

# BGES, INC.

ENVIRONMENTAL CONSULTANTS

**KASAAN LIBRARY  
117 KASAAN STREET  
KASAAN, ALASKA**

**PROPERTY ASSESSMENT AND CLEANUP PLAN**

**DECEMBER 2019**

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**ACRONYMS AND ABBREVIATIONS**

ACM	Asbestos-Containing Material
ADEC	Alaska Department of Environmental Conservation
AST	Aboveground Storage Tank
BGES	BGES, Inc.
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CM <sup>2</sup>	Square Centimeter
DBA	Department of Environmental Conservation Brownfield Assessment
EMSL	EMSL Analytical, Inc.
EPA	Environmental Protection Agency
ERNS	Environmental Response Notification System
HUD	U.S. Department of Housing and Urban Development
IC	Institutional Controls
LBP	Lead-Based Paint
Mg	Milligram
NPL	National Priorities List
NRC	National Resource Center
NRCS	Natural Resources Conservation Service
PACBM	Potential Asbestos-Containing Building Material
PACM	Potential Asbestos-Containing Material
PACP	Property Assessment and Cleanup Plan
PAHs	Polynuclear Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PEL	Permissible Exposure Limit
RACM	Regulated Asbestos-Containing Materials
SAP	Sampling and Analysis Plan
SEMS	Superfund Enterprise Management System
SWIMS	Solid Waste Information Management System
TRI	Toxic Release Inventory
US	United States
USDA	United States Department of Agriculture
UST	Underground Storage Tank
XRF	X-Ray Fluorescence

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## **EXECUTIVE SUMMARY**

Under the supervision of the Alaska Department of Environmental Conservation (ADEC), BGES, Inc. (BGES) performed a site characterization at the library located at 117 Kasaan Street in Kasaan, Alaska; hereafter referred to as the “subject property” (Figure 1). The purpose of this assessment was to evaluate the potential presence of hazardous building materials, such as lead-based paint (LBP) and asbestos-containing materials (ACMs) in the building on the subject property.

Site activities were conducted on October 31, 2019. No LBP was identified on the subject property. ACMs were identified in the joint compound and ceiling texture in the hallway and main room of the building on the subject property. The items containing ACMs are in good condition. Prior to building renovations, it is recommended that any ACMs that may be disturbed during renovations be abated by appropriately trained professionals to reduce the potential for human and ecological contact and to comply with applicable regulations.

### **1.0 INTRODUCTION**

The subject property is located to the south of the intersection of College Street and Peele Avenue in the central portion of Kasaan, Alaska. The legal description of the subject property is Block 5, Lot 8, United States Survey (USS) 1896. The subject property is surrounded by a residential neighborhood. The Kasaan School is located adjacent to, and northwest of the subject property; the City of Kasaan Volunteer Fire Department is approximately 565 feet southeast of the subject property; and a medical clinic is adjacent to, and east of the subject property. According to the ADEC Brownfield Assessment (DBA) request form pertaining to this project, the subject property is approximately 13,000 square feet in size. The subject property is currently used as a library and a part-time classroom. Although the building is reportedly in fair condition, the building is poorly insulated. The community plans to renovate the building by updating the heating system, increasing heat circulation, and installing a new roof. ACM has previously been identified in the storage room, furnace room, and both bathrooms of the library. The asbestos sheet vinyl flooring and mastic in these rooms has been covered with plywood and/or linoleum.

The DBA request form pertaining to the subject property is included in Appendix 13.1.

#### **1.1 Purpose**

The purpose of this Property Assessment and Cleanup Plan (PACP) is to document the presence of hazardous materials in the building on the subject property, and to present recommendations regarding abatement and/or management of these materials.

## **1.2 Scope of Services**

BGES conducted detailed research of the subject property and surrounding community in order to gain an understanding of the property and the local community. The research included a review of demographic data and information provided by the Alaska Department of Natural Resources Recorder's office; the ADEC Contaminated Sites, Spills, and Registered Underground Storage Tank (UST) databases; the ADEC Drinking Water and Solid Waste Programs; the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL); the US EPA Delisted NPL Sites; the US EPA Federal List of Institutional Control (IC) Sites; the US EPA Enviromapper database; the Superfund Enterprise Management System (SEMS) database [which has replaced the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database]; the US EPA Corrective Action Detail Reports; the US EPA Region 10 Treatment, Storage, and Disposal facilities list; the US EPA Toxic Release Inventory (TRI) System; the National Response Center (NRC); the local electric company; the local water and wastewater utility; and current and former site owners.

BGES also conducted LBP and asbestos inspections of readily accessible interior and exterior surfaces of the building. These inspections were conducted by Vanessa Crandell-Beck, an EPA-Certified Lead Inspector and an Asbestos Hazard Emergency Response Act (AHERA)-Certified Building Inspector. The LBP inspection included testing of all identified testing combinations within each area assessed (testing combinations are defined by room, building component, and substrate). The presence of LBP was evaluated with an x-ray fluorescence (XRF) analyzer, which is a non-destructive sampling tool that provides real-time data regarding the presence of LBP within materials. The asbestos inspection included a surface by surface investigation of the various building materials on the subject property, in order to identify potential asbestos-containing building materials (PACBMs). Samples of these materials were collected for laboratory analysis by wetting the materials with a water/surfactant solution and collection of representative samples of the PACBM with a cutting tool. The samples were obtained from the most unobtrusive locations as possible and wallboard sample locations were patched with non-asbestos-containing compound. The samples were placed in sealable plastic bags that were labeled and shipped under chain of custody protocol to EMSL Analytical, Inc. (EMSL) in San Leandro, California. Photographs of site features are included in Appendix 13.2.

## **1.3 Objectives**

The objectives of this project are to develop an understanding of current site conditions, identify site conditions that may pose risks to human health or the environment, and present strategies for mitigating those site conditions. This PACP is intended to provide an understanding of historical, current, and

proposed site uses; an assessment of data gaps and methods of reducing or eliminating these data gaps; an assessment of potential risks; an understanding of strategies to prepare the site for renovations; and estimated costs of practical abatement strategies that will be required to facilitate the renovation process.

## **2.0 COMMUNITY OVERVIEW**

The City of Kasaan was established by the Haida in the 1700s or earlier and was incorporated in 1976. Smallpox ravaged the community in 1794 as a result of visiting fur traders. The Hudson's Bay Company reported a population of 249 in 1841; however, according to the first official census conducted in 1880, the population at that time was 173. Today, the local economy is supported primarily by art, logging, and tourism.

### **2.1 Location, Climate, and Geologic Setting**

The subject property is located in the central portion of Kasaan, Alaska; which is located on the central-eastern portion of Prince of Wales Island. According to the Western Regional Climate Center, the weather station nearest the subject property (Hollis, Alaska) receives an average of approximately 102.78 inches of precipitation per year. Temperatures range from approximately 27 degrees Fahrenheit in January to approximately 66 degrees Fahrenheit in July. According to Google Earth Pro ©, the elevation of the subject property ranges from approximately 41 feet above sea level in the southeastern portion of the property to approximately 45 feet above sea level in the northwestern portion; thus, the property slopes toward the southeast.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the soils on the subject property consist of Karta silt loam (extremely gravelly sandy loam with 5 to 35 percent slopes). According to the Federal Emergency Management Agency (FEMA) Flood Map Service Center, the flood hazard for the subject property has not been mapped as of the publication of this PACP.

### **2.2 Community Demographic Data**

According to the United States Census Bureau, the population of Kasaan was 49 in 2010. Approximately 59.2 percent of the population was male and 40.8 percent was female. Approximately 34.7 percent of the population was reportedly American Indian or Alaska Native and 53.1 percent of the population was Caucasian. An additional 10.2 percent of the population was mixed race (American Indian or Alaska Native and Caucasian). The median household income in Kasaan was approximately \$43,500 as of 2000 and no individuals were reportedly living below the poverty line. According to the Community Database

Online, provided by the Alaska Division of Community and Regional Affairs, the population of Kasaan was 81 as of 2018.

## **2.3 Community Resources and Infrastructure**

The City of Kasaan operates a water treatment facility, using surface water from the Linkum Creek, and provides this water to the community through a water line. Sewer lines transport wastewater from the community and discharge into Kasaan Bay. According to the ADEC Solid Waste Information Management System (SWIMS), the landfill closest to the project site is the Class III Landfill in Thorne Bay, located approximately 16 miles from the project site. The landfill accepts waste from the Kasaan community as well. The school adjacent to the project site is the sole school operating in Kasaan; and serves Kindergarten through grade 12.

### **2.3.1 Public Water Supply Information**

The majority of the buildings in Kasaan (including the subject property) are connected to municipal water and sewer services. The water and sewer mains are located adjacent to, and east of the subject property, along Peele Avenue.

### **2.3.2 Landfill Information**

The Thorne Bay Class III Landfill is owned by the City of Thorne Bay and is approximately 3.35 acres in size. The ADEC renewed the permit for this landfill on November 4, 2015, which will expire on November 4, 2020. The landfill is authorized to accept construction and demolition waste, inert waste, municipal waste, non-regulated ACM, and sewage sludge.

## **2.4 Community Involvement**

### **2.4.1 Local Interviews and Input**

During the site visit, BGES met with LaNeice Congdon, Brownsfield Coordinator of the Organized Village of Kasaan. Ms. Congdon mentioned that the library was built on the site in approximately 1977. She indicated that the building was formerly used as the school house until it was not functional anymore because of its size and the number of students who were attending the school. Branzon Anania of the school district stated that the building repairs would address the roof, some interior work, and the boiler.

### **2.4.2 Proposed Community Development and Land Reuse**

The community and landowner intend to renovate the building on the subject property to improve heating and circulation, and to replace the current roof.



### 3.0 SITE OVERVIEW

The subject property is approximately 13,000 square feet in size, located in a neighborhood of residential and public structures in the central portion of Kasaan, Alaska. The building on the subject property is used as a library and a part-time classroom.

#### 3.1 Subsurface Conditions

According to the USDA NRCS Web Soil Survey, the soils on the subject property consist of Karta silt loam (extremely gravelly sandy loam with 5 to 35 percent slopes).

#### 3.2 Current Site Use

The subject property is currently used as a library and part-time classroom. According to a representative of the City of Kasaan, the city is not divided into zoning districts; however, for billing purposes, the building is classified as being commercial in nature.

#### 3.3 Historical Site Use

The building on the subject property was relocated from Craig, Alaska in May of 2001. The building was the original Kasaan School Building.

Aerial photographs of the vicinity of the subject property taken in 1965, 1972, 1980, 1982, 1991, 2004, 2006, 2013, and 2019 were briefly reviewed. The 1982 and 2019 aerial photographs were chosen to print and are included as Figures 2 and 3, respectively. Although the 1980 aerial photograph was the first reviewed aerial photograph after construction of the library, the 1982 aerial photograph was chosen to print because it was of higher quality than the 1980 aerial photograph. The 2019 aerial photograph was the most recent aerial photograph available at the time this report was written.

The July 9, 1965 aerial photograph showed the subject property as being undeveloped and vegetated. A few properties in the surrounding area were observed, and they appeared to be primarily residential in nature. Undeveloped and vegetated land was located to the north of the subject property. The June 10, 1972 aerial photograph looks identical to the previous photograph.

The May 23, 1980 aerial photograph showed the subject property as being developed and the library in the same location it was during the site visit. Buildings were located to the west and northwest of the library. The framework of a larger building was visible further to the northwest of the library. The June 1, 1982 aerial photograph, included as Figure 2, appears the same as the previous photograph.

The August 11, 1991 aerial photograph showed the subject property remaining the same as in the previous photograph, however, the building to the west of the library was no longer in place and the framework

had been completed as a building. The May 22, 2004 aerial photograph showed the subject property remaining the same as the previous photograph with the addition of a building to the south and the west. The June 8, 2006 aerial photograph showed the subject property remaining the same as the previous photograph, however, the building to the northwest was replaced by a different building near the same location.

The March 26, 2019 aerial photograph, included as Figure 3, showed the subject property remaining the same as in the previous photograph, however, the building to the west of the library appeared to have been removed and a slab was in place. The building that was located to the south of the subject property in this aerial photograph was not observed during the site reconnaissance.

### **3.4 Ownership Information**

The Southeast Island School District acquired the subject property from the Alaska Department of Transportation in 1995.

