

HERC Site Buildings

Hazardous Materials Survey
Report



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September 16, 2015

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Executive Summary

From September 8 through 9, 2015, Stantec Architecture Inc., conducted a hazardous materials survey of the old Homer Middle School and Intermediate School buildings located at the corner of the Sterling Highway and West Pioneer Avenue in Homer, Alaska. The general survey scope included asbestos-containing materials; lead-based paint; lead-impacted material; polychlorinated biphenyls in light luminaires; and universal waste limited to mercury in lamps, thermostats, and equipment controls.

The specific intent of this survey is to verify the condition and location of hazardous material conditions previously identified and to seek out hazardous materials that were not identified through previous survey activity. This work is in support of planning and design activity for the abatement and demolition of these facilities.

The discoveries made during the survey conducted by Stantec Architecture Inc., are summarized below.

Asbestos-Containing Materials

The following asbestos-containing material conditions were determined to be present at the site through the review of record documents made available by the City of Homer, field observations, bulk sampling, and subsequent analytical review by a qualified laboratory of the bulk samples collected.

Old Middle School Building

- Vinyl asbestos floor finishes, which includes 9- by 9-inch brown with tan accents tile located in classrooms, corridors, offices, and various service areas. Black mastic associated with the asbestos tile is also asbestos-containing material.
- Insulation on boiler, which is no longer in service.
- Insulation on thermal and domestic plumbing systems.
- Joint compound as part of finished gypsum wallboard ceilings, soffits, and walls.
- Mastic lining of speaker/clock units located in classrooms and some offices.
- Caulk at exterior windows.
- Built-up roof system.

Old Intermediate School Building

- Vinyl asbestos floor finishes, which includes 9- by 9-inch tile of various colors located in corridors, offices, and various storage areas. Black mastic associated with the asbestos tile is also asbestos-containing material.
- Insulation on boiler, which is still in service.
- Insulation on thermal and domestic plumbing systems.

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- Joint compound as part of finished gypsum wallboard ceilings, soffits, and walls.
- Mastic lining of speaker/clock units located in the classrooms.
- Caulk at exterior windows.
- Built-up roof system.
- Cement asbestos board on walls in classrooms, stairwells, and vestibules.

Lead-Based Paint and Materials

The following lead-based paint and lead-impacted material conditions are assumed, or were confirmed, to be present at the site as indicated.

Old Middle School Building

- Air separators with yellow paint (assumed).
- Red/orange plastic laminate on casework in office area (assumed).
- Solder joints on older plumbing lines (assumed).
- Exterior window frame paint of classroom wing, which is dark grey in color.
- Exterior window frame paint of shop wing, which is green in color.

Old Intermediate School Building

- Interior and exterior door frame paint including brown, cream, and black colors.
- Exterior window frame paint, which is brown in color.
- Solder joints on older plumbing lines.

Polychlorinated Biphenyls

From a random survey of the various types of fluorescent luminaires located in the Middle School building, it was discovered that the vast majority of luminaires present contain ballasts that are not generally assumed to contain polychlorinated biphenyls.

Universal Waste

United States Environmental Protection Agency designated universal waste includes batteries, mercury containing equipment, lamps, and thermostats. The buildings surveyed have some form of universal waste present. This includes batteries and fluorescent lamps in luminaires.

Additional Hazardous Materials

Destructive investigation methods allowing for the inspection of all concealed conditions were not possible due to existing conditions at the site and in conjunction with safety considerations extended to the survey team. Therefore, additional hazardous materials in the form of, but not necessarily limited to, asbestos, lead, mercury, and polychlorinated biphenyls may be present at the buildings. If suspect materials are discovered the materials should be considered hazardous, unless proven otherwise through proper analytical review.

Abbreviations

ACM	asbestos containing materials
ADA	American's with Disabilities Act
AHERA	Asbestos Hazard Emergency Response Act
BDL	Below Detectable Limit
BIA	Bureau of Indian Affairs
CAB	cement asbestos board
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
HCFC	hydro chlorofluorocarbon
HEPA	high efficiency particulate air
HID	high-intensity discharge
MSDS	Material Safety Data Sheets
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOAA	National Oceanic & Atmospheric Administration
NRC	Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
Pb	lead
PCB	polychlorinated biphenyls
PCM	Phase Contrast Microscopy
PEL	permissible exposure limit
PLM	Polarized Light Microscopy
RACM	regulated asbestos containing materials
Stantec	Stantec Architecture Inc.
TCLP	Toxic Characteristic Leaching Procedure
VAT	vinyl asbestos tile
XRF	x-ray fluorescence

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1.0 ASBESTOS SURVEY

1.1 INTRODUCTION

From September 8 through 9, 2015, Stantec Architecture Inc. (Stantec) conducted a survey for asbestos-containing materials (ACM) at the old Homer Middle School building located in Homer, Alaska. The survey included a cursory review of existing ACM conditions present at the adjacent Homer Intermediate School that were identified during previous survey activity. The work is in support of a planning process for the demolition and removal of the existing school buildings and site amenities.

The further intent of the survey is to fulfill requirements set forth by the United States Environmental Protection Agency (EPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP). NESHAP requires the inspection of applicable structures for both friable and non-friable asbestos prior to any renovation or demolition activity taking place. The survey was performed by an Asbestos Hazard Emergency Response Act (AHERA) accredited inspector in accordance with the NESHAP.

Prior to conducting the site work Stantec reviewed the following record documents provided by the City of Homer:

- Record drawings for Homer Middle School, dated 1956, 1976, 1985, and 1997.
- Asbestos removal specification and asbestos bulk sample laboratory report, dated October 8, 2008. These documents are associated with a boiler abatement project at the Homer Middle School building.
- Site survey report for the Intermediate School building dated July 1, 1998.

Stantec collected a total of 25 bulk samples of suspected ACM from the interior and exterior of the old Homer Middle School for analysis by Polarized Light Microscopy (PLM). The bulk samples collected were analyzed for asbestos content by White Laboratories LLC., (383 Industrial Way, Anchorage, Alaska). The laboratory is a member of the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is for satisfactory compliance with criteria as established in Title 15, Part 285 Code of Federal Regulations (CFR).

Only materials containing one percent total asbestos or greater (all types) were classified as "asbestos-containing" based on EPA criteria. The laboratory results of the asbestos testing are included in Appendix A.

A review of the existing conditions at the old Intermediate School Building did not result in additional suspect materials that had not been identified during the 1998 survey; therefore, bulk sampling at this building was not conducted.



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1.2 TERM DEFINITIONS

The following common **asbestos**-related terms are defined to provide clarification:

- **Asbestos Containing Material:** Material containing an asbestos content equal to or greater than one percent.
- **Chrysotile:** White in bulk; long, curly, flexible fibers. Absorbs water easily. It is the most common type of asbestos found in building materials.
- **Fiber:** A structure greater than 0.5 um in length with an aspect ratio (length to width) of 5:1 or greater and having substantially parallel sides.
- **Friable:** Asbestos material that contains more than one percent asbestos by weight and which can be crumbled, pulverized, or caused to release fibers by hand pressure when dry.
- **Nonfriable:** Asbestos material in which the asbestos fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well-bound and will not release fibers during any appropriate disturbance, i.e., handling, storage, transportation, or processing.
- **PLM:** An optical microscopic technique used to distinguish between different types of fibers by their shape and unique optical properties. PLM samples are examined at a magnification of 100x to 400x. At this magnification, PLM counts those fibers longer than 5 micrometers and wider than about 0.25 micrometers. This can include fibers that are not asbestos, such as fiberglass and cloth fibers.
- **Response Action:** A method, including removal, encapsulation, enclosure, repair, operations, and maintenance that protect human health, and the environment, from friable ACM.

1.3 SAMPLE RESULTS

The following table identifies location and bulk materials that were analyzed by PLM. Positive samples are in **bold** font. Figure 1 depicts sample locations on figures provided in Appendix B.

Table 1 – Asbestos Material Sampling Results			
SAMPLE #	MATERIAL	LOCATION	ASBESTOS CONTENT
Old Middle School Building			
204600234-ACM Bulk-001	Wall Mastic (black)	Classroom 110	4% Chrysotile
204600234-ACM Bulk-002	Speaker/Clock Unit Mastic (black)	Classroom 110	12% Chrysotile
204600234-ACM Bulk-003	Joint Compound	Storage Room 114	5% Chrysotile
204600234-ACM Bulk-004	GWB	Storage Room 114	None Detected
204600234-ACM Bulk-005*	Vinyl Floor Tile (9"by 9" brown w/white)	Storage Room 114	7% Chrysotile
204600234-ACM Bulk-005*	Floor Mastic (black)	Storage Room 114	12% Chrysotile
204600234-ACM Bulk-006	Acoustical Ceiling Tile (glued)	Ground Floor Corridor 3	None Detected
204600234-ACM Bulk-007	Ceiling Tile Mastic (brown)	Ground Floor Corridor 3	None Detected



