



FACSIMILE TRANSMITTAL SHEET	
TO	FROM
NYC DEP	Susan Donahue
COMPANY	DATE
Asbestos Control	2/20/02
FAX NUMBER	TOTAL NO. OF PAGES INCLUDING COVER
718-555-3744	14
PHONE NUMBER	RE:
	156 William Asbestos Testing

☐ URGENT
 ☐ FOR REVIEW
 ☐ PLEASE COMMENT
 ☐ PLEASE RELPY
 ☐ PLEASE RECYCLE

NOTE/COMMENT:

COLDEN
CORPORATION

Occupational Health, Safety &
Environmental Consultants

Ms. Susan Donahue
C & K Properties
Pier 40, Suite 100
West Street at W. Houston
New York, NY 10014

October 24, 2001

Via Fax: (212) 604-0057

Re: Air Quality Sampling at 156 Williams Street, New York, NY 10038
Colden project 01223

Dear Ms. Donahue:

This letter and attachments represent our report for the referenced project.

Rye Van Deusen of Colden conducted air sampling for asbestos at 156 Williams Street on October 9 and 11, 2001. The purpose of the sample was to address concerns regarding contaminants potentially released from the World Trade Center collapse and recovery operations.

Background

Colden Corporation has reviewed statements and results published by government agencies including EPA, OSHA, NYC DEP and NYS DEP. These agencies have conducted extensive sampling at and surrounding the World Trade Center site. Attached is a summary of such information that has been prepared by Colden.

The agency information states that there is not a significant threat to the public. However, during the first two weeks following the incident, asbestos was detected in the fallout debris and was found to exceed a recognized standard in air samples outside of the immediate recovery zone. Since October 3, 2001, daily air sampling conducted by the EPA for asbestos has indicated no overexposures to the public. We do not expect asbestos to be over recognized standards at 156 Williams Street, but have recommended sampling for verification.

Methods

Four stationary air samples were collected on each floor controlled by C & K Properties - floors 2, 3, 4 and 6. Additionally, sampling was conducted in the first floor lobby and basement storage area.

Samples were collected and analyzed in accordance with National Institute for Occupational Safety and Health (NIOSH) Method 7400. This method involves drawing a known volume of air

Robert Morris Building • 100 North 17th Street, 9th Floor • Philadelphia, PA 19103
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Results

Results ranged from less than 0.003 to 0.008 total fibers per cubic centimeter of air (f/cc). These results are below the New York State Department of Labor and New York City Department of Environmental Protection action and clearance level of 0.01 f/cc.

It is important to note that the sample analysis method used quantifies all fibers visible under the microscope and does not distinguish asbestos from non-asbestos fiber types. Therefore, actual asbestos fiber concentrations could have been lower than reported. Although not included in our contract workscope for this project, representative samples were analyzed by transmission electron microscopy and no asbestos fibers were identified.

Laboratory reports in support of this project are attached. Please contact me if you have any questions.

Sincerely,

Colden Corporation

A handwritten signature in black ink, appearing to read "Chris Wesley", written over the printed name.

Christopher J. Wesley, CIH
Project Manager

Ms. Susan Donahue
October 24, 2001

Attachment A - Review of Available Information

Summary of information made available from government agencies regarding health effects and exposures associated with the World Trade Center incident.

Prepared October 15, 2001

Colden Corporation

The following agencies have been involved:

- EPA
- OSHA
- New York City Department of Health
- New York State Department of Health

EPA

The EPA seems to be taking the lead on assessing health risks to the general public. They are conducting daily monitoring and have issued summary statements.

Statements:

- "EPA's air monitoring near the WTC has not detected any pollutants from the fire and building collapses that are of concern to the general public." (9/18).
- "Data confirms no significant public health risks." (9/30).
- "EPA and OSHA have taken hundreds of samples to monitor environmental conditions since September 11 and have found no evidence of any significant public health hazard to residences, visitor or workers beyond the immediate WTC area." (9/30).

Sampling:

EPA is currently collecting data from 17 fixed monitors in and around ground zero and is using portable sampling equipment to collect data from a range of locations. Sampling is being conducted daily. Results summaries are being posted on EPA's web site. The most recent results available are from 10/11/01.

Table 1 lists the contaminants that EPA has addressed and summarizes results.

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OSHA

OSHA has been providing assistance in protecting the health of workers involved in recovery and emergency response. Most if not all of their data has been collected in the immediate vicinity of the debris pile. Therefore, contaminant levels downwind are expected to be much lower. It is also important to note that OSHA's conclusions are usually based on occupational exposure limits. More stringent limits are typically applied to the general public.

