HRP Associates, Inc.

Creating the Right Solutions Together

March 29, 2012

Mr. Christopher R. Shepard, P.E.
CT Resources Recovery Authority
100 Constitution Plaza
6th Floor
Hartford, CT 06103-1722

RE: HAZARDOUS MATERIALS SURVEY REPORT, NORTHERN PORTION OF THE ADMINISTRATION BUILDING, SOUTH MEADOWS STATION, GATE 20 RESERVE ROAD, HARTFORD, CONNECTICUT (HRP# CRR0155.BA)

Dear Mr. Shepard:

Enclosed please a copy of HRP Associates, Inc.'s (HRP) Hazardous Material Survey Report prepared for the northern portion of the CT Resources Recovery Authority administration building, at the South Meadows Station Site, located at Gate 20 Reserve Road, Hartford, Connecticut. Note that with your approval, a limited asbestos survey was also completed for the southern building fourth floor file area.

In addition, please find the Asbestos and Hazardous Materials Estimated Removal Costs table attached to this letter, which provides estimated abatement/removal costs for the subject building. The estimate is based on an average cost of removal per area of material assuming that all the material will be removed at one time. Please note that this cost estimate has been generated for informational purposes only and is not intended to be used as a bidding document or to replace abatement specifications. Also, the cost estimate provides costs for abatement of some materials that CRRA may choose to leave intact and manage in place (i.e. – ACM floor tile/mastic in good condition).

HRP's conclusions and recommendations are summarized in Section 6.0 of this report. If you have any questions about this report, please do not hesitate to contact HRP at (860) 674-9570. Thank you.

Sincerely yours,

HRP ASSOCIATES, INC.

Thomas A. Chapman, LSP, LEP
Asbestos Inspector and Designer

Stephen H. Brown, CPG, LEP
Senior Project Manager

Attachments

CONNECTICUT

Corporate Headquarters
197 Scott Swamp Road
Farmington, CT 06032
800-246-9021
860-674-9570
FAX 860-674-9624

999 Oronoque Lane
Second Floor
Stratford, CT 06614
203-380-1395
FAX 203-380-1438

FLORIDA

2435 U.S. Highway 19
Suite 550
Holiday, FL 34691
727-942-2115
FAX 727-942-2113

MASSACHUSETTS

7 Midstate Drive
Suite 201
Auburn, MA 01501
855-866-3934
508-407-0009
FAX 508-407-0012

NEW YORK

1 Fairchild Square
Suite 110
Clifton Park, NY 12065
888-823-6427
518-877-7101
FAX 518-877-8561

SOUTH CAROLINA

1327 Miller Road
Suite D
Greenville, SC 29607
800-752-3922
864-289-0311
FAX 864-281-9846

TEXAS

P.O. Box 191329
Dallas, TX 75219
800-752-3922
FAX 864-281-9846

www.hrpassociates.com

ASBESTOS AND HAZARDOUS MATERIALS ESTIMATED REMOVAL COSTS
MARCH 2012

NORTH PORTION OF ADMINISTRATION BUILDING

SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Material[1] Description	Cost per Area/Unit[2]	Quantity[3]	Total Estimated Cost[4]
ASBESTOS-CONTAINING MATERIALS (ACM)			
Vinyl flooring – multiple layers (with some mastic)	$7.00 SF	1,800 SF	$12,600
		Total ACM Cost	$12,600
MERCURY AND PCB MATERIALS			
Fluorescent and halogen light bulbs	$8.00 EA	279 EA	$2,232
Mercury bulb thermostats	$50.00 EA	5 EA	$250
Fluorescent light system ballasts (potential PCB-containing)	$30.00 EA	78 EA	$2,340
		Total Mercury and PCB Materials Cost	$4,822
OTHER HAZARDOUS MATERIALS			
A/C unit	$100.00 EA	1 EA	$100
Smoke detectors	$30.00 EA	4 EA	$120
Fire extinguishers	$20.00 EA	5 EA	$100
Exit signs/emergency lights	$30.00 EA	17 EA	$510
Cleaning fluids, oils, paints, joint compound	$30.00 Gallon	7 Gallons	$210
Battery	$50.00 EA	1 EA	$1,400
		Total Other Hazardous Material Cost	$1,090
		Total Estimated Abatement Cost	$18,500
		10% Contingency	$1,850
		TOTAL ESTIMATED PROJECT COST	$20,350

Notes:

[1] For the list of confirmed ACM please reference the HRP "Hazardous Materials Survey Report, Northern Portion of the Administration Building, South Meadows Station" dated March 29, 2012. Note that this cost estimate does not include abatement costs for mold, lead paint, or PCB caulks.

[2] The estimated cost per area varies by contractor, access to the material, and amount of material removed at one time. Provided costs assume that the work will be conducted by a single contractor over a single specified time period. Item unit pricing is subject to change upon visual walk-through by the contractor.

[3] The quantities of materials are estimates only. Additional previously unidentified materials may be identified during demolition, which would require sampling, and if necessary, abatement.

[4] This cost does not include non-quantifiable materials abatement costs and, unless otherwise specified, reflects contractor fees only.

EA = One unit (each)

This cost estimate is to be used for informational purposes only and is not intended to be used as a bidding document or replace abatement specifications.

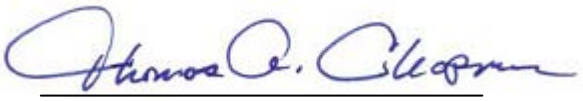
HAZARDOUS MATERIALS SURVEY REPORT

NORTHERN PORTION OF THE ADMINISTRATION BUILDING
SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

PREPARED FOR: **MR. CHRISTOPHER R. SHEPARD, P.E.**
CT RESOURCES RECOVERY AUTHORITY
100 CONSTITUTION PLAZA
6TH FLOOR
HARTFORD, CONNECTICUT 06103-1722

PREPARED BY: **HRP** *Associates, Inc.*
197 SCOTT SWAMP ROAD
FARMINGTON, CONNECTICUT 06032



Thomas A. Chapman, LSP, LEP
Asbestos Inspector and Designer

Stephen H. Brown, CPG, LEP
Senior Project Manager

Issued On:

March 29, 2012

TABLE OF CONTENTS

List of Figures

TABLE OF CONTENTS
(continued)

List of Tables

List of Appendices

1.0 INTRODUCTION

1.1 Background

CT Resources Recovery Authority (CRRA) retained HRP Associates, Inc. (HRP) to conduct hazardous material surveys of the northern portion of the administration building located at South Meadows Station, Gate 20 Reserve Road in Hartford, Connecticut. The approximate 1,100-square-foot (footprint area) administration building is a five (5) story brick and concrete structure with a concrete basement located on the north end of the South Meadows powerhouse building (Figure 1). A paved roadway from Reserve road (through Gate 20) provides access to the site. The survey included the basement (including a telephone equipment room), first floor, mezzanine level, second floor, third floor, fourth floor, and roof of the administration building (see Figures 2 through 8). In addition, with your permission, a limited asbestos survey was also completed for various fourth floor corridors, offices, file rooms, and an old control room located south of the administration building area (see Figures 7, 9, and 10). At the time of the investigation, the north portion of the administration building and the southern file rooms, corridors, and old control room were generally vacant and were being used for file storage and occasional file review and telephone equipment access.

The building investigation included a NESHAP-type asbestos-containing materials (ACM) survey, a lead paint survey, a survey of window glazing and, in some cases, underlying substrate materials for polychlorinated biphenyls (PCBs), a mold survey, and a survey of miscellaneous hazardous materials (hazmats). This investigation was conducted to determine the presence or absence of ACM, lead paint, PCBs, and hazmats for a portion of the administration building in order to preliminarily evaluate site health and safety issues as they pertain to site workers, and to facilitate proper management of those materials prior to demolition and/or renovations. As such, this information can be utilized to design a plan for proper management of ACMs, lead, PCBs, mold, and hazmats.

Interior finishes throughout the building primarily include concrete, gypsum wallboard (GWB), and plaster walls; concrete, plaster, and acoustic tile ceilings; and concrete floors finished with carpeting, vinyl floor tiles, terrazzo, and ceramic tiles.

1.2 Previous Asbestos Survey

The following previous report was made available to HRP for review:

- January 9, 2002 *Asbestos and Lead Survey Report, Administration Building, Reserve Road, Hartford, CT*- prepared by TRC Environmental Corporation (TRC).

The January 2002 TRC investigation included a sampling survey of the basement and first floor of the administration building for asbestos-containing materials (ACMs), and a lead paint survey using X-ray Fluorescence (XRF) methods. The following ACMs, with estimated quantities, were identified within the building's first floor by the TRC survey:

- Brown 12"x12" floor tiles with white streaks (120 square feet)
- Mastic beneath brown 12"x12" floor tiles with white streaks (120 square feet)

Both ACMs, which were found by HRP to be in intact, non-friable condition, were identified within the first floor "staff room" (Central Office, see Figure 3). HRP measured approximately 200 square feet for each of these materials.

The TRC XRF lead paint survey identified lead-based paint (paint having lead content equal to or greater than 1.0 milligrams per square centimeter (mg/cm^2) in painted surfaces) on plaster and brick walls; wood door and window components, wood baseboards, metal doors and stair components, metal lockers, and metal I beams. The condition of the paint on the metal I-beams was listed as "defective". Numerous surfaces coated with lead-containing paint (paint having lead content less than 1.0 milligram per square centimeter (mg/cm^2) in painted surfaces) were identified by TRC including wood window components and baseboards, metal doors and stair components, brick and plaster walls, concrete floors, and gypsum wallboard ceilings. Defective paint was noted on the brick and plaster walls, metal doors, and GWB ceilings.

A copy of the January 2002 TRC roof asbestos and lead paint survey report is attached as Appendix A.

1.3 Inspection Survey Limitations

At the time of this investigation, all interior and exterior areas of the subject building were accessible. Destructive sampling methods were used throughout the building to obtain samples of representative building materials. However, the walls, floors, and ceilings were penetrated to identify construction materials in selected areas only.

2.0 ASBESTOS SURVEY

Connecticut State licensed Asbestos Inspectors Thomas Chapman (License Number 000289) and Katie Duggan (License Number 000775) of HRP conducted the asbestos survey on February 21 and 22, 2012. The purpose of the survey was to identify and sample suspected friable and non-friable asbestos-containing materials (ACMs) throughout accessible interior and roof areas of the northern portion of the administration building and selected interior portions of the southern building fourth floor file areas. Note that the HRP survey that was performed in the northern portion of the administration building was conducted to supplement the previous TRC investigation, to result in a comprehensive interior asbestos survey of that portion of the building. The HRP survey that was performed in the southern building fourth floor file areas was conducted as an investigation of any materials that site workers might come in contact with (and possibly disturb) within the file areas and during movement to and from the file areas.

The ACM survey was conducted in accordance with the U. S. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61M pre-demolition survey, Asbestos Hazards Emergency Response Act (AHERA) regulations, 40 CFR Part 763, and State of Connecticut Department of Public Health (DPH) Asbestos Regulations (Section 19a-332a-1 through 19a-332a-16).

ACM is defined as those materials that contain an asbestos content greater than 1%. Materials that are confirmed to contain greater than 1% asbestos content must be abated prior to any impact by demolition or renovation activity.

2.1 Methods

2.1.1 *Building Inspection Procedure*

During the survey, the inspectors classified each suspect ACM as one of three types; (1) surfacing material applied by spray or trowel, (2) thermal system insulation (TSI) on pipes, tanks, boilers, and related features, or (3) miscellaneous material not classified as surfacing material or thermal system insulation. The inspectors touched all assumed or suspected materials on all accessible surfaces including walls, floors, ceilings, structural members, and mechanical equipment to determine their friability or the extent to which the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. In addition, the general condition of each material was noted and categorized as good, damaged, or significantly damaged.

2.1.2 *Sampling Strategy and Methodology*

Suspected ACM was first classified into homogeneous sampling areas. A homogeneous area contains material that is uniform in texture and appearance, was likely installed during the same time period, and is unlikely to consist of more than one type or formulation of material. The inspector collected samples from homogeneous areas. Multiple samples (1, 2, 3…) were collected from homogeneous areas, as appropriate.

Limited destructive sampling techniques were employed, and did not create a safety hazard or affect the overall integrity of the structure. To avoid disturbing the material any more than necessary and to minimize any unnecessary release of asbestos fibers during collection, the HRP inspector performed bulk sampling of suspect ACM in accordance with generally accepted procedures outlined in the EPA document "Guidance for Controlling Asbestos-Containing Materials in Buildings" (EPA-560/5-85-024, June 1985).

Each sample was collected using appropriate methods and placed in clean, sealable plastic bags and labeled with a unique sample identification number. Each bulk sample was given a sample number as follows:

"10-4O-1"

- 10- Represents the numerical value given to each new homogeneous material (HMAT) identified during the inspection. In this example, the 10th different homogenous material sampled.

- 4O – Represents the building floor and room identification, in this example the office on the 4th floor, or other designated location. A list of other area and room designations is provided below.

- 1 – The last number in the sequence is the sample number in the HMAT series. In this case, it is the first sample taken of HMAT number 10. In some instances this number will appear as 1A or 1B. This happens when a sample with more than one layer is submitted to the lab. Normally the lab will separate the layers, call them the same HMAT, and differentiate them by naming them "1, 1A, 1B" and so forth. Alternatively, in some instances the lab will name the material type of each separate layer, such as "tile" or "mastic".

Room and Area Abbreviations

AIR = air shaft
BA = bathroom
BCO = basement corridor
CONF = conference room
CONT = control room
COR = corridor
EL = elevator
EMR = elevator machine room
OA = office area
OFF = office
R = roof
O = office

Building floor plan drawings depicting suspect ACM sampling locations are provided as Figure 2 (basement), Figure 3 (first floor), Figure 4 (mezzanine), Figure 5 (second floor), Figure 6 (third floor), Figure 7 (fourth floor), Figure 8 (roof), Figure 9 (fourth floor control room), and Figure 10 (fourth floor conference room). During the survey, each suspect ACM sampled was given a unique sample number.

Bulk samples of suspected ACM were submitted to EMSL Analytical, Inc. (EMSL), located in Wallingford, Connecticut for analysis of asbestos content. EMSL analyzed all layers of each bulk sample using Polarizing Light Microscopy (PLM). EMSL is an American Industrial Hygiene Association (AIHA) accredited laboratory.

Point counting analysis is typically conducted on selected friable-type PLM samples in which asbestos was initially detected at levels at or below 10%. Point counting analysis is a more precise test than standard PLM analysis, and therefore the point counting results supersede the standard PLM analytical results. Two (2) samples were re-analyzed by PLM point counting for this investigation.

Transmission Electron Microscopy (TEM) analysis is typically conducted on non-friable organically bound (NOB) PLM samples (i.e. mastics, tars, caulks) in which asbestos was initially detected at trace levels (<1%). TEM analysis is a more precise test than standard PLM analysis in identifying the smallest size asbestos fibers bound in a non-friable organic matrix, and therefore the TEM results can supplement the PLM analytical results in evaluating the presence of asbestos. One (1) sample was analyzed by the TEM method.

When more than one method is used to evaluate the asbestos content for a given sample, both results are provided in Table 1 (Suspect ACM and ACM List) and/or Table 2 (ACM and Presumed ACM List). Note that when PLM

point count or TEM analysis is conducted, these results take precedence over the original PLM results.

2.1.3 *Building Material Condition Assessment Methodology*

During the survey, presumed and suspect ACM identified by the inspector were assessed for the materials' overall condition and friability potential. At the time of the survey each suspect material was given the condition of significantly damaged, damaged, or good. AHERA defines a material as significantly damaged if ten percent (10%) or greater of the material is evenly deteriorated, crumbling, hanging, or if the material contains over 25% localized damage. A damaged material is one that has less than 10% evenly distributed damage or less than 25% localized damage. A material in good condition is a material with no visible damage or deterioration, or showing only very limited damage or deterioration.

Friability of presumed or suspect ACM was evaluated by determining the extent to which the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure.

2.2 Asbestos Inspection Results

Homogenous building materials identified during the survey are documented in Tables 1 and 2 of this report. Both tables include material descriptions, locations, conditions, sample number, and asbestos content and estimated quantities (if any). Table 1 includes all suspect materials that were identified and/or sampled during the survey (including non-ACMs, PACMs, and ACMs). Table 2 includes confirmed ACMs (greater than 1% asbestos detected) and presumed asbestos-containing materials (PACMs) identified during the survey.

A total of 23 different homogeneous building materials were sampled (19 different materials in the north portion of the administration building, and 4 different materials in the southern building fourth floor file areas) and a total of 34 representative samples were submitted to EMSL for analysis (28 samples from the north portion of the administration building, and 6 samples from the southern building fourth floor file areas). Further separation of additional layers of sample materials at the laboratory resulted in a total of 53 analyses (40 analyses for samples from the north portion of the administration building, and 13 analyses for samples from the southern building fourth floor file

areas). Copies of the laboratory analytical reports are attached as Appendix B. The following sections provide a discussion of specific confirmed ACM and confirmed non-ACM identified during the survey.

2.2.1 *Confirmed ACM*

According to analytical results, the following materials are confirmed to contain asbestos:

North Portion of the Administration Building

- Red/brown 9”x9” vinyl floor tiles (approximately 510 square feet)
- Black 9”x9” vinyl floor tiles (approximately 545 square feet)
- Red 9”x9” vinyl floor tiles (approximately 545 square feet)

In addition to the ACMs listed above that were identified by HRP, the following materials were confirmed to be ACMs during the January 2002 TRC survey:

- Brown 12”x12” vinyl floor tiles with white streaks (approximately 200 square feet)
- Mastic beneath brown 12”x12” vinyl floor tiles with white streaks (approximately 200 square feet)

No asbestos was detected in materials collected from the roof or roof-mounted elevator machine room during this investigation.

Southern Building Fourth Floor File Areas

No asbestos was detected in the materials sampled from the southern building fourth floor file areas.

2.2.2 *Presumed ACM*

A presumed ACM is a suspect building material that was not sampled during the inspection if requested by the Client or owner or if the material satisfied one or more of the following conditions 1) the material was inaccessible, 2) sampling would potentially cause critical damage to the building system, or 3) sampling was inherently dangerous. These materials, if identified, are listed as presumed ACM (PACM) in Tables 1 and 2 of this report. Any materials that were not identified and/or sampled as part of this survey should be assumed to

contain asbestos until sampled and proven otherwise. No materials were noted as PACM during the HRP or TRC surveys.

2.2.3 *Confirmed Non-ACM*

Table 1 includes suspect materials that were sampled and determined to be non-ACM (less than or equal to 1% asbestos detected). It is noted that fiberglass insulation was observed on some heating system piping. By nature, fiberglass is classified as a non-ACM, and therefore sampling of this material is not required. No older insulation materials were identified beneath the piping fiberglass insulation during the current asbestos survey.

3.0 LEAD PAINT

3.1 Lead XRF Survey

On February 21, 2012, X-ray Fluorescence (XRF) testing was conducted on representative painted surfaces for the interior and exterior (roof) of the north portion of the administration building to determine the presence of lead. A representative from RTK Environmental Group, (RTK) Pete Shannon, State of Connecticut licensed lead inspector #002122, conducted the testing. The XRF testing was conducted with a Keymaster MAP-4 XRF spectrum analyzer instrument in accordance with HUD Chapter 7 Guidelines for Lead Based Paint Inspection, 1997 Revision. This methodology requires testing of representative components in each room/space (i.e. walls, ceilings, windows, doors, base-boards, etc.). In general, at least one (1) reading of each type of interior wall was collected for every 1,000 square feet homogenous surface. It is noted that the XRF instrument used for the survey is designed to analyze the painted surface and not the substrate material (metal, wood, concrete, etc.), and does not require substrate correction.

Lead-based paint is defined as having lead content equal to or greater than 1.0 milligrams per square centimeter (mg/cm^2) in painted surfaces in the building. Lead-containing paint is defined as having any lead content (greater than 0.0 mg/cm^2) in painted surfaces. Note that the lead report includes K-shell (total amount of lead of all layers) results. The 1.0 mg/cm^2 action level for lead paint is based on the K-shell result.

A copy of the XRF inspection report is included as Appendix C. Numerous lead-based painted surfaces were detected for the building, including concrete and plaster walls, metal stairway and door components, metal beams, wooden door and window components, wooden chair rails, gypsum wallboard walls, and metal air ducts. Numerous lead-containing painted surfaces were detected for the building, including metal window and door components; metal radiators; wooden door and window components; concrete walls, floors, and ceilings; plaster walls and ceilings; and gypsum wallboard walls. Many of the lead-based and lead-containing painted surfaces were in defective (peeling, flaking etc.) condition, and paint chips and painted plaster debris were present on many floor surfaces of both the north portion of the administration building and the south building fourth floor file areas. The plaster delamination appeared to be caused by roof water intrusion problems, which will be addressed by a proposed roof renova-

tion project. A lack of heating in the building may also be a contributing factor with respect to the plaster delamination.

Six (6) "inconclusive" results were also measured on gypsum wallboard, plaster, and concrete walls; a wooden door, and a steel door. An inconclusive result is obtained when the XRF concentration is equal to the HUD Action Level plus or minus the precision of the instrument.

3.2 Lead Paint Chip Sampling

To supplement the XRF survey, on February 21, 2012, HRP collected three (3) dry paint chip samples from various painted surfaces throughout the building. The paint chip samples were collected in general compliance with ASTM Standard E 1729-99 *Standard Practice for Field Collection of Dried Paint Samples for Lead Determination by Atomic Spectrometry Techniques*. The four-square-inch samples were collected from surfaces where the XRF survey measured inconclusive results (i.e., plaster, concrete, and gypsum wallboard walls). Generally, all of the paint within the sampling area was removed down to the substrate surface at each sampling location. The samples were then containerized and were sent to EMSL in Westmont, New Jersey for total lead analysis using EPA Method SW846-3050B/7000B. A copy of the laboratory analytical report is attached in Appendix D. The sampling locations (1-BTEL-PB, 2-3OA1-PB, and 3-4ST-PB) are presented on Figures 2, 6, and 7, and the laboratory results are presented on Table 3.

Although lead was detected in two of the three paint chip samples, none of the samples contained a level of lead exceeding the 0.5% EPA lead-based paint level (roughly equivalent to 1.0 mg/cm^2 for the XRF instrument). The levels of lead detected in the three (3) samples ranged from a low of less than 0.010% to a high of 0.39%. The HRP paint chip results were relatively comparable to the XRF readings obtained during the RTK building survey.

Treatment or removal of lead-based paint during renovation activity must adhere to all applicable federal, State, and local regulations. This would include EPA's April 22, 2008 Renovation, Repair and Painting (RRP) Rule. In addition, the Occupational Safety and Health Administration (OSHA) requires compliance with the Lead in Construction Standard (29 CFR 1926.62) during the renovation or demolition of any building with lead-containing paint (e.g. any detectable concentration of lead). This stand-

ard is designed to protect workers from exposure to lead during renovation or demolition activities.

Compliance with OSHA's Lead in Construction Standard will apply during all abatement and renovation activities of the building. All work practices that may disturb or impact lead-containing paint components should be conducted in compliance with OSHA 29 CFR 1926.62 (Lead in Construction Standard). A disturbance of lead-containing paint components requires compliance with the OSHA Lead in Construction Standard 1926.62 if one of the following manual activities is performed during a renovation or demolition activity: abrasive blasting, welding, cutting, burning on structures, manual scraping or sanding, and manual demolition of structures.

3.3 Lead Waste Characterization Sampling

Lead waste characterization sampling of the subject building was not conducted by HRP as part of the hazardous materials surveys. Characterization of demolition debris containing lead based paint is required under the Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic Rule (40 CFR 261.24) to determine whether or not building renovation or demolition debris might need to be managed as a hazardous waste. Lead-based paint was detected on several building surfaces. As such, if these materials are not recycled, waste characterization samples should be collected of the waste stream, prior to disposal, using the Toxicity Characteristic Leaching Procedure (TCLP) methodology (SW846 1311/7420).

4.0 PCB GLAZING AND SUBSTRATE SAMPLING

4.1 Sample Collection and Analysis

On February 21, 2012, HRP collected two (2) caulk samples and two (2) window glazing samples for PCB analysis from the north portion of the administration building. The caulk samples were collected from the inner surface of the roof parapet wall (1-R-PARA-PC and 2-R-PARA-PC). The glazing samples were collected from the inner surface of a metal-framed window located in the roof-top elevator machine room (3-R-EMR-PC) and from a metal-framed roof skylight window (4-R-SL-PC). At each of the sample locations, the underlying substrate material was examined for evidence of an older, original caulk or glazing material. No older caulk or glazing materials were detected at the four (4) sampling locations. The Four (4) samples were submitted to the Con-Test Analytical laboratory in East Longmeadow, Massachusetts for PCB analysis using EPA Method 8082 and soxhlet extraction method 3540C. Table 4 includes material descriptions, locations, sample numbers, and PCB content with estimated quantities (if any). The caulk and glazing sample locations are shown on Figure 8. A copy of the laboratory analytical report is attached in Appendix E.

PCBs were not detected above laboratory detection levels in the roof skylight window glazing sample (4-R-SL-PC). The PCB concentration in a gray interior window glazing sample (3-R-EMR-PC) collected from a roof-top elevator machine room south-facing metal window (3.5 mg/Kg) was well below the 50 ppm TSCA regulatory Threshold, and the substrate beneath this material was not a leachable surface (i.e. – it was either glass panes or metal window components). The PCB concentrations in a black caulk sample (2-R-PARA-PC) collected from the interior surface of the parapet wall (1.9 mg/Kg) was well below the 50 ppm TSCA regulatory threshold. However, the PCB concentration in an underlying off-white caulk sample (1-R-PARA-PC) collected from the interior surface of the parapet wall (88.0 mg/Kg) exceeded the 50 ppm TSCA regulatory threshold. Note that the off-white caulk (1-R-PARA-PC) material is applied directly to the concrete parapet cornice and is covered by the black caulk (2-R-PARA-PC). The off-white caulk appears to be the original caulking material on the parapet wall, which was subsequently over-coated with the black caulk, and as such, given the relative levels of PCBs detected, the possibility exists that the PCBs in the off-white caulk leached into the black caulk. No evidence of an older caulking material was identified beneath the off-white caulk.

In order to determine whether the PCBs in samples 1-R-PARA-PC and 2-R-PARA-PC had leached into the underlying concrete substrate material, or had leached out of the concrete from a previously removed material, a substrate sample was collected from the upper 0.5 inches of the concrete beneath the off-white and black caulks. As discussed above, a substrate sample was not collected from the 3-R-EMR-PC location since the gray glazing was applied between metal window sash and glass window pane. The concrete substrate sample was submitted to the Con-Test Laboratory in East Longmeadow, Massachusetts for PCB analysis using EPA Method 8082 and soxhlet extraction method 3540C. PCBs were detected in the concrete substrate sample at a concentration of 1.6 mg/Kg.

5.0 MOLD SURVEY

Katie Duggan (HRP) conducted the mold assessment on February 21, 2012. The following information is based upon observations of building materials and indoor environmental conditions present at the time of the assessment. The purpose of the assessment was to provide a limited evaluation of the indoor air quality and mold by specifically targeting areas where there has reportedly been concerns. The inspection was limited to the following areas:

- Basement (janitor's closet, telephone/communications room, bathroom, air shaft, and corridor)
- 1st Floor (central office, 1st Aid Room, air duct, and corridor)
- Mezzanine
- 2nd Floor (office area #1, office area #2, bathroom, and corridor)
- 3rd Floor (office area #1, office area #2, bathroom, air shaft, and corridor)
- 4th Floor (office area, air shaft, corridor, and stairwell to roof)

Inspections were not performed beyond the areas listed above, and inspections of interior wall cavities were not conducted during the assessment.

The limited IAQ assessment included the following:

- A visual inspection for mold, staining, and moisture,
- A moisture scan of select building materials,
- Area IAQ measurements including carbon dioxide, carbon monoxide, temperature and relative humidity using a Quest AQ 5000 Pro monitor, and
- Collection of mold samples in select areas.

5.1 Visual Inspection and Moisture Testing

Interior Building Materials

A limited visual inspection was conducted for visual suspected mold growth (VSMG), staining, and areas of wetness on walls, and floors. Overall cleanliness (i.e. excessive accumulations of settled dusts) and suspect odors were also noted during the assessment.

No areas of visible wetness were observed or detected and throughout the building there were no excessive settled dust accumulations in the subject areas. In addition, a "musty" odor was not detected at the time of the assessment.

No VSMG was noted on any accessible building materials in the inspected areas with the exception of the janitor's room located in the basement (and the adjacent corridor near the basement stairwell) and the 4th floor stairwell. VSMG was noted on

the painted concrete walls and ceiling of the basement. VSMG was also noted on the interior walls of the 4th floor stairwell leading to the roof.

Slight water staining on drop down ceiling tiles was observed in office area #1 located on the 3rd floor. However, after a thorough inspection, it was concluded that there were no signs of VSMG in the ceiling plenum space above this location.

HVAC System

The interior of the HVAC units were not accessible at the time of the site inspection. It should be noted that according to the site contact, the section of the building that was inspected is no longer heated or cooled. No obstructions or contaminant sources were observed in the vicinity of the HVAC unit intake vents.

During the assessment, moisture readings were collected simultaneously with the visual inspection to detect excess moisture in building materials. Moisture readings of building materials were obtained with a Delmhorst penetrating moisture meter. Drywall with moisture content greater than 1% and wood with moisture content greater than 20% is generally capable of supporting mold growth and is considered to contain "excess moisture". Moisture in concrete is measured on a scale of 0 to 100 and is compared to known dry areas.