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Table 1 – Asbestos Material Sampling Results			
SAMPLE #	MATERIAL	LOCATION	ASBESTOS CONTENT
204600234-ACM Bulk-008*	Vinyl Floor Tile (9"by9" brown)	Classroom 106	7% Chrysotile
204600234-ACM Bulk-008*	Floor Mastic (black)	Classroom 106	9% Chrysotile
204600234-ACM Bulk-009	Joint Compound	Fan Room 115	5% Chrysotile
204600234-ACM Bulk-010*	Vinyl Floor Tile (12"by12" white w grey)	Classroom 107	None Detected
204600234-ACM Bulk-010*	Floor Mastic (black)	Classroom 107	5% Chrysotile
204600234-ACM Bulk-011*	Carpet (brown)	Classroom 109	None Detected
204600234-ACM Bulk-011*	Carpet Mastic (yellow)	Classroom 109	None Detected
204600234-ACM Bulk-011*	Floor Mastic (black)	Classroom 109	10% Chrysotile
204600234-ACM Bulk-012*	Sheet Vinyl (brown chip pattern)	Women's Lockerroom 8 @ Entrance Ramp	None Detected
204600234-ACM Bulk-012*	Sheet Vinyl Mastic (tan)	Women's Lockerroom 8 @ Entrance Ramp	None Detected
204600234-ACM Bulk-013*	Sheet Vinyl (tan chip pattern)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Floor Mastic (yellow)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Vinyl Floor Tile (off-white)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Floor Mastic (yellow)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Floor Mastic (black)	Kitchen 11	3% Chrysotile
204600234-ACM Bulk-014*	Floor Mastic (yellow)	Ground Floor Corridor 3	None Detected
204600234-ACM Bulk-014*	Floor Mastic (black)	Ground Floor Corridor 3	6% Chrysotile
204600234-ACM Bulk-015	Wall Mastic (black)	Vestibule 2	None Detected
204600234-ACM Bulk-016	Cove Mastic (brown)	Vestibule 2	None Detected
204600234-ACM Bulk-017	Window Caulk	Classroom 111	None Detected
204600234-ACM Bulk-018	Sheet Vinyl (yellow/beige)	Classroom 111	None Detected
204600234-ACM Bulk-019	Acoustical Ceiling Tile (suspended)	Classroom 110	None Detected
204600234-ACM Bulk-020	Acoustical Ceiling Tile (glued)	Corridor 104	None Detected
204600234-ACM Bulk-021*	Cork	Weight Room 5	None Detected
204600234-ACM Bulk-021*	Mastic (yellow)	Weight Room 5	None Detected
204600234-ACM Bulk-022	Wall Mastic (black)	Gymnasium 1	None Detected
204600234-ACM Bulk-023	Wall Mastic (black)	Utilidor	None Detected
204600234-ACM Bulk-024	Window Caulk	Exterior	3% Chrysotile



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Table 1 – Asbestos Material Sampling Results			
SAMPLE #	MATERIAL	LOCATION	ASBESTOS CONTENT
204600234-ACM Bulk-025	Leveling Compound	Ground Floor Corridor 3	None Detected
<i>*Denotes multi- layer test</i>			

1.4 SUMMARY

1.4.1 Old Middle School Building

1.4.1.1 Pipe Insulation and Hard Fittings

ACM insulation applied to piping and fittings of thermal and domestic plumbing systems was observed at the building above suspended tile ceilings and within wall cavities. It is assumed that additional materials of this nature are located in concealed areas such as above hard lid ceilings and within walls. The materials that were accessible for visual observation were found to be in good condition. A majority of thermal and domestic plumbing systems that are accessible have had the ACM removed and replaced with fiberglass insulation. A partial review of the utilidor revealed plumbing lines with these similar conditions of fiberglass insulation.

1.4.1.2 Boiler Insulation

The Birchfield boiler located in the boiler room is insulated with ACM and is assumed to have internal gasket material that is ACM. ACM gaskets at the boiler doors have been previously removed according to record documents, although remnants of these materials appeared to still be present. The majority of insulation on piping and components external to the boiler in this area had the ACM removed and replaced with fiberglass.

1.4.1.3 Vinyl Asbestos Tile and Mastic

The 1956 record drawings called for "plastic tile" to be installed in classrooms, corridors, offices, etc. Brown floor tile, 9- by 9-inch in size, was discovered in a number of locations either concealed by carpeting or exposed as the current floor finish. This brown tile is believed to be the original "plastic tile" floor finish and tested positive for asbestos. The black mastic that adheres this tile to the substrate tested positive for ACM designation. The exposed tile appeared to be in good condition.

In locations where this tile has been removed from its 1956 installation, the ACM mastic was found to still exist. The mastic has now been exposed to the floor finishes that were installed to replace the ACM tile. In a few locations within classrooms the existing carpet was pulled back a bit, which revealed black ACM mastic stuck to the carpet backing. It is assumed that this black mastic is present under existing floor finishes in vestibules, classrooms, library, corridors, offices, single restrooms, shops area, janitor closets, fan room, and storage rooms.



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1.4.1.4 Flue Assembly

A flue assembly located in the kitchen area is suspect of containing asbestos. The flue should be closely inspected for suspect material after being carefully disassembled. All suspect materials that are discovered should be either assumed to be ACM or sampled and tested to confirm asbestos content and then handled and disposed of accordingly.

1.4.1.5 Joint Compound

Joint compound located on finished gypsum board walls tested positive for ACM from bulk samples collected in rooms that the record documents did not indicate to have been renovated over time. Gypsum walls have been added to the interior of the building. These additions appear to have been accomplished outside the time window during which asbestos containing joint compound was commonly used.

1.4.1.6 Speaker/Clock Mastic

Black mastic, which lines the inside walls of the housing to speaker/clock units tested positive for ACM designation. These units are located throughout the building including classrooms and kitchen. The mastic was in good condition and very non-friable.

1.4.1.7 Exterior Window Caulk

White caulk material at the exterior windows tested positive for asbestos content and is considered ACM. The materials are damaged to the extent of being broken into small sections and are loose and easily removed from the window assembly.

1.4.1.8 Built-Up Roofing System

Due to the age of the school building and the roof system consisting of an asphaltic built-up system, it is assumed that asbestos is located in felts or mastic materials that make up this system.

1.4.2 Old Intermediate School Building

1.4.2.1 Pipe Insulation and Hard Fittings

The building has a history of containing ACM insulation applied to piping and fittings of thermal and domestic plumbing systems. However, it was observed that considerable portion of the ACM insulation has been replaced. It is assumed that ACM insulation materials still remain in concealed areas such as above hard lid ceilings and within walls.

1.4.2.2 Boiler Insulation

This building also contains an old Birchfield boiler located in the boiler room, which is insulated with ACM and is assumed to have internal gasket material that is ACM as well. The majority of insulation on piping and components external to the boiler in this area had the ACM removed and replaced with fiberglass. The ACM that was accessible for visual review was found to be in good condition.



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1.4.2.3 Vinyl Asbestos Tile and Mastic

An asbestos survey conducted at this building in 1998 reported vinyl asbestos tile present. Brown floor tile, 9- by 9-inch in size, was discovered at the first floor corridor and was concealed by carpeting. This type of floor tile was also observed in other locations including the reception area and storage rooms. The black mastic that adheres this tile to the substrate tested positive for ACM designation during the 1998 survey. The tile that was exposed appeared to be in good condition. It is assumed that the ACM tile and its corresponding mastic were the predominant floor finish at some point and so consequently tile and mastic remnants are located throughout the building under various conditions of concealment.

1.4.2.4 Joint Compound

Joint compound located on finished gypsum board walls and collected from a classroom during the 1998 survey produced positive lab results when it was tested for asbestos. Due to these results it is recommended that all finished gypsum wall, ceiling, and soffit assemblies should be considered to have ACM and should be handled by workers accordingly when disturbed. The material appeared to be in good condition in the areas that were observed.

1.4.2.5 Speaker/Clock Mastic

The same speaker/clock units located in the old Middle School that tested positive for ACM designation are present in this building in classrooms and are in the same good condition.

1.4.2.6 Exterior Window Caulk

White caulk material at the exterior windows tested positive for asbestos content during the 1998 survey and is considered ACM. The materials currently are damaged to the extent of being broken into small sections and are loose and easily removed from the window assembly.

1.4.2.7 Built-Up Roofing System

Due to the age of the school building and the roof type consisting of an asphaltic built-up system, it is assumed that asbestos is in felts or mastic materials that make up this system. Previous confirmation was made for topical ACM mastics during the 1998 survey.

1.4.2.8 Cement Asbestos Board

Cement asbestos board is present in the Intermediate School building and is being used as a wall covering in classrooms, vestibules, and stairwells. The material is in good condition with the exception of where it has been cut to allow access into wall cavities. The cutting of this material has left a rough edge, which can allow the material to become friable.

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1.5 RECOMMENDATIONS

Both friable and non-friable ACM were discovered at the Homer school buildings. Friable asbestos is classified as regulated asbestos containing materials (RACM) under the EPA NESHAP. RACM includes thermal system insulation and surfacing materials, which have been applied through methods such as spraying or troweling. NESHAP requires RACM to be removed prior to the materials being disturbed by building renovation or demolition. The removal process is governed by the EPA for the protection of the environment and by the Occupational Safety and Health Administration (OSHA) for the protection of workers performing the removal work. The hard fittings and pipe insulation located throughout the two school buildings are prime examples of RACM, as is the insulation which blankets each boiler.

Non-friable ACM is broken down into two separate classifications by the EPA NESHAP. They are Category I non-friable asbestos and Category II non-friable asbestos.

Category I non-friable ACM is defined as resilient floor coverings, mastics, asphalt roofing, packings, and gaskets. NESHAP allows Category I non-friable ACM to remain in place during a building or equipment demolition, provided the materials are in good condition prior to demolition and the building or equipment is not to be intentionally burned. Trained asbestos workers in the State of Alaska are required to perform the demolition and handling of the waste stream. In a lot of cases, the demolition waste can be disposed of in a permitted landfill that normally accepts construction waste. The waste cannot be handled in such a manner that the ACM would be sanded, ground, or abraded, nor can it be burned before it is buried. The floor tiles and mastic located throughout the school buildings as well as the mastic located on the walls from previous chalkboard installations and the speaker/clock units are category I non-friable ACM. Roofing construction that contains ACM would also be considered category I non-friable.

Category II non-friable ACM is defined as any material excluding Category I non-friable ACM that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure. The NESHAP requires Category II ACM to be removed prior to a building demolition due to its propensity to become friable through traditional demolition practices and activity. Building materials such as joint compound and cement asbestos board are prime examples of category II non-friable ACM.

