E+06
Long Amphibole Protocol Structures	< 8.963E+06	8.963E+06
Long Asbestos Protocol Structures	< 8.963E+06	8.963E+06
Total Asbestos Protocol Structures	< 8.963E+06	8.963E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.998E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMSL 09
 Instrument: Z
 Voltage (KV): 100
 Magnification: 10,000 X
 Grid opening area (mm²): 013
 Scale: 1L = 1
 Scale: 1D = 1
 Primary filter area (mm²): 385
 Secondary Filter Area (mm²): 1295
 Category (Field, Rep., Dup., Blank): Field
 Primary filter pore size (um): 0.45

Sample Number: 040902587-3
 Sample Type (A=Air, F=Dust):
 Air volume (L) or dust area (cm²):
 Date received by lab: 15 MAY 09
 Lab Job Number: 44412487
 Lab Sample Number: 3
 Number of grids prepared: 3
 Prepared by: RW
 Preparation date: 15 MAY 09
 COC Number:
 Secondary filter pore size (um):

Analyzed by: KD
 Analysis date: 15 MAY 09
 Method (0=Direct, 1=Indirect): D
 Counting rules (ISO, AHERA, ASTM): ISO
 Grid storage location: 939-E

Elutriator Sample Information
 Run analyzed: 10
 GO Read:
 GO needed: 76

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)
 Not QA

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract GO Chrs.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
I7	A1	USP														
	A3															
	A6															
	A8															
	A10															
	C10															
	C8															
	C6															
	C4															
	C2															

Asbestos Detected (Y/N)
Chrysotile
Amosite
Crocidolite
Actinolite
Tremolite
Anthophyllite
Non Reg Amph

LA = Libby-type amphibole OA = Other (non-Libby type) amphibole C = Chrysotile NAM = Non-asbestos material

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/12/2009
 Date Completed 5/19/2009
 Analyst Kelly Favaro

Lab Sample# 040902987-0004
 Field Subsample# GNC1-JD03-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 70
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 53.88
 <3/8" Not Used (g) 315.28
 <3/8" In Tumbler(g) 47.81
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1475
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 84
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1559

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000142

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.908E+06	8.908E+06
Long Chrysotile Protocol Structures	< 8.908E+06	8.908E+06
Total Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Amphibole Protocol Structures	< 8.908E+06	8.908E+06
Long Asbestos Protocol Structures	< 8.908E+06	8.908E+06
Total Asbestos Protocol Structures	< 8.908E+06	8.908E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.979E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL 09
Instrument:	TEM 009 CV II #
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.3906
Scale: 1L =	1
Scale: 1D =	1
Primary filter area (mm ²)	385
Secondary filter area (mm ²)	1295
Category (Field, Rep., Dup., Blank)	Field
Primary filter pore size (um)	0.45

Sample Number:	040902987-007
Sample Type (A=Air, D=Dust):	
Air volume (L) or dust area (cm ²):	516/09
Date received by lab:	5/12/09
Lab Job Number:	Φ4Φ2987
Lab Sample Number:	ΦΦΦ4
Number of grids prepared:	3
Prepared by:	KW
Preparation date:	5/17/09
COC Number:	
Secondary filter pore size (um)	

Analyzed by:	GP 1
Analysis date:	5/12/09
Method (D=Direct, I=Indirect, IA=Indirect, ashed)	D
Counting rules (ISO, AHERA, ASTM)	ISO
Grid storage location:	09925/1-3

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)	Not QA
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Elutriator Sample Information	
Run analyzed:	13
GO Read:	70
GO needed:	

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
J1	A15	REP														
	A18															
	A16															
	A14															
	A12															
	A11															
	A13															
	A15															
	A17															
	A19															

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	
Crocidolite	
Actinolite	
Tremolite	
Anthophyllite	
Non Reg Amph.	

LA = Libby-type amphibole OA = Other (non-Libby type) amphibole C = Chrysotile NAM = Non-asbestos material

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/12/2009
 Date Completed 6/2/2009
 Analyst Ken Dunbar

Lab Sample# 040902987-0005
 Field Subsample# GNC1-BC16-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 68
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 31.93
 <3/8" Not Used (g) 324.51
 <3/8" In Tumbler(g) 56.69
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1463
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 79
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1542

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000146

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	1	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	1	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 1.414E+07	1.414E+07
Long Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Total Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Total Asbestos Protocol Structures	< 1.414E+07	1.414E+07
Estimated Analytical Sensitivity: (s/gPM10)	2.983E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL09
Instrument	JEOL 100 CX II
Voltage (KV)	100 KV
Magnification	10,000 X
Grid opening area (mm ²)	0.013
Scale: 1L =	
Scale: 1D =	
Primary filter area (mm ²)	
Secondary Filter Area (mm ²)	
Category / (Field, Rep., Dup., Blank)	
Primary filter pore size (um)	

Sample Number:	0409 02457-5
Sample Type (A=Air, D=Dust)	
Air volume (L) or dust area (cm ²)	
Date received by lab	16 MAY 09
Lab Job Number:	
Lab Sample Number:	3
Number of grids prepared	
Prepared by	KW
Preparation date	15 MAY 09
COC Number:	
Secondary filter pore size (um)	

Analyzed by	KD
Analysis date	16 MAY 09
Method (D=Direct, I=Indirect)	I
IA=Indirect, ashed)	
Counting rules (ISO, AHERA, ASTM)	ISO - Elutriator
Grid storage location	939-5

OA Type (Not OA, Recount, Same, Recount, Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)	NOT OA
--	--------

Elutriator Sample Information	
Run Analyzed	16
GO Read:	68
GO Needed	68

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = Yes, blank = no			Fract GO Chrys
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
J4	A1	NSD														
	A3															
	A5															
	A7															
	A9															
	B10															
	B38															
	B36															
	B34															
	B32															