Moisture readings were collected in the following areas:

- Basement (janitor's closet, telephone/communications room, bathroom, air shaft, and corridor)
- 1st Floor (central office, 1st Aid Room, air duct, and corridor)
- Mezzanine
- 2nd Floor (office area #1, office area #2, bathroom, and corridor)
- 3rd Floor (office area #1, office area #2, bathroom, air shaft, and corridor)
- 4th Floor (office area, air shaft, corridor, and stairwell to roof)

Moisture readings were collected in the immediate vicinity and adjacent rooms. All readings were within the recommended limits. The moisture readings were all found to be less than 20% ranging between 0.0%-2.3% in concrete/brick wall areas inspected and 0.0%-0.2% in any plaster wall areas sampled. A table of the moisture readings collected during this investigation is attached in Appendix F.

5.2 Indoor Air Quality Measurements

Indoor air quality monitoring was conducted throughout the building utilizing a Quest AQ 5000 Pro brand IAQ meter that provided "real-time" monitoring of carbon dioxide and carbon monoxide concentrations, temperature, and relative humidity readings. Recorded readings were then compared to the recommended target levels and limits established by the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standard 62.1-2004 Ventilation for Acceptable Indoor Air Quality, and Standard 55-2004 Environmental Conditions on Human Occupancy Thermal Comfort.

ASHRAE recommends indoor air concentrations of carbon dioxide (CO_2) to be less than 700 ppm in addition to the outdoor levels (typically less than 1,391 ppm CO_2). ASHRAE guidelines also recommend indoor temperatures be maintained within a target range of between 72.0° F and 80.0° F during the summer months and 68.5 °F and 75.5 °F in the heating season. Relative humidity should be maintained within a target range of between 30% and 60%.

HRP sampled the interior locations throughout the building, which specifically included the basement, 1st floor, Mezzanine, 2nd floor, 3rd floor, and 4th floor. A summary table of the IAQ readings is included as Appendix F.

The target CO_2 concentration for the building is 1,391 ppm (700 ppm plus the outdoor concentration of 691 ppm). The CO_2 measurements that were collected were all within ASHRAE's recommended concentrations which ranged between 746 ppm to 1288 ppm. Indoor temperature readings were below ASHRAE's recommended concentrations and ranged between 41.1° F and 57.3° F in inspected areas. Please note that the building is not heated and only the basement, 2nd floor and 3rd floor offices are occasionally occupied by employees.

Relative humidity readings observed throughout inspected areas of the building ranged from 26.8%-36.3%, which is slightly below ASHRAE's target range for comfort of 30-60%.

The Connecticut Department of Public Health states that carbon monoxide levels should all be kept below 10 ppm. All carbon monoxide readings collected during HRP's inspection were well below this level and all readings were non-detect, at 0 ppm.

5.3 Sampling – Surface Swab Method

Sample Collection

Two (2) swab samples (BAS-001 and BAS-002, Figure 2) were collected in the Janitor's room during the February 2012 site visit from the painted plaster wall and concrete/brick wall to the left of the window. A third sample (FF-003, Figure 7) was collected from the southern wall of the 4th floor staircase leading to the roof. The sample was collected using a swab, which was applied to the sample surface. After sampling, the swab sample was placed inside a clear plastic container, sealed and labeled.

The samples were shipped to an AIHA accredited microbiological laboratory. The samples were accompanied with a chain-of-custody form, for microscopic examination of fungal spores, fungal structures, and other particulates.

Laboratory Results

The two (2) swab samples collected from the Janitor's Room were found to contain high levels of Cladosporium. The sample collected of the 4th floor wall stairwell was found to have high levels of Aspergillus/Penicillium and low levels of Cladosporium spores. A copy of the complete laboratory results is included as Appendix F.

6.0 OTHER HAZARDOUS MATERIALS

HRP Asbestos Inspectors conducted a hazardous material survey of the north portion of the administration building in conjunction with the asbestos, lead paint, and mold surveys. The inspection consisted of identifying and inventorying fluorescent lamps and other mercury-containing equipment; potential polychlorinated biphenyl (PCB) containing equipment; air conditioning and refrigeration equipment; and other hazardous or regulated materials. These types of hazardous materials were identified in the building. A summary of the hazardous materials survey is presented in Table 6.

6.1 Polychlorinated Biphenyls

PCBs are found in many different types of products including hydraulic fluid and heat transfer systems; however, PCBs were primarily used in dielectric fluid in electrical equipment such as transformers, capacitors, and fluorescent light ballasts. PCB-containing items must be disposed of in accordance with the Toxic Substance and Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA).

Fluorescent light fixtures containing approximately 78 ballasts were identified for the subject building. Fluorescent light ballasts have electronic capacitors that could potentially contain small quantities of PCBs. Unless labeled as “dry-type”, ballasts labeled as “non-PCB” could still potentially contain a dielectric fluid containing 2-ethylhexyl phthalate (DEHP), which is a known hazardous substance that would be considered a regulated waste material.

6.2 Mercury

Fluorescent lamps are known to contain mercury and mercury vapor and are considered materials subject to the Connecticut Universal Waste Rule (Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies). Other mercury-containing items such as mercury switches or thermostats may also contain significant amounts of mercury, and are also Connecticut universal wastes that are typically regulated as hazardous waste under the Resource Conservation and Recovery Act (RCRA) when sent for disposal. Approximately 279 fluorescent light bulbs and five (5) mercury bulb thermostats were identified for the subject portion of the administration building.

6.3 Air Conditioning Refrigerants

The removal and disposal of air conditioning and refrigeration equipment must comply with Section 608 Refrigerant Recycling Rule of the Clean Air Act, which prohibits individuals from knowingly venting ozone-depleting compounds, such as Freon, into the atmosphere while servicing or disposing of air-conditioning or refrigeration equipment, and regulates the safe and proper recycling and disposal of refrigerated products.

One (1) wall-mounted air conditioning unit was identified in the subject portion of the administration building.

6.4 Miscellaneous Materials

Approximately 17 electric exit signs and emergency light fixtures (possibly containing batteries or tritium vapor bulbs), 4 heat or smoke detectors (with potential batteries and radioactive materials), and 5 fire extinguishers were identified within the site building. In addition, 1 one-gallon can of cleaning fluid, 7 small bottles or aerosol cans of oils or lubricants, 1 possible lead/acid battery, 3 aerosol cans of marking paint and spray cleaner, and 1 five-gallon container of joint compound were observed within the northern portion of the administration building. The handling and disposal of hazardous and/or regulated liquid waste is regulated under the US EPA and Section 22a-449(c)-119 of the Regulations of Connecticut State Agencies. A complete listing of hazardous materials identified at the time of the building inspection is presented in Table 5.

7.0 CONCLUSIONS AND RECOMMENDATIONS

HRP conducted a hazardous material survey of the north portion of the administration building and the southern building fourth floor file areas located at the CRRA South Meadows Station, Gate 20 Reserve Road, in Hartford, Connecticut. The HRP building investigation included a NESHAP-type asbestos-containing materials (ACM) survey, a survey of lead paint using chip sampling and XRF screening, a mold survey, a survey of hazardous materials, and a PCB investigation focused on glazing and caulking sampling. This investigation was conducted to determine the presence/absence of ACMs, lead paint, mold, PCBs, and other hazardous substances for the building for the health and safety of site workers who frequent the building and to facilitate proper management of those materials prior to renovation and/or demolition activities. Based on the investigations, as documented in this report, HRP provides the following conclusions and recommendations below.

Asbestos

Based on the results of the laboratory analyses, the following materials were confirmed to contain asbestos:

North Portion of the Administration Building

- Red/brown 9”x9” vinyl floor tiles (approximately 510 square feet)
- Black 9”x9” vinyl floor tiles (approximately 545 square feet)
- Red 9”x9” vinyl floor tiles (approximately 545 square feet)

In addition to the ACMs listed above that were identified by HRP, the following materials were confirmed to be ACMs during the January 2002 TRC survey:

- Brown 12”x12” vinyl floor tiles with white streaks (approximately 200 square feet)
- Mastic beneath brown 12”x12” vinyl floor tiles with white streaks (approximately 200 square feet)

No asbestos was detected in materials collected from the roof or roof-mounted elevator machine room during this investigation.

Southern Building Fourth Floor File Areas

No asbestos was detected in the materials sampled from the southern building fourth floor file areas.

All of the ACMs identified are non-friable materials and with the exception of the damaged red/brown 9”x9” vinyl floor tiles on the fourth floor, all were in good condition at the time of the HRP survey and risk for building occupant exposure is very low provided the materials do not become disturbed or further damaged.

All confirmed ACM must be appropriately abated in accordance with all applicable regulations prior to any building renovation/demolition activities that could potentially disturb said material. For any ACMs proposed to remain in the building, an asbestos management plan should be established for this facility to ensure that ACM and PACM are managed appropriately, and asbestos fiber releases are avoided. Employees and maintenance workers who will potentially come into contact with or disturb ACM require proper training to ensure their safety and the safety of other building occupants.

HRP assumes no responsibility for the implementation or enforcement of the procedures, work practices, engineering controls, or other asbestos-control methods recommended, required or mentioned in this report. This report is not intended to be used as a bidding document or to replace abatement specifications.

Lead Paint

The Occupational Safety and Health Administration (OSHA) requires compliance with the Lead in Construction Standard (29 CFR 1926.62) during the renovation or demolition of any building with lead-containing paint (e.g. any detectable concentration of lead). This standard is designed to protect workers from exposure to lead during renovation or demolition activity. Due to the detection of lead-based and lead-containing paint on surfaces throughout the site building, compliance with OSHA’s Lead in Construction Standard would be necessary during all abatement and demolition activities on the site. Also, given the presence of lead-based paint on structural steel in the building, any cutting of this painted steel during demolition will need to be in compliance with the referenced OSHA standard.

Many of the lead-based and lead-containing painted surfaces were in defective (peeling, flaking etc.) condition, and paint chips and painted plaster debris were present on many floor surfaces in both the north portion of the administration building and the south building fourth floor file areas. In order to protect the health and safety of personnel who enter these areas, HRP recommends that a licensed lead contractor be retained to properly abate any damaged lead-painted wall and ceiling surfaces and clean up lead contaminated floor debris. The walls and ceilings would then need to be repaired where needed, and then repainted. The lead abatement should be conducted after water intrusion problems are corrected during the planned roofing renovation of the building.

Note that HRP did not collect waste characterization toxicity characteristic leaching procedure (TCLP) samples for lead from the subject building. TCLP samples would need to be collected of representative renovation and/or demolition debris in order to determine leachable lead concentrations in those materials prior to disposal in accordance with Environmental Protection Agency's (EPA) 40 CFR, Subpart C, 261.24 and Connecticut Department of Public Health (CT DPH) regulations.

PCB Caulking and Glazing

The HRP investigation detected low levels of PCBs in caulking and glazing samples collected from the interior surface of the roof parapet wall and from an interior window surface, respectively. A level of PCBs exceeding the Federal TSCA regulatory threshold of 50 ppm was detected in an original off-white caulk material located on the interior surface of the roof parapet. A substrate concrete sample collected from beneath parapet off-white caulk contained a low level of PCBs indicating that some leaching of PCBs from the caulk into the concrete had occurred.

According to the US EPA, caulk or glazing materials containing PCBs at levels below 50 mg/Kg are not required to be removed (unless they will be disturbed), but still may present health risks depending on the location or condition of the material. Materials containing PCBs at concentrations equal to or exceeding 50 ppm must be removed and properly disposed as a TSCA PCB bulk product waste. Substrate materials that contain measurable levels of PCBs due to leaching from an overlying or adjacent PCB-contaminated material are classified as a PCB remediation waste and must be managed according to Federal TSCA regulations. A self-implementing abatement plan would need to be prepared and approved by EPA prior to the removal of any PCB bulk product waste or remediation waste.

The abatement of PCBs should also be conducted prior to any roof renovation activities that may disturb the off-white PCB caulking and/or the underlying PCB-contaminated concrete parapet. The EPA recommends that building owners and managers take steps to minimize potential exposure to building occupants until the caulk and any surrounding contaminated materials can safely be removed. These steps may include covering disintegrating caulk with paint or non-PCB caulk, use of physical barriers, and educating maintenance workers in proper work practices and cleaning techniques. Note that the subject off-white caulk that has a >50 ppm PCB level is covered by a black caulk that exhibits only low levels of PCBs (1.9 ppm), and this black caulk is in generally good condition.

Mold

Based upon the findings of the limited IAQ assessment, the measured CO_2, carbon monoxide, and relative humidity, concentrations were not observed to be outside of ASHRAE's recommended ranges. The readings collected for temperature were found to be below ASHRAE's recommended ranges. HRP generally recommends that indoor temperature readings range between 68.5 °F and 75.5 °F be maintained during the heating season; however, no changes to these parameters are recommended at this time since this is not an occupied area of the building and the recorded levels were not conducive to mold growth.

Based on our limited inspection, excessive moisture or VSMG was observed in the basement and on the 4th floor staircase wall. At the time of the assessment, all inspected areas were observed to be dry. No visual moisture, musty odors or excessive settled dust accumulations were noted. Dust accumulation was noted in the ventilation ductwork at the supply and return vents in the rooms inspected. However, an interior inspection of all duct work was not conducted.

Suspect mold growth was observed throughout the Janitor's room in the basement and on the staircase walls of the 4th floor. As mentioned above, the VSMG in the areas sampled were found to have low to high levels of mold spores (*Aspergillus/Penicillium and Cladosporium)*. These mold spores are known allergens.

It should be noted that there are no regulations for the evaluation or remediation of mold and no regulatory threshold limits exist for employee exposure to mold.

Based on these findings, HRP recommends the following:

- Prior to any mold abatement work, the roof leak from the penthouse area of the stairwell will need to be repaired so that there is no further water intrusion into the building.

- Replace the stained ceiling tiles on the 3rd floor, Office Area #1.

- The walls in the basement of the Janitor's Room (and the adjacent corridor near the basement stairwell) and 4th Floor staircase should also be microbial cleaned. Proper personal protective equipment should be used during this work including an N-95 respirator, gloves and goggles. HRP recommends consulting with a mold remediation contractor for the affected area in order to develop a plan for proper removal and disposal of damaged materials. The contractor will also need to coordinate mold abatement with abatement of lead-containing and lead-based painted walls/ceilings.

Other Hazardous Materials

Miscellaneous hazardous materials, including mercury containing fluorescent lamps, PCB containing fluorescent light ballasts, air conditioning and refrigeration equipment, and other hazardous or regulated materials were identified for the building.

HRP recommends that as part of any building demolition, all identified hazardous materials identified that are not going to be relocated or reused on-site be properly recycled and/or disposed of in accordance to all applicable laws and regulations, to include proper storage, labeling of containers, manifesting, and training of all employees handling regulated and/or hazardous waste materials. If additional hazmats are identified during demolition activities, then these materials should be properly catalogued, characterized, and disposed in coordination with the previously identified hazmats.

Summary

Given the proposal to allow for limited access to specific areas of the northern portion of the administrative building, HRP recommends the following strategy:

1. The penthouse roof, walls and skylight will need to be repaired by a roofer so that no further water intrusions occur. Other than lead on some painted surfaces, necessitating the Lead in Construction rule for the work, no environmental issues would affect the scope or schedule for this work, and a contractor meeting could be scheduled at this time. However, for the parapet repair, because of the presence of a PCB source material (i.e., an off-white caulk), prior to any disturbance or abatement of this material, a Self Implementing Plan (SIP) would need to be submitted to EPA for their review and approval.
2. HRP recommends that specifications be developed for the lead, asbestos, mold and hazardous materials that would be appropriate for the intended future use of the building space. Ultimately, HRP would recommend that one abatement contractor be selected to address all of the environmental issues associated with the subject portion of the administrative building. A separate contractor could then complete the restoration and finishes of the space.
3. In order to keep the painted surfaces intact after completion of the project, consideration should be given to providing a minimum threshold of heating of the subject portion of the building, to the extent possible.

8.0 LIMITATIONS ON WORK PRODUCT

All work product and reports provided by HRP in connection with the performance of any phase of Environmental Site Assessments, and any services related to remedial and post-remedial action, including all work performed under HRP's Terms & Conditions and any follow-up work is subject to the following limitations.

A. The observations described in the Project Report(s) are made under the stated conditions. The conclusions presented in the Report(s) are based solely upon the indicated services, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client.

B. In preparing Project Reports, HRP relies on certain representations made and information provided by federal, state and local officials, the Client and other parties referenced in the Project Reports, and on information contained in the files of federal, state and/or local agencies made available to HRP, at the time of the Project. To the extent that such information and files are missing, incomplete or not provided to HRP, HRP is not responsible. Although there may be some degree of overlap in the information provided by these various sources, HRP does not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of the Project. If the Client determines that information provided or made available to HRP from any source is incorrect or inaccurate, the Client should promptly notify HRP, whereupon HRP will issue a corrected Project Report.

C. Observations are made of the site and of structures on the site as indicated within the Project Report(s). Where access to portions of the site or to structures on the site is unavailable or limited, HRP renders no opinion as to the presence of potential contamination by hazardous substances, wastes or petroleum and chemical products and wastes. In addition, HRP renders no opinion as to the presence of indirect evidence relating to potential contamination by hazardous substances, wastes or petroleum and chemical products or wastes where direct observation of the interior walls, floors, or ceilings of a structure on a site is obstructed by objects or coverings on or over these surfaces.

D. Unless otherwise specified in the Project Report(s), HRP does not perform testing or analyses to determine the presence or concentration of asbestos or poly-chlorinated biphenyls (PCBs), lead paint, urea formaldehyde foam insulation (UFFI), wetlands, regulatory compliance, cultural and historical risks, industrial hygiene, health & safety, ecological resources, endangered species, indoor air quality, high voltage power lines, or radon at the site or in the environment of the site. When HRP is contracted to perform asbestos or lead paint testing, planning or related services, HRP assumes no responsibility for the implementation or enforcement of the procedures, work practices, or other control methods recommended, required, or mentioned in the Project Report(s), unless HRP has been specifically contracted to implement or supervise such actions, in which case the associated contractual documents will define our scope and responsibilities.

E. The purpose of the Project Report(s) is to assess the physical characteristics of the subject site with respect to the potential presence in the site soil, ground water or surface water environment of contamination by hazardous substances, hazardous waste or petroleum and chemical products and wastes. HRP has not confirmed the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.

F. If sampling is included in the scope of the Project, the conclusions and recommendations contained in the Project Report(s) are based in part upon the data obtained from a limited number of soil, ground water, or surface water samples obtained from widely spaced surface or subsurface explorations. The nature and extent of variations between these locations may not become evident until further exploration. If variations or other latent conditions then appear evident, it will be necessary to re-evaluate the conclusions and recommendations of the Project Report(s).

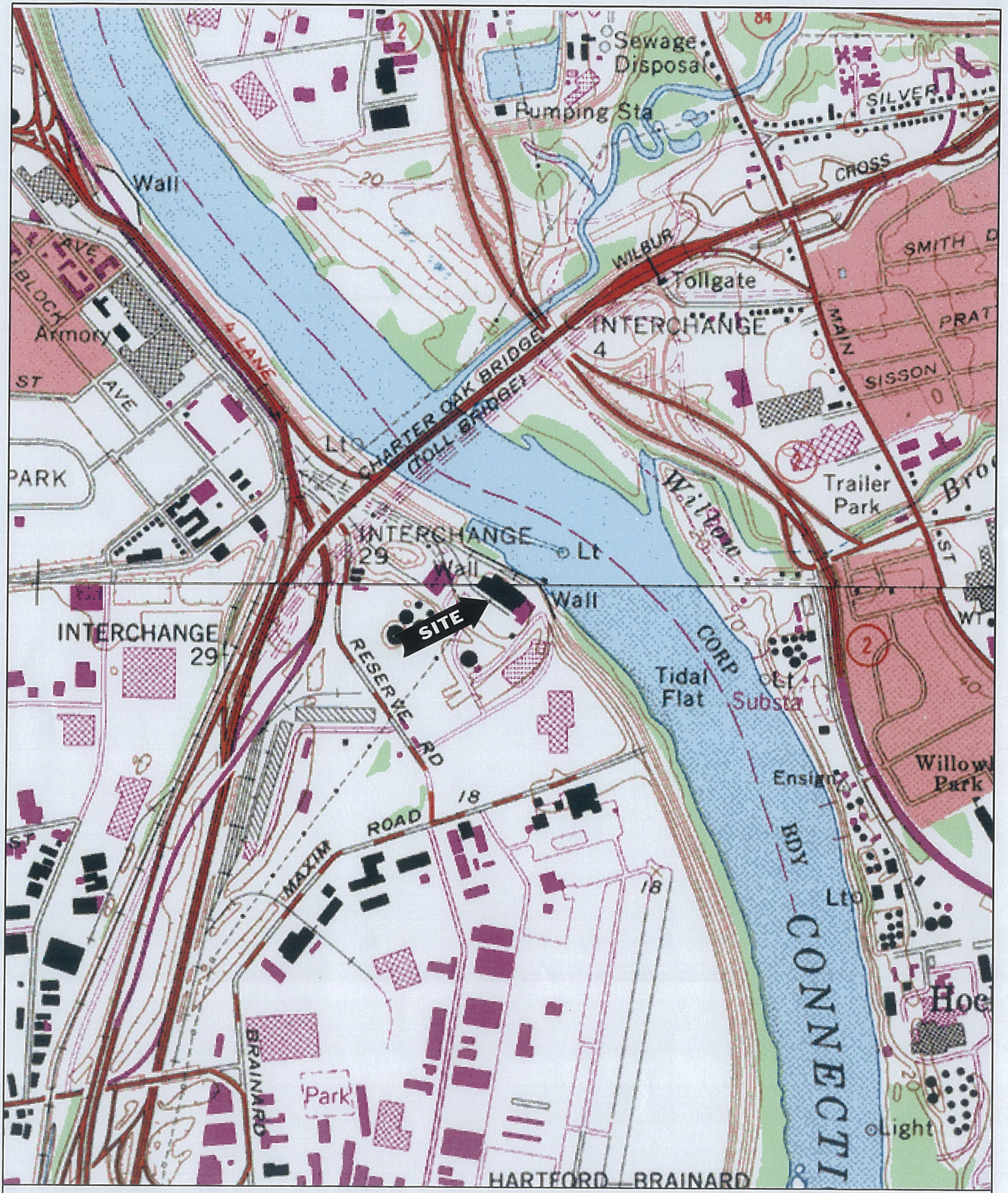
G. If water level readings are made in test pits, borings, and/or observation wells; these observations are made at the times and under the conditions stated on the test pit or boring logs or in the Project Report(s). However, it must be noted that fluctuations in the level of ground water may occur due to variations in rainfall, passage of time and other factors. Should additional data become available in the future, these data may alter the basis of conclusions and recommendations presented in the Project Report(s).

H. If the conclusions and recommendations contained in the Project Report(s) are based, in part, upon various types of chemical analyses, then the conclusions and recommendations are contingent upon the validity of such data. The analyses are performed for specific parameters and additional chemical constituents not searched for during the current study may be present in soil, ground water, or surface water at the site. Where such analyses have been conducted by an out-side laboratory, HRP has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these tests. The data (if obtained) are reviewed and interpretations made in the Project Report(s). If indicated within the Project Report(s), some of these data may be preliminary "screening" level data and should be confirmed with quantitative analyses if more specific in-formation is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data may alter the basis of the conclusions and recommendations presented in the Project Report(s).

I. It is recommended that HRP be retained to provide further hydrogeologic and engineering services during the conduct of further exploration or the construction and/or implementation of any remedial measures recommended in HRP's Project Report(s). This is to allow HRP and the Client to observe consistency with the concepts and recommendations contained therein, and to allow the development of changes to the remedial program in the event that subsurface conditions or other conditions differ from those anticipated.

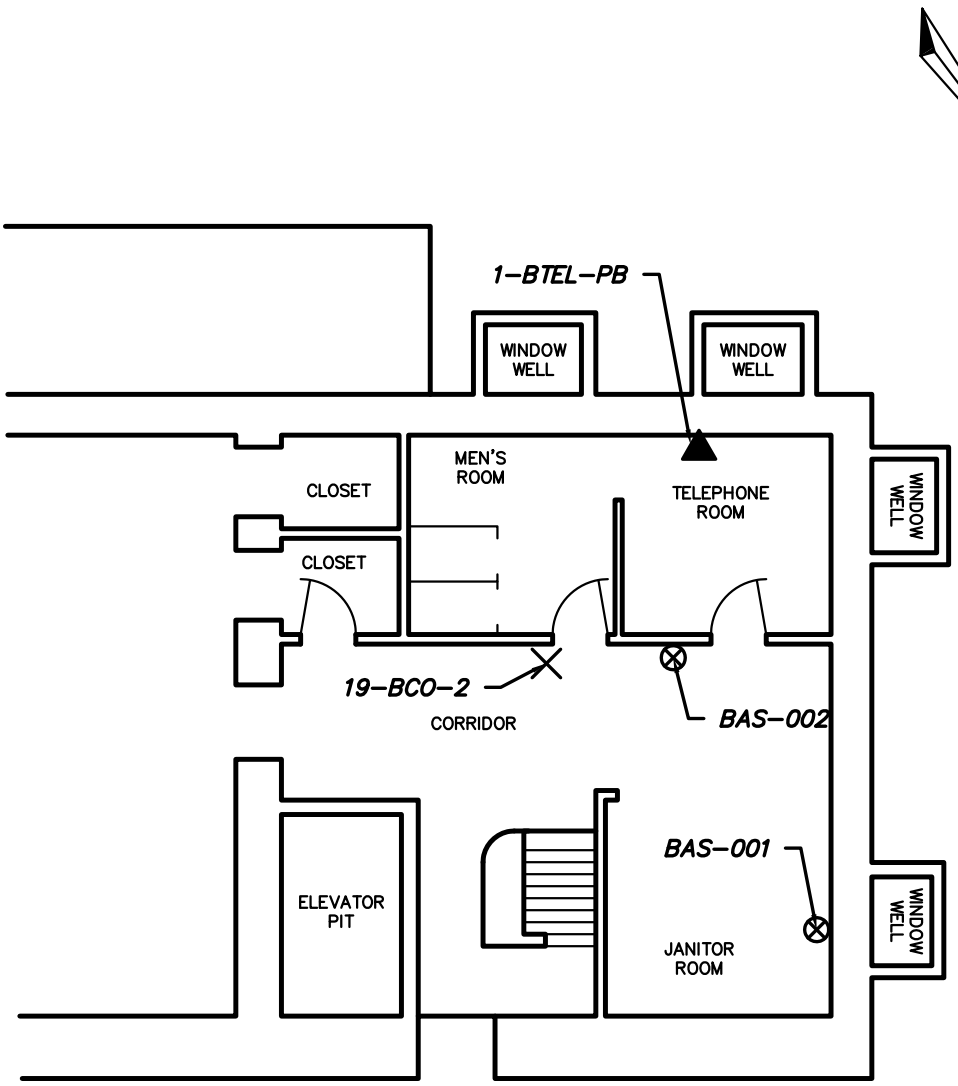
J. The services provided by HRP do not include legal advice. Legal counsel should be consulted regarding interpretation of relevant federal, state and local laws.