### **3.5 Records Review**

BGES conducted a review of numerous records and databases to research the potential for known contamination on or near the subject property. The records review was conducted in general accordance with American Society for Testing Materials (ASTM) Standard E 1527-13, which dictates the appropriate search distance for each of the databases discussed below. The following sections describe the results of these reviews.

#### **3.5.1 U.S. EPA NPL**

The EPA's NPL, which is updated regularly, was reviewed on November 13, 2019. No NPL sites were identified as being located within 1 mile of the subject property.

#### **3.5.2 U.S. EPA Delisted NPL Sites**

The EPA's delisted NPL sites database, which is updated regularly, was reviewed on November 13, 2019. No delisted NPL sites were identified as being located within 1 mile of the subject property.

#### **3.5.3 U.S. EPA Federal List of IC Sites**

An attempt to review the EPA's Federal List of IC Sites was made on November 13, 2019. This database was not available, as the EPA website was undergoing reconfiguration at the time of preparation of this PACP. However, any sites listed within this database are likely included in the ADEC Contaminated Sites database, which is discussed in Section 3.5.9, below. Therefore, this is not considered to constitute a data gap.

**3.5.4 U.S. EPA CERCLIS List**

The U.S. EPA CERCLIS list, which was retired in October of 2013, was replaced by the Superfund Enterprise Management System (SEMS) database. The SEMS database, last updated on July 9, 2019, was reviewed on November 13, 2019 and no sites were identified as being located within ½ mile of the subject property.

**3.5.5 U.S. EPA CERCLIS NFRAP List**

The U.S. EPA CERCLIS NFRAP list was retired in October of 2013 and was replaced by the SEMS database. The SEMS database, last updated on July 9, 2019, was reviewed on November 13, 2019 and no sites were listed as being located within ½ mile of the subject property.

**3.5.6 U.S. EPA RCRA Corrective Action Sites (CORRACTS) Database**

The U.S. EPA RCRA CORRACTS database for Alaska, updated regularly, was reviewed on November 14, 2019. No sites were listed within 1 mile of the subject property.

**3.5.7 U.S. EPA RCRA Non-CORRACTS TSD Facilities**

The U.S. EPA RCRA Non-CORRACTS TSD Facilities for Alaska, updated regularly, was reviewed on November 14, 2019. No sites were listed within 1 mile of the subject property.

**3.5.8 ADEC Registered UST Database**

The ADEC Registered UST database is updated regularly and was reviewed on November 14, 2019. The subject property and adjoining properties were not identified within this database.

**3.5.9 ADEC Contaminated Sites Database**

The ADEC Contaminated Sites Database, which is updated regularly, was reviewed on November 14, 2019 and listed three contaminated sites (including the subject property) as being located within ½ mile of the subject property. The Former Kavalco Bunkhouse Kasaan site was issued a “Cleanup Complete” status with no Institutional Controls by the ADEC on June 16, 2014, indicating that this site has been remediated to the satisfaction of the ADEC and therefore does not require any further assessment or remediation activities at this time. As such, it is our opinion that there is a reduced potential for adverse environmental impact to the subject property stemming from documented and remediated releases at this site; and it therefore does not constitute a recognized environmental condition with respect to the subject property.

The Kasaan Library (Site 1 on Figure 4), located on the subject property, was listed as an “Informational” site; indicating that the ADEC has created a file for information pertaining to this site, but that

contamination has not been identified at this site. The ADEC Cleanup Chronology report pertaining to the subject property presents a summary of the site, including the results of a previous asbestos inspection and plans for upcoming renovations. Asbestos was previously identified in the ceiling texturing, storage closet, furnace room, and both bathrooms. Based on this information and the results of the building inspections conducted on October 31, 2019, the onsite building contains ACM. Although ACM presents a potential risk to human health, no contamination has been documented in the soil or groundwater at this site, nor does our research of the site history suggest the former or current presence of any hazardous substances at the subject property, other than petroleum in the aboveground storage tank (AST). No evidence of spills or leaks was identified in the vicinity of the AST on-site (or any other portions of the subject property) during BGES’ site reconnaissance as discussed below in Section 4.2. As such, it is our opinion that this site does not constitute a recognized environmental condition with respect to the subject property.

The Discovery Campus Kasaan site (Site 2 on Figure 4), located more than 500 feet southwest of the subject property, was also listed as an “Informational” site. According to the ADEC Cleanup Chronology report pertaining to this site, soil contamination was identified at this site during the removal of a residence and a heating oil tank. A site characterization work plan was approved in March of 2019, and no further actions have been recorded. Because of the distance between this site and the subject property (with respect to the potential for contaminant migration through soil, groundwater, or soil vapor), and because of the likelihood that the local groundwater flow direction is towards Kasaan Bay, rendering the subject property side-gradient to upgradient of this contaminated site; it is our opinion that there is a reduced potential for adverse environmental impact to the subject property stemming from contamination at this site, and it does not constitute a recognized environmental impact with respect to the subject property.

Additional information concerning the contaminated sites is included in Table 1 and Appendix 13.3, and their locations are shown on Figure 4.

**Table 1. ADEC Contaminated Sites Data**

Site No.	Contaminated Site Facility	Contaminated Site Location	Hazard ID	Contaminated Site Information	Contaminated Site Status
1	Kasaan Library	117 Kasaan Street	27128	ACMs have been identified in the library building during a previous building inspection. The Organized Village of Kasaan, the City of Kasaan, and the Southeast Island School District are working together on a plan to renovate the building, which will require abatement of ACMs.	Informational

				ADEC is providing DBA services for this property.	
2	Discovery Campus Kasaan	SE of Intersections of Thompson Avenue with Main Street and Young Street	26864	Contaminated soil was observed during the removal of a residence and a heating oil tank. The Organized Village of Kasaan was granted ADEC Brownfields Assessment and Cleanup funding to characterize the contamination. The community intends to redevelop the property for a public park.	Informational
3	Former Kavalco Bunkhouse - Kasaan	~400 Ft ESE of Kasaan Dock	25940	Diesel contamination was identified in the soil in 2012. The site was closed after mitigation and cleanup efforts were conducted in 2014.	Cleanup Complete

**3.5.10 State of Alaska Voluntary Cleanup and Brownfields Sites**

The State of Alaska does not maintain specific databases of voluntary cleanup sites or Brownfields sites that are not also included within the ADEC Contaminated Sites database. This database was reviewed, and the results of that review are discussed in Section 3.5.9 above.

**3.5.11 ADEC Statewide Oil and Hazardous Substance Spills Database**

The ADEC Statewide Oil and Hazardous Substance Spills Database contains records concerning spills of oils and other hazardous substances that have occurred throughout Alaska. Records of spills that have occurred since July of 1995 and earlier (but earlier spills have decreased accuracy) are included in this database. The database is updated regularly and was reviewed on November 14, 2019. No spills events were identified as having occurred within ¼ mile of the subject property.

**3.5.12 National Response Center (NRC)**

The Environmental Response Notification System (ERNS), which is operated through the NRC and is managed as a division of the United States Coast Guard, maintains records of releases of toxic and hazardous substances in a format that is not reasonably ascertainable for review at the time of this report. However, the Center for Effective Government maintains a third-party database, which is referred to as the RTKNet, that compiles the NRC records in a more efficient format, and that database was reviewed. Incidents that occurred in the State of Alaska from 1982 through mid-2018 and were reported to ERNS and NRC were reviewed on November 14, 2019. None of the incidents reported occurred on the subject

property or adjoining properties.

### **3.5.13 U.S. EPA Enviromapper**

In response to the Emergency Planning and Community Right to Know Act (EPCRA) [42 U.S.C. 11001 et seq. (1986)], also known as Title III of Superfund Amendments and Reauthorization Act (SARA), EPA maintains a database of hazardous material transporters, storage facilities, solid waste, air, and water pollution generators. The database was reviewed on November 14, 2019. The subject property and adjoining properties were not listed within the database.

### **3.5.14 U.S. EPA TRI Sites Database**

The TRI is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain industry groups as well as federal facilities. This inventory was established under the EPCRA and was expanded by the Pollution Prevention Act of 1990. The TRI sites database was reviewed on November 15, 2019 for any sites located within ¼ mile of the subject property. The TRI database includes information for the years 1988 to 2018, and no sites were listed as being located within ¼ mile of the subject property.

### **3.5.15 Alaska State List of Landfills and Solid Waste Facilities**

The ADEC Division of Environmental Health, Solid Waste Management list of currently and formerly permitted facilities, which was last updated on February 2, 2017, was reviewed on November 14, 2019. No landfills or regulated solid waste facilities were identified within ½ mile of the subject property.

### **3.5.16 Alaska DNR Recorder's Office Records Database**

The Alaska DNR Recorder's Office Records Database, which is updated daily, was reviewed on November 14, 2019 for records of environmental liens against the subject property. No records of any environmental liens outstanding against the subject property were identified during our search of the database.

### **3.5.17 Sanborn Fire Maps**

Sanborn fire maps depicting the area of the subject property could not be located during the performance of this PACP.

## **4.0 HAZARDOUS BUILDING MATERIALS SURVEY**

The hazardous building materials survey was completed on October 31, 2019 in accordance with our proposal dated September 19, 2019. Weather conditions were partly cloudy with an ambient temperature

of approximately 48 degrees Fahrenheit. One representative from BGES was on-site to conduct the hazardous building materials survey. Photographs of site features are included in Appendix 13.2. The following paragraphs discuss our findings and observations.

#### **4.1 Methodology**

The walkthrough assessment included a visual inspection of the building and collection of LBP data and PACBM samples. Lead sampling was performed by utilizing a Heuresis Pb200i XRF Lead Analyzer to test for the presence of lead in painted surfaces. This was accomplished in general accordance with established U.S. Department of Housing and Urban Development (HUD) and EPA guidelines.

Prior to sampling, BGES reviewed the previous asbestos inspection reports to determine locations where asbestos had been identified in the past. Those materials were targeted as sampling locations to confirm the presence of those ACMs; although samples were collected from all identified PACBMs. Sampling of building materials for asbestos content analysis was also conducted by removing a small sample of the suspected material, including all associated substrates, using a sharp blade or scraper. This inspection included the collection of building materials such as wall material (main room, storage room, divider wall), flooring material (bathroom), ceiling material (main room and hallway area), and mastic (bathroom); as shown on Figure 5. The samples were then placed into sealable plastic bags and closed for shipment to the laboratory. Samples for laboratory analysis were clearly labeled and submitted to the laboratory under chain of custody protocol.

#### **4.2 Observations**

Upon arrival at the site, a reconnaissance was conducted. The library was in use as a classroom at the time of the site visit. The library main room was approximately 24 feet by 32 feet in dimensions. A divider wall was located in the southern portion of the library main room. The main room was carpeted; however, the storage room and bathrooms had linoleum flooring. The furnace room had plywood flooring. Popcorn ceiling texture was observed in the main room of the library. A playground was located to the north of the library. Metal roofing extended from the northern side of the library to cover the playground. The roof of the library was constructed with wooden shingles, which were affixed with nails. During the site visit, one AST was observed on the property. The AST was located near the southwest corner of the building. The AST and its components were inspected for leaks and/or failures such as holes or loose fittings. It is recommended that the AST located on the subject property be equipped with adequate secondary containment. No staining or stressed vegetation was viewed at the time of our site reconnaissance.

### 4.3 Sampling Rationale

Ingestion of LBP, particularly by children, can cause severe and irreparable health effects such as neurological damage and learning disabilities. Ingestion of asbestos can cause asbestosis, mesothelioma, and lung cancer. Because the building was constructed at a time when LBP and ACM were commonly used, the building was inspected for these materials that pose potential health risks to occupants.

### 4.4 Analytical Testing Methods

The painted surfaces were analyzed using a Heuresis Pb200i XRF lead analyzer. For a complete description of the XRF testing method, please refer to the 1997 HUD Inspection Protocol.

The representative bulk samples collected during our inspection activities were analyzed for asbestos content by EMSL; a laboratory accredited by the National Institute of Standards and Technology (NIST), and approved by the National Voluntary Laboratory Accreditation Program (NVLAP). For a complete description of the PLM method, please refer to EPA Method 600/R-93/116 and Title 40 Code of Federal Regulations (CFR) Part 763 Appendix A to Subpart E, Section 1.