Asbestos Detected (Y/N)	
Chrysotile	Y
Amosite	N
Crocidolite	
Actinolite	
Tremolite	
Anthophyllite	
Non Reg Amph	Y

LA = Libby-type amphibole

OA = Other (non-Libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material

ELUTRIATOR
TEM Asbestos Structure Count

LAB NAME: EMSL 09
LAB SAMPLE NO.: 0005

EPA SAMPLE NO.:
SAMPLE TYPE: Elutriator

LAB JOB NUMBER: 0409022987
GRID STORAGE LOC.: 939-J

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class				Sketch/Comments	1 = yes, blank = no			Fract. GO Chrys.		
			Primary	Total	Length	Width		LA	OA	C	NAM		Sketch	Photo	EDS			
J4	I1	NSD																
	I3																	
	I5																	
	I7																	
	I9																	
	I10																	
	J8																	
	J6																	
	J4																	
	J2																	
J5	I10																	
	I8																	
	I6																	
	I4	NSD																
	I2	B	1	1			CD/Cr				X			1				

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/13/2009
 Date Completed 5/21/2009
 Analyst Ken Dunbar

Lab Sample# 040902987-0010
 Field Subsample# GNC1-BC18-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 73
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 79.9
 <3/8" Not Used (g) 280.75
 <3/8" In Tumbler(g) 52.05
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1485
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 77
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1562

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000136

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Long Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Total Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Total Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.983E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMSL 08
Instrument: Z
Voltage (KV): 100
Magnification: 10,000
Grid opening area (mm²): 0.13
Scaler: 1L = 1
Scale: 1D = 1
Primary filter area (mm²): 385
Secondary Filter Area (mm²): 1295
Category (Field, Rep., Dup., Blank): Field
Primary filter pore size (um): 0.45

Sample Number: Q40902987-10
Sample Type (A=Air, D=Dust):
Air volume (L) or dust area (cm²):
Date received by lab: 19 MAY 09
Lab Job Number: 040902987
Lab Sample Number: 0010
Number of grids prepared: 3
Prepared by: RW
Preparation date: 19 MAY 09
COC Number:
Secondary filter pore size (um):

Analyze by: KP
Analysis date: 19 MAY 09
Method (0=Direct, 1=Indirect): D
IA=Indirect, ashed): ISO
Counting rules (ISO, AHERA, ASTM): ISO
Grid storage location: 939-2

QA Type (Rep, QA, Recount Same, Recount Different, Rep-Prep, Verified Analysis, Recountation, Lab Blank, Interlab)
Not QA

Elutriator Sample Information
Run analyzed: 10
GO Read: 73
GO needed: 73

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, Blank = no			Fract. GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS		
L1	A1	MSD															
	A3																
	A5																
	A7																
	A9																
	C10																
	C8																
	C6																
	C4																
	C2																

Asbestos Detected (Y/N)
Chrysotile
Amosite
Crocidolite
Actinolite
Tremolite
Anthophyllite
Non Reg Amph

LA = Libby-type amphibole
OA = Other (non-Libby type) amphibole
C = Chrysotile
NAM = Non-asbestos material

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/13/2009
 Date Completed 5/21/2009
 Analyst Ken Dunbar

Lab Sample# 040902987-0011
 Field Subsample# GNC1-BC18-FD
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 69
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 60.61
 <3/8" Not Used (g) 305.38
 <3/8" In Tumbler(g) 43.58
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1456
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 75
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1531

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000145

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.851E+06	8.851E+06
Long Chrysotile Protocol Structures	< 8.851E+06	8.851E+06
Total Amphibole Protocol Structures	< 8.851E+06	8.851E+06
Long Amphibole Protocol Structures	< 8.851E+06	8.851E+06
Long Asbestos Protocol Structures	< 8.851E+06	8.851E+06
Total Asbestos Protocol Structures	< 8.851E+06	8.851E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.960E+06	

CLUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMST-03
 Instrument: Z
 Voltage (KV): 100
 Magnification: 10,000
 Grid opening area (mm²): 10.013
 Scale: 1L = 1
 Scale: 1D = 1
 Primary filter area (mm²): 385
 Secondary Filter Area (mm²): 1295
 Category (Field, Rep, Dup., Blank): Field
 Primary filter pore size (um): 0.45

Sample Number: DYC1022982-11
 Sample Type (A=Air, D=Dust):
 Air volume (L) or dust area (cm²):
 Date received by lab: 19MAR109
 Lab Job Number: D40902487
 Lab Sample Number: D411
 Number of grids prepared: 3
 Prepared by: KW
 Preparation date: 19MAR09
 COC Number:
 Secondary filter pore size (um):

Analyzed by: KD
 Analysis date: 19MAR109
 Method (D=Direct, I=Indirect): D
 Counting rules (ISO, AHERA, ASTM): ISO
 Grid storage location: 939-L

QA Type (Not QA, Repeat Same, Repeat Different, Rep, Verified Analysis, Reconciliation, Lab Blank, Internal)
 Not QA

Elutriator Sample Information

Run analyzed:	12
GO Reat:	69
GO needed:	69

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, Blank = no			Fract GO Chrys
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS	
L4	J1	NSD														
	D3															
	D5															
	J7															
	J9															
	H10															
	H5															
	H6															
	H7															
	H8															

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthropyllite	N
Non Reg Amph	N

LA = Libby-type amphibole
 OA = Other (non-Libby type) amphibole
 C = Chrysotile
 NAM = Non-asbestos material

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Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/14/2009
 Date Completed 5/26/2009
 Analyst Ken Dunbar

Lab Sample# 040902987-0018
 Field Subsample# GNC1-JS08-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 74
 Asbestos Structure Size and Type Categories of Interest
 Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 58.83
 <3/8" Not Used (g) 330.57
 <3/8" In Tumbler(g) 44.47
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1460
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 79
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1539