NESHAP would allow for the demolition of the school buildings with the existing ACM mastics, floor tiles, and roofing remaining in place if the demolition waste is disposed of in a public landfill. This is contingent on the landfill being permitted to receive such waste by authorities having jurisdiction and that the landfill is willing to receive the waste. However the Kenai Peninsula Borough requirements for non-friable ACM disposal will not allow for this project to take advantage of this NESHAP provision. Waste streams which include Category I non-friable ACM are considered asbestos waste and charge the same disposal rate as regulated ACM. In consideration of current landfill conditions, it is recommended that all known ACM, and non-ACM material that has become impacted by ACM, be removed from buildings or equipment



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prior to demolition and transported to the landfill facility outside of Soldotna. The removal of Category I and II non-friable ACM should be performed as Class 2 asbestos work activity in accordance with OSHA regulations, by trained asbestos workers certified for asbestos abatement in the State of Alaska. The removal of all RACM should be performed as Class 1 asbestos work activity per OSHA. A rough order of magnitude cost for the removal and disposal of the ACM prior to building demolition is estimated at \$14-16 per square foot.

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Lead Based Paint and Lead-Containing Materials Survey
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2.0 LEAD BASED PAINT AND LEAD-CONTAINING MATERIALS SURVEY

2.1 INTRODUCTION

On September 9, 2015, Stantec conducted a cursory review with minor bulk sampling for lead-based paint (LBP) at the old Homer Middle School building located in Homer, Alaska. USKH collected bulk samples of building exterior paint coatings, which are representative of the exterior environment of the structure, in relation to painted surfaces that may contain lead-based paint.

Four bulk samples of paint chips were collected for analysis under Atomic Absorption Spectroscopy (AAS) for lead content by White Laboratories, LLC of Anchorage, Alaska. The laboratory is accredited by the American Industrial Hygiene Association in the Environmental Lead Program for airborne particulates, soils, dust wipes, and paint chips. Paint containing 5,000 ppm total lead or greater is classified as "lead-based paint" based on EPA criteria. The laboratory results of the lead testing are included in Appendix A.

2.2 TERM DEFINITIONS

The following common lead-based paint related terms are defined to provide clarification:

Lead-Based Paint: Paint which contains a lead content 0.5% (5,000 ppm) or greater by weight.

Toxicity Characteristic Leaching Procedure: Analytical method which is used to determine if waste is characteristically hazardous through the simulation of it leaching through a landfill.

2.3 SAMPLE RESULTS

The following table identifies location and bulk materials that were analyzed by AAS. Positive samples are in **bold** font. Figure 1 depicts sample locations on figures provided in Appendix B.

Table 2- Lead Based Paint Sampling Results			
SAMPLE #	Color	LOCATION	LEAD CONTENT
Old Middle School Building			
204600234-Pb Bulk-001	Grey/Beige	Exterior Wall-Classroom Wing	740 ppm
204600234-Pb Bulk-002	Dark Grey	Exterior Window Frame-Classroom Wing	7,900 ppm
204600234-Pb Bulk-003	Tan	Exterior Wall-Gymnasium Wing	1,300 ppm
204600234-Pb Bulk-004	Dark Green	Exterior Window Frame-Shop Wing	5,800 ppm



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2.4 SUMMARY

2.4.1 Old Middle School Building

Lead based paint was discovered at the exterior envelope on window frames. The material is in poor condition with excessive flaking and some paint chips resting on the ground below. Some lead condition assumptions were made for selected building components at both building exterior and interior. At the exterior orange/red metal clad filler panels are present, which are highly suspect for lead due to their age and appearance. The finish on these panels is very durable and consequently in good condition. At the building interior lead impacted assumptions included yellow paint on air separators in the boiler room and orange/red casework located within an office area. It is also assumed that solder joints located on older plumbing are lead.

2.4.2 Old Intermediate School Building

Lead based paint conditions were confirmed during the 1998 survey at this building and are very similar to the Middle School building. Window frames at both exterior and interior have lead-based paint as well as solder joints on plumbing lines are lead. Flaking and chipping conditions are present at the exterior of this building.

2.5 RECOMMENDATIONS

For day to day operations the lead-based paints located on the exterior of the school buildings should be removed due to their current condition, and especially if children have a tendency to play around these structures. For building demolition and removal, the lead based paint and impacted conditions should not have an adverse effect both from an operational and financial standpoint. For demolition the waste stream of the buildings should be sampled and subsequently tested under toxicity characteristic leaching procedure (TCLP). The TCLP procedure is an EPA recognized method for the simulation of leaching through a landfill and is used to determine if a waste is characteristically hazardous. If completed correctly, the waste stream should pass TCLP allowing the lead materials to be legally disposed of with the general demolition waste.

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Polychlorinated Biphenyls (PCB) Survey
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3.0 POLYCHLORINATED BIPHENYLS (PCB) SURVEY

3.1 INTRODUCTION

Stantec reviewed existing conditions at the Old Homer Middle School and Intermediate School buildings on September 9, 2015 for the presence of PCBs contained in fluorescent luminaire ballasts.

PCBs are oily liquids used in transformers, capacitors, switches, and light fixture ballasts as a non-conducting liquid for thermal insulation purposes. The EPA requires that any ballast with PCB concentrations equal to or greater than 50mg/Kg shall be disposed of as hazardous waste.

Federal and state laws require trained workers to remove, handle, transport, and dispose of all PCB-containing or contaminated materials. Worker protection procedures require the use of protective equipment (i.e., full bodysuits, gloves, face shield, aprons) and the decontamination of all materials used for the removal process. Procedures for environmental protection are also required; however, there are no air monitoring requirements for the removal of PCB-containing materials.

Magnetic ballasts are considered to be PCB-free if the manufacturer, or other entity that has performed the required testing, labels the ballast as "No PCBs". If magnetic ballasts are not labeled as such, they should be suspected of containing PCBs. Electronic ballasts have always been free of PCBs; therefore, they are not required to be labeled in this manner.

An EPA-approved disposal site is required for the disposal of PCB waste, and in Alaska, the waste must be shipped to an out-of-state, approved disposal site.

3.2 SURVEY RESULTS

An inventory was taken of the various types of fluorescent luminaires present at the buildings surveyed. Luminaire types were classified into separate groups based on general appearance, diffuser and housing design, size and lamp quantity.

3.3 SUMMARY

Stantec reviewed ballasts in approximately 10 percent of each luminaire classification type that was established during the survey and it was discovered that the ballasts were electronic or magnetic that contained the proper labeling which indicates them to be PCB free.



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3.4 RECOMMENDATIONS

All luminaires scheduled for demolition that contain magnetic ballasts should have their ballasts inspected. If upon inspection no labeling is discovered that would indicate no PCBs, then the ballast should be suspected of containing PCBs and removed, packaged, transported, and disposed of in accordance with 40 CFR 761.

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September 2015

4.0 UNIVERSAL WASTE SURVEY

4.1 INTRODUCTION

Stantec reviewed conditions at the old Homer Middle School building for the presence of devices that may contain mercury, such as thermostats, relays, and switches. The building was also reviewed for fluorescent lamps, which contain a small amount of the material, and high-intensity discharge (HID) lamps, which can contain mercury. The EPA considers mercury-containing lamps, thermostats, and equipment, batteries, and pesticides as Universal Waste, and therefore they should be collected and managed in accordance with 40 CFR Part 273 Standards for Universal Waste Management. Some states modify these standards and have their own set of regulations; however, the State of Alaska follows this federal standard.

4.2 SUMMARY

The old Middle School was found to contain fluorescent lamps. Batteries are present in various service applications including emergency lighting wall packs and at the emergency power generator. Reviewing the 1998 survey report and current conditions it appears that the Intermediate School building has similar mercury conditions as the Middle School.

When discarded in the trash, mercury-containing lamps, thermostats, etc., can break, allowing some of the mercury content to be released. This can lead to the release of elemental mercury into the environment and subsequent contamination of groundwater and the food chain. The EPA developed the Universal Waste Standard in attempt to reduce the hazardous waste management and recycle burden for smaller entities, providing an environment that promotes collection and recycling.

4.3 RECOMMENDATIONS

Fluorescent lamps and mercury impacted devices should be collected from buildings to be demolished prior to the activity taking place. Both waste streams could be sampled and tested under TCLP. The TCLP process simulates the leach rate of a particular waste stream under landfill conditions in order to determine if the waste is characteristically hazardous. If the materials pass, they could be discarded in the landfill as general waste. However, the recycling of these materials is encouraged. Batteries should also be collected prior to demolition and dealt with in accordance with the Universal Waste Standard. Lead-acid batteries being recycled can also be handled in accordance with 40 CFR Part 266, Subpart G.



HERC SITE BUILDINGS

Universal Waste Survey
September 2015

HERC SITE BUILDINGS

Radioactive Material Survey
September 2015

5.0 RADIOACTIVE MATERIAL SURVEY

5.1 INTRODUCTION

Stantec reviewed conditions at the old Middle and Intermediate School buildings for the presence of self-luminous exit signs and smoke detector devices, which may contain radioactive material. All devices that contain radioactive material are regulated by the Nuclear Regulatory Commission (NRC).

Self-luminous exit devices use tritium to excite phosphorous that is coated on the inside of a sealed tube. The excited phosphorus provides light to illuminate the exit device. Tritium is a radioactive isotope of hydrogen and therefore regulated by the NRC. Exit signs containing tritium are sold as generally regulated devices. As such, an end user is considered a generally licensed entity and is subject to the regulatory requirements of a general licensee. The NRC maintains a database of owners and locations of self-luminous exit signs and there has been growing concern over how complete this database is and that these devices are not being properly maintained and disposed of. Consequently, the NRC has begun to pay more attention to generally regulated devices.

Smoke detectors commonly use a small amount of Americium 241 to ionize gases in air. The ionized gas produces a constant electrical current that is monitored by circuitry in the smoke detector. Smoke particles or other airborne ions will cause the current to change. By setting a limit on the amount of change that is accepted, an alarm can be activated when the limit is exceeded.

5.2 SUMMARY

The old Homer school buildings surveyed have smoke detector devices in place that may contain radioactive material. Smoke detectors are usually classified as distributed exempt, which means the end user is exempt from the NRC regulations. A basis for exemption includes that the device contain less than 0.05 μCi of Am-241. No self-luminous exit devices were observed.

5.3 RECOMMENDATIONS

It is legal to dispose of exempt devices, such as smoke detectors that meet the exemption, in a landfill provided they remain fully intact. The alternate manner for disposal is to return them to the manufacturer.