### 4.5 Analytical Results and Discussion

#### 4.5.1 Lead Inspection Results

A total of 108 XRF readings were taken from all identified painted surfaces, divided into various testing combinations in the inspected areas of the building on the subject property; from interior and exterior portions of the structure. None of the readings exceeded the EPA regulatory limit of 1.0 milligram (mg) of lead per square centimeter ( $\text{cm}^2$ ); or  $1.0 \text{ mg/cm}^2$ . XRF data are included in Appendix 13.4.

#### 4.5.2 Asbestos Inspection Results

A total of 22 bulk samples (9 samples with 13 additional layers) were collected from PACBM identified in the inspected portions of the building on the subject property. According to the National Emissions Standard for Hazardous Air Pollutants (NESHAP), Asbestos-Containing Materials (ACMs) are defined as containing at least 1 percent asbestos; including but not limited to chrysotile, amosite, tremolite, actinolite, and crocidolite asbestos. Four of the samples collected in the building were found to be “asbestos-containing” according to the NESHAP definition. Joint Compound samples from two main wall samples were found to contain 2 percent chrysotile asbestos and two samples from the “popcorn” ceiling texture in the main room of the library and in the hallway were found to contain 3 percent chrysotile asbestos; and are therefore “asbestos-containing” according to the NESHAP definition. The sample locations are depicted on Figure 5; ACM analytical results are summarized in Table 2; and PLM analytical



data are included in Appendix 13.4.

While an industry and regulatory-accepted method, use of the PLM method without a point count (for example the 400- or 1,000-point count) may result in estimated asbestos concentrations that are higher or lower than the material’s actual asbestos content. Other analytical procedures (for example, cleanup of the sample) may also improve the accuracy of the laboratory results.

**Table 2. Positive ACM Sample Locations and Results**

ACM ID #	Testing Location	Building Component	Result	Approximate Area (estimated total for unit/common area)
A-1, A-2	Hallway and Main Room	Joint Compound	2% Chrysotile	896 Square Feet
A-5, A-8	Hallway and Main Room	Ceiling Texture	3% Chrysotile	768 Square Feet

**4.5.3 Other Potentially Hazardous Items**

No other potentially hazardous items were observed at the subject property.

**5.0 ENVIRONMENTAL REVIEW AND SUMMARY OF FINDINGS**

**5.1 Historical Environmental Review**

The subject property was not identified within any of the reviewed databases, as discussed in Section 3.5 (U.S. EPA NPL, Delisted NPL, Federal List of IC Sites, CERCLIS List, CERCLIS NFRAP List, RCRA CORRACTS Database, RCRA Non-CORRACTS TSD Facilities, Enviromapper, and TRI Sites Database; ADEC Registered UST Database, Contaminated Sites Database, Spills Database, State of Alaska Voluntary Cleanup and Brownfields Sites, and Alaska State List of Landfills and Solid Waste Facilities; NRC; Alaska DNR Recorder’s Office Records Database; and Sanborn Fire Maps.

**5.2 Known or Potential Contaminant Source Areas**

One heating oil storage tank was observed on the subject property at the time of our site reconnaissance. No evidence of possible leakage was observed. ACMs were also identified during testing conducted on October 31, 2019.

**5.3 Known or Perceived Data Gaps**

ACM has previously been identified in the storage room, furnace room, and both bathrooms of the library during inspections conducted on June 13, 2000 and April 3, 2009. The asbestos sheet vinyl flooring and mastic in these rooms has been covered with plywood and/or lineoleum. Because the asbestos sheet vinyl flooring was inaccessible at the time of our inspection, BGES did not collect samples of these materials;

however, these materials should be considered to be ACM based on the results of the previous inspection.

#### **5.4 Conceptual Site Model**

Because no soil or groundwater contamination has been identified at this site, a Conceptual Site Model (CSM) for the subject property has not been prepared.

#### **5.5 Regulated Cleanup Criteria**

According to the NESHAP, ACMs are defined as containing at least 1 percent asbestos; including but not limited to chrysotile, amosite, tremolite, actinolite, and crocidolite asbestos.

The EPA regulatory limit for lead-based paint is 1.0 mg/cm<sup>2</sup>.

#### **5.6 General Environmental Overview**

The historical heating source for the building is forced air from a heating oil-supplied furnace. In addition, it is assumed that the heating oil tank on site is in its original location.

### **6.0 RECOMMENDED ACTIONS AND OPINION**

#### **6.1 Recommended Remedial Actions by Source Area**

It is recommended that the ACMs identified during preparation of this PACP and during previous asbestos inspections on the subject property be abated, packaged appropriately for shipping, and transported to an appropriate disposal facility, or encapsulated. It is also recommended that the AST be equipped with secondary containment.

#### **6.2 General Remediation Strategies or Alternatives**

According to the NESHAP standards (40 CFR Part 61, Subpart M), before general demolition or renovation activities within buildings containing asbestos can occur, identified friable and some categories of non-friable ACBMs must be properly encapsulated or abated; as prescribed by NESHAP regulations. NESHAP categorizes ACM analyzed by the PLM method into two main types, friable and non-friable ACM. Friable ACM is a material that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM is further delineated by two different Categories, Category I and Category II non-friable ACM. Category I non-friable ACM is defined as asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing product. Category II non-friable ACM is any material, excluding Category I non-friable ACM that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. NESHAP considers friable ACM, Category I non-friable ACM, and Category II non-friable ACM that is exposed to certain conditions (discussed below), to be Regulated Asbestos Containing Material (RACM). Notification to the U.S. EPA or the state is required before a

building containing RACM is demolished or renovated. A material is considered RACM if it fits these criteria:

- Friable ACM.
- Category I non-friable ACM that has been or will be exposed to forces during demolition or removal that may disturb the material and cause it to become friable. This includes, but is not limited to, grinding, cutting, sanding, and abrading.
- Category II non-friable ACM that has been or will be exposed to forces during demolition or renovation that may disturb the material, causing it to become crumbled, pulverized, or reduced to a powdered form.

According to NESHAP regulations, RACM need not be removed before demolition or renovation if it meets the following criteria:

- It is Category I non-friable ACM that is in good condition.
- It is enclosed in concrete or other similarly hard material and is adequately wet when it is exposed during demolition or renovation.
- The RACM was discovered after demolition or renovation began and it cannot be safely removed.
- It is Category II non-friable ACM and there is a low probability that the material will become disturbed during demolition or renovation.

The joint compound and ceiling texture materials in the hallway and main room of the library should be considered friable ACMs; and the vinyl flooring and mastic in the storage room, furnace room, and bathrooms should be considered Category I non-friable ACMs. All of the identified ACMs in the library are therefore RACM.

According to OSHA 1910.1001(c), the permissible exposure limit (PEL) is 0.1 fiber per cubic centimeter (f/cc) of air as an 8-hour time-weighted average (TWA), and the Excursion Limit is 1.0 f/cc averaged over a 30-minute period.

With the exception of agricultural activities, OSHA's general industry standard regulates all commercial and industrial activities related to asbestos that are not covered by the construction and shipyard employment standards. This standard requires employers to provide awareness training to employees who perform maintenance or housekeeping duties where ACM or presumed ACM is located. This includes a mandatory participation-training program for all employees who are exposed to airborne asbestos at or above the PEL and/or Excursion Limit. The program should be instituted and carried out before the employee's initial exposure to the area and a refresher course must be offered annually.

Under OSHA's construction standard, OSHA classifies construction activity according to descending degree of risk, with Class I work presenting the greatest potential risk and class IV the lowest.

- Class I work involves the removal of Thermal System Insulation (TSI) and surfacing ACM or potential asbestos-containing materials (PACM).
- Class II work involves removal of any other ACM that is not TSI or surfacing ACM.
- Class III work includes repair and maintenance activities where employees are likely to disturb ACM.
- Class IV work is defined as maintenance and custodial activities during which employees contact ACM or PACM, including waste and debris cleanup.

Employers must institute a training program for all workers who install asbestos-containing products and all workers who perform Class I, II, III, or IV work. Medical surveillance is required for all workers who engage in class I, II, or III work for a combined total of 30 days or more per year. Medical surveillance is also required for those who are exposed above the PEL or the excursion limit of 1.0 f/cc. Employers and building owners must communicate the hazard to employees and the contractors when ACM or PACM is present in their facilities or if their employees will work with ACM.

OSHA requires a competent person to be designated by the employer. The competent person must have qualifications and the authority for ensuring worker health and safety. This includes identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy to reduce asbestos exposure with the authority to take prompt corrective action. Class I and Class II construction work requires the USEPA's Model Accreditation Plan (40 CFR 763) training or its equivalent for the project designer or supervisor. Class III and Class IV construction work requires completion of a 24-hour Operation and Maintenance (O&M) course developed by the U.S. EPA (40 CFR 763.93) or its equivalent. The duties of the competent person include regular inspections of the job site, equipment, and materials as part of the required safety and health program.

Removal of the joint compound and ceiling texture materials would constitute Class I work, and removal of the vinyl flooring and mastic would constitute Class II work.

## **6.3 Community Resources**

### **6.3.1 Resource Leveraging Opportunities**

Abatement/disposal costs for the site were estimated for the areas of the building with reported anticipated renovations. Cost estimates were calculated based on several broad assumptions, including mobilization of a non-local contractor and disposal of ACM at the Juneau Capitol Disposal Landfill. Juneau Capitol

Disposal Landfill was selected after contacting Roosevelt Regional Landfill in Roosevelt, Washington; and landfills located in Klawock, Thorne Bay, and Ketchikan, Alaska. BGES contacted the Juneau Capitol Disposal Landfill and a representative of this facility indicated that they would accept waste associated with this project. Several logistical and planning methods may be utilized to achieve cost savings, including but not limited to:

- Using local equipment and personnel to conduct the renovations;
- Obtaining approval to dispose of waste generated at the site at a closer landfill (at the time of preparation of this report, we have not been able to identify a more proximate landfill); and
- Conducting all renovation actions concurrently to minimize mobilization (if applicable) or material transportation costs

**6.3.2 Funding Sources**

We are not aware of any other funding sources for abatement activities besides the ADEC Brownfields program. However, according to the DBA Application completed by the Organized Village of Kasaan, the Southeast Island School District has monies available to update the furnace and the roof (Appendix 13.1).

**6.4 General Outline of Remedial Requirements**

Table 3 presents the recommended remedial actions for each source area.

**Table 3 - Recommended Remedial Actions by Source Area**

Source Area	Recommended Remedial Action
ACMs	<ul style="list-style-type: none"> <li>• Abate ACMs from the building</li> <li>• Dispose of ACMs at appropriate disposal facility</li> </ul>

**6.5 General Cost Estimate Information**

Cost estimates for abatement and/or encapsulation of each source area are presented in Table 4. Detailed breakdowns of the costs are included in Appendix 13.5.

**Table 4 - Estimated Costs for Abatement of ACMs**

Action	Estimated Cost
ACMs	
Abatement	\$20,000
Transportation and Disposal	\$1,890
<b>Total</b>	<b>\$21,890</b>

## **7.0 CONCLUSIONS**

BGES performed a hazardous building materials inventory at the library located at 117 Kasaan Street in Kasaan, Alaska. The purpose of this assessment was to evaluate the potential presence of hazardous building materials, such as LBP and ACMs, on the property.

Site activities were conducted on October 31, 2019. The subject property was not identified within any of the reviewed databases, as discussed in Section 3.5; and no evidence of contamination was identified during our research or site reconnaissance. LBP was not identified on the subject property. ACMs in good condition were identified on the subject property. The joint compound and ceiling texture materials in the hallway and main room of the library should be considered friable ACMs; and the vinyl flooring and mastic in the storage room, furnace room, and bathrooms should be considered Category I non-friable ACMs. All of the identified ACMs in the library are therefore RACM. Under OSHA's construction standard, removal of the joint compound and ceiling texture materials would constitute Class I work, and removal of the vinyl flooring and mastic would constitute Class II work.

Prior to renovations on the subject property, it is recommended that the ACM that could be disturbed during renovations be abated or encapsulated, and appropriate notice be provided to the EPA.