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000135

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.864E+06	8.864E+06
Long Chrysotile Protocol Structures	< 8.864E+06	8.864E+06
Total Amphibole Protocol Structures	< 8.864E+06	8.864E+06
Long Amphibole Protocol Structures	< 8.864E+06	8.864E+06
Long Asbestos Protocol Structures	< 8.864E+06	8.864E+06
Total Asbestos Protocol Structures	< 8.864E+06	8.864E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.965E+06	

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 107 Haddon Avenue
 Westmont, NJ 08108
 Contacts: Stephen Siegel, CIH
 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/15/2009
 Date Completed 5/23/2009
 Analyst Jason McGriff
 Lab Sample# 040902987-0019
 Field Subsample# GNC1-JD06-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 68
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 70.54
 <3/8" Not Used (g) 278.04
 <3/8" In Tumbler(g) 68.43
 Air Flow Rate Through ME opening of Dust Generator (ml/min) 1487
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 81
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1568

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000146

Asbestos Analysis Results	Total	Protocol Structures
		Long(>10um)
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	Concentrations	
	Mean	95% UCL
Total Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Long Chrysotile Protocol Structures	< 8.919E+06	8.919E+06
Total Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Amphibole Protocol Structures	< 8.919E+06	8.919E+06
Long Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Total Asbestos Protocol Structures	< 8.919E+06	8.919E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.983E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name: EMSL 09
 Instrument: TEM
 Voltage (KV): 10.000 KV
 Magnification: 10,000 X
 Grid opening area (mm²): 0.006
 Scale: 1L = 1
 Scale: 1D = 1
 Primary filter area (mm²): 385
 Secondary Filter Area (mm²): 1295
 Category (Field, Rep., DUP, Blank): Field
 Primary filter pore size (um): 0.45

Sample Number: 2009080519
 Sample Type (A=Air, D=Dust):
 Air volume (L) or dust area (cm²):
 Date received by lab: 5/21/09
 Lab Job Number: 040202987
 Lab Sample Number: 0019
 Number of grids prepared: 3
 Prepared by: JA
 Preparation date: 5/21/09
 COC Number:
 Secondary filter pore size (um):

Analyzed by: [Signature]
 Analysis date: 5/22/09
 Method (D=Direct, I=Indirect, A=Indirect, asmed):
 Counting rules (ISO, AHERA, ASTM):
 Grid storage location: 0939-10

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Reconciliation, Lab Blank, Interlab)
 Not QA

Elutriator Sample Information	
Run analyzed:	17
GO Read:	68
GO needed:	68

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions			Identification			Mineral Class (see below)				1 = Yes, Blank = no			Fract GO Chrys
			Primary	Total	Length	Width	LA	OA	C	NAM	Sketch/Comments	Sketch	Photo	EDS				
01	C4	AKD																
	C3																	
	C5																	
	C7																	
	C9																	
	D10																	
	DS																	
	DE																	
	DA																	
	DB																	
	DC																	

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	N

LA = Libby-type amphibole

OA = Other (non-Libby) amphibole

C = Chrysotile

NAM = Non-asbestos material

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 107 Haddon Avenue
 Westmont, NJ 08108
 Contacts: Stephen Siegel, CIH
 Phone:856-858-4800 Fax:856-858-4960

Report Date 4/18/2010
 Project Name 20082449V1 GALLERIA NORTH SUB AREA
 Methods Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (dated May 23, 2000, Revision 1)
 EMSL Order ID 040902987

Date Started 5/16/2009
 Date Completed 5/27/2009
 Analyst Ken Dunbar

Lab Sample# 040902987-0023
 Field Subsample# GNC1-BC21-A
 Field Preparation Technique N/A
 Sample Drying Yes
 Sample Splitting No
 Other N/A

TEM Analysis

Effective Area of Analytical Filter (sq mm) 385 (IST)
 Magnification 10,000-20,000X
 Grid Opening Area (sq mm) 0.013
 Number of Grid Openings Scanned 68
 Asbestos Structure Size and Type Categories of Interest Protocol Fiber
 >5um Length
 <0.4um Diameter
 Amphiboles/Chrysotile
 Long Fiber
 >10um Length
 <0.4um Diameter
 Amphiboles/Chrysotile

Minimum Acceptable Structure Identification Category >5um Length
 <0.4um Diameter

Dust Generator-Total Dried Sample Weights

>3/8" (g) 52.57
 <3/8" Not Used (g) 270.04
 <3/8" In Tumbler(g) 64.06

Air Flow Rate Through ME opening of Dust Generator (ml/min) 1447
 Air Flow Rate Through IST opening of Dust Generator (ml/min) 78
 Estimated Total Air Flow Rate Through Elutriator (ml/min) 1525

Filters from the IST opening of Dust Generator of the Elutriator

Mass of Respirable Dust on Filter(g) 0.000147

	<u>Total</u>	<u>Protocol Structures</u>
		<u>Long(>10um)</u>
Asbestos Analysis Results		
No. of Chrysotile Asbestos Structures	0	0
No. of Amphibole Asbestos Structures	0	0
Amphibole Mineral Type(s)		
Total Asbestos Structures	0	0

ESTIMATED ASBESTOS CONCENTRATIONS (s/gPM10)

	<u>Concentrations</u>	
	<u>Mean</u>	<u>95% UCL</u>
Total Chrysotile Protocol Structures	< 8.859E+06	8.859E+06
Long Chrysotile Protocol Structures	< 8.859E+06	8.859E+06
Total Amphibole Protocol Structures	< 8.859E+06	8.859E+06
Long Amphibole Protocol Structures	< 8.859E+06	8.859E+06
Long Asbestos Protocol Structures	< 8.859E+06	8.859E+06
Total Asbestos Protocol Structures	< 8.859E+06	8.859E+06
Estimated Analytical Sensitivity: (s/gPM10)	2.963E+06	