FIGURES



Name: HARTFORD SOUTH
Date: 3/17/2012
Scale: 1 inch equals 1000 feet

Location: 041° 44' 59.0" N 072° 39' 09.7" W
Caption: FIGURE 1 - Site Location
CRRA South Meadows Station
Hartford, Connecticut



LEGEND

X –BULK ASBESTOS SAMPLE LOCATION

▲ –PAINT CHIP SAMPLE LOCATION

⊗ –MOLD SWAB SAMPLE LOCATION

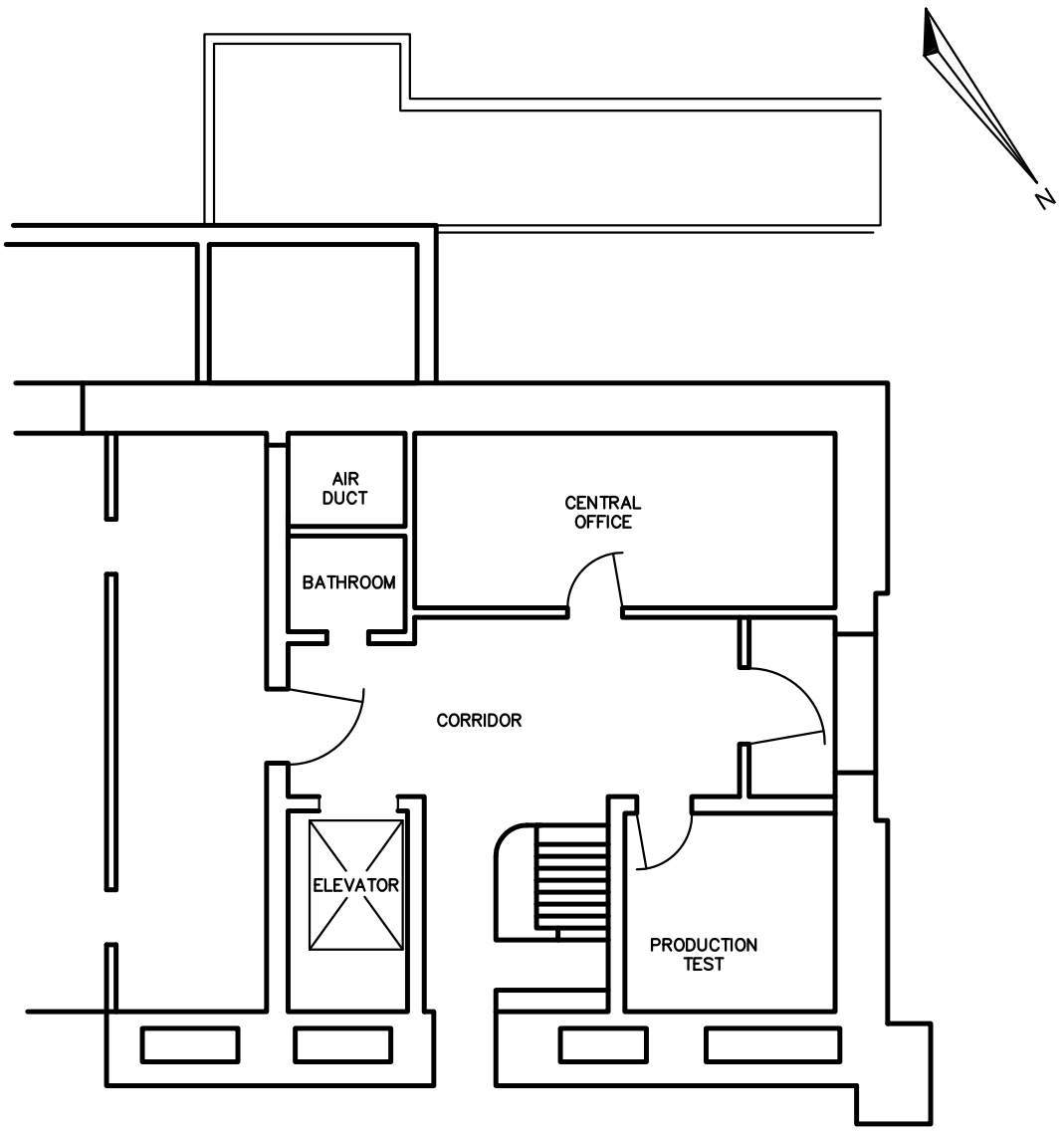
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 2
BASEMENT SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - basement sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:33:26 PM



LEGEND

(NO SAMPLE COLLECTED)

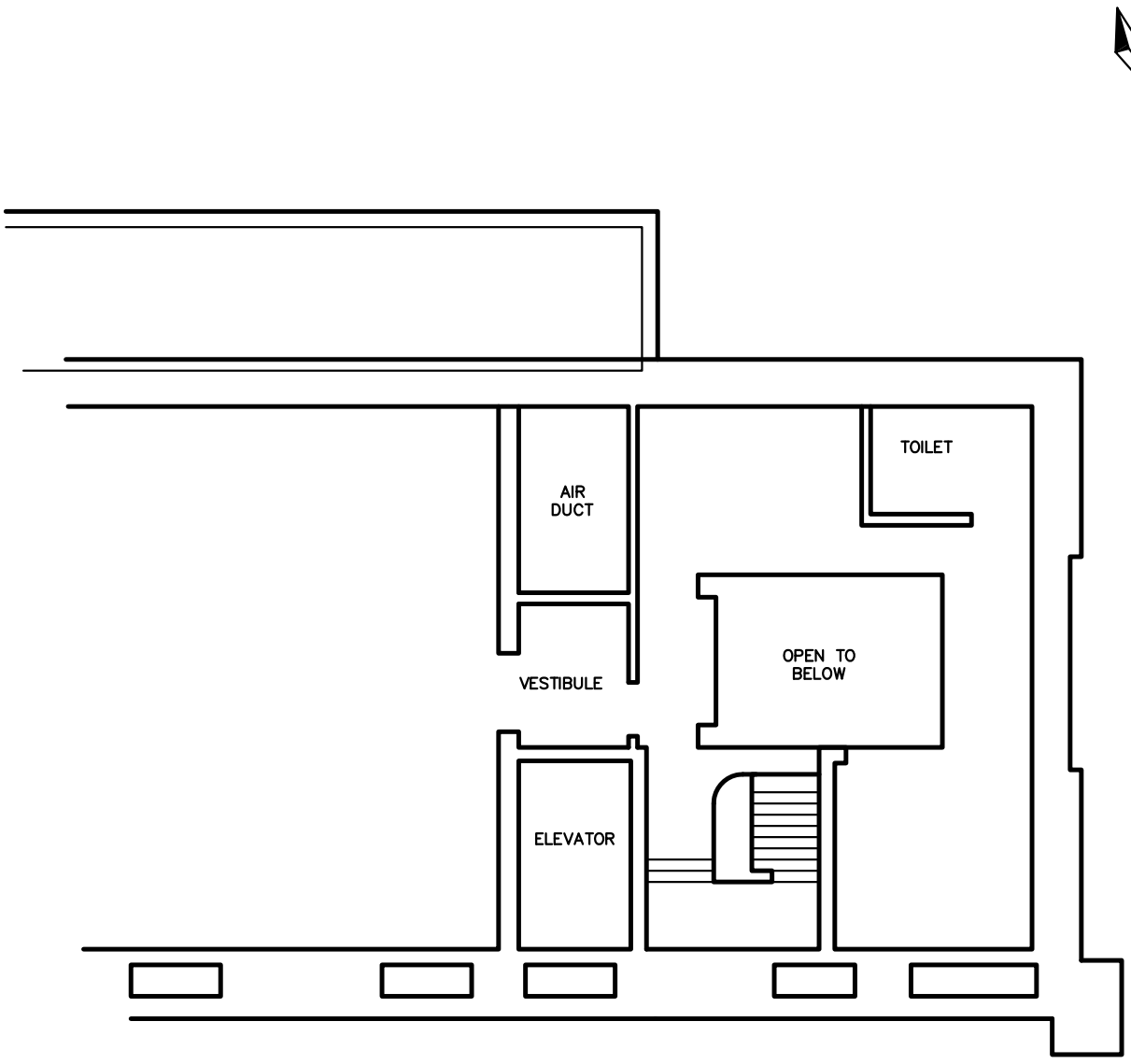
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 3
FIRST FLOOR SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - 1ST FL sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:35:37 PM



LEGEND

(NO SAMPLES COLLECTED)

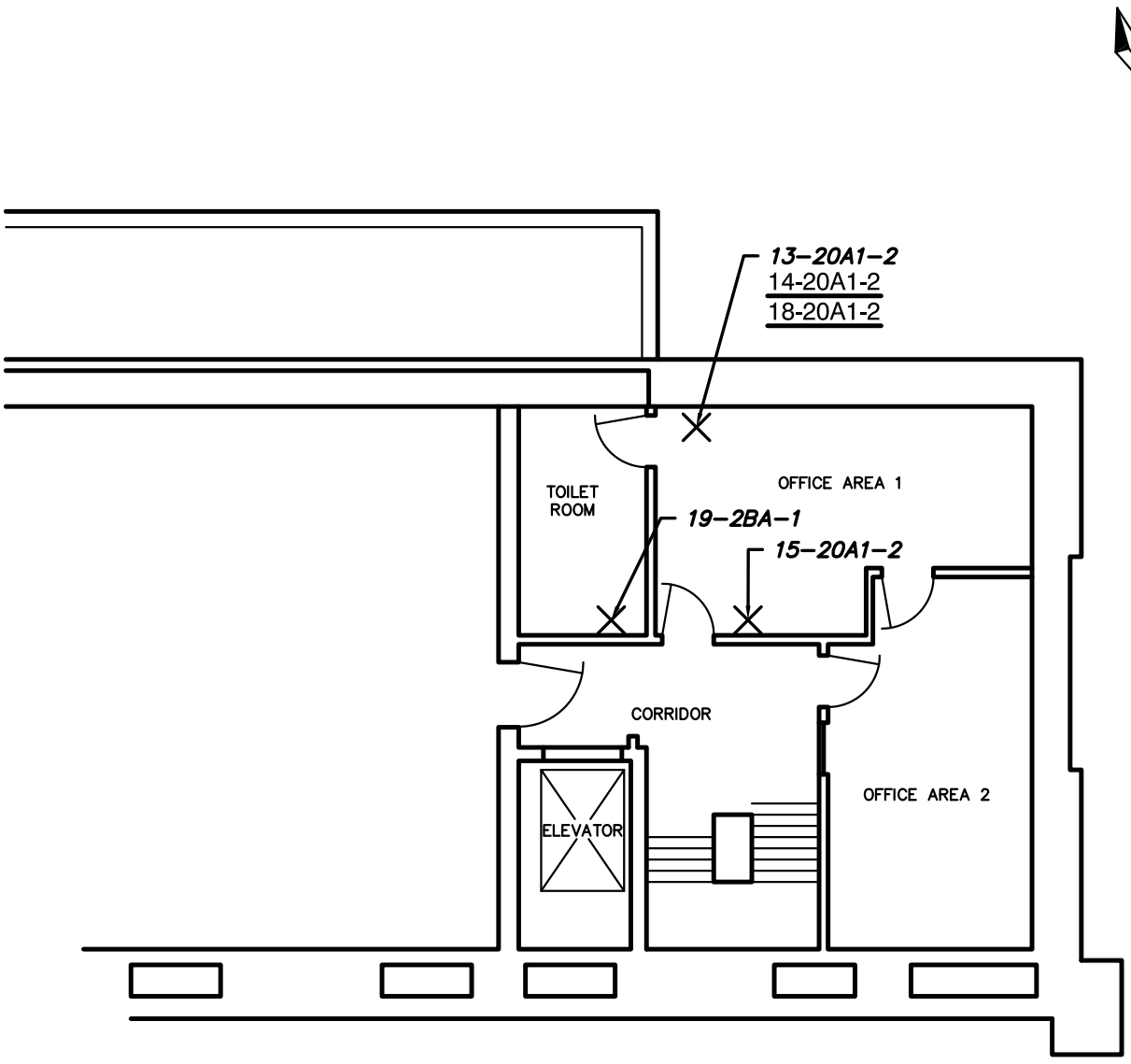
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 4
MEZZANINE SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\CV\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - MEZZ sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:34:35 PM



LEGEND

X –BULK ASBESTOS SAMPLE LOCATION

14-20A1-2 –ASBESTOS DETECTED

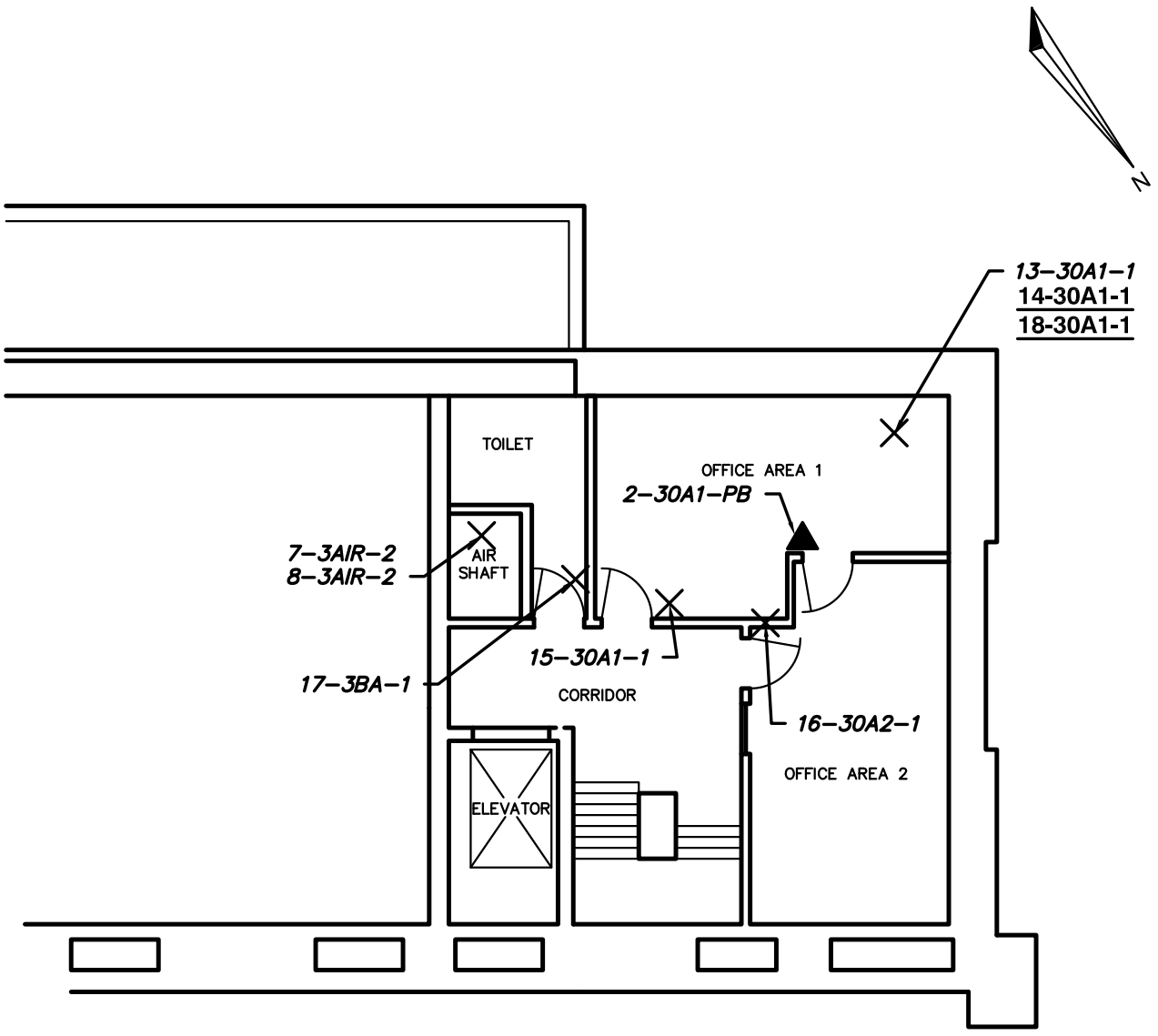
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 5
SECOND FLOOR SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - 2ND FL sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:39:24 PM



LEGEND

X –BULK ASBESTOS SAMPLE LOCATION

14-20A1-2 –ASBESTOS DETECTED

▲ –PAINT CHIP SAMPLE LOCATION

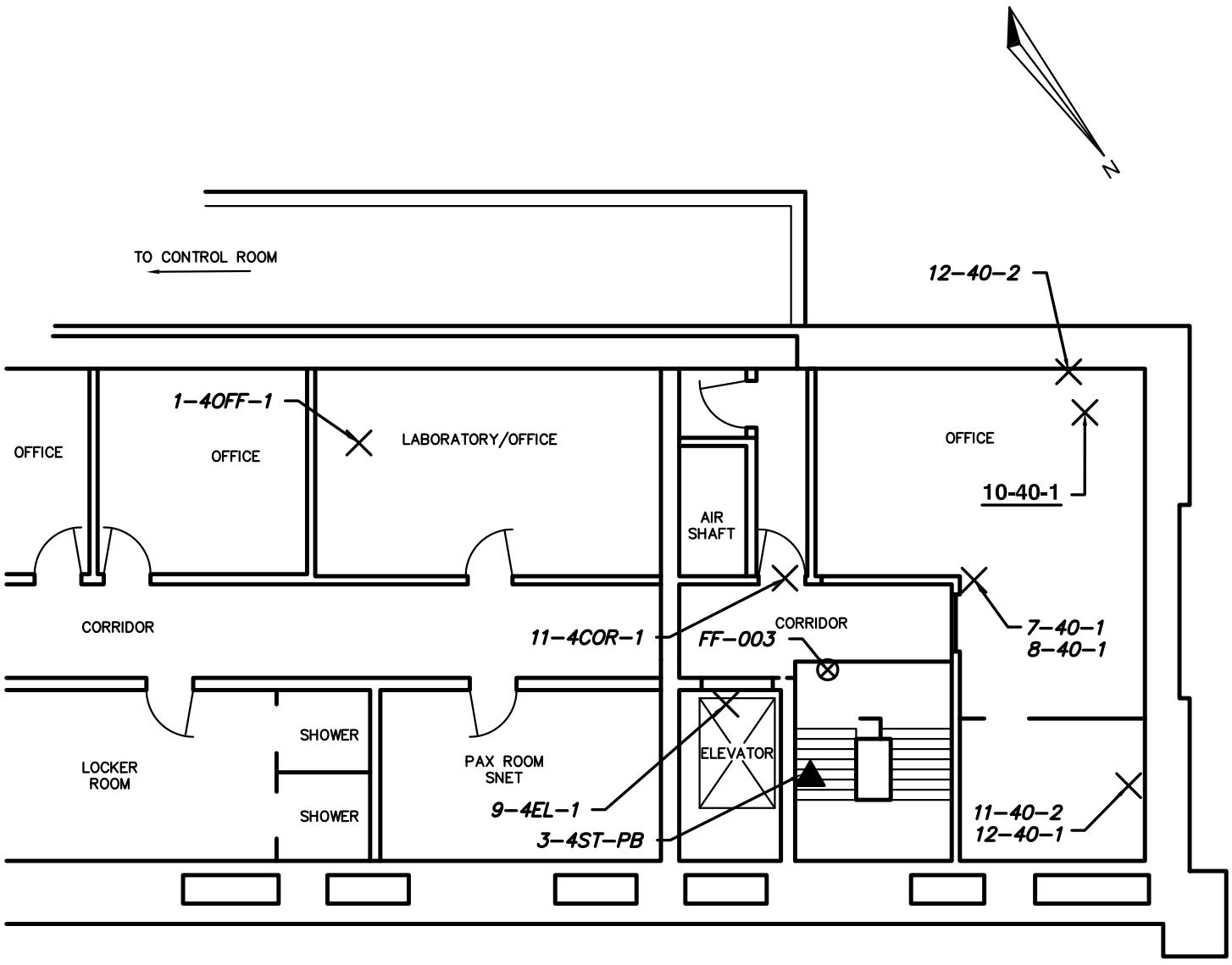
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 6
THIRD FLOOR SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\CV\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - 3rd FL sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:40:27 PM



LEGEND

X —BULK ASBESTOS SAMPLE LOCATION

10-40-1 —ASBESTOS DETECTED

▲ —PAINT CHIP SAMPLE LOCATION

⊗ —MOLD SWAB SAMPLE LOCATION

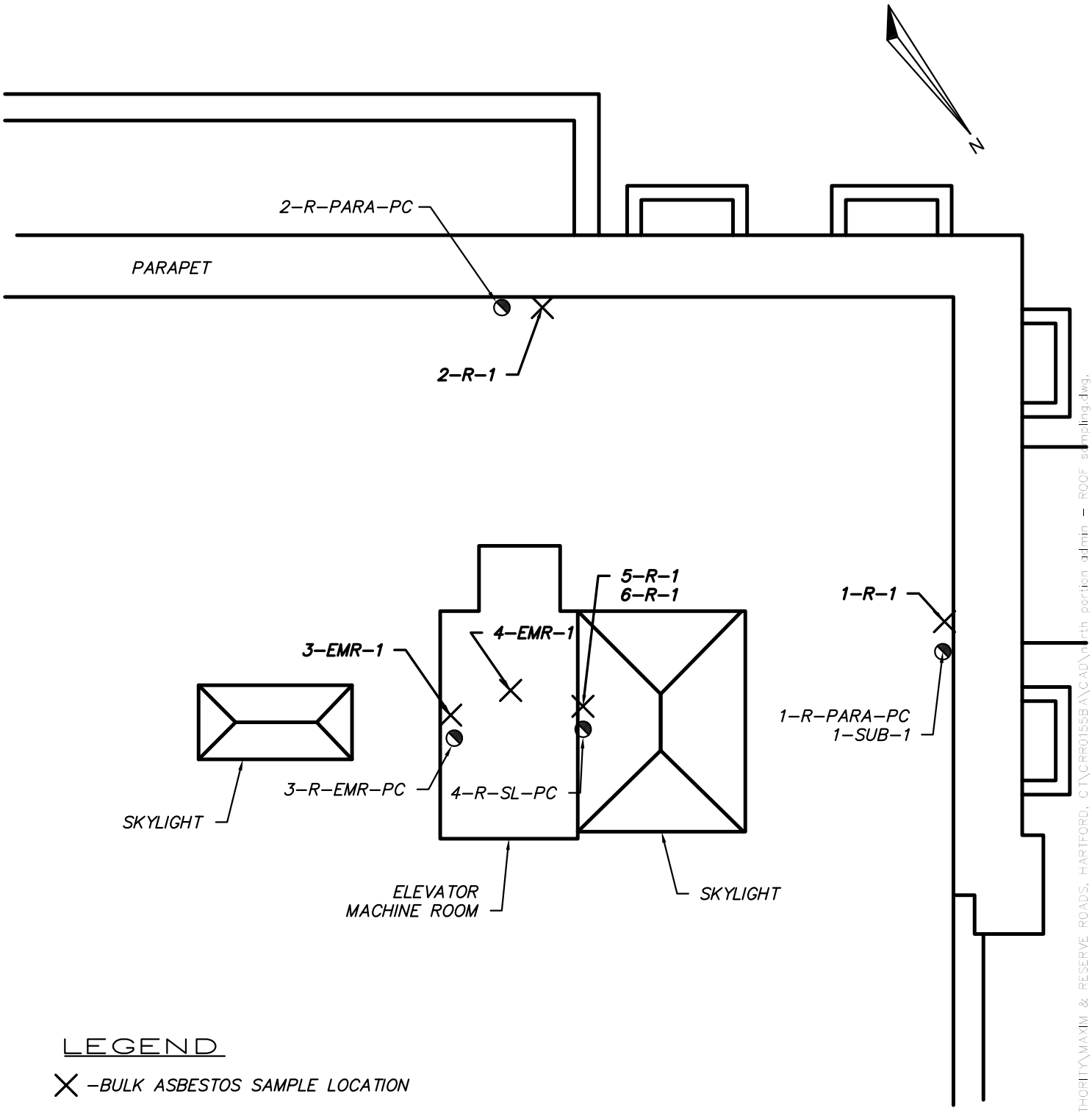
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 7
FOURTH FLOOR SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - 4th FL sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:41:31 PM



LEGEND

X —BULK ASBESTOS SAMPLE LOCATION

● —BULK PCB CAULK/GLAZING/SUBSTRATE SAMPLE LOCATION

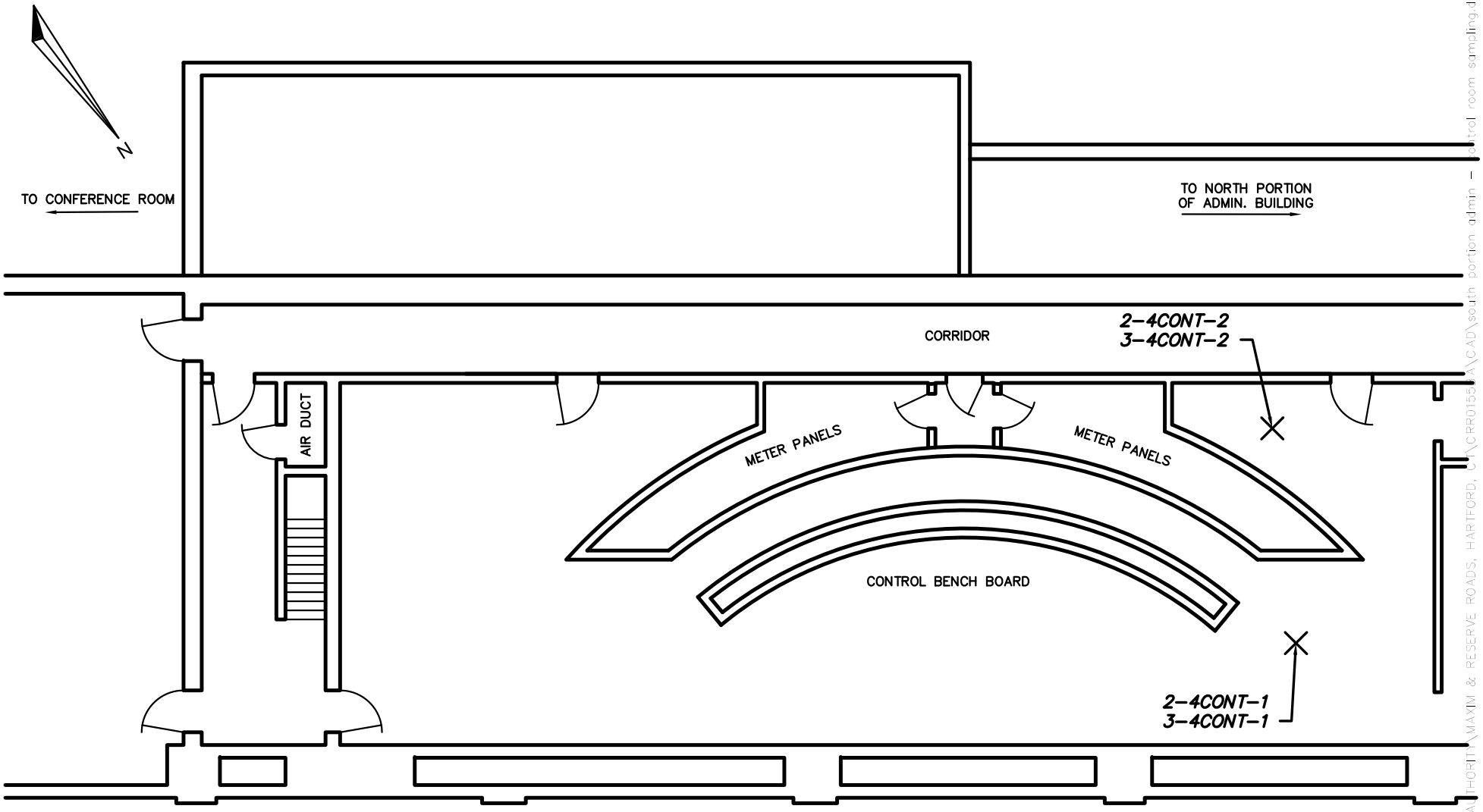
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 8
ROOF SAMPLING LOCATIONS
NORTH PORTION ADMIN. BUILDING
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\north portion admin - ROOF sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:44:15 PM



LEGEND

X –BULK ASBESTOS SAMPLE LOCATION

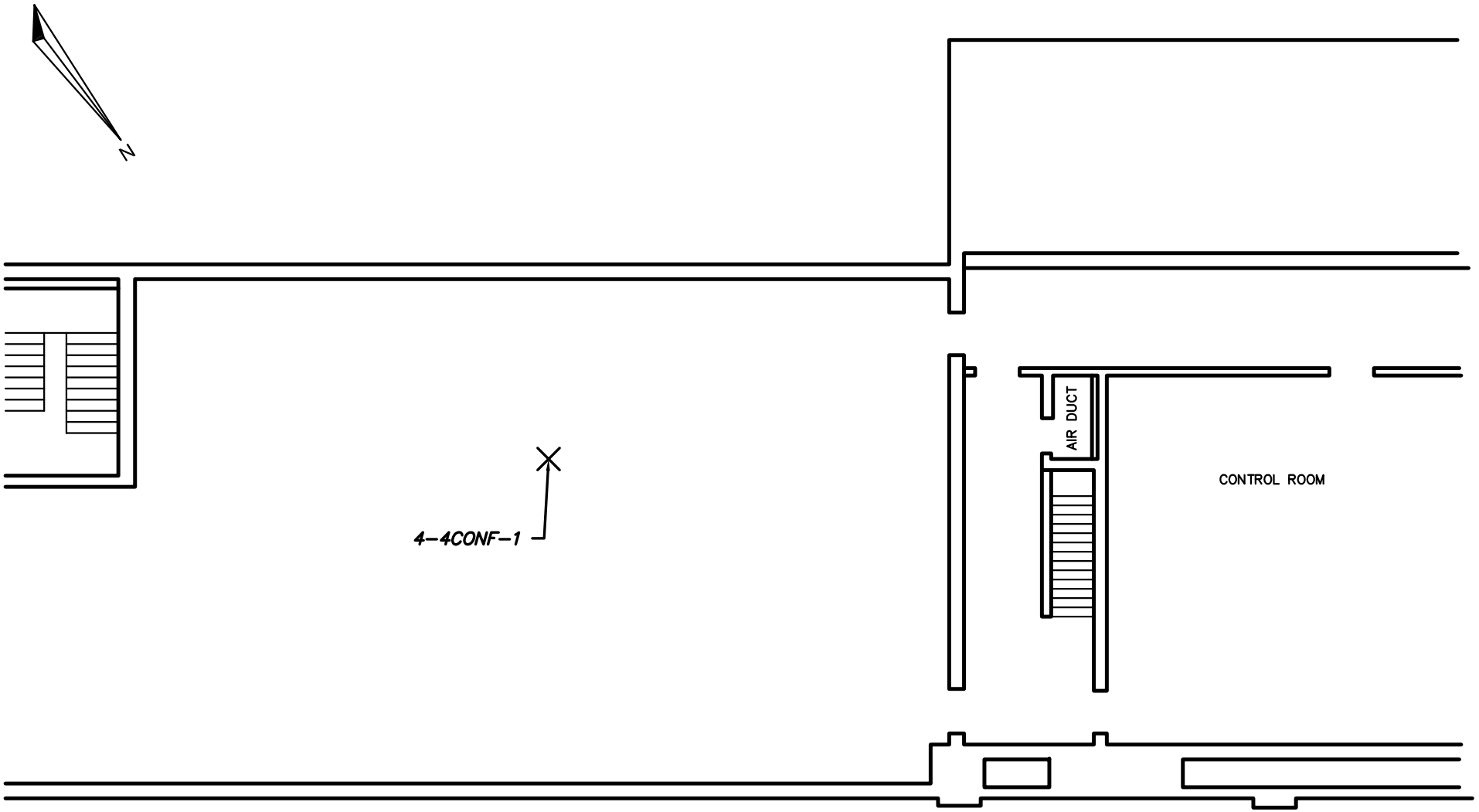
1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 9
CONTROL ROOM SAMPLING LOCATIONS
FOURTH FLOOR SOUTHERN FILE AREAS
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155.BA\CAD\south portion admin - control room sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:45:00 PM