## **8.0 QUALIFICATIONS OF PROJECT PERSONNEL**

The on-site activities were conducted by Vanessa Crandell-Beck; US EPA-Certified Lead Inspector, AHERA-Certified Building Inspector, and Environmental Scientist I of BGES. This report was prepared by Rose Pollock; US EPA-Certified Lead Inspector, AHERA-Certified Building Inspector, and Environmental Scientist II of BGES. Ms. Crandell-Beck and Ms. Pollock are Qualified Environmental Professionals (QEPs) as defined by the ADEC. This report was reviewed by Robert Braunstein. Mr. Braunstein is a Certified Professional Geologist, and QEP as defined by the ADEC.

## **9.0 LIMITATIONS**

This report presents facts, observations, and inferences based on conditions observed during the period of our project activities, and only those conditions that were evaluated as part of our scope of work. The inspector did not demolish walls, chases, or any other building spaces while performing this assessment. Consequently, LBP and ACMs may be present in other areas that were not accessible during this survey. Our conclusions and recommendations are based on our observations, data obtained, and the results of our research; and as such, rely on the accuracy of the databases that were reviewed and the information provided by the individuals that were interviewed. In addition, changes to site conditions may have occurred since we completed our initial project activities. These changes may be from the actions of man

or nature. Changes in regulations may also impact the interpretation of site conditions.

## 10.0 REFERENCES

ADEC Reuse and Redevelopment Program *Property Assessment and Cleanup Plan (PACP) Guidelines*, July 2, 2010

Western Regional Climate Center US COOP Station Map <https://wrcc.dri.edu/coopmap/>

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey - <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

FEMA Flood Map Service Center - <https://msc.fema.gov/portal/home>

US Census Bureau - <https://www.census.gov/data.html>

ADEC SWIMS Database -

<http://www.arcgis.com/home/item.html?id=c3b5562dcd204114a30a1619ae8f5cee>

Alaska Department of Commerce, Community, and Economic Development; Division of Community and Regional Affairs; Community Profile Maps -

<http://dced.maps.arcgis.com/apps/webappviewer/index.html?id=18fdb060875740fdad22099ca779d637>

and Information Portal -

<https://dced.maps.arcgis.com/apps/MapJournal/index.html?appid=9754f14e9ff1444c8758754a3fc755cf>

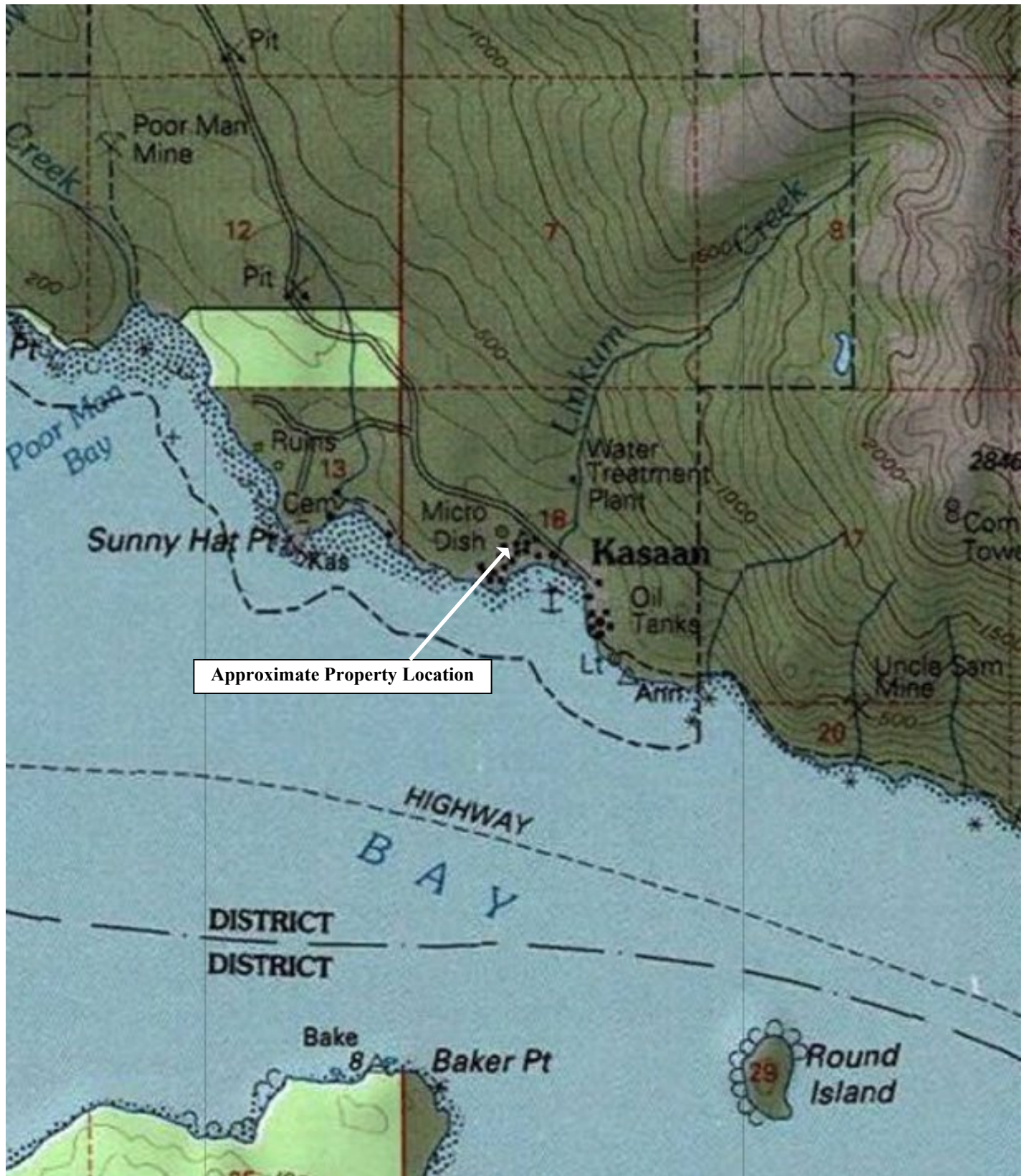
40 CFR Part 61, Subpart M – National Emission Standard for Asbestos - <https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=5f8138597d32fa4b97bec5ca18193d59&mc=true&n=pt40.10.61&r=PART&ty=HTML#sp40.10.61.m>

OSHA Occupational Safety and Health Standards: Toxic and Hazardous Substances (Standard No. 1910.1001) - <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1001>

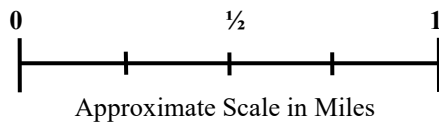
**11.0 FIGURES**

- Figure 1 Property Vicinity Map
- Figure 2 June 1, 1982 Aerial Photograph
- Figure 3 March 26, 2019 Aerial Photograph
- Figure 4 ADEC Contaminated Sites Location Map
- Figure 5 PACBM Sample Locations





Source: Provided by Google Earth Pro ©, and the Statewide Digital Mapping Initiative data service hosted by UAF-GINA



Kasaan Library  
 117 Kasaan Street  
 Kasaan, Alaska  
**Property Vicinity Map**

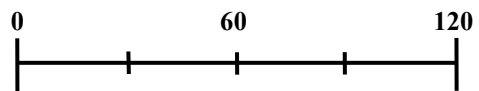


**December 2019**

**Figure 1**



Source: Quantum Spatial



Approximate Scale (in feet)



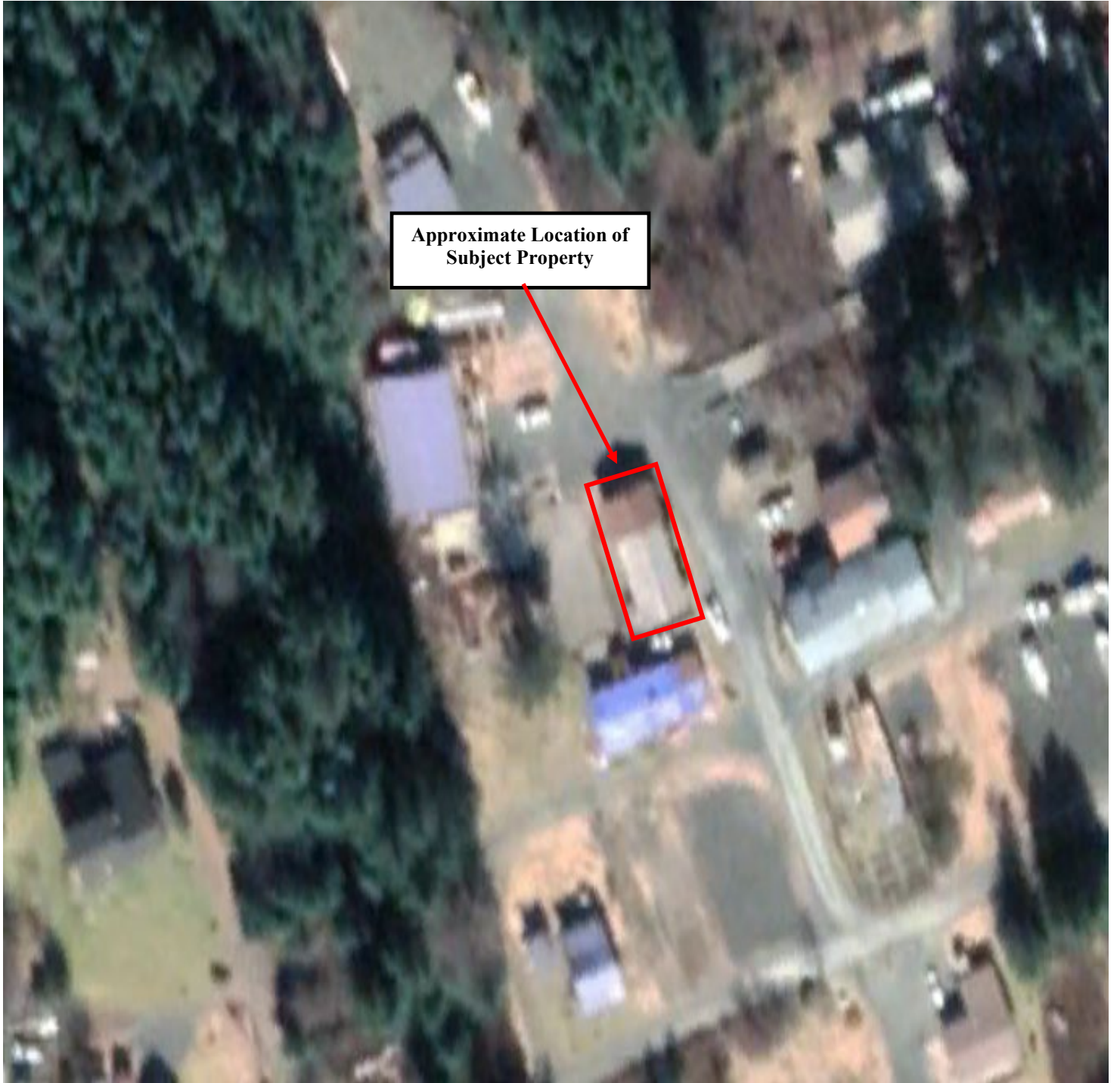
Kasaan Library  
117 Kasaan Street  
Kasaan, Alaska

**June 1, 1982 Aerial Photograph**

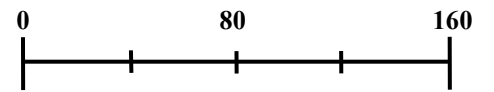


**December 2019**

**Figure 2**



Source: Google Earth



Approximate Scale (in feet)