ELUTRIATOR
TEM Asbestos Structure Count

Laboratory name:	EMSL 09
Instrument:	JEO 100 CX II #
Voltage (KV):	100 KV
Magnification:	10,000 X
Grid opening area (mm ²):	0.000123
Scale: 1L =	1
Scale: 1D =	1
Primary filter area (mm ²):	395
Secondary Filter Area (mm ²):	1295
Category (Field, Rep., DUD, Blank):	Field
Primary filter pore size (um):	0.45

Sample Number:	040502987-23
Sample Type (A=Air, D=Dust):	
Air volume (l) or dust area (cm ²):	
Date received by lab:	22 MAY 09
Lab Job Number:	040202587
Lab Sample Number:	0023
Number of grids prepared:	3
Prepared by:	TA
Preparation date:	22 MAY 09
COC Number:	
Secondary filter pore size (um):	

Analyzed by:	KD
Analysis date:	23 MAY 09
Method (D=Direct, I=Indirect, IA=Indirect, assted):	D
Counting rules (ISO, AHERA, ASTM):	ISO
Grid storage location:	939-P

QA Type (Not QA, Recount Same, Recount Different, Re-prep, Verified Analysis, Recount/Retest, Lab Blank, Internal):	Not QA
---	--------

Elutriator Sample Information	
Run analyzed:	11
GO Read:	68
GO needed:	68

Grid	Grid Opening	Structure Type	No. of Structures		Dimensions		Identification	Mineral Class (see below)			NAM	Sketch/Comments	1 = yes, blank = no			Fract GO Chrys.	
			Primary	Total	Length	Width		LA	OA	C			Sketch	Photo	EDS		
P4	J1	NSP															
	J3																
	J5																
	J7																
	J9																
	M10																
	H8																
	H6																
	H4																
	H2																

Asbestos Detected (Y/N)	
Chrysotile	N
Amosite	N
Crocidolite	N
Actinolite	N
Tremolite	N
Anthophyllite	N
Non Reg Amph	Y

LA = Libby-type amphibole

OA = Other (non-libby type) amphibole

C = Chrysotile

NAM = Non-asbestos material



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Attn: Maria Barajas-Albalawi
 ERM Group, Inc.
 1277 Treat Blvd. Suite 500
 Walnut Creek, CA 94597
Phone: 916-924-9378

Customer ID: ERM78
Customer PO: NA
Received: 1/18/10 9:00 AM
EMSL Order: 091000359
Date Prepared: 1/21/2010
Analysis Date(s): 1/28/2010

Project: Galleria North Sub-Area / 20092586V1
Date Sampled: 01/07/2010

Report Date: 2/17/2010

EPA 540-R-97-028 -Superfund Method

*Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method
 (Revision 1)*

EMSL Sample Number	091000359-0001	Mass of Respirable Dust on Filter:	0.00013	g
Customer Sample Number:	GNC2-JD01C-0	Area of collection filter:	385	mm ²
Minimum Level of analysis (chrysotile):	CD	Grid openings Area:	0.013	mm ²
Minimum Level of analysis (amphibole):	ADX	Grid Openings Analyzed:	76	
Magnification used for fiber counting:	10,000 x	Min Str. Length/ Max Str. Diameter:	>5 / <0.4	microns
Aspect ratio for fiber definition:	3:1	Analyst(s):	K. DUNBAR	

Dust Generator-Total Dried Sample Weights			Soil % Moisture	1.1	%
>3/8"	90.100	g	Air Flow Rate Through ME opening of Dust Generator	1435.00	ml/min
Not Used <3/8"	376.390	g	Air Flow Rate Through IST opening of Dust Generator	88.00	ml/min
Used in Tumbler <3/8"	59.870	g	Estimated Total Air Flow Through Elutriator	1523.00	ml/min

Analytical Sensitivity: 3.00E+06 Structure/g PM10 Limit of Detection: 8.96E+06 Structure/g PM10

