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ASBESTOS, LEAD AND HAZARDOUS BUILDING MATERIALS SURVEY

92 SUNNYSIDE AVENUE
WOONSOCKET, RHODE ISLAND

February 2022
File No. 34950.00



PREPARED FOR:
City of Woonsocket

GZA GeoEnvironmental, Inc.

188 Valley Street, Suite 300 | Providence, RI 02909
401-421-4140

Offices Nationwide
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188 Valley Street
Suite 300
Providence, RI 02909
T: 401-421-4140
F: 401-751-8613
www.gza.com

February 2, 2022
File No. 34950.00

Mr. Kevin Proft
City Planner
City of Woonsocket
169 Main Street
Woonsocket, Rhode Island 02895

Re: Pre-Demolition Hazardous Building Materials Assessment Report
92 Sunnyside Avenue
Woonsocket, Rhode Island

Dear Mr. Proft:

GZA GeoEnvironmental, Inc. ("GZA") is pleased to submit this *Asbestos and Hazardous Building Materials Assessment Report* to the City of Woonsocket (the "Client") for the above-listed property ("the Site"). We understand that it is the Client's intent to demolish the structures onsite.

This report presents the results of an asbestos and hazardous building materials assessment conducted by GZA GeoEnvironmental, Inc. (GZA) for the City of Woonsocket for three existing structures on the property located at 92 Sunnyside Avenue in Woonsocket, Rhode Island (the Site). We understand the Client's intent at this time is to demolish the structures. The purpose of the assessment was to provide information on the quantity and location of hazardous building materials. This report and our opinions and recommendations are subject to the Limitations provided below and in Attachment A.

On October 15, 2021, a hazardous building materials assessment was conducted by Mr. Erik Beloff (License # AI00938) in accordance with RIDOH regulations, Rules and Regulations for Asbestos Control (216-RICR-50-15-1). The recommendations provided are based on our visual observations of the material, analytical results, our understanding of the applicable regulations, and experience with management of hazardous building materials.

Thank you for this opportunity to be of service. Please contact Erik at 401-421-2723 or erik.beloff@gza.com with any questions you may have pertaining to the information in this report.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Erik M. Beloff
Project Manager
RIDOH-Licensed Asbestos Inspector

Jeffrey D. Rowell, P.E.
Consultant/Reviewer

Edward A. Summerly, P.G.^{NY, KY}
District Office Manager / Principal



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1.0 INTRODUCTION AND PURPOSE

1.1 INTRODUCTION

This report presents the findings of a Hazardous Building Materials Survey conducted by GZA GeoEnvironmental, Inc. (GZA) for the City of Woonsocket (Client) at the property identified as 92 Sunnyside Avenue (Site) located in Woonsocket, Rhode Island. The initial site visit portion of the survey was conducted on October 15, 2021, in general accordance with GZA's Proposal dated May 24, 2021. This report is subject to the *Limitations* in **Appendix A**.

1.2 PROJECT OBJECTIVE

GZA understands that current redevelopment plans for the property include the demolition of the Site structures. The objective of our work was to perform a walkthrough of the accessible portions of the above referenced buildings to identify and evaluate the presence and condition of suspect asbestos-containing material (ACM), poly-chlorinated biphenyls (PCB), lead-containing paint (LCP), and other visually apparent universal wastes and hazardous building materials. The work included the collection of bulk samples of observed representative suspect ACMs, PCBs, and lead-containing paint materials and the quantification of identified ACMs and hazardous materials.

1.3 PROJECT STRATEGY

This assessment was limited to materials that were visible and accessible during the survey of the buildings on the project site. Efforts were made to access the interiors of pipe chases and wall cavities by using available access hatches, but it should be noted that certain interstitial building voids and spaces could not be accessed without disassembly of the buildings or use of destructive methods. Charged electrical systems and energized mechanical and pneumatic equipment were not sampled as part of this survey. GZA did not dismantle mechanical equipment within the building. Inaccessible areas and areas beyond the Scope of Work, including boilers, mechanical equipment and HVAC equipment, were not sampled during the assessment and the materials comprising these inaccessible or beyond scope systems should be assumed to be ACM for the purposes of this report. Although reasonable effort was made to survey accessible suspect materials, additional suspect, but un-sampled materials, could be located in walls, voids or in other concealed areas. Furthermore, it is assumed that no active effort, intentional or otherwise, was made by others to cosmetically hide potentially salient features or conditions from GZA.

2.0 SITE DESCRIPTION

The Site covers approximately 3.51 acres and is improved with three structures (one main office building, one 3-bay garage and a small pump shed) and paved parking areas. The approximately 1,392-square-foot main office building located at 92 Sunnyside Avenue, Woonsocket, Rhode Island is a one-story wood-framed structure erected on a field stone foundation and basement. The main building has been vacant for years after suffering severe fire damage. At the time of the assessment, the buildings were unoccupied. Records indicate the original construction was in 1920. The main building and three-bay garage's roofing systems consisted of a single asphaltic sheet layer on-top of a wood deck substrate. The pump shed roofing consisted of three layers of asphalt shingles on-top of a wood deck substrate. Exterior walls of the main building consisted of vinyl and wood siding, the three-bay garage consisted of concrete masonry units (CMU) and stucco, and the pump shed consisted of wood siding. The pump shed and garage had no interior walls. Due to the severe fire damage to the main building which created a safety hazard for entrants, the interior finishes were not evaluated.