HERC SITE BUILDINGS

Radioactive Material Survey
September 2015

HERC SITE BUILDINGS

Appendix A ACM Bulk Sample Lab Report

Appendix A ACM BULK SAMPLE LAB REPORT

HERC SITE BUILDINGS

Appendix A ACM Bulk Sample Lab Report



383 INDUSTRIAL WAY ANCHORAGE, AK 99501 PH (907) 258-8661

Lead Analysis in Paint

WL Project #: LA-014928

Report #: 613529
Report By: G. Caudill
Report Date: 09/14/2015

Client: Stantec Architecture Inc
2515 A St.
Anchorage, AK, 99503
Billing Number: 24709

Collected By: Client
Collection Date: 09/08/2015
Analysis By: G. Caudill
Analysis Date: 09/14/2015
Received By: R. Briggs
Received Date: 09/11/2015

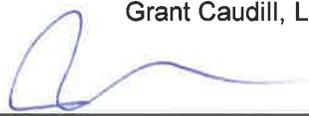
TAT: 24 Hour Sample Count: 4

Project Name/Location: Herc Site Haz Mat Survey

Client ID	WLSample	Result	Result Units	Reporting Limit (ppm)
204600234-PbBulk-001	AL15-2215	740	ppm	100
204600234-PbBulk-002	AL15-2216	7,900	ppm	72
204600234-PbBulk-003	AL15-2217	1,300	ppm	96
204600234-PbBulk-004	AL15-2218	5,800	ppm	130



 Grant Caudill, Lab Analyst



_____ 09/14/2015
 _____ Date
 _____ 09/14/2015
 _____ Date

Preparation is performed according to EPA Method SW-846 3050B (M). Analysis performed according to EPA method SW-846 7420 (M), analysis by flame atomic absorption spectroscopy. The Reporting Limit is at least twice that of the Method Detection Limit (MDL). The MDL (defined as the minimum concentration of an analyte that can be reported with 99% confidence to have a concentration greater than zero) is determined from statistical analysis of replicate samples in a given matrix containing the analyte, as defined in 40CFR Part 136, Appendix B. Field and laboratory blanks are used to assess possible contamination and sensitivity of analysis, and no blank correction is made. Unless otherwise stated, all quality control samples are acceptable. Modifications made to the previously referenced test methods are documented in WL, LLC's Standard Operating Procedures Manual. Supporting laboratory documentation is available upon request. Unless otherwise stated, samples are received in acceptable condition. Results relate only to the items tested. WL, LLC Anchorage is a current proficient participant in the AIHA ELPAT program (Lab ID# 102739). Test reports must not be reproduced without the approval of WL, LLC and are subject to WL, LLC General Terms and Conditions (available upon request).

Bulk Sample Analysis for Asbestos

WL Project #: LA-014929

Report #: 613506
Report By: R. Briggs
Report Date: 09/14/2015

Client: Stantec Architecture Inc
 2515 A St.
 Anchorage, AK, 99503
 Billing Number: 24709

Collected By: Client
Collection Date: 09/08/2015
Analysis By: D. Milton
Analysis Date: 09/14/2015
Received By: R. Briggs
Received Date: 09/11/2015

TAT: 24 Hour

Sample Count: 10 **Layer Count:** 13

Project Name/Location: Herc Site Hazmat Survey

Client ID # **WL ID#** **Location:**
 204600234- AB15-07372 HMS Classroom
 ACMBULK-001

Homogenous	Material	Color	Layer
No	Wall Mastic	Black	1 of 1

Asbestos Type	Asbestos %
Chrysotile	4%
Other Fiberous: None Detected	

% Asbestos: 4%

Non-Fiberous Materials: 96%

Client ID # **WL ID#** **Location:**
 204600234- AB15-07373 HMS Classroom
 ACMBULK-002

Homogenous	Material	Color	Layer
No	Mastic	Black	1 of 1

Asbestos Type	Asbestos %
Chrysotile	12%
Other Fiberous: None Detected	

% Asbestos: 12%

Non-Fiberous Materials: 88%

Client ID # **WL ID#** **Location:**
 204600234- AB15-07374 HMS Storage Rm
 ACMBULK-003

Homogenous	Material	Color	Layer
No	Joint Compound	Cream	1 of 1

Asbestos Type	Asbestos %
Chrysotile	5%
Other Fiberous: None Detected	

% Asbestos: 5%

Non-Fiberous Materials: 95%

Bulk Sample Analysis for Asbestos

WL Project #: LA-014929

Report #: 613506
Report By: R. Briggs
Report Date: 09/14/2015

Client ID # **WL ID#** **Location:**
 204600234- AB15-07378 HMS Ground Floor Corridor
 ACMBULK-007

Homogenous	Material	Color	Layer
No	Ceiling Tile Mastic	Brown	1 of 1

Asbestos: None Detected	
Other Fibrous Material	Fibrous %
Wollastonite	6%

Other Fibrous Materials: 6%

Non-Fibrous Materials: 94%

Client ID # **WL ID#** **Location:**
 204600234- AB15-07379A HMS Classroom
 ACMBULK-008

Homogenous	Material	Color	Layer
No	Floor Tile	Brown	1 of 2

Asbestos Type	Asbestos %
Chrysotile	7%
Other Fibrous: None Detected	

% Asbestos: 7%

Non-Fibrous Materials: 93%

Client ID # **WL ID#** **Location:**
 204600234- AB15-07379B HMS Classroom
 ACMBULK-008

Homogenous	Material	Color	Layer
No	Floor Tile Mastic	Black	2 of 2

Asbestos Type	Asbestos %
Chrysotile	9%
Other Fibrous: None Detected	

% Asbestos: 9%

Non-Fibrous Materials: 91%

Client ID # **WL ID#** **Location:**
 204600234- AB15-07380 HMS Fan Room
 ACMBULK-009

Homogenous	Material	Color	Layer
No	Joint Compound	Cream	1 of 1

Asbestos Type	Asbestos %
Chrysotile	5%
Other Fibrous: None Detected	

% Asbestos: 5%

Non-Fibrous Materials: 95%

Bulk Sample Analysis for Asbestos

WL Project #: LA-014929

Report #: 613506
Report By: R. Briggs
Report Date: 09/14/2015

Client ID # **WL ID#** **Location:**
 204600234- AB15-07381A HMS Fan Room
 ACMBULK-010

Homogenous	Material	Color	Layer
No	Floor Tile	Off-White	1 of 2

Asbestos: None Detected	
Other Fibrous Material	Fibrous %
Cellulose	3%

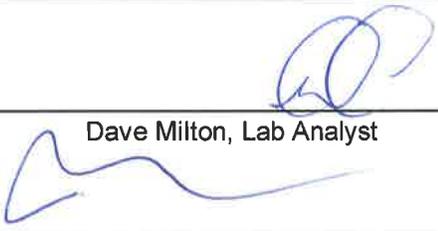
Other Fibrous Materials: 3%
Non-Fibrous Materials: 97%

Client ID # **WL ID#** **Location:**
 204600234- AB15-07381B HMS Fan Room
 ACMBULK-010

Homogenous	Material	Color	Layer
No	Floor Tile Mastic	Black	2 of 2

Asbestos Type	Asbestos %
Chrysotile	5%
Other Fibrous Material	Fibrous %
Cellulose	15%

% Asbestos: 5%
Other Fibrous Materials: 15%
Non-Fibrous Materials: 80%

 Dave Milton, Lab Analyst	09/14/2015 Date
	09/14/2015 Date

Analysis performed by: EPA Method 600/M4-82-020 or EPA Method 600/R-93/116, at the discretion of the client or WL. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WL, LLC, and are subject to WL, LLC. General Terms and Conditions (available upon request).



Chain of Custody

2515 A Street Anchorage, AK 99503

Attention White Labs LLC
 Client CITY OF HOMER
 Project HERC. SITE HAZ MAT SURVEY
 Sampling Company STANTEC
 Sampling Site HOMER ALASKA
 Team Leader DENNIS J MORRIS
 PO# -

1. Packed by: D MORRIS Seal # _____
2. Seal Intact Upon Receipt by Sampling Company: Yes No
3. Condition of Contents: _____
4. Sealed for Shipping by: _____
5. Seal Intact Upon Receipt by Laboratory: _____
6. Contents Temperature upon receipt by Lab: _____
7. Conditions of Contents: _____

DATE	TIME	SAMPLE ID/DESCRIPTION	SAMPLE TYPE	NO. CONTAINERS	ANALYSIS PARAMETERS	REMARKS
9/8/15	11P	204600234-ACM BULK - 001	Bulk	1	PLM	MASTIC
		204600234-ACM BULK - 002				MASTIC
		204600234-ACM BULK - 003				JOINT COMPOUND
		204600234-ACM BULK - 004				GOB
		204600234-ACM BULK - 005				FLOOR TILE
		204600234-ACM BULK - 006				Ceiling Tile
		204600234-ACM BULK - 007				MASTIC
		204600234-ACM BULK - 008				FLOOR TILE
		204600234-ACM BULK - 009				JOINT COMPOUND
		204600234-ACM BULK - 010				FLOOR TILE

CUSTODY TRANSFER PRIOR TO SHIPPING

Relinquished by: (signed) _____
 Received by: (signed) brigg

Date/Time

9/15 2:40pm Delivered to Shipper by: _____

SHIPPING DETAILS

1. Method of Shipment: _____
2. Received at Lab: _____ Project #: _____
3. Signature/Date/Time: _____

Bulk Sample Analysis for Asbestos

WL Project #: LA-014930

Report #: 613509
Report By: R. Briggs
Report Date: 09/14/2015

Client: Stantec Architecture Inc
 2515 A St.
 Anchorage, AK, 99503
 Billing Number: 24709

Collected By: Client
Collection Date: 09/08/2015
Analysis By: D. Milton
Analysis Date: 09/14/2015
Received By: R. Briggs
Received Date: 09/11/2015