Test for Uniformity (Chi-Square result) N/A

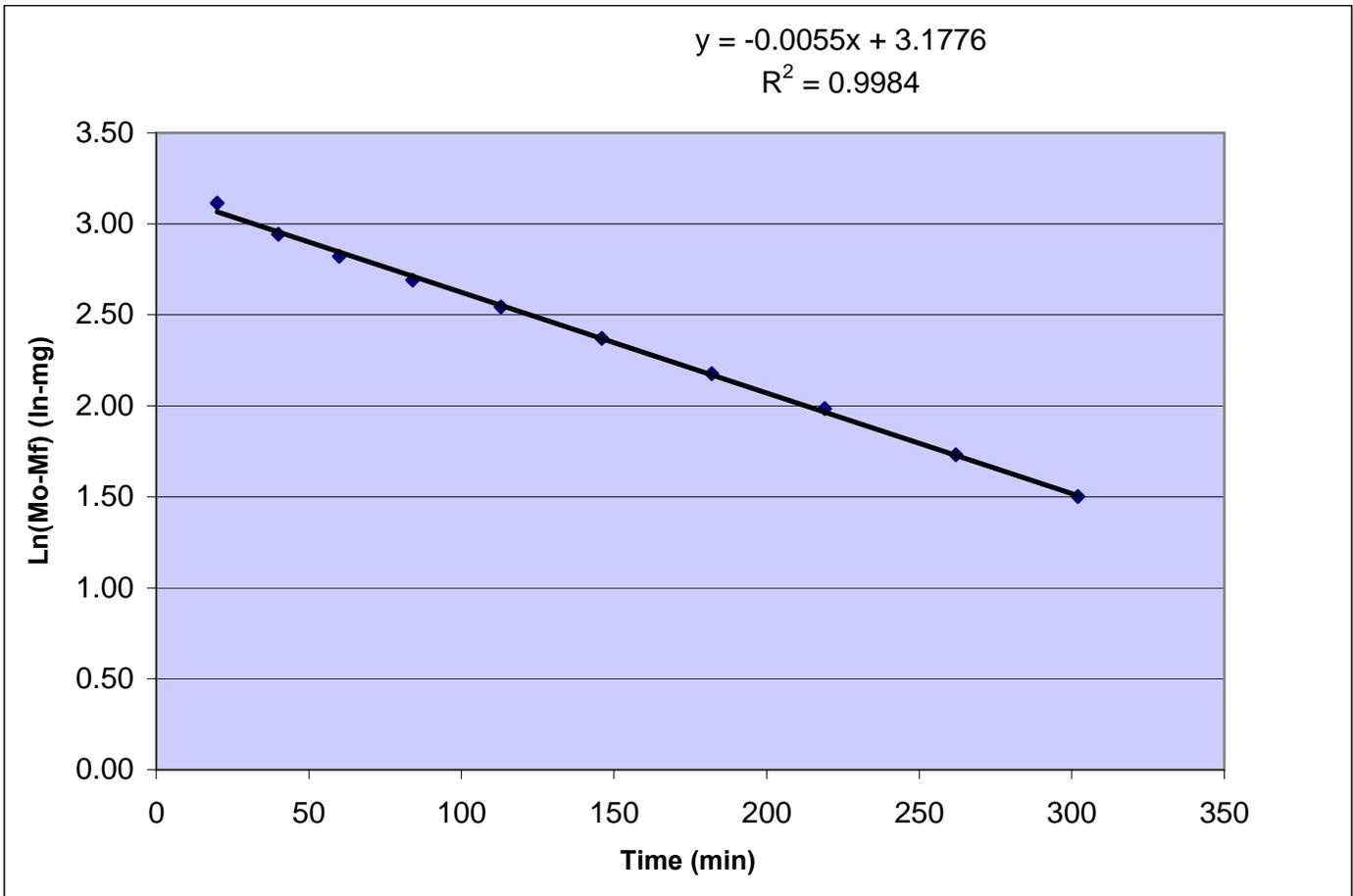
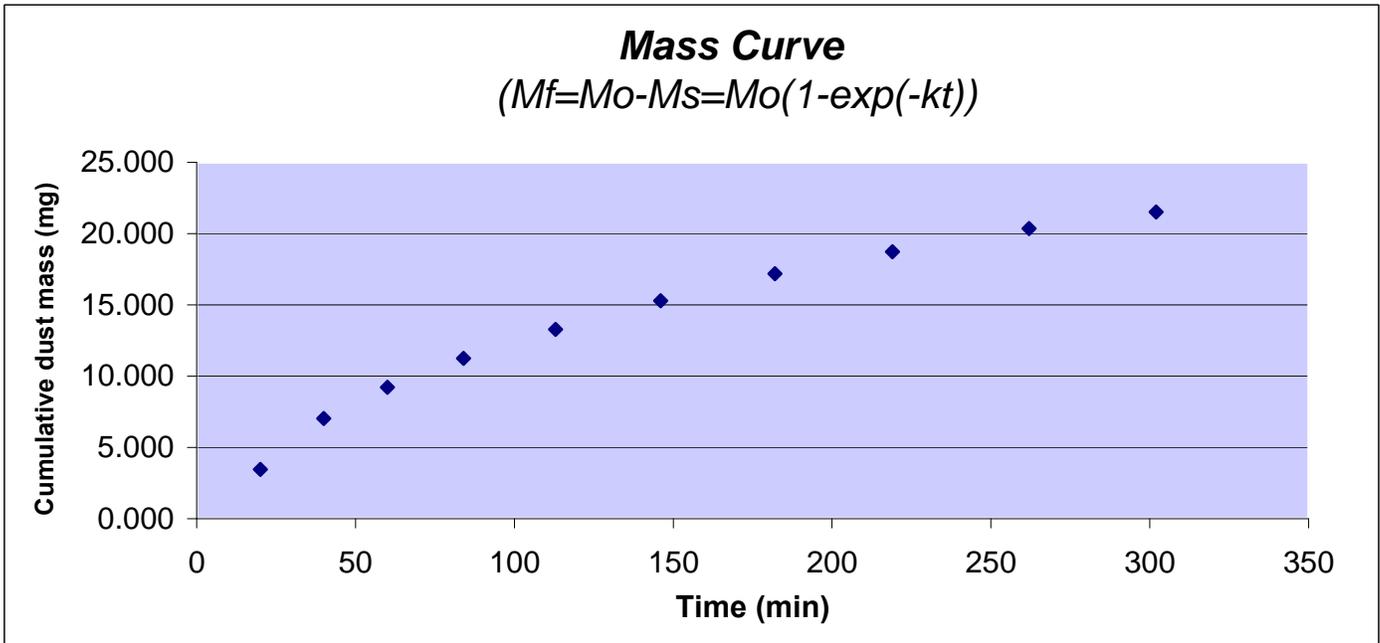
Structure Class	Min ID Level Required	Counts		Density Str/mm ²	Conc. Str/g PM10	Poisson 95 % Confidence Interval	
		Primary Str.	Total Str.			Lower Limit Str/g PM10	Upper Limit Str/g PM10
Asbestos Structures > 5um, ≤ 10um	CD/ADX	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Asbestos Structures > 5um, ≤ 10um (Chrys)	CD	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Asbestos Structures > 5um, ≤ 10um (Amph)	ADX	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Asbestos Structures >10 um (Long)	CD/ADX	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Asbestos Structures >10 um (Chrys)	CD	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Asbestos Structures >10 um (Amph)	ADX	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Total Protocol Asbestos Structures	CD/ADX	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Protocol Asbestos Structures(Chrys)	CD	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Protocol Asbestos Structures (Amph)	ADX	0	0	< 3.04	< 8.96E+06	NA	< 8.96E+06
Total Protocol Non Asbestos Structures	NAM	0	0				

Note: The concentration of asbestos and the 95% Confidence Intervals are reported on the basis of the Poissonian distribution and the Total Structure count. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL is not responsible for sample collection activities or analytical method limitations. Interpretation and use of results are the responsibility of the client.