Statements:

Workers on the site should take appropriate steps to protect themselves, but there is not threat to the public.

Our samples indicate there is no evidence of significant levels of airborne asbestos or other contaminants beyond the disaster site itself.

Sampling:

- Carbon monoxide: 15 samples ranged from 1 – 28 ppm. Exposure to workers on the debris pile well below the OSHA standard.
- Silica: 92 samples. Overwhelming majority have no detectable levels of silica. The highest result was twice the OSHA limit. The next highest level was less than half the OSHA limit.
- Freon: Containers in building found intact. No need to sample.
- Metals: 4 of 163 samples exceeded limits for Fe, Pb, Cd but all were personal samples on workers conducting torch cutting.
- VOCs: 70 samples. Results in plume elevated, but personal and area sampling results below OSHA limits. Analyzed for VOCs such as:
 - Acrylonitrile
 - Benzene
 - Aldehydes such as Formaldehyde
 - Styrene
 - Xylene
 - Vinyl chloride

New York City Department of Health

Has issued some statements and information, but defers to EPA for data. Public health advisory issued. Recommends:

- Avoid strenuous activity
- Avoid sweeping or other outdoor maintenance
- Keep dust out of house
- Keep windows closed

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October 24, 2001

- Set AC to recirculate air.
- Clean or change filter frequently.
- Mop instead of dry sweep

Says that pregnant women and young children do not need to take additional precautions.

New York State Department of Health

- \$8.5 million allocated for asthma initiative. Initiatives will be designed to address any potential respiratory impacts of the WTC tragedy. Initiative to include:
 - Disease surveillance
 - Environmental monitoring (data to be linked to ER visits, hospitalizations among residents of the WTC-impacted areas)
- Issued respiratory disease symptoms fact sheet for general public.
- Recommends measures to prevent dust from entering house (similar to NYC DOH recommendations).
- Recommends that people with asthma, other lung conditions, and heart disease see their healthcare provider.
- Statements:
 - People will probably not have long-term health effects because exposure will be for only a short period of time.
 - Studies have shown that people who suffered long-term health effects from breathing smoke or dust had been exposed for years.

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**Table 1. Summary of Sampling Data from the EPA
Associated with WTC incident.
Colden Corporation**

Contaminant (all air samples unless otherwise noted)	Extent of sampling	Sampling Dates	Result
Asbestos	4 - 50 samples have been collected daily (n=255).	10/3 - 11	All results since 10/3 below AHERA standard of 70 s/cc.
Asbestos	442 samples collected.	Through 9/30	27 of 442 above AHERA limit.
Asbestos Bulk	177 samples through 9/30.	Through 9/30	48 of 177 above 1%
PCBs	10 samples in area of emergency response activities.	9/27	Not detected on 8 of 10 samples. The 2 measurable results were below level of concern.
PCB Wipes	15 samples total inside 3 lower Manhattan Schools.	9/28	No PCBs detected in any samples.
PM 2.5	At Pace University, Manhattan Community College, Battery Park	9/26 to 10/2, 4, 5, 6, 7, 8.	All 24-hour averages below NAAQS (65 ug/m ³).
Metals at GX (Pb, Fe, Zn, Cu, Be) pre 9	Not specified	Through 9/30	Not exceeding OSHA limits.
Metals (wipes)	8 samples from Manhattan Community College	9/28	One exceeded HUD criteria for lead (50 ug/s). Other metals at low concentrations
Metals (wipes)	7 samples from Stuyvesant High School.	9/28	Lead below HUD criteria, other metals detected at low concentrations.
Dioxin	10 samples from 4 stations in or around GZ	9/16	All samples at or above EPA action level. Levels expected to diminish as soon as fires are extinguished. No Follow-Up Samples Found.
VOCs	Not specified	10/3-10	Benzene above OSHA limit in several samples from plume/debris pile. Not detected at 4+ perimeter locations beyond GZ on different days. Overall readings observed to be decreasing as of 10/10.
VOCs	36 samples around GZ	Through 9/30	Several above OSHA limits, expected to decline when fires are out.

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Cautionary Statement

Colden Corporation has experience in evaluating exposures in a wide range of environments. Typically, we have a well-characterized process where we know what chemicals are in use and how they are being used. This knowledge facilitates targeting of sampling parameters and conducting risk assessment. The list of potential products generated from combustion of building materials and furnishings can be very large and complex – literally thousands of chemicals can be generated.

The composition of the smoke from a single fire is expected to be highly variable and to change based on many factors including:

- Temperature.
- Amount of oxygen available.
- Wind speed and direction.
- Distance from source.
- Materials that are being consumed at a given time.