TAT: 24 Hour

Sample Count: 10 **Layer Count:** 18

Project Name/Location: Herc Site Hazmat Survey

Client ID # **WL ID#** **Location:**
 204600234- AB15-07382A HMS Fan Room
 ACMBULK-011

Homogenous	Material	Color	Layer
No	Carpet	Brown	1 of 3
Asbestos: None Detected			
Other Fibrous Material	Fibrous %	Other Fibrous Materials: 90%	
Synthetic	90%	Non-Fibrous Materials: 10%	

Client ID # **WL ID#** **Location:**
 204600234- AB15-07382B HMS Fan Room
 ACMBULK-011

Homogenous	Material	Color	Layer
No	Carpet Mastic	Yellow	2 of 3
Asbestos: None Detected			
Other Fibrous: None Detected			
Non-Fibrous Materials: 100%			

Client ID # **WL ID#** **Location:**
 204600234- AB15-07382C HMS Fan Room
 ACMBULK-011

Homogenous	Material	Color	Layer
No	Floor Mastic	Black	3 of 3
Asbestos Type	Asbestos %	% Asbestos: 10%	
Chrysotile	10%	Non-Fibrous Materials: 90%	
Other Fibrous: None Detected			

Bulk Sample Analysis for Asbestos

WL Project #: LA-014930

Report #: 613509
Report By: R. Briggs
Report Date: 09/14/2015

Client ID #	WL ID#	Location:		
204600234- ACMBULK-014	AB15-07385B	HMS Basement Corridor		
Homogenous		Material	Color	Layer
No		Floor Mastic	Black	2 of 2

Asbestos Type	Asbestos %	
Chrysotile	6%	% Asbestos: 6%
Other Fiberous: None Detected		

Non-Fiberous Materials: 94%

Client ID #	WL ID#	Location:		
204600234- ACMBULK-015	AB15-07386	HMS Ground Floor Vestibule		
Homogenous		Material	Color	Layer
No		Wall Mastic	Black	1 of 1

Asbestos: None Detected	
Other Fiberous: None Detected	

Non-Fiberous Materials: 100%

Client ID #	WL ID#	Location:		
204600234- ACMBULK-016	AB15-07387	HMS Ground Floor Vestibule		
Homogenous		Material	Color	Layer
No		Cove Base Mastic	Brown	1 of 1

Asbestos: None Detected		
Other Fiberous Material	Fiberous %	
Wollastonite	9%	Other Fiberous Materials: 9%

Non-Fiberous Materials: 91%

Client ID #	WL ID#	Location:		
204600234- ACMBULK-017	AB15-07388	HMS Classroom		
Homogenous		Material	Color	Layer
No		Window Glaze	Off-White	1 of 1

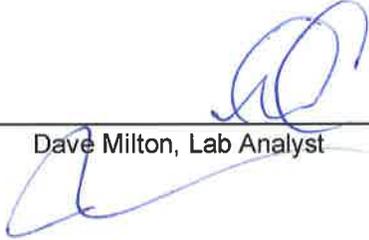
Asbestos: None Detected	
Other Fiberous: None Detected	

Non-Fiberous Materials: 100%

Bulk Sample Analysis for Asbestos

WL Project #: LA-014930

Report #: 613509
Report By: R. Briggs
Report Date: 09/14/2015



Dave Milton, Lab Analyst

09/14/2015

Date

09/14/2015

Date

Analysis performed by: EPA Method 600/M4-82-020 or EPA Method 600/R-93/116, at the discretion of the client or WL. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WL, LLC, and are subject to WL, LLC. General Terms and Conditions (available upon request).

24

LA- 014930



Chain of Custody

2515 A Street Anchorage, AK 99503

Attention White Labs LLC
 Client CITY OF HOMER
 Project HERC SITE HAZ MAT SURVEY
 Sampling Company STANTEC
 Sampling Site HOMER, ALASKA
 Team Leader DEANIS V MORRIS
 PO# -

1. Packed by: D MORRIS Seal # _____
2. Seal Intact Upon Receipt by Sampling Company: Yes No
3. Condition of Contents: _____
4. Sealed for Shipping by: _____
5. Seal Intact Upon Receipt by Laboratory: _____
6. Contents Temperature upon receipt by Lab: _____
7. Conditions of Contents: _____

DATE	TIME	SAMPLE ID/DESCRIPTION	SAMPLE TYPE	NO. CONTAINERS	ANALYSIS PARAMETERS	REMARKS
7/8/15	N/R	204400234-ACM BULK-011	Bulk	1	PLM	MASTIC
		204400234-ACM BULK-012				SHEET VINYL
		204400234-ACM BULK-013				SHEET VINYL
		204400234-ACM BULK-014				MASTIC
		204400234-ACM BULK-015				MASTIC
		204400234-ACM BULK-016				MASTIC
		204400234-ACM BULK-017				Bulk
		204400234-ACM BULK-018				SHEET VINYL
		204400234-ACM BULK-019				Aslingo Tile
		204400234-ACM BULK-020				Aslingo Tile

CUSTOMER TRANSFER PRIOR TO SHIPPING

Relinquished by: (signed) _____

Received by: (signed) PL Briggs

Date/Time 7/15 2:01 PM

Delivered to Shipper by: _____

SHIPPING DETAILS

Method of Shipment: _____

Received at Lab: _____ Project #: _____

Signature/Date/Time: _____

Original - Lab

Pink - Lab

Yellow - Sampler

Bulk Sample Analysis for Asbestos

WL Project #: LA-014931

Report #: 613510
 Report By: R. Briggs
 Report Date: 09/14/2015

Client: Stantec Architecture Inc
 2515 A St.
 Anchorage, AK, 99503
 Billing Number: 24709

Collected By: Client
 Collection Date: 09/08/2015
 Analysis By: D. Milton
 Analysis Date: 09/14/2015
 Received By: R. Briggs
 Received Date: 09/11/2015

TAT: 24 Hour

Sample Count: 5 Layer Count: 7

Project Name/Location: Herc Site Hazmat Survey

Client ID #	WL ID#	Location:	Homogenous	Material	Color	Layer
204600234- ACMBULK-021	AB15-07392A	HMS Ground Level Weight Room	No	Cork Board	Brown	1 of 2
Asbestos: None Detected						
Other Fibrous: None Detected						

Non-Fibrous Materials: 100%

Client ID #	WL ID#	Location:	Homogenous	Material	Color	Layer
204600234- ACMBULK-021	AB15-07392B	HMS Ground Level Weight Room	No	Cork Mastic	Yellow	2 of 2
Asbestos: None Detected						
Other Fibrous: None Detected						

Non-Fibrous Materials: 100%

Client ID #	WL ID#	Location:	Homogenous	Material	Color	Layer
204600234- ACMBULK-022	AB15-07393	HMS Gym	No	Wall Mastic	Black	1 of 1
Asbestos: None Detected						
Other Fibrous: None Detected						

Non-Fibrous Materials: 100%

Client ID #	WL ID#	Location:	Homogenous	Material	Color	Layer
204600234- ACMBULK-023	AB15-07394	HMS Utilidor	No	Wall Mastic	Black	1 of 1
Asbestos: None Detected						
Other Fibrous: None Detected						

Non-Fibrous Materials: 100%

Bulk Sample Analysis for Asbestos

WL Project #: LA-014931

Report #: 613510
 Report By: R. Briggs
 Report Date: 09/14/2015

Client ID # 204600234- ACMBULK-024	WL ID# AB15-07395	Location: HMS Exterior						
Homogenous No	Material Window Glaze	Color Lt. Gray	Layer 1 of 1					
<table border="1"> <tr> <td>Asbestos Type</td> <td>Asbestos %</td> </tr> <tr> <td>Chrysotile</td> <td>3%</td> </tr> </table>		Asbestos Type	Asbestos %	Chrysotile	3%	% Asbestos: 3%		
Asbestos Type	Asbestos %							
Chrysotile	3%							
<table border="1"> <tr> <td>Other Fiberous: None Detected</td> </tr> </table>		Other Fiberous: None Detected						
Other Fiberous: None Detected								

Non-Fiberous Materials: 97%

Client ID # 204600234- ACMBULK-025	WL ID# AB15-07396A	Location: HMS Ground Floor			
Homogenous No	Material Mastic	Color Yellow	Layer 1 of 2		
<table border="1"> <tr> <td>Asbestos: None Detected</td> </tr> </table>		Asbestos: None Detected			
Asbestos: None Detected					
<table border="1"> <tr> <td>Other Fiberous: None Detected</td> </tr> </table>		Other Fiberous: None Detected			
Other Fiberous: None Detected					

Non-Fiberous Materials: 100%

Client ID # 204600234- ACMBULK-025	WL ID# AB15-07396B	Location: HMS Ground Floor			
Homogenous No	Material Leveling Compound	Color Gray	Layer 2 of 2		
<table border="1"> <tr> <td>Asbestos: None Detected</td> </tr> </table>		Asbestos: None Detected			
Asbestos: None Detected					
<table border="1"> <tr> <td>Other Fiberous: None Detected</td> </tr> </table>		Other Fiberous: None Detected			
Other Fiberous: None Detected					

Non-Fiberous Materials: 100%

 _____ Dave Milton, Lab Analyst	_____ 09/14/2015 Date
 _____	_____ 09/14/2015 Date

Analysis performed by: EPA Method 600/M4-82-020 or EPA Method 600/R-93/116, at the discretion of the client or WL. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WL, LLC, and are subject to WL, LLC. General Terms and Conditions (available upon request).