LEGEND

X –BULK ASBESTOS SAMPLE LOCATION

1" = 10'

10 0 5 10 20

APPROXIMATE SCALE IN FEET

FIGURE 10
CONFERENCE ROOM SAMPLING LOCATIONS
FOURTH FLOOR SOUTHERN FILE AREAS
CRRA SOUTH MEADOWS STATION
GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT
HRP # CRR0155.BA
SCALE 1" = 10'±

J:\C\CRRAU - CT RESOURCES RECOVERY AUTHORITY\MAXIM & RESERVE ROADS, HARTFORD, CT\CRR0155BA\CAD\south portion - conference room sampling.dwg, 8X11 PORTRAIT, 3/29/2012 12:45:36 PM

TABLES

TABLE 1
SUSPECT ASBESTOS-CONTAINING MATERIALS (ACM) & ACM LIST

NORTH PORTION OF ADMINISTRATION BUILDING AND
FOURTH FLOOR SOUTHERN FILE AREAS
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Sample Designation	Sample Location	Type of Material	Material Condition / Friability	Asbestos Content/ Estimated Quantity[1]
Suspect Asbestos-Containing Materials – Northern Administration Building				
1-R-1	Roof parapet wall	Off-white caulk on upper portion of parapet wall	Damaged / Non-friable	2% Chrysotile / 0.70% Chrysotile*
2-R-1	Roof parapet wall	Black caulk on upper portion of parapet wall, covering Sample 1-R-1	Good / Non-friable	None Detected
3-EMR-1	Elevator machine room	Gray window glazing on interior surface of windows	Sig. damaged / Non-friable	None Detected
4-EMR-1	Elevator machine room	Black/yellow insulation board on elevator switch panel	Damaged / Non-friable	None Detected
5-R-1	Stairwell skylight on roof	Gray glazing on stairwell skylight windows	Damaged / Non-friable	None Detected
6-R-1	Stairwell skylight on roof	Black mastic around base of skylight at roof deck	Damaged / Non-friable	None Detected
7-4O-1	Fourth floor office	White plaster skim coat	Damaged / Non-friable	None Detected
7-3AIR-2	Third floor air shaft		Damaged / Non-friable	None Detected
8-4O-1	Fourth floor office	Gray plaster scratch coat	Damaged / Non-friable	<1% Chrysotile / 0.25% Chrysotile**
8-3AIR-2	Third floor air shaft		Damaged / Non-friable	<1% Chrysotile / 0.25% Chrysotile**
9-4EL-1	Elevator	Brown 12”x12” VFT with granite pattern	Damaged / Non-friable	None Detected
9-4EL-1A		Black mastic beneath brown 12”x12” VFT with granite pattern	Damaged / Non-friable	None Detected
10-4O-1	4th floor office	Red/brown 9”x9” VFT	Damaged / Non-friable	5% Chrysotile / 510 SF
10-4O-1A		Black mastic beneath red/brown 9”x9” VFT	Damaged / Non-friable	None Detected
11-4COR-1	Fourth floor corridor	Gray grout on ceramic floor tile and ceramic window sill tiles	Damaged / Non-friable	None Detected
11-4O-2	Fourth floor office		Damaged / Non-friable	None Detected
12-4O-1	Fourth floor office	Gray mastic beneath ceramic floor tile and ceramic window sill tiles	Damaged / Non-friable	None Detected
12-4O-2	Fourth floor office		Damaged / Non-friable	None Detected
13-3OA1-1	Third floor Office Area 1	White/beige 12”x12” VFT with brown streaks	Damaged / Non-friable	None Detected
13-3OA1-1A		Yellow mastic beneath white/beige 12”x12” VFT with brown streaks	Damaged / Non-friable	None Detected
13-2OA1-2	Second floor Office Area 1	White/beige 12”x12” VFT with brown streaks	Good / Non-friable	None Detected
13-2OA1-2A		Yellow mastic beneath white/beige 12”x12” VFT with brown streaks	Good / Non-friable	None Detected

TABLE 1
SUSPECT ASBESTOS-CONTAINING MATERIALS (ACM) & ACM LIST

NORTH PORTION OF ADMINISTRATION BUILDING AND
FOURTH FLOOR SOUTHERN FILE AREAS
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Sample Designation	Sample Location	Type of Material	Material Condition / Friability	Asbestos Content/ Estimated Quantity[1]
14-3OA1-1	Third floor Office Area 1	Black 9"x9" VFT located beneath white/beige 12"x12" VFT (Samples 13-1 and 13-2)	Good / Non-friable	5% Chrysotile / 545 SF
14-3OA1-1A		Black mastic beneath black 9"x9" VFT	Good / Non-friable	None Detected
14-2OA1-2	Second floor Office Area 1	Black 9"x9" VFT located beneath white/beige 12"x12" VFT (Samples 13-1 and 13-2)	Good / Non-friable	Stop Positive / (See Sample 14-1)
14-2OA1-2A		Black mastic beneath black 9"x9" VFT	Good / Non-friable	None Detected
15-3OA1-1	Third floor Office Area 1	Tan 4" cove base molding	Good / Non-friable	None Detected
15-3OA1-1A		White mastic beneath tan 4" cove base molding	Good / Non-friable	None Detected
15-2OA1-2	Second floor Office Area 1	Tan 4" cove base molding	Good / Non-friable	None Detected
15-2OA1-2A		White mastic beneath tan 4" cove base molding	Good / Non-friable	None Detected
16-3OA2-1	Third floor Office Area 2	Gray gypsum wallboard	Good / Non-friable	None Detected
16-3OA2-1A		White joint compound	Good / Non-friable	None Detected
16-3OA2-1B		White wallboard tape	Good / Non-friable	None Detected
17-3BA-1	Third floor bathroom	Brown terrazzo flooring	Good / Non-friable	None Detected
18-3OA1-1	Third floor Office Area 1	Red 9"x9" VFT located alongside Samples 14-1 and 14-2 (checkerboard pattern), beneath Samples 13-1 and 13-2	Good / Non-friable	5% Chrysotile / 545 SF
18-3OA1-1A		Black mastic beneath black 9"x9" and red 9"x9" VFT (Samples 14-1, 14-2, 18-1, and 18-2)	Good / Non-friable	None Detected
18-2OA1-2	Second floor Office Area 1	Red 9"x9" VFT located alongside Samples 14-1 and 14-2 (checkerboard pattern), beneath Samples 13-1 and 13-2	Good / Non-friable	Stop Positive / (See Sample 18-1)
18-2OA1-2A		Black mastic beneath black 9"x9" and red 9"x9" VFT (Samples 14-1, 14-2, 18-1, and 18-2)	Good / Non-friable	None Detected
19-2BA-1	Second floor bathroom	Gray mastic beneath ceramic floor tiles	Good / Non-friable	None Detected
19-BCO-2	Basement corridor		Good / Non-friable	None Detected

TABLE 1

SUSPECT ASBESTOS-CONTAINING MATERIALS (ACM) & ACM LIST

NORTH PORTION OF ADMINISTRATION BUILDING AND
FOURTH FLOOR SOUTHERN FILE AREAS
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Sample Designation	Sample Location	Type of Material	Material Condition / Friability	Asbestos Content/ Estimated Quantity[1]
Suspect Asbestos-Containing Materials - Fourth Floor File Areas South of Northern Administration Building				
1-4OFF-1	Fourth floor office/laboratory	Red 18"x18" carpet squares	Good / Non-friable	None Detected
1-4OFF-1A		Green glue beneath red 18"x18" carpet squares	Good / Non-friable	None Detected
2-4CONT-1	Fourth floor control room	Red 19.5"x19.5" carpet squares	Good / Non-friable	None Detected
2-4CONT-1A		White glue beneath red 19.5"x19.5" carpet squares	Good / Non-friable	None Detected
2-4CONT-2	Fourth floor control room	Red 19.5"x19.5" carpet squares	Good / Non-friable	None Detected
2-4CONT-2A		White glue beneath red 19.5"x19.5" carpet squares	Good / Non-friable	None Detected
3-4CONT-1	Fourth floor control room	Brown 6"x6" composite wood floor tiles located beneath Sample 2	Good / Non-friable	None Detected
3-4CONT-1A		Gray mastic beneath brown 6"x6" composite wood floor tiles	Good / Non-friable	None Detected
3-4CONT-2	Fourth floor control room	Brown 6"x6" composite wood floor tiles located beneath Sample 2	Good / Non-friable	None Detected
3-4CONT-2A		Gray mastic beneath brown 6"x6" composite wood floor tiles	Good / Non-friable	None Detected
4-4CONF-1	Fourth floor conference room	Red 18"x18" carpet squares	Good / Non-friable	None Detected
4-4CONF-1A		Black backing on red 18"x18" carpet squares	Good / Non-friable	None Detected
4-4CONF-1B		Yellow glue beneath black carpet square backing	Good / Non-friable	None Detected

TABLE 1

SUSPECT ASBESTOS-CONTAINING MATERIALS (ACM) & ACM LIST

NORTH PORTION OF ADMINISTRATION BUILDING AND
FOURTH FLOOR SOUTHERN FILE AREAS
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Sample Designation	Sample Location	Type of Material	Material Condition / Friability	Asbestos Content/ Estimated Quantity[1]

[1] Note that each estimated quantity listed in this column is the total for all of that particular homogeneous material, not just the quantity for the sample location

Samples analyzed by Polarized Light Microscopy (PLM)
* = PLM Sample result was re-analyzed by Transmission Electron Microscopy (TEM)
** = PLM Sample result was re-analyzed by 400 Point Count Procedure

Sample # format is HMAT# - room/area ID - # in HMAT series (e.g., 18-3OA1-1) - Note the following abbreviations: (AIR = air shaft; BA = bathroom; BCO = basement corridor; CONF = conference room; CONT = control room; COR = corridor; EL = elevator; EMR = elevator machine room; O and OFF = office; OA = office area; and R = roof).

Damaged = <10% distributed damage or <25% localized damage; Sig. Damaged = Significantly Damaged (≥10% distributed damage or ≥25% localized damage)

SF = square feet (estimated)

'Bold' indicates that the sampled material is considered to be ACM

Chrysotile = Serpentine species of asbestos

Note: This table includes estimated quantities of ACMs that are provided for informational purposes only. All quantities should be independently verified by the abatement contractor prior to bidding/abatement.

TABLE 2

ASBESTOS-CONTAINING MATERIALS (ACM) & PRESUMED ACM (PACM) LIST

NORTH PORTION OF ADMINISTRATION BUILDING AND
FOURTH FLOOR SOUTHERN FILE AREAS
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Sample Designation	Sample Location	Type of Material	Material Condition / Friability	Asbestos Content/ Estimated Quantity[1]
Suspect Asbestos-Containing Materials – Northern Administration Building				
10-4O-1	4th floor office	Red/brown 9"x9" VFT	Damaged / Non-friable	5% Chrysotile / 510 SF
14-3OA1-1	Third floor Office Area 1	Black 9"x9" VFT located beneath white/beige 12"x12" VFT (Samples 13-1 and 13-2)	Good / Non-friable	5% Chrysotile / 545 SF
14-2OA1-2	Second floor Office Area 1	Black 9"x9" VFT located beneath white/beige 12"x12" VFT (Samples 13-1 and 13-2)	Good / Non-friable	Stop Positive / (See Sample 14-1)
18-3OA1-1	Third floor Office Area 1	Red 9"x9" VFT located alongside Samples 14-1 and 14-2 (checkerboard pattern), beneath Samples 13-1 and 13-2	Good / Non-friable	5% Chrysotile / 545 SF
18-2OA1-2	Second floor Office Area 1	Red 9"x9" VFT located alongside Samples 14-1 and 14-2 (checkerboard pattern), beneath Samples 13-1 and 13-2	Good / Non-friable	Stop Positive / (See Sample 18-1)
Suspect Asbestos-Containing Materials - Fourth Floor File Areas South of Northern Administration Building				
None Detected				

[1] Note that each estimated quantity listed in this column is the total for all of that particular homogeneous material, not just the quantity for the sample location

Sample # format is HMAT# - room/area ID - # in HMAT series (e.g., 18-3OA1-1) - Note the following abbreviations: (AIR = air shaft; BA = bathroom; BCO = basement corridor; CONF = conference room; CONT = control room; COR = corridor; EL = elevator; EMR = elevator machine room; O and OFF = office; OA = office area; and R = roof).

Damaged = <10% distributed damage or <25% localized damage; Sig. Damaged = Significantly Damaged (≥10% distributed damage or ≥25% localized damage)

SF = square feet (estimated)

Chrysotile = Serpentine species of asbestos

Note: This table includes estimated quantities of ACMs that are provided for informational purposes only. All quantities should be independently verified by the abatement contractor prior to bidding/abatement.

TABLE 3

LEAD PAINT CHIP SAMPLING RESULTS

NORTH PORTION OF ADMINISTRATION BUILDING
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

(HRP #CRR0155.BA)

Sample ID #	Sample Description and Location[1]	Applicable Standard*	Lead Result**
Lead Paint Chip Sampling			
1-BTEL-PB	Gray paint on basement concrete and plaster walls	0.5%	0.39%
2-3OA1-PB	Off-white paint on basement concrete and plaster walls	0.5%	<0.010%
3-4ST-PB	Off-white paint on first floor plaster and gypsum wallboard walls	0.5%	0.38%

* The EPA and HUD lead based paint level is ≥ 0.5%.

** Based upon a 4-square inch paint sample

Bold results exceed the EPA and HUD lead based paint level.

TABLE 4

SUSPECT PCB-CONTAINING CAULKING, GLAZING, AND SUBSTRATE SAMPLING RESULTS

NORTH PORTION OF ADMINISTRATION BUILDING
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Sample Designation	Sample Location	Type of Material	PCB Content/ Estimated Quantity[1]
Suspect PCB-Containing Materials			
1-R-PARA-PC	North roof parapet wall	Off-white caulk between roof metal drip edge and concrete cornice	88.0 mg/Kg Arochlor 1254 / 100 LF
2-R-PARA-PC	West roof parapet wall	Black caulk covering Sample 1	1.9 mg/Kg Arochlor 1254 / 6 LF
3-R-EMR-PC	Elevator machine room	Gray interior glazing on metal window	3.5 mg/Kg Arochlor 1254 / 108 LF
4-R-SL-PC	South side of stairwell skylight	Gray glazing on metal skylight window	ND (9.6 mg/Kg)
Substrate Sample[2]			
1-SUB-1	North roof parapet wall	Concrete beneath off-white and black parapet caulking (Samples 1-R-PARA-PC and 2-R-PARA-PC)	1.6 mg/Kg Arochlor 1254 / 100 LF

[1] Note that each estimated quantity listed in this column is the total for all of that particular homogeneous material, not just the quantity for the sample location.

[2] Note that the substrates beneath Samples 3 and 4 were metal window frames and glass panes, and therefore were not sampled.

'Bold' indicates that the sampled material contains measurable amounts of PCBs.
Arochlor 1254 = PCB containing 54% chlorine by weight.

Samples analyzed by EPA Method 8080 – Soxhlet Extraction Type 3540C

PCB = polychlorinated biphenyl).
LF = linear feet (estimated)
ND = not detected

Note: This table includes estimated quantities of PCB-containing caulk that are provided for informational purposes only. All quantities should be independently verified by the abatement contractor prior to bidding/abatement.

TABLE 5

HAZARDOUS MATERIALS SURVEY LIST

NORTH PORTION OF ADMINISTRATION BUILDING
SOUTH MEADOWS STATION – GATE 20 RESERVE ROAD
HARTFORD, CONNECTICUT

HRP #CRR0155.BA

Hazardous Material	Description	Location	Estimated Quantity	Notes
PCBs (potential)	Fluorescent light fixture ballasts	Throughout building	78 EA	Possible PCB-containing
Mercury	Fluorescent light bulbs	Throughout building	279 EA	Mercury-containing
	Mercury bulb thermostats	Throughout building	5 EA	
A/C Refrigerants	Wall-mounted air conditioners	Basement Telephone Room	1 EA	Refrigerant type unknown
Miscellaneous Hazardous Materials	Exit signs/emergency lights	Throughout building	17 EA	Possibly contain batteries and tritium vapor bulbs
	Smoke/heat detectors	Throughout building	4 EA	Potential radioactive material and batteries
	Fire extinguishers	Throughout building	5 EA	Potential pressurized fire suppression chemical
	Cleaning fluid	Fourth floor office	1 x 1-gallon can	Petroleum distillates
	Oil	Third floor Office 2	2 small bottles	Petroleum
	Aerosol lubricants	Fourth floor office	5 x 12-ounce aerosol cans	Petroleum
	Battery	Basement telephone room	1 EA	Lead and acids
	Marking paint and spray cleaner	First floor Production Test Office	3 aerosol cans	Solvents, possible lead
	Joint compound	Fourth floor office	1 x 5-gallon bucket	Limestone, acetates

PCBs = Polychlorinated biphenyls
EA = each or one unit

Note: These tables include estimated quantities of materials that are provided for informational purposes only. All items and quantities must be independently verified by the abatement contractor prior to bidding/abatement.

APPENDIX A

PREVIOUS ASBESTOS AND LEAD SURVEY REPORT

TRC

Customer-Focused Solutions

January 9, 2002

Mr. Chris Fancher
CRRA
100 Constitution Plaza
Hartford, CT 06103-1722

Re: Asbestos and Lead survey
Administration Building
Reserve Road, Hartford, CT
TRC Project No.: 31378

Dear Mr. Fancher:

On December 31, 2001 TRC Environmental Corporation (TRC) performed an asbestos and lead survey of the basement and first floor of the CL & P administration building located at Reserve Road in Hartford, Connecticut. The objective of the survey was to identify any potential asbestos or lead hazards and provide CRRA with regulatory guidance to allow the safe use of the building spaces by CRRA's contracted operator Covanta. The asbestos survey was performed by a licensed State of Connecticut asbestos inspector while the lead survey was performed by a qualified lead inspector.

During the asbestos inspection TRC identified both friable and non-friable suspect asbestos containing material (ACM). The following suspect materials were identified and sampled: sheet rock and joint compound, plaster and skim coat, 12x12 floor tile and associated mastic, ceiling tile, and mudded pipe fitting insulation. All samples collected were analyzed at TRC's laboratory via polarized light microscopy with dispersion staining (PLM/ds) for asbestos content. The negative PLM samples that were classified as non-friable organically bound (NOB) materials, were sent to Proscience Analytical in Woburn, Massachusetts for subsequent confirmation analysis via transmission electron microscopy (TEM) analytical methods.

Results of the sampling revealed that two (2) of the samples were found to be ACM (>1% asbestos). These samples were the following: 12x12 brown w/ white streaks floor tile and associated mastic found in the first floor staff room.

On site lead in paint measurements were conducted utilizing a Niton XL-309 L and K-shell XRF spectrum analyzer. The Niton XL is a portable unit that is designed to make fast, accurate non-destructive measurements of lead concentrations in dry painted surfaces. Lead (Pb) measurements are recorded in milligrams of lead per square centimeter (mg/cm^2) with a minimum detection limit of 0.1 mg/cm^2. XRF measurements were conducted in accordance with protocols outlined in the manufacturer's specifications for lead inspecting in construction settings dated 6/98. Representative measurements of painted building components were conducted throughout the subject building. Measurement readings were then classified as either positive (≥ 0.1 mg/cm^2) or below detectable levels (BDL) (≤ 0.1 mg/cm^2).

5 Waterside Crossing • Windsor, Connecticut 06095-1563
Telephone 860-298-9692 • Fax 860-298-6399

A total of thirty-six (36) measurement readings were taken utilizing the Niton XL of which seven (7) were calibration check readings. The remaining twenty-nine (29) measurements comprised the survey. The results of the lead survey indicated that twenty-three (23) of the building surfaces tested contained lead while the remaining six (6) revealed no detectable levels of lead (i.e. less than 100 micrograms per square centimeter). All of the surfaces measured for lead content were also evaluated for paint coating condition. Each component was identified as either intact or deteriorated.

The identified ACM's (floor tile and mastic) were found to be in an intact non-friable condition, would not reasonably be expected to present exposure to airborne asbestos fibers above OSHA PEL's, and do not pose a current asbestos hazard. As such asbestos abatement does not appear necessary at this time. However, any future renovation activities which would impact the ACM would need to be undertaken following CTDPH, USEPA and OSHA asbestos standards. Further, the presence of ACM within the space triggers OSHA hazard communication sections of the Asbestos General Industry Standard (29 CFR 1910.1001) which include labels/signs, annual awareness training for housekeeping staff and specific ACM floor care procedures.

LBP was identified in various locations, in varying concentrations and in both intact and deteriorated conditions However, the USEPA/CTDPH statutory requirements to perform "lead abatement" of identified lead hazards are only applicable in residential dwellings and day care facilities with children under the age of six. Further still, the OSHA lead General Industry Standard (29 CFR 1910.1025) contains no regulatory requirements for "lead abatement" either. The OSHA Lead General Industry Standard does however contain procedures to ensure employees are not exposed to airborne lead at or above OSHA action levels and to maintain surfaces as free as practicable from accumulations of lead. While the mere presence of LBP (intact or defective) would not reasonably be expected to result in exposures over the action level, defective LBP could potentially result in accumulation of lead dirt and debris. As such, proper cleaning of floors using wet methods to reduce the accumulation of lead paint chip debris would be required. Further, to reduce potential liability, it may be prudent to perform maintenance painting/stabilization/encapsulation of those areas with defective LBP to prevent the accumulation of lead dirt/debris. Further, based on the high concentrations of lead in paint identified during the screening, it is possible that employee exposure above the permissible exposure level (PEL) could be encountered during demolition/renovation activities. Due to the presence of LBP on interior surfaces of the building, any demolition/renovation activity which would impact the LBP including maintenance related painting as described above, must be conducted in compliance with the OSHA Lead in Construction Standard 29 CFR 1926.62. In addition, any lead waste generated during those activities would require proper management and disposal in accordance with USEPA, and CTDEP RCRA Hazardous Waste Regulations.

Enclosed please find the inspector licenses, lead analysis table, sample chain-of-custody, field sketches, and laboratory analytical data for the inspection conducted.

Thank you for allowing TRC the continuing opportunity to serve the environmental engineering needs of the CRRA. If you have any questions regarding this matter, please feel free to contact me directly at (860) 298-6222.

Sincerely,

TRC ENVIRONMENTAL CORPORATION

Donald A. LePage
Associate Project Scientist

cc: Erik Plimpton, PE, TRC
Carl Stopper, TRC

TABLES

TABLE 3-1
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS-CONTAINING MATERIALS
RESERVE ROAD
ADMINISTRATION BUILDING
CRRA
HARTFORD, CONNECTICUT

Sample No.	Location	Material	% and Type Asbestos
08	1st floor bathroom	Joint compound	ND<1%
09	1st floor bathroom	2'x3' wormhole pattern ceiling tile	ND<1%
10	1st floor bathroom	2'x3' wormhole pattern ceiling tile	ND<1%
11	1st floor bathroom	2'x3' wormhole pattern ceiling tile	ND<1%
12	Basement locker room	2'x4' wormhole pattern ceiling tile	ND<1%
13	Basement locker room	2'x4' wormhole pattern ceiling tile	ND<1%
14	Basement locker room	2'x4' wormhole pattern ceiling tile	ND<1%
15	1st floor staff room	Mudded fitting	ND<1%
16	1st floor staff room	Mudded fitting	ND<1%
17	1st floor staff room	Mudded fitting	ND<1%
18	1st floor staff room	12"x12" brown w/white streaks floor tile	3.4% Chrysotile[1]
19	1st floor staff room	12"x12" brown w/white streaks floor tile	Trace Chrysotile
20	1st floor staff room	12"x12" brown w/white streaks floor tile	Trace Chrysotile
21	1st floor staff room	Mastic associated with 12"x12" brown floor tile	10% Chrysotile

NA/PS Not Analyzed/Positive Stop, homogeneous to sample proved to contain asbestos
ND < 1% Non-Detected, less than 1%
1 Confirmed by TEM analysis
* Quantified via PLM Point Counting Technique
+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive under AHERA protocol

TABLE 3-1
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS-CONTAINING MATERIALS
RESERVE ROAD
ADMINISTRATION BUILDING
CRRA
HARTFORD, CONNECTICUT

Sample No.	Location	Material	% and Type Asbestos
22	1st floor staff room	Mastic associated with 12"x12" brown floor tile	NA/PS
23	1st floor staff room	Mastic associated with 12"x12" brown floor tile	NA/PS

NA/PS Not Analyzed/Positive Stop, homogeneous to sample proved to contain asbestos
ND < 1% Non-Detected, less than 1%
1 Confirmed by TEM analysis
* Quantified via PLM Point Counting Technique
+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive under AHERA protocol

TABLE 3-2
IDENTIFIED ASBESTOS CONTAINING MATERIALS (>1%)
RESERVE ROAD
ADMINISTRATION BUILDING
CRRA
HARTFORD, CONNECTICUT

Material	Sampled-Assumed	General Location	NESHAP Category	AHERA Category	Quantity
12"x12" brown w/white streaks floor tile	Sampled 12/01	1st floor staff room	Category I non-friable	Miscellaneous	120 SF
Mastic associated with 12"x12" brown floor tile	Sampled 12/01	1st floor staff room	Category I non-friable	Miscellaneous	120 SF

TABLE 3-3
CONFIRMED NON-ASBESTOS CONTAINING MATERIALS
RESERVE ROAD
ADMINISTRATION BUILDING
CRRA
HARTFORD, CONNECTICUT

Material	General Location
Plaster & skimcoat	Throughout basement and 1st floor
Sheetrock and joint compound	1st floor bathroom
2'x3' wormhole pattern ceiling tile	1st floor bathroom
2'x4' wormhole pattern ceiling tile	Basement locker room
Mudded fitting	1st floor staff room

Lead Based Paint Measurement Summary Table

TRC Environmental Corporation

Device:	**Niton XL-309 X Ray Fluorescence (XRF) Spectrum Analyzer, Serial #U688**
Site:	**CRRA - CL&P Administration Building, Reserve Road, Hartford, Connecticut**
Project # :	**31378-2120-00000**
Date:	**12/31/01**
Inspector:	**Donald LePage (Cert # V1998052798-12)**
Ranges:	**(NEG<INC<POS): 0.0<0.05<0.05 (OSHA Compliance)**

Number	Room	Side	Structure	Feature	Material	Color	Condition	Result	Reading (mg/cm2)	Precision (mg/cm2)	Duration (sec)	Depth Index	Date/Time
1			Shutter Cal 1								77.9	0	12/31/01 12:25
2			1.6 Calibration						1.6	0.3	9.8	1	12/31/01 12:25
3			3.5 Calibration						3.6	0.6	9.6	1.3	12/31/01 12:25
4			0.3 Calibration						0.3	0.2	5.5	1	12/31/01 12:26
First Floor													
5	Staff room	A	window	sill	wood	tan	intact	POS	0.3	0.1	35.7	3.1	12/31/01 12:27
6	Staff room	B	wall		plaster	tan	intact	POS	3.3	1.5	8	6.7	12/31/01 12:29
7	Staff room	B	window	sash	wood	tan	intact	POS	17.4	3.4	5.5	3.4	12/31/01 12:30
8	Staff room	B	wall	baseboard	wood	black	intact	POS	6.6	2.3	5.4	2.5	12/31/01 12:30
9	Staff room	B	door		metal	tan	intact	POS	0.9	0.2	61.1	2.5	12/31/01 12:31
10	1st floor hall	B	door	frame	wood	tan	intact	POS	9.6	2.4	5.5	4.2	12/31/01 12:34
11	1st floor hall	C	wall		brick	tan	intact	POS	29.1	4.5	5.3	2.3	12/31/01 12:35
12	1st floor hall	C	upper wall		plaster	white	intact	NEG	0.0	0.1	24.6	1.3	12/31/01 12:35
13	1st floor hall	C	door		metal	tan	intact	POS	1.4	0.3	23.9	2.5	12/31/01 12:37
14	Store room	A	wall		brick	green	defective	POS	0.8	0.1	45.5	2.1	12/31/01 12:38
15	Store room	C	door		metal	green	defective	POS	0.6	0.2	19	1.5	12/31/01 12:40
16	Store room	B	wall		brick	black	intact	POS	0.3	0.1	19.6	1	12/31/01 12:42
17	1st floor bath	A	wall		plaster	white	defective	POS	0.1	0.0	67	2.3	12/31/01 12:43
18	1st floor bath	D	wall	stall	wood	white	intact	POS	0.1	0.1	35.9	3.1	12/31/01 12:46
19	1st floor bath	C	wall	baseboard	wood	gray	intact	POS	0.1	0.1	31.1	1.5	12/31/01 12:48
20	1st floor bath		ceiling		sheetrock	tan	defective	POS	0.1	0.1	19.8	1.3	12/31/01 12:50
21	1st floor hall		stair	rail	metal	tan	intact	POS	9.5	2.7	5.5	3.1	12/31/01 12:51
22	1st floor hall		ceiling	beam	plaster	tan	intact	POS	0.3	0.4	50.6	10	12/31/01 12:52
Basement													
23	Hallway	A	wall		plaster	tan	intact	POS	1.9	0.5	12.4	1.9	12/31/01 12:54
24	Janitorial room	A	wall		plaster	tan	defective	NEG	0.0	0.1	38.7	2.2	12/31/01 12:56
25	Janitorial room		floor		concrete	gray	defective	NEG	0.0	0.0	22.2	1.1	12/31/01 12:58
26	Hallway	A	stair	I-beam	metal	tan	defective	POS	4.7	1.7	7.7	2.2	12/31/01 12:59
27	Storage room	A	wall		plaster	white	defective	NEG	0.0	0.1	36	1.5	12/31/01 13:00