3.0 SCOPE OF SERVICES

The scope of work involved visually identifying and classifying conditions within the interior and exterior building areas, collecting representative samples of suspect materials for analysis, and integrating and reporting our findings in a written report. GZA observed building structural components; utility systems (electrical, mechanical, and plumbing); interior spaces and building contents (as building conditions and safety considerations would permit); and the suspect materials comprising or associated with the building exteriors.

No prior asbestos or hazardous material inspection reports regarding the site were provided to GZA.

4.0 INVESTIGATION PROCEDURES

Results of the investigation are provided below.

4.1 ASBESTOS INVESTIGATION

The pre-demolition level asbestos assessment and sampling conducted at the site on October 15, 2021 was performed by Mr. Erik M. Beloff and Mr. Ben Ramos, Rhode Island Department of Health certified Asbestos Inspector's (Certificate #AI00938 & #AI01136).

4.1.1 Asbestos Sampling

The ACM sampling was conducted throughout accessible interior and exterior of the buildings scheduled to be impacted by the proposed demolition work. The three buildings on Site were in disrepair. The main building suffered severe fire damage years ago and has been vacant since. Due to the fire damage, partially collapsed roof and the interior being partially open to the elements, the interior of the building could not be thoroughly assessed. An aerial site plan showing the location of the structures is attached as **Figure 1**. Accessible interior and exterior building components were surveyed and homogeneous areas of suspect ACMs were visually identified and documented. Procedures for locating and identifying ACM were based on guidelines published by the United States Environmental Protection Agency (USEPA).¹ A homogeneous area consists of building materials that appear similar throughout in terms of color, texture and date of application. Building materials identified as concrete, glass, wood, masonry, metal or rubber were not considered suspect ACM.

A physical assessment of each homogeneous area of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the USEPA as a material which can be crumbled, pulverized or reduced to powder by hand pressure when dry. Friability was assessed by physically touching suspect materials.

Based on results of the visual observation, bulk samples of suspect ACM were collected in general accordance with the sampling protocols outlined in USEPA Regulation 40 CFR 763 Asbestos Hazard Emergency Response Act and the Rhode Island Department of Health (RIDOH) *Rules and Regulations for Asbestos Control* (216-RICR-50-15-1). It was assumed that discrete suspect ACM were sufficiently uniform in composition to permit random samples to be collected of suspect materials in each homogeneous area. GZA collected bulk samples wearing appropriate Personal Protection Equipment and using wet methods as applicable to reduce the potential for fiber release. Samples were placed in individual re-sealable plastic bags, wet wiped of visible debris, labeled with unique sample numbers using an indelible marker, recorded and dispatched to an accredited laboratory for analysis following

¹ Environmental Protection Agency, [Guidelines for Controlling Asbestos-Containing Materials in Buildings](#), Office of Pesticides and Toxic Substances, EPA Report Number 560/5-85-024, June 1985.



chain-of-custody protocols. In total, 24 bulk samples were collected from 12 areas of suspect ACM. A summary of suspect ACM samples collected during the survey is presented in **Table 1**.

4.1.2 Sample Analysis

ProScience Analytical Services Inc. (ProScience), located at 22 Cummings Park, Woburn, Massachusetts analyzed the bulk samples using polarized light microscopy with dispersion staining techniques per USEPA methodology (40 CFR 763, Subpart F). The percentage of asbestos, where applicable, was quantified by microscopic visual estimation. ProScience is an approved laboratory by the Rhode Island Department of Health (Lab ID No. PLM00093) and is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP Accreditation No. 200546-0). A copy of the laboratory's accreditations is included as **Appendix B**. The laboratory was instructed to analyze samples from each homogeneous area until the first sample containing asbestos was identified using the positive stop procedure.

4.1.3 Asbestos Analytical Results

Laboratory analysis confirmed the presence of asbestos-containing materials in the following four suspect materials:

- ***Garage, exterior, metal windows, glazing, white***
- ***Main building, basement, thermal pipe insulation, gray***
- ***Pump shed, roof, asphalt shingle, blue***
- ***Pump shed, roof, asphalt shingle, green***

The Laboratory analytical reports are included as **Appendix C**.

4.2 LEAD PAINT ASSESSMENT

The following subsections summarize GZA's approach to, and findings of, our lead containing paint assessment of the subject property.

4.2.1 Lead-Containing Paint Survey

On October 15, 2021, lead-containing paint (LCP) samples were collected from representative painted surfaces in selected portions of the project area and analyzed for the presence of total lead using atomic absorption spectroscopy, EPA Method SW846-3050B. The painted surfaces in the project area appeared to be in poor condition with considerable pitting and flaking. Samples were placed in individual re-sealable plastic bags, wet wiped of visible debris, labeled with unique sample numbers using an indelible marker recorded and dispatched to an accredited laboratory for analysis following chain-of-custody protocol. A total of two LCP samples were collected. Concentrations of lead were above the method reporting limit (RL) for both samples collected from painted surfaces within the project area. A table listing all LCP samples and their detected concentrations is attached as **Table 3**.

4.2.2 Paint Analytical Results

As indicated in the attached results, lead was identified at detectable concentrations in both of the paint samples collected. The test results were compared to USEPA guidance for lead-based paint. According to USEPA, lead-based paint is defined as paint having a lead content of equal to or greater than 0.5 percent by weight of lead. The following paint coverings and materials were identified with lead content at or above the USEPA standard of 0.5 percent by weight of lead.

- ***Main building, garage, wood door frame, black***

The following paint coverings and materials were identified as LCP at a content less than the USEPA standard for LBP:



- **Garage, wood bay-door, green**

LCP and LBP results are presented in **Table 3** and a copy of the laboratory analytical report is attached as **Appendix C**.