Robyn Denton

Approved Signatory

EMSL Ord./sample:	091000359-0001
Client Sample ID:	GNC2-JD01C-0





EPA 540-R-97-028 -Superfund Method

Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method
(Revision 1)

Bench Sheet Data

Client:	Maria Barajas-Albalawi, ERM Group, Inc.				
EMSL Sample ID:	091000359-0001	GO area (mm ²):	0.013	Scope:	1-46
Customer Sample:	GNC2-JD01C-0	Grid Box :	10004: C (1-3)	Mag.	10,000
		Pore Size (micron):	0.2	Analyst(s):	K. DUNBAR
Project ID:	20092586V1 / Galleria North Sub-Area			Analysis Date:	01/28/2010

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
C1	A1	None Detected								
C1	A3	None Detected								
C1	A5	None Detected								
C1	A7	None Detected								
C1	A9	None Detected								
C1	B10	None Detected								
C1	B8	None Detected								
C1	B6	None Detected								
C1	B4	None Detected								
C1	B2	None Detected								
C1	C1	None Detected								
C1	C3	None Detected								
C1	C5	None Detected								
C1	C7	None Detected								
C1	C9	None Detected								
C1	E10	None Detected								
C1	E8	None Detected								
C1	E6	None Detected								
C1	E4	None Detected								
C1	E2	None Detected								
C1	G1	None Detected								
C1	G3	None Detected								
C1	G5	None Detected								
C1	G7	None Detected								
C1	G9	None Detected								
C1	I10	None Detected								
C1	I8	None Detected								
C1	I6	None Detected								
C1	I4	None Detected								
C1	I2	None Detected								
C2	B1	None Detected								
C2	B3	None Detected								
C2	B5	None Detected								
C2	B7	None Detected								
C2	D9	None Detected								

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EPA 540-R-97-028 -Superfund Method

Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method
(Revision 1)

Bench Sheet Data

EMSL Sample ID:	091000359-0001
Customer Sample:	GNC2-JD01C-0

Analyzed By:	K. DUNBAR
Analysis Date:	01/28/2010

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
C2	D7	None Detected								
C2	D3	None Detected								
C2	D1	None Detected								
C2	F1	None Detected								
C2	F3	None Detected								
C2	F7	None Detected								
C2	F9	None Detected								
C2	H10	None Detected								
C2	H8	None Detected								
C2	H6	None Detected								
C2	H4	None Detected								
C2	H2	None Detected								
C2	J1	None Detected								
C2	J3	None Detected								
C2	J5	None Detected								
C2	J7	None Detected								
C2	J9	None Detected								
C3	J1	None Detected								
C3	J3	None Detected								
C3	J5	None Detected								
C3	J7	None Detected								
C3	J9	None Detected								
C3	H10	None Detected								
C3	H8	None Detected								
C3	H6	None Detected								
C3	H4	None Detected								
C3	H2	None Detected								
C3	F1	None Detected								
C3	F3	None Detected								
C3	F5	None Detected								
C3	F7	None Detected								
C3	F9	None Detected								
C3	D10	None Detected								
C3	D8	None Detected								
C3	D6	None Detected								
C3	D4	None Detected								
C3	D2	None Detected								

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EPA 540-R-97-028 -Superfund Method

Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method
(Revision 1)

Bench Sheet Data

EMSL Sample ID:	091000359-0001
Customer Sample:	GNC2-JD01C-0

Analyzed By:	K. DUNBAR
Analysis Date:	01/28/2010

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
C3	B1	None Detected								
C3	B3	None Detected								
C3	B5	None Detected								
C3	B7	None Detected								

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Email: SanLeandroLab@emsl.com

Attn: Maria Barajas-Albalawi
ERM Group, Inc.
1277 Treat Blvd. Suite 500
Walnut Creek, CA 94597
Phone: 916-924-9378

Customer ID: ERM78
Customer PO: NA
Received: 1/18/10 9:00 AM
EMSL Order: 091000359
Date Prepared: 1/21/2010
Analysis Date(s): 1/28/2010

Project: Galleria North Sub-Area / 20092586V1
Date Sampled: 01/07/2010

Report Date: 2/17/2010

EPA 540-R-97-028 -Superfund Method

Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method (Revision 1)

EMSL Sample Number	091000359-0002	Mass of Respirable Dust on Filter:	0.00014	g
Customer Sample Number:	GNC2-JD01C-0-DUP	Area of collection filter:	385	mm ²
Minimum Level of analysis (chrysotile):	CD	Grid openings Area:	0.013	mm ²
Minimum Level of analysis (amphibole):	ADX	Grid Openings Analyzed:	71	
Magnification used for fiber counting:	10,000 x	Min Str. Length/ Max Str. Diameter:	>5 / <0.4	microns
Aspect ratio for fiber definition:	3:1	Analyst(s):	K. DUNBAR	
Dust Generator-Total Dried Sample Weights		Soil % Moisture	1.0	%
>3/8"	122.690 g	Air Flow Rate Through ME opening of Dust Generator	1427.00	ml/min
Not Used <3/8"	339.230 g	Air Flow Rate Through IST opening of Dust Generator	82.00	ml/min
Used in Tumbler <3/8"	64.160 g	Estimated Total Air Flow Through Elutriator	1509.00	ml/min

Analytical Sensitivity: 2.98E+06 Structure/g PM10 Limit of Detection: 8.91E+06 Structure/g PM10