Many of the chemicals that can be generated during a fire are not well studied regarding their health effects. Additionally, the health effects of the combined exposure to many chemicals are even more elusive. It is therefore difficult to assess the risk of illness from smoke inhalation. In general, we recommend that exposure to combustion products be minimized to the extent practical.

Ms. Susan Donahue
October 24, 2001

Attachment B
Laboratory Reports

02/20/2002 05:48

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Page 1 of 1

SciLab Job #: 201101881

Client Name: Colden Corporation

Phase Contrast Microscopy (PCM) Fiber Results

01223; C&K Properties; 136 Williams Street/ Ambient

SciLab Sample #	Client Sample # / Location	Date Collected	Flow Rate (liters/min)	Duration (min)	Air Filtered (liters)	Fibers	Fiber Density (Fibers/cm ²)	Fibers Conc. (Fibers/cc)	TWA
01	01223-01 6th Floor Human Resources Cubicles "D" Fan	10/9/01	9.8	103	1009	8.5	10.83	0.004	
02	01223-02 6th Floor/ Railway Outside Commissioners Office "A" Fan	10/9/01	9.3	108	1004	7	8.92	0.003	
03	01223-03 6th Floor Payroll Unit Cubicles "A" Fan	10/9/01	9.3	108	1004	10	12.74	0.005	
04	01223-04 6th Floor Contracts Cubicles "B-1" "B-2" Fan	10/9/01	9.8	102	1000	4	5.10	<0.003	
05	01223-05 4th Floor Program Operations Cubicles "A" Fan	10/9/01	9.3	108	1004	2.5	3.18	<0.003	
06	01223-06 4th Floor Library Department Cubicles "A" Fan	10/9/01	9.3	108	1004	5	6.37	<0.003	
07	01223-07 4th Floor/ Beacon Unit Cubicles "B-1" "B-2" Fan	10/9/01	9.3	108	1004	4	5.10	<0.003	
08	01223-08 4th Floor/ Youth Services Cubicles "B-1" "B-2" Fan	10/9/01	9.3	108	1004	2.5	3.18	<0.003	
09	01223-09 Field Blank	10/9/01	0	0	0	0.5	0.64	Field notes: /	
10	01223-10 Field Blank	10/9/01	0	0	0	0.5	0.64	Field notes: /	

Reporting Notes:

(1) Fibers cannot be calculated for samples (or blanks) with no air volume.
 analyzed by: John Kambicki Date Analyzed: 10/10/01

QUALITYSD = no asbestos detected; PCA = not analyzed; NYSLAP Lab #273544-8; New York samples (NYSDOH L3AP Lab #11480); National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. AUSA # 022843.

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SCIENTIFIC LABS

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SciLab Job #: 201102052

Client Name: Colden Corporation

Phase Contrast Microscopy (PCM) Fiber Results

01223; C & K Properties; 156 Williams Street, NY, NY / Dept. of Youth & Community Development, City of NY, 3rd&2nd Flrs, Basement Storage Rm

SciLab Sample #	Client Sample # / Location	Date Collected	Flow Rate (liters/min.)	Duration (min.)	Air Filtered (liters)	Fibers	Fiber Density (Fibers/mm ²)	Fibers Conc. (Fibers/cc)	TWA
01	01223-11 3rd Floor, Administrative Services Area Cubicles, B-1/B-2 Fan	10/11/01	9.6	107	1027	100	15.29	0.006	
02	01223-12 3rd Floor, Public Affairs Reception Area, A-Fan	10/11/01	9.3	108	1004	100	20.38	0.008	
03	01223-13 3rd Floor, Legal Advisory Area Cubicles, A-Fan	10/11/01	9.3	108	1004	100	19.11	0.007	
04	01223-14 3rd Floor, Information Technology Cubicles, D-Fan	10/11/01	9.3	108	1004	100	10.19	0.004	
05	01223-15 2nd Floor, Procurement Department Cubicles, D-Fan	10/11/01	5.4	191	1031	100	11.46	0.004	
06	01223-16 2nd Floor, YES Commission Cubicles, C-Fan	10/11/01	5.4	191	1031	100	8.92	0.003	
07	01223-17 2nd Floor, Hallway Outside Conference Rooms, C-Fan	10/11/01	5.4	191	1021	100	3.82	<0.003	
08	01223-18 2nd Floor, PRPD & Legal Area Cubicles, C-Fan	10/11/01	5.4	191	1031	100	7.64	0.003	
09	01223-19 Lobby (1st Floor), By Building Directory in Hall, Lobby Fan Unit	10/11/01	5.4	189	1021	100	20.38	0.008	
10	01223-20 Basement, D)CD, Storage Room-By Door to North Store Room, C-Fan	10/11/01	5.4	190	1026	100	3.82	<0.003	