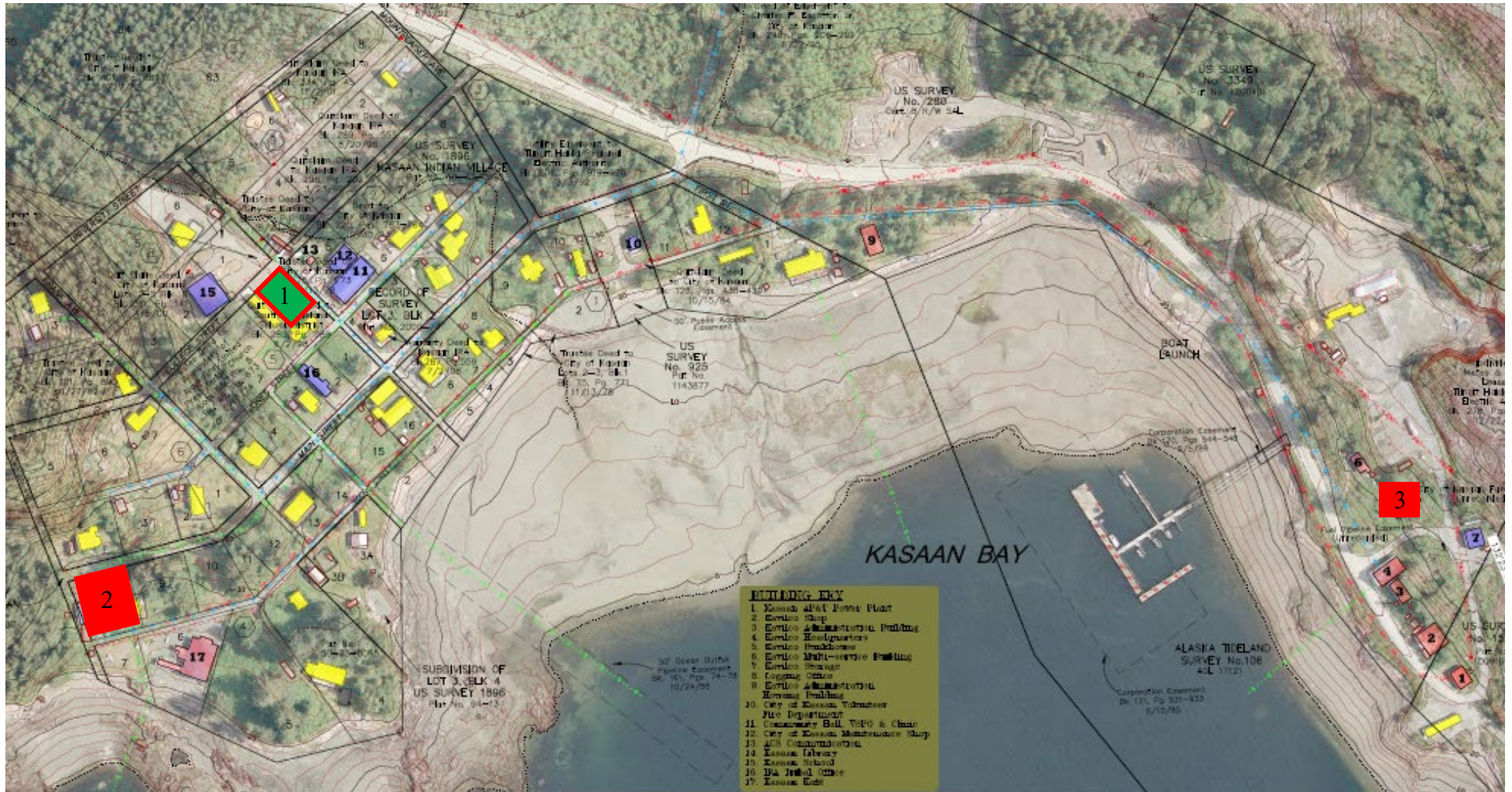
Kasaan Library  
117 Kasaan Street  
Kasaan, Alaska

**March 26, 2019 Aerial Photograph**

  
BGES, INC.

**December 2019**

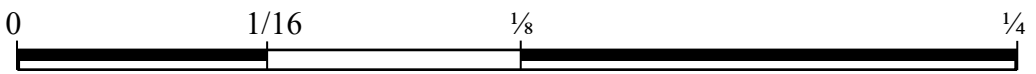
**Figure 3**



**BUILDING KEY**

- 1 Kasaan A&P Power Plant
- 2 Kasaan Shop
- 3 Kasaan Administration Building
- 4 Kasaan Roadhouse
- 5 Kasaan Truckhouse
- 6 Kasaan Multi-service Building
- 7 Kasaan Garage
- 8 Kasaan Office
- 9 Kasaan Administration Homeless Building
- 10 City of Kasaan Volunteer Fire Department
- 11 Community Ball, W&P & Clinic
- 12 City of Kasaan Maintenance Shop
- 13 ACS Construction
- 14 Kasaan Library
- 15 Kasaan School
- 16 IFA Retail Center
- 17 Kasaan Cafe

Image Source: 2004 Community Map of Kasaan



Approximate Scale in Miles

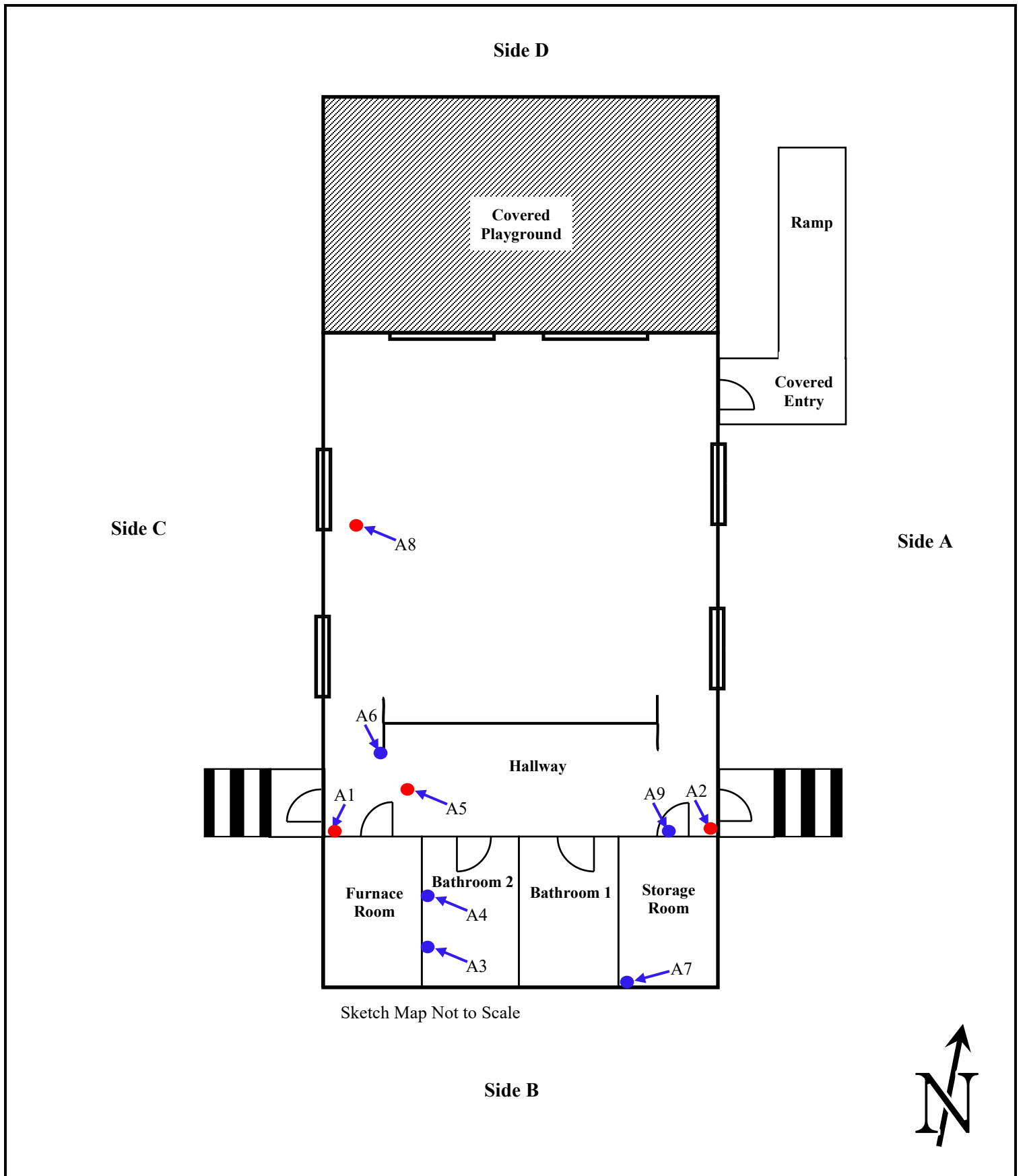
<u>KEY</u>	
<span style="color: green;">■</span>	= Subject Property
<span style="color: red;">■</span>	= ADEC Contaminated Site
Note: Numbers refer to listings in Table 1	



Kasaan Library  
117 Kasaan Street  
Kasaan, Alaska

**ADEC Contaminated Sites Location Map**

	December 2019	Figure 4
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**Key**

- Sample Location (< 1 percent asbestos)
- Sample Location (> 1 percent asbestos)

PACBM = potential asbestos containing building material

Kasaan Library  
 117 Kasaan Street  
 Kasaan, Alaska  
**PACBM Sample Locations**



**December 2019**

**Figure 5**

**12.0 TABLES**

Table 1	ADEC Contaminated Sites Data	Page 8
Table 2	Positive ACM Sample Locations and Results	Page 13
Table 3	Recommended Remedial Actions by Source Area	Page 17
Table 4	Estimated Costs for Abatement of ACMs	Page 17

**13.0 APPENDICES**

## **13.1 DBA Request Forms**





## DEC Brownfield Assessment & Cleanup Application

Each of these questions must have a response in order for your request to be considered. Please provide as much information as possible, as this application will provide the tools we need to determine if your site is eligible for brownfields services. We highly encourage you to contact ADEC brownfield staff to discuss any issues you may have. Brownfield staff can review your application prior to submittal to evaluate eligibility and completeness.

Threshold Criteria: The following must be TRUE:

1. This site IS NOT federally owned.
2. To our knowledge, this site or facility HAS NOT received funding for remediation from the Leaking Underground Storage Tank (LUST) Trust Fund.
3. The Applicant/Organization requesting this service IS NOT directly responsible for causing the potential contamination.
4. The Owner of the property IS NOT directly responsible for causing the potential contamination.
5. There is a documented reuse or redevelopment plan for the site. (Documented means that it is in a resolution, business plan, or economic development plan, or that funding for reuse is actively being sought and can be documented).

If any of the above statements is NOT TRUE, your site is probably not eligible for brownfield services. If you have questions or concerns, please contact us to discuss them. We are happy to talk with you – we want to help you submit a successful DBAC application!

Lisa Griswold  
[lisa.griswold@alaska.gov](mailto:lisa.griswold@alaska.gov)  
 (907) 269-2021

### SUBMISSION REQUIREMENTS:

A completed application must be received via email at [lisa.griswold@alaska.gov](mailto:lisa.griswold@alaska.gov) or [Christy.howard@alaska.gov](mailto:Christy.howard@alaska.gov) or via mail at one of the following addresses no later than **5pm AST on Friday, March 1, 2019**:

Alaska Department of Environmental Conservation Contaminated Sites Program  
 Post Office Box 111800  
 Juneau, AK 99811-1800  
 Attention: Christy Howard

Alaska Department of Environmental Conservation Contaminated Sites Program  
 555 Cordova Street, 2nd floor  
 Anchorage, AK 99501  
 Attention: Lisa Griswold







Has the site had any previous assessment activities?

Yes

No

If yes, what kind of assessment activities have been done?

DBA  Targeted Brownfield Assessment Other

**Please attach summaries from previous assessment reports if site is already on the DEC Contaminated Sites Database. Please attach full reports from previous assessment work if site is not already on the DEC Contaminated Sites database.**

Site name:

Address:

Legal Description (If known):

Section:

Township:

Range:

Tax lot number(s):

When was this property acquired by the current owner?

How was this property acquired by the current owner?

Previous ownership history (if known):

Approximate acres:

How many buildings or structures are on the property?

What is the condition of each of the buildings and structures on the property?

***E. Contamination – real or perceived***

What are the known or suspected contaminant(s) at the site?

Hazardous Substances

Petroleum

Hazardous Building Materials



How was the property previously used? (mark all that apply)

Tank farm

Landfill (permitted or un-permitted)

Dump site

Gas Station

Dry Cleaner

Mining Operations

Underground Storage Tank (UST)

Above Ground Storage Tank (AST) Drums

Military activities

Other:

List the source(s) and location(s) of contamination:

Briefly describe how and when this site may have become contaminated:

Do you know who may have caused the contamination?

Describe any other concerns with the site and identify any specific problems limiting reuse:

Is this site currently being used? If yes, describe how it is being used?

**Please attach an aerial photograph showing the location of the site in relation to the community and circle any areas of known or suspected contamination**

What steps has the landowner or community taken to safeguard against the real or suspected contamination?