All XRF readings <0.1 mg/cm2 = Below Detectable Levels (BDL)

Side A = Street side; Sides B,C,D follow clockwise

Device:	Niton XL-309 X Ray Fluorescence (XRF) Spectrum Analyzer, Serial #U688
Site:	CRRA - CL&P Administration Building, Reserve Road, Hartford, Connecticut
Project # :	31378-2120-00000
Date:	12/31/01
Inspector:	Donald LePage (Cert # V1998052798-12)
Ranges:	(NEG<INC<POS): 0.0<0.05<0.05 (OSHA Compliance)

Number	Room	Side	Structure	Feature	Material	Color	Condition	Result	Reading (mg/cm2)	Precision (mg/cm2)	Duration (sec)	Depth Index	Date/Time
28	Storage room	B	door	casing	wood	tan	intact	NEG	0.0	0.1	37.7	1.5	12/31/01 13:02
29	Locker room	A	door		metal	tan	intact	POS	6.7	2.1	5.5	2.3	12/31/01 13:04
30	Locker room	A	wall		concrete	white	intact	NEG	0.0	0.1	43.1	2.5	12/31/01 13:05
31	Locker room		floor		concrete	gray	intact	POS	0.1	0.1	52.9	4.2	12/31/01 13:07
32	Locker room		stair	rail	metal	tan	intact	POS	0.1	0.0	22.1	1.1	12/31/01 13:09
33	Locker room	B	wall	locker	metal	blue	intact	POS	1.4	0.3	24.2	2.1	12/31/01 13:11
34			1.6 Calibration						1.4	0.3	9.9	1	12/31/01 13:13
35			3.5 Calibration						2.9	0.6	7.4	1.1	12/31/01 13:14
36			0.3 Calibration						0.3	0.2	5.5	1.1	12/31/01 13:14

All XRF readings <0.1 mg/cm2 = Below Detectable Levels (BDL)

Side A = Street side; Sides B,C,D follow clockwise

ATTACHMENTS

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
DONALD LEPAGE

VALIDATION NO.	LICENSE NO.	CURRENT THROUGH
01-572182	000273	08/31/02

PROFESSION
ASBESTOS CONSULTANT-INSPECTOR

Donald LePage
SIGNATURE

COMMISSIONER DEPT. OF PUBLIC HEALTH

NITON®

CORPORATION

Certificate of Achievement

Donald LePage
TRC Environmental

has successfully completed the Manufacturer's Training Course for the **NITON Spectrum Analyzer** *and is now certified in radiation safety and monitoring, measurement technology, and machine maintenance of the* **NITON XRF Spectrum Analyzer.**

(CIH's ABIH awards 1 CM point, approval #5827)

V1998052798-12
Certificate Number

05/27/98 Westford
Date & Site of Course

Victoria Grzybinski
Training Coordinator

Kenneth P. Ayotte
Director of Training

TRC

5 WATERSIDE CROSSING

WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6399

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
31378-2120-00000	TRC-CRRA		PLM: X 24hr 48hr 3day 5day
			TEM: 24hr X 48hr 3day 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Donald LePage		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM NY NOB 198.1 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	12/31/01				Basement hall	X		X	X		Plaster and skimcoat
02	12/31/01				Basement janitorial room	X		X	X		Plaster and skimcoat
03	12/31/01				Basement bathroom	X		X	X		Plaster and skimcoat
04	12/31/01				1st floor staff room	X		X	X		Plaster and skimcoat
05	12/31/01				1st floor bathroom	X		X	X		Plaster and skimcoat
06	12/31/01				1st floor bathroom	X		X	X		Sheet rock and joint compound
07	12/31/01				1st floor bathroom	X		X	X		Sheet rock and joint compound
08	12/31/01				1st floor bathroom	X		X	X		Sheet rock and joint compound
09	12/31/01				1st floor bathroom	X					2'x3' wormhole ceiling tile
10	12/31/01				1st floor bathroom	X					2'x3' wormhole ceiling tile
11	12/31/01				1st floor bathroom	X					2'x3' wormhole ceiling tile
12	12/31/01				Basement locker room	X					2'x4' wormhole ceiling tile

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed)	Time:	(Printed)	(Printed)	Time:	(Printed)

Remarks:

TRC

5 WATERSIDE CROSSING

WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6399

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
31378-2120-00000	TRC-CRRA		PLM: X 24hr 48hr 3day 5day
			TEM: 24hr X 48hr 3day 5day
INSPECTOR: (SIGNATURE)	(PRINTED) Donald LePage		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM NY NOB 198.1 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
13	12/31/01				Basement locker room	X					2'x4' wormhole ceiling tile
14	12/31/01				Basement locker room	X					2'x4' wormhole ceiling tile
15	12/31/01				1st floor staff room	X					Mudded fitting
16	12/31/01				1st floor staff room	X					Mudded fitting
17	12/31/01				1st floor staff room	X					Mudded fitting
18	12/31/01				1st floor staff room	X				X	12"x12" brown w/ white streaks floor tile
19	12/31/01				1st floor staff room	X					12"x12" brown w/ white streaks floor tile
20	12/31/01				1st floor staff room	X					12"x12" brown w/ white streaks floor tile
21	12/31/01				1st floor staff room	X				X	Mastic associated with 12"x12 brown floor tile
22	12/31/01				1st floor staff room	X					Mastic associated with 12"x12 brown floor tile
23	12/31/01				1st floor staff room	X					Mastic associated with 12"x12 brown floor tile

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed)	Time:	(Printed)	(Printed)	Time:	(Printed)

Remarks:

TRC ENVIRONMENTAL CORPORATION
Environmental Chemistry Laboratory
5 Waterside Crossing
Windsor, CT 06095
(860) 298-6345
AIHA Laboratory Certificate No. 259, Lab ID #100122
NIST-NVLAP Code #101424-0

BULK ASBESTOS ANALYSIS REPORT

CLIENT: TRC - CRRA

Lab Log #: 24488
Project #: 31378-2120-00000
Date Received: 12/31/01
Date Analyzed: 1/04/01

RESULTS

Sample No.	Color	Homogeneous	Multi-Layered	Layer No.	Other Matrix Mat'ls	Asbestos %	Asbestos Type
01	White (skimcoat)	No	Yes	1	1% cellulose	ND<1%	None
01	Tan (plaster)	No	Yes	2	--	ND<1%	None
02	White (skimcoat)	No	Yes	1	1% cellulose	ND<1%	None
02	Tan (plaster)	No	Yes	2	--	ND<1%	None
03	White (skimcoat)	No	Yes	1	--	ND<1%	None
03	Tan (plaster)	No	Yes	2	1% cellulose	ND<1%	None
04	White (skimcoat)	No	Yes	1	--	ND<1%	None
04	Tan (plaster)	No	Yes	2	--	ND<1%	None
05	White (skimcoat)	No	Yes	1	--	ND<1%	None
05	Tan (plaster)	No	Yes	2	--	ND<1%	None
06	White (joint compound)	No	Yes	1	1% cellulose	ND<1%	None
06	Tan (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
07	White (joint compound)	No	Yes	1	1% cellulose	ND<1%	None
07	Tan (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
08	White (joint compound)	No	Yes	1	1% cellulose	ND<1%	None
08	Tan (sheetrock)	No	Yes	2	5% cellulose	ND<1%	None
09	Grey/White	Yes	No	--	25% cellulose 10% mineral wool	ND<1%	None
10	Grey/White	Yes	No	--	25% cellulose 10% mineral wool	ND<1%	None
11	Grey/White	Yes	No	--	25% cellulose 10% mineral wool	ND<1%	None
12	Tan/White	Yes	No	--	15% cellulose 10% mineral wool	ND<1%	None

13	Tan/White	Yes	No	--	15% cellulose 10% mineral wool	ND<1%	None
14	Tan/White	Yes	No	--	15% cellulose 10% mineral wool	ND<1%	None
15	Grey	Yes	No	--	1% cellulose 60% mineral wool	ND<1%	None
16	Grey	Yes	No	--	1% cellulose 60% mineral wool	ND<1%	None
17	Grey	Yes	No	--	1% cellulose 60% mineral wool	ND<1%	None
18	Brown	Yes	No	--	1% cellulose	Trace	Chrysotile
19	Brown	Yes	No	--	1% cellulose	Trace	Chrysotile
20	Brown	Yes	No	--	1% cellulose	Trace	Chrysotile
21	Black/Yellow	Yes	No	--	--	10%	Chrysotile
22	--	--	--	--	--	NA/PS	--
23	--	--	--	--	--	NA/PS	--

NA PS – Not Analyzed Positive Stop

See the enclosed raw data for other sample properties.

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, negative results must be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation (1981), and the EPA recommended A Method for the Determination of Asbestos in Bulk Building Materials@ (EPA/600/R-93/116), July 1993, R.L. Perkins and B.W. Harvey which utilizes polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2002. TRC is an American Industrial Hygiene Association (AIHA) accredited lab for PLM effective through September 1, 2002. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and the QC data related to the samples is available upon written request from the client.

Analyst: Stephen R. Arienti

QC Analyst: Lance R. Cotton LRC

Reviewed by: Lance R. Cotton

Lance R. Cotton
Laboratory Supervisor

Date Issued: 1/9/02

ProScience Analytical Services, Inc

22 Cummings Park, Woburn, Massachusetts 01801
781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail PASI96@aol.com

Client #: 297
Client Project: 31378-2120-00000
Client Reference: TRC-CBRA
Client Name: TRC Environmental Corp. (CT)

Method: **TEM NOB**
Batch: **NT 2403**
Date Analyzed: 1/4/02
Date Received: 1/2/02
Date of Report: 1/4/02

LAB ID	Field ID	Description:	Color	Initial Sample Weight	% Asbestos Types						% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed /Charged	Preped/ Charged
					CHR	AMO	ACT	CRO	ANT	TRE						
NT18623	18	Brown floor tile		.2388	3.41	.00	.00	.00	.00	.00	13.63	18.01	64.95	3.41	Yes	No

Comments:

Vlad Stanca

Vlad Stanca, Analyst

Asbestos Codes: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected

SHEET NO. _____ OF _____

PROJECT NO _____

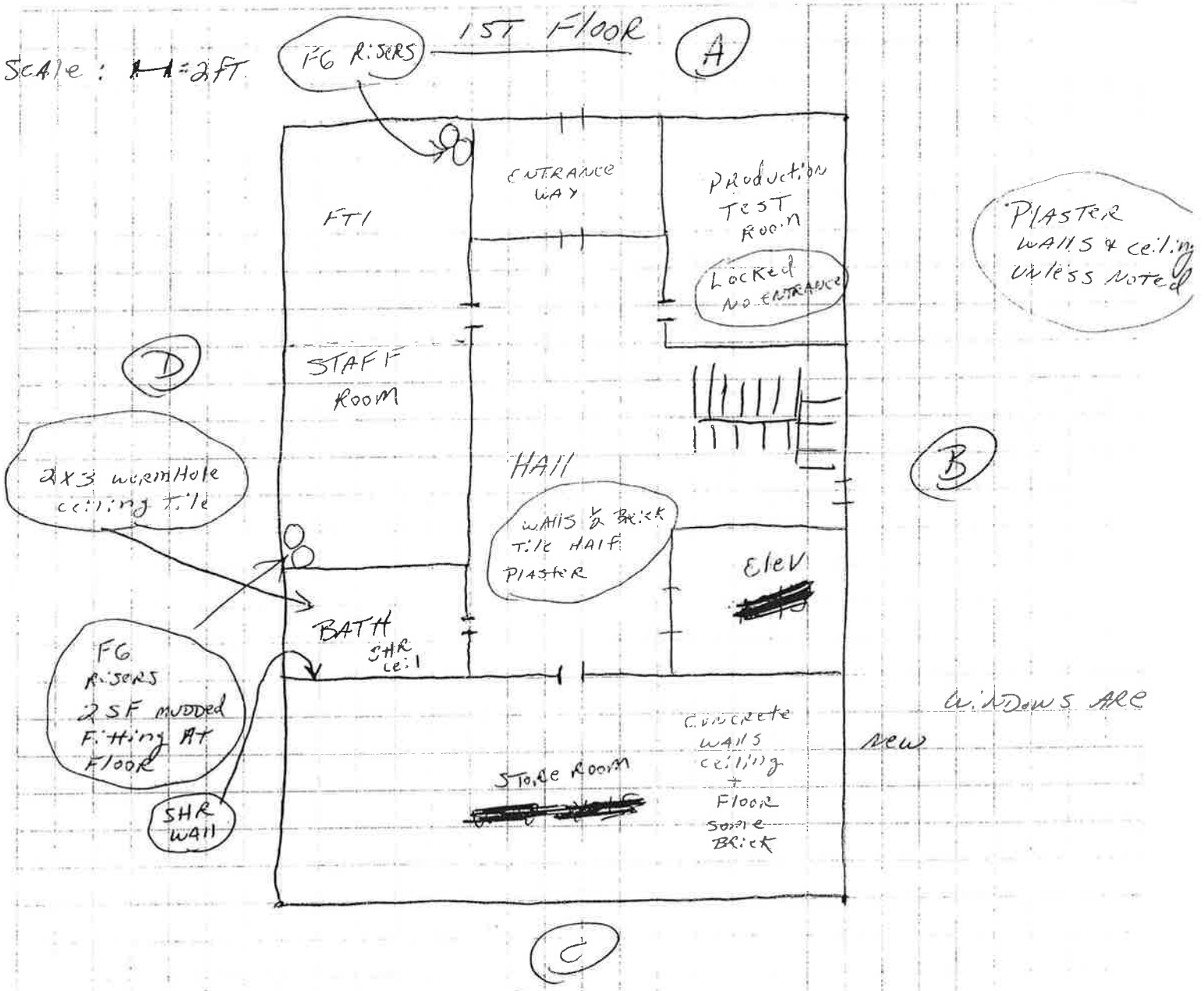
DATE _____

BY _____

CHK'D _____

TRC
Customer-Focused Solutions

SUBJECT _____



FT1 = 12x12 Brown w/white streaks T'le & Mastic

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE _____

BY _____

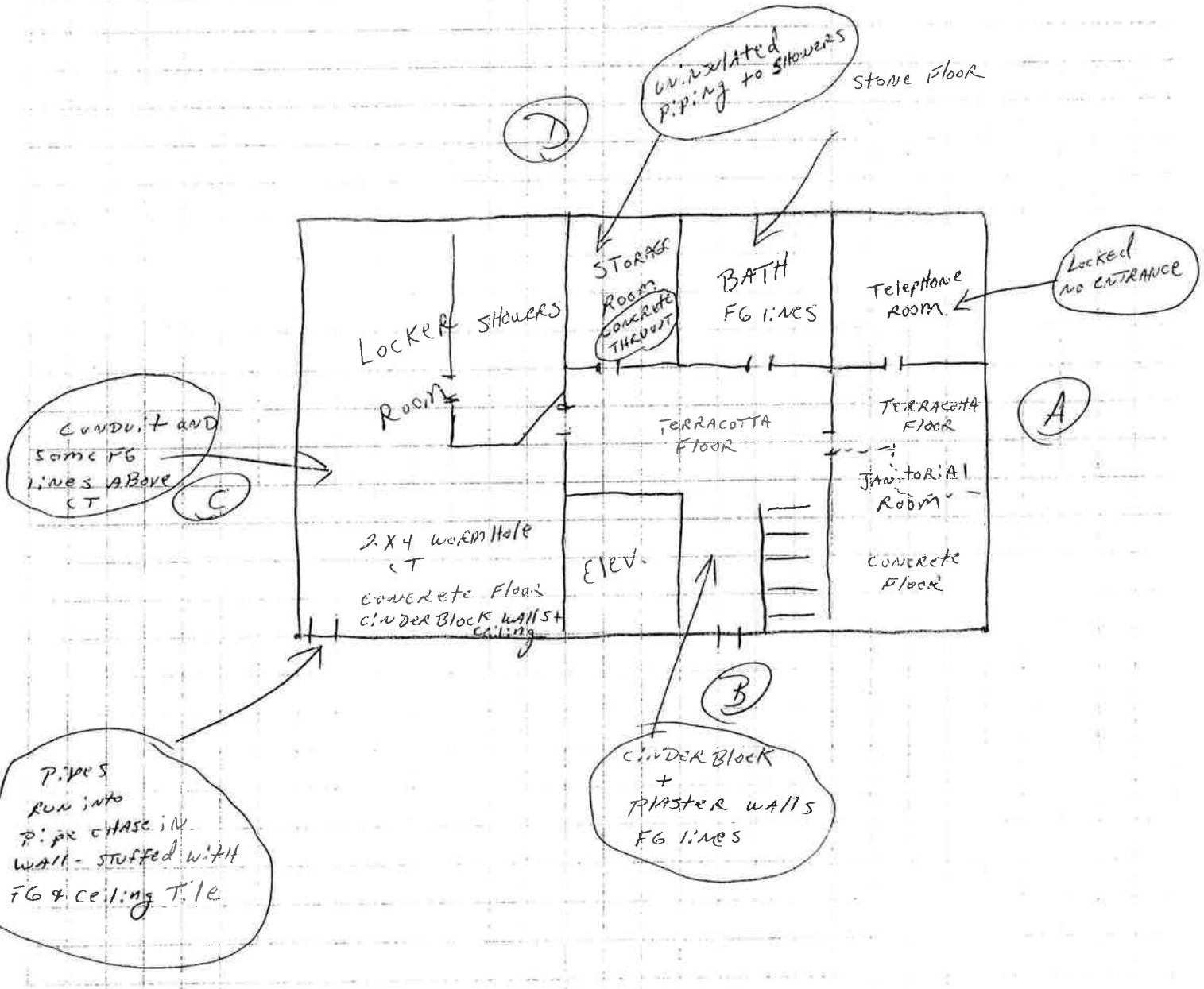
CHK'D _____

TRC
Customer-Focused Solutions

SUBJECT _____

BASEMENT

Scale: 1" = 3FT



APPENDIX B

COPIES OF ASBESTOS LABORATORY ANALYTICAL REPORTS

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
1-R-1 *241200777-0001*	Off-white exterior parapet caulk	Gray Non-Fibrous Heterogeneous	<1%	Fibrous (other)	98%	Non-fibrous (other)	**2% Chrysotile**
2-R-1 *241200777-0002*	Black exterior parapet caulk	Black Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
3-EMR-1 *241200777-0003*	Gray interior window glazing	Gray Non-Fibrous Heterogeneous	<1% <1% <1%	Cellulose Glass Fibrous (other)	100%	Non-fibrous (other)	**None Detected**
4-EMR-1 *241200777-0004*	Black/yellow insulation panel material	Black/Yellow Non-Fibrous Heterogeneous	90%	Cellulose	10%	Non-fibrous (other)	**None Detected**
5-R-1 *241200777-0005*	Gray exterior skylight glazing	Gray Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
6-R-1 *241200777-0006*	Black exterior skylight mastic	Black Non-Fibrous Heterogeneous	25%	Cellulose	75%	Non-fibrous (other)	**None Detected**
7-40-1 *241200777-0007*	White plaster skim coat	White Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
7-3AIR-2 *241200777-0008*	White plaster skim coat	White Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)		100% Non-fibrous (other)	**None Detected**
8-40-1 *241200777-0009*	Gray plaster scratch coat	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)		100% Non-fibrous (other)	**<1% Chrysotile**
8-3AIR-2 *241200777-0010*	Gray plaster scratch coat	Gray Non-Fibrous Heterogeneous	<1% Fibrous (other) <1% Cellulose		100% Non-fibrous (other)	**<1% Chrysotile**
9-4EL-1-Floor Tile *241200777-0011*	12"x12" brown VFT with granite pattern - and black mastic	Brown Non-Fibrous Heterogeneous	<1% Cellulose		100% Non-fibrous (other)	**None Detected**
9-4EL-1-Mastic *241200777-0011A*	12"x12" brown VFT with granite pattern - and black mastic	Black Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)		100% Non-fibrous (other)	**None Detected**
10-40-1-Floor Tile *241200777-0012*	9"x9" red/brown VFT with black mastic	Brown/Red Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)		95% Non-fibrous (other)	**5% Chrysotile**
10-40-1-Mastic *241200777-0012A*	9"x9" red/brown VFT with black mastic	Black Non-Fibrous Heterogeneous	<1% Cellulose <1% Glass <1% Fibrous (other)		100% Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
11-4COR-1 *241200777-0013*	Gray grout on ceramic floor and window sill tiles	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Hair <1% Glass <1% Fibrous (other)	100% Non-fibrous (other)	**None Detected**
11-40-2 *241200777-0014*	Gray grout on ceramic floor and window sill tiles	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)	100% Non-fibrous (other)	**None Detected**
12-40-1 *241200777-0015*	Gray mastic beneath black ceramic - window sill tiles	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)	100% Non-fibrous (other)	**None Detected**
12-40-2 *241200777-0016*	Gray mastic beneath black ceramic - window sill tiles	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)	100% Non-fibrous (other)	**None Detected**
13-30A1-1-Floor Tile *241200777-0017*	12"x12" white/beige VFT with brown streaks - and yellow mastic	Beige Non-Fibrous Heterogeneous	<1% Fibrous (other)	100% Non-fibrous (other)	**None Detected**
13-30A1-1-Mastic *241200777-0017A*	12"x12" white/beige VFT with brown streaks - and yellow mastic	Yellow Non-Fibrous Heterogeneous	<1% Cellulose <1% Synthetic <1% Glass <1% Fibrous (other)	100% Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
13-20A1-2-Floor Tile *241200777-0018*	12"x12" white/beige VFT with brown streaks - and yellow mastic	Beige Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**
13-20A1-2-Mastic *241200777-0018A*	12"x12" white/beige VFT with brown streaks - and yellow mastic	Yellow Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
14-30A1-1-Floor Tile *241200777-0019*	9"x9" black VFT with black mastic	Brown Non-Fibrous Heterogeneous	<1%	Fibrous (other)	92%	Non-fibrous (other)	**8% Chrysotile**
14-30A1-1-Mastic *241200777-0019A*	9"x9" black VFT with black mastic	Black Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
14-20A1-2-Floor Tile *241200777-0020*	9"x9" black VFT with black mastic						**Stop Positive (Not Analyzed)**
14-20A1-2-Mastic *241200777-0020A*	9"x9" black VFT with black mastic	Black Non-Fibrous Heterogeneous	2%	Cellulose	98%	Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
15-30A1-1-Cove Base *241200777-0021*	Tan 4" cove base molding with white mastic	Tan Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
15-30A1-1-Mastic *241200777-0021A*	Tan 4" cove base molding with white mastic	White Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
15-20A1-2-Cove Base *241200777-0022*	Tan 4" cove base molding with white mastic	Tan Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
15-20A1-2-Mastic *241200777-0022A*	Tan 4" cove base molding with white mastic	White Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
16-30A2-1-Wallboard *241200777-0023*	Off-white GWB/joint compound and tape	Gray Non-Fibrous Heterogeneous	6%	Cellulose	94%	Non-fibrous (other)	**None Detected**
16-30A2-1-Joint Compound *241200777-0023A*	Off-white GWB/joint compound and tape	White Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**
16-30A2-1-Tape *241200777-0023B*	Off-white GWB/joint compound and tape	White Fibrous Heterogeneous	98%	Cellulose	2%	Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
17-3BA-1 *241200777-0024*	Brown terrazzo	Brown/Gray/White Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
18-30A1-1-Floor Tile *241200777-0025*	9"x9" red VFT with black mastic	Red Non-Fibrous Heterogeneous	<1%	Fibrous (other)	93%	Non-fibrous (other)	**7% Chrysotile**
18-30A1-1-Mastic *241200777-0025A*	9"x9" red VFT with black mastic	Black Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
18-20A1-2-Floor Tile *241200777-0026*	9"x9" red VFT with black mastic						**Stop Positive (Not Analyzed)**
18-20A1-2-Mastic *241200777-0026A*	9"x9" red VFT with black mastic	Black Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
19-2BA-1 *241200777-0027*	Gray mastic beneath ceramic floor tiles	Gray Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**
19-BCO-2 *241200777-0028*	Gray mastic beneath ceramic floor tiles	Gray Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
1-4OFF-1-Carpet *241200777-0029*	18"x18" red carpet squares with green glue	Red Fibrous Heterogeneous	80% 2%	Synthetic Glass	18%	Non-fibrous (other)	**None Detected**
1-4OFF-1-Glue *241200777-0029A*	18"x18" red carpet squares with green glue	Green Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
2-4CONT-1-Carpet *241200777-0030*	19 1/2"x 19 1/2" red carpet squares - with white glue	Red Fibrous Heterogeneous	85% <1%	Synthetic Cellulose	15%	Non-fibrous (other)	**None Detected**
2-4CONT-1-Glue *241200777-0030A*	19 1/2"x 19 1/2" red carpet squares - with white glue	White Non-Fibrous Heterogeneous	<1% <1% 2%	Cellulose Fibrous (other) Synthetic	98%	Non-fibrous (other)	**None Detected**
2-4CONT-2-Carpet *241200777-0031*	19 1/2"x 19 1/2" red carpet squares - with white glue	Red Fibrous Heterogeneous	70% 10% <1%	Synthetic Hair Cellulose	20%	Non-fibrous (other)	**None Detected**
2-4CONT-2-Glue *241200777-0031A*	19 1/2"x 19 1/2" red carpet squares - with white glue	White Non-Fibrous Heterogeneous	3% <1%	Synthetic Cellulose	97%	Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
3-4CONT-1-Tile *241200777-0032*	6"x6" brown wood-composite floor tiles - with gray mastic	Brown Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
3-4CONT-1-Mastic *241200777-0032A*	6"x6" brown wood-composite floor tiles - with gray mastic	Gray Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**
3-4CONT-2-Tile *241200777-0033*	6"x6" brown wood-composite floor tiles - with gray mastic	Brown Non-Fibrous Heterogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
3-4CONT-2-Mastic *241200777-0033A*	6"x6" brown wood-composite floor tiles - with gray mastic	Gray Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**
4-4CONF-1-Carpet *241200777-0034*	18"x18" red carpet squares with black backing - and yellow glue	Red Fibrous Heterogeneous	95%	Synthetic	5%	Non-fibrous (other)	**None Detected**
4-4CONF-1-Backing *241200777-0034A*	18"x18" red carpet squares with black backing - and yellow glue	Black Non-Fibrous Heterogeneous	<1% <1%	Cellulose Fibrous (other)	100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	2/29/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
4-4CONF-1-Glue *241200777-0034B*	18"x18" red carpet squares with black backing - and yellow glue	Yellow Non-Fibrous Heterogeneous	<1% Cellulose <1% Glass		100% Non-fibrous (other)	**None Detected**

Analyst(s)

Edward Leary (20)
Todd Patrick (31)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 02/29/2012 10:48:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	3/6/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
8-40-1 *241200777-0009*	Gray plaster scratch coat	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)	100.00% Non-fibrous (other)	**<0.25% Chrysotile**
8-3AIR-2 *241200777-0010*	Gray plaster scratch coat	Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Fibrous (other)	100.00% Non-fibrous (other)	**<0.25% Chrysotile**

Analyst(s)

Todd Patrick (2)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 03/06/2012 11:08:40

EMSL Analytical, Inc.
4 Fairfield Boulevard, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com wallingfordlab@emsl.com

EMSL Order:	241200777
CustomerID:	HRPA50
CustomerPO:	
ProjectID:	

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone:	(860) 674-9570
Fax:	(860) 674-9624
Received:	02/23/12 10:20 AM
Analysis Date:	3/6/2012
Collected:	2/22/2012

Project: **CRRA, CRR0155.BA- TASK 2**

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
1-R-1 *241200777-0001*	Off-white exterior parapet caulk	Gray Non-Fibrous Heterogeneous	99.3	None	0.70% Chrysotile

Analyst(s)

William Shedrawy (1)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 03/06/2012 11:08:40

Chain of Custody

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL Order Number (Lab Use Only): 241200777

EMSL Analytical, Inc.
4 Fairfield Boulevard
Wallingford, CT 06492

Phone: (203) 284-5948
Fax: (203) 284-5978

Company:	HRP Associates, Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party	
Street:	197 Scott Swamp Road		
City:	Farmington CT	**State/Province:**	**Zip/Postal Code:** 06032 **Country:** USA
Report To (Name):	Tom Chapman	**Fax #:**	(860) 674-9624
Telephone #:	(860) 674-9570	**Email Address:**	tom.chapman@hrpassociates.com
Project Name/Number:	CRRA CRR0155.BA - TASK 2		
Please Provide Results:	☐ Fax ☐ Email	**Purchase Order:**	**U.S. State Samples Taken:** CT

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☒ 96 Hour ☐ 1 Week ☐ 2 Week

For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability. Not all TAT options are valid for every test. Materials Science and IAQ TATs are in Business Days rather than Hours (i.e. 24 Hour = End of Next Business Day)