Test for Uniformity (Chi-Square result) N/A

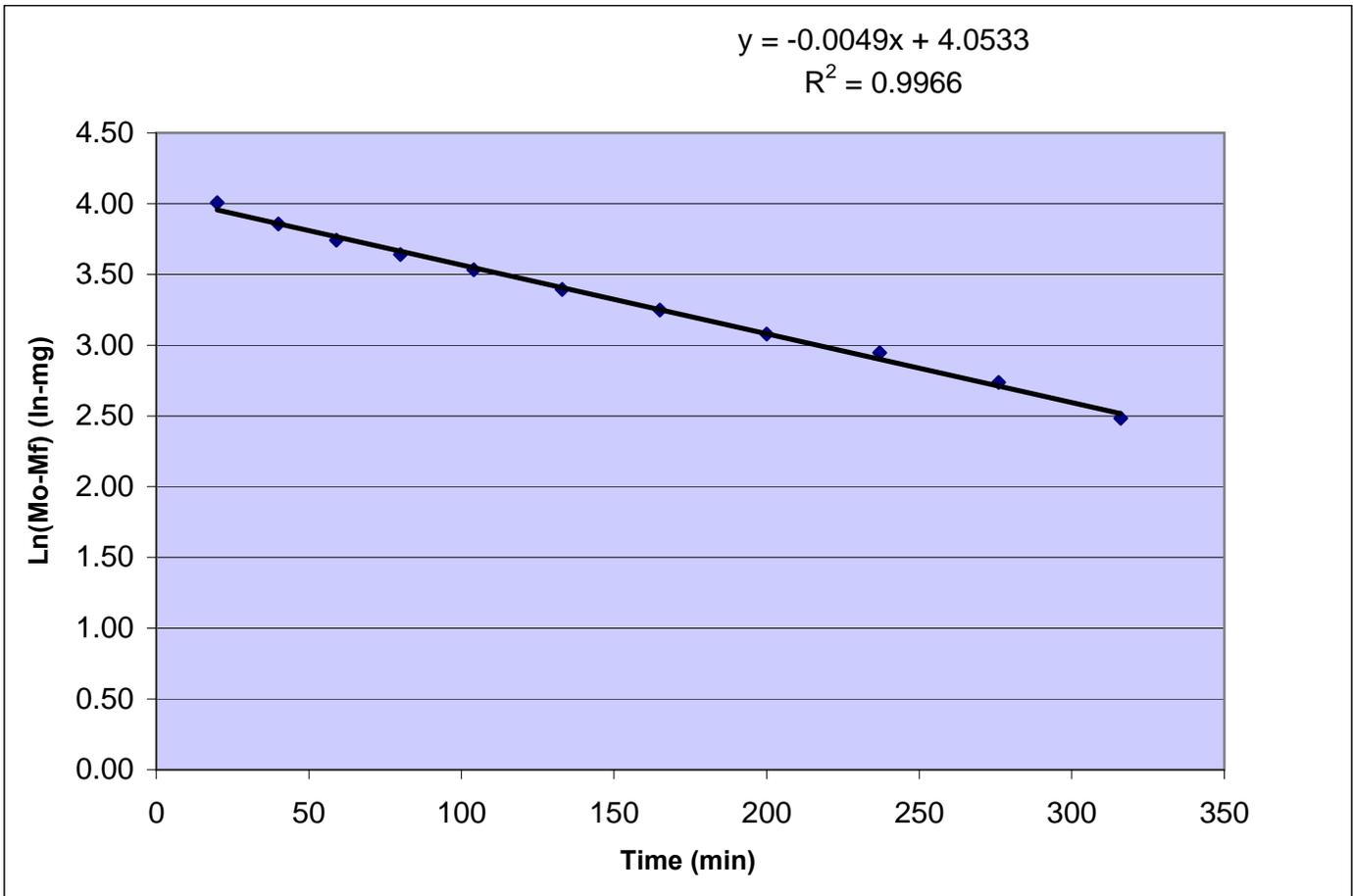
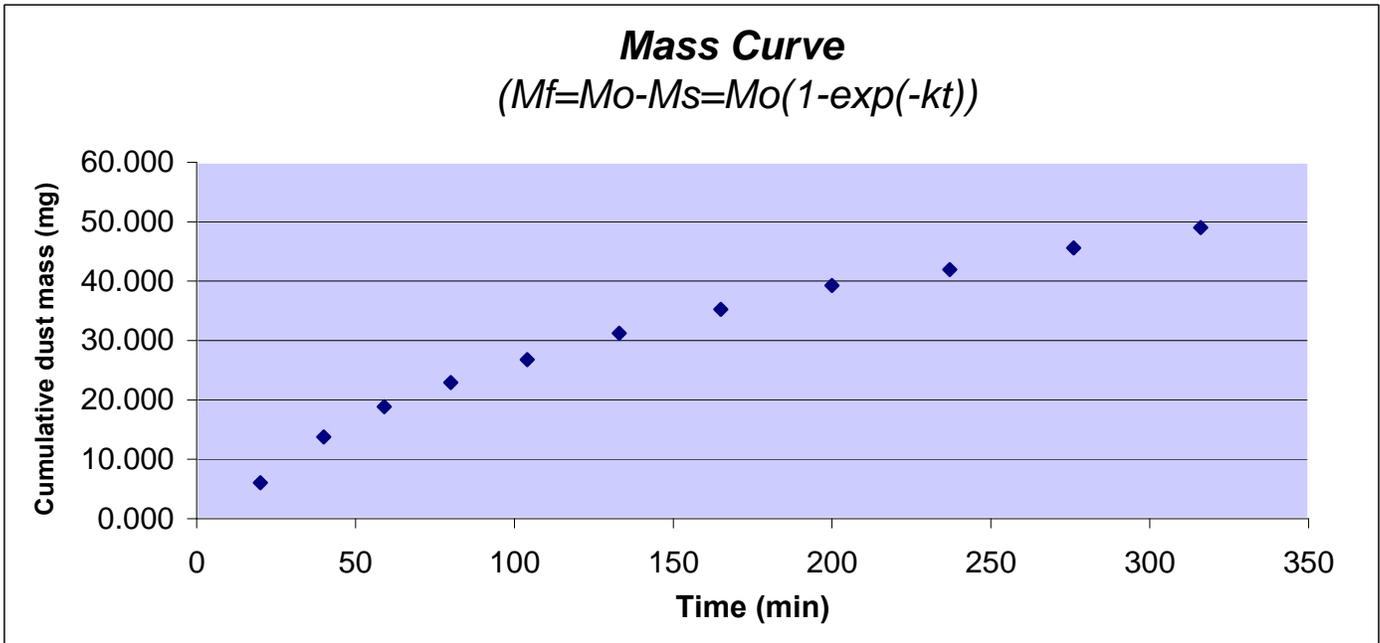
Structure Class	Min ID Level Required	Counts		Density Str/mm ²	Conc. Str/g PM10	Poisson 95 % Confidence Interval	
		Primary Str.	Total Str.			Lower Limit Str/g PM10	Upper Limit Str/g PM10
Asbestos Structures > 5um, ≤ 10um	CD/ADX	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Asbestos Structures > 5um, ≤ 10um (Chrys)	CD	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Asbestos Structures > 5um, ≤ 10um (Amph)	ADX	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Asbestos Structures >10 um (Long)	CD/ADX	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Asbestos Structures >10 um (Chrys)	CD	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Asbestos Structures >10 um (Amph)	ADX	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Total Protocol Asbestos Structures	CD/ADX	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Protocol Asbestos Structures(Chrys)	CD	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Protocol Asbestos Structures (Amph)	ADX	0	0	< 3.25	< 8.91E+06	NA	< 8.91E+06
Total Protocol Non Asbestos Structures	NAM	0	0				