SciLab Job #: 201102852

Client Name: Colden Corporation

Phase Contrast Microscopy (PCM) Fiber Results

01223; C & K Properties; 156 Williams Street, NY, NY / Dept. of Youth & Community Development, City of NY, 3rd&2ndFlrs, Basement Storage Rm

SciLab Sample #	Client Sample # / Location	Date Collected	Flow Rate (liters/min.)	Duration (min.)	Air Filtered (liters)	Fibers Fields	Fibers Density (Fibers/cm ²)	Fibers Conc. (Fibers/cc)	TWA
11	01223-21	10/11/01	0	0	0	100	0.5	0.64	Federates: 1
12	01223-22	10/11/01	0	0	0	100	0.5	0.64	Federates: 1

Reporting Notes:

(1) Filters/covers cannot be calibrated for samples (or blanks) with no air volume.

Analyzed by: Fred Cordani *fred* Date Analyzed: 10/11/01

NIADMSD = an asbestos detector. NA = not analyzed; NWLAP Lab #200404-0, New York samples (NIADMSD NWLAP Lab # 11-489; National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. AUSA # 102841

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SCIENTIFIC LABS

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SciLab Job #: 201101029

Client Name: Colden Corporation

Table I

Summary of Transmission Electron Microscopy (TEM) Results for Asbestos (air)

01223; C & K Properties; 156 Williams Street, New York, NY / Ambient

SciLab Sample #	Client Sample #	Dilution Factor	Air Filtered (liters)	Area Analyzed (sq. mm.)	Analytical Sensitivity (structures/air)	Asbestos Structures Detected (Millions)		Structure Density (structures/mm.)		Structure Concentration (structures/air)		Type of Asbestos
						0.5-5.0	>5.0	Total	>5.0	Total	>5.0	
01	01223-01		1009	.08	0.0048	1.0	0.0	1.0	<12.5	12.5	<0.0048	chrysotile
	6th Floor, Human Resources Office D Fan											
02	01223-02		1004	.08	0.0048	41.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	6th Floor, Hallway Outside Commissioner's Office A Fan											
03	01223-03		1004	.08	0.0048	0.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	6th Floor, Pay Roll Unit Cubicles A Fan											
04	01223-04		1000	.08	0.0048	0.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	6th Floor, Contracts Cubicles B-1/B-2 Fan											
05	01223-05		1004	.08	0.0048	0.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	4th Floor, Program Operations Cubicles D Fan											
06	01223-06		1004	.08	0.0048	0.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	4th Floor, Literary Department Cubicles A Fan											
07	01223-07		1004	.08	0.0048	0.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	4th Floor, Benson Unit Cubicles B-1/B-2 Fan											
08	01223-08		1004	.08	0.0048	0.0	0.0	0.0	<12.5	<12.5	<0.0048	NSD
	4th Floor, Youth Service Cubicles B-1/B-2 A											
09**	01223-09											
	Blank											
10**	01223-10											
	Blank											

* concentration represented by the detection of 1 structure

** not analyzed

NSD: No Asbestos Structures Detected

Reviewed By:

Analyzed By:

Lance Tuckerskye

DATE

10/10/01

NYLAB: 200546-0

02/28/2002 05:48 2129240844
Sep-26-01 02:57P

CKPROPERTIES

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B. Link
CPN: 01204
Asbestos Sampling Report
09/18/01Table 6.0
09-17-01 Bulk Dust Asbestos Sample Results - 156 Williams Street

Sample Location	Sample ID	Comments	Asbestos Analysis Result
12 th Floor by Office 1217	B-01	Light Dust on Window Sill and Horizontal Surfaces	Less Than 1 %
5 th Floor Office 507	B-02	Light Dust on Window Sill and Horizontal Surfaces	Less Than 1 %
5 th Floor Office 517	B-03	Light Dust on Window Sill and Horizontal Surfaces	Less Than 1 %

Field data sheets, chain of custody records and laboratory reports in support of this data are attached.

Please contact us if you have any questions regarding the content of this report.

Sincerely,
Colden Corporation

David R. de Lalla
President

Greg W. Richey, CIH, CSP
Principal

Attachment: Laboratory Reports, Field Data Sheets

*** Important Note***

Pace University does not certify the correctness of any information provided in this letter dated September 18, 2001 from Colden Corporation and is not liable for any actions taken or not taken by any persons including, without limitation, building owners, landlords or tenants, with respect to any information provided therein.