Asbestos

PCM - Air
☐ NIOSH 7400
☐ w/ 8hr. TWA

TEM– Air ☐ 4-4.5hr TAT (AHERA ONLY)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Water
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

PLM - Bulk
☒ PLM EPA 600/R-93/116 TF
☐ PLM EPA NOB (<1%)
☐ NYS 198.1 (friable-NY)
☐ NYS 198.6 (non-friable-NY)
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/ Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)

TEM - Dust
☐ Microvac – ASTM D 5755
☐ Wipe-ASTM D6480

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP

Soil/Rock/Vermiculite
☐ PLM CARB 435 – A (0.25% sensitivity)
☐ PLM CARB 435 – B (0.1% sensitivity)
☐ TEM CARB 435 – B (0.1% sensitivity)
☐ EPA Reg. 1 Screening Protocol (Qualitative)

Other:

Lead (Pb)

Flame Atomic Absorption
☐ Chips SW846-7000B or AOAC 974.02
☐ Soil SW846-7000B/7420
☐ Air NIOSH 7082
☐ Wastewater SM3111B or SW846-7000B/7420
☐ ASTM Wipe SW846-7000B/7420
☐ non ASTM Wipe SW846-7000B/7420
☐ TCLP SW846-1311/7420/SM 3111B

ICP
☐ Air NIOSH 7300 Modified
☐ non ASTM Wipe SW846-6010B or C
☐ ASTM Wipe SW846-6010B or C
☐ Soil SW846-6010 B or C
☐ Waste Water SW846-6010B or C
☐ TCLP SW846-6010B or C

Graphite Furnace Atomic Absorption
☐ Soil SW846-7421 ☐ Wastewater EPA 200.9
☐ Air NIOSH 7105 ☐ Drinking Water EPA 200.9

Other: ☐

Microbiology

Wipe and Bulk Samples
☐ Mold & Fungi – Direct Examination
☐ Mold & Fungi Culture (Genus Only)
☐ Mold & Fungi Culture (Genus & Species)
☐ Bacterial Count & ID (Up to Three Types)
☐ Bacterial Count & ID (Up to Five Types)
☐ MRSA
☐ *Pseudomonas aeruginosa*

Water Samples
☐ Total Coliform & E.coli (P/A)
☐ Fecal Coliform (SM 9222D)
☐ Sewage Screen
☐ Heterotrophic Plate Count (SM 9215)

Air Samples
☐ Mold & Fungi (Spore Trap)
☐ Mold & Fungi Culture (Genus Only)
☐ Mold & Fungi (Genus & Species)
☐ Bacterial Culture & ID (Up to Three Types)
☐ Bacterial Culture & ID (Up to Five Types)
☐ Endotoxin Testing

Real Time Q-PCR (See Analytical Guide for Code)
Code:

Legionella
☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4

Other: ☐

Materials Science

☐ Common Particle ID (large particles)
☐ Full Particle ID (environmental dust)
☐ Basic Material ID (solids)
☐ Advanced Material ID
☐ Physical Testing (Tensile, Compression)
☐ Combustion-by-products (soot, char, etc.)
☐ X-Ray Fluorescence (elem. analysis)
☐ X-Ray Diffraction (Crystalline Part.)
☐ MMVF's (Fibrous glass, RCF's)
☐ Particle Size (sieve/microscopy/laser)
☐ Combustible Dust
☐ Petrographic Examination

Other: ☐

IAQ

Nuisance Dust NIOSH ☐ 0500 ☐ 0600
Airborne Dust ☐ PM10 ☐ TSP
Silica Analysis: ☐ All Species
Silica Analysis – Single Species
☐ Alpha Quartz ☐ Cristobalite ☐ Tridymite
☐ HVAC Efficiency
☐ Carbon Black
☐ Airborne Oil Mist
Radon Testing: Call for Kit and COC

Other: ☐

****Comments/Special Instructions:**

Client Sample #'s	1-R-1 → 4-4CONF-1	**Total # of Samples:**	34
Relinquished (Client):	Date: 2/22/12	**Time:**	1130
Received (Lab):	**Date:**	**Time:**	

RECEIVED
FEB 23 2012
By WF 10:20 Fed Ex
EMSL-Fedex

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Chain of Custody

EMSL Order Number *(Lab Use Only)*:

241200777

EMSL Analytical, Inc.
4 Fairfield Boulevard
Wallingford, CT 06492

Phone: (203) 284-5948
Fax: (203) 284-5978

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1-R-1	Off-white EXTERIOR PARAPET CAULK		2/21/12
2-R-1	BLACK EXTERIOR PARAPET CAULK		
3-EMR-1	GRAY INTERIOR WINDOW GLAZING		
4-EMR-1	Black/Yellow INSULATION PANEL MATERIAL		
5-R-1	GRAY EXTERIOR SKYLIGHT GLAZING		
6-R-1	BLACK EXTERIOR SKYLIGHT MASTIC		
7-40-1	White PLASTER SKIM COAT		
7-3AIR-2	↓		
8-40-1	GRAY PLASTER SCRATCH COAT		
8-3AIR-2	↓		
9-4EL-1	12"x12" BROWN VFT WITH GRANITE PATTERN AND BLACK MASTIC	ANALYZE VFT AND MASTIC SEPARATELY	
10-40-1	9"x9" Red/BROWN VFT WITH BLACK MASTIC	↓	
11-4COR-1	GRAY GROUT ON CERAMIC FLOOR AND WINDOW SILL TILES		
11-40-2	↓		
12-40-1	GRAY MASTIC BENEATH BLACK CERAMIC WINDOW SILL TILES		
12-40-2	↓		↓

*Comments/Special Instructions:

FIRST Positive STOP - All samples

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

RECEIVED
FEB 23 2012
By

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Chain of Custody

EMSL Order Number (*Lab Use Only*):

241200777

EMSL Analytical, Inc.
4 Fairfield Boulevard
Wallingford, CT 06492

Phone: (203) 284-5948
Fax: (203) 284-5978

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
13-30A1-1	12"x12" White/Beige VFT with Brown Streaks and Yellow Mastic	Analyze VFT and Mastic Separate	2/21/12
13-20A1-2	↓	↓	↓
14-30A1-1	9"x9" Black VFT with Black Mastic		
14-20A1-2	↓	↓	
15-30A1-1	Tan 4" Cove Base Molding with White Mastic	Analyze VCB and Mastic Separate	
15-20A1-2	↓	↓	
16-30A2-1	Off-White GWB/Joint Compound and Tape	Analyze Layers Separately	
17-3BA-1	Brown Terrazzo		
18-30A1-1	9"x9" Red VFT with Black Mastic	Analyze VFT and Mastic Separately	
18-20A1-2	↓	↓	
19-2BA-1	Gray Mastic Beneath Ceramic Floor Tiles		
19-BCO-2	↓		↓
1-40FF-1	18"x18" Red Carpet Squares with Green Glue		2/22/12
2-4CONT-1	19½"x19½" Red Carpet Squares with White Glue	Analyze Carpet and Glue Separately	
2-4CONT-2	↓	↓	↓

*Comments/Special Instructions:

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

RECEIVED
FEB 23 2012
By

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Chain of Custody

EMSL Order Number (*Lab Use Only*):

241200777

EMSL Analytical, Inc.
4 Fairfield Boulevard
Wallingford, CT 06492

Phone: (203) 284-5948
Fax: (203) 284-5978

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
3-4 CONT-1	6" x 6" BROWN WOOD-COMPOSITE FLOOR TILES WITH GRAY MASTIC	ANALYZE TILES AND MASTIC SEPARATELY	2/22/12
3-4 CONT-2	↓		↓
4-4 CONF-1	18" x 18" RED CARPET SQUARES WITH BLACK BACKING AND YELLOW GLUE	ANALYZE LAYERS SEPARATELY	

*Comments/Special Instructions:

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

RECEIVED
FEB 23 2012
By

APPENDIX C

COPY OF LEAD XRF SURVEY REPORT

RTK
environmental group

www.rtkenvironmental.com

LEAD PAINT INSPECTION REPORT

RTK Environmental Group, LLC-CT. License # 000647

FOR STRUCTURE(S) LOCATED AT

South Meadow Station
Reserve Road-Gate 20
Hartford, CT

February 21, 2012

29 Bank Street Stamford, CT 06901 • 47 Spring Street Newington, CT 06111 • 224 Madison Avenue, Suite 2B5 New York, NY 10016
800.[illegible]

RTK
environmental group

www.rtkenvironmental.com

Steve Brown
HRP Associates
197 Scott Swamp Road
Farmington, CT. 06032

February 27, 2012
RTK ID 9955

RTK Environmental Group, LLC has conducted an on-site inspection for the determination of lead based paint for the South Meadow Station located at Reserve Road- Gate 20, Hartford, CT. on February 21, 2012. All accessible rooms/spaces were tested using the HUD Chapter 7 Guidelines for Lead Based Paint Inspection, 1997 Revision. This methodology requires testing of representative components in each room/space, for examples walls, ceilings, doors, baseboards, etc. The testing was performed by a licensed lead inspector/risk assessor, Peter Shannon, (CT license #002122) with a Keymaster Map 4 spectrum analyzer instrument.

Summary of Findings

There was lead paint identified above the action level of 1.0 milligram per square centimeter on several interior components.

The measurements taken at this site are based on the spreadsheet pages. (Please read the page titled "How To Read The Test Report Data Sheets" to understand these pages.) The Map 4 tests for lead concentrations at two levels, the K-shell and the L-shell. The K-shell represents the total amount of lead in all the paint layers, while the L-shell represents the amount of lead that is in the paint closest to the surface. The test results are based on an "action level" of 1.0 milligrams per square centimeter (mg/cm2) in the K-shell. The action level is determined by the Department of Housing and Urban Development (HUD) guidelines.

The shaded areas of the report indicate where the lead concentration is confirmed above the action level (taking into account the precision of the instrument). These locations are shown as POS in the last column. An inconclusive result (INCL) indicates the concentration of lead is in the vicinity of the action level within the boundaries of the precision of the Map 4. Inconclusive measurements can be qualified by taking paint chip samples and analyzing them at a laboratory. Due to additional expense, paint chip samples are only taken when authorized by the client.

RTK
environmental group

www.rtkenvironmental.com

This inspection report is for the exclusive use of our client. The report provided to the client is confidential and is not to be copied or disseminated to any party other than the property owner, buyer, insurance carrier or tenant without the express written consent of the inspector. Use of all disclosures contained in this report is specifically restricted to the transaction for which the inspection was performed. Use of, or the reliance upon the report by other parties, or for other transactions is strictly prohibited. None of these test results or reports developed through the inspector's performance of the work are intended or represented to be suitable for reuse by the client or others as presenting an accurate description of the property or its condition beyond that existing on the date of the performance of the inspection. Use of said test results or reports or other materials by client without written permission or adaptation by the inspector for the specific purpose intended shall be at the user's sole risk, without liability on the inspectors part, and the client agrees to indemnify and hold the inspector harmless from all claims, damages and expenses, including attorneys fees, arising out of such unauthorized use.

All renovations that interrupt lead based paint must be done in compliance with applicable federal, state and local laws and regulations. We recommend the use of a professional, licensed abatement contractor for the interruption or removal of hazardous levels of lead based paint and other lead contaminated materials. Keep in mind that
"shop vacuums" and ordinary vacuums do not have adequate filtration systems for collection and containment of hazardous materials and may aggravate lead conditions. A high efficiency particulate arresting (HEPA) vacuum and special detergents are needed to remove lead contaminated dust and debris.

RTK Environmental Group can provide consulting services, including abatement and management plans, to help you with any lead condition that may have been identified. Please call our office for further information or any questions that you may have regarding this report. Thank you for using RTK Environmental Group.

Sincerely,

Peter Shannon
Lead Inspector/Risk Assessor

RTK
environmental group

www.rtkenvironmental.com

MAP-4 XRF LEAD-BASED PAINT TESTING:

PLEASE READ THIS EXPLANATION PRIOR TO REVIEWING THE TEST REPORT:

RTK Environmental Group requires their lead testing technicians to work in accordance with our strict standard operating procedure. Non-destructive on-site testing for the presence of lead-based paint is accomplished by utilizing the MAP-4 XRF Spectrum Analyzer instrument. This state-of-the-art testing instrument examines painted films by X-ray fluorescence (XRF). The testing is accomplished in conjunction with the AcuData™ System, an automated test data control system that virtually eliminates the presence of errors that commonly exist from test data gathered in the field. The Keymaster state-of-the-art testing system validates each field measurement at the site. The AcuTransfer™ software prevents any tampering with the test data and invalid measurements are automatically removed from the printed report. All data will be archived for a period of thirty years.

The Federal Government and many states have decided to allow up to 1.0 mg/cm^2 of lead in dried paint for regulatory purposes. NOTE: When a local ordinance has a stricter (lower) action level, all testing and report generation will be done to reflect the strictest guideline.

MAP-4 XRF: MEASUREMENT PRECISION

The precision of the MAP-4 instrument is qualified throughout each day by systematic calibration checks on reference standards. Upon arrival at the job site, a calibration check is done before testing commences, approximately once an hour as the testing proceeds, and upon completion of the testing at the site. The calibration results are shown in sequence on the test report.

ON-SITE MEASUREMENT VALIDATION

The quality control validation checks performed by the AcuTransfer™ software along with regular instrument calibration checks combined with a high degree of measurement precision produce validated data with a 95% confidence level on each individual test measurement.

AREAS TESTED

Buildings are comprised of a variety of functional spaces. When a building is tested for lead-based paint, each individual space is tested separately. In many instances, a space may be a room, such as: a living room, dining room, kitchen, bedroom, etc. In other cases, a space may be identified by its functional purpose, such as: a hallway, a stairway, basement, the exterior of the building, etc. Due to the fact that each space has a different functional purpose, it is possible that each space has been painted at a separate time and with a variety of paints.

Decorating concepts, moisture, wear and tear and traffic are some of the reasons different paints may have been applied, creating a unique paint history for each space. It is important to note, individual spaces may not be separated by a wall. For example, a living/dining room or hall/stairway depending on the configuration may be considered two separate spaces. In general, closets are considered to be a part of the space from which they are entered.

RTK
environmental group

TESTING BUILDING COMPONENTS

In every space tested, each building component will be tested based on a representative sampling methodology (building components may consist of: door, door frames, baseboards, walls, ceiling, window sashes, window frames, etc.) In each space, identical building components will be considered a "HOMOGENEOUS GROUP" when their age and construction can be judged the same. In most instances, a homogeneous group of building components will have the same paint history. For example, if the baseboards in a room appear to be identical in age and construction, it is likely that each time the room was painted, all of these baseboards were painted with the same paint. When paint is applied to a surface, the thickness of the paint film can vary significantly in various locations on that surface. It is important to understand that paint films are applied to the surface (substrate material) by a variety of tools (brushes, rollers, sprayers, etc.)

When various tools are employed to apply paint, the paint film thickness is rarely uniform. Hence, the concentration of materials (including lead) that paint is comprised of will vary at different locations on the same painted component. Paint film thickness can also be influenced by renovations along with general wear and tear. Based on these facts, we realize that testing for the presence and concentration of lead in paint is an evaluation that will rarely yield the same measurement. Instead, the test results will indicate a range of concentration on each component tested. For example, if a measurement taken on a door yields a test result of 3.0 mg/cm2, it is likely that further testing on that same door, in different location, would yield higher or lower measurements in the range of 3.0 mg/cm2. Hence, when evaluating and interpreting the test results for individual building components, the measurement indicates the approximate range of lead concentration.

RTK Environmental Group field technicians conduct all on-site testing with unlimited mode on the MAP-4 instrument. The MAP-4 instrument automatically determines the length of time required to accurately distinguish the level of precision necessary to establish whether the painted surface has a lead concentration which is above (POS) or below (NEG) the action level. The degree of precision is based on the length of time the scanner is held to the surface being tested. The longer the test time, the greater the precision of the results. If the lead concentration measurement falls within +-0.15mg/cm2 of the action level, as determined by the instrument, a second location on the same component will be tested. In the event the measurement falls in the same range, the result will be reported as inconclusive (INCL). With this level of precision, we can accurately define the potential range of concentration of lead in the paint film at a specific location. This enables ***RTK Environmental Group*** to establish the lead concentration range within very narrow parameters.

RTK
environmental group

How to Read the Test Report Data Sheets

The standard test report data sheets in the XRF Test Results section of the report have thirteen columns of information. An explanation of each column is detailed below:

1) **#** — All of the measurements taken at the site are numbered sequentially.

2) **Site** — The number in this column is the identification number for this job site.

3) **Room-Tested** — Each room/space tested is identified in this column. When more than one similar type of room/space is tested they are numbered sequentially as shown in column 4. Each room/space, as identified in the test data, is shown on the floor plan.

4) **#** — The number in this column is coupled with column 3 (Room-Tested) to distinguish similar room types. For example: Bedroom 1, Bedroom 2, etc. as shown on the floor plan.

5) **Wall** — The walls in each room/space are identified to show on which wall surface in the room each measurement was taken. The wall numbers are shown on the floor plan.

6) **Component** — This column identifies the type of building component where the measurement was taken. The location of each measurement is randomly selected on that component.

7) **Condition** — The paint condition at the time of testing is listed in this column.

8) **Substrate** — The material that the building component is made of is called the substrate.

9) **K-Shell (mg/cm^2)** — The K-Shell is the measurement that evaluates the lead content in all layers of paint down to the substrate material. The measurement is in milligrams per square centimeter.

10) **L-Shell (mg/cm^2)** — The L-Shell is the measurement that evaluates the lead content in surface layers of paint.

11) **Map #** — Identification number of the MAP instrument used for this test.

12) **Result** — The result of the measurement is related to the action level (allowable lead level) and adjusted for the level of precision used for that measurement.

(Pos)	Positive result	>	Action Level + precision level
(Incl)	Inconclusive range	=	Action Level +/- precision level
(Neg)	Negative result	<	Action Level - precision level

RTK
environmental group

REPORT DISCLAIMER

THE INFORMATION PROVIDED IN THIS REPORT IS LIMITED BY THE SCOPE OF THE SAMPLING REQUESTED BY THE CLIENT.

NOT ALL SAMPLES YIELD INFORMATION REGARDING THE PRESENCE OF LEAD AND THE EXISTENCE OF LEAD HAZARDS IN ALL MEDIA. YOU ARE ADVISED TO CLARIFY THE SCOPE OF THE ASSESSMENT PROVIDED WITH THE TECHNICIAN.

It is generally acknowledged that the condition of the lead source in or on a residential structure will determine the extent of the hazard arising out of such a source. Accordingly, any change in the condition of the lead source in the property in question will alter the validity of the test results provided herewith. The accuracy of any lead sampling performed is, therefore, limited to the condition of the property at the time the investigation reported herewith was conducted.
RTK Environmental Group assumes no responsibility for retesting or reinvestigating the property to determine changed conditions. Any and all changes in the premises or its condition may result in the creation of lead hazards not in existence at the time of the assessment.

The client is advised that results which are reported as negative or inconclusive are not indicative of the total absence of lead in a material or an absence of a lead hazard. Such results indicate that lead is not presently in concentration levels defined by federal, state or local regulations as a lead hazard. The client is also notified that care should be taken in the event of an accidental or intentional disturbance of or the undertaking of activities which could affect materials containing any amount of lead.

Not all areas may have been tested or were accessible for testing. ***RTK Environmental Group*** makes no representation with respect to the presence of lead or the condition of any areas which may have not been tested or were inaccessible. Areas which were not tested may, if tested, yield results which indicate the presence of lead in greater or lesser concentrations than those tested, due to variability in application, quality, usage or other factors. The client is advised to take such factors into account when undertaking any activities which may have an impact upon such surfaces.

This report is intended only for the benefit of the Client and does not create any rights in any third parties.

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- Basement
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 40

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26532	0001	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
26533	0001	Janitor Room	1	A	Wall	Concrete	Defective	-0.763 K	-0.300 L	0		Neg
26534	0001	Janitor Room	1	A	Window Sash	Thin Metal	Intact	0.283 K	-0.546 L	0		Neg
26535	0001	Janitor Room	1	A	Window Case	Thin Metal	Intact	-0.031 K	-0.197 L	0		Neg
26536	0001	Janitor Room	1	B	Wall	Concrete	Defective	2.216 K	0.644 L	0		Pos
26537	0001	Janitor Room	1	B	Wall	Concrete	Defective	1.423 K	0.661 L	0		Pos
26538	0001	Janitor Room	1	C	Wall	Concrete	Defective	0.110 K	0.295 L	0		Neg
26539	0001	Janitor Room	1	C	Floor	Concrete	Intact	-0.263 K	-0.533 L	0		Neg
26540	0001	Janitor Room	1	D	Wall	Concrete	Defective	0.823 K	-0.028 L	0		Neg
26541	0001	Janitor Room	1	D	Door Buck	Steel	Intact	-0.338 S	0.000 X	0		Neg
26542	0001	Storage Room	1	A	Wall	Concrete	Defective	1.033 K	0.020 L	0		Incl
26543	0001	Storage Room	1	A	Wall	Concrete	Defective	2.062 K	-0.344 L	0		Pos
26544	0001	Storage Room	1	A	Window Case	Thin Metal	Intact	0.170 K	-0.136 L	0		Neg
26545	0001	Storage Room	1	A	Window Sash	Thin Metal	Intact	0.543 K	-0.356 L	0		Neg
26546	0001	Storage Room	1	B	Wall	Concrete	Defective	7.240 K	1.436 L	0		Pos
26547	0001	Storage Room	1	C	Wall	Concrete	Intact	-0.407 K	-0.471 L	0		Neg
26548	0001	Storage Room	1	B	Wall	Plaster	Defective	4.051 K	1.242 L	0		Pos
26549	0001	Storage Room	1	C	Wall	Plaster	Intact	4.138 K	1.163 L	0		Pos
26550	0001	Storage Room	1	D	Wall	Plaster	Defective	1.740 K	0.313 L	0		Pos
26551	0001	Storage Room	1	D	Wall	Concrete	Defective	-0.086 K	-0.407 L	0		Neg
26552	0001	Storage Room	1	D	Floor	Concrete	Intact	0.470 K	-0.364 L	0		Neg

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- Basement
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 40

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26553	0001	Storage Room	1	B	Door	Thin Metal	Intact	-0.640 K	0.107 L	0		Neg
26554	0001	Storage Room	1	B	Door Buck	Steel	Intact	-0.040 S	0.000 X	0		Neg
26555	0001	Bathroom	1	A	Wall	Plaster	Defective	4.498 K	0.765 L	0		Pos
26556	0001	Bathroom	1	B	Wall	Plaster	Defective	3.821 K	1.594 L	0		Pos
26557	0001	Bathroom	1	B	Door	Thin Metal	Intact	0.309 K	-0.153 L	0		Neg
26558	0001	Bathroom	1	B	Door Buck	Steel	Intact	-0.817 S	0.000 X	0		Neg
26559	0001	Bathroom	1	C	Wall	Plaster	Defective	3.159 K	1.231 L	0		Pos
26560	0001	Bathroom	1	D	Wall	Plaster	Defective	2.127 K	1.275 L	0		Pos
26561	0001	Bathroom	1	D	Window Sash	Thin Metal	Intact	-0.517 K	-0.371 L	0		Neg
26562	0001	Stairway	1	A	Wall	Concrete	Intact	0.195 K	-0.589 L	0		Neg
26563	0001	Stairway	1	B	Wall	Concrete	Defective	4.087 K	1.266 L	0		Pos
26564	0001	Stairway	1	C	Wall	Concrete	Defective	3.864 K	0.289 L	0		Pos
26565	0001	Stairway	1	D	Wall	Plaster	Defective	0.307 K	-0.616 L	0		Neg
26566	0001	Stairway	1	D	Wall	Plaster	Defective	2.357 K	1.046 L	0		Pos
26567	0001	Stairway	1	A	Newel Post	Steel	Intact	7.216 S	0.000 X	0		Pos
26568	0001	Stairway	1	A	Handrail	Steel	Intact	3.118 S	0.000 X	0		Pos
26569	0001	Stairway	1	A	Stringer	Steel	Intact	7.682 S	0.000 X	0		Pos
26570	0001	Stairway	1	B	Stair Riser	Steel	Intact	4.391 S	0.000 X	0		Pos
26571	0001	Stairway	1	C	Handrail	Steel	Defective	1.992 S	0.000 X	0		Pos

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 1st Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2 Total Assays Reported 47

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26573	0002	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
26574	0002	Foyer	1	A	Lower Wall	Plaster	Defective	22.901 K	2.970 L	0		Pos
26575	0002	Foyer	1	A	Upper Wall	Plaster	Intact	0.314 K	0.769 L	0		Neg
26576	0002	Foyer	1	A	Door Case	Wood	Defective	7.555 K	0.321 L	0		Pos
26577	0002	Foyer	1	A	Door	Thin Metal	Intact	7.833 K	0.753 L	0		Pos
26578	0002	Foyer	1	A	Door Jamb	Thin Metal	Defective	6.682 K	0.344 L	0		Pos
26579	0002	Foyer	1	A	Door Case	Thin Metal	Defective	8.344 K	0.754 L	0		Pos
26580	0002	Foyer	1	B	Lower Wall	Concrete	Intact	22.721 K	1.768 L	0		Pos
26581	0002	Foyer	1	B	Upper Wall	Plaster	Intact	0.499 K	0.208 L	0		Neg
26582	0002	Foyer	1	C	Lower Wall	Concrete	Intact	19.600 K	2.848 L	0		Pos
26583	0002	Foyer	1	C	Upper Wall	Plaster	Intact	-0.409 K	-0.317 L	0		Neg
26584	0002	Foyer	1	C	Ceiling	Concrete	Intact	0.577 K	0.764 L	0		Neg
26585	0002	Foyer	1	C	Ceiling	Concrete	Intact	0.488 K	0.232 L	0		Neg
26586	0002	Foyer	1	C	Ceiling	Concrete	Intact	-0.086 K	0.529 L	0		Neg
26587	0002	Foyer	1	D	Upper Wall	Plaster	Intact	0.154 K	-0.253 L	0		Neg
26588	0002	Office	1	A	Wall	Plaster	Intact	1.564 K	-0.552 L	0		Pos
26589	0002	Office	1	B	Lower Wall	Plaster	Intact	4.961 K	1.348 L	0		Pos
26590	0002	Office	1	B	Chair Rail	Wood	Intact	1.374 K	-0.152 L	0		Pos
26591	0002	Office	1	B	Upper Wall	Wallboard	Intact	5.392 K	0.846 L	0		Pos
26592	0002	Office	1	B	Window Case	Wood	Defective	12.145 K	1.787 L	0		Pos
26593	0002	Office	1	B	Door	Wood	Defective	0.823 K	-0.213 L	0		Neg

RTK Environmental Group
29 Bank St.