24

LA- 014931



Chain of Custody

2515 A Street Anchorage, AK 99503

Attention White Labs LLC
 Client CITY OF HOMER
 Project HERC SITE HAZ MAT SURVEY
 Sampling Company STANTEC
 Sampling Site HOMER ALASKA
 Team Leader DEWIS MORRIS
 PO# 1

1. Packed by: D MORRIS Seal # _____
 2. Seal Intact Upon Receipt by Sampling Company: Yes No
 3. Condition of Contents: _____
 4. Sealed for Shipping by: _____
 5. Seal Intact Upon Receipt by Laboratory: _____
 6. Contents Temperature upon receipt by Lab: _____
 7. Conditions of Contents: _____

DATE	TIME	SAMPLE ID/DESCRIPTION	SAMPLE TYPE	NO. CONTAINERS	ANALYSIS PARAMETERS	REMARKS
9/15	HR	204600234-ACM BULK - 021	Bulk	1	PLM	CORK/MASTIC
		204600234-ACM BULK - 022				MASTIC
		204600234-ACM BULK - 023				MASTIC
		204600234-ACM BULK - 024				Bulk
		204600234-ACM BULK - 025				LEVEL COMPOUND
		204600234-ACM BULK - 026				
		204600234-ACM BULK - 027				
		204600234-ACM BULK - 028				
		204600234-ACM BULK - 029				
		204600234-ACM BULK - 030				

CUSTODY TRANSFER PRIOR TO SHIPPING

Relinquished by: (signed) [Signature] Date/Time 9/15/15 2:03
 Received by: (signed) _____ Date/Time _____
 Delivered to Shipper by: _____
 Method of Shipment: _____
 Received at Lab: _____ Project #: _____
 Signature/Date/Time: _____

Original - Lab

Pink - Lab

Yellow - Sampler



5/11/6-50

Environmental Health Sciences-Alaska, Inc.
 10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
 (907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA

Page 1 of 1

FIELD COLLECTION DATE: 3-24-98	JOB #: 4169-01-01	MATERIAL TYPE: (Circle) ASBESTOS LEAD	TOTAL QUANTITIES: 21
PROJECT NAME: KPB - 4 CLASSROOM SVR		BULK ANALYSIS REQUESTED: (Circle) PLM PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM	
FACILITY: HOMER 4 CLASSROOM BLDG		DISPOSAL: USUAL	TURNAROUND: 3 DAYS

SPECIAL INSTRUCTIONS:

COLLECTED BY (signature) <i>Tony Slaton Barker</i> PRINTED NAME TONY SLATON BARKER CERT# FED EX SHIPPING METHOD COURIER (signature) DATE/TIME 4-1-98	SELECTED LABORATORY IATL SAMPLES ACCEPTED BY DATE/TIME 7 ANALYST'S SIGNATURE <i>B. Henry</i> DATE 4-14-98	COMMENTS: <p style="text-align: center; font-size: 1.2em;">ND = NONE DETECTED</p>
---	---	--

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS
1. HOM4-9803-A01 <small>MATL. CONDITION: GOOD FAIR POOR</small>	LIGHT BROWN COVE BASE MASTIC <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	ENTRY 720699	ND
2. HOM4-9803-A02 <small>MATL. CONDITION: GOOD FAIR POOR</small>	RUBBER FLOOR CLOTH BACKING + MASTIC <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	STAIRS 720700	ND
3. HOM4-9803-A03 <small>MATL. CONDITION: GOOD FAIR POOR</small>	CLOTH COVER ON FG INS. <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	END BASEMENT HALL 1ST FLOOR 720701	ND
4. HOM4-9803-A04 <small>MATL. CONDITION: GOOD FAIR POOR</small>	9X9 VAT, BLACK MASTIC + YELLOW CARPET MASTIC <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	BASEMENT HALL FIRST FLOOR 720702	TLV - 10% YMAS - ND EMAS - 10%
5. HOM4-9803-A05 <small>MATL. CONDITION: GOOD FAIR POOR</small>	DRK + LT BRWN COVE MASTIC <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	1ST FLOOR HALL 720703	ND
HOM4-9803-A06 <small>MATL. CONDITION: GOOD FAIR POOR</small>	BROWN COVE BASE MASTIC <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	JAN CLOSET 1ST FLOOR 720704	ND
7. HOM4-9803-A07 <small>MATL. CONDITION: GOOD FAIR POOR</small>	YELLOW SHEET VINYL MASTIC <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	1ST FLOOR JAN CLOSET 720705	ND
8. HOM4-9803-A08 <small>MATL. CONDITION: GOOD FAIR POOR</small>	GYP SUM WALLBOARD <small>DAMAGE POTENTIAL: (LO, MED, HI) CONTACT: ✓</small>	BOILER ROOM 720706	ND

RETURN A SIGNED COPY OF THIS FORM WITH THE FINAL REPORT TO EHS-ALASKA



Environmental Health Sciences-Alaska, Inc.
 10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
 (907) 694-1383 • (907) 694-1382 fax

FIELD SURVEY DATA (continued)

PROJECT NAME: KPB - HOMER 4 CLASS. JOB # FACILITY: 4169-01-01
 JOB NUMBER: 4 CLASSROOM BUILDING DATE: 3-24-98 COLLECTED BY: SLATONBAKKER

SAMPLE ID	SAMPLE DESCRIPTION (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS
HOM4-9803-A09 MATERIAL CONDITION: (GOOD) FAIR POOR	2X4 DROP CEILING TILE WORMY PATTERN DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: L	CLASSROOM 7 720707	ND
HOM4-9803-A10 MATERIAL CONDITION: (GOOD) FAIR POOR	JOINT COMPOUND DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: ✓	" 720708	1.9%
HOM4-9803-A11 MATERIAL CONDITION: (GOOD) FAIR POOR	BLACK MASTIC / FIX ALL / GRAY CONC. DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: ✓	CLASSROOM 105 720709	ND
HOM4-9803-A12 MATERIAL CONDITION: (GOOD) FAIR POOR	12X12 WHITE VCT + BLACK MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: ✓	" 720710	ND
HOM4-9803-A13 MATERIAL CONDITION: (GOOD) FAIR POOR	JOINT COMPOUND DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: ✓	" 720711	2.5%
HOM4-9803-A14 MATERIAL CONDITION: (GOOD) FAIR POOR	BROWN CEILING TILE MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: ✓	ROOM 103 ABOVE PROP CEILING 720712	ND
HOM4-9803-A15 MATERIAL CONDITION: (GOOD) FAIR POOR	GRAY/BROWN GNB DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT: ✓	" 720713	ND
HOM4-9803-A16 MATERIAL CONDITION: (GOOD) FAIR POOR	WHITE WINDOW FRAME SEALANT DAMAGE POTENTIAL: (LO, MED, HI) WATER: ✓ AIR: ✓ VIBRATION: CONTACT:	S. SIDE EXTERIOR 720714	8%
HOM4-9803-A17 MATERIAL CONDITION: (GOOD) FAIR POOR	BLACK & SILVER ROOF MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: ✓ AIR: VIBRATION: CONTACT:	BY LADDER 720715	10%
HOM4-9803-A18 MATERIAL CONDITION: (GOOD) FAIR POOR	NEW BLACK ROOF MASTIC - DAMAGE POTENTIAL: (LO, MED, HI) WATER: ✓ AIR: VIBRATION: CONTACT:	SEAMS OF TAR PAPER SHEET ROOF 720716	ND
HOM4-9803-A19 MATERIAL CONDITION: (GOOD) FAIR POOR	WHITE WINDOW GLAZING COMPOUND DAMAGE POTENTIAL: (LO, MED, HI) WATER: ✓ AIR: ✓ VIBRATION: CONTACT:	S SIDE EXTERIOR 720717	6.8%
HOM4-9803-A20 MATERIAL CONDITION: (GOOD) FAIR POOR	OLD BLACK ROOF MASTIC DAMAGE POTENTIAL: (LO, MED, HI) WATER: ✓ AIR: ✓ VIBRATION: CONTACT: ✓	BY LADDER 720718	ND
HOM4-9803-A21 MATERIAL CONDITION: (GOOD) FAIR POOR	GRAY PENETRATION SEALANT. DAMAGE POTENTIAL: (LO, MED, HI) WATER: ✓ AIR: ✓ VIBRATION: CONTACT: ✓	AT ROOF HOOD 720719	ND

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KPB-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 720699	Material Description: Tan Mastic		
Client No.: HOM49803A01	Location: Entry		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	5	Wollastonite
			<u>% Non-Fibrous Material</u>
			95

Lab No. 720700	Material Description: Black/White Fibrous		
Client No.: HOM49803A02	Location: Mat'l W/Tan Mastic Stairs		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	55	Fibrous Glass
			<u>% Non-Fibrous Material</u>
			45

Lab No. 720700	Material Description: Black/White Fibrous		
Client No.: HOM49803A02	Location: Mat'l W/Tan Mastic Stairs		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			100
	Tan Mastic		
	From Above		

Lab No. 720701	Material Description: Tan/White/Blue		
Client No.: HOM49803A03	Location: Fibrous Material End 1st Floor Hall		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	75	Fibrous Glass
			<u>% Non-Fibrous Material</u>
			25

RECEIVED

NIST-NVLAP No. 1165 NY-DOH No. 11021 AIHA Lab No. 444

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP or any agency of the U.S. government.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By: Becky Huntzinger
Date: ADD n + mmo Becky Huntzinger

Approved By: [Signature]
Frank E. Ehrenfeld, III

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KPB-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	720702	Material Description:	Brown FloorTile With	
Client No.:	HOM49803A04	Location:	Tan/Black Mastic	First Floor Hall
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	None Detected	None Detected	90
Brown Floor Tile				

Lab No.	720702	Material Description:	Brown FloorTile With	
Client No.:	HOM49803A04	Location:	Tan/Black Mastic	First Floor Hall
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100
Tan Mastic From Above				

Lab No.	720702	Material Description:	Brown FloorTile With	
Client No.:	HOM49803A04	Location:	Tan/Black Mastic	First Floor Hall
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	None Detected	None Detected	90
Black Mastic From Above				

Lab No.	720703	Material Description:	Brown/Tan Mastic	
Client No.:	HOM49803A05	Location:	1st Floor Hall	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100
Brown Mastic				

NIST-NVLAP No. 1165 NY-DOH No. 11021 AIHA Lab No. 444

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Analysis Performed By: Betsy Huntjens