## RANKING CRITERIA

### ***A. Project Requirements***

What services are you seeking?

Assessment

Cleanup

Describe to the best of your ability what your project team believes are the needed environmental assessment or cleanup activities:

### ***B. Reuse Plan***

Please describe the reuse plan that the proposed work will help accomplish. (Reuse goals can include: new construction, redevelopment using existing infrastructure, creation of a recreation area, preservation of green space, restoration of subsistence use, etc.)

### ***C. Viability of Reuse Plan***

Will this DBAC service be used to leverage other funding or services for the project? If so, please describe those.

Have you sought, are you currently seeking, or are you planning to seek additional funding? If so, please describe those plans.

Does the community have financial or other resources for other phases of the project, such as equipment, labor, in-kind services, or funding for cleanup or new construction?

**Please attach any documentation referencing resolutions, business planning, community planning, a proposal for grant funding, or loan applications that helps support the vision for the reuse or redevelopment of the property in question.**



***D. Project Costs***

Do you have any information regarding how much the assessment or cleanup project will cost? (If a previous assessment has been conducted, sometimes a cost estimate for future work has been included.)

**Please be aware that the scope of the requested work must be within our funding capacity. If you have questions regarding this, please contact DEC to discuss further.**

***E. Community Support and Benefit***

Project Team –

Please form a project team of three or more individuals or organizations to ensure continuity beyond this effort and coordination for success of the overall project. Attach a letter of support from each team member and list the names and contact information of each individual or organization below. Please note: Environmental field work is often conducted during the summer. Please designate one member of your project team as the primary contact for the life of the project who can answer questions for DEC or their contractors as they arise.

**Primary Contact:**

Team member:

Team member:

Please describe how this reuse is a benefit to your community and why this is important to your community. (Some things to consider: creation of jobs, preservation of historical or culturally significant property, location for community activities or education, preservation or restoration of subsistence habitat, reuse or recycling of materials or infrastructure, cost savings for the community, etc.)

Please describe the community's support for this work and (Some things to consider: attaching public meeting notes where the site was discussed; attaching letters of support from other community members; etc.)



Please describe any local resources or individuals that are available to assist with the DBAC work being requested. (Some things to consider: our contractors doing assessment or cleanup work often require local assistance with site visits, setting up interviews with those knowledgeable about the site, lodging, excavation equipment, and local transportation).

**Please let us know if other work is being planned or underway in your community that may help assist in this effort, such as available heavy equipment, heavy equipment operators, Qualified Samplers (as defined in 18 AAC 75.333), funding, or other resources.**

***F. Bonus Points***

Does the reuse plan call for green building or habitat preservation?

Yes  No

Is the site of historical or cultural significance?

Yes  No

Does the reuse plan call for the use of alternative energy?

Yes  No

***Request for Application Meeting***

Potential applicants for DEC Brownfields Assessment & Cleanup services are **highly encouraged** to have a meeting with DEC Brownfield Staff concerning their application. Early communication will allow participants to receive technical assistance, and allow time to address any deficiencies in the application. Our goal is to assist you in completing a comprehensive and successful application!

**Disclaimer**

Under no circumstances does an award of DBAC services imply that DEC accepts liability for any contamination that may exist at the site, nor is DEC responsible for any necessary cleanup of hazardous substances that may be found at the site. Liability for contamination on a property is specifically addressed in Alaska Statute (AS) 46.03.822, which outlines those who are liable for the release of a hazardous substance. The general liability categories include: (1) those with an ownership interest in the property; (2) those in control of the substance at the time of the release; or (3) those who arrange for disposal or transport of the substance.

Brownfield work focuses on clarifying environmental concerns associated with property for which there is no known viable responsible party. By applying for a DEC Brownfield Assessment or Cleanup, it should be clear to all parties associated with a request that the work requested of DEC is designed to identify, clarify, and in some cases, remediate environmental hindrances that currently impede the continued use, proposed use, redevelopment, or sale of a property. Work conducted by DEC may result in identifying a property as a contaminated site, and require the site be listed on DEC's Contaminated Sites Database. With listing comes the requirement of potentially responsible and liable parties to address cleanup of contamination in accordance with regulatory requirements.



### DBAC Request Submittal Checklist

Before submitting your DBAC request form, please check the following items are complete:

Did you answer each question?

Did you attach a **letter from the property owner** granting access to the site, if the owner is different from the applicant?

Did you attach a **letter of support** from each team member?

Did you attach a **site map or aerial photograph** of the site with the information requested?

Did you attach executive summaries or summary and conclusions sections from any **past environmental reports** about the site?

Did you attach documentation of the **reuse or redevelopment plan** the community has for the site?

Did you identify a **primary contact** for the life of the DBAC project?



**13.2 Property Photographs**



**Photo 1. Kasaan Library (facing southwest)**



**Photo 2. Kasaan Library (facing northwest)**



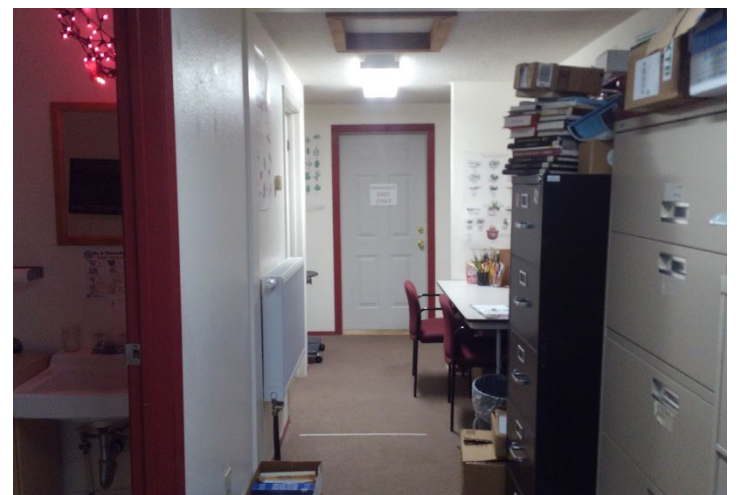
**Photo 3. Kasaan Library (facing northeast)**



**Photo 4. Kasaan Library (facing south-southwest)**



**Photo 5. Kasaan Library main room**



**Photo 6. Kasaan Library hallway**

**Kasaan Library  
Kasaan, Alaska  
Property Photographs**



**December 2019**

**Figure 13.2.1**



Photo 7. Kasaan Library main room



Photo 8. Kasaan Library, hallway looking into main room



Photo 9. Kasaan Library hallway



Photo 10. Kasaan Library furnace room



Photo 11. Kasaan Library bathroom 2 (used as storage)



Photo 12. Kasaan Library storage room

Kasaan Library  
Kasaan, Alaska  
Property Photographs

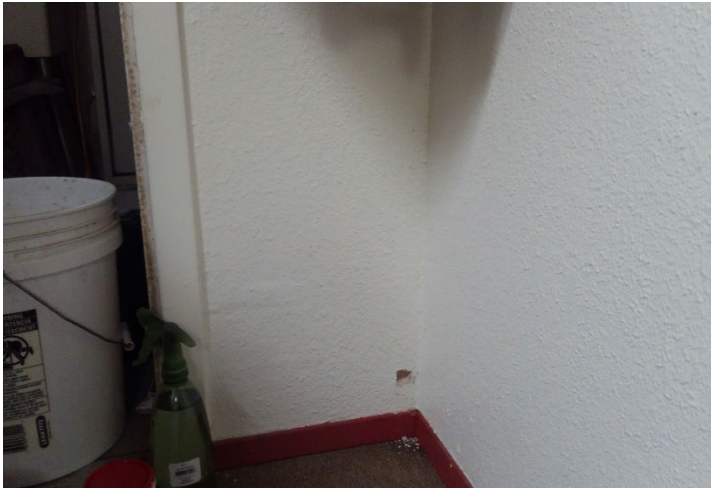


Photo 13. Sample A-1, Library, Corner BC, Wall Material



Photo 14. Sample A-2, Library, Corner AB, Wall Material, Post-Patching

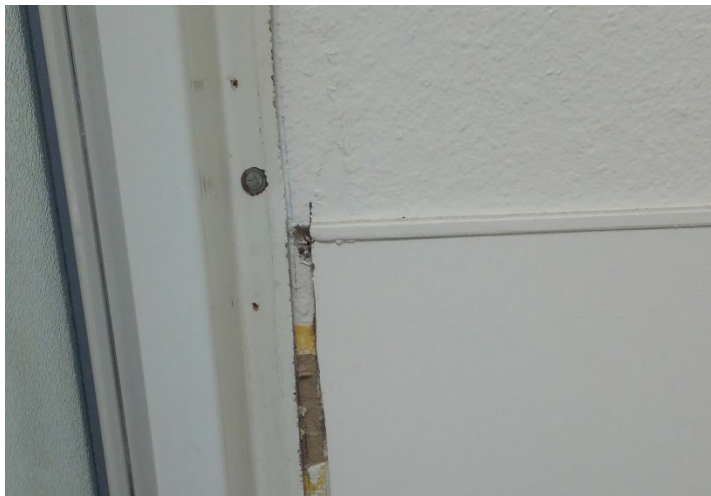


Photo 15. Sample A-3, Bathroom 2, Wall C, Mastic and Tape



Photo 16. Sample A-4, Bathroom 2, Wall C, Flooring and Mastic



Photo 17. Sample A-5, Hallway, Ceiling, Ceiling Texture



Photo 18. Sample A-6, Hallway Divider Wall, Corner CB, Wall Material

Kasaan Library  
Kasaan, Alaska  
Property Photographs



December 2019

Figure 13.2.3



**Photo 19. Sample A-7, Storage Room, Corner BC, Wall Material**



**Photo 20. Sample A-8, Library, Ceiling Texture and Wall Material**

Kasaan Library  
Kasaan, Alaska  
**Property Photographs**



**December 2019**

**Figure 13.2.4**

**13.3 Environmental Records Review Documents**



Alaska Department of  
ENVIRONMENTAL CONSERVATION

CONTAMINATED SITES    PREVENTION PREPAREDNESS & RESPONSE

RESPONSE FUND ADMIN    REPORT A SPILL

You are here: [DEC](#) / [SPAR](#) / [CSP](#) / [SPAR Online Services](#) / [Contaminated Sites Search](#) / Site Report

## Site Report: Kasaan Library

**SITE NAME:** Kasaan Library

**ADDRESS:** 117 Kasaan Street; Lot 8; ~11 Miles SSE of Thorne Bay, Thorne Bay, AK 99919

**FILE  
NUMBER:** 1515.38.

**HAZARD ID:** 27128

**STATUS:** Informational

**STAFF:** Lisa Griswold, 9072692021 [lisa.griswold@alaska.gov](mailto:lisa.griswold@alaska.gov)

**LATITUDE:** 55.539666

**LONGITUDE:** -132.404376

**HORIZONTAL  
DATUM:** WGS84

*We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.*

## Problems/Comments

The Kasaan Library is housed in a modular unit owned by the Southeast Island School District (SISD) which is also used as a part-time elementary school classroom. The building was previously owned by the Alaska Department of Transportation and Public Facilities and conveyed to SISD in 1995. The SISD conducted an asbestos survey and is aware that asbestos is present in the ceiling texturing, storage closet, furnace room, and both bathrooms. A building renovation is planned including installation of an updated heating system, reconstruction for increased heat circulation, and installation of a new roof. The Organized Village of Kasaan (OVK) is partnering with the City of Kasaan and SISD to determine what hazardous building material (HBM) is present in the building, what HBM will need to be abated/removed for the renovations to occur, and possible cost-effective alternatives for abatement and/or disposal of HBM from the building. DEC is providing DEC Brownfield Assessment or Cleanup services for this project.