Note: The concentration of asbestos and the 95% Confidence Intervals are reported on the basis of the Poissonian distribution and the Total Structure count. Structure counts above 31 may be better expressed with a Gaussian distribution. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL is not responsible for sample collection activities or analytical method limitations. Interpretation and use of results are the responsibility of the client.

Robyn Denton

Approved Signatory

EMSL Ord./sample:	091000359-0002
Client Sample ID:	GNC2-JD01C-0-DUP





EPA 540-R-97-028 -Superfund Method

**Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method
(Revision 1)**

Bench Sheet Data

Client:	Maria Barajas-Albalawi, ERM Group, Inc.				
EMSL Sample ID:	091000359-0002	GO area (mm ²):	0.013	Scope:	1-46
Customer Sample:	GNC2-JD01C-0-DUP	Grid Box :	10004: C (4-6)	Mag:	10,000
		Pore Size (micron):	0.2	Analyst(s):	K. DUNBAR
Project ID:	20092586V1 / Galleria North Sub-Area			Analysis Date:	01/28/2010

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
C4	A1	None Detected								
C4	A3	None Detected								
C4	A7	None Detected								
C4	A9	None Detected								
C4	C10	None Detected								
C4	C8	None Detected								
C4	C6	None Detected								
C4	C4	None Detected								
C4	C2	None Detected								
C4	E3	None Detected								
C4	E5	None Detected								
C4	E7	None Detected								
C4	E9	None Detected								
C4	G10	None Detected								
C4	G8	None Detected								
C4	G6	None Detected								
C4	G2	None Detected								
C4	I1	None Detected								
C4	I3	None Detected								
C4	I5	None Detected								
C4	I9	None Detected								
C5	B10	None Detected								
C5	B8	None Detected								
C5	B6	None Detected								
C5	B2	None Detected								
C5	D1	None Detected								
C5	D3	None Detected								
C5	D5	None Detected								
C5	D7	None Detected								
C5	D9	None Detected								
C5	F10	None Detected								
C5	F8	None Detected								
C5	F6	None Detected								
C5	F4	None Detected								
C5	F2	None Detected								

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EPA 540-R-97-028 -Superfund Method

Draft Modified Elutriator Method for the Determination of Asbestos in Soils and Bulk Material Method
(Revision 1)

Bench Sheet Data

EMSL Sample ID:	091000359-0002
Customer Sample:	GNC2-JD01C-0-DUP

Analyzed By:	K. DUNBAR
Analysis Date:	01/28/2010

Grid ID	Grid Opening	Structure Type	Structure Number		Dimensions (µm)		Level of ID	Mineral Type	Image Number	Structure Comments
			Primary	Total	Length	Width				
C5	H1	None Detected								
C5	H3	None Detected								
C5	H5	None Detected								
C5	H7	None Detected								
C5	H9	None Detected								
C5	J10	None Detected								
C5	J8	None Detected								
C5	J6	None Detected								
C5	J4	None Detected								
C5	J2	None Detected								
C6	I1	None Detected								
C6	I3	None Detected								
C6	I5	None Detected								
C6	I7	None Detected								
C6	I9	None Detected								
C6	G10	None Detected								
C6	G8	None Detected								
C6	G6	None Detected								
C6	G4	None Detected								
C6	G2	None Detected								
C6	E1	None Detected								
C6	E3	None Detected								
C6	E5	None Detected								
C6	E7	None Detected								
C6	E9	None Detected								
C6	C10	None Detected								
C6	C8	None Detected								
C6	C6	None Detected								
C6	C4	None Detected								
C6	C2	None Detected								
C6	B10	None Detected								
C6	B3	None Detected								
C6	B5	None Detected								
C6	B7	None Detected								
C6	B9	None Detected								
C6	A2	None Detected								

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