



PINNACLE ENVIRONMENTAL CONSULTANTS, INC.

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April 28, 2015

Mr. Brad Lehman
Safety and Environmental Compliance Specialist
Northern Kentucky University
70 Campbell Drive MA 160
Highland Heights, Kentucky 41099

Re: Pre-Renovation Asbestos Inspection Report of Callahan Hall @ Northern Kentucky University in Highland Heights, Kentucky
Pinnacle PN: 15HH-7009

Dear Mr. Lehman:

On March 2, 2015 and March 9 and 10, 2015, Mr. Jeff Sarver and Ms. Kati Massey, respectively, of Pinnacle Environmental Consultants, Inc. (see Attachment 1 for certifications) visited Callahan Hall located at Northern Kentucky University in Highland Heights, Kentucky per your request. The purpose of this visit was to collect bulk samples of materials suspect for containing asbestos prior to the planned renovation of the first floor for compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP). Specifically, seventy-four (74) bulk samples were collected from thirty-two (32) homogeneous areas in the planned renovation area. Analysis results show three (3) homogeneous areas were identified with asbestos content greater than one percent (>1%). Please reference the *PLM Bulk Sample Data Summary Table* in Attachment 2 for complete sample location, description and analysis information.

In flooring materials and mastics, asbestos fibers are well bound in an asphalt or vinyl matrix which masks the identification of fibers resulting in high percentage of false negative analyses of samples by PLM. As a result, bulk samples of flooring materials which indicated the absence of asbestos were submitted to a laboratory for analyses by Transmission electron microscopy (TEM) to corroborate the PLM results. For this inspection, four (4) samples was re-analyzed by TEM and found to be absent of asbestos.

Mr. Brad Lehman

April 28, 2015

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The bulk samples analyzed by TEM were prepared and analyzed using the method of Chatfield and ELAP analysis protocol (Method Reference: PLM-198.1/TEM198.4 for New York samples) by McCall & Spero Environmental, Inc. located in Louisville, Kentucky. The original laboratory report is included with this letter.

The results of the bulk sample analysis are reported in a standard written laboratory report. This report includes Pinnacle's project number, the laboratory identification number and the field number assigned to the bulk sample upon collection at the site. If a bulk sample contains more than one distinct layer of material, each layer is analyzed separately. The composition of the bulk sample is reported in percentages of asbestos (i.e., chrysotile, amosite or other) and non-asbestos (i.e., cellulose, fiberglass or other) components.

To reduce the total number of samples analyzed, the laboratory was instructed to "stop analysis" at the first sample >1% asbestos for each homogeneous area. For example, assume seven bulk samples were collected from a large homogeneous area. If the first or any subsequent sample analyzed by the laboratory identifies >1% asbestos content, there is no need to analyze the remaining samples. As specified in AHERA, one sample of a homogeneous area >1% is enough to designate the entire homogeneous area as asbestos-containing.

If a bulk sample of friable material has less than ten percent (<10%) asbestos content, the EPA recommends the sample be analyzed by the point count method reference PLM, EPA 600/R-93/116. This analytical method is a more accurate way of determining the actual asbestos percentage. For this project, no samples were analyzed using point count methods. A copy of the original laboratory report and sample chain-of-custody for PLM analysis can be found in Attachment 4.

Results and Conclusions

The locations and quantities of materials known or assumed to contain >1% asbestos can be found on the *Inventory of Asbestos-Containing Material Table* in Attachment 5 with this letter. Based on the limited access of the bulk sampling survey (i.e., nondestructive inspection), caution should be exercised during the renovation project in the event materials known or suspected to contain asbestos are exposed during the renovation work. In the event additional material suspected to contain asbestos is discovered during this project, work with the potential for disturbance should be stopped until sampling and analysis has been performed. All asbestos bulk sampling should be conducted by an asbestos abatement contractor licensed

Attachment 1
PINNACLE'S PERSONNEL CERTIFICATIONS

The InService Training Network

Asbestos Building Inspector and Management Planner Refresher Courses



Jeff Sarver

has successfully completed the Asbestos Building Inspector and Management Planner Refresher Courses and passed by at least 70% the course examinations for accreditation under Section 206 of the Toxic Substance Control Act, Title II, Provided by: The InService Training Network, Inc., 6813 Flags Center, Columbus, OH 43229 (614) 895-9323

Course Dates: April 5, 2014

Examination Date: April 5, 2014

Course Director: _____

Course Location: Cincinnati, Ohio

Kurt Varga

Expiration Date: April 5, 2015

Certificate Numbers: ITN-IR -5289 & MP-5289

The InService Training Network

Asbestos Building Inspector Initial Course



Kati Massey

has successfully completed the Asbestos Building Inspector Initial Course and passed by at least 70% the course examination for accreditation under Section 206 of the Toxic Substance Control Act, Title II, and Indiana 326 IAC 18-2 Provided by: The InService Training Network, Inc., 6813 Flags Center, Columbus, OH 43229 (614) 895-9323

Course Dates: January 12 - 14, 2015

Examination Date: January 14, 2015

Course Director: 
Kurt Varga

Course Location: Columbus, Ohio

Expiration Date: January 14, 2016

Certificate Number: ITN-II-1803

Attachment 2

PLM BULK SAMPLE DATA SUMMARY TABLE

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
<i>Callahan Residence Hall cont'd</i>						
RM K115: Back RM on E. ceiling	2' x 2' suspended ceiling tile with long divets	15KM806	P3125PEC.1-006	None Detected	5	Friable
Main Dining Area: SW corner	2' x 2' suspended ceiling tile with irregular sized holes	15KM807	P3125PEC.1-007	None Detected	6	Friable
Dining RM Entry: NE corner	2' x 2' suspended ceiling tile with irregular sized holes	15KM808	P3125PEC.1-008	None Detected	6	Friable
Kitchen: SW corner ceiling	2' x 2' suspended ceiling tile with smooth white vinyl covering	15KM809	P3125PEC.1-009	None Detected	7	Friable
Dishwashing RM: SW corner ceiling	2' x 2' suspended ceiling tile with smooth white vinyl covering	15KM810	P3125PEC.1-010	None Detected	7	Friable
Main Dining Area: E. Middle wall	Drywall	15KM811	P3125PEC.1-011	None Detected	8	Nonfriable
K118 Restroom: S. wall	Drywall	15KM812	P3125PEC.1-012	None Detected	8	Nonfriable
Main Dining Area: E. Middle wall	Tape/ Joint Compound	15KM813	P3125PEC.1-013	None Detected	9	Friable
K118 Restroom: S. wall	Tape/ Joint Compound	15KM814	P3125PEC.1-014	None Detected	9	Friable
Main Dining Area: E. Middle wall	Tape, Joint Compound, and Drywal (Composite)	15KM815	P3125PEC.1-015	None Detected	8/9	Friable
K118 Restroom: S. wall	Tape, Joint Compound, and Drywal (Composite)	15KM816	P3125PEC.1-016	None Detected	8/9	Friable
H103A ceiling	Plaster (top coat)	15KM817	P3125PEC.1-017	None Detected	10	Nonfriable
H103A ceiling	Plaster (base coat)	15KM818	P3125PEC.1-018	None Detected	30	Nonfriable
K102: Rm off Mech. Rm ceiling	Trowled on plaster ceiling covering	15KM822	P3125PEC.1-019	None Detected	11	Nonfriable
N. Storage Closet off K124: Mail RM	Plaster (top coat)	15KM823	P3125PEC.1-020	None Detected	10	Nonfriable
N. Storage Closet off K124: Mail RM	Plaster (base coat)	15KM824	P3125PEC.1-021	None Detected	30	Nonfriable
H102 Restroom	Plaster (top coat)	15KM825	P3125PEC.1-022	None Detected	10	Nonfriable
H102 Restroom	Plaster (base coat)	15KM826	P3125PEC.1-023	None Detected	30	Nonfriable

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
<i>Callahan Residence Hall cont'd</i>						
Dishwashing Cove: SE corner	12" x 12" Red floor tile	15KM841 (B)	P3125PEC.1-038(B)	None Detected	16	Nonfriable
Dining Rm Entry: W. closet flooring	Red unknown material	15KM842 (A)	P3125PEC.1-039(A)	None Detected	17	Nonfriable
Dining Rm Entry: W. closet flooring	Red unknown material	15KM842 (B)	P3125PEC.1-039(B)	None Detected	17	Nonfriable
Dining Rm Entry: E. closet flooring	Red unknown material	15KM843 (A)	P3125PEC.1-040(A)	None Detected	17	Nonfriable
Dining Rm Entry: E. closet flooring	Red unknown material	15KM843 (B)	P3125PEC.1-040(B)	None Detected	17	Nonfriable
H-wing Hallway: around exit door	Grey caulk	15KM844	P3125PEC.1-041	None Detected	18	Nonfriable
H-wing Hallway: around exit door	Grey caulk	15KM845	P3125PEC.1-042	None Detected	18	Nonfriable
Around Front Lobby Desk	White caulk	15KM846	P3125PEC.1-043	None Detected	19	Nonfriable
H101: TV Lounge N. window	White caulk	15KM847	P3125PEC.1-044	None Detected	19	Nonfriable
Around Front Lobby Desk	Clear caulk	15KM848	P3125PEC.1-045	None Detected	20	Nonfriable
H103: counter top	Clear caulk	15KM849	P3125PEC.1-046	None Detected	20	Nonfriable
H103A: around door frame	White bathroom caulk	15KM850	P3125PEC.1-047	None Detected	21	Nonfriable
Staff Restroom: around sink	White bathroom caulk	15KM851	P3125PEC.1-048	None Detected	21	Nonfriable
Kitchen Prep Rm: along silver entryway	Off-white caulk	15KM852	P3125PEC.1-049	None Detected	22	Nonfriable
Kitchen Prep Rm: along silver entryway	Off-white caulk	15KM853	P3125PEC.1-050	None Detected	22	Nonfriable
K114A- Storage	Off-white tape on duct	15KM854	P3125PEC.1-051	None Detected	23	Friable
K114A- Storage	Off-white tape on duct	15KM855	P3125PEC.1-052	None Detected	23	Friable
H101: TV Lounge NE corner	Grey cementitious fitting cover on pipe	15KM856	P3125PEC.1-053	None Detected	24	Friable
H103A: SW chase opening	Grey cementitious fitting cover on pipe	15KM857	P3125PEC.1-054	None Detected	24	Friable
S. end Firedoor leading to loading dock area	Fire Door Fill	15KM858	P3125PEC.1-055	20% Chrysotile	25	Friable
S. end Firedoor leading to loading dock area	Fire Door Fill	15KM859	P3125PEC.1-056	Stopped Analysis	25	Friable

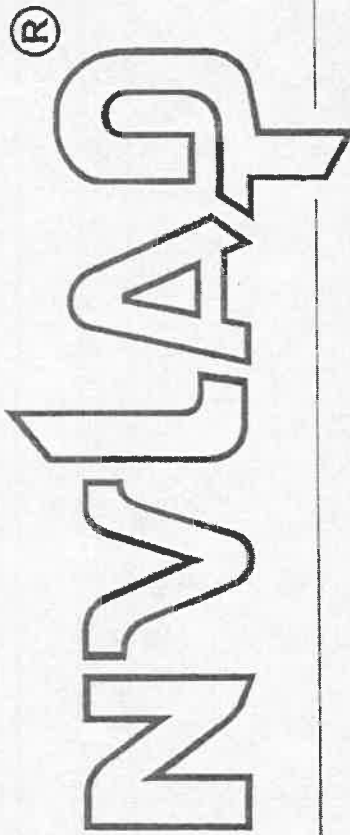
PLM BULK SAMPLE DATA SUMMARY TABLE
 NORTHERN KENTUCKY UNIVERSITY
 CALLAHAN RESIDENCE HALL
 HIGHLAND HEIGHTS, KENTUCKY

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>

** Homogeneous area number descriptions (bold type indicates asbestos-containing material)*

- 13 - Black cove base and glue
- 14 - Brown cove base and glue
- 15 - Off-white cove base and glue
- 16 - 12" x 12" Red floor tile
- 17 - Red unknown material
- 18 - Grey caulk
- 19 - White caulk
- 20 - Clear caulk
- 21 - White bathroom caulk
- 22 - Off-white caulk
- 23 - Off-white tape on duct
- 24 - Grey cementitious fitting cover on pipe
- 25 - Fire Door Fill**
- 26 - 12" x 12" black floor tile
- 27 - 12" x 12" gold floor tile
- 28 - Yellow carpet glue
- 29 - Grey carpet glue
- 31 - 12" x 12" tan floor tile with small brown and blackslashes
- 32 - Black caulk

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101895-0

McCall and Spero Environmental, Inc.
Louisville, KY

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2014-07-01 through 2015-06-30

Effective dates



A handwritten signature in black ink, appearing to read "William R. Mudd".

For the National Institute of Standards and Technology



McCall and Spero

Specialists in Microanalysis

1831 Williamson Court • Suite 100 • Louisville, KY 40223
Phone (502) 244-7135 • (800) 841-0180 • FAX (502) 244-7136

E-mail: customerservice@mse-labs.com • Website: www.mse-labs.com

Date: March 12, 2015

Attention: Kati Massey
Pinnacle Environmental Consulting, Inc.

Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light
Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)

RE: MSE-P3125PEC.1
NKU: Callahan Hall Project
PEC# 15-HIT-7009 / P.O. OH-15-039

Dear Mr. Massey:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on March 12, 2015. These samples represent the bulk samples from the NKU: Callahan Hall Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the eighty (80) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

M. Allison Brown, B.A.
Laboratory Director

SUMMARY OF PLM BULK ANALYSIS RESULTS

Page 2

MSE # P3125PEC.1-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
016	15KM-816 Miscellaneous	ND	Cellulose / 2%	98%	Gray
017	15KM-817 Miscellaneous	ND	Cellulose / 2%	98%	Gray
018	15KM-818 Miscellaneous	ND	Cellulose / 2%	98%	Gray
019	15KM-822 Miscellaneous	ND	Cellulose / 2%	98%	Gray
020	15KM-823 Miscellaneous	ND	Cellulose / 2%	98%	Gray
021	15KM-824 Miscellaneous	ND	Cellulose / 2%	98%	Gray
022	15KM-825 Miscellaneous	ND	Cellulose / 2%	98%	Gray
023	15KM-826 Miscellaneous	ND	Cellulose / 2%	98%	Gray
024	15KM-827 Miscellaneous	ND	Cellulose / 2%	98%	Gray
025	15KM-828 Miscellaneous	ND	Cellulose / 2%	98%	Gray
026	15KM-829 Miscellaneous	ND	Cellulose / 2%	98%	Gray
027	15KM-830 Miscellaneous	ND	Cellulose / 2%	98%	Gray
028	15KM-831 Miscellaneous	ND	Cellulose / 2%	98%	Gray
029	15KM-832 Miscellaneous	ND**	Cellulose / 2%	98%	Gray
030	15KM-833 Miscellaneous	ND	Cellulose / 2%	98%	Gray

McCall & Spero Environmental, Inc.

SUMMARY OF PLM BULK ANALYSIS RESULTS

Page 4

MSE # P3125PEC.1-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
038 (B)	15KM-841 (B) Mastic	ND**	Cellulose / 5%	95%	Black
039 (A)	15KM-842 (A) Miscellaneous	ND**	ND	100%	Red
039 (B)	15KM-842 (B) Mastic	ND**	Cellulose / 5%	95%	Gray
040 (A)	15KM-843 (A) Miscellaneous	ND**	ND	100%	Red
040 (B)	15KM-843 (B) Mastic	ND**	Cellulose / 5%	95%	Gray
041	15KM-844 Miscellaneous	ND**	ND	100%	Gray
042	15KM-845 Miscellaneous	ND**	ND	100%	Gray
043	15KM-846 Miscellaneous	ND**	Cellulose / 2%	98%	White
044	15KM-847 Miscellaneous	ND**	Cellulose / 2%	98%	White
045	15KM-848 Miscellaneous	ND**	ND	100%	Clear
046	15KM-849 Miscellaneous	ND**	ND	100%	Clear
047	15KM-850 Miscellaneous	ND**	Cellulose / 25%	75%	White
048	15KM-851 Miscellaneous	ND**	Cellulose / 2%	98%	White
049	15KM-852 Miscellaneous	ND**	Cellulose / 2%	98%	White
050	15KM-853 Miscellaneous	ND**	Cellulose / 2%	98%	White

McCall & Spero Environmental, Inc.

SUMMARY OF PLM BULK ANALYSIS RESULTS

Page 6

MSE # P3125PEC.1-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
066	15KM-869 Miscellaneous	ND**	ND	100%	Gray
067	15KM-870 Miscellaneous	ND**	ND	100%	Gray
068	15KM-871 Miscellaneous	ND	Cellulose / 5% Glass / 10%	85%	Gray
069	15KM-872 Miscellaneous	ND**	Cellulose / 2%	98%	Black
070	15KM-873 Miscellaneous	ND**	Cellulose / 2%	98%	Black

NOTES:

ND = None Detected CH = Chrysotile A = Amosite AC = Actinolite
CR = Crocidolite AN = Anthophyllite TR = Tremolite

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within $\pm 10\%$. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

** EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: M. Allison Brown, B.A.



McCall & Spero Environmental, Inc.

SUMMARY OF TEM BULK ANALYSIS RESULTS

Page 1

Project Name: NKU: Callahan Hall Project PEC# OH15-045
McCall & Spero Environmental Project No. MSE-3185PECB

CLIENT SAMPLE # DESCRIPTION	ASBESTOS TYPES & %	TOTAL ASBESTOS %	NON- FIBROUS MATRIX %	OTHER FIBROUS MATERIAL TYPES & %	COLOR
15KM-840 Tile	No Asbestos Detected	NAD	100%	ND	Red
15KM-860 Tile	No Asbestos Detected	NAD	100%	ND	Black
15KM-862 Tile	No Asbestos Detected	NAD	100%	ND	Black
15KM-869 Tile	No Asbestos Detected	NAD	100%	ND	Gray

NOTES:

NAD = No Asbestos Detected

AC = Actinolite

TR = Tremolite

ND = None Detected CH = Chrysotile A = Amosite

CR = Crocidolite AN = Anthophyllite

< 1% = Less Than One Percent >1% = Greater Than One Percent

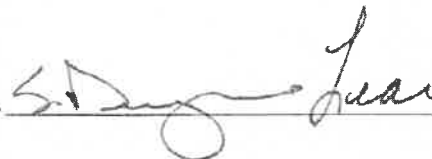
For samples consisting of separate components, each component is analyzed and reported separately.

TEM bulk analysis was performed according to the New York State ELAP Method # 198.4, "Transmission Electron Microscope Method for Identifying and Quantifying Asbestos in Non-Friable Organically Bound Bulk Samples".

Results apply only to items tested. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

** EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: S. Dewayne Lear, B.S.



McCall & Spero Environmental, Inc.

Attachment 5

INVENTORY OF ASBESTOS-CONTAINING MATERIAL TABLE

**INVENTORY OF ASBESTOS-CONTAINING MATERIALS
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN HALL**

Material Location	Material Description	* Homogeneous Area #	Type ACM	Estimated Quantity*	Category-Friable/Nonfriable
K109 Mech	Black Mastic below 9" gray floor tile with pink and brown streaks with random black spots	2	Misc.	150 sf	I-Nonfriable
Director's Office Hallway	Black Mastic below 9" gray floor tile with pink and brown streaks with random black spots	2	Misc.	120 sf	I-Nonfriable
Inside all fire doors	Fire Door Fill	25	RACM	8 doors	RACM-Friable

NOTES:

If = linear feet

sf = square feet

Misc. = Miscellaneous

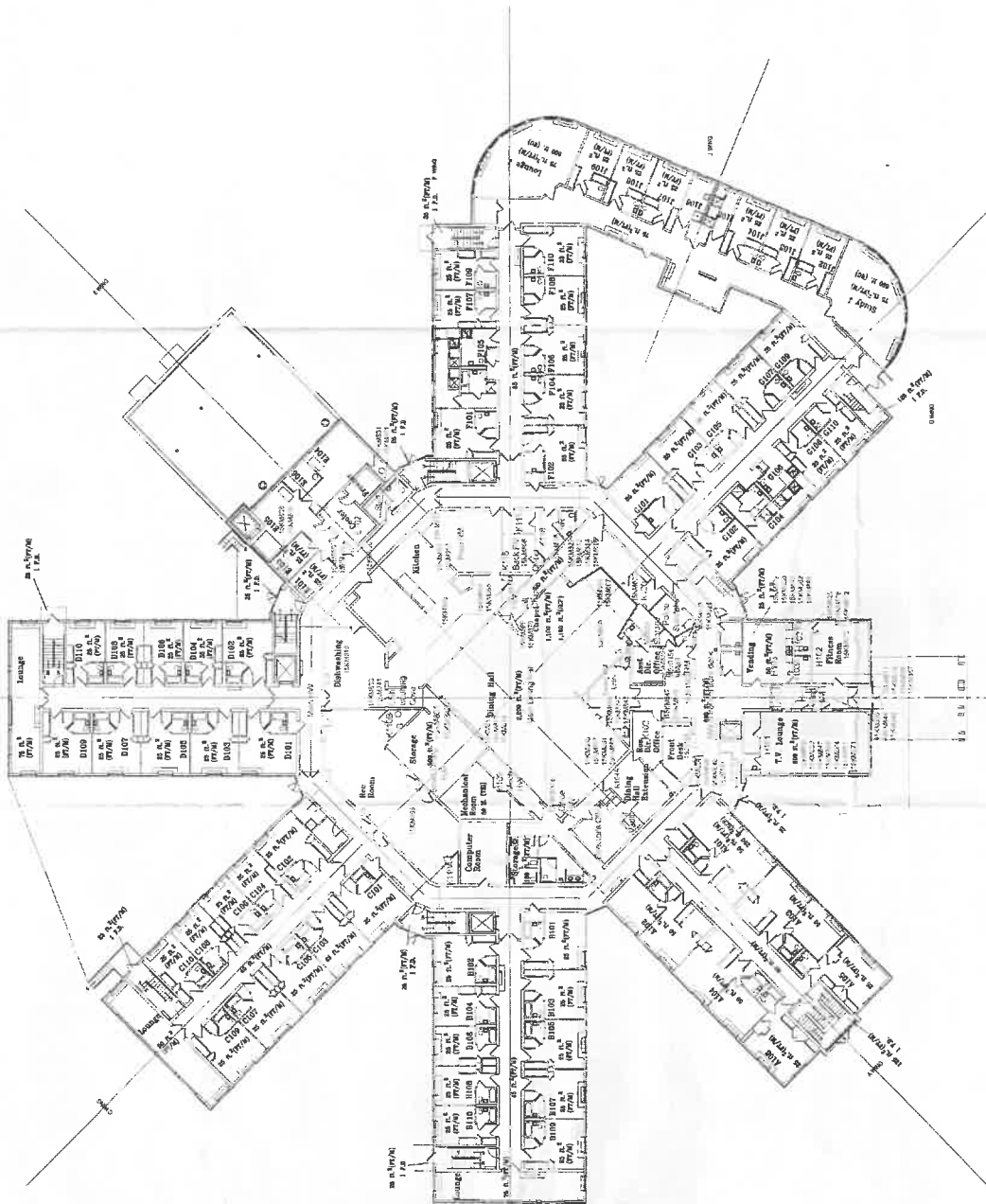
TSI = Thermal System Insulation

EPA Categories

RACM - Regulated Asbestos-Containing Materials (Friable)

Category I Nonfriable - resilient flooring, roofing products, gaskets, packings

Category II Nonfriable - all other nonfriable asbestos-containing materials



LEGEND

- fl. 2 (PT/M) - Square Feet of Asbestos-Containing Floor Tile and Mastic
- fl. 2 (SCP) - Square Feet of Asbestos-Containing Suspended Ceiling Panels
- lf. (TST) - Linear Feet of Asbestos-Containing Thermal Insulation on Pipes
- lf. (WG) - Linear Feet of Asbestos-Containing Window Glazing Compound
- Fl. - Number of Asbestos-Containing Cementitious Fittings on Fiberglass Lines
- fl. 2 (F) - Square Feet of Asbestos-Containing Thermal Insulation on Boilers
- fl. 2 (BB) - Square Feet of Asbestos-Containing Thermal Insulation on Boiler Breaching
- fl. 2 (T) - Square Feet of Asbestos-Containing Thermal Insulation on Tanks
- fl. 2 (COAT) - Square Feet of Asbestos-Containing Coating on Sinks
- F.D. - Fire Door

TITLE	
Figure 2. Identified ACM on the First Floor	
PROJECT LOCATION	
ANU Student Residence Hall	
CLIENT	
GHN Architects	
PROJECT NUMBER	DATE
1275.004	August 2007
NOT TO SCALE	





December 10, 2007

Ms. Marcie Kinney
Project Manager
GBBN Architects, Inc.
332 East 8th Street
Cincinnati, Ohio 45202

**Re: Post ACM Abatement Inspections and Final Clearance Air Monitoring of Regulated Abatement Work Areas on Floors 1 - 3 at the NKU Student Residence Hall
PN 1275.005**

Dear Ms. Kinney:

From November 23 through November 30, 2007, BHE Environmental, Inc. (BHE) provided the on-site services of an experienced industrial hygienist/asbestos management planner that conducted final visual inspections of regulated abatement work areas on floors 1 through 3 of the NKU Student Residence Hall to ensure that all designated asbestos-containing building materials had been completely removed, that the areas were cleaned up and finished surfaces were free of asbestos dust and debris. Once the regulated work area successfully passed a final visual inspection, BHE performed final clearance air monitoring and submitted the samples to an AIHA-accredited laboratory for analysis by phase contrast microscopy (PCM) per EPA (AHERA) 40 CFR Part 763.

Mr. David Gregory, Industrial Hygienist/Kentucky-licensed Asbestos Management Planner, and Ms. Linda Zerwick, an EPA-accredited Contractor/Supervisor, Building Inspector, and Management Planner, performed the specified on-site services. Mr. Jasen Holton, A.S.P., reviewed the monitoring results and served as the BHE project manager. Mr. Mark Karaffa, C.I.H., prepared this report and provided senior review. Verbal results had been reported previously to the abatement contractor.

Asbestos-containing acoustical ceiling panels were removed by Aegis Environmental (Aegis) in accordance with proper practices and procedures and applicable requirements of the OSHA asbestos standard for construction [29 CFR 1926.1101(g)], Kentucky asbestos regulations, and the project specifications. Prior to beginning these removal operations, critical barriers were installed and a negatively-pressurized containment system was constructed in each regulated work area. Each area was demarcated and access was restricted by the use of the critical barriers, plastic partitions, and warning signs. The acoustical, lay-in ceiling panels were completely wetted with mist-applications of amended water, removed, and placed into 6-mil plastic disposal bags, and sealed. The metal ceiling suspension system was also removed, wrapped in leak-tight containers, and disposed as asbestos waste. A limited amount of non-friable floor tile and underlying mastic were removed around each unit ventilator. Floor tiles were wetted and removed intact and underlying floor tile mastic on the concrete floor slabs was removed with a commercially available, low-odor mastic remover. A HEPA-filtered vacuum and/or wet cleaning methods were used to remove any dust or debris on finished surfaces in work areas and from surfaces of building components above the ceiling line.

BHE inspected each work area and substrates for complete material removal following abatement to ensure that the contractor had adequately cleaned all substrates and exposed surfaces inside each containment area. Surfaces of building components above the ceiling grid (e.g., piping, structural steel, roof/ceilings decks) and other exposed surfaces inside the containment were sprayed with lockdown encapsulant after all ceiling panels and grid had been removed and the surfaces were visibly clean.

Final clearance air samples were collected by BHE in each regulated work area after the contractor notified BHE that they had completed all work, a visual inspection confirmed that all the specified ACM had been completely removed, and that any dust or debris generated during the removal operations had been completely cleaned up.

A minimum of five stationary air samplers or one sampling pump per room (i.e., filter cassettes on tripods connected to high-volume electric sampling pumps) were collected with pumps calibrated to a flow rate of approximately 10 liters per minute and run two hours for a sample volume of 1,200 liters per minute. Sets of PCM final clearance air samples were collected in the work area and submitted to EMSL Analytical (EMSL) of Westmont, New Jersey, for analysis by PCM in accordance with NIOSH Method 7400. EMSL is accredited by the American Industrial Hygiene Association. A copy of the EMSL laboratory report is attached.

Six separate sets of final clearance samples were collected from six different regulated work areas on Floors 1, 2, and 3. Descriptions of these work areas, the dates sampled, and the sample numbers for each area are listed below.

Description	Clearance Date	Sample Numbers
Third floor, rooms in B, C, D, and K Wings	11/23/07	NKU-F-01 through 26
Third floor, rooms in A, G, H, and K Wings	11/27/07	NKU-F-27 through 43
First floor, small central room	11/29/07	NKU-F-44 through 48
First Floor, Chapel	11/30/07	NKU-F-49 through 53
First floor, second small room	11/30/07	NKU-F-54 through 58
Second floor, rooms in A, B, D, G, H, and K Wings	11/30/07	NKU-F-59 through 109

A minimum of five samples or one sample per room (whichever was larger) were collected from each regulated work area. Sample sets were submitted to the laboratory for PCM analyses on the day they were collected and analyses were reported to BHE on the day received by the laboratory. The results of the final clearance air tests were also reported verbally by BHE to its on-site technician and to the abatement contractor's on-site supervisor. Copies of the EMSL laboratory reports for these six sets of clearance samples are included as an Attachment.

The final clearance sample results ranged from below the analytical limit of detection (0.002 fibers/cubic centimeter of air, f/cc) to 0.004 f/cc. These data indicate that the contractor's removal of the specified ACM, final cleanup, and the decontamination of each regulated work area was effective, complete, and met the State of Kentucky's PCM clearance criteria (each sample \leq 0.01 fiber/cc). The proper and complete removal of designated ACM, thorough cleanup, and satisfactory final visual inspections and air clearance levels support the

Ms. Marcie Kinney
December 10, 2007
Page 3 of 2

conclusion that the asbestos hazard in these regulated work areas have been effectively controlled and that these areas are acceptable for reoccupancy by other trades that will perform other renovation work.

Thank you for requesting the technical asbestos consulting services of BHE Environmental. Please do not hesitate to call us if you have any questions or if we can be of further assistance.

Sincerely,



Mark A. Karaffa, C.I.H.
Senior Technical Director
Industrial Hygiene and Safety

MAK/wbm

Attachment

ATTACHMENT
EMSL Analytical, Inc. PCM Analytical Reports



EMSL Analytical, Inc.
 107 Haddon Ave., Westmont, NJ 08108
 Phone: (856) 858-4800 Fax: (856) 858-4960 Email: westmontlab@EMSL.com

Attn: **Jasen Holton**
BHE Environmental, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Fax: (513) 326-1550 Phone: (513) 326-1500
 Project: 1275.005/NKU-RESIDENCE HALL

Customer ID: BHE50
 Customer PO:
 Received: 11/30/07 9:45 AM
 EMSL Order: 040729632
 EMSL Proj:
 Analysis Date: 11/30/2007
 Report Date: 11/30/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-54 040729632-0001	1ST FL 2ND SMALL RM	11/29/2007	1157.40	5.5	100	0.002	7.01	0.002	
NKU-F-55 040729632-0002	1ST FL 2ND SMALL RM	11/29/2007	1163.16	6	100	0.002	7.64	0.003	
NKU-F-56 040729632-0003	1ST FL 2ND SMALL RM	11/29/2007	1198.90	5.5	100	0.002	7.01	0.002	
NKU-F-57 040729632-0004	1ST FL 2ND SMALL RM	11/29/2007	1223.40	7	100	0.002	8.92	0.003	
NKU-F-58 040729632-0005	1ST FL 2ND SMALL RM	11/29/2007	1158.20	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s)
 Delores Beard (5)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
 Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



EMSL Analytical, Inc.
 107 Haddon Ave., Westmont, NJ 08108
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11733 Chesterdale Road
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 Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/27/07 9:50 AM
 EMSL Order: 040729300
 EMSL Proj:
 Analysis Date: 11/27/2007
 Report Date: 11/27/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-27 040729300-0001	RM A305	11/26/2007	1196.30	<5.5	100	0.002	<7.0	<0.002	
NKU-F-28 040729300-0002	RM A no #	11/26/2007	1234.10	<5.5	100	0.002	<7.0	<0.002	
NKU-F-29 040729300-0003	RM A301-1	11/26/2007	1251.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-30 040729300-0004	RM A301-2	11/26/2007	1266.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-31 040729300-0005	RM K322	11/26/2007	1216.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-32 040729300-0006	RM H303	11/26/2007	1253.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-33 040729300-0007	RM H304	11/26/2007	1153.70	<5.5	100	0.002	<7.0	<0.002	
NKU-F-34 040729300-0008	RM H301	11/26/2007	1226.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-35 040729300-0009	RM K317	11/26/2007	1152.70	<5.5	100	0.002	<7.0	<0.002	
NKU-F-36 040729300-0010	RM G309	11/26/2007	1248.90	<5.5	100	0.002	<7.0	<0.002	

Analyst(s) _____
 Delores Beard (17)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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 Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/27/07 9:50 AM
 EMSL Order: 040729300

EMSL Proj:
 Analysis Date: 11/27/2007
 Report Date: 11/27/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-37	RM G310	11/26/2007	1279.60	<5.5	100	0.002	<7.0	<0.002	
040729300-0011									
NKU-F-38	RM G308	11/26/2007	1275.70	<5.5	100	0.002	<7.0	<0.002	
040729300-0012									
NKU-F-39	RM G307	11/26/2007	1214.40	<5.5	100	0.002	<7.0	<0.002	
040729300-0013									
NKU-F-40	RM G305	11/26/2007	1253.90	<5.5	100	0.002	<7.0	<0.002	
040729300-0014									
NKU-F-41	RM G303	11/26/2007	1259.00	<5.5	100	0.002	<7.0	<0.002	
040729300-0015									
NKU-F-42	RM G301	11/26/2007	1262.70	<5.5	100	0.002	<7.0	<0.002	
040729300-0016									
NKU-F-43	RM G302	11/26/2007	1261.90	<5.5	100	0.002	<7.0	<0.002	
040729300-0017									

No discernable field blanks submitted with this sample set.

Analyst(s)
 Delores Beard (17)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

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Fax: (513) 326-1550 Phone: (513) 326-1500
 Project: **1275.005 NKU-RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/23/07 9:25 AM
 EMSL Order: 040729057

EMSL Proj:
 Analysis Date: 11/23/2007
 Report Date: 11/23/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-01	RM K311	11/21/2007	1217.80	<5.5	100	0.002	<7.0	<0.002	
040729057-0001									
NKU-F-02	RM K310	11/21/2007	1206.00	<5.5	100	0.002	<7.0	<0.002	
040729057-0002									
NKU-F-03	RM D309	11/21/2007	1279.20	<5.5	100	0.002	<7.0	<0.002	
040729057-0003									
NKU-F-04	RM D307	11/21/2007	1280.60	<5.5	100	0.002	<7.0	<0.002	
040729057-0004									
NKU-F-05	RM D308	11/21/2007	1260.80	<5.5	100	0.002	<7.0	<0.002	
040729057-0005									
NKU-F-06	RM D305	11/21/2007	1295.20	<5.5	100	0.002	<7.0	<0.002	
040729057-0006									
NKU-F-07	RM D306	11/21/2007	1296.40	<5.5	100	0.002	<7.0	<0.002	
040729057-0007									
NKU-F-08	RM D303	11/21/2007	1270.80	<5.5	100	0.002	<7.0	<0.002	
040729057-0008									
NKU-F-09	RM D302	11/21/2007	1270.50	<5.5	100	0.002	<7.0	<0.002	
040729057-0009									
NKU-F-10	RM D301	11/21/2007	1273.30	<5.5	100	0.002	<7.0	<0.002	
040729057-0010									

Analyst(s) _____
 Delores Beard (26)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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Customer ID: BHE50
 Customer PO:
 Received: 11/23/07 9:25 AM
 EMSL Order: 040729057
 EMSL Proj:
 Analysis Date: 11/23/2007
 Report Date: 11/23/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-11	RM C309	11/21/2007	1315.80	<5.5	100	0.002	<7.0	<0.002	
040729057-0011									
NKU-F-12	RM C310	11/21/2007	1264.00	<5.5	100	0.002	<7.0	<0.002	
040729057-0012									
NKU-F-13	RM C307	11/21/2007	1300.90	<5.5	100	0.002	<7.0	<0.002	
040729057-0013									
NKU-F-14	RM C305	11/21/2007	1272.30	<5.5	100	0.002	<7.0	<0.002	
040729057-0014									
NKU-F-15	RM C304	11/21/2007	1254.70	<5.5	100	0.002	<7.0	<0.002	
040729057-0015									
NKU-F-16	RM C303	11/21/2007	1261.10	<5.5	100	0.002	<7.0	<0.002	
040729057-0016									
NKU-F-17	RM C302	11/21/2007	1376.90	<5.5	100	0.002	<7.0	<0.002	
040729057-0017									
NKU-F-18	RM C301	11/21/2007	1266.30	<5.5	100	0.002	<7.0	<0.002	
040729057-0018									
NKU-F-19	RM K304	11/21/2007	1245.10	<5.5	100	0.002	<7.0	<0.002	
040729057-0019									
NKU-F-20	RM K303	11/21/2007	1267.50	<5.5	100	0.002	<7.0	<0.002	
040729057-0020									

Analyst(s)
 Delores Beard (26)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
 Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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Project: **1275.005 NKU-RESIDENCE HALL**

Customer ID: BHE50
Customer PO:
Received: 11/23/07 9:25 AM
EMSL Order: 040729057
EMSL Proj:
Analysis Date: 11/23/2007
Report Date: 11/23/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-21 040729057-0021	RM B309	11/21/2007	1247.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-22 040729057-0022	RM B310	11/21/2007	1247.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-23 040729057-0023	RM B305	11/21/2007	1219.70	<5.5	100	0.002	<7.0	<0.002	
NKU-F-24 040729057-0024	RM B304	11/21/2007	1215.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-25 040729057-0025	RM B301	11/21/2007	1268.70	<5.5	100	0.002	<7.0	<0.002	
NKU-F-26 040729057-0026	RM B302	11/21/2007	1234.30	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s)
Delores Beard (26)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
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 Project: **1275.005 NKU RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/29/07 9:40 AM
 EMSL Order: 040729514
 EMSL Proj:
 Analysis Date: 11/29/2007
 Report Date: 11/29/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-44 040729514-0001	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1383.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-45 040729514-0002	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1566.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-46 040729514-0003	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1098.90	<5.5	100	0.002	<7.0	<0.002	
NKU-F-47 040729514-0004	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1215.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-48 040729514-0005	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1171.20	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s)
 Delores Beard (5)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
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 Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/30/07 9:45 AM
 EMSL Order: 040729635
 EMSL Proj:
 Analysis Date: 11/30/2007
 Report Date: 11/30/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fb/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-49 040729635-0001	CHAPEL	11/29/2007	1380.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-50 040729635-0002	CHAPEL	11/29/2007	1560.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-51 040729635-0003	CHAPEL	11/29/2007	1108.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-52 040729635-0004	CHAPEL	11/29/2007	1202.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-53 040729635-0005	CHAPEL	11/29/2007	1155.60	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s)
 Delores Beard (5)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

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 Project: **1275.005 NKU RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/30/07 9:45 AM
 EMSL Order: 040729640
 EMSL Proj:
 Analysis Date: 11/30/2007
 Report Date: 11/30/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-59 040729640-0001	B 208	11/29/2007	1256.10	<5.5	100	0.002	<7.0	<0.002	
NKU-F-60 040729640-0002	B 207	11/29/2007	1185.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-61 040729640-0003	B 205	11/29/2007	1359.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-62 040729640-0004	B 206	11/29/2007	1222.40	7	100	0.002	8.92	0.003	
NKU-F-63 040729640-0005	B 204	11/29/2007	1214.00	6.5	100	0.002	8.28	0.003	
NKU-F-64 040729640-0006	B 203	11/29/2007	1231.00	6	100	0.002	7.64	0.002	
NKU-F-65 040729640-0007	B 202	11/29/2007	1204.20	7	100	0.002	8.92	0.003	
NKU-F-66 040729640-0008	B 201	11/29/2007	1185.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-67 040729640-0009	K 215	11/29/2007	1142.00	6	100	0.002	7.64	0.003	
NKU-F-68 040729640-0010	K 217	11/29/2007	1479.30	6	100	0.002	7.64	0.002	

Analyst(s) _____
 Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

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Fax: (513) 326-1550 Phone: (513) 326-1500
 Project: **1275.005 NKU RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/30/07 9:45 AM
 EMSL Order: 040729640

EMSL Proj:
 Analysis Date: 11/30/2007
 Report Date: 11/30/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-69	K 218	11/29/2007	1243.70	6	100	0.002	7.64	0.002	
040729640-0011									
NKU-F-70	A 206	11/29/2007	1185.40	<5.5	100	0.002	<7.0	<0.002	
040729640-0012									
NKU-F-71	A 205	11/29/2007	1161.90	<5.5	100	0.002	<7.0	<0.002	
040729640-0013									
NKU-F-72	A 203-1	11/29/2007	1244.90	5.5	100	0.002	7.01	0.002	
040729640-0014									
NKU-F-73	A 203-2	11/29/2007	1262.50	<5.5	100	0.002	<7.0	<0.002	
040729640-0015									
NKU-F-74	A 201-1	11/29/2007	1229.70	8	100	0.002	10.2	0.003	
040729640-0016									
NKU-F-75	A 201-2	11/29/2007	1239.50	<5.5	100	0.002	<7.0	<0.002	
040729640-0017									
NKU-F-76	K 219	11/29/2007	1261.10	8	100	0.002	10.2	0.003	
040729640-0018									
NKU-F-77	K 220	11/29/2007	1249.70	7	100	0.002	8.92	0.003	
040729640-0019									
NKU-F-78	H 206	11/29/2007	1260.80	6	100	0.002	7.64	0.002	
040729640-0020									

Analyst(s)
 Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



EMSL Analytical, Inc.
 107 Haddon Ave., Westmont, NJ 08108
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Attn: **Jasen Holton**
BHE Environmental, Inc.
11733 Chesterdale Road
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Fax: (513) 326-1550 Phone: (513) 326-1500
 Project: **1275.005 NKU RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/30/07 9:45 AM
 EMSL Order: 040729640
 EMSL Proj:
 Analysis Date: 11/30/2007
 Report Date: 11/30/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-79 040729640-0021	H 204	11/29/2007	1275.80	9	100	0.002	11.5	0.003	
NKU-F-80 040729640-0022	K 221	11/29/2007	1310.60	6.5	100	0.002	8.28	0.002	
NKU-F-81 040729640-0023	K 221-1	11/29/2007	1212.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-82 040729640-0024	K 201	11/29/2007	1596.90	11	100	0.002	14	0.003	
NKU-F-83 040729640-0025	K 202	11/29/2007	1132.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-85 040729640-0026	G 209	11/29/2007	1393.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-86 040729640-0027	G 210	11/29/2007	1114.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-87 040729640-0028	G 207	11/29/2007	1228.80	7	100	0.002	8.92	0.003	
NKU-F-88 040729640-0029	G 208	11/29/2007	1148.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-89 040729640-0030	G 205	11/29/2007	1208.80	<5.5	100	0.002	<7.0	<0.002	

Analyst(s)

Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

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Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-90 040729640-0031	G 203	11/29/2007	1447.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-91 040729640-0032	G 201	11/29/2007	1200.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-92 040729640-0033	G 202	11/29/2007	1238.30	<5.5	100	0.002	<7.0	<0.002	
NKU-F-93 040729640-0034	H 203	11/29/2007	1265.90	10.5	100	0.002	13.4	0.004	
NKU-F-94 040729640-0035	K 203	11/29/2007	1211.50	13	100	0.002	16.6	0.005	
NKU-F-95 040729640-0036	EYE WASH STATION	11/29/2007	1160.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-96 040729640-0037	K 205	11/29/2007	1154.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-97 040729640-0038	K 207	11/29/2007	1213.60	7	100	0.002	8.92	0.003	
NKU-F-98 040729640-0039	K 208	11/29/2007	1124.10	<5.5	100	0.002	<7.0	<0.002	
NKU-F-99 040729640-0040	K 209	11/29/2007	1133.80	<5.5	100	0.002	<7.0	<0.002	

Analyst(s) _____
 Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

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Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-100 040729640-0041	D 210	11/29/2007	1156.70	<5.5	100	0.002	<7.0	<0.002	
NKU-F-101 040729640-0042	D 207	11/29/2007	1183.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-102 040729640-0043	D 205	11/29/2007	1201.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-103 040729640-0044	D 206	11/29/2007	1205.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-104 040729640-0045	D 204	11/29/2007	1171.20	7	100	0.002	8.92	0.003	
NKU-F-105 040729640-0046	D 203	11/29/2007	1212.40	7	100	0.002	8.92	0.003	
NKU-F-106 040729640-0047	D 201	11/29/2007	1219.20	8	100	0.002	10.2	0.003	
NKU-F-107 040729640-0048	D 202	11/29/2007	1171.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-108 040729640-0049	K 211	11/29/2007	1459.10	9	100	0.002	11.5	0.003	
NKU-F-109 040729640-0050	K 212	11/29/2007	1166.40	<5.5	100	0.002	<7.0	<0.002	

Analyst(s)

Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

<i>Sample</i>	<i>Location</i>	<i>Sample Date</i>	<i>Volume</i>	<i>Fibers</i>	<i>Fields</i>	<i>LOD</i> <i>(fib/cc)</i>	<i>Fibers/</i> <i>mm²</i>	<i>Fibers/</i> <i>cc</i>	<i>Notes</i>
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No discernable field blanks submitted with this sample set.

Analyst(s) _____
Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)

Table 2. Confirmatory Bulk Sample PLM Analysis Results
 Northern Kentucky University, Student Residence Hall
 Highland Heights, Kentucky
 August 2007

I.D.	Sampled Material	% Asbestos
GBBN-A-01	Preformed block material on boiler - boiler #1	23% Amosite 4% Chrysotile
GBBN-A-02	Preformed block material on boiler - boiler #1	23% Amosite 4% Chrysotile
GBBN-A-03	Preformed block material on boiler - boiler #1	23% Amosite 4% Chrysotile
GBBN-A-04	Preformed block material on boiler - boiler #2	21% Amosite 5% Chrysotile
GBBN-A-05	Preformed block material on boiler - boiler #2	23% Amosite 4% Chrysotile
GBBN-A-06	Preformed block material on boiler - boiler #2	21% Amosite 5% Chrysotile
GBBN-A-07	Preformed block material on boiler - boiler #3	20% Amosite 21% Chrysotile
GBBN-A-08	Preformed block material on boiler - boiler #3	20% Amosite 21% Chrysotile
GBBN-A-09	Preformed block material on boiler - boiler #3	20% Amosite 21% Chrysotile
GBBN-A-10	Gasket on boiler - boiler 1	ND
GBBN-A-11	Gasket on boiler - boiler 1	ND
GBBN-A-12	Gasket on boiler - boiler 2	ND
GBBN-A-13	Gasket on boiler - boiler 2	ND
GBBN-A-14	Gasket on boiler - boiler 3	ND
GBBN-A-15	Gasket on boiler - boiler 3	ND
GBBN-A-16	Firebrick in boiler - boiler 1	ND
GBBN-A-17	Firebrick in boiler - boiler 1	ND
GBBN-A-18	Firebrick in boiler - boiler 2	ND

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-19	Firebrick in boiler - boiler 2	ND
GBBN-A-20	Firebrick in boiler - boiler 3	ND
GBBN-A-21	Firebrick in boiler - boiler 3	ND
GBBN-A-22	Material between metal jackets on boiler - boiler 3	ND
GBBN-A-23	Material between metal jackets on boiler - boiler 3	ND
GBBN-A-24	Boiler breeching	20 Amosite 21 Chrysotile
GBBN-A-25	Boiler breeching	15 Amosite 31 Chrysotile
GBBN-A-26	Boiler breeching	20 Amosite 21 Chrysotile
GBBN-A-27	Preformed block material on large tank	20 Amosite 21 Chrysotile
GBBN-A-28	Preformed block material on large tank	15 Amosite 31 Chrysotile
GBBN-A-29	Preformed block material on large tank	23 Amosite 4 Chrysotile
GBBN-A-30	Preformed block pipe insulation (Type 1 - lightweight)	ND
GBBN-A-31	Preformed block pipe insulation (Type 1 - lightweight)	ND
GBBN-A-32	Preformed block pipe insulation (Type 1 - lightweight)	ND
GBBN-A-33	Preformed block pipe insulation (Type 2 - fluffy)	23 Amosite 4 Chrysotile
GBBN-A-34	Preformed block pipe insulation (Type 2 - fluffy)	23 Amosite 4 Chrysotile
GBBN-A-35	Preformed block pipe insulation (Type 2 - fluffy)	23 Amosite 4 Chrysotile
GBBN-A-36	Cementitious fitting on fiberglass insulated line - 2" line	ND

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-37	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-38	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-39	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-40	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-41	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-42	Cementitious fitting on fiberglass insulated line - 6" line	ND
GBBN-A-43	Cementitious fitting on fiberglass insulated line - 6" line	ND
GBBN-A-44	Cementitious fitting on fiberglass insulated line - 6" line	ND
GBBN-A-45	Cementitious fitting on fiberglass insulated line - 8" line	ND
GBBN-A-46	Cementitious fitting on fiberglass insulated line - 8" line	ND
GBBN-A-47	Cementitious fitting on fiberglass insulated line - 8 line	36.75 Chrysotile
GBBN-A-48	Cementitious fitting on fiberglass insulated line - 12 line	1.58 Chrysotile
GBBN-A-49	Cementitious fitting on fiberglass insulated line - 12" line	ND
GBBN-A-50	Cementitious fitting on fiberglass insulated line - 12" line	ND
GBBN-A-51	Preformed block insulation on suspended tank - tank 1	9 Amosite 57 Chrysotile
GBBN-A-52	Preformed block insulation on suspended tank - tank 2	12 Amosite 39 Chrysotile
GBBN-A-53	Preformed block insulation on suspended tank - tank 3	23 Amosite 22 Chrysotile
GBBN-A-54	Preformed block insulation on suspended tank - tank 4	9 Amosite 57 Chrysotile
GBBN-A-55	Preformed block insulation on suspended tank - tank 5	12 Amosite 39 Chrysotile

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-56	Preformed block insulation on suspended tank - tank 6	12 Amosite 39 Chrysotile
GBBN-A-57 (A)	9-in ² Floor tile (FT 1) - gray with red, white and brown streaks and black dots	4 Chrysotile
GBBN-A-57 (B)	Mastic on FT 1	12 Chrysotile
GBBN-A-58 (A)	9-in ² Floor tile (FT 1) - gray with red, white and brown streaks and black dots	4 Chrysotile
GBBN-A-58 (B)	Mastic on FT 1	9 Chrysotile
GBBN-A-59 (A)	9-in ² Floor tile (FT 2) - gray with red, white and brown streaks	4 Chrysotile
GBBN-A-59 (B)	Mastic on FT 2	9 Chrysotile
GBBN-A-60 (A)	9-in ² Floor tile (FT 2) - gray with red, white and brown streaks	4 Chrysotile
GBBN-A-60 (B)	Mastic on FT 2	9 Chrysotile
GBBN-A-61	12-in ² Floor tile (FT 3) - gray marbled	ND
GBBN-A-62	12-in ² Floor tile (FT 3) - gray marbled	ND
GBBN-A-63	12-in ² Floor tile (FT4) - beige marbled	ND
GBBN-A-64	12-in ² Floor tile (FT4) - beige marbled	ND
GBBN-A-65 (A)	9-in ² Floor tile (FT 5) - red with brown and white streaks	4 Chrysotile
GBBN-A-65 (B)	Mastic on FT 5	9 Chrysotile
GBBN-A-66 (A)	9-in ² Floor tile (FT 5) - red with brown and white streaks	4 Chrysotile
GBBN-A-66 (B)	Matic on FT 5	12 Chrysotile
GBBN-A-67	12-in ² Floor tile (FT 8) - black	ND
GBBN-A-68	12-in ² Floor tile (FT 9) - white	ND
GBBN-A-69	12-in ² Floor tile (FT 10) - white with gray and black streaks	ND
GBBN-A-70	12-in ² Floor tile (FT 10) - white with gray and black streaks	ND
GBBN-A-71	Linoleum (FT 11) - green	ND

Table 2. Confirmatory Bulk Sample PLM Analysis Results
 Northern Kentucky University, Student Residence Hall
 Highland Heights, Kentucky
 August 2007

I.D.	Sampled Material	Asbestos
GBBN-A-72	Linoleum (FT 11) - green	ND
GBBN-A-73	Drywall/joint compound	ND
GBBN-A-74	Drywall/joint compound	ND
GBBN-A-75	12-in ² Floor tile (FT 6) - tan marbled	ND
GBBN-A-76	12-in ² Floor tile (FT 6) - tan marbled	ND
GBBN-A-77	2-ft ² Suspended ceiling panel (CT 1) - dot pattern	4 Amosite 2 Chrysotile
GBBN-A-78	2-ft ² Suspended ceiling panel (CT 1) - dot pattern	4 Amosite 2 Chrysotile
GBBN-A-79	2-ft ² Suspended ceiling panel (CT 2) - random fissure	ND
GBBN-A-80	2-ft ² Suspended ceiling panel (CT 2) - random fissure	ND
GBBN-A-81	2-ft ² Suspended ceiling panel (CT 3) - lateral fissure	ND
GBBN-A-82	2-ft ² Suspended ceiling panel (CT 3) - lateral fissure	ND
GBBN-A-83	Hockey pucks	ND
GBBN-A-84	Hockey pucks	ND
GBBN-A-85	Covebase	ND
GBBN-A-86	Covebase	ND
GBBN-A-87	Window glazing compound - thin bead	ND
GBBN-A-88	Window glazing compound- thin bead	4 Chrysotile
GBBN-A-89	Window caulking	ND
GBBN-A-90	Window caulking	ND
GBBN-A-91	Window glazing - wide bead	ND
GBBN-A-92	Window glazing compound - wide bead	4 Chrysotile
GBBN-A-93	Cloth vibration isolators	ND

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-94	Cloth vibration isolators	ND
GBBN-A-95	Coating on stainless sink	6 Chrysotile
GBBN-A-96	Coating on stainless sink	6 Chrysotile
GBBN-A-97	Carpet mastic	ND
GBBN-A-98	Carpet mastic	ND
GBBN-A-99	Hard plaster - rough texture	ND
GBBN-A-100	Hard plaster - rough texture	ND
GBBN-A-101	Hard plaster - rough texture	ND
GBBN-A-102	Hard plaster - rough texture	ND
GBBN-A-103	Hard plaster - rough texture	ND
GBBN-A-104	Hard plaster - rough texture	ND
GBBN-A-105	Hard plaster - rough texture	ND
GBBN-A-106	Hard plaster - troweled finish	ND
GBBN-A-107	Hard plaster - troweled finish	ND
GBBN-A-108	Hard plaster - troweled finish	ND
GBBN-A-109	Hard plaster - troweled finish	ND
GBBN-A-110	Hard plaster - troweled finish	ND
GBBN-A-111	Hard plaster - bumpy texture	ND
GBBN-A-112	Hard plaster - bumpy texture	ND
GBBN-A-113	Hard plaster - bumpy texture	ND
GBBN-A-114	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-115	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-116	Cementitious fitting on fiberglass insulated line - 2" line	ND

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-117	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-118	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-119	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-120	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-121	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-122	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-123	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-124	Hard plaster - stucco texture	ND
GBBN-A-125	Hard plaster - stucco texture	ND
GBBN-A-126	Hard plaster - stucco texture	ND
GBBN-A-127	Hard plaster - swirled finish	ND
GBBN-A-128	Hard plaster - swirled finish	ND
GBBN-A-129	Hard plaster - swirled finish	ND
GBBN-A-130	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-131	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-132	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-133	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-134	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-135	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-136	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-137	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-138	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-139	Cementitious fitting on fiberglass insulated line - 4" line	ND

7

10

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-140	Cementitious fitting on fiberglass insulated line - 6" line	ND

* Result of point-count analysis

Final clearance air samples were collected by BHE in the regulated work area after the contractor completed work, a visual inspection confirmed that all the specified ACM had been completely removed, and that any dust or debris generated during the removal operations had been completely cleaned up.

Five stationary air samplers (i.e., filter cassettes on tripods connected to high-volume electric sampling pumps) were collected with pumps calibrated to a flow rate of approximately 10 liters per minute and run two hours for a sample volume of 1,200 liters per minute. Five PCM final clearance air samples were collected in the work area and submitted to EMSL Analytical (EMSL) of Westmont, New Jersey, for analysis by PCM in accordance with the prescribed EPA (AHERA) method in 40 CFR Part 763.90(i). EMSL is accredited by the American Industrial Hygiene Association. A copy of the EMSL laboratory report is attached.

The concentrations of fibers on the three filters collected in the attic of Building C determined by PCM after abatement and final cleaning ranged from <0.001 to 0.004 fibers per cubic centimeter(cc) of air. These data indicate that the contractor's removal and final cleanup of the specified ACM and the decontamination of the work area was effective, complete, and met the AHERA PCM clearance criteria (each sample <0.01 fiber/cc). The proper and complete removal of designated ACM, thorough cleanup, and satisfactory final visual inspections and air clearance levels support the conclusion that the asbestos hazard in this regulated work area has been effectively controlled and that the area is acceptable for reoccupancy so that other trades persons may safely enter this space to perform other renovation work.

Thank you for requesting the technical asbestos consulting services of BHE Environmental. Please do not hesitate to call us if you have any questions or if we can be of further assistance.

Sincerely,



Jasen M. Holton, A.S.P.
Industrial Hygienist/Project Manager

JMH/wbm

Attachments

ATTACHMENT A
EMSL's PCM Analytical Report
and Completed Chain-of-Custody Form



EMSL Analytical, Inc.

107 Haddon Ave., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4960 Email: westmontaslab@EMSL.com

Attn: **Jasen Holton**
BHE Environmental, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Customer ID: BHE50
Customer PO:
Received: 11/09/07 9:30 AM
EMSL Order: 040727954

Fax: (513) 326-1550 Phone: (513) 326-1500
Project: 1275.005 NKU RESIDENCE HALL BOILER ROOM FINALS

EMSL Proj:
Analysis Date: 11/9/2007
Report Date: 11/9/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-FINAL-01 040727954-0001	NORTH END OF ROOM	11/8/2007	3095.40	12	100	0.001	15.3	0.002	
NKU-FINAL-02 040727954-0002	WEST END OF ROOM	11/8/2007	3095.40	24	100	0.001	30.6	0.004	
NKU-FINAL-03 040727954-0003	CENTER OF ROOM	11/8/2007	3099.60	<5.5	100	0.001	<7.0	<0.001	
NKU-FINAL-04 040727954-0004	EAST END OF ROOM	11/8/2007	3133.20	<5.5	100	0.001	<7.0	<0.001	
NKU-FINAL-05 040727954-0005	SOUTH END OF ROOM	11/8/2007	3168.90	6	100	0.001	7.64	0.001	

No discernable field blank sample(s) submitted with this sample set.