## Action Information

ACTION DATE	ACTION	DESCRIPTION	DEC STAFF
8/26/2019	Site Added to Database	A new site has been added to the database	Mitzi Read

## Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
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## Control Type

TYPE	DETAILS
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## Requirements

DESCRIPTION	DETAILS
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Alaska Department of  
ENVIRONMENTAL CONSERVATION

CONTAMINATED SITES    PREVENTION PREPAREDNESS & RESPONSE

RESPONSE FUND ADMIN    REPORT A SPILL

## SITE REPORT: DISCOVERY CAMPUS KASAAN

**SITE NAME:** Discovery Campus Kasaan

**ADDRESS:** SE of Intersections of Thompson Avenue with Main Street and Young Street; ~12  
Mi SSE of Thorne Bay, Thorne Bay, AK 99919

**FILE  
NUMBER:** 1515.38.004

**HAZARD ID:** 26864

**STATUS:** Informational

**STAFF:** Lisa Griswold, 9072692021 [lisa.griswold@alaska.gov](mailto:lisa.griswold@alaska.gov)

**LATITUDE:** 55.538580

**LONGITUDE:** -132.406624

**HORIZONTAL  
DATUM:** WGS84

*We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.*

## Problems/Comments

In January 2018, the Organized Village of Kasaan applied for a DEC Brownfield Assessment and Cleanup service to characterize stained soil that was discovered when a former residence and HHOT were removed to facilitate renovation of the area for tourism. The community would like to have the area characterized and cleaned up so it can be utilized as a park with food gathering capacity next to their cabins, carving shed, and cafe.

## Action Information

ACTION DATE	ACTION	DESCRIPTION	DEC STAFF
3/13/2018	Brownfields Award	SFY 2019 DEC Brownfields Assessment and Cleanup Service awarded on this date. The Organized Village of Kasaan applied for DBAC funding to assess a property in town currently hindering redevelopment of the Discovery Campus.	Lisa Griswold
5/29/2018	Site Added to Database	A new site has been added to the database	Mitzi Read
2/5/2019	Update or Other Action	NTP issued to Ahtna Engineering Services, LLC to conduct DEC Brownfields Assessment and Cleanup Service at the Discovery Campus.	Lisa Griswold
3/19/2019	Report or Workplan Review - Other	ADEC received a Site Characterization Work Plan for the SFY 2019 DBAC work on March 14, 2019. The Work Plan describe the activities outlined in NTP 190000299 and Amendment 1 including: soil investigation utilizing test pits, and the installation of temporary monitoring wells to collect analytical samples from the area presumed to be contaminated with heating oil. ADEC submitted comments on the work plan and requested that a revised work plan be submitted by April 2, 2019.	Lisa Griswold
3/27/2019	Site Characterization Workplan Approved	ADEC received the revised Site Characterization Work Plan for SFY 2019 DBAC work on March 25, 2019. The Work Plan described the activities outlined in NTP 190000299 and Amendment 1 including: soil investigation utilizing test pits, and the installation of temporary monitoring wells to collect analytical samples from the area presumed to be contaminated with heating oil. The revised work plan incorporated all comments listed in ADEC's March 19, 2019 letter. This work plan is hereby approved.	Lisa Griswold

## Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
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Alaska Department of  
ENVIRONMENTAL CONSERVATION

CONTAMINATED SITES    PREVENTION PREPAREDNESS & RESPONSE

RESPONSE FUND ADMIN    REPORT A SPILL

## SITE REPORT: FORMER KAVILCO BUNKHOUSE - KASAAN

**SITE NAME:** Former Kavilco Bunkhouse - Kasaan

**ADDRESS:** ~400 Ft ESE of Kasaan Dock; ~12 Mi SE of Thorne Bay, P.O. Box 26-KXA, Ketchikan, AK, 99950-0340, Thorne Bay, AK 99919

**FILE**  
**NUMBER:** 1515.38.002

**HAZARD ID:** 25940

**STATUS:** Cleanup Complete

**STAFF:** ,

**LATITUDE:** 55.536802

**LONGITUDE:** -132.396433

**HORIZONTAL**  
**DATUM:** WGS84

*We make every effort to ensure the data presented here is accurate based on the best available information currently on file with DEC. It is therefore subject to change as new information becomes available. We recommend contacting the assigned project staff prior to making decisions based on this information.*

## Problems/Comments

In August 2012, during utility construction activities, petroleum-contaminated soil was discovered near the former Kavilco bunkhouse in Kasaan. The site was part of a former cannery facility. Diesel range organics were confirmed above DEC cleanup levels. The source and extent of contamination have not been determined.

## Action Information

ACTION DATE	ACTION	DESCRIPTION	DEC STAFF
10/12/2012	Spill Transferred from Prevention Preparedness and Response Program	Spill transferred by PERP staff Bob Fultz. Spill no. 12119921401; spill date = 8/1/12; substance = petroleum (unknown type); quantity = unknown.	Mitzi Read
11/8/2012	Site Added to Database	A new site has been added to the database	Mitzi Read
11/9/2012	Exposure Tracking Model Ranking	Initial ranking with ETM completed for source area id: 79358 name: Former Bunkhouse	Mitzi Read
12/19/2012	Potentially Responsible Party/State Interest Letter	Potentially Responsible Party/State Interest Letter sent to responsible party.	Sally Schlichting
9/11/2013	Update or Other Action	Staff changed from Erik Norberg to Denise Elston.	Kristin Thompson
1/6/2014	Update or Other Action	Staff changed from Denise Elston to Sally Schlichting.	Kristin Thompson
3/13/2014	Update or Other Action	Spoke to Robert Badgett with R&M Engineering and he is preparing a letter and pictures detailing corrective actions. Preparing for site closure with an IC.	Danielle Duncan
3/17/2014	Update or Other Action	Spoke to Sam Thomas Jr @Organized Village of Kasaan and he said that he would send over documentation and photos detailing site mitigation and cleanup efforts.	Danielle Duncan
4/7/2014	Update or Other Action	Spoke with R. Badgett @ R&M and he said he should have the report in a week or two.	Danielle Duncan
4/25/2014	Update or Other Action	Spoke with Sam Thomas Jr at OVK again and he said that he would send over documentation and photos detailing site mitigation and cleanup efforts.	Danielle Duncan
5/5/2014	Report or Workplan Review - Other	Rec'd and reviewed Site Inspection Report dated 3/20/14 from R&M Engineering. Contained photos and documentation of DEC requested mitigation activities: 1. Installation of a drainage ditch along the east side of the upper roadway that is functioning and channeling uphill runoff along the driveway to a culvert where runoff is diverted across the driveway and into a rocky catch basin followed by buried culvert and Typar wrapped drain rock to a ditch along Bay Road. 2. On the north side of the building and lower parking area, Typar was placed before backfilling with aggregate and shotrock. 3. A	Danielle Duncan

culvert was installed cross the upper roadway and area north of the building to divert uphill drainage. Sent a Report Approval letter via email and mail to S. Thomas of OVK.

6/11/2014	Exposure Tracking Model Ranking	A new updated ranking with ETM has been completed for source area 79358 Former Bunkhouse.	Danielle Duncan
6/16/2014	Cleanup Complete Determination Issued		Danielle Duncan
6/20/2014	Meeting or Teleconference Held	Spoke to P. Peterson, L. Doens, and C. Smith re: the closure letter where on the map provided by R&M, it says that there is no contamination at the new septic leach field when in reality, R&M took no samples there. I requested that R&M submit in writing a revised map and the reason why the original is incorrect.	Danielle Duncan

## Contaminant Information

NAME	LEVEL DESCRIPTION	MEDIA	COMMENTS
DRO	Between Method 2 Migration to Groundwater and Human Health/Ingestion/Inhalation	Soil	

## Control Type

TYPE	DETAILS
No ICs Required	

## Requirements

DESCRIPTION	DETAILS
Advance approval required to transport soil or groundwater off-site.	

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**13.4 Laboratory Data Package & XRF Data**



# EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com> / [sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order: 091925198

Customer ID: BGES62

Customer PO:

Project ID:

**Attention:** Brian Braunstein  
BGES, Inc.  
1042 East 6th Avenue  
Anchorage, AK 99501

**Phone:** (907) 696-0237

**Fax:** (907) 644-2901

**Received Date:** 11/02/2019 10:15 AM

**Analysis Date:** 11/04/2019 - 11/08/2019

**Collected Date:**

**Project:** KASAAN

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-1-Drywall <i>091925198-0001</i>	LIBRARY, UNDER DRINKING FOUNTAIN, CORNER BC - WALL MATERIAL	White Non-Fibrous Homogeneous		80% Gypsum 20% Non-fibrous (Other)	None Detected
A-1-Joint Compound <i>091925198-0001A</i>	LIBRARY, UNDER DRINKING FOUNTAIN, CORNER BC - WALL MATERIAL	White Non-Fibrous Homogeneous		90% Ca Carbonate 8% Non-fibrous (Other)	2% Chrysotile
A-1-Skim Coat <i>091925198-0001B</i>	LIBRARY, UNDER DRINKING FOUNTAIN, CORNER BC - WALL MATERIAL	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	<1% Chrysotile
A-2-Drywall <i>091925198-0002</i>	LIBRARY, CORNER AB - WALL MATERIAL	Peach Non-Fibrous Homogeneous		80% Gypsum 20% Non-fibrous (Other)	None Detected
A-2-Joint Compound <i>091925198-0002A</i>	LIBRARY, CORNER AB - WALL MATERIAL	Tan Non-Fibrous Homogeneous		80% Ca Carbonate 18% Non-fibrous (Other)	2% Chrysotile
A-2-Skim Coat <i>091925198-0002B</i>	LIBRARY, CORNER AB - WALL MATERIAL	Tan/White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	<1% Chrysotile
A-3-Mastic <i>091925198-0003</i>	BATHROOM 2, WALL C - MASTIC & TAPE	Yellow Non-Fibrous Homogeneous		80% Matrix 20% Non-fibrous (Other)	None Detected
A-3-Tape 1 <i>091925198-0003A</i>	BATHROOM 2, WALL C - MASTIC & TAPE	Brown Non-Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
A-3-Tape 2 <i>091925198-0003B</i>	BATHROOM 2, WALL C - MASTIC & TAPE	White Fibrous Homogeneous	90% Cellulose	10% Non-fibrous (Other)	None Detected
A-3-Compound <i>091925198-0003C</i>	BATHROOM 2, WALL C - MASTIC & TAPE	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	<1% Chrysotile
A-4-Flooring <i>091925198-0004</i> <i>This is a composite result of both vinyl and backing layer</i>	BATHROOM 2, FLOOR - FLOORING & MASTIC	Gray/White Non-Fibrous Homogeneous	20% Cellulose	10% Ca Carbonate 40% Matrix 30% Non-fibrous (Other)	None Detected
A-4-Mastic <i>091925198-0004A</i>	BATHROOM 2, FLOOR - FLOORING & MASTIC	Yellow Non-Fibrous Homogeneous		30% Ca Carbonate 50% Matrix 20% Non-fibrous (Other)	None Detected
A-5 <i>091925198-0005</i>	HALLWAY, CEILING, NEAR WALL A - CEILING TEXTURE	White Non-Fibrous Homogeneous		60% Ca Carbonate 37% Non-fibrous (Other)	3% Chrysotile
A-6-Drywall <i>091925198-0006</i>	HALLWAY DIVIDER, WALL A - WALL MATERIAL	Tan Non-Fibrous Homogeneous		80% Gypsum 20% Non-fibrous (Other)	None Detected

Initial report from: 11/08/2019 16:35:32



# EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com> / [sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

**EMSL Order:** 091925198  
**Customer ID:** BGES62  
**Customer PO:**  
**Project ID:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
A-6-Skim Coat <i>091925198-0006A</i>	HALLWAY DIVIDER, WALL A - WALL MATERIAL	Tan/White Non-Fibrous Homogeneous		90% Ca Carbonate 10% Non-fibrous (Other)	<1% Chrysotile
A-7-Drywall <i>091925198-0007</i>	STORAGE ROOM, CORNER BC - WALL MATERIAL	White Non-Fibrous Homogeneous		80% Gypsum 20% Non-fibrous (Other)	None Detected
A-7-Joint Compound <i>091925198-0007A</i>	STORAGE ROOM, CORNER BC - WALL MATERIAL	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	<1% Chrysotile
A-7-Skim Coat <i>091925198-0007B</i>	STORAGE ROOM, CORNER BC - WALL MATERIAL	White Non-Fibrous Homogeneous		80% Ca Carbonate 20% Non-fibrous (Other)	<1% Chrysotile
A-8-Drywall <i>091925198-0008</i>	LIBRARY, CEILING, NEAR WALL C - CEILING TEXTURE/MATERIAL	Pink Non-Fibrous Homogeneous		80% Gypsum 20% Non-fibrous (Other)	None Detected
A-8-Spray On Acoustic <i>091925198-0008A</i>	LIBRARY, CEILING, NEAR WALL C - CEILING TEXTURE/MATERIAL	White Non-Fibrous Homogeneous		80% Ca Carbonate 17% Non-fibrous (Other)	3% Chrysotile
A-9-Mastic <i>091925198-0009</i> <i>Inseparable paint / coating layer included in analysis</i>	LIBRARY, NEAR CORNER BA - CARPET MASTIC	Tan/White Non-Fibrous Homogeneous		10% Ca Carbonate 70% Matrix 20% Non-fibrous (Other)	None Detected
A-9-Pad <i>091925198-0009A</i>	LIBRARY, NEAR CORNER BA - CARPET MASTIC	Black Non-Fibrous Homogeneous		10% Ca Carbonate 70% Matrix 20% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Laila Murty (6)