Stamford CT 06901

XRF and Lab Results

Customer: RTK

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 1st Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 47

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26594	0002	Office	1	B	Door	Wood	Defective	1.282 K	-0.167 L	0		Pos
26595	0002	Office	1	C	Lower Wall	Wallboard	Intact	3.962 K	0.521 L	0		Pos
26596	0002	Office	1	C	Chair Rail	Wood	Intact	0.474 K	-0.205 L	0		Neg
26597	0002	Office	1	C	Upper Wall	Wallboard	Intact	5.990 K	1.586 L	0		Pos
26598	0002	Office	1	C	Upper Wall	Plaster	Intact	6.788 K	0.210 L	0		Pos
26599	0002	Office	1	D	Wall	Plaster	Intact	4.450 K	-0.339 L	0		Pos
26600	0002	Office	1	D	Window Case	Thin Metal	Intact	0.322 K	-0.396 L	0		Neg
26601	0002	Office	1	D	Window Sash	Thin Metal	Intact	-0.246 K	-0.300 L	0		Neg
26602	0002	Office	1	D	Radiator	Steel	Defective	-0.260 S	0.000 X	0		Neg
26603	0002	Office	1	D	Radiator	Steel	Defective	-0.059 S	0.000 X	0		Neg
26604	0002	Bathroom	1	C	Wall	Plaster	Defective	0.253 K	-0.144 L	0		Neg
26605	0002	Bathroom	1	B	Wall	Plaster	Defective	0.448 K	-0.375 L	0		Neg
26606	0002	Bathroom	1	B	Door Case	Wood	Intact	-0.114 K	-0.243 L	0		Neg
26607	0002	Bathroom	1	B	Door Jamb	Wood	Intact	-0.070 K	-0.470 L	0		Neg
26608	0002	Bathroom	1	B	Door	Wood	Intact	1.094 K	0.129 L	0		Incl
26609	0002	Bathroom	1	B	Door	Wood	Intact	0.816 K	-0.253 L	0		Neg
26610	0002	Bathroom	1	A	Wall	Plaster	Defective	-0.639 K	-0.507 L	0		Neg
26611	0002	Bathroom	1	A	Ceiling	Wallboard	Defective	-0.022 K	-0.375 L	0		Neg
26612	0002	Stairway	1	A	Wall	Plaster	Intact	0.601 K	0.483 L	0		Neg
26613	0002	Stairway	1	B	Wall	Plaster	Intact	-0.177 K	-0.110 L	0		Neg
26614	0002	Stairway	1	B	Handrail	Steel	Intact	4.005 S	0.000 X	0		Pos

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 1st Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 47

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26615	0002	Stairway	1	B	Stringer	Steel	Intact	6.594 S	0.000 X	0		Pos
26616	0002	Stairway	1	C	Stair Riser	Steel	Intact	5.877 S	0.000 X	0		Pos
26617	0002	Stairway	1	D	Newel Post	Steel	Intact	3.941 S	0.000 X	0		Pos
26618	0002	Stairway	1	C	Wall	Plaster	Intact	0.859 K	0.529 L	0		Neg
26619	0002	Stairway	1	C	Wall	Plaster	Intact	1.026 K	0.441 L	0		Incl

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- Mezzanine
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 27

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26621	0003	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		Neg
26622	0003	Lobby	1	A	Wall	Wallboard	Intact	0.930 K	0.355 L	0		Incl
26623	0003	Lobby	1	A	Wall	Wallboard	Intact	0.225 K	0.773 L	0		Neg
26624	0003	Lobby	1	A	Window sill	Wood	Intact	0.508 K	-0.591 L	0		Neg
26625	0003	Lobby	1	A	Window sill	Wood	Intact	-0.584 K	-0.568 L	0		Neg
26626	0003	Lobby	1	A	Window Case	Thin Metal	Intact	-0.970 K	-0.598 L	0		Neg
26627	0003	Lobby	1	A	Radiator	Steel	Defective	0.027 S	0.000 X	0		Neg
26628	0003	Lobby	1	A	Radiator	Steel	Defective	-0.549 S	0.000 X	0		Neg
26629	0003	Lobby	1	B	Wall	Plaster	Intact	0.813 K	0.163 L	0		Neg
26630	0003	Lobby	1	B	Wall	Plaster	Intact	0.319 K	0.987 L	0		Neg
26631	0003	Lobby	1	C	Wall	Plaster	Intact	0.840 K	0.543 L	0		Neg
26632	0003	Lobby	1	C	Wall	Plaster	Intact	2.634 K	1.022 L	0		Pos
26633	0003	Lobby	1	C	Wall	Plaster	Intact	0.756 K	0.546 L	0		Neg
26635	0003	Lobby	1	C	Door Case	Thin Metal	Defective	8.087 K	0.872 L	0		Pos
26636	0003	Lobby	1	D	Ceiling	Plaster	Intact	0.150 K	-0.022 L	0		Neg
26637	0003	Lobby	1	D	Wall	Plaster	Intact	0.793 K	0.139 L	0		Neg
26638	0003	Lobby	1	D	Wall	Plaster	Defective	0.248 K	0.091 L	0		Neg
26639	0003	Lobby	1	D	Window sill	Wood	Intact	0.180 K	-0.942 L	0		Neg
26640	0003	Lobby	1	D	Window sill	Wood	Intact	-0.485 K	-0.323 L	0		Neg
26641	0003	Lobby	1	D	Handrail	Steel	Intact	5.328 S	0.000 X	0		Pos
26642	0003	Lobby	1	D	Newel Post	Steel	Defective	2.848 S	0.000 X	0		Pos

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- Mezzanine
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 27

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26643	0003	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
26644	0003	Elevator Bank	1	B	Door	Thin Metal	Intact	0.073 K	-0.143 L	0		Neg
26645	0003	Elevator Bank	1	B	Door	Thin Metal	Intact	0.083 K	-0.210 L	0		Neg
26646	0003	Elevator Bank	1	B	Door Jamb	Steel	Intact	-0.046 S	0.000 X	0		Neg
26647	0003	Calibration	*	*	*	*	*	0.000 X	0.000 X	384		
26648	0003	Calibration	*	*	*	*	*	1.065 K	0.776 L	384		Incl

RTK Environmental Group
29 Bank St.

Stamford CT 06901

XRF and Lab Results

Customer: RTK

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 2nd Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 24

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26650	0004	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
26651	0004	Office	1	A	Wall	Wallboard	Intact	0.251 K	-0.576 L	0		Neg
26652	0004	Office	1	A	Window sill	Wood	Intact	0.367 K	-0.320 L	0		Neg
26653	0004	Office	1	A	Window Case	Thin Metal	Intact	0.553 K	-0.520 L	0		Neg
26654	0004	Office	1	A	Radiator	Thin Metal	Intact	0.610 K	-0.014 L	0		Neg
26655	0004	Office	1	B	Wall	Wallboard	Intact	0.782 K	-0.362 L	0		Neg
26656	0004	Office	1	B	Wall	Wallboard	Intact	0.110 K	-0.270 L	0		Neg
26657	0004	Office	1	C	Wall	Plaster	Intact	-0.010 K	-0.510 L	0		Neg
26658	0004	Office	1	D	Wall	Wallboard	Intact	0.978 K	-0.348 L	0		Incl
26659	0004	Office	1	D	Wall	Wallboard	Intact	0.202 K	0.051 L	0		Neg
26660	0004	Office	1	D	Window Case	Thin Metal	Intact	-0.159 K	-0.731 L	0		Neg
26661	0004	Office	1	D	Window sill	Thin Metal	Intact	-1.082 K	-0.928 L	0		Neg
26662	0004	Office	2	A	Wall	Plaster	Intact	0.316 K	-0.109 L	0		Neg
26663	0004	Office	2	A	Window sill	Wood	Intact	0.095 K	-0.492 L	0		Neg
26664	0004	Office	2	A	Window Case	Thin Metal	Intact	0.469 K	-0.480 L	0		Neg
26665	0004	Office	2	B	Wall	Plaster	Intact	0.583 K	-0.249 L	0		Neg
26666	0004	Office	2	C	Wall	Wallboard	Intact	0.512 K	-0.385 L	0		Neg
26667	0004	Office	2	D	Wall	Wallboard	Intact	-0.289 K	-0.402 L	0		Neg
26668	0004	Stairway	1	A	Wall	Plaster	Intact	0.883 K	0.416 L	0		Neg
26669	0004	Stairway	1	C	Wall	Plaster	Intact	0.816 K	-0.118 L	0		Neg
26670	0004	Stairway	1	C	Wall	Plaster	Intact	0.755 K	0.563 L	0		Neg

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 2nd Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 24

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26671	0004	Stairway	1	C	Handrail	Steel	Intact	5.684 S	0.000 X	0		Pos
26672	0004	Stairway	1	C	Stringer	Steel	Intact	3.589 S	0.000 X	0		Pos
26673	0004	Stairway	1	A	Newel Post	Steel	Intact	4.196 S	0.000 X	0		Pos

RTK Environmental Group
29 Bank St.

Stamford CT 06901

XRF and Lab Results

Customer: RTK

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 3rd Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 29

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26675	0005	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		Neg
26676	0005	Office	1	A	Wall	Wallboard	Intact	0.476 K	-0.514 L	0		Neg
26677	0005	Office	1	B	Wall	Plaster	Intact	0.018 K	-0.627 L	0		Neg
26678	0005	Office	1	C	Wall	Plaster	Intact	-0.312 K	-0.981 L	0		Neg
26679	0005	Office	1	D	Wall	Plaster	Intact	0.049 K	-0.634 L	0		Neg
26680	0005	Office	1	D	Window sill	Thin Metal	Intact	-0.055 K	-0.202 L	0		Neg
26681	0005	Office	1	D	Window Case	Thin Metal	Intact	0.327 K	-0.471 L	0		Neg
26682	0005	Office	2	A	Wall	Wallboard	Intact	0.505 K	-0.167 L	0		Neg
26683	0005	Office	2	B	Wall	Wallboard	Intact	0.428 K	-0.302 L	0		Neg
26684	0005	Office	2	C	Wall	Wallboard	Intact	-0.354 K	-0.160 L	0		Neg
26685	0005	Office	2	D	Wall	Wallboard	Intact	-0.100 K	-0.357 L	0		Neg
26686	0005	Office	2	A	Window Case	Thin Metal	Intact	0.162 K	-0.186 L	0		Neg
26687	0005	Office	2	A	Window sill	Thin Metal	Intact	-0.034 K	-0.378 L	0		Neg
26688	0005	Bathroom	1	A	Wall	Plaster	Intact	-0.032 K	-0.225 L	0		Neg
26689	0005	Bathroom	1	B	Wall	Plaster	Intact	0.639 K	-0.080 L	0		Neg
26690	0005	Bathroom	1	C	Wall	Plaster	Intact	0.572 K	0.138 L	0		Neg
26691	0005	Bathroom	1	C	Door	Thin Metal	Intact	6.163 K	0.160 L	0		Pos
26692	0005	Bathroom	1	C	Door Case	Thin Metal	Intact	9.118 K	1.816 L	0		Pos
26693	0005	Bathroom	1	D	Wall	Plaster	Intact	0.276 K	0.501 L	0		Neg
26694	0005	Stairway	1	A	Wall	Plaster	Intact	0.824 K	0.712 L	0		Neg
26695	0005	Stairway	1	B	Wall	Plaster	Intact	0.322 K	0.697 L	0		Neg

RTK Environmental Group
29 Bank St.

Stamford CT 06901

XRF and Lab Results

Customer: RTK

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 3rd Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2 Total Assays Reported 29

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26696	0005	Stairway	1	C	Wall	Plaster	Intact	2.799 K	0.903 L	0		Pos
26697	0005	Stairway	1	C	Lower Wall	Plaster	Intact	1.680 K	0.319 L	0		Pos
26698	0005	Stairway	1	C	Upper Wall	Plaster	Intact	0.592 K	0.526 L	0		Neg
26699	0005	Stairway	1	D	Newel Post	Steel	Defective	6.288 S	0.000 X	0		Pos
26700	0005	Stairway	1	D	Handrail	Steel	Intact	3.416 S	0.000 X	0		Pos
26701	0005	Stairway	1	D	Stringer	Steel	Intact	6.438 S	0.000 X	0		Pos
26702	0005	Stairway	1	D	Radiator	Steel	Intact	-0.599 S	0.000 X	0		Neg
26703	0005	Stairway	1	D	Radiator	Steel	Defective	-0.344 S	0.000 X	0		Neg

RTK Environmental Group
29 Bank St.

Stamford CT 06901

XRF and Lab Results

Customer: RTK

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 4th Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 36

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26705	0006	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		
26706	0006	Office	1	A	Wall	Plaster	Defective	0.000 X	0.000 X	0		
26707	0006	Office	1	A	Lower Wall	Plaster	Defective	0.602 K	0.411 L	0		Neg
26708	0006	Office	1	A	Upper Wall	Plaster	Defective	0.291 K	0.293 L	0		Neg
26709	0006	Office	1	B	Wall	Thin Metal	Defective	0.116 K	0.113 L	0		Neg
26710	0006	Office	1	C	Wall	Plaster	Defective	-0.262 K	0.473 L	0		Neg
26711	0006	Office	1	C	Window Case	Wood	Defective	-0.737 K	-0.398 L	0		Neg
26712	0006	Office	1	B	Door Case	Wood	Intact	0.427 K	-0.423 L	0		Neg
26713	0006	Office	1	C	Wall	Plaster	Defective	-0.046 K	-0.201 L	0		Neg
26714	0006	Office	1	C	Wall	Plaster	Defective	-0.012 K	-0.663 L	0		Neg
26715	0006	Office	1	D	Wall	Plaster	Defective	0.424 K	0.162 L	0		Neg
26716	0006	Office	1	D	Wall	Plaster	Defective	-0.014 K	0.721 L	0		Neg
26717	0006	Office	1	A	Window sill	Thin Metal	Intact	0.104 K	-0.428 L	0		Neg
26718	0006	Office	1	A	Window Case	Thin Metal	Intact	-0.025 K	-0.550 L	0		Neg
26719	0006	Office	2	A	Wall	Plaster	Intact	0.874 K	0.212 L	0		Neg
26720	0006	Office	2	A	Radiator	Steel	Intact	0.477 S	0.000 X	0		Neg
26721	0006	Office	2	B	Lower Wall	Plaster	Defective	0.363 K	0.099 L	0		Neg
26722	0006	Office	2	B	Chair Rail	Wood	Intact	0.045 K	-0.463 L	0		Neg
26723	0006	Office	2	B	Upper Wall	Plaster	Defective	-0.536 K	0.048 L	0		Neg
26724	0006	Office	2	C	Wall	Plaster	Defective	0.248 K	-0.122 L	0		Neg
26725	0006	Stairway	1	A	Wall	Plaster	Defective	0.022 K	0.476 L	0		Neg

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

Site Name: South Meadow Station- 4th Floor
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 36

#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26726	0006	Stairway	1	B	Lower Wall	Plaster	Defective	3.303 K	1.228 L	0		Pos
26727	0006	Stairway	1	C	Upper Wall	Plaster	Defective	-0.146 K	-0.769 L	0		Neg
26728	0006	Stairway	1	B	Lower Wall	Plaster	Defective	2.501 K	2.059 L	0		Pos
26729	0006	Stairway	1	B	Upper Wall	Plaster	Defective	0.362 K	0.922 L	0		Neg
26730	0006	Stairway	1	D	Wall	Plaster	Defective	0.471 K	0.212 L	0		Neg
26731	0006	Stairway	1	D	Wall	Plaster	Defective	0.863 K	0.829 L	0		Neg
26732	0006	Stairway	1	A	Wall	Plaster	Defective	1.865 K	2.033 L	0		Pos
26733	0006	Stairway	1	D	Newel Post	Steel	Defective	2.987 S	0.000 X	0		Pos
26734	0006	Stairway	1	D	Handrail	Steel	Intact	5.324 S	0.000 X	0		Pos
26735	0006	Stairway	1	D	Beam	Steel	Intact	3.497 S	0.000 X	0		Pos
26736	0006	Stairway	1	D	Beam	Steel	Intact	3.226 S	0.000 X	0		Pos
26737	0006	Stairway	1	C	Lower Wall	Plaster	Defective	1.659 K	2.426 L	0		Pos
26738	0006	Stairway	1	C	Upper Wall	Plaster	Intact	0.747 K	0.997 L	0		Neg
26739	0006	Stairway	1	C	Upper Wall	Plaster	Intact	0.016 K	1.328 L	0		Neg
26740	0006	Stairway	1	D	Door Back	Steel	Defective	2.603 S	0.000 X	0		Pos

RTK Environmental Group
29 Bank St.

Stamford CT 06901

Customer: RTK

XRF and Lab Results

Project Name: HRP Associates
2-21-12

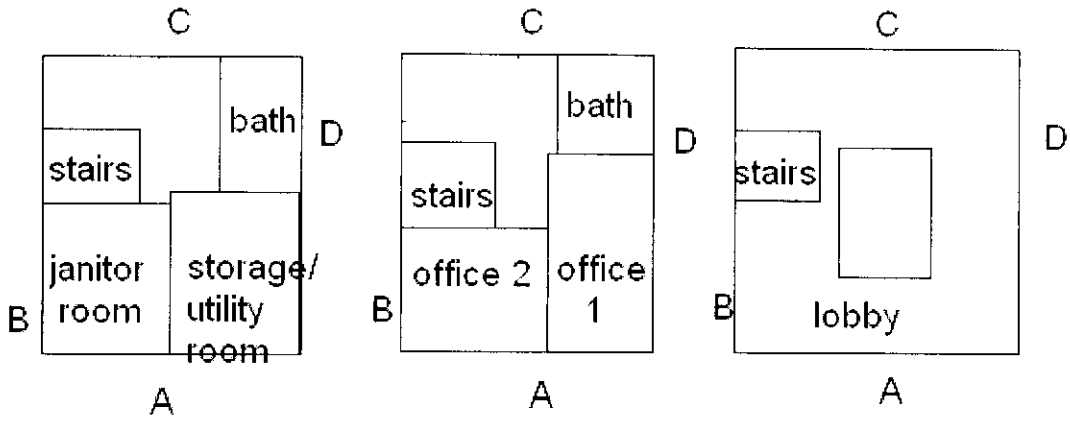
Site Name: South Meadow Station- Rooftop
Hartford, CT

Action Level 1.000 mg /cm2 Lab 1.000 mg /cm2

Total Assays Reported 15

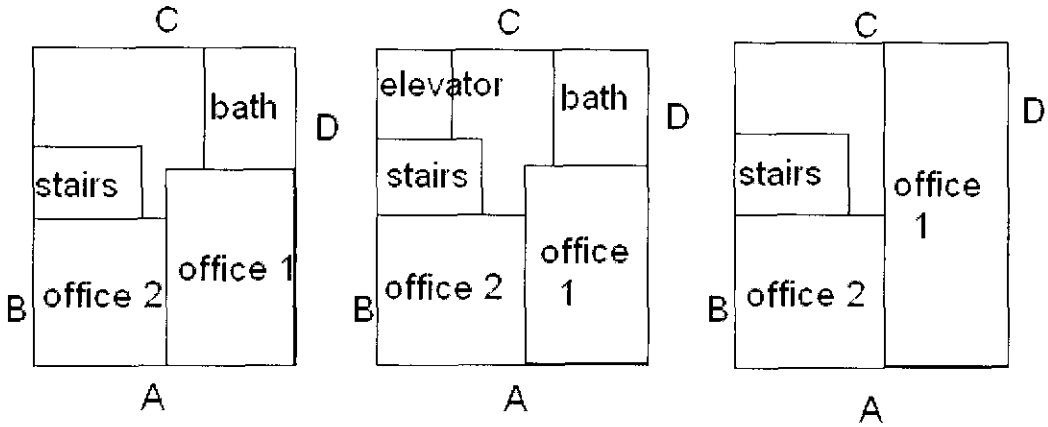
#	Site	Room Tested	#	Wall	Component	Substrate	Paint Condition	K-Shell mg/cm2	L-Shell mg/cm2	Map #	Lab	Result
26742	0007	Calibration	*	*	*	*	*	0.000 X	0.000 X	0		Neg
26743	0007	Roof	1	A	Wall	Concrete	Defective	-1.321 K	-0.976 L	0		Neg
26744	0007	Roof	1	A	Wall	Concrete	Defective	0.161 K	-1.040 L	0		Neg
26745	0007	Roof	1	D	Wall	Concrete	Defective	-0.093 K	-0.682 L	0		Neg
26746	0007	Penthouse	1	A	Wall	Concrete	Defective	3.263 K	0.257 L	0		Pos
26747	0007	Penthouse	1	B	Wall	Concrete	Defective	6.825 K	0.371 L	0		Pos
26748	0007	Penthouse	1	C	Wall	Concrete	Defective	4.744 K	0.610 L	0		Pos
26749	0007	Penthouse	1	D	Wall	Concrete	Defective	2.370 K	-0.357 L	0		Pos
26750	0007	Penthouse	1	C	Door Buck	Steel	Defective	1.170 S	0.000 X	0		Incl
26751	0007	Penthouse	1	C	Door Buck	Steel	Defective	3.244 S	0.000 X	0		Pos
26752	0007	Penthouse	1	C	Door	Steel	Intact	-0.240 S	0.000 X	0		Neg
26753	0007	Penthouse	1	C	Window Case	Steel	Defective	0.159 S	0.000 X	0		Neg
26754	0007	Penthouse	1	C	Window Case	Steel	Defective	0.205 S	0.000 X	0		Neg
26755	0007	Penthouse	1	D	HVAC Duct	Thin Metal	Defective	10.625 S	0.000 X	0		Pos
26756	0007	Penthouse	1	D	HVAC Duct	Thin Metal	Defective	9.442 K	-0.167 L	0		Pos

Floor Plan
South Meadow Station
Reserve Rd.-Gate 20
Hartford, CT



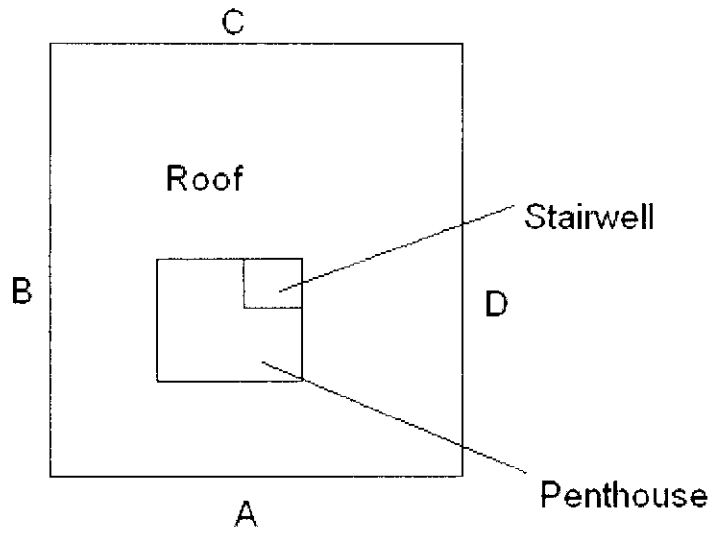
SIDE A = MAIN ENTRY SIDE

Floor Plan
South Meadow Station
Reserve Rd.-Gate 20
Hartford, CT



SIDE A = MAIN ENTRY SIDE

Floor Plan
South Meadow Station
Reserve Rd.- Gate 20
Hartford, CT



SIDE A = MAIN ENTRY SIDE

APPENDIX D

COPY OF LEAD PAINT CHIP ANALYTICAL REPORT

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800 Fax: (856) 858-9551 Email: westmontleadlab@emsl.com

Attn: **Tom Chapman**
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Fax: (860) 674-9624 Phone: (860) 674-9570
Project: **CRRA CRR0155.BA- Task 2**

Customer ID: HRPA50
Customer PO:
Received: 02/23/12 2:40 PM
EMSL Order: 201201646

EMSL Proj:

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B*/7000B)

Client Sample Description	*Lab ID*	*Collected*	*Analyzed*	*Lead Concentration*
1-BTEL-PB	*0001*	2/21/2012	2/24/2012	0.39 % wt
	Site: Tan & White Paint on Plaster Wall			
2-30A1-PB	*0002*	2/21/2012	2/24/2012	<0.010 % wt
	Site: Tan & White Paint on Drywall Wall			
3-4ST-PB	*0003*	2/21/2012	2/24/2012	0.38 % wt
	Site: Tan & White Paint on Plaster Wall			

Initial report from 02/24/2012 15:28:21

Julie Smith - Laboratory Director
NJ-NELAP Accredited:04653
or other approved signatory

Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. * slight modifications to methods applied. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainly is available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10896, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

201201646

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Chain of Custody

EMSL Order Number (*Lab Use Only*): 201201646

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

Company: HRP Associates, Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party
Street: 197 Scott Swamp Road	
City: Farmington **State/Province:** CT	**Zip/Postal Code:** 06032 **Country:** USA
Report To (Name): Tom Chapman	**Fax #:** 860-674-9624
Telephone #: 860-674-9570	**Email Address:** tom.chapman@hrpassociates.com
Project Name/Number: CRRA CRR0155.BA - TASK 2	
Please Provide Results: ☐ Fax ☒ Email	**Purchase Order:** **U.S. State Samples Taken:** CT

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☒ 96 Hour ☐ 1 Week ☐ 2 Week

**For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability. Not all TAT options are valid for every test. Materials Science and IAQ TATs are in Business Days rather than Hours (i.e. 24 Hour = End of Next Business Day)*

Asbestos

PCM - Air
☐ NIOSH 7400
☐ w/ 8hr. TWA

TEM– Air ☐ 4-4.5hr TAT (AHERA ONLY)
☐ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Water
Fibers ≥10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

PLM - Bulk
☐ PLM EPA 600/R-93/116
☐ PLM EPA NOB (<1%)
☐ NYS 198.1 (friable-NY)
☐ NYS 198.6 (non-friable-NY)
Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/ Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

TEM - Dust
☐ Microvac – ASTM D 5755
☐ Wipe-ASTM D6480

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198.4 (non-friable-NY)
☐ Chatfield SOP

Soil/Rock/Vermiculite
☐ PLM CARB 435 – A (0.25% sensitivity)
☐ PLM CARB 435 – B (0.1% *sensitivity*)
☐ TEM CARB 435 – B (0.1% sensitivity)
☐ EPA Reg. 1 Screening Protocol (Qualitative)

Other:

Lead (Pb)

Flame Atomic Absorption
☒ Chips SW846-7000B or AOAC 974.02
☐ Soil SW846-7000B/7420
☐ Air NIOSH 7082
☐ Wastewater SM3111B or SW846-7000B/7420
☐ ASTM Wipe SW846-7000B/7420
☐ non ASTM Wipe SW846-7000B/7420
☐ TCLP SW846-1311/7420/SM 3111B

ICP
☐ Air NIOSH 7300 Modified
☐ non ASTM Wipe SW846-6010B or C
☐ ASTM Wipe SW846-6010B or C
☐ Soil SW846-6010 B or C
☐ Waste Water SW846-6010B or C
☐ TCLP SW846-6010B or C

Graphite Furnace Atomic Absorption
☐ Soil SW846-7421 ☐ Wastewater EPA 200.9
☐ Air NIOSH 7105 ☐ Drinking Water EPA 200.9

Other: ☐

Materials Science

☐ Common Particle ID (large particles)
☐ Full Particle ID (environmental dust)
☐ Basic Material ID (solids)
☐ Advanced Material ID
☐ Physical Testing (Tensile, Compression)
☐ Combustion-by-products (soot, char, etc.)
☐ X-Ray Fluorescence (elem. analysis)
☐ X-Ray Diffraction (Crystalline Part.)
☐ MMVF's (Fibrous glass, RCF's)
☐ Particle Size (sieve/microscopy/laser)
☐ Combustible Dust
☐ Petrographic Examination
Other: ☐

Microbiology

Wipe and Bulk Samples
☐ Mold & Fungi – Direct Examination
☐ Mold & Fungi Culture (Genus Only)
☐ Mold & Fungi Culture (Genus & Species)
☐ Bacterial Count & ID (Up to Three Types)
☐ Bacterial Count & ID (Up to Five Types)
☐ MRSA
☐ *Pseudomonas aeruginosa*

Water Samples
☐ Total Coliform & E.coli (P/A)
☐ Fecal Coliform (SM 9222D)
☐ Sewage Screen
☐ Heterotrophic Plate Count (SM 9215)

Air Samples
☐ Mold & Fungi (Spore Trap)
☐ Mold & Fungi Culture (Genus Only)
☐ Mold & Fungi (Genus & Species)
☐ Bacterial Culture & ID (Up to Three Types)
☐ Bacterial Culture & ID (Up to Five Types)
☐ Endotoxin Testing

Real Time Q-PCR (See Analytical Guide for Code)
Code:

Legionella
☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4

Other: ☐

IAQ

Nuisance Dust NIOSH ☐ 0500 ☐ 0600
Airborne Dust ☐ PM10 ☐ TSP
Silica Analysis: ☐ All Species
Silica Analysis – Single Species
☐ Alpha Quartz ☐ Cristobalite ☐ Tridymite
☐ HVAC Efficiency
☐ Carbon Black
☐ Airborne Oil Mist
Radon Testing: Call for Kit and COC
Other: ☐

****Comments/Special Instructions:**

Client Sample #'s	1-BTEL-PB → 3-4ST-PB	**Total # of Samples:**	30
Relinquished (Client):	**Date:** 2/22/12	**Time:**	1100
Received (Lab):	**Date:** 2/23/12	**Time:**	24-hr

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

Controlled Document-OneChain-R2-1/12/2010

201201646

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Chain of Custody

EMSL Order Number (*Lab Use Only*): 201201646

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-5974

	Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
1	1-BTEL-PB	TAN AND WHITE PAINT ON PLASTER WALL	4 in 2	2/21/12
2	2-30A1-PB	TAN AND WHITE PAINT ON DRYWALL WALL	4 in 2	2/21/12
3	3-4ST-PB	TAN AND WHITE PAINT ON PLASTER WALL	4 in 2	2/21/12

EMSL CINNAMINSON NJ
2012 FEB 23 PM 2:40

***Comments/Special Instructions:**

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

APPENDIX E

COPY OF PCB LABORATORY ANALYTICAL REPORT

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

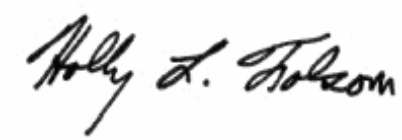
February 29, 2012

Tom Chapman
HRP Associates, Inc. (Private)
197 Scott Swamp Road
Farmington, CT 06032

Project Location: Hartford, CT
Client Job Number:
Project Number: CRR0155.BA T-2
Laboratory Work Order Number: 12B0724

Enclosed are results of analyses for samples received by the laboratory on February 22, 2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Holly L. Folsom
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

HRP Associates, Inc. (Private)
197 Scott Swamp Road
Farmington, CT 06032
ATTN: Tom Chapman

REPORT DATE: 2/29/2012

PURCHASE ORDER NUMBER: S-CT-01131

PROJECT NUMBER: CRR0155.BA T-2

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 12B0724

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Hartford, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
1-R-PARA-PC	12B0724-01	Caulk		SW-846 8082A	
2-R-PARA-PC	12B0724-02	Caulk		SW-846 8082A	
3-R-PARA-PC	12B0724-03	Caulk		SW-846 8082A	
4-R-SL-PC	12B0724-04	Caulk		SW-846 8082A	

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Elevated reporting limit due to matrix.