September 25, 2001

Michelle Berman
DYCD
156 William Street
New York, NY 10038

Dear Michelle Berman:

As per your request, I am pleased to detail the following with reference to the readiness of the building for use by your employees and some of the efforts undertaken by management in this regard.

At the time of the incident, I was in the building and immediately shut off the intake fans and closed the air dampers in an effort to prevent any of the dust from entering the building. We evacuated the building and advised occupants to walk toward the east.

The air dampers remained closed until Monday, September 17th, when Con Ed restored the electric to the building. At that time, the air intakes and the interior of the plenums were thoroughly cleaned. We have ordered new air filters and will change them when they arrive. Upon inspection, there were no visible signs of any of the exterior dust penetrating the dampers and collecting in the filters, however, they were due to be changed next month.

Con Ed also returned the steam service by Thursday and we were able to provide air conditioning as well as fresh air.

The water was turned on and all pipes have been flushed to bring fresh water to the point of use. We have no outside water tank so water contamination has not been a concern.

One of our tenants in the building performed air quality testing and has provided me with verbal results that state there is no asbestos in the air and the air quality is good. We will be obtaining a copy of their report and will be happy to make it available at that time.

Some dust was collected in the lobby area from the doors opening for people to exit. This was cleaned as soon as power returned on Monday. Our porter staff was brought in for an extra five hours on their first day returning to the facility in order to provide sufficient time for the cleaning to be done properly. There was a porter and an engineer on around the clock for the past two weeks to assist the local utilities in their efforts. We



are still working with Verizon to install fiber optic cable to allow phone service to return to normal.

It is my understanding that the EPA is monitoring the air quality outside the building and we would be informed if the air quality were unsafe. The fact that we have access to the area verifies that the air quality is safe.

I hope this answers your concerns. Please contact me if you require any additional information.

Yours truly,

A handwritten signature in black ink, appearing to read "Susan Donahue".

Susan Donahue
Director of Real Estate Operations

Oct-01-01 02:15P C&K Prop/Pier 40 Oper LLC 212 604 0057
 Sep-26-01 02:57P

P.04
 P.05



B. Link
 CPN: 01204
 Asbestos Sampling Report
 09/18/01

Table 3.0
 09-17-01 Asbestos Air Sample Results - 135 Williams Street

Sample Location	Sample ID	Time of Sample	Analysis Result* NYS DOH / NYC DEP Criteria	Analysis Result* EPA Criteria
16 th Floor Apt. # 16B	01204-30	12:52 - 16:09	No Asbestos Structures Detected	
14 th Floor Apt. # 14A	01204-31	13:00 - 16:20	No Asbestos Structures Detected	
8 th Floor Apt. # 8B	01204-32	13:16 - 16:28	0.0046 Structures/cc	20 Structures/mm ²
3 rd Floor Apt. # 8B	01204-29	13:22 - 16:34	No Asbestos Structures Detected	

Table 4.0
 09-17-01 Asbestos Air Sample Results 156 Williams Street

Sample Location	Sample ID	Time of Sample	Analysis Result* NYS DOH / NYC DEP Criteria	Analysis Result* EPA Criteria
12 th Floor - Computer Sciences Office	01204-33	13:36 - 16:40	No Asbestos Structures Detected	
Outdoors - Roof Level	01204-34	13:44 - 16:44	< 0.0046 Structures/cc	40 Structures/mm ²
5 th Floor - Mr. Brodski's Office	01204-35	13:50 - 16:56	< 0.0046 Structures/cc	40 Structures/mm ²
5 th Floor - Hall Outside Room 512	01204-36	13:52 - 16:58	< 0.0046 Structures/cc	40 Structures/mm ²

- * EPA clearance criteria is 70 Structures/mm²
- * NYS DOH and NYS DEP clearance criteria is less than 0.01 s/cc for structures greater than 5 microns.

Table 5.0
 09-15-01 Bulk Dust Asbestos Sample Results - 1 Pace Plaza

Sample Location	Sample ID	Comments	Asbestos Analysis Result
Dorm Room # 1413	B-01204-01	Dust on Window Sill and Horizontal Surfaces	Less Than 1 %
Dorm Room # 1620	B-01204-02	Dust on Window Sill	Less Than 1 %
Dorm Room # 1409	B-01204-03	Dust on all Horizontal Surfaces	Less Than 1 %
Dorm Room # 1403	B-01204-03	Dust on Window Sill	Less Than 1 %

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