NYC 9/11 Public Portal Document

EMSL Analytical, Inc.
107 Haddon Ave., Westmont, NJ 08108

Order ID:040305286

Attn:	Andrew/ M.N. Khan JLC Environmental Consultants, Inc. 200 Park Ave South, Suite 1001 New York, NY 10003	Customer ID:	JLCC50
		Customer PO:	
		Date Received:	04/05/03 12:23 AM
Fax:	212-420-6092	EMSL Order:	040305286
Project:	#03-2744/NYCDEP—114 Liberty ST	EMSL Project ID:	
Report Date:	04/14/03	Date Analyzed:	04/14/03

Silica, Crystalline Analysis Performed X-Ray Diffraction (XRD)
Modified NIOSH Method 7500, Issue 3, 1/15/98

				Respirable Dust		*Airborne Silica*			
Sample ID	**Identification**	**Particle ID**	**Volume (L)**	**Sample Weight (mg)**	**Sample Conc. (mg/m³)**	**Silica Weight (mg)**	**Silica Conc. (mg/m³)**	**% Silica**	**Analytical Sensitivity (mg/m³)**
MB13687-1	12TH FLR SOUTH	Quartz	408	<0.002	N/A	<0.0045	<0.0110	N/A	0.0110
MB13687-2	11TH FLR DINING	Quartz	408	<0.002	N/A	0.0090	0.0221	N/A	0.0110
MB13687-3	10TH FLR DINING	Quartz	408	0.601	1.4730	0.0080	0.0196	1.3	0.0110
MB13687-4	9TH FLR DINING	Quartz	408	0.014	0.0343	0.0090	0.0221	64.3	0.0110
MB13687-5	8TH FLR DINING	Quartz	408	<0.002	N/A	<0.0045	<0.0110	N/A	0.0110
MB13687-6	7TH FLR DINING	Quartz	408	0.010	0.0245	<0.0045	<0.0110	45.0	0.0110
MB13687-7	6TH FLR DINING	Quartz	408	0.090	0.2206	<0.0045	<0.0110	5.0	0.0110
MB13687-8	5TH FLR DINING	Quartz	408	<0.002	N/A	<0.0045	<0.0110	N/A	0.0110
MB13687-9	4TH FLR KITCHEN	Quartz	408	0.115	0.2819	<0.0045	<0.0110	3.9	0.0110

Disclaimer: The laboratory can only verify the concentration of silica on the filter and not the final concentration due to data obtained by non-laboratory personnel. **In the absence of a bulk dust sample, neither the specific forms of crystalline silica nor the interfering species can be fully determined.** Hence, the amount for each phase, if anticipated, will be analyzed based on primary, secondary, and/or tertiary peak data with comparison to calibration curves of known standards. It should be noted that air samples are meant for only quantifying silica (or a mineral phase) which must first be identified from a bulk dust sample. "<" means less than the stated value. The lowest reportable value is equivalent to the Analytical Sensitivity that is calculated from the lowest reproducible amount of specific mineral detectable by the instrument.

Anant Samudra, Ph.D.
Analyst

Stephen Siegel, CIH- Lab Manager
Or other approved signatory

AIHA Accredited - Laboratory ID #100194

CITY_21MC100_009482578

NYC-WTC_000433844

NYC 9/11 Public Portal Document

EMSL Analytical, Inc.
107 Haddon Ave., Westmont, NJ 08108

Order ID:040305286

Attn:	Andrew/ M.N. Khan JLC Environmental Consultants, Inc. 200 Park Ave South, Suite 1001 New York, NY 10003	Customer ID: Customer PO: Date Received:	JLCC50 04/05/03 12:23 AM
Fax:	212-420-6092	EMSL Order:	040305286
Project:	#03-2744/NYCDEP—114 Liberty ST	EMSL Project ID:	
Report Date:	04/14/03	Date Analyzed:	04/14/03

Silica, Crystalline Analysis Performed X-Ray Diffraction (XRD)
Modified NIOSH Method 7500, Issue 3, 1/15/98

				Respirable Dust		*Airborne Silica*			
Sample ID	**Identification**	**Particle ID**	**Volume (L)**	**Sample Weight (mg)**	**Sample Conc. (mg/m³)**	**Silica Weight (mg)**	**Silica Conc. (mg/m³)**	**% Silica**	**Analytical Sensitivity (mg/m³)**
MB13687-10	3RD FLR APARTMENT KITCHEN	Quartz	408	0.143	0.3505	<0.0045	<0.0110	3.1	0.0110

Disclaimer: The laboratory can only verify the concentration of silica on the filter and not the final concentration due to data obtained by non-laboratory personnel. **In the absence of a bulk dust sample, neither the specific forms of crystalline silica nor the interfering species can be fully determined.** Hence, the amount for each phase, if anticipated, will be analyzed based on primary, secondary, and/or tertiary peak data with comparison to calibration curves of known standards. It should be noted that air samples are meant for only quantifying silica (or a mineral phase) which must first be identified from a bulk dust sample. "<" means less than the stated value. The lowest reportable value is equivalent to the Analytical Sensitivity that is calculated from the lowest reproducible amount of specific mineral detectable by the instrument.

Anant Samudra, Ph.D.
Analyst

Stephen Siegel, CIH- Lab Manager
Or other approved signatory

AIHA Accredited - Laboratory ID #100194

CITY_21MC100_009482579

NYC-WTC_000433845

NYC 9/11 Public Portal Document

EMSL Analytical, Inc.
107 Haddon Ave., Westmont, NJ 08108

Order ID:040305286

Attn:	Andrew/ M.N. Khan JLC Environmental Consultants, Inc. 200 Park Ave South, Suite 1001 New York, NY 10003	Customer ID:	JLCC50
		Customer PO:	
		Date Received:	04/05/03 12:23 AM
Fax:	212-420-6092	EMSL Order:	040305286
Project:	#03-2744/NYCDEP—114 Liberty ST	EMSL Project ID:	
Report Date:	04/14/03	Date Analyzed:	04/14/03

Silica, Crystalline Analysis Performed X-Ray Diffraction (XRD)
Modified NIOSH Method 7500, Issue 3, 1/15/98

				Respirable Dust		*Airborne Silica*			
Sample ID	**Identification**	**Particle ID**	**Volume (L)**	**Sample Weight (mg)**	**Sample Conc. (mg/m^3)**	**Silica Weight (mg)**	**Silica Conc. (mg/m^3)**	**% Silica**	**Analytical Sensitivity (mg/m^3)**
MB13687-3QC	10TH FLR DINING	Quartz	408	0.601	1.4730	0.0070	0.0172	1.2	0.0110
STANDARD	0.030Q	Quartz	N/A	N/A	N/A	0.025	N/A	N/A	N/A
LAB BLANK		Quartz	0	N/A	N/A	<0.0045	N/A	N/A	N/A

Notes:

1. Bulk sample not submitted with sample set.
2. Discernable field blank not submitted with sample set.
3. Results are not field blank corrected.

Disclaimer: The laboratory can only verify the concentration of silica on the filter and not the final concentration due to data obtained by non-laboratory personnel. **In the absence of a bulk dust sample, neither the specific forms of crystalline silica nor the interfering species can be fully determined.** Hence, the amount for each phase, if anticipated, will be analyzed based on primary, secondary, and/or tertiary peak data with comparison to calibration curves of known standards. It should be noted that air samples are meant for only quantifying silica (or a mineral phase) which must first be identified from a bulk dust sample. "<" means less than the stated value. The lowest reportable value is equivalent to the Analytical Sensitivity that is calculated from the lowest reproducible amount of specific mineral detectable by the instrument.

Anant Samudra, Ph.D.
Analyst

Stephen Siegel, CIH, Lab Manager
Or other approved signatory

AIHA Accredited - Laboratory ID #100194

CITY_21MC100_009482580

NYC-WTC_000433846