Analyte & Samples(s) Qualified:

12B0724-04[4-R-SL-PC]

The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

Analyte & Samples(s) Qualified:

Decachlorobiphenyl, Decachlorobiphenyl [2C], Tetrachloro-m-xylene, Tetrachloro-m-xylene [2C]

12B0724-01[1-R-PARA-PC], 12B0724-04[4-R-SL-PC]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Michael A. Erickson
Laboratory Director

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Hartford, CT | Sample Description: | Work Order: 12B0724

Date Received: 2/22/2012

Field Sample #: 1-R-PARA-PC | Sampled: 2/21/2012 00:00

Sample ID: 12B0724-01

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1221 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1232 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1242 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1248 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1254 [2]	88	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1260 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1262 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC
Aroclor-1268 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 10:28	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	*	30-150	S-01	2/24/12 10:28
Decachlorobiphenyl [2]	*	30-150	S-01	2/24/12 10:28
Tetrachloro-m-xylene [1]	*	30-150	S-01	2/24/12 10:28
Tetrachloro-m-xylene [2]	*	30-150	S-01	2/24/12 10:28

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Hartford, CT | Sample Description: | Work Order: 12B0724

Date Received: 2/22/2012

Field Sample #: 2-R-PARA-PC | Sampled: 2/21/2012 00:00

Sample ID: 12B0724-02

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1221 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1232 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1242 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1248 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1254 [2]	1.9	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1260 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1262 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC
Aroclor-1268 [1]	ND	0.99	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:41	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	132	30-150		2/24/12 10:41
Decachlorobiphenyl [2]	123	30-150		2/24/12 10:41
Tetrachloro-m-xylene [1]	120	30-150		2/24/12 10:41
Tetrachloro-m-xylene [2]	115	30-150		2/24/12 10:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Hartford, CT | Sample Description: | Work Order: 12B0724

Date Received: 2/22/2012

Field Sample #: 3-R-PARA-PC | Sampled: 2/21/2012 00:00

Sample ID: 12B0724-03

Sample Matrix: Caulk

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1221 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1232 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1242 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1248 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1254 [2]	3.5	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1260 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1262 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC
Aroclor-1268 [1]	ND	0.98	mg/Kg	5		SW-846 8082A	2/22/12	2/24/12 10:54	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	121	30-150		2/24/12 10:54
Decachlorobiphenyl [2]	112	30-150		2/24/12 10:54
Tetrachloro-m-xylene [1]	105	30-150		2/24/12 10:54
Tetrachloro-m-xylene [2]	109	30-150		2/24/12 10:54

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Hartford, CT | Sample Description: | Work Order: 12B0724

Date Received: 2/22/2012

Field Sample #: 4-R-SL-PC | Sampled: 2/21/2012 00:00

Sample ID: 12B0724-04

Sample Matrix: Caulk

Sample Flags: DL-03

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1221 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1232 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1242 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1248 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1254 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1260 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1262 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC
Aroclor-1268 [1]	ND	9.6	mg/Kg	50		SW-846 8082A	2/22/12	2/24/12 11:07	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	*	30-150	S-01	2/24/12 11:07
Decachlorobiphenyl [2]	*	30-150	S-01	2/24/12 11:07
Tetrachloro-m-xylene [1]	*	30-150	S-01	2/24/12 11:07
Tetrachloro-m-xylene [2]	*	30-150	S-01	2/24/12 11:07

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
12B0724-01 [1-R-PARA-PC]	B046718	0.521	10.0	02/22/12
12B0724-02 [2-R-PARA-PC]	B046718	0.506	10.0	02/22/12
12B0724-03 [3-R-PARA-PC]	B046718	0.511	10.0	02/22/12
12B0724-04 [4-R-SL-PC]	B046718	0.523	10.0	02/22/12

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B046718 - SW-846 3540C										
Blank (B046718-BLK1)				Prepared: 02/22/12 Analyzed: 02/24/12						
Aroclor-1016	ND	0.20	mg/Kg							
Aroclor-1016 [2C]	ND	0.20	mg/Kg							
Aroclor-1221	ND	0.20	mg/Kg							
Aroclor-1221 [2C]	ND	0.20	mg/Kg							
Aroclor-1232	ND	0.20	mg/Kg							
Aroclor-1232 [2C]	ND	0.20	mg/Kg							
Aroclor-1242	ND	0.20	mg/Kg							
Aroclor-1242 [2C]	ND	0.20	mg/Kg							
Aroclor-1248	ND	0.20	mg/Kg							
Aroclor-1248 [2C]	ND	0.20	mg/Kg							
Aroclor-1254	ND	0.20	mg/Kg							
Aroclor-1254 [2C]	ND	0.20	mg/Kg							
Aroclor-1260	ND	0.20	mg/Kg							
Aroclor-1260 [2C]	ND	0.20	mg/Kg							
Aroclor-1262	ND	0.20	mg/Kg							
Aroclor-1262 [2C]	ND	0.20	mg/Kg							
Aroclor-1268	ND	0.20	mg/Kg							
Aroclor-1268 [2C]	ND	0.20	mg/Kg							
Surrogate: Decachlorobiphenyl	*2.16*		mg/Kg	3.91		55.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.96*		mg/Kg	3.91		50.1	30-150			
Surrogate: Tetrachloro-m-xylene	*3.38*		mg/Kg	3.91		86.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.42*		mg/Kg	3.91		87.5	30-150			
LCS (B046718-BS1)				Prepared: 02/22/12 Analyzed: 02/24/12						
Aroclor-1016	3.7	0.20	mg/Kg	3.98		92.4	40-140			
Aroclor-1016 [2C]	3.5	0.20	mg/Kg	3.98		86.8	40-140			
Aroclor-1260	3.6	0.20	mg/Kg	3.98		91.1	40-140			
Aroclor-1260 [2C]	3.5	0.20	mg/Kg	3.98		87.7	40-140			
Surrogate: Decachlorobiphenyl	*4.28*		mg/Kg	3.98		108	30-150			
Surrogate: Decachlorobiphenyl [2C]	*3.84*		mg/Kg	3.98		96.6	30-150			
Surrogate: Tetrachloro-m-xylene	*3.70*		mg/Kg	3.98		93.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.73*		mg/Kg	3.98		93.7	30-150			
LCS Dup (B046718-BSD1)				Prepared: 02/22/12 Analyzed: 02/24/12						
Aroclor-1016	3.7	0.19	mg/Kg	3.77		98.7	40-140	1.16	30	
Aroclor-1016 [2C]	3.4	0.19	mg/Kg	3.77		91.5	40-140	0.218	30	
Aroclor-1260	3.6	0.19	mg/Kg	3.77		96.8	40-140	0.609	30	
Aroclor-1260 [2C]	3.5	0.19	mg/Kg	3.77		92.7	40-140	0.183	30	
Surrogate: Decachlorobiphenyl	*3.99*		mg/Kg	3.77		106	30-150			
Surrogate: Decachlorobiphenyl [2C]	*3.60*		mg/Kg	3.77		95.6	30-150			
Surrogate: Tetrachloro-m-xylene	*3.59*		mg/Kg	3.77		95.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*3.65*		mg/Kg	3.77		96.8	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
DL-03	Elevated reporting limit due to matrix.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2013
RI	Rhode Island Department of Health	LAO00112	12/30/2012
NC	North Carolina Div. of Water Quality	652	12/31/2012
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2013
ME	State of Maine	2011028	06/9/2013
VA	Commonwealth of Virginia	1381	12/14/2012

$

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

Page ____ of ____

12B0724

Company Name: HRP ASSOCIATES, INC. Telephone: 860-674-9570

Address: 197 SCOTTSWAMP ROAD Project # CRR0155.BA T-2

FARMINGTON, CT 06032 Client PO#

Attention: TOM CHAPMAN

Project Location: HARTFORD, CT

Sampled By: TOM CHAPMAN

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ○ WEBSITE
Fax # _____
Email: TOM.CHAPMAN@HRPASSOCIATES.COM
Format: ☒ PDF ○ EXCEL ○ GIS ☒ OTHER STD. HRP
○ "Enhanced Data Package"

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	# of Containers	** Preservation	***Container Code	8082 PCBs - By 3540C Soxhlet Extraction
01	1-R-PARA-PC		2/21/12		X	S	C	1	O	P/B	X
02	2-R-PARA-PC		↓		X	S	C	1	O	P/B	X
03	3-R-EMR-PC				X	S	C	1	O	P/B	X
04	4-R-SL-PC				X	S	C	1	O	P/B	X

ANALYSIS REQUESTED

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other
B= BAG

****Preservation**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other NONE

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = ~~soil~~/solid
SL = sludge
O = other_____

Comments:
SEE LISA D. FOR SPECIAL PRICING 1,2 C

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:
	2/22/12 735
Received by: (signature)	Date/Time:
	2/22/12 735
Relinquished by: (signature)	Date/Time:
	2/22/12 1600
Received by: (signature)	Date/Time:
	2/22/12 16:00

Turnaround ††
☒ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts: _____
Connecticut: _____
Other: TSCA ≤ 1 ppm

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
☒ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

ACCREDITED IN ACCORDANCE WITH nelac
AIHA ACCREDITED LABORATORY
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: HRP RECEIVED BY: C.C-S. DATE: 2/22/12

1) Was the chain(s) of custody relinquished and signed? (Yes) No No CoC Included

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 4.1°C

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	4
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____
Bisulfate _____ # DI Water _____
Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: HRP Associates, Inc. (Private)

Project Location: Hartford, CT

Project Number: 12B0724

Laboratory Sample ID(s):

12B0724-01 thru 12B0724-04

Sample Date(s):

02/21/2012

List RCP Methods Used:

SW-846 8082A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☐ Yes ☑ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☐ Yes ☑ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Laboratory Director

Printed Name: Michael A. Erickson **Date:** 02/29/12

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

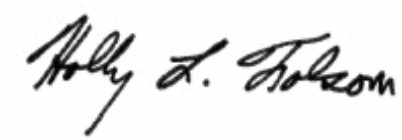
March 14, 2012

Tom Chapman
HRP Associates, Inc. (Private)
197 Scott Swamp Road
Farmington, CT 06032

Project Location: Hartford, CT
Client Job Number:
Project Number: CRR0155.BA T-2
Laboratory Work Order Number: 12C0159

Enclosed are results of analyses for samples received by the laboratory on March 7, 2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Holly L. Folsom
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

HRP Associates, Inc. (Private)
197 Scott Swamp Road
Farmington, CT 06032
ATTN: Tom Chapman

REPORT DATE: 3/14/2012

PURCHASE ORDER NUMBER: S-CT-01131

PROJECT NUMBER: CRR0155.BA T-2

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 12C0159

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Hartford, CT

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
1-SUB-1	12C0159-01	Concrete		SW-846 8082A	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

12C0159-01[1-SUB-1]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Daren J. Damboragian
Laboratory Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Hartford, CT | Sample Description: | Work Order: 12C0159

Date Received: 3/7/2012

Field Sample #: 1-SUB-1 | Sampled: 2/21/2012 00:00

Sample ID: 12C0159-01

Sample Matrix: Concrete

Sample Flags: H-03

Polychlorinated Biphenyls with 3540 Soxhlet Extraction

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1221 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1232 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1242 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1248 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1254 [1]	1.6	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1260 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1262 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC
Aroclor-1268 [1]	ND	0.20	mg/Kg	2		SW-846 8082A	3/8/12	3/12/12 18:59	MJC

Surrogates	% Recovery	Recovery Limits	Flag	
Decachlorobiphenyl [1]	119	30-150		3/12/12 18:59
Decachlorobiphenyl [2]	107	30-150		3/12/12 18:59
Tetrachloro-m-xylene [1]	101	30-150		3/12/12 18:59
Tetrachloro-m-xylene [2]	103	30-150		3/12/12 18:59

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
12C0159-01 [1-SUB-1]	B047573	2.00	10.0	03/08/12

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B047573 - SW-846 3540C										
Blank (B047573-BLK1)				Prepared: 03/08/12 Analyzed: 03/09/12						
Aroclor-1016	ND	0.10	mg/Kg							
Aroclor-1016 [2C]	ND	0.10	mg/Kg							
Aroclor-1221	ND	0.10	mg/Kg							
Aroclor-1221 [2C]	ND	0.10	mg/Kg							
Aroclor-1232	ND	0.10	mg/Kg							
Aroclor-1232 [2C]	ND	0.10	mg/Kg							
Aroclor-1242	ND	0.10	mg/Kg							
Aroclor-1242 [2C]	ND	0.10	mg/Kg							
Aroclor-1248	ND	0.10	mg/Kg							
Aroclor-1248 [2C]	ND	0.10	mg/Kg							
Aroclor-1254	ND	0.10	mg/Kg							
Aroclor-1254 [2C]	ND	0.10	mg/Kg							
Aroclor-1260	ND	0.10	mg/Kg							
Aroclor-1260 [2C]	ND	0.10	mg/Kg							
Aroclor-1262	ND	0.10	mg/Kg							
Aroclor-1262 [2C]	ND	0.10	mg/Kg							
Aroclor-1268	ND	0.10	mg/Kg							
Aroclor-1268 [2C]	ND	0.10	mg/Kg							
Surrogate: Decachlorobiphenyl	*0.884*		mg/Kg	1.00		88.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.773*		mg/Kg	1.00		77.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.848*		mg/Kg	1.00		84.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.827*		mg/Kg	1.00		82.7	30-150			
LCS (B047573-BS1)				Prepared: 03/08/12 Analyzed: 03/09/12						
Aroclor-1016	0.23	0.10	mg/Kg	0.250		91.5	40-140			
Aroclor-1016 [2C]	0.24	0.10	mg/Kg	0.250		95.9	40-140			
Aroclor-1260	0.26	0.10	mg/Kg	0.250		104	40-140			
Aroclor-1260 [2C]	0.23	0.10	mg/Kg	0.250		90.5	40-140			
Surrogate: Decachlorobiphenyl	*0.916*		mg/Kg	1.00		91.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.783*		mg/Kg	1.00		78.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.861*		mg/Kg	1.00		86.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.850*		mg/Kg	1.00		85.0	30-150			
LCS Dup (B047573-BSD1)				Prepared: 03/08/12 Analyzed: 03/09/12						
Aroclor-1016	0.23	0.10	mg/Kg	0.250		90.3	40-140	1.30	30	
Aroclor-1016 [2C]	0.24	0.10	mg/Kg	0.250		96.6	40-140	0.788	30	
Aroclor-1260	0.26	0.10	mg/Kg	0.250		104	40-140	0.355	30	
Aroclor-1260 [2C]	0.23	0.10	mg/Kg	0.250		90.2	40-140	0.350	30	
Surrogate: Decachlorobiphenyl	*0.932*		mg/Kg	1.00		93.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.796*		mg/Kg	1.00		79.6	30-150			
Surrogate: Tetrachloro-m-xylene	*0.863*		mg/Kg	1.00		86.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.851*		mg/Kg	1.00		85.1	30-150			

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
H-03	Sample received after recommended holding time was exceeded.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Product/Solid	
Aroclor-1016	CT,NH,NY,ME,NC
Aroclor-1016 [2C]	CT,NH,NY,ME,NC
Aroclor-1221	CT,NH,NY,ME,NC
Aroclor-1221 [2C]	CT,NH,NY,ME,NC
Aroclor-1232	CT,NH,NY,ME,NC
Aroclor-1232 [2C]	CT,NH,NY,ME,NC
Aroclor-1242	CT,NH,NY,ME,NC
Aroclor-1242 [2C]	CT,NH,NY,ME,NC
Aroclor-1248	CT,NH,NY,ME,NC
Aroclor-1248 [2C]	CT,NH,NY,ME,NC
Aroclor-1254	CT,NH,NY,ME,NC
Aroclor-1254 [2C]	CT,NH,NY,ME,NC
Aroclor-1260	CT,NH,NY,ME,NC
Aroclor-1260 [2C]	CT,NH,NY,ME,NC

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2013
RI	Rhode Island Department of Health	LAO00112	12/30/2012
NC	North Carolina Div. of Water Quality	652	12/31/2012
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2013
ME	State of Maine	2011028	06/9/2013
VA	Commonwealth of Virginia	1381	12/14/2012

1

CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

1201159

Company Name: HRP ASSOCIATES, INC
Address: 197 SCOTT SWAMP ROAD
FARMINGTON, CT 06032
Attention: TOM CHAPMAN
Project Location: HARTFORD, CT
Sampled By: TOM CHAPMAN

Telephone: 860-674-9570
Project # CRR0155, BA T-2
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ○ WEBSITE
Fax #
Email: TOM.CHAPMAN@HRPASSOCIATES.COM
Format: ☒ PDF ○ EXCEL ○ GIS ☒ OTHER STD. HRP

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

○ "Enhanced Data Package"

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	# of Containers	** Preservation	***Container Code	ANALYSIS REQUESTED: 8082 PCBs - BY 3540C Soxhlet EXTRACTION
01	1-SUB-1	2-21-12			X	S	C	1	O	P/B	X

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other
B= BAG

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other None

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments:
SEE LISA D. FOR SPECIAL PRICING

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:	Received by: (signature)	Date/Time:
	3-7-12 0200		
			3/7/12 11[illegible]
	3/7/12 4[illegible]		
4.0°C			3/7/12 16:10

Turnaround ††
☒ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other: TSCA <1 PPM

Is your project MCP or RCP ?
○ MCP Analytical Certification Form Required
☒ RCP Analysis Certification Form Required
○ MA State DW Form Required PWSID # _____

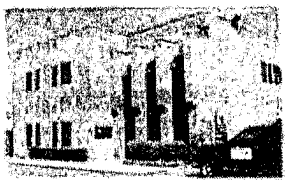
ACCREDITED IN ACCORDANCE WITH nelac
ACCREDITED LABORATORY AIHA
NELAC & AIHA Certified
WBE/DBE Certified

†† TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY



Sample Receipt Checklist

CLIENT NAME: HRP RECEIVED BY: C.C-S. DATE: 3/7/12

1) Was the chain(s) of custody relinquished and signed? (Yes) No No CoC Included

2) Does the chain agree with the samples? (Yes) No

If not, explain:

3) Are all the samples in good condition? (Yes) No

If not, explain:

4) How were the samples received:

On Ice ☑ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☑

Were the samples received in Temperature Compliance of (2-6°C)? (Yes) No N/A

Temperature °C by Temp blank _____ Temperature °C by Temp gun 4.0°C

5) Are there Dissolved samples for the lab to filter? Yes (No)

Who was notified _____ Date _____ Time _____

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes (No)

Who was notified _____ Date _____ Time _____

7) Location where samples are stored: 19

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Air Cassette	
500 mL Plastic		Hg/Hopcalite Tube	
250 mL plastic		Plastic Bag / Ziploc	1
40 mL Vial - type listed below		PM 2.5 / PM 10	
Colisure / bacteria bottle		PUF Cartridge	
Dissolved Oxygen bottle		SOC Kit	
Encore		TO-17 Tubes	
Flashpoint bottle		Non-ConTest Container	
Perchlorate Kit		Other glass jar	
Other		Other	

Laboratory Comments:

40 mL vials: # HCl _____ # Methanol _____

Bisulfate _____ # DI Water _____

Thiosulfate _____ Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A _____

Do all samples have the proper Base pH: Yes No N/A _____

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Con-Test Analytical Laboratory

Client: HRP Associates, Inc. (Private)

Project Location: Hartford, CT

Project Number: 12C0159

Laboratory Sample ID(s):

12C0159-01

Sample Date(s):

02/21/2012

List RCP Methods Used:

SW-846 8082A

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method specified preservation and holding time requirements met?	☐ Yes ☑ No
1B	VPH and EPH Methods only: Was the VPH and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (< 6 degrees C.)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5A	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5B	Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence."
This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  **Position:** Laboratory Manager

Printed Name: Daren J. Damboragian **Date:** 03/14/12

Name of Laboratory: Con-Test Analytical Laboratory

This certification form is to be used for RCP methods only.

APPENDIX F

COPIES OF IAQ MEASUREMENT TABLES AND MOLD SWAB LABORATORY ANALYTICAL REPORT

Sampling Date: 2/21/2012	HRP Inspector(s): KED Time: 8:00 AM-12:00 PM					Facility: South Meadows, Hartford
Location	**Notes**	**Type**	**Number of Occupants in Room**	**Moisture Reading #1**	**Moisture Reading #2**	**Moisture Reading #3**
Basement-Janitor's Room	East wall, near window	Drywall	1	0.0	0.0	0.0
	West wall, adjacent to staircase	Drywall	1	0.1	0.2	0.1
	North wall, adjacent to Telephone Room	Drywall	1	0.0	0.0	0.0
Basement-Telephone Room	Southern wall, adjacent to Janitor's Room	Drywall	1	0.1	0.2	0.1
	East wall, near window	Brick/Concrete	1	2.3	2.1	2.2
	West wall	Drywall	1	0.1	0.2	0.2
Basement-Bathroom	North wall, near window	Drywall	1	0.0	0.0	0.0
	East wall, adjacent to Telephone Room	Drywall	1	0.0	0.0	0.0
1st Floor-Office Area #1	North wall, near windows	Drywall	1	0.1	0.0	0.0
	South wall	Drywall	1	0.0	0.0	0.0
1st Floor-Office Area #2	East Wall, near window	Drywall	1	0.0	0.0	0.0
	West wall, adjacent to staircase	Drywall	1	0.0	0.0	0.0
1st Floor-Bathroom	West wall	Drywall	1	0.1	0.0	1.0
	East wall, adjacent to Office #1	Drywall	1	0.0	0.0	0.0
1st Floor-Corridor	Staircase	Drywall	1	0.0	0.0	0.0
Mezzanine	North wall, near window	Drywall	1	0.1	0.2	0.0
2nd Floor-Office #1	North wall, near windows	Drywall	1	0.1	0.1	0.0
	South wall	Drywall	1	0.0	0.0	0.0
2nd Floor-Office #2	West wall, adjacent to Corridor	Drywall	1	0.0	0.0	0.0
	East wall, near windows	Drywall	1	0.1	0.0	0.0
2nd Floor-Bathroom	North wall, near windows	Drywall	1	0.0	0.0	0.0
	East wall, adjacent to Office Area #1	Drywall	1	0.0	0.0	0.0
3rd Floor-Office #1	North wall, near windows	Drywall	1	0.0	0.1	0.1
	South wall	Drywall	1	0.2	0.1	0.0
3rd Floor-Office #2	West wall, adjacent to Corridor	Drywall	1	0.0	0.0	0.0
	East wall, near windows	Drywall	1	0.1	0.0	0.0
3rd Floor-Bathroom/Air Shaft	North wall, near windows	Drywall	1	0.0	0.0	0.0
	East wall, adjacent to Office Area #1	Drywall	1	0.0	0.0	0.0
4th Floor-Office	North wall, near windows	Drywall	1	0.0	0.0	0.0
	East wall, near windows	Drywall	1	0.0	0.0	0.0
4th Floor-Staircase to Roof Access	East wall, staircase	Brick/Concrete	1	0.0	0.0	0.0
	South wall, staircase	Brick/Concrete	1	0.0	0.0	0.0

Notes:
Drywall-Moisture content >1%
Wood-Moisture content >20%
Concrete/Brick-Moisture content 0-100

Sampling Date: 2/21/2012	HRP Inspector(s): KED Time: 8:00 AM-12:00 PM				Facility: South Meadows, Hartford,	
Location	**Notes**	**Number of Occupants in Room**	**Temp. (°F)**	**RH (%)**	**CO_2 (ppm)**	**CO (ppm)**
Basement-Janitor's Closet		3	45.8	31.8	1288	0
Basement-Telephone Room		2	45.0	36.1	1048	0
Basement-Bathroom		1	43.0	32.4	867	0
Basement-Corridor		1	43.4	32.0	792	0
Basement-Corridor		1	41.9	35.0	789	0
1st Floor-Office Area #1		1	41.1	36.3	806	0
1st Floor-Office Area #2		1	48.9	28.7	817	0
1st Floor-Bathroom		1	48.8	28.9	836	0
1st Floor-Corridor		1	44.6	28.8	905	0
1st Floor-Entranceway		1	44.1	29.8	837	0
Mezzanine		1	50.8	30.8	831	0
2nd Floor-Office #1		1	57.3	31.3	874	0
2nd Floor-Office #2		1	51.2	29.8	886	0
2nd Floor-Bathroom		1	51.6	29.2	846	0
2nd Floor-Corridor		1	52.9	27.2	799	0
3rd Floor-Office #1		1	52.8	27.4	812	0
3rd Floor-Office #2		1	53.1	27.6	746	0
3rd Floor-Bathroom/Air Shaft		1	53.2	26.8	850	0
3rd Floor-Corridor		1	51.5	27.3	792	0
4th Floor-Office		1	52.4	31.5	838	0
4th Floor-Corridor		1	52.6	31.3	846	0
4th Floor-Staircase to Roof Access		1	53.4	31.5	826	0
Outside		1	39.6	33.6	691	0

EMSL Analytical, Inc.
4 Fairfield Boulevard Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.emsl.com / wallingfordlab@emsl.com

EMSL Order ID: 241200749
Customer ID: HRPA50
Customer PO: S-CT-00911
Project ID:

Attn: Katie Duggan
HRP Associates, Inc.
197 Scott Swamp Road
Farmington, CT 06032-3149

Phone: (860) 674-9570
Fax: (860) 674-9624
Collected: 02/21/2012
Received: 02/22/2012
Analyzed: 02/28/2012

Proj: CRR0155.BA TASK 02

Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Swab Samples (EMSL Method: M041)

Lab Sample Number:	241200749-0001	241200749-0002	241200749-0003		
Client Sample ID:	BAS-001	BAS-002	FF-003		
Sample Location:	Basement; Janitor RM- Window	Basement; Janitor RM- Int. Wall	4th Floor Staircase to Roof		
Spore Types	Category	Category	Category		
Agrocybe/Coprinus	-	-	-		
Alternaria	-	-	-		
Ascospores	-	-	-		
Aspergillus/Penicillium	-	-	*Medium*		
Basidiospores	-	-	-		
Bipolaris++	-	-	-		
Chaetomium	-	-	-		
Cladosporium	*High*	*High*	*Low*		
Curvularia	-	-	-		
Epicoccum	-	-	-		
Fusarium	-	-	-		
Ganoderma	-	-	-		
Myxomycetes++	-	-	-		
Paecilomyces	-	-	-		
Rust	-	-	-		
Scopulariopsis	-	-	-		
Stachybotrys	-	-	-		
Torula	-	-	-		
Ulocladium	-	-	-		
Unidentifiable Spores	-	-	-		
Zygomycetes	-	-	-		
Fibrous Particulate	-	-	High		
Hyphal Fragment	High	High	Medium		
Insect Fragment	-	-	-		
Pollen	-	-	-		

Category: Count/per area analyzed
Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut
* = Sample contains fruiting structures and/or hyphae associated with the spores.

No discernable field blank was submitted with this group of samples.

Gloria V. Oriol, Laboratory Manager
or Other Approved Signatory

Initial report from: 02/28/2012 08:43:05

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

241200749

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 241200749

EMSL ANALYTICAL, INC.
4 FAIRFIELD BLVD
WALLINGFORD, CT 06492
PHONE: (203) 284-5948
FAX: (203) 284-5978

Company : HRP ASSOCIATES	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 197 SCOTT SWAMP ROAD	
City: FARMINGTON **State/Province:** CT	**Zip/Postal Code:** **Country:**
Report To (Name): Katie Duggan	**Telephone #:**
Email Address: katie.duggan@hrpassociates.com	**Fax #:** **Purchase Order:**
Project Name/Number: CRR0155.BA Task 02	**Please Provide Results:** ☐ Fax ☒ Email
U.S. State Samples Taken:	**Connecticut Samples:** ☒ Commercial ☐ Residential

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☒ 1 Week ☐ 2 Week

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

Non Culturable Air Samples (Spore Traps)

• **M001** Air-O-Cell	• **M173** Allegro M2	• **M004** Allergenco	• **M032** Allergenco-D	• **M172** Versa Trap
• **M049** BioSIS	• **M003** Burkard	• **M043** Cyclex	• **M002** Cyclex-d	
• **M030** Micro 5	• **M174** MoldSnap	• **M176** Relle Smart	• **M130** Via-Cell	

Other Microbiology Test Codes

• **M041** Fungal Direct Examination	• **M014** Endotoxin Analysis	• **M029** *Enterococci*
• **M005** Viable Fungi ID and Count	• **M015** Heterotrophic Plate Count	• **M019** Fecal Coliform
• **M006** Viable Fungi ID and Count (Speciation)	• **M180** Real Time Q-PCR-ERMI 36	• **M133** MRSA Analysis
• **M007** Culturable Fungi	• Panel	• **M028** *Cryptococcus neoformans* Detection
• **M008** Culturable Fungi (Speciation)	• **M018** Total Coliform (Membrane Filtration)	• **M120** *Histoplasma capsulatum* Detection
• **M009** Gram Stain Culturable Bacteria	• **M020** Fecal *Streptococcus* (Membrane Filtration)	• **M033-39** Allergen Testing
• **M010** Bacterial Count and ID – 3 Most Prominent	• **M210-215** *Legionella* Detection	• **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
• **M011** Bacterial Count and ID – 5 Most Prominent	• **M026** Recreational Water Screen	• **Other** See Analytical Price Guide
• **M013** Sewage Contamination in Buildings	• **M027** Mycotoxin Analysis	

Preservation Method (Water):

Name of Sampler: **Signature of Sampler:**

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
BAS-001	BASEMENT; JANITOR RM - WINDOW	SWAB	M041*	—	2/21/12; 9:00A
BAS-002	BASEMENT; JANITOR RM - INT. WALL	SWAB	M041*	—	2/21/12; 10:00A
FF-003	11TH FLOOR STAIRCASE TO ROOF	SWAB	M041*	—	2/21/12; 10:30A

RECEIVED
FEB 22 2012
By 8:00 am walk-in

Client Sample # (s): BAS001 - FF003 **Total # of Samples:** (3)

Relinquished (Client): Katie Duggan **Date:** 2/22/2012 **Time:** 8:00A

Received (Client): **Date:** **Time:**

Comments: *Please run sample for non-viable direct microscopic mold spore count.