4.3 UNIVERSAL WASTES INVESTIGATION

The Universal Wastes investigation was completed at the site by GZA personnel, Mr. Erik M. Beloff.

4.3.1 Universal Wastes Assessment

During the assessment, GZA did not visually identified any building construction materials suspected of potentially containing PCBs, therefore, no samples were collected for PCB analysis. Procedures for locating and identifying materials suspected of containing PCBs were based on guidelines published by the USEPA. Note, due to extensive fire damage to the interior of the main building, not all interior portions of the building were assessed for the presence of PCBs that potentially could create a hazard to workers during the course of the demolition of the building.

GZA also conducted a visual survey of Universal Wastes (UW), potential PCB-containing components and miscellaneous stored chemicals, petroleum products, and gases. UW, defined in 40 CFR Part 273 by the USEPA, includes hazardous wastes that are pesticides or electrical system components such as batteries, thermostats, and mercury-containing lamps. Varying types of other potentially hazardous materials present requiring proper handling and disposal prior to demolition were identified in the site building. GZA did not visually identify any UWs during our assessment. If UWs are identified during demolition activities, materials must be managed and disposed of in accordance with current state and federal waste management regulations.

5.0 **REGULATORY OVERVIEW**

5.1 ASBESTOS

USEPA regulation 40 CFR 61, Subpart M, **National Emission Standards for Hazardous Air Pollutants (NESHAPS)** and the RIDOH regulate asbestos fiber emissions during renovation or demolition activities and asbestos waste disposal practices at both publicly and privately owned and operated facilities in the State. These regulations require the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP and Rhode Island regulations, asbestos-containing building materials are defined as materials containing greater than 1% of asbestos content and are classified as either friable, Category I non-friable, or Category II non-friable ACM. Friable materials are those that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure. Category I non-friable ACM includes packings, gaskets, resilient floor coverings and asphalt roofing products containing more than 1% asbestos. Category II non-friable ACM are any materials non-friable other than Category I materials that contain more than 1% asbestos.

Friable ACM, along with Category I and Category II non-friable ACM which is in poor condition and has become friable or which will be subjected to drilling, sanding, grinding, cutting or abrading and which could be crushed or pulverized during anticipated renovation or demolition activities are considered regulated ACM (RACM).

RACM must be removed prior to any renovation or demolition activities which will disturb the materials. The owner or operator of a facility must provide the RIDOH with written notification of planned removal activities, including an asbestos abatement plan prepared by a licensed individual, at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by a RIDOH-licensed asbestos abatement contractor. Third party area air clearance testing must be performed at the conclusion of the abatement activities and prior to re-occupancy of the removal areas to determine if the air quality is suitable.



The OSHA Asbestos standard for construction (29 CFR 1926.1101) and general industry (29 CFR 1910.1001) regulates workplace exposure to asbestos. The OSHA standards require that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air as an eight-hour time weighted average. The OSHA standards classify construction and maintenance activities which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. States which administer their own federally-approved State OSHA programs may require additional precautions.

5.2 LEAD-CONTAINING PAINT

Lead is regulated by the USEPA, the State of Rhode Island, and OSHA. The USEPA and Rhode Island regulate the use, removal and disposal of LCP and OSHA regulates lead exposure to workers. The USEPA and Rhode Island define lead-based paint as paint, varnish, stain, or other applied coating that contains lead equal to or greater than 1.0 milligrams per square centimeter, 5,000 milligrams per kilogram, or 0.5% by dry weight as determined by laboratory analysis. OSHA defines lead-containing paint as a paint which contains lead, regardless of the concentration. For the purpose of the OSHA lead standard, lead includes metallic lead, all inorganic lead compounds, and organic lead soaps.

The Resource Conservation and Recovery Act (RCRA) gave the USEPA authority to regulate the waste status of demolition or renovation debris, including lead-containing materials. Specific notification and testing requirements must be addressed prior to transporting, treating, storing, or disposing of hazardous wastes. Lead-containing wastes are considered hazardous waste under RCRA if Toxicity Characteristic Leaching Procedure results for lead exceed 5 milligrams per liter.

Detectable lead concentrations may constitute a lead dust hazard during renovation/demolition activities. Personnel performing renovation/demolition activities that may disturb painted components with concentrations of lead above the designated analytical detection limit should comply with all current OSHA regulations in order to minimize employee exposure. Currently, any proposed renovation/demolition is subject to the OSHA regulations (29 CFR 1926.62 – Lead Exposure in Construction). The OSHA regulation defines specific training requirements, engineering controls and working practices for construction personnel subject to this standard. Occupational exposure to lead occurring in the course of construction work, including maintenance activities, painting, alteration and repairs is subject to the OSHA “Interim” Lead Exposure in Construction standard.

Construction work covered by 29 CFR 1926.62 includes any repair or renovation activities or other activities that disturb in-place lead-containing materials, but does not include routine cleaning and repainting where there is insignificant damage, wear, or corrosion of existing lead-containing coatings or substrates. Employers must assure that no employee will be exposed to lead at concentrations greater than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) averaged over an eight-hour period without adequate protection. The OSHA Standard also establishes an action level of 30 $\mu\text{g}/\text{m}^3$ which if exceeded triggers the requirement for medical monitoring.

The above overview is not intended to be inclusive of all potentially pertinent regulatory information. The relevant USEPA, Rhode Island and OSHA standards should be consulted prior to undertaking activities involving the demolition, renovation, or maintenance of surfaces coated with lead paints.

5.3 UNIVERSAL WASTES AND PCB-CONTAINING MATERIALS

Universal wastes are regulated by the USEPA, the State of Rhode Island, and OSHA. The USEPA and the State of Rhode Island regulate the use, removal and disposal of universal wastes, and OSHA regulates exposure to workers. Universal wastes must be managed and disposed of in accordance with current State and federal hazardous waste management regulations.

The USEPA and the State of Rhode Island regulate the disposal of material containing PCBs. The Toxic Substances Control Act and the implementing regulations found at 40 CFR 761 require that caulks, sealants, and glazing containing concentrations of PCBs of 50 parts per million (ppm) or greater must be disposed of as PCB bulk product waste in a permitted solid waste landfill



or by completing a risk-based disposal process. Under USEPA's 2012 reinterpretation of 40 CFR 761, building materials impacted by migrating PCBs from adjacent PCB-containing caulks may be regulated under 40 CFR 761.62 as bulk product waste, provided the impacted building material is removed at the same time as the source material and managed appropriately.

Certain materials that contain PCB concentrations between 1 ppm up to 50 ppm may be categorized as Excluded PCB Products (see 40 CFR 761.3), provided they meet certain specific criteria. Any waste materials containing PCBs at any concentration have potential disposal considerations and require disposal at facilities that are permitted to accept such PCB-containing wastes.

6.0 CONCLUSIONS AND RECOMENDATIONS

Results of our survey identified the presence of HBMs in the Site buildings as detailed above and in Tables 2 through 3. Based on these results, we have the following recommendations:

- Laboratory analysis of the samples collected during the limited asbestos survey identified the presence of asbestos in the following sampled building materials:
 - Pump shed, roof asphalt shingles, blue and green
 - Garage, exterior, white window glazing, metal frames
 - Main building, basement, thermal pipe insulation, grey;
- Notify contractors of the potential asbestos and lead hazards per OSHA's Hazard Communication Rule (29 CFR 1910.1200);
- Due to extensive fire damage, not all interior materials could be accessed and tested. During communications between GZA and RIDOH, the following procedure has been established to address the inaccessible building materials. During demolition, a RIDOH-licensed asbestos inspector should be onsite to evaluate previously inaccessible material that has not been tested. Should suspect asbestos-containing materials be discovered during demolition activities, work should immediately stop and the material should be characterized/evaluated for asbestos content or assumed positive and abated accordingly. Based on the limited nature of the study, GZA did not test all building materials observed, and the presence of other ACMs is possible;
- Due to the presence of LCP identified, GZA recommends that project-specific abatement bid specifications be developed for use in obtaining regulatory approval for abatement, contractor pricing and developing construction sequencing;
- Prior to conducting demolition activities impacting confirmed or assumed hazardous materials, retain a qualified contractor to remove them; and
- If Universal wastes are identified during demolition activities, they may either be removed and recycled, or disposed of in accordance with applicable state and federal regulations before renovations. During the demolition work, if present, the heating, ventilation and air conditioning units should be assessed to determine if they contain Freon gas and, if present, the gas should be removed and collected from the unit using USEPA-approved equipment and procedures, and in accordance with the USEPA regulations under the Clean Air Act.



TABLES

TABLE 1
SUSPECT ACM SAMPLE INVENTORY
92 SUNNYSIDE AVENUE
Woonsocket, Rhode Island

SAMPLE NUMBER	MATERIAL DESCRIPTION	MATERIAL LOCATION	ANALYTICAL RESULTS
001A	Glazing, White	Exterior, garage, metal window frame	2% Chrysotile
001B	Glazing, White	Exterior, garage, metal window frame	NA/PS
002A	Asphaltic sheet, Black	Garage, roof	NAD
002B	Asphaltic sheet, Black	Garage, roof	NAD
003A	Siding paper, Black	Main building, exterior, beneath wood siding	NAD
003B	Siding paper, Black	Main building, exterior, beneath wood siding	NAD
004A	Thermal pipe insulation, Gray	Main building, basement, southeast corner, on pipes	80% Chrysotile
004B	Thermal pipe insulation, Gray	Main building, basement, southeast corner, on pipes	NA/PS
005A	Joint caulk, White	Main building, rear, between wood door and stone	NAD
005B	Joint caulk, White	Main building, rear, between wood door and stone	NAD
006A	Door panel, fiberboard, light brown	Main building, rear, garage	NAD
006B	Door panel, fiberboard, light brown	Main building, rear, garage	NAD
007A	Asphaltic sheet, Black	Main building, lower roof	NAD
007B	Asphaltic sheet, Black	Main building, lower roof	NAD
008A	Asphaltic sheet, Black	Main building, roof	NAD
008B	Asphaltic sheet, Black	Main building, roof	NAD
009A	Siding paper, Black	Shed, siding, beneath wood shingles	NAD
009B	Siding paper, Black	Shed, siding, beneath wood shingles	NAD
010A	Asphaltic shingle, Tan	Shed, roof	NAD
010B	Asphaltic shingle, Tan	Shed, roof	NAD
011A	Asphaltic shingle, Blue	Shed, roof	<1% Chrysotile
011B	Asphaltic shingle, Blue	Shed, roof	NA/PS
012A	Asphaltic shingle, Green	Shed, roof	<1% Chrysotile
012B	Asphaltic shingle, Green	Shed, roof	<1% Chrysotile

NOTES:

NAD - No Asbestos Detected

NA/PS - Sample Not Analyzed Due To Positive Stop

TABLE 2
CONFIRMED ASBESTOS-CONTAINING MATERIAL RESULTS
 92 Sunnyside Avenue
 Woonsocket, RI

MATERIAL DESCRIPTION	MATERIAL LOCATION	PERCENT/TYPE ASBESTOS	USEPA CATEGORY	CONDITION	ESTIMATED QUANTITY
Glazing, White	Exterior, garage, metal window frame	2% Chrysotile	Cat. I Nonfriable	Damaged	6 EA
Thermal pipe insulation, Gray	Main building, basement, southeast corner, on pipes	80% Chrysotile	RACM	Slightly damaged	8 LF
Asphalt shingles, Blue/Green	Shed, roof	<1% Chrysotile	Cat. I Nonfriable	Slightly damaged	120 SF

1. LF = Linear Feet, SF = Square Feet
2. RACM: Includes materials that, when dry, may be crumbled, pulverized or reduced to powder by hand pressure.
3. Category I Non-friable: Includes asbestos-containing packings, gaskets, asphaltic roofing products, resilient flooring, pliable sealants and mastics.
4. Category II Non-friable: Includes any non-friable materials other than Category I materials that contain more than 1% asbestos.

This summary includes the location, material type, and approximate quantities of accessible asbestos identified in the site buildings. Quantities of materials were assessed by a non-calibrated wheeled tape measure or visual estimation and should be considered as approximate values. It should be noted that these are only estimates, and are based on limited visual observations of accessible areas of the site.

TABLE 3
LEAD PAINT CHIP SAMPLE SUMMARY
 92 Sunnyside Avenue
 Woonsocket, Rhode Island

SAMPLE NUMBER	MATERIAL DESCRIPTION	MATERIAL LOCATION	LEAD CONTENT (% by weight)
LBP-01	Paint, green	Garage, exterior, wood door	0.11
LBP-02	Paint, black	Main Building, garage, wood door frame	18.9
	USEPA level of lead content in material defined as lead-based paint		>0.5%

NOTES:

1. BOLD indicates results in excess of the USEPA lead-based paint definition.

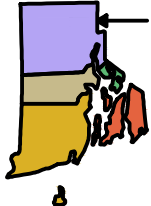


FIGURES

© 2021 - GZA GeoEnvironmental, Inc. GZA-J:\ENV\34950.EMB\FIGURES\CAD\DWGS\LOCUS AND EXP PLAN.DWG 8.5X11-QUAD (2) February 1, 2022 MARY MOSES



RHODE ISLAND

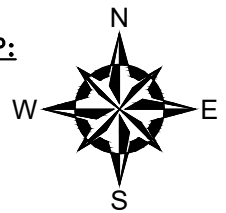


QUADRANGLE LOCATION

SOURCE:
BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
RHODE ISLAND (2015)

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY USGSSTORE.GOV.

CONTOUR ELEVATIONS REFERENCE NAVD 88,
 CONTOURS ARE SHOWN IN FEET AT 10' INTERVALS



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HAZARDOUS BUILDING MATERIALS SURVEY
 92 AND 176 SUNNYSIDE AVENUE
 WOONSOCKET, RI 02985

PREPARED BY:



GZA GeoEnvironmental, Inc.
 Engineers and Scientists
 www.gza.com

PREPARED FOR:

CITY OF WOONSOCKET
 WOONSOCKET, RI 02886

LOCUS

PROJ MGR: EMB

REVIEWED BY: RAC

CHECKED BY: EAS

FIGURE

DESIGNED BY:

DRAWN BY: MKM

SCALE: 1" = 2000'

1

DATE:

PROJECT NO.

REVISION NO.

JANUARY 2022

34950.00

0

SHEET NO. 1 OF 1



APPENDIX A
LIMITATIONS

LIMITATIONS

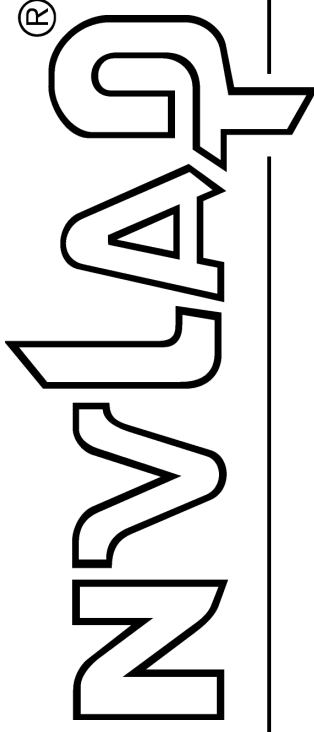


1. GZA GeoEnvironmental, Inc.'s (GZA's) asbestos/lead-containing paint/hazardous materials evaluation was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area, and GZA observed the degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the limited data gathered during the course of the asbestos/LCP/hazardous materials evaluation. No other warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Sites contains no asbestos-containing materials, lead-containing paint, hazardous materials, polychlorinated biphenyls or other latent condition beyond that observed by GZA during its asbestos/LCP/hazardous materials evaluation.
2. This survey report, which presents our findings, is not to be used as a bid document/work plan, or in place of a work plan, for conducting asbestos, LCP and hazardous materials abatement. When an asbestos abatement work plan is prepared, the USEPA and the RIDOH require that an USEPA-certified accredited Asbestos Project Designer prepare the plan. GZA recommends that a work plan be prepared and a bid walkthrough be administered by licensed GZA personnel familiar with the on-site conditions.
3. The observations described in this report were made under the conditions stated herein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the proposed Scope of Services.
4. The conclusions and recommendations contained in this report are based on limited environmental sampling and visual observations, and were arrived at in accordance with generally accepted standards of industrial hygiene practice. No other warranty, expressed or implied, is made.
5. Where sample analyses were conducted by an outside laboratory, GZA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.
6. The purpose of this report was to assess the physical characteristics of the subject Site with respect to the presence of hazardous materials in the Site building. No specific attempt was made to check on the compliance by any party with federal, State, or local laws and regulations.
7. Observations were made of the Sites as indicated within the report. While it was GZA's intent to conduct a thorough survey, it is important to note that we cannot guarantee that all asbestos or potentially hazardous materials within the surveyed area have been identified. ACMs, LCP, PCBs and universal wastes have frequently been used in areas where detection is difficult until renovation, demolition, and/or asbestos abatement work begins and allows access to these remote areas. Where access to portions of the Sites were unavailable or limited, GZA has provided an opinion as to the likely presence of hazardous materials consistent with the information available. Suspect materials made accessible during demolition activities must be assumed to be hazardous and handled as such, until testing proves otherwise.



APPENDIX B
CERTIFICATIONS

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200090-0

ProScience Analytical Services, Inc.

Woburn, MA

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

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2021-01-01 through 2021-12-31

Effective Dates

A handwritten signature in black ink, appearing to read "Peter S. Lamm".

For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ProScience Analytical Services, Inc.

22 Cummings Park
Woburn, MA 01801-2122
Ms. Aimee Cormier
Phone: 781-935-3212 Fax: 781-932-4857
Email: aimee.cormier@proscience.net
<http://www.proscience.net>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200090-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

A handwritten signature in black ink, appearing to read "Aimee Cormier".

For the National Voluntary Laboratory Accreditation Program

Rhode Island Department of Health

Asbestos Program

Asbestos Inspector

ERIK BELOFF

Exp. Date: 10/31/2022

License #: AI00938

Member of C.O.N.E.S.





APPENDIX C

LABORATORY ANALYTICAL REPORTS

CERTIFICATE OF ANALYSIS

Erik Beloff
GZA GeoEnvironmental, Inc.
188 Valley Street
Providence, RI 02909

RE: 92 Sunny Side Ave Woonsocket RI (34950.00)
ESS Laboratory Work Order Number: 21J0521

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.



Laurel Stoddard
Laboratory Director

REVIEWED**By ESS Laboratory at 3:29 pm, Oct 26, 2021****Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI

ESS Laboratory Work Order: 21J0521

SAMPLE RECEIPT

The following samples were received on October 15, 2021 for the analyses specified on the enclosed Chain of Custody Record.

The cooler temperature was not within the acceptance criteria of $\leq 6^{\circ}\text{C}$.

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
21J0521-01	LBP-01	Solid	6010C
21J0521-02	LBP-02	Solid	6010C



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI

ESS Laboratory Work Order: 21J0521

PROJECT NARRATIVE

Total Metals

DJ12231-SRM1 [Standard Reference Material is biased low \(R-\).](#)
Lead (80% @ 83-113%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI

ESS Laboratory Work Order: 21J0521

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015C - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH
- MADEP 18-2.1 - VPH

Prep Methods

- 3005A - Aqueous ICP Digestion
- 3020A - Aqueous Graphite Furnace / ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3546 - Microwave Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5030C - Aqueous Purge and Trap
- 5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI
Client Sample ID: LBP-01
Date Sampled: 10/15/21 00:00
Percent Solids: N/A

ESS Laboratory Work Order: 21J0521
ESS Laboratory Sample ID: 21J0521-01
Sample Matrix: Solid
Units: mg/kg wet

Extraction Method: 3050B

Total Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Lead	1060 (37.0)		6010C		1	KJK	10/22/21 21:29	0.27	100	DJ12231



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI
Client Sample ID: LBP-02
Date Sampled: 10/15/21 00:00
Percent Solids: N/A

ESS Laboratory Work Order: 21J0521
ESS Laboratory Sample ID: 21J0521-02
Sample Matrix: Solid
Units: mg/kg wet

Extraction Method: 3050B

Total Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Lead	189000 (6450)		6010C		200	BJV	10/25/21 13:29	0.31	100	DJ12231



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI

ESS Laboratory Work Order: 21J0521

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch DJ12231 - 3050B										
Blank										
Lead	ND	5.00	mg/kg wet							
LCS										
Lead	199	15.4	mg/kg wet	192.0		104	80-120			
LCS Dup										
Lead	199	15.9	mg/kg wet	192.0		103	80-120	0.4	20	
Reference										
Lead	3570	200	mg/kg wet	4490		80	83-113			R-



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI

ESS Laboratory Work Order: 21J0521

Notes and Definitions

- U Analyte included in the analysis, but not detected
- R- Standard Reference Material is biased low (R-).
- D Diluted.
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report
- RL Reporting Limit
- EDL Estimated Detection Limit
- MF Membrane Filtration
- MPN Most Probable Number
- TNTC Too numerous to Count
- CFU Colony Forming Units



CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: 92 Sunny Side Ave Woonsocket RI

ESS Laboratory Work Order: 21J0521

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

ESS Laboratory Sample and Cooler Receipt Checklist

Client: GZA - Providence, RI - GZA/KPB

ESS Project ID: 21J0521

Date Received: 10/15/2021

Shipped/Delivered Via: ~~ESS Courier~~ client in 10/15/21

Project Due Date: 10/22/2021

Days for Project: 5 Day

- 1. Air bill manifest present? No
Air No.: NA
- 2. Were custody seals present? No
- 3. Is radiation count <100 CPM? Yes
- 4. Is a Cooler Present? Yes
Temp: 25.6 Iced with: None
- 5. Was COC signed and dated by client? Yes

- 6. Does COC match bottles? Yes
- 7. Is COC complete and correct? Yes
- 8. Were samples received intact? Yes
- 9. Were labs informed about short holds & rushes? Yes / No / NA
- 10. Were any analyses received outside of hold time? Yes / No

11. Any Subcontracting needed? Yes / No
ESS Sample IDs: _____
Analysis: _____
TAT: _____

12. Were VOAs received? Yes / No
a. Air bubbles in aqueous VOAs? Yes / No
b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? Yes / No
a. If metals preserved upon receipt: Date: _____ Time: _____ By: _____
b. Low Level VOA vials frozen: Date: _____ Time: _____ By: _____

Sample Receiving Notes:

No cooling media

14. Was there a need to contact Project Manager? Yes / No
a. Was there a need to contact the client? Yes / No
Who was contacted? _____ Date: _____ Time: _____ By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	218542	Yes	N/A	Yes	Plastic Baggie	NP	
2	218543	Yes	N/A	Yes	Plastic Baggie	NP	

2nd Review

Were all containers scanned into storage/lab?

Are barcode labels on correct containers?

Are all Flashpoint stickers attached/container ID # circled?

Are all Hex Chrome stickers attached?

Are all QC stickers attached?

Are VOA stickers attached if bubbles noted?

Initials TD
 Yes / No
 Yes / No / NA
 Yes / No / NA
 Yes / No / NA
 Yes / No / NA

Completed By: [Signature]

Date & Time: 10/15/21 13:27

Reviewed By: [Signature]

Date & Time: 10/15/21 13:37



Erik Beloff
GZA GeoEnvironmental, Inc., RI
188 Valley St., Suite 300
Providence, RI 02909

October 27, 2021

Dear Erik Beloff,

The enclosed analytical results have been obtained by using EPA 600/R-93/116 or EPA 600/M4-82-020. Calibrated Visual Estimate (CVE) is used by Aerobiology for the determination of the percentage of asbestos and other components in the sample. Point Counting is recommended when the sample contains less than 10% asbestos by CVE. Friable materials found to be less than 1% by CVE are automatically point counted (400 points) at no additional charge. Aerobiology recommends further analysis by a gravimetric method for non-friable materials that are less than 1% by CVE.

The Quality Control data related to the samples analyzed is available upon client's written request. Aerobiology Laboratory Associates, Inc., assumes no responsibility for potential sample contamination that may have occurred during the sample collection process or erroneous data provided by the client. As such, these results apply to the sample(s) as received. Unless otherwise indicated, all samples were received in acceptable condition.

The enclosed results may not be used under any circumstances as product endorsement by any US government agency including NIST/NVLAP.

All Laboratory records are retained for at least three years unless otherwise directed in writing by the client. The actual samples are retained for a period of two months and written request is necessary in order to be retained for a longer period of time. All analytical results and records are considered strictly confidential and will not be released under any circumstances to anyone except the actual client. The analytical results included in this report apply only to the items tested. This report may not be reproduced except in its entirety, without the permission of Aerobiology Laboratory Associates, Inc., Laboratory Manager.

If you have any questions please contact the Optical Manager or the Laboratory Manager.
Sincerely,

Aimee Cormier, Laboratory Manager

Enclosure: Version 2
LAB BATCH ID: B 128679 CLIENT PROJECT ID: 34950 TASK 8
Client Ref: 92 Sunnyside Ave.
CT ID# PH-0209; MA ID# AA000156; ME ID# LB-055; NVLAP Lab Code 200090-0; RI ID # AAL-093;
VT ID# AL016876

Aerobiology Laboratory Associates, Inc.

Client Name: GZA GeoEnvironmental, Inc., RI
 PO #: N/A
 Client Project #: 34950 Task 8
 Client Reference: 92 Sunnyside Ave.
 Method: EPA/600/R-93/116

Batch: B128679
 Date Sampled: 10/15/2021
 Date Received: 10/20/2021
 Date Analyzed: 10/26/2021
 Date of Report: 10/27/2021

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
001A	Multi	2	0	0	0	0	0	0	0	0	0	0	0	98
Description: Window Glazing, White Location: Garage, Ext. Comments: Is asbestos present? Yes. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
001B		0	0	0	0	0	0	0	0	0	0	0	0	0
Description: Window Glazing, White Location: Garage, Ext. Comments: Analyzed: No														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
002A	Black	0	0	0	0	0	0	0	0	20	0	0	0	80
Description: Asphaltic Sheet, Black Location: Garage, Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
002B	Black	0	0	0	0	0	0	0	0	20	0	0	0	80
Description: Asphaltic Sheet, Black Location: Garage, Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
003A	Black	0	0	0	0	0	0	0	0	80	0	0	0	20
Description: Siding Paper, Black, beneath Wood Siding Location: Main Bldg., Ext. Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
003B	Black	0	0	0	0	0	0	0	0	80	0	0	0	20
Description: Siding Paper, Black, beneath Wood Siding Location: Main Bldg., Ext. Comments: Is asbestos present? No. Analyzed: Yes														

Aerobiology Laboratory Associates, Inc.

Client Name: GZA GeoEnvironmental, Inc., RI
 PO #: N/A
 Client Project #: 34950 Task 8
 Client Reference: 92 Sunnyside Ave.
 Method: EPA/600/R-93/116

Batch: B128679
 Date Sampled: 10/15/2021
 Date Received: 10/20/2021
 Date Analyzed: 10/26/2021
 Date of Report: 10/27/2021

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
004A	Gray	80	0	0	0	0	0	0	0	0	0	0	0	20
Description: Air Cell Insulation on Pipes, Gray Location: Main Bldg., Basement Comments: Is asbestos present? Yes. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
004B		0	0	0	0	0	0	0	0	0	0	0	0	0
Description: Air Cell Insulation on Pipes, Gray Location: Main Bldg., Basement Comments: Analyzed: No														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
005A	Gray	0	0	0	0	0	0	0	0	0	0	0	0	100
Description: Joint Caulk, White Location: Main Bldg., Rear between Wood Garage Frame and Stone Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
005B	Gray	0	0	0	0	0	0	0	0	0	0	0	0	100
Description: Joint Caulk, White Location: Main Bldg., Rear between Wood Garage Frame and Stone Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
006A	Multi	0	0	0	0	0	0	0	0	95	0	0	0	5
Description: Fiberboard, Light Brown Location: Main Bldg., Rear, Garage Door Panel Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
006B	Multi	0	0	0	0	0	0	0	0	95	0	0	0	5
Description: Fiberboard, Light Brown Location: Main Bldg., Rear, Garage Door Panel Comments: Is asbestos present? No. Analyzed: Yes														

Aerobiology Laboratory Associates, Inc.

Client Name: GZA GeoEnvironmental, Inc., RI
 PO #: N/A
 Client Project #: 34950 Task 8
 Client Reference: 92 Sunnyside Ave.
 Method: EPA/600/R-93/116

Batch: B128679
 Date Sampled: 10/15/2021
 Date Received: 10/20/2021
 Date Analyzed: 10/26/2021
 Date of Report: 10/27/2021

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
007A	Black	0	0	0	0	0	0	0	0	35	0	0	0	65
Description: Asphaltic Sheet, Black Location: Main Bldg., Lower Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
007B	Black	0	0	0	0	0	0	0	0	35	0	0	0	65
Description: Asphaltic Sheet, Black Location: Main Bldg., Lower Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
008A	Black	0	0	0	0	0	0	0	0	35	0	0	0	65
Description: Asphaltic Sheet, Black Location: Main Bldg., Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
008B	Black	0	0	0	0	0	0	0	0	35	0	0	0	65
Description: Asphaltic Sheet, Black Location: Main Bldg., Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
009A	Black	0	0	0	0	0	0	0	0	40	0	0	0	60
Description: Siding Paper, Black, beneath Shingles Location: Shed Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
009B	Black	0	0	0	0	0	0	0	0	40	0	0	0	60
Description: Siding Paper, Black, beneath Shingles Location: Shed Comments: Is asbestos present? No. Analyzed: Yes														

Aerobiology Laboratory Associates, Inc.

Client Name: GZA GeoEnvironmental, Inc., RI
 PO #: N/A
 Client Project #: 34950 Task 8
 Client Reference: 92 Sunnyside Ave.
 Method: EPA/600/R-93/116

Batch: B128679
 Date Sampled: 10/15/2021
 Date Received: 10/20/2021
 Date Analyzed: 10/26/2021
 Date of Report: 10/27/2021

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
010A	Multi	0	0	0	0	0	0	5	0	0	0	0	0	95
Description: Asphalt Shingle, Tan Location: Shed, Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
010B	Multi	0	0	0	0	0	0	5	0	0	0	0	0	95
Description: Asphalt Shingle, Tan Location: Shed, Roof Comments: Is asbestos present? No. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
011A	Black	<1	0	0	0	0	0	0	0	10	0	0	0	90
Description: Asphalt Shingle, Blue Location: Shed, Roof Comments: Is asbestos present? Yes. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
011B		0	0	0	0	0	0	0	0	0	0	0	0	0
Description: Asphalt Shingle, Blue Location: Shed, Roof Comments: Not Submitted. Analyzed: No														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
012A	Multi	<1	0	0	0	0	0	0	0	10	0	0	0	90
Description: Asphalt Shingle, Green Location: Shed, Roof Comments: Is asbestos present? Yes. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
012B	Multi	<1	0	0	0	0	0	0	0	10	0	0	0	90
Description: Asphalt Shingle, Green Location: Shed, Roof Comments: Is asbestos present? Yes. Analyzed: Yes														

Aerobiology Laboratory Associates, Inc.

Client Name: GZA GeoEnvironmental, Inc., RI
 PO #: N/A
 Client Project #: 34950 Task 8
 Client Reference: 92 Sunnyside Ave.
 Method: EPA/600/R-93/116

Batch: B128679
 Date Sampled: 10/15/2021
 Date Received: 10/20/2021
 Date Analyzed: 10/26/2021
 Date of Report: 10/27/2021

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
013A	Gray	10	15	0	0	0	0	0	0	0	0	0	0	75
Description: Jacket Insulation, White Location: AST, Exterior Comments: Is asbestos present? Yes. Analyzed: Yes														

Sample ID	Color	Asbestos %						Non-Asbestos %						
		CHR	AMO	CRO	ACT	TRE	ANT	FBG	MNW	CEL	HAR	SYN	OTH	NON
013B		0	0	0	0	0	0	0	0	0	0	0	0	0
Description: Jacket Insulation, White Location: AST, Exterior Comments: Analyzed: No														

Asbestos Codes: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite
 Non-Asbestos Codes: FBG = Fiberglass MNW = Mineral Wool CEL = Cellulose HAR = Hair SYN = Synthetic OTH = Other NON = Non-Fibrous Minerals

Note: To create a unique lab sample ID, use the Batch # and the Sample ID (example: [Batch #] - [Sample ID]).

* All results are in percentage.

Analyst: Dan Pine





GZA GeoEnvironmental, Inc.