Approved By: Frank E. Ehrenfeld, III

Date: APR 01 1998

Frank E. Ehrenfeld, III

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KP-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	720703	Material Description:	Brown/Tan Mastic	
Client No.:	HOM49803A05	Location:	1st Floor Hall	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	5	Wollastonite	95
Tan Mastic From Above				

Lab No.	720704	Material Description:	Brown Mastic	
Client No.:	HOM49803A06	Location:	Jan Closet, 1st Floor	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.	720705	Material Description:	Tan NonFibrous Mat'l	
Client No.:	HOM49803A07	Location:	1st Floor, Jan Closet	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	Trace	Cellulose	100

Lab No.	720706	Material Description:	Tan/White Sheetrock	
Client No.:	HOM49803A08	Location:	Boiler Room	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	20	Cellulose	80

NIST-NVLAP No. 1165 NY-DOH No. 11021 AIHA Lab No. 444

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: Becky Hutzinger

Approved By: Frank E. Ehrenfeld, III
Frank E. Ehrenfeld, III

Date: _____

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KPB-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 720707	Material Description: Grey/White Ceil.Tile		
Client No.: HOM49803A09	Location: Classroom 7		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	45	Fibrous Glass
		25	Cellulose
			<u>% Non-Fibrous Material</u> 30

Lab No. 720708	Material Description: OffWhite Jt.Compound		
Client No.: HOM49803A10	Location: Classroom 7		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 1.9	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u> PC 98.1

Lab No. 720709	Material Description: Grey/White Plaster		
Client No.: HOM49803A11	Location: W/Black Mastic Classroom 105		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u> 100

Lab No. 720709	Material Description: Grey/White Plaster		
Client No.: HOM49803A11	Location: W/Black Mastic Classroom 105		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	10	Synthetic
Black Mastic			<u>% Non-Fibrous Material</u> 90
From Above			

NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

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Analysis Performed By: Besley Huntziger

Approved By: Frank E. Ehrenfeld, III

Date: 4/6/98

Frank E. Ehrenfeld, III

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KPB-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	720710	Material Description:	OffWhite Floor Tile											
Client No.:	HOM49803A12	Location:	With Black Mastic	Classroom 105										
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><u>% Asbestos</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Asbestos Fibrous Material</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Fibrous Material</u></td> </tr> <tr> <td>None Detected</td> <td>None Detected</td> <td>None Detected</td> <td>None Detected</td> <td>100</td> </tr> </table>					<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	None Detected	None Detected	None Detected	None Detected	100
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>										
None Detected	None Detected	None Detected	None Detected	100										

Lab No.	720710	Material Description:	OffWhite Floor Tile											
Client No.:	HOM49803A12	Location:	With Black Mastic	Classroom 105										
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><u>% Asbestos</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Asbestos Fibrous Material</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Fibrous Material</u></td> </tr> <tr> <td>None Detected</td> <td>None Detected</td> <td>5</td> <td>Synthetic</td> <td>95</td> </tr> </table>					<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	None Detected	None Detected	5	Synthetic	95
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>										
None Detected	None Detected	5	Synthetic	95										
Black Mastic From Above														

Lab No.	720711	Material Description:	OffWhite Jt.Compound											
Client No.:	HOM49803A13	Location:	Classroom 105											
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><u>% Asbestos</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Asbestos Fibrous Material</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Fibrous Material</u></td> </tr> <tr> <td>PC 2.5</td> <td>Chrysotile</td> <td>None Detected</td> <td>None Detected</td> <td>PC 97.5</td> </tr> </table>					<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	PC 2.5	Chrysotile	None Detected	None Detected	PC 97.5
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>										
PC 2.5	Chrysotile	None Detected	None Detected	PC 97.5										

Lab No.	720712	Material Description:	Tan Mastic											
Client No.:	HOM49803A14	Location:	Room 103 Above	Drop Ceiling										
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><u>% Asbestos</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Asbestos Fibrous Material</u></td> <td style="width: 20%;"><u>Type</u></td> <td style="width: 20%;"><u>% Non-Fibrous Material</u></td> </tr> <tr> <td>None Detected</td> <td>None Detected</td> <td>None Detected</td> <td>None Detected</td> <td>100</td> </tr> </table>					<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>	None Detected	None Detected	None Detected	None Detected	100
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>										
None Detected	None Detected	None Detected	None Detected	100										

NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

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Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation must be made by quantitative TEM.

Analysis Performed By: Becky Huntzinger

Approved By: Frank E. Ehrenfeld, III

Date: 4/13/98

Frank E. Ehrenfeld, III

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KPB-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	720713	Material Description:	Tan Sheetrock	
Client No.:	HOM49803A15	Location:	Room 103 Above	Drop Ceiling
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	65	Cellulose	35

Lab No.	720714	Material Description:	Tan Window Glaze	
Client No.:	HOM49803A16	Location:	S. Side Exterior	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 8.0	Chrysotile	None Detected	None Detected	92

Lab No.	720715	Material Description:	Black/Silver	
Client No.:	HOM49803A17	Location:	Roof Material	By Ladder
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
10	Chrysotile	None Detected	None Detected	90

Lab No.	720716	Material Description:	Black Roof Material	
Client No.:	HOM49803A18	Location:	Seams Of Tar Paper	Sheets On Roof
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab.No. 444

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Analysis Performed By: Becky Huntinger

Approved By: Frank E. Ehrenfeld, III

Date: 4/6/98 Becky Huntinger

Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: EHS Alaska Incorporated
10928 Eagle River Rd., Ste 202
Eagle River AK 99577

Report Date: 04/06/1998
Project: KPB-4 Classroom SUR,3/24/98
Project No.: 4169-01-01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.	720717	Material Description:	White Window Glaze	
Client No.:	HOM49803A19	Location:	S.Side Exterior	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
PC 6.8	Chrysotile	None Detected	None Detected	PC 93.2

Lab No.	720718	Material Description:	Black Roof Material	
Client No.:	HOM49803A20	Location:	By Ladder	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.	720719	Material Description:	Black Tar	
Client No.:	HOM49803A21	Location:	At Roof Hood	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	12	Cellulose	88

NIST-NVLAP No. 1165

NY-DOH No. 11021

AIHA Lab No. 444

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Analysis Performed By: Beeby Hunt Jones

Approved By: Frank E. Ehrenfeld, III

Date: APR 01 1998

Frank E. Ehrenfeld, III
Laboratory Director



EHS ALASKA
INCORPORATED

Environmental Health Sciences-Alaska, Inc.
10928 Eagle River Road, Suite 202, Eagle River, AK 99577-8052
(907) 694-1383 • (907) 694-1382 fax

CHAIN OF CUSTODY RECORD/FIELD SURVEY DATA

Page 1 of 1

FIELD COLLECTION DATE: 3-26-98	JOB #: 4169-01-01	MATERIAL TYPE: (Circle) ASBESTOS LEAD	TOTAL QUANTITIES: 5
PROJECT NAME: KPB-HOMER 4 CLASSR.	BULK ANALYSIS REQUESTED: (Circle) PLM/PLM DUST / TEM BULK / LEAD TCLP / LEAD PPM		
FACILITY: A CLASSROOM BUILDING	DISPOSAL: USUAL	TURNAROUND: 3 DAYS	

SPECIAL INSTRUCTIONS:

COLLECTED BY (signature) <i>Tony Slaton Baker</i>	SELECTED LABORATORY IATL	COMMENTS:
PRINTED NAME TONY SLATON BAKER	SAMPLES ACCEPTED BY	
CERT# AHERA# T-5270-13	DATE/TIME	
SHIPPING METHOD FED EX	ANALYST'S SIGNATURE	
COURIER (signature)	DATE	
DATE/TIME		

SAMPLE ID	SAMPLE DESCRIPTION, (COLOR, MATERIAL TYPE, LAYERS, FRIABILITY)	LOCATION/COMMENTS (INCLUDING PHOTO/REF)	RESULTS PPM
1. HOMA-9803-LO1 MATERIAL CONDITION: GOOD FAIR POOR	BLUE + RED PAINTS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	INTERIOR CONCRETE WALLS	590
2. HOMA-9803-LO2 MATERIAL CONDITION: GOOD FAIR POOR	BROWN/CREAM/BLACK PAINTS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	INTERIOR DOOR FRAME	4,000
3. HOMA-9803-LO3 MATERIAL CONDITION: GOOD FAIR POOR	LIGHT BLUE + CREAM PAINTS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	INTERIOR WINDOW FRAME	35,000
4. HOMA-9803-LO4 MATERIAL CONDITION: GOOD FAIR POOR	LIGHT + DARK CREAM PAINTS DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	EXTERIOR ON CONCRETE	360
5. HOMA-9803-LO5 MATERIAL CONDITION: GOOD FAIR POOR	BROWN PAINT DAMAGE POTENTIAL: (LO, MED, HI) WATER: AIR: VIBRATION: CONTACT:	EXT WINDOW FRAME W. SIDE	14,000
6.			
7.			
8.			

HERC SITE BUILDINGS

Appendix B ACM Bulk Sample Locations

Appendix B ACM BULK SAMPLE LOCATIONS

HERC SITE BUILDINGS

Appendix B ACM Bulk Sample Locations

FILE: U:\204600234\DWGS\H1\204600234_H1.0.DWG PLOTTED: Sep 16, 2015 8:53:52 AM (Wellner, Annie)

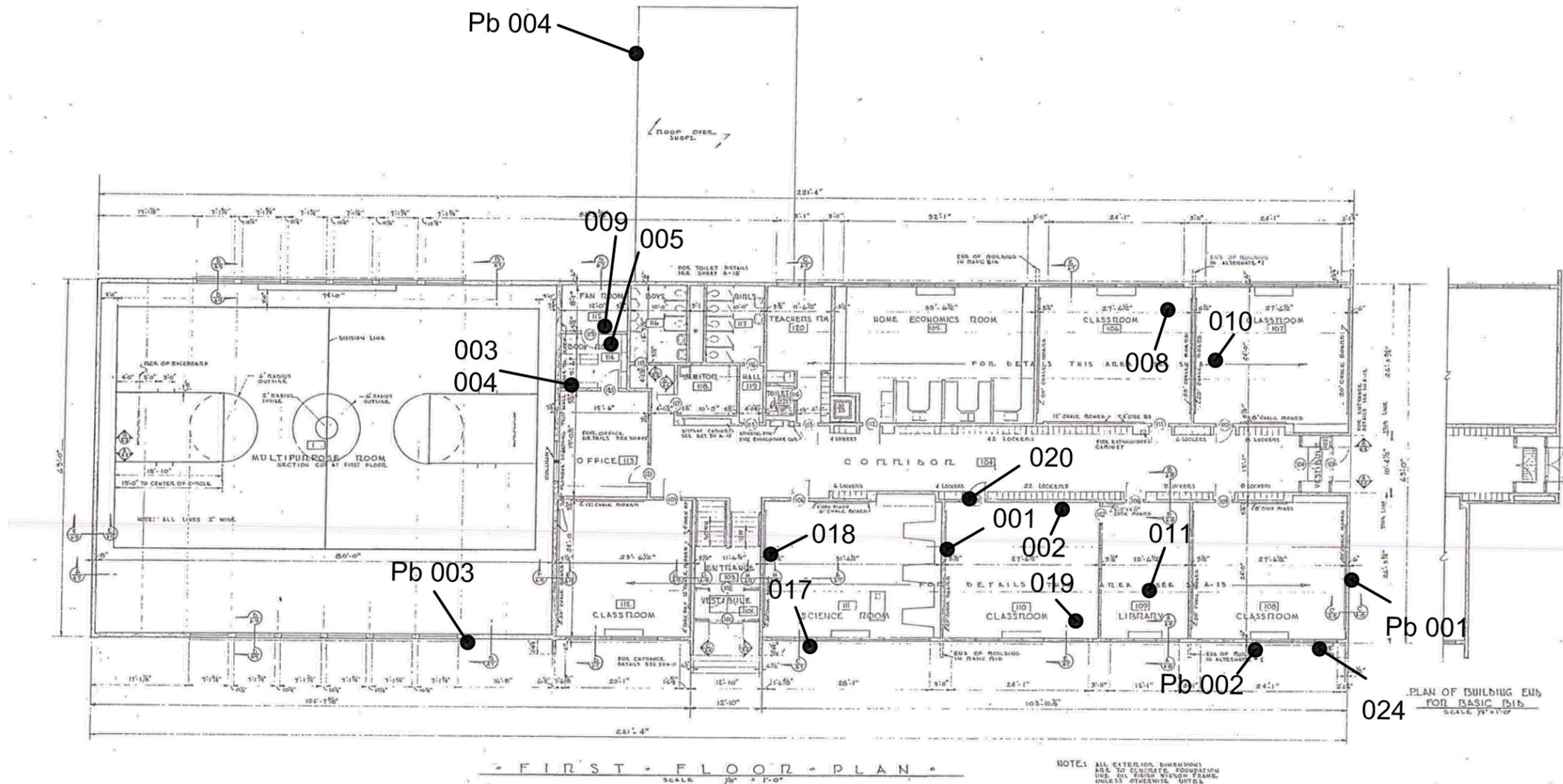


Table 1 - Asbestos Material Sampling Results

SAMPLE #	MATERIAL	LOCATION	ASBESTOS CONTENT
Old Middle School Building			
204600234-ACM Bulk-001	Wall Mastic (black)	Classroom 110	4% Chrysotile
204600234-ACM Bulk-002	Speaker/Clock Unit Mastic (black)	Classroom 110	12% Chrysotile
204600234-ACM Bulk-003	Joint Compound	Storage Room 114	5% Chrysotile
204600234-ACM Bulk-004	GWB	Storage Room 114	None Detected
204600234-ACM Bulk-005*	Vinyl Floor Tile (9"by 9" brown w/white)	Storage Room 114	7% Chrysotile
204600234-ACM Bulk-005*	Floor Mastic (black)	Storage Room 114	12% Chrysotile
204600234-ACM Bulk-006	Acoustical Ceiling Tile (glued)	Ground Floor Corridor 3	None Detected
204600234-ACM Bulk-007	Ceiling Tile Mastic (brown)	Ground Floor Corridor 3	None Detected
204600234-ACM Bulk-008*	Vinyl Floor Tile (9"by9" brown)	Classroom 106	7% Chrysotile
204600234-ACM Bulk-008*	Floor Mastic (black)	Classroom 106	9% Chrysotile
204600234-ACM Bulk-009	Joint Compound	Fan Room 115	5% Chrysotile
204600234-ACM Bulk-010*	Vinyl Floor Tile (12"by12" white w grey)	Classroom 107	None Detected
204600234-ACM Bulk-010*	Floor Mastic (black)	Classroom 107	5% Chrysotile

204600234-ACM Bulk-011*	Carpet (brown)	Classroom 109	None Detected
204600234-ACM Bulk-011*	Carpet Mastic (yellow)	Classroom 109	None Detected
204600234-ACM Bulk-011*	Floor Mastic (black)	Classroom 109	10% Chrysotile
204600234-ACM Bulk-012*	Sheet Vinyl (brown chip pattern)	Women's Lockerroom 8 @ Entrance Ramp	None Detected
204600234-ACM Bulk-012*	Sheet Vinyl Mastic (tan)	Women's Lockerroom 8 @ Entrance Ramp	None Detected
204600234-ACM Bulk-013*	Sheet Vinyl (tan chip pattern)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Floor Mastic (yellow)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Vinyl Floor Tile (off-white)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Floor Mastic (yellow)	Kitchen 11	None Detected
204600234-ACM Bulk-013*	Floor Mastic (black)	Kitchen 11	3% Chrysotile
204600234-ACM Bulk-014*	Floor Mastic (yellow)	Ground Floor Corridor 3	None Detected
204600234-ACM Bulk-014*	Floor Mastic (black)	Ground Floor Corridor 3	6% Chrysotile
204600234-ACM Bulk-015	Wall Mastic (black)	Vestibule 2	None Detected

204600234-ACM Bulk-016	Cove Mastic (brown)	Vestibule 2	None Detected
204600234-ACM Bulk-017	Window Caulk	Classroom 111	None Detected
204600234-ACM Bulk-018	Sheet Vinyl (yellow/beige)	Classroom 111	None Detected
204600234-ACM Bulk-019	Acoustical Ceiling Tile (suspended)	Classroom 110	None Detected
204600234-ACM Bulk-020	Acoustical Ceiling Tile (glued)	Corridor 104	None Detected
204600234-ACM Bulk-021*	Cork	Weight Room 5	None Detected
204600234-ACM Bulk-021*	Mastic (yellow)	Weight Room 5	None Detected
204600234-ACM Bulk-022	Wall Mastic (black)	Gymnasium 1	None Detected
204600234-ACM Bulk-023	Wall Mastic (black)	Utilidor	None Detected
204600234-ACM Bulk-024	Window Caulk	Exterior	3% Chrysotile
204600234-ACM Bulk-025	Leveling Compound	Ground Floor Corridor 3	None Detected

*Denotes multi-layer test

Table 2 - Lead Based Paint Sampling Results

SAMPLE #	Color	LOCATION	LEAD CONTENT
Old Middle School Building			
204600234-Pb Bulk-001	Grey/Beige	Exterior Wall-Classroom Wing	740 ppm
204600234-Pb Bulk-002	Dark Grey	Exterior Window Frame-Classroom Wing	7,900 ppm
204600234-Pb Bulk-003	Tan	Exterior Wall-Gymnasium Wing	1,300 ppm
204600234-Pb Bulk-004	Dark Green	Exterior Window Frame-Shop Wing	5,800 ppm

Date Stamped:	
By	

REVISIONS	No.	Date
Revision		

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Project:
HOMER PUBLIC SAFETY BUILDING

City of Homer
Homer, Alaska 99603

Project Mgr.	DRS
Drawn	AAW
Checked	DJM
Date	09/16/2015

Sheet Contents:
SAMPLE FIGURE 1ST FLOOR

Sheet No.:
H1.0

Project Number: 204600234

THIS DRAWING IS HALF-SIZE AT 11"x17"

HERC SITE BUILDINGS

Appendix C Photos

Appendix C PHOTOS

HERC SITE BUILDINGS

Appendix C Photos

HERC SITE BUILDINGS

Appendix C Photos



Photo 1: ACM Insulation above Classroom Ceiling.

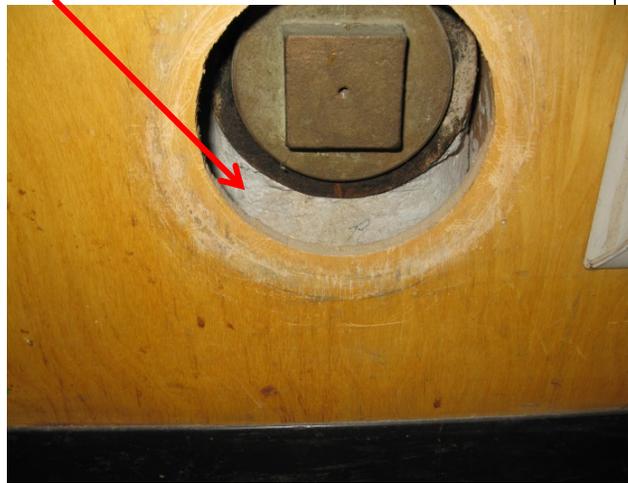


Photo 2: ACM Insulation within Wall in Classroom.



Photo 3: Boiler with ACM Insulation



Photo 4: Mastic on Classroom Walls.



Photo 5: Speaker/Clock with ACM Mastic



Photo 6: ACM Mastic Stuck to Carpet Backing

HERC SITE BUILDINGS

Appendix C Photos



Photo 7: ACM Floor Tile



Photo 8: Green Window Frame Paint is LBP



Photo 9: Window Frame Paint is LBP.



Photo 10: Orange Plastic Laminate is Lead Suspect.



Photo 11: Yellow Painted Air Separators is Lead Suspect.



Photo 12: Red Filler Panels are Lead Suspect.