Analyst(s)
Robyn Denton (5)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
Analysis performed by EMSL Westmont (NY State ELAP #10872, AHA #100194)

040727954

BHE ENVIRONMENTAL, INC.
 11733 Chesterdale Road
 Cincinnati, Ohio 45246
 (513) 336-1500
 FAX (513) 320-1581

CHAIN-OF-CUSTODY RECORD

Send Analyses To: JASEN HOLTAN
 Project Number: 1275-005
 Project Manager: JM14
 Sampling Team: DR

Boiler Room
FINALS

Site Name: NKV-Residential Hall
 Lab Destination: CONS
 Carrier/Bill No.: AIA 040727954

PID/FID ppm	Sample Location & Description	Date Collected	Time Collected	Sample Type	Quantity (liters)	Preservative	Analysis Requested	BHE Sample Number	Sample to Lab
	NORTH END OF ROOM	11/8/07		AIR	3095.4 L.		PERM. ACIDGAS	NKV-FINAL-01	
	WEST END OF ROOM				3095.4 L.			NKV-FINAL-02	
	CENTON OF ROOM				3099.6 L.			NKV-FINAL-03	
	EAST END OF ROOM				3133.2 L.			NKV-FINAL-04	
	SOUTH END OF ROOM				3168.9 L.			NKV-FINAL-05	

Special Instructions: 6 HOUR TURNAROUND. E-MAIL J.Holtan@BHEEnvironmental.com with Results. Also Fax Results.

1. Relinquished By: DR
 Date Relinquished: 11/8/07
 Received By: [Signature]
 Date Received: 11-8-07
 Condition on Receipt: _____

2. Relinquished By: _____
 Date Relinquished: _____
 Received By: _____
 Date Received: _____
 Condition on Receipt: _____

3. Relinquished By: _____
 Date Relinquished: _____
 Received By: _____
 Date Received: _____
 Condition on Receipt: _____



ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Steven L. Beshear
Governor

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FLORENCE REGIONAL OFFICE
8020 VETERANS MEMORIAL DRIVE, SUITE 110
FLORENCE, KY 41042

Robert D. Vance
Secretary

December 17, 2007

Jeff Baker
Northern Kentucky University
Environmental Safety Office
70 Campbell Dr., #118
Highland Heights, KY 41099

Asbt Log #070260NF-Detention Facility

Re: Incident #2267351

Dear Sir :

On 11/14/07, the Division for Air Quality investigated a demolition project at 3510 Alexandria Pike, Highland Heights, KY. Enclosed is a copy of the inspection report. No violations were observed. Please thoroughly review the report.

If you have any questions concerning this determination, please contact me at the Florence Regional Office (859) 525-4923.

Sincerely,

A handwritten signature in black ink, appearing to read "Drew M. Vargo".

Drew M. Vargo
Environmental Inspector III

**Environmental and Public Protection Cabinet
Department for Environmental Protection
Compliance Evaluation Report**

Lead Investigator: Vargo, Drew

Start Date: 11/14/2007

Program: Air

Inspection Date: 11/14/2007

Inspection Type: DAQ-Asbestos-NESHAPS

Start Time: 12:15 PM

End Time: 12:30 PM

Incident ID: 2267351

General Comments:

Asbt Log #070260NF--one-story structure (1750 s.f.), located at 3510 Alexandria Pk., Highland Heights, Ky, was formerly used as campus police office/detention facility, by Northern Kentucky University (NKU). The building was owned by NKU. Notification was received & an asbestos survey was received. Demolition was scheduled to be done by in-house personnel on 10/17/07. Per the asbestos survey the only ACBMs in the building were 800 s.f. of VATs. These would not be removed prior to demolition.

DMV/Florence DAQ inspected the site on 11/14/07. The structure had been demolished. The debris had been removed and the site graded/levelled. There were no violations. This report will be sent to the owner.

Requirement	Status	Results Or Comments
(a) Applicability. To determine which requirements of paragraphs (a), (b), and (c) of this section apply to the owner or operator of a demolition or renovation activity and prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable ACM. The requirements of paragraphs (b) and (c) of the section apply to each owner or operator of a demolition or renovation activity, including the removal of RACM as follows: [401 KAR 58:025 Section 2(1)(a)]	C	Notification received. Asbestos survey received.

Investigator: *Drew Vargo*

Title: *Environmental Inspector*

Date: *12/17/07*

- N - Not Applicable
- E - Not Evaluated
- V - Out of Compliance-NOV
- C - No Violations observed
- I - No Violations obs-but impending viol trends obs
- D - Out of Compliance-Violations Documented
- O - Out of Comp-LOW non-recurrent Adm. or O&M

Received By:

Title:

Date:

Delivery Method: *1st class Mail - USPS*

**INVENTORY OF ASBESTOS-CONTAINING MATERIALS
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN HALL**

Material Location	Material Description	* Homogeneous Area #	Type ACM	Estimated Quantity*	Category-Friable/Nonfriable
<i>The following homogeneous areas are located in NKU: Callahan Hall</i>					
Main Hallway	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	400 sf	I-Nonfriable
Front Desk	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	150 sf	I-Nonfriable
Mail Room (under mail boxes only)	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	40 sf	I-Nonfriable
Room K102	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	200 sf	I-Nonfriable
Prep Room off Kitchen	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	400 sf	I-Nonfriable
E101	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	120 sf	I-Nonfriable
E103	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	120 sf	I-Nonfriable
Rec. Room	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	1,500 sf	I-Nonfriable
Computer Room	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	350 sf	I-Nonfriable
K104A	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	300 sf	I-Nonfriable
Director's Office and Vault	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	300 sf	I-Nonfriable
K118	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	150 sf	I-Nonfriable
K115 + closet	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	230 sf	I-Nonfriable
K120	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	80 sf	I-Nonfriable
Storage Closets off Mail Room	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	100 sf	I-Nonfriable
Police Substation	Black Mastic below 9" gray floor tile with pink and brown streaks	1	Misc.	80 sf	I-Nonfriable
Entry to Dining Room	Black Mastic below 9" gray floor tile with pink and brown streaks with random black spots	2	Misc.	200 sf	I-Nonfriable

**INVENTORY OF ASBESTOS-CONTAINING MATERIALS
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN HALL**

Material Location	Material Description	* Homogeneous Area #	Type ACM	Estimated Quantity*	Category-Friable/Nonfriable
K109 Mech	Black Mastic below 9" gray floor tile with pink and brown streaks with random black spots	2	Misc.	150 sf	I-Nonfriable
Director's Office Hallway	Black Mastic below 9" gray floor tile with pink and brown streaks with random black spots	2	Misc.	120 sf	I-Nonfriable
Inside all fire doors	Fire Door Fill	25	RACM	8 doors	RACM-Friable

NOTES:

If = linear feet

sf = square feet

Misc. = Miscellaneous

TSI = Thermal System Insulation

EPA Categories

RACM - Regulated Asbestos-Containing Materials (Friable)

Category I Nonfriable - resilient flooring, roofing products, gaskets, packings

Category II Nonfriable - all other nonfriable asbestos-containing materials

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>*Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
<i>The following samples were taken from Northern Kentucky University: Callahan Residence Hall</i>						
RM K124: Mail room floor	9" Gray floor tile with pink and brown streaks and black mastic on concrete	15JS154 (A)	P335PEC.1-001 (A)	None Detected	1	Nonfriable
RM K124: Mail room floor	9" Gray floor tile with pink and brown streaks and black mastic on concrete	15JS154 (B)	P335PEC.1-001 (B)	5% Chrysotile	1	Nonfriable
1st Floor Front Desk	9" Gray floor tile with pink and brown streaks and black mastic on concrete	15JS155 (A)	P335PEC.1-002 (A)	None Detected	1	Nonfriable
1st Floor Front Desk	9" Gray floor tile with pink and brown streaks and black mastic on concrete	15JS155 (B)	P335PEC.1-002 (B)	Stopped Analysis	1	Nonfriable
Hallway in front of the front desk: floor	9" Gray floor tile with pink and brown streaks with random black dots and black mastic on concrete	15JS156 (A)	P335PEC.1-003 (A)	None Detected	2	Nonfriable
Hallway in front of the front desk: floor	9" Gray floor tile with pink and brown streaks with random black dots and black mastic on concrete	15JS156 (B)	P335PEC.1-003 (B)	5% Chrysotile	2	Nonfriable
Hallway in front of the front desk: floor in front of Front Desk Entry	9" Gray floor tile with pink and brown streaks with random black dots and black mastic on concrete	15JS157 (A)	P335PEC.1-004 (A)	None Detected	2	Nonfriable
Hallway in front of the front desk: floor in front of Front Desk Entry	9" Gray floor tile with pink and brown streaks with random black dots and black mastic on concrete	15JS157 (B)	P335PEC.1-004 (B)	Stopped Analysis	2	Nonfriable
Small Dining Area ceiling	2' x 2' suspended ceiling tile with irregular divets and holes	15KM801	P3125PEC.1-001	None Detected	3	Friable
H101: TV Lounge	2' x 2' suspended ceiling tile with irregular divets and holes	15KM802	P3125PEC.1-002	None Detected	3	Friable
Main Dining Area	2' x 2' suspended ceiling tile with fissures and many holes	15KM803	P3125PEC.1-003	None Detected	4	Friable
Mail RM: K124	2' x 2' suspended ceiling tile with fissures and many holes	15KM804	P3125PEC.1-004	None Detected	4	Friable
Recreation RM: NE wall	2' x 2' suspended ceiling tile with long divets	15KM805	P3125PEC.1-005	None Detected	5	Friable

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
<i>Callahan Residence Hall cont'd</i>						
RM K115: Back RM on E. ceiling	2' x 2' suspended ceiling tile with long divets	15KM806	P3125PEC.1-006	None Detected	5	Friable
Main Dining Area: SW corner	2' x 2' suspended ceiling tile with irregular sized holes	15KM807	P3125PEC.1-007	None Detected	6	Friable
Dining RM Entry: NE corner	2' x 2' suspended ceiling tile with irregular sized holes	15KM808	P3125PEC.1-008	None Detected	6	Friable
Kitchen: SW corner ceiling	2' x 2' suspended ceiling tile with smooth white vinyl covering	15KM809	P3125PEC.1-009	None Detected	7	Friable
Dishwashing RM: SW corner ceiling	2' x 2' suspended ceiling tile with smooth white vinyl covering	15KM810	P3125PEC.1-010	None Detected	7	Friable
Main Dining Area: E. Middle wall	Drywall	15KM811	P3125PEC.1-011	None Detected	8	Nonfriable
K118 Restroom: S. wall	Drywall	15KM812	P3125PEC.1-012	None Detected	8	Nonfriable
Main Dining Area: E. Middle wall	Tape/ Joint Compound	15KM813	P3125PEC.1-013	None Detected	9	Friable
K118 Restroom: S. wall	Tape/ Joint Compound	15KM814	P3125PEC.1-014	None Detected	9	Friable
Main Dining Area: E. Middle wall	Tape, Joint Compound, and Drywal (Composite)	15KM815	P3125PEC.1-015	None Detected	8/9	Friable
K118 Restroom: S. wall	Tape, Joint Compound, and Drywal (Composite)	15KM816	P3125PEC.1-016	None Detected	8/9	Friable
H103A ceiling	Plaster (top coat)	15KM817	P3125PEC.1-017	None Detected	10	Nonfriable
H103A ceiling	Plaster (base coat)	15KM818	P3125PEC.1-018	None Detected	30	Nonfriable
K102: Rm off Mech. Rm ceiling	Trowled on plaster ceiling covering	15KM822	P3125PEC.1-019	None Detected	11	Nonfriable
N. Storage Closet off K124: Mail RM	Plaster (top coat)	15KM823	P3125PEC.1-020	None Detected	10	Nonfriable
N. Storage Closet off K124: Mail RM	Plaster (base coat)	15KM824	P3125PEC.1-021	None Detected	30	Nonfriable
H102 Restroom	Plaster (top coat)	15KM825	P3125PEC.1-022	None Detected	10	Nonfriable
H102 Restroom	Plaster (base coat)	15KM826	P3125PEC.1-023	None Detected	30	Nonfriable

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
<i>Callahan Residence Hall cont'd</i>						
RM K118 Restroom ceiling	Trowled on plaster ceiling covering	15KM827	P3125PEC.1-024	None Detected	11	Nonfriable
K115 Back RM Closet ceiling	Trowled on plaster ceiling covering	15KM828	P3125PEC.1-025	None Detected	11	Nonfriable
H103: SW ceiling	Trowled on plaster ceiling covering	15KM829	P3125PEC.1-026	None Detected	11	Nonfriable
H103: SW ceiling	Trowled on plaster ceiling covering	15KM830	P3125PEC.1-027	None Detected	11	Nonfriable
Staff Restroom: NE ceiling	Trowled on plaster ceiling covering	15KM831	P3125PEC.1-028	None Detected	11	Nonfriable
H101: TV Lounge	Grey cove base and glue	15KM832	P3125PEC.1-029	None Detected	12	Nonfriable
Dishwashing Cove	Grey cove base and glue	15KM833	P3125PEC.1-030	None Detected	12	Nonfriable
Hallway in front of Front Desk	Black cove base and glue	15KM834 (A)	3125PEC.1-031 (A)	None Detected	13	Nonfriable
Hallway in front of Front Desk	Black cove base and glue	15KM834 (B)	3125PEC.1-031 (B)	None Detected	13	Nonfriable
H-wing Hallway	Black cove base and glue	15KM835 (A)	3125PEC.1-032 (A)	None Detected	13	Nonfriable
H-wing Hallway	Black cove base and glue	15KM835 (B)	3125PEC.1-032 (B)	None Detected	13	Nonfriable
Main Hallway: S. end near dining services entry	Brown cove base and glue	15KM836 (A)	3125PEC.1-033 (A)	None Detected	14	Nonfriable
Main Hallway: S. end near dining services entry	Brown cove base and glue	15KM836 (B)	3125PEC.1-033 (B)	None Detected	14	Nonfriable
Prep RM off Kitchen	Brown cove base and glue	15KM837 (A)	3125PEC.1-034 (A)	None Detected	14	Nonfriable
Prep RM off Kitchen	Brown cove base and glue	15KM837 (B)	3125PEC.1-034 (B)	None Detected	14	Nonfriable
E103: W. wall	Off-white cove base and glue	15KM838 (A)	3125PEC.1-035 (A)	None Detected	15	Nonfriable
E103: W. wall	Off-white cove base and glue	15KM838 (B)	3125PEC.1-035 (B)	None Detected	15	Nonfriable
E103: W. wall	Off-white cove base and glue	15KM839 (A)	3125PEC.1-036 (A)	None Detected	15	Nonfriable
E103: W. wall	Off-white cove base and glue	15KM839 (B)	3125PEC.1-036 (B)	None Detected	15	Nonfriable
Small Dining Hall: N. corner	12" x 12" Red floor tile	15KM840 (A)	3125PEC.1-037 (A)	None Detected	16	Nonfriable
Small Dining Hall: N. corner	12" x 12" Red floor tile	15KM840 (B)	3125PEC.1-037 (B)	None Detected	16	Nonfriable
Dishwashing Cove: SE corner	12" x 12" Red floor tile	15KM841 (A)	3125PEC.1-038 (A)	None Detected	16	Nonfriable

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
Callahan Residence Hall cont'd						
Dishwashing Cove: SE corner	12" x 12" Red floor tile	15KM841 (B)	3125PEC.1-038 (E)	None Detected	16	Nonfriable
Dining Rm Entry: W. closet flooring	Red unknown material	15KM842 (A)	3125PEC.1-039 (A)	None Detected	17	Nonfriable
Dining Rm Entry: W. closet flooring	Red unknown material	15KM842 (B)	3125PEC.1-039 (E)	None Detected	17	Nonfriable
Dining Rm Entry: E. closet flooring	Red unknown material	15KM843 (A)	3125PEC.1-040 (A)	None Detected	17	Nonfriable
Dining Rm Entry: E. closet flooring	Red unknown material	15KM843 (B)	3125PEC.1-040 (E)	None Detected	17	Nonfriable
H-wing Hallway: around exit door	Grey caulk	15KM844	P3125PEC.1-041	None Detected	18	Nonfriable
H-wing Hallway: around exit door	Grey caulk	15KM845	P3125PEC.1-042	None Detected	18	Nonfriable
Around Front Lobby Desk	White caulk	15KM846	P3125PEC.1-043	None Detected	19	Nonfriable
H101: TV Lounge N. window	White caulk	15KM847	P3125PEC.1-044	None Detected	19	Nonfriable
Around Front Lobby Desk	Clear caulk	15KM848	P3125PEC.1-045	None Detected	20	Nonfriable
H103: counter top	Clear caulk	15KM849	P3125PEC.1-046	None Detected	20	Nonfriable
H103A: around door frame	White bathroom caulk	15KM850	P3125PEC.1-047	None Detected	21	Nonfriable
Staff Restroom: around sink	White bathroom caulk	15KM851	P3125PEC.1-048	None Detected	21	Nonfriable
Kitchen Prep Rm: along silver entryway	Off-white caulk	15KM852	P3125PEC.1-049	None Detected	22	Nonfriable
Kitchen Prep Rm: along silver entryway	Off-white caulk	15KM853	P3125PEC.1-050	None Detected	22	Nonfriable
K114A- Storage	Off-white tape on duct	15KM854	P3125PEC.1-051	None Detected	23	Friable
K114A- Storage	Off-white tape on duct	15KM855	P3125PEC.1-052	None Detected	23	Friable
H101: TV Lounge NE corner	Grey cementitious fitting cover on pipe	15KM856	P3125PEC.1-053	None Detected	24	Friable
H103A: SW chase opening	Grey cementitious fitting cover on pipe	15KM857	P3125PEC.1-054	None Detected	24	Friable
S. end Firedoor leading to loading dock area	Fire Door Fill	15KM858	P3125PEC.1-055	20% Chrysotile	25	Friable
S. end Firedoor leading to loading dock area	Fire Door Fill	15KM859	P3125PEC.1-056	Stopped Analysis	25	Friable

**PLM BULK SAMPLE DATA SUMMARY TABLE
NORTHERN KENTUCKY UNIVERSITY
CALLAHAN RESIDENCE HALL
HIGHLAND HEIGHTS, KENTUCKY**

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>
Callahan Residence Hall cont'd						
W. end floor of Chapel	12" x 12" black floor tile	15KM860	P3125PEC.1-057	None Detected ¶	26	Nonfriable
Main Dining Area: NW corner	12" x 12" black floor tile	15KM861	P3125PEC.1-058	None Detected	26	Nonfriable
H103 Vending area N. floor	12" x 12" gold floor tile	15KM862	P3125PEC.1-059	None Detected ¶	27	Nonfriable
H103 Vending area N. floor	12" x 12" gold floor tile	15KM863	P3125PEC.1-060	None Detected	27	Nonfriable
H101: TV Lounge NW floor below window	Yellow carpet glue	15KM864	P3125PEC.1-061	None Detected	28	Nonfriable
H101: TV Lounge SW floor below window	Yellow carpet glue	15KM865	P3125PEC.1-062	None Detected	28	Nonfriable
W. side of Chapel below raised carpeted section	Grey carpet glue	15KM866	P3125PEC.1-063	None Detected	29	Nonfriable
W. side of Chapel below raised carpeted section	Grey carpet glue	15KM867	P3125PEC.1-064	None Detected	29	Nonfriable
H103: Vending NE corner ceiling	Trowled on plaster ceiling covering	15KM868	P3125PEC.1-065	None Detected	11	Nonfriable
1/2 Hallway off Chapel	12" x 12" tan floor tile with small brown and black slashes	15KM869	P3125PEC.1-066	None Detected ¶	31	Nonfriable
1/2 Hallway off Chapel	12" x 12" tan floor tile with small brown and black slashes	15KM870	P3125PEC.1-067	None Detected	31	Nonfriable
H101: TV Lounge NE corner	Grey cementitious fitting cover on pipe	15KM871	P3125PEC.1-068	None Detected	24	Friable
H102 Restroom: around window	Black caulk	15KM872	P3125PEC.1-069	None Detected	32	Nonfriable
H102 Restroom: around window	Black caulk	15KM873	P3125PEC.1-070	None Detected	32	Nonfriable

¶ Sample reanalyzed by TEM to confirm PLM results

* Homogeneous area number descriptions (bold type indicates asbestos-containing material)

- 1 - 9" Gray floor tile with pink and brown streaks with black mastic
- 2 - 9" Gray floor tile with pink and brown streaks and random black dots with black mastic
- 3 - 2' x 2' suspended ceiling tile with irregular divets and holes
- 4 - 2' x 2' suspended ceiling tile with fissures and many holes
- 5 - 2' x 2' suspended ceilingtile with long divets
- 6 - 2' x 2' suspended ceilingtile with irregular sized holes
- 7 - 2' x 2' suspended ceilingtile with smooth whitevinyl covering
- 8 - Drywall
- 9 - Tape/ Joint Compound
- 8/9 - Tape, Joint Compound, andDrywal (Composite)
- 10 - Plaster (top coat)
- 30 - Plaster (base coat)
- 11 - Trowled on plaster ceiling covering
- 12 - Grey cove base and glue

PLM BULK SAMPLE DATA SUMMARY TABLE
 NORTHERN KENTUCKY UNIVERSITY
 CALLAHAN RESIDENCE HALL
 HIGHLAND HEIGHTS, KENTUCKY

<i>Sample Location</i>	<i>Sample Description</i>	<i>Sample ID No.</i>	<i>Lab ID No.</i>	<i>Asbestos Content</i>	<i>* Homogeneous Area #</i>	<i>Friable/ Nonfriable</i>

** Homogeneous area number descriptions (bold type indicates asbestos-containing material)*

- 13 - Black cove base and glue
- 14 - Brown cove base and glue
- 15 - Off-white cove base and glue
- 16 - 12" x 12" Red floor tile
- 17 - Red unknown material
- 18 - Grey caulk
- 19 - White caulk
- 20 - Clear caulk
- 21 - White bathroom caulk
- 22 - Off-white caulk
- 23 - Off-white tape on duct
- 24 - Grey cementitious fitting cover on pipe
- 25 - Fire Door Fill**
- 26 - 12" x 12" black floor tile
- 27 - 12" x 12" gold floor tile
- 28 - Yellow carpet glue
- 29 - Grey carpet glue
- 31 - 12" x 12" tan floor tile with small brown and blackslashes
- 32 - Black caulk



December 10, 2007

Ms. Marcie Kinney
Project Manager
GBBN Architects, Inc.
332 East 8th Street
Cincinnati, Ohio 45202

**Re: Post ACM Abatement Inspections and Final Clearance Air Monitoring of Regulated Abatement Work Areas on Floors 1 - 3 at the NKU Student Residence Hall
PN 1275.005**

Dear Ms. Kinney:

From November 23 through November 30, 2007, BHE Environmental, Inc. (BHE) provided the on-site services of an experienced industrial hygienist/asbestos management planner that conducted final visual inspections of regulated abatement work areas on floors 1 through 3 of the NKU Student Residence Hall to ensure that all designated asbestos-containing building materials had been completely removed, that the areas were cleaned up and finished surfaces were free of asbestos dust and debris. Once the regulated work area successfully passed a final visual inspection, BHE performed final clearance air monitoring and submitted the samples to an AIHA-accredited laboratory for analysis by phase contrast microscopy (PCM) per EPA (AHERA) 40 CFR Part 763.

Mr. David Gregory, Industrial Hygienist/Kentucky-licensed Asbestos Management Planner, and Ms. Linda Zerwick, an EPA-accredited Contractor/Supervisor, Building Inspector, and Management Planner, performed the specified on-site services. Mr. Jasen Holton, A.S.P., reviewed the monitoring results and served as the BHE project manager. Mr. Mark Karaffa, C.I.H., prepared this report and provided senior review. Verbal results had been reported previously to the abatement contractor.

Asbestos-containing acoustical ceiling panels were removed by Aegis Environmental (Aegis) in accordance with proper practices and procedures and applicable requirements of the OSHA asbestos standard for construction [29 CFR 1926.1101(g)], Kentucky asbestos regulations, and the project specifications. Prior to beginning these removal operations, critical barriers were installed and a negatively-pressurized containment system was constructed in each regulated work area. Each area was demarcated and access was restricted by the use of the critical barriers, plastic partitions, and warning signs. The acoustical, lay-in ceiling panels were completely wetted with mist-applications of amended water, removed, and placed into 6-mil plastic disposal bags, and sealed. The metal ceiling suspension system was also removed, wrapped in leak-tight containers, and disposed as asbestos waste. A limited amount of non-friable floor tile and underlying mastic were removed around each unit ventilator. Floor tiles were wetted and removed intact and underlying floor tile mastic on the concrete floor slabs was removed with a commercially available, low-odor mastic remover. A HEPA-filtered vacuum and/or wet cleaning methods were used to remove any dust or debris on finished surfaces in work areas and from surfaces of building components above the ceiling line.

BHE inspected each work area and substrates for complete material removal following abatement to ensure that the contractor had adequately cleaned all substrates and exposed surfaces inside each containment area. Surfaces of building components above the ceiling grid (e.g., piping, structural steel, roof/ceilings decks) and other exposed surfaces inside the containment were sprayed with lockdown encapsulant after all ceiling panels and grid had been removed and the surfaces were visibly clean.

Final clearance air samples were collected by BHE in each regulated work area after the contractor notified BHE that they had completed all work, a visual inspection confirmed that all the specified ACM had been completely removed, and that any dust or debris generated during the removal operations had been completely cleaned up.

A minimum of five stationary air samplers or one sampling pump per room (i.e., filter cassettes on tripods connected to high-volume electric sampling pumps) were collected with pumps calibrated to a flow rate of approximately 10 liters per minute and run two hours for a sample volume of 1,200 liters per minute. Sets of PCM final clearance air samples were collected in the work area and submitted to EMSL Analytical (EMSL) of Westmont, New Jersey, for analysis by PCM in accordance with NIOSH Method 7400. EMSL is accredited by the American Industrial Hygiene Association. A copy of the EMSL laboratory report is attached.

Six separate sets of final clearance samples were collected from six different regulated work areas on Floors 1, 2, and 3. Descriptions of these work areas, the dates sampled, and the sample numbers for each area are listed below.

Description	Clearance Date	Sample Numbers
Third floor, rooms in B, C, D, and K Wings	11/23/07	NKU-F-01 through 26
Third floor, rooms in A, G, H, and K Wings	11/27/07	NKU-F-27 through 43
First floor, small central room	11/29/07	NKU-F-44 through 48
First Floor, Chapel	11/30/07	NKU-F-49 through 53
First floor, second small room	11/30/07	NKU-F-54 through 58
Second floor, rooms in A, B, D, G, H, and K Wings	11/30/07	NKU-F-59 through 109

A minimum of five samples or one sample per room (whichever was larger) were collected from each regulated work area. Sample sets were submitted to the laboratory for PCM analyses on the day they were collected and analyses were reported to BHE on the day received by the laboratory. The results of the final clearance air tests were also reported verbally by BHE to its on-site technician and to the abatement contractor's on-site supervisor. Copies of the EMSL laboratory reports for these six sets of clearance samples are included as an Attachment.

The final clearance sample results ranged from below the analytical limit of detection (0.002 fibers/cubic centimeter of air, f/cc) to 0.004 f/cc. These data indicate that the contractor's removal of the specified ACM, final cleanup, and the decontamination of each regulated work area was effective, complete, and met the State of Kentucky's PCM clearance criteria (each sample \leq 0.01 fiber/cc). The proper and complete removal of designated ACM, thorough cleanup, and satisfactory final visual inspections and air clearance levels support the

conclusion that the asbestos hazard in these regulated work areas have been effectively controlled and that these areas are acceptable for reoccupancy by other trades that will perform other renovation work.

Thank you for requesting the technical asbestos consulting services of BHE Environmental. Please do not hesitate to call us if you have any questions or if we can be of further assistance.

Sincerely,



Mark A. Karaffa, C.I.H.
Senior Technical Director
Industrial Hygiene and Safety

MAK/wbm

Attachment

ATTACHMENT
EMSL Analytical, Inc. PCM Analytical Reports



EMSL Analytical, Inc.

107 Haddon Ave., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4960 Email: westmontlab@EMSL.com

Attn: **Jasen Holton**
BHE Environmental, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Fax: (513) 326-1550 Phone: (513) 326-1500
Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
Customer PO:
Received: 11/30/07 9:45 AM
EMSL Order: 040729632

EMSL Proj:
Analysis Date: 11/30/2007
Report Date: 11/30/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-54 040729632-0001	1ST FL 2ND SMALL RM	11/29/2007	1157.40	5.5	100	0.002	7.01	0.002	
NKU-F-55 040729632-0002	1ST FL 2ND SMALL RM	11/29/2007	1163.16	6	100	0.002	7.64	0.003	
NKU-F-56 040729632-0003	1ST FL 2ND SMALL RM	11/29/2007	1198.90	5.5	100	0.002	7.01	0.002	
NKU-F-57 040729632-0004	1ST FL 2ND SMALL RM	11/29/2007	1223.40	7	100	0.002	8.92	0.003	
NKU-F-58 040729632-0005	1ST FL 2ND SMALL RM	11/29/2007	1158.20	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s) _____

Delores Beard (5)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



EMSL Analytical, Inc.
 107 Haddon Ave., Westmont, NJ 08108
 Phone: (856) 858-4800 Fax: (856) 858-4960 Email: westmontslab@EMSL.com

Attn: **Jasen Holton**
BHE Environmental, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Fax: (513) 326-1550 Phone: (513) 326-1500
 Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/27/07 9:50 AM
 EMSL Order: 040729300
 EMSL Proj:
 Analysis Date: 11/27/2007
 Report Date: 11/27/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-27	RM A305	11/26/2007	1196.30	<5.5	100	0.002	<7.0	<0.002	
040729300-0001									
NKU-F-28	RM A no #	11/26/2007	1234.10	<5.5	100	0.002	<7.0	<0.002	
040729300-0002									
NKU-F-29	RM A301-1	11/26/2007	1251.00	<5.5	100	0.002	<7.0	<0.002	
040729300-0003									
NKU-F-30	RM A301-2	11/26/2007	1266.80	<5.5	100	0.002	<7.0	<0.002	
040729300-0004									
NKU-F-31	RM K322	11/26/2007	1216.20	<5.5	100	0.002	<7.0	<0.002	
040729300-0005									
NKU-F-32	RM H303	11/26/2007	1253.60	<5.5	100	0.002	<7.0	<0.002	
040729300-0006									
NKU-F-33	RM H304	11/26/2007	1153.70	<5.5	100	0.002	<7.0	<0.002	
040729300-0007									
NKU-F-34	RM H301	11/26/2007	1226.00	<5.5	100	0.002	<7.0	<0.002	
040729300-0008									
NKU-F-35	RM K317	11/26/2007	1152.70	<5.5	100	0.002	<7.0	<0.002	
040729300-0009									
NKU-F-36	RM G309	11/26/2007	1248.90	<5.5	100	0.002	<7.0	<0.002	
040729300-0010									

Analyst(s)
 Delores Beard (17)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



EMSL Analytical, Inc.

107 Haddon Ave., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-4960 Email: westmontslab@EMSL.com

Attn: **Jasen Holton**
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11733 Chesterdale Road
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Fax: (513) 326-1550 Phone: (513) 326-1500
Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
Customer PO:
Received: 11/27/07 9:50 AM
EMSL Order: 040729300

EMSL Proj:
Analysis Date: 11/27/2007
Report Date: 11/27/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-37	RM G310	11/26/2007	1279.60	<5.5	100	0.002	<7.0	<0.002	
040729300-0011									
NKU-F-38	RM G308	11/26/2007	1275.70	<5.5	100	0.002	<7.0	<0.002	
040729300-0012									
NKU-F-39	RM G307	11/26/2007	1214.40	<5.5	100	0.002	<7.0	<0.002	
040729300-0013									
NKU-F-40	RM G305	11/26/2007	1253.90	<5.5	100	0.002	<7.0	<0.002	
040729300-0014									
NKU-F-41	RM G303	11/26/2007	1259.00	<5.5	100	0.002	<7.0	<0.002	
040729300-0015									
NKU-F-42	RM G301	11/26/2007	1262.70	<5.5	100	0.002	<7.0	<0.002	
040729300-0016									
NKU-F-43	RM G302	11/26/2007	1261.90	<5.5	100	0.002	<7.0	<0.002	
040729300-0017									

No discernable field blanks submitted with this sample set.

Analyst(s) _____

Delores Beard (17)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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107 Haddon Ave., Westmont, NJ 08108

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BHE Environmental, Inc.
11733 Chesterdale Road
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Fax: (513) 326-1550 Phone: (513) 326-1500
Project: **1275.005 NKU-RESIDENCE HALL**

Customer ID: BHE50
Customer PO:
Received: 11/23/07 9:25 AM
EMSL Order: 040729057
EMSL Proj:
Analysis Date: 11/23/2007
Report Date: 11/23/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-01 040729057-0001	RM K311	11/21/2007	1217.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-02 040729057-0002	RM K310	11/21/2007	1206.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-03 040729057-0003	RM D309	11/21/2007	1279.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-04 040729057-0004	RM D307	11/21/2007	1280.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-05 040729057-0005	RM D308	11/21/2007	1260.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-06 040729057-0006	RM D305	11/21/2007	1295.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-07 040729057-0007	RM D306	11/21/2007	1296.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-08 040729057-0008	RM D303	11/21/2007	1270.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-09 040729057-0009	RM D302	11/21/2007	1270.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-10 040729057-0010	RM D301	11/21/2007	1273.30	<5.5	100	0.002	<7.0	<0.002	

Analyst(s)

Delores Beard (26)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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Customer ID: BHE50
Customer PO:
Received: 11/23/07 9:25 AM
EMSL Order: 040729057
EMSL Proj:
Analysis Date: 11/23/2007
Report Date: 11/23/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-11	RM C309	11/21/2007	1315.80	<5.5	100	0.002	<7.0	<0.002	
040729057-0011									
NKU-F-12	RM C310	11/21/2007	1264.00	<5.5	100	0.002	<7.0	<0.002	
040729057-0012									
NKU-F-13	RM C307	11/21/2007	1300.90	<5.5	100	0.002	<7.0	<0.002	
040729057-0013									
NKU-F-14	RM C305	11/21/2007	1272.30	<5.5	100	0.002	<7.0	<0.002	
040729057-0014									
NKU-F-15	RM C304	11/21/2007	1254.70	<5.5	100	0.002	<7.0	<0.002	
040729057-0015									
NKU-F-16	RM C303	11/21/2007	1261.10	<5.5	100	0.002	<7.0	<0.002	
040729057-0016									
NKU-F-17	RM C302	11/21/2007	1376.90	<5.5	100	0.002	<7.0	<0.002	
040729057-0017									
NKU-F-18	RM C301	11/21/2007	1266.30	<5.5	100	0.002	<7.0	<0.002	
040729057-0018									
NKU-F-19	RM K304	11/21/2007	1245.10	<5.5	100	0.002	<7.0	<0.002	
040729057-0019									
NKU-F-20	RM K303	11/21/2007	1267.50	<5.5	100	0.002	<7.0	<0.002	
040729057-0020									

Analyst(s)
Delores Beard (26)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.
Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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 107 Haddon Ave., Westmont, NJ 08108
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Attn: **Jason Holton**
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11733 Chesterdale Road
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Fax: (513) 326-1550 Phone: (513) 326-1500
 Project: **1275.005 NKU-RESIDENCE HALL**

Customer ID: BHE50
 Customer PO:
 Received: 11/23/07 9:25 AM
 EMSL Order: 040729057
 EMSL Proj:
 Analysis Date: 11/23/2007
 Report Date: 11/23/2007

Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-21	RM B309	11/21/2007	1247.40	<5.5	100	0.002	<7.0	<0.002	
040729057-0021									
NKU-F-22	RM B310	11/21/2007	1247.40	<5.5	100	0.002	<7.0	<0.002	
040729057-0022									
NKU-F-23	RM B305	11/21/2007	1219.70	<5.5	100	0.002	<7.0	<0.002	
040729057-0023									
NKU-F-24	RM B304	11/21/2007	1215.50	<5.5	100	0.002	<7.0	<0.002	
040729057-0024									
NKU-F-25	RM B301	11/21/2007	1268.70	<5.5	100	0.002	<7.0	<0.002	
040729057-0025									
NKU-F-26	RM B302	11/21/2007	1234.30	<5.5	100	0.002	<7.0	<0.002	
040729057-0026									

No discernable field blanks submitted with this sample set.

Analyst(s)

 Delores Beard (26)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

Limit of detection is 7 fibers/mm². The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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107 Haddon Ave., Westmont, NJ 08108

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11733 Chesterdale Road
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Fax: (513) 326-1550 Phone: (513) 326-1500
Project: **1275.005 NKU RESIDENCE HALL**

Customer ID: BHE50
Customer PO:
Received: 11/29/07 9:40 AM
EMSL Order: 040729514

EMSL Proj:
Analysis Date: 11/29/2007
Report Date: 11/29/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-44 040729514-0001	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1383.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-45 040729514-0002	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1566.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-46 040729514-0003	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1098.90	<5.5	100	0.002	<7.0	<0.002	
NKU-F-47 040729514-0004	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1215.60	<5.5	100	0.002	<7.0	<0.002	
NKU-F-48 040729514-0005	SMALL CENTRAL ROOM 1ST FLOOR	11/28/2007	1171.20	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s) _____

Delores Beard (5)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm³. The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. The test results contained within this report meet the requirements of NELAC unless otherwise noted. This report may not be reproduced, except in full, without written approval by EMSL. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



EMSL Analytical, Inc.

107 Haddon Ave., Westmont, NJ 08108

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Attn: **Jasen Holton**
BHE Environmental, Inc.
11733 Chesterdale Road
Cincinnati, OH 45246

Fax: (513) 326-1550 Phone: (513) 326-1500
Project: **1275.005/NKU-RESIDENCE HALL**

Customer ID: BHE50
Customer PO:
Received: 11/30/07 9:45 AM
EMSL Order: 040729635
EMSL Proj:
Analysis Date: 11/30/2007
Report Date: 11/30/2007

**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-49 040729635-0001	CHAPEL	11/29/2007	1380.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-50 040729635-0002	CHAPEL	11/29/2007	1560.00	<5.5	100	0.002	<7.0	<0.002	
NKU-F-51 040729635-0003	CHAPEL	11/29/2007	1108.80	<5.5	100	0.002	<7.0	<0.002	
NKU-F-52 040729635-0004	CHAPEL	11/29/2007	1202.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-53 040729635-0005	CHAPEL	11/29/2007	1155.60	<5.5	100	0.002	<7.0	<0.002	

No discernable field blanks submitted with this sample set.

Analyst(s)
Delores Beard (5)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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Analysis performed by EMSL Westmont (NY State ELAP #10872, AIHA #100194)



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**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-59	B 208	11/29/2007	1256.10	<5.5	100	0.002	<7.0	<0.002	
040729640-0001									
NKU-F-60	B 207	11/29/2007	1185.00	<5.5	100	0.002	<7.0	<0.002	
040729640-0002									
NKU-F-61	B 205	11/29/2007	1359.50	<5.5	100	0.002	<7.0	<0.002	
040729640-0003									
NKU-F-62	B 206	11/29/2007	1222.40	7	100	0.002	8.92	0.003	
040729640-0004									
NKU-F-63	B 204	11/29/2007	1214.00	6.5	100	0.002	8.28	0.003	
040729640-0005									
NKU-F-64	B 203	11/29/2007	1231.00	6	100	0.002	7.64	0.002	
040729640-0006									
NKU-F-65	B 202	11/29/2007	1204.20	7	100	0.002	8.92	0.003	
040729640-0007									
NKU-F-66	B 201	11/29/2007	1185.40	<5.5	100	0.002	<7.0	<0.002	
040729640-0008									
NKU-F-67	K 215	11/29/2007	1142.00	6	100	0.002	7.64	0.003	
040729640-0009									
NKU-F-68	K 217	11/29/2007	1479.30	6	100	0.002	7.64	0.002	
040729640-0010									

Analyst(s)

Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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**Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3,
Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-69	K 218	11/29/2007	1243.70	6	100	0.002	7.64	0.002	
040729640-0011									
NKU-F-70	A 206	11/29/2007	1185.40	<5.5	100	0.002	<7.0	<0.002	
040729640-0012									
NKU-F-71	A 205	11/29/2007	1161.90	<5.5	100	0.002	<7.0	<0.002	
040729640-0013									
NKU-F-72	A 203-1	11/29/2007	1244.90	5.5	100	0.002	7.01	0.002	
040729640-0014									
NKU-F-73	A 203-2	11/29/2007	1262.50	<5.5	100	0.002	<7.0	<0.002	
040729640-0015									
NKU-F-74	A 201-1	11/29/2007	1229.70	8	100	0.002	10.2	0.003	
040729640-0016									
NKU-F-75	A 201-2	11/29/2007	1239.50	<5.5	100	0.002	<7.0	<0.002	
040729640-0017									
NKU-F-76	K 219	11/29/2007	1261.10	8	100	0.002	10.2	0.003	
040729640-0018									
NKU-F-77	K 220	11/29/2007	1249.70	7	100	0.002	8.92	0.003	
040729640-0019									
NKU-F-78	H 206	11/29/2007	1260.80	6	100	0.002	7.64	0.002	
040729640-0020									

Analyst(s) _____
Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
or other approved signatory

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 Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-79	H 204	11/29/2007	1275.80	9	100	0.002	11.5	0.003	
040729640-0021									
NKU-F-80	K 221	11/29/2007	1310.60	6.5	100	0.002	8.28	0.002	
040729640-0022									
NKU-F-81	K 221-1	11/29/2007	1212.60	<5.5	100	0.002	<7.0	<0.002	
040729640-0023									
NKU-F-82	K 201	11/29/2007	1596.90	11	100	0.002	14	0.003	
040729640-0024									
NKU-F-83	K 202	11/29/2007	1132.60	<5.5	100	0.002	<7.0	<0.002	
040729640-0025									
NKU-F-85	G 209	11/29/2007	1393.20	<5.5	100	0.002	<7.0	<0.002	
040729640-0026									
NKU-F-86	G 210	11/29/2007	1114.80	<5.5	100	0.002	<7.0	<0.002	
040729640-0027									
NKU-F-87	G 207	11/29/2007	1228.80	7	100	0.002	8.92	0.003	
040729640-0028									
NKU-F-88	G 208	11/29/2007	1148.40	<5.5	100	0.002	<7.0	<0.002	
040729640-0029									
NKU-F-89	G 205	11/29/2007	1208.80	<5.5	100	0.002	<7.0	<0.002	
040729640-0030									

Analyst(s)
 Dave Stanhope (50)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

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Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-90 040729640-0031	G 203	11/29/2007	1447.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-91 040729640-0032	G 201	11/29/2007	1200.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-92 040729640-0033	G 202	11/29/2007	1238.30	<5.5	100	0.002	<7.0	<0.002	
NKU-F-93 040729640-0034	H 203	11/29/2007	1265.90	10.5	100	0.002	13.4	0.004	
NKU-F-94 040729640-0035	K 203	11/29/2007	1211.50	13	100	0.002	16.6	0.005	
NKU-F-95 040729640-0036	EYE WASH STATION	11/29/2007	1160.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-96 040729640-0037	K 205	11/29/2007	1154.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-97 040729640-0038	K 207	11/29/2007	1213.60	7	100	0.002	8.92	0.003	
NKU-F-98 040729640-0039	K 208	11/29/2007	1124.10	<5.5	100	0.002	<7.0	<0.002	
NKU-F-99 040729640-0040	K 209	11/29/2007	1133.80	<5.5	100	0.002	<7.0	<0.002	

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Issue 2, 8/15/94**

Sample	Location	Sample Date	Volume	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
NKU-F-100 040729640-0041	D 210	11/29/2007	1156.70	<5.5	100	0.002	<7.0	<0.002	
NKU-F-101 040729640-0042	D 207	11/29/2007	1183.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-102 040729640-0043	D 205	11/29/2007	1201.50	<5.5	100	0.002	<7.0	<0.002	
NKU-F-103 040729640-0044	D 206	11/29/2007	1205.40	<5.5	100	0.002	<7.0	<0.002	
NKU-F-104 040729640-0045	D 204	11/29/2007	1171.20	7	100	0.002	8.92	0.003	
NKU-F-105 040729640-0046	D 203	11/29/2007	1212.40	7	100	0.002	8.92	0.003	
NKU-F-106 040729640-0047	D 201	11/29/2007	1219.20	8	100	0.002	10.2	0.003	
NKU-F-107 040729640-0048	D 202	11/29/2007	1171.20	<5.5	100	0.002	<7.0	<0.002	
NKU-F-108 040729640-0049	K 211	11/29/2007	1459.10	9	100	0.002	11.5	0.003	
NKU-F-109 040729640-0050	K 212	11/29/2007	1166.40	<5.5	100	0.002	<7.0	<0.002	

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<i>Sample</i>	<i>Location</i>	<i>Sample Date</i>	<i>Volume</i>	<i>Fibers</i>	<i>Fields</i>	<i>LOD (fib/cc)</i>	<i>Fibers/ mm²</i>	<i>Fibers/ cc</i>	<i>Notes</i>
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No discernable field blanks submitted with this sample set.

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Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
 Northern Kentucky University, Student Residence Hall
 Highland Heights, Kentucky
 August 2007

Material Description	Location	Quantity
Basement		
Thermal system insulation on pipes	Boiler room	150 lf.
Cementitious fittings on fiberglass insulated lines (lines greater than or equal to 8")		100 fittings
Thermal system insulation on boilers		2,800 ft. ²
Thermal system insulation on boiler breeching		900 ft. ²
Thermal system insulation on tanks		1,250 ft. ²
Coating on sink	Central supply	15 ft. ²
Fire door	Stairwell between B and C wings	1
Fire door	Stairwell between D and E wings	1
Fire door	Stairwell between E and F wings	1
First Floor		
Floor tile and mastic	A101	50 ft. ²
Suspended ceiling panels		250 ft. ²
Floor tile and mastic	A102	50 ft. ²
Floor tile and mastic	A103	50 ft. ²
Floor tile and mastic	A104	50 ft. ²
Floor tile and mastic	A105	25 ft. ²
Floor tile and mastic	A106	25 ft. ²
Floor tile and mastic (some damaged)	A wing hallway	65 ft. ²
Floor tile and mastic (some damaged)	A wing stairwell	125 ft. ²
Fire door		1
Floor tile and mastic	B101	25 ft. ²

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
First Floor (cont'd)		
Floor tile and mastic (damaged)	C wing hallway	45 ft. ²
Floor tile and mastic	C wing stairwell	25 ft. ²
Fire door		1
Floor tile and mastic	D101	25 ft. ²
Floor tile and mastic	D102	25 ft. ²
Floor tile and mastic	D103	25 ft. ²
Floor tile and mastic	D104	35 ft. ²
Floor tile and mastic	D105	25 ft. ²
Floor tile and mastic	D106	25 ft. ²
Floor tile and mastic	D107	25 ft. ²
Floor tile and mastic	D108	25 ft. ²
Floor tile and mastic	D109	25 ft. ²
Floor tile and mastic	D110	25 ft. ²
Floor tile and mastic	D wing lounge	75 ft. ²
Floor tile and mastic	D wing hallway	45 ft. ²
Floor tile and mastic	D wing stairwell	25 ft. ²
Fire door		1
Floor tile and mastic	E 101	25 ft. ²
Floor tile and mastic	E103	25 ft. ²
Floor tile and mastic	F101	25 ft. ²
Floor tile and mastic	F102	85 ft. ²
Floor tile and mastic	F104	25 ft. ²
Floor tile and mastic	F106	25 ft. ²
Floor tile and mastic	F107	25 ft. ²
Floor tile and mastic	F108	25 ft. ²
Floor tile and mastic	F109	25 ft. ²

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
First Floor (cont'd)		
Floor tile and mastic	Study J	75 ft. ²
Window glazing compound		600 lf.
Floor tile and mastic	J wing hallway	75 ft. ²
Floor tile and mastic	Dining hall	2,200 ft. ²
Floor tile and mastic	Chapel	1,100 ft. ²
Suspended ceiling panels		1,100 ft. ²
Floor tile and mastic	Hallway outside chapel	300 ft. ²
Floor tile and mastic	Storage next to mechanical room	500 ft. ²
Preformed block pipe insulation	Mechanical room	50 lf.
Suspended ceiling panels	Storage next to computer room	160 ft. ²
Floor tile and mastic	K wing hallway	600 ft. ²
Floor tile and mastic	Stairwell between A and H wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between B and C wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between D and E wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between E and F wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between G and H wings	25 ft. ²
Fire door		1
Second Floor		
Floor tile and mastic	A201	25 ft. ²
Suspended ceiling panels		250 ft. ²
Floor tile and mastic	A202	25 ft. ²

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
Second Floor (cont'd)		
Floor tile and mastic	B206	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	B207	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	B208	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	B209	25 ft. ²
Floor tile and mastic	B210	25 ft. ²
Floor tile and mastic	B wing lounge	75 ft. ²
Floor tile and mastic	B wing stairwell	25 ft. ²
Fire door		1
Floor tile and mastic	B wing hallway	45 ft. ²
Floor tile and mastic	C201	25 ft. ²
Floor tile and mastic	C202	25 ft. ²
Floor tile and mastic	C203	25 ft. ²
Floor tile and mastic	C204	25 ft. ²
Floor tile and mastic	C205	25 ft. ²
Floor tile and mastic	C206	25 ft. ²
Floor tile and mastic	C207	25 ft. ²
Floor tile and mastic	C208	25 ft. ²
Floor tile and mastic	C209	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	C210	25 ft. ²
Floor tile and mastic	C wing lounge	50 ft. ²
Floor tile and mastic	C wing stairwell	25 ft. ²
Fire door		1

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
Second Floor (cont'd)		
Floor tile and mastic	F207	25 ft. ²
Floor tile and mastic	F208	25 ft. ²
Floor tile and mastic	F209	25 ft. ²
Floor tile and mastic	F210	25 ft. ²
Fire door	F wing stairwell	1
Floor tile and mastic	F wing hallway	65 ft. ²
Floor tile and mastic	G201	85 ft. ²
Suspended ceiling panels		360 ft. ²
Floor tile and mastic	G202	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G203	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G205	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G207	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G208	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	G209	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G210	25 ft. ²
Suspended ceiling panels		240 ft. ²
Fire door	F wing stairwell	1
Floor tile and mastic	F wing hallway	45 ft. ²
Floor tile and mastic	H201	85 ft. ²
Floor tile and mastic	H203	240 ft. ²

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
Second Floor (cont'd)		
Floor tile and mastic	K212	25 ft. ²
Floor tile and mastic	K213	25 ft. ²
Floor tile and mastic	K214	25 ft. ²
Floor tile and mastic	K215	85 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K216	85 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K217	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K218	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K219	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K220	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K221	25 ft. ²
Suspended ceiling panels		280 ft. ²
Floor tile and mastic	K222	25 ft. ²
Floor tile and mastic	K223	25 ft. ²
Suspended ceiling panels		140 ft. ²
Floor tile and mastic	K wing hallway	600 ft. ²
Floor tile and mastic	Stairwell between A and H wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between B and C wings	25 ft. ²
Fire door		1

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
Third Floor (cont'd)		
Floor tile and mastic	B306	25 ft. ²
Floor tile and mastic	B307	25 ft. ²
Floor tile and mastic	B308	25 ft. ²
Floor tile and mastic	B309	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	B310	25 ft. ²
Suspended ceiling panels		360 ft. ²
Floor tile and mastic	B wing lounge	75 ft. ²
Floor tile and mastic	B wing stairwell	25 ft. ²
Fire door		1
Floor tile and mastic	B wing hallway	45 ft. ²
Floor tile and mastic	C301	25 ft. ²
Suspended ceiling panels		360 ft. ²
Floor tile and mastic	C302	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	C303	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	C304	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	C305	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	C306	25 ft. ²
Floor tile and mastic	C307	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	C308	25 ft. ²
Floor tile and mastic	C309	25 ft. ²

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
Third Floor (cont'd)		
Floor tile and mastic	D wing stairwell	25 ft. ²
Fire door		1
Floor tile and mastic	D wing hallway	45 ft. ²
Floor tile and mastic	F301	25 ft. ²
Floor tile and mastic	F302	85 ft. ²
Floor tile and mastic	F304	25 ft. ²
Floor tile and mastic	F306	25 ft. ²
Floor tile and mastic	F307	25 ft. ²
Floor tile and mastic	F308	25 ft. ²
Floor tile and mastic	F309	25 ft. ²
Floor tile and mastic	F310	25 ft. ²
Floor tile and mastic	F wing stairwell	25 ft. ²
Fire door		1
Floor tile and mastic	F wing hallway	65 ft. ²
Floor tile and mastic	G301	85 ft. ²
Suspended ceiling panels		360 ft. ²
Floor tile and mastic	G302	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G303	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G305	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G307	25 ft. ²
Suspended ceiling panels		320 ft. ²
Floor tile and mastic	G308	25 ft. ²
Suspended ceiling panels		240 ft. ²

**Table 1. Inventory of Asbestos-Containing Materials Specified for Removal
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

Material Description	Location	Quantity
Third Floor (cont'd)		
Floor tile and mastic	K310	25 ft. ²
Floor tile and mastic	K311	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K312	25 ft. ²
Floor tile and mastic	K313	25 ft. ²
Floor tile and mastic	K314	25 ft. ²
Floor tile and mastic	K315	25 ft. ²
Floor tile and mastic	K316	25 ft. ²
Floor tile and mastic	K317	25 ft. ²
Suspended ceiling panels		240 ft. ²
Floor tile and mastic	K318	25 ft. ²
Floor tile and mastic	K319	25 ft. ²
Floor tile and mastic	K320	25 ft. ²
Floor tile and mastic	K321	25 ft. ²
Floor tile and mastic	K322	25 ft. ²
Suspended ceiling panels		280 ft. ²
Floor tile and mastic	K323	25 ft. ²
Floor tile and mastic	K wing hallway	600 ft. ²
Floor tile and mastic	Stairwell between A and H wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between B and C wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between D and E wings	25 ft. ²
Fire door		1
Floor tile and mastic	Stairwell between E and F wings	25 ft. ²
Fire door		1

TABLE 2.
Confirmatory Bulk Sample PLM Analytical Results

Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007

I.D.	Sampled Material	% Asbestos
GBBN-A-01	Preformed block material on boiler - boiler #1	23% Amosite 4% Chrysotile
GBBN-A-02	Preformed block material on boiler - boiler #1	23% Amosite 4% Chrysotile
GBBN-A-03	Preformed block material on boiler - boiler #1	23% Amosite 4% Chrysotile
GBBN-A-04	Preformed block material on boiler - boiler #2	21% Amosite 5% Chrysotile
GBBN-A-05	Preformed block material on boiler - boiler #2	23% Amosite 4% Chrysotile
GBBN-A-06	Preformed block material on boiler - boiler #2	21% Amosite 5% Chrysotile
GBBN-A-07	Preformed block material on boiler - boiler #3	20% Amosite 21% Chrysotile
GBBN-A-08	Preformed block material on boiler - boiler #3	20% Amosite 21% Chrysotile
GBBN-A-09	Preformed block material on boiler - boiler #3	20% Amosite 21% Chrysotile
GBBN-A-10	Gasket on boiler - boiler 1	ND
GBBN-A-11	Gasket on boiler - boiler 1	ND
GBBN-A-12	Gasket on boiler - boiler 2	ND
GBBN-A-13	Gasket on boiler - boiler 2	ND
GBBN-A-14	Gasket on boiler - boiler 3	ND
GBBN-A-15	Gasket on boiler - boiler 3	ND
GBBN-A-16	Firebrick in boiler - boiler 1	ND
GBBN-A-17	Firebrick in boiler - boiler 1	ND
GBBN-A-18	Firebrick in boiler - boiler 2	ND

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-37	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-38	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-39	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-40	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-41	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-42	Cementitious fitting on fiberglass insulated line - 6" line	ND
GBBN-A-43	Cementitious fitting on fiberglass insulated line - 6" line	ND
GBBN-A-44	Cementitious fitting on fiberglass insulated line - 6" line	ND
GBBN-A-45	Cementitious fitting on fiberglass insulated line - 8" line	ND
GBBN-A-46	Cementitious fitting on fiberglass insulated line - 8" line	ND
GBBN-A-47	Cementitious fitting on fiberglass insulated line - 8 line	36.75 Chrysotile
GBBN-A-48	Cementitious fitting on fiberglass insulated line - 12 line	1.58 Chrysotile
GBBN-A-49	Cementitious fitting on fiberglass insulated line - 12" line	ND
GBBN-A-50	Cementitious fitting on fiberglass insulated line - 12" line	ND
GBBN-A-51	Preformed block insulation on suspended tank - tank 1	9 Amosite 57 Chrysotile
GBBN-A-52	Preformed block insulation on suspended tank - tank 2	12 Amosite 39 Chrysotile
GBBN-A-53	Preformed block insulation on suspended tank - tank 3	23 Amosite 22 Chrysotile
GBBN-A-54	Preformed block insulation on suspended tank - tank 4	9 Amosite 57 Chrysotile
GBBN-A-55	Preformed block insulation on suspended tank - tank 5	12 Amosite 39 Chrysotile

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-72	Linoleum (FT 11) - green	ND
GBBN-A-73	Drywall/joint compound	ND
GBBN-A-74	Drywall/joint compound	ND
GBBN-A-75	12-in ² Floor tile (FT 6) - tan marbled	ND
GBBN-A-76	12-in ² Floor tile (FT 6) - tan marbled	ND
GBBN-A-77	2-ft ² Suspended ceiling panel (CT 1) - dot pattern	4 Amosite 2 Chrysotile
GBBN-A-78	2-ft ² Suspended ceiling panel (CT 1) - dot pattern	4 Amosite 2 Chrysotile
GBBN-A-79	2-ft ² Suspended ceiling panel (CT 2) - random fissure	ND
GBBN-A-80	2-ft ² Suspended ceiling panel (CT 2) - random fissure	ND
GBBN-A-81	2-ft ² Suspended ceiling panel (CT 3) - lateral fissure	ND
GBBN-A-82	2-ft ² Suspended ceiling panel (CT 3) - lateral fissure	ND
GBBN-A-83	Hockey pucks	ND
GBBN-A-84	Hockey pucks	ND
GBBN-A-85	Covebase	ND
GBBN-A-86	Covebase	ND
GBBN-A-87	Window glazing compound - thin bead	ND
GBBN-A-88	Window glazing compound- thin bead	4 Chrysotile
GBBN-A-89	Window caulking	ND
GBBN-A-90	Window caulking	ND
GBBN-A-91	Window glazing - wide bead	ND
GBBN-A-92	Window glazing compound - wide bead	4 Chrysotile
GBBN-A-93	Cloth vibration isolators	ND

**Table 2. Confirmatory Bulk Sample PLM Analysis Results
Northern Kentucky University, Student Residence Hall
Highland Heights, Kentucky
August 2007**

I.D.	Sampled Material	Asbestos
GBBN-A-117	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-118	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-119	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-120	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-121	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-122	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-123	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-124	Hard plaster - stucco texture	ND
GBBN-A-125	Hard plaster - stucco texture	ND
GBBN-A-126	Hard plaster - stucco texture	ND
GBBN-A-127	Hard plaster - swirled finish	ND
GBBN-A-128	Hard plaster - swirled finish	ND
GBBN-A-129	Hard plaster - swirled finish	ND
GBBN-A-130	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-131	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-132	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-133	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-134	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-135	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-136	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-137	Cementitious fitting on fiberglass insulated line - 4" line	ND
GBBN-A-138	Cementitious fitting on fiberglass insulated line - 2" line	ND
GBBN-A-139	Cementitious fitting on fiberglass insulated line - 4" line	ND

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