Van (Rebecca) Huynh (16)

Matthew Batongbacal  
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial report from: 11/08/2019 16:35:32



**Company** Heuresis Corp.  
**Model** Pb200i  
**Type** XRF Lead Paint Analyzer  
**Serial Num.** 1905  
**App Version** Pb200i-REL-4.0-29

Reading #	Job	Description	RoomChoice	Structure	Member	Substrate	Wall	Concentration	Units	Result	NomSecs	Date	Time
	Kasaan	Calibration	Calibration					1.1 mg/cm2		Positive	5	10/31/2019	10:00:21
	Kasaan	Calibration	Calibration					1 mg/cm2		Positive	5	10/31/2019	10:01:09
	Kasaan	Calibration	Calibration					1.1 mg/cm2		Positive	5	10/31/2019	10:01:34
1	Kasaan	Library	Main Room	Room	Wall	Drywall	A	0.1 mg/cm2		Negative	2	10/31/2019	10:04:29
2	Kasaan	Library	Main Room	Room	Wall	Drywall	A	0.1 mg/cm2		Negative	2	10/31/2019	10:05:41
3	Kasaan	Library	Main Room	Room	Wall	Drywall	A	0.1 mg/cm2		Negative	2	10/31/2019	10:05:59
4	Kasaan	Library	Main Room	Window	Casing	Wood	A	0.1 mg/cm2		Negative	2	10/31/2019	10:07:43
5	Kasaan	Library	Main Room	Window	Casing	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:07:56
6	Kasaan	Library	Main Room	Window	Casing	Wood	A	-0.2 mg/cm2		Negative	2	10/31/2019	10:08:12
7	Kasaan	Library	Main Room	Window	Casing	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:08:30
8	Kasaan	Library	Main Room	Door		Metal	A	0 mg/cm2		Negative	2	10/31/2019	10:11:05
9	Kasaan	Library	Main Room	Door		Metal	A	0 mg/cm2		Negative	2	10/31/2019	10:11:31
10	Kasaan	Library	Main Room	Door		Metal	A	0 mg/cm2		Negative	2	10/31/2019	10:11:47
11	Kasaan	Library	Main Room	Door	Casing	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:12:02
12	Kasaan	Library	Main Room	Door	Casing	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:12:52
13	Kasaan	Library	Main Room	Door	Jamb	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:13:12
14	Kasaan	Library	Main Room	Door	Frame	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:14:16
15	Kasaan	Library	Main Room	Door		Metal	A	0 mg/cm2		Negative	2	10/31/2019	10:14:36
16	Kasaan	Library	Main Room	Door		Metal	A	0 mg/cm2		Negative	2	10/31/2019	10:14:49
17	Kasaan	Library	Main Room	Door	Casing	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:15:45
18	Kasaan	Library	Main Room	Door	Casing	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:15:59
19	Kasaan	Library	Main Room	Door	Frame	Wood	B	0 mg/cm2		Negative	2	10/31/2019	10:19:03
20	Kasaan	Library	Main Room	Door	Jamb	Wood	B	0 mg/cm2		Negative	2	10/31/2019	10:19:16
21	Kasaan	Library	Main Room	Door		Wood	B	0 mg/cm2		Negative	2	10/31/2019	10:19:39
22	Kasaan	Library	Main Room	Door		Wood	B	-0.1 mg/cm2		Negative	2	10/31/2019	10:19:56
23	Kasaan	Library	Storage Room	Room	Wall	Drywall	A	0 mg/cm2		Negative	2	10/31/2019	10:21:17
24	Kasaan	Library	Storage Room	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:21:42
25	Kasaan	Library	Storage Room	Room	Wall	Drywall	C	-0.1 mg/cm2		Negative	2	10/31/2019	10:22:06
26	Kasaan	Library	Storage Room	Room	Wall	Drywall	D	0.1 mg/cm2		Negative	2	10/31/2019	10:22:55
27	Kasaan	Library	Bathroom 1	Room	Wall	Drywall	A	0 mg/cm2		Negative	2	10/31/2019	10:24:29
28	Kasaan	Library	Bathroom 1	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:24:51
29	Kasaan	Library	Bathroom 1	Room	Wall	Drywall	C	0.1 mg/cm2		Negative	2	10/31/2019	10:25:12
30	Kasaan	Library	Bathroom 1	Room	Wall	Drywall	C	0.1 mg/cm2		Negative	2	10/31/2019	10:25:25
31	Kasaan	Library	Bathroom 1	Room	Wall	Drywall	D	0.1 mg/cm2		Negative	2	10/31/2019	10:25:49
32	Kasaan	Library	Bathroom 1	Room	Wall	Drywall	D	0.2 mg/cm2		Negative	2	10/31/2019	10:27:07
33	Kasaan	Library	Bathroom 1	Door	Casing	Wood	D	-0.2 mg/cm2		Negative	2	10/31/2019	10:28:11
34	Kasaan	Library	Bathroom 1	Door	Casing	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:28:26
35	Kasaan	Library	Bathroom 1	Door	Jamb	Wood	D	0 mg/cm2		Negative	2	10/31/2019	10:28:39
36	Kasaan	Library	Bathroom 1	Door	Frame	Wood	D	0 mg/cm2		Negative	2	10/31/2019	10:28:54
37	Kasaan	Library	Bathroom 2	Door	Casing	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:30:33
38	Kasaan	Library	Bathroom 2	Door	Casing	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:30:46
39	Kasaan	Library	Bathroom 2	Door	Jamb	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:31:02
40	Kasaan	Library	Bathroom 2	Door	Frame	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:31:15
41	Kasaan	Library	Bathroom 2	Room	Wall	Drywall	A	0.1 mg/cm2		Negative	2	10/31/2019	10:32:19
42	Kasaan	Library	Bathroom 2	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:32:48
43	Kasaan	Library	Bathroom 2	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:33:02
44	Kasaan	Library	Bathroom 2	Room	Wall	Drywall	C	0.3 mg/cm2		Negative	2	10/31/2019	10:33:41
45	Kasaan	Library	Bathroom 2	Room	Wall	Drywall	D	0.1 mg/cm2		Negative	2	10/31/2019	10:34:02
46	Kasaan	Library	Bathroom 2	Room	Wall	Drywall	D	0 mg/cm2		Negative	2	10/31/2019	10:34:41
47	Kasaan	Library	Furnace Room	Door	Casing	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:36:14
48	Kasaan	Library	Furnace Room	Door	Casing	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	10:36:32
49	Kasaan	Library	Furnace Room	Door	Jamb	Wood	D	0 mg/cm2		Negative	2	10/31/2019	10:36:54
50	Kasaan	Library	Furnace Room	Door	Frame	Wood	D	0 mg/cm2		Negative	2	10/31/2019	10:37:10
51	Kasaan	Library	Furnace Room	Room	Wall	Drywall	A	0 mg/cm2		Negative	2	10/31/2019	10:43:13
52	Kasaan	Library	Furnace Room	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:43:43
53	Kasaan	Library	Furnace Room	Room	Wall	Drywall	C	0.1 mg/cm2		Negative	2	10/31/2019	10:44:08
54	Kasaan	Library	Furnace Room	Room	Wall	Drywall	D	0.1 mg/cm2		Negative	2	10/31/2019	10:44:34

**Company** Heuresis Corp.  
**Model** Pb200i  
**Type** XRF Lead Paint Analyzer  
**Serial Num.** 1905  
**App Version** Pb200i-REL-4.0-29

Reading #	Job	Description	RoomChoice	Structure	Member	Substrate	Wall	Concentration	Units	Result	NomSecs	Date	Time
55	Kasaan	Library	Furnace Room	Room	Wall	Drywall	D	0 mg/cm2		Negative	2	10/31/2019	10:45:32
56	Kasaan	Library	Main Room	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:46:31
57	Kasaan	Library	Main Room	Room	Wall	Drywall	B	0.1 mg/cm2		Negative	2	10/31/2019	10:46:52
58	Kasaan	Library	Main Room	Room	Wall	Drywall	B	-0.1 mg/cm2		Negative	2	10/31/2019	10:47:19
59	Kasaan	Library	Main Room	Room	Wall	Drywall	B	-0.3 mg/cm2		Negative	2	10/31/2019	10:48:40
60	Kasaan	Library	Main Room	Room	Baseboard	Wood	B	-0.2 mg/cm2		Negative	2	10/31/2019	10:50:01
61	Kasaan	Library	Main Room	Room	Baseboard	Wood	B	0.3 mg/cm2		Negative	2	10/31/2019	10:50:20
62	Kasaan	Library	Main Room	Room	Baseboard	Drywall	D	0.1 mg/cm2		Negative	2	10/31/2019	10:51:28
63	Kasaan	Library	Main Room	Room	Baseboard	Drywall	C	0.1 mg/cm2		Negative	2	10/31/2019	10:52:23
64	Kasaan	Library	Main Room	Room	Baseboard	Drywall	A	-0.1 mg/cm2		Negative	2	10/31/2019	10:53:14
65	Kasaan	Library	Main Room	Room	Baseboard	Drywall	A	0.1 mg/cm2		Negative	2	10/31/2019	10:53:35
66	Kasaan	Library	Main Room	Room	Baseboard	Drywall	A	0.1 mg/cm2		Negative	2	10/31/2019	10:55:24
67	Kasaan	Library	Main Room	Door		Metal	C	-0.2 mg/cm2		Negative	2	10/31/2019	10:56:45
68	Kasaan	Library	Main Room	Door	Casing	Wood	C	-0.1 mg/cm2		Negative	2	10/31/2019	10:57:16
69	Kasaan	Library	Main Room	Door	Casing	Wood	C	0 mg/cm2		Negative	2	10/31/2019	10:57:29
70	Kasaan	Library	Main Room	Door	Jamb	Wood	C	-0.2 mg/cm2		Negative	2	10/31/2019	10:57:46
71	Kasaan	Library	Main Room	Door	Frame	Wood	C	-0.1 mg/cm2		Negative	2	10/31/2019	10:58:04
72	Kasaan	Library	Main Room	Room	Wall	Drywall	C	-0.2 mg/cm2		Negative	2	10/31/2019	10:59:49
73	Kasaan	Library	Main Room	Window		Wood	C	-0.1 mg/cm2		Negative	2	10/31/2019	11:00:16
74	Kasaan	Library	Main Room	Window		Wood	C	-0.2 mg/cm2		Negative	2	10/31/2019	11:00:36
75	Kasaan	Library	Main Room	Window		Wood	C	-0.2 mg/cm2		Negative	2	10/31/2019	11:01:56
76	Kasaan	Library	Main Room	Window		Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	11:02:54
77	Kasaan	Library	Main Room	Window		Wood	D	0.1 mg/cm2		Negative	2	10/31/2019	11:03:33
78	Kasaan	Library	Main Room	Ceiling		Drywall	D	-0.3 mg/cm2		Negative	2	10/31/2019	11:04:04
79	Kasaan	Library	Divider Wall	Room	Wall	Drywall	D	-0.3 mg/cm2		Negative	2	10/31/2019	11:04:19
80	Kasaan	Library	Divider Wall	Room	Wall	Drywall	A	0 mg/cm2		Negative	2	10/31/2019	11:05:02
81	Kasaan	Library	Divider Wall	Room	Wall	Drywall	B	-0.2 mg/cm2		Negative	2	10/31/2019	11:05:35
82	Kasaan	Library	Main Room	Ceiling		Drywall	D	0.2 mg/cm2		Negative	2	10/31/2019	11:06:20
83	Kasