NYC 9/11 Public Portal Document

EMSL Analytical, Inc.- 107 Haddon Avenue
Westmont, NJ. 08108
(856) 858-4800

12/7/01

Attention: *U.S.EPA*
HQ Financial Services Division
1200 Pennsylvania Avenue
NW Maildrop 2734R
Washington, DC. 20460

Project: Residential Sampling
Ref. Number: 360100619 Revision 120201

Silica Analysis Performed by Method NIOSH 7500
Crystalline Particle Analysis Performed by
X-Ray Diffraction (XRD)

				Nuisance 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)**
[R]RF-0-1		Quartz	813	0.019	0.0234	<0.004	<AS	N/A	0.0049
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				0.010	0.0123		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]TF-0-1		Quartz	835	3.965	4.7464	<0.004	<AS	N/A	0.0048
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				0.006	0.0072		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]IF-0-1		Quartz	830	0.157	0.1891	<0.004	<AS	N/A	0.0048
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				<0.004	<AS		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A

John Newton — Analyst

21 November, 01 — Date of Analysis

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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)**
[R]RF-C-1		Quartz	809	0.039	0.0482	<0.004	<AS	N/A	0.0049
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				0.068	0.0837		0.0246
		Gypsum				0.008	0.0099		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]TF-C-1		Quartz	861	2.977	3.4562	<0.004	<AS	N/A	0.0046
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				<0.004	<AS		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]IF-C-1		Quartz	882	0.053	0.0601	<0.004	<AS	N/A	0.0045
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				0.005	0.0057		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A

John Newton
Analyst

21 November, 01
Date of Analysis

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AIHA Accredited - Laboratory ID #100192

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SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

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Crystalline Particle Analysis Performed by
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Sample ID	Identification	Particle ID	Volume (L)	*Nuisance Dust* Sample Weight (mg)	*Nuisance Dust* Sample Conc. (mg/m³)	*Airborne Silica* Silica Weight (mg)	*Airborne Silica* Silica Conc. (mg/m³)	*Airborne Silica* % Silica	*Airborne Silica* Analytical Sensitivity (mg/m³)
[R]RF-R1-1		Quartz	520	0.011	0.0134	<0.004	<AS	N/A	0.0049
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				0.005	0.0061		0.0049
		Portland/ Lime				0.056	0.0683		0.0246
		Gypsum				0.008	0.0097		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]TF-R1-1		Quartz	838	2.468	2.9419	<0.004	<AS	N/A	0.0048
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				0.012	0.0143		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]IF-R1-1		Quartz	818	0.041	0.0501	<0.004	<AS	N/A	0.0049
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				<0.004	<AS		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A

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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)**
[R]RF-R2-1		Quartz	837	0.113	0.1349	<0.004	<AS	N/A	0.0048
		Cristobalite				<0.012	<AS		0.0143
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				<0.004	<AS		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]TF-R2-1		Quartz	822	0.004	0.0049	<0.004	<AS	N/A	0.0049
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				0.007	0.0085		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A
[R]IF-R2-1		Quartz	892	0.054	0.0605	<0.004	<AS	N/A	0.0045
		Cristobalite				<0.012	<AS		0.0148
		Tridymite				N/A	N/A		N/A
		Calcite				<0.004	<AS		0.0049
		Portland/ Lime				<0.02	<AS		0.0246
		Gypsum				<0.004	<AS		0.0049
		Mica				<0.011	<AS		0.0135
		Halite				<0.006	<AS		0.0074
		Fibrous Glass				N/A	N/A		N/A

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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)**
[R]BRF-A-1		Quartz	0	A	N/A	<0.004			
		Cristobalite				<0.012			
		Tridymite				N/A			
		Calcite				<0.004			
		Portland/ Lime				<0.02			
		Gypsum				<0.004			
		Mica				<0.011			
		Halite				<0.006			
		Fibrous Glass				N/A			
[R]BRF-B-1		Quartz	0	0.013	N/A	<0.004			
		Cristobalite				<0.012			
		Tridymite				N/A			
		Calcite				<0.004			
		Portland/ Lime				<0.02			
		Gypsum				<0.004			
		Mica				<0.011			
		Halite				<0.006			
		Fibrous Glass				N/A			
[R]BTF-A-1		Quartz	0	A	N/A	<0.004			
		Cristobalite				<0.012			
		Tridymite				N/A			
		Calcite				<0.004			
		Portland/ Lime				<0.02			
		Gypsum				<0.004			
		Mica				<0.011			
		Halite				<0.006			
		Fibrous Glass				N/A			

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[R]BIF-A-1		Quartz	0	A	N/A	<0.004			
		Cristobalite				<0.012			
		Tridymite				N/A			
		Calcite				<0.004			
		Portland/ Lime				<0.02			
		Gypsum				<0.004			
		Mica				<0.011			
		Halite				<0.006			
		Fibrous Glass				N/A			
[R]BIF-B-1		Quartz	0	A	N/A	<0.004			
		Cristobalite				<0.012			
		Tridymite				N/A			
		Calcite				<0.004			
		Portland/ Lime				<0.02			
		Gypsum				<0.004			
		Mica				<0.011			
		Halite				<0.006			
		Fibrous Glass				N/A			
[R]RF-0-2		Quartz	0	0.103	N/A	<0.004			
		Cristobalite				<0.012			
		Tridymite				N/A			
		Calcite				<0.004			
		Portland/ Lime				<0.02			
		Gypsum				<0.004			
		Mica				<0.011			
		Halite				<0.006			
		Fibrous Glass				N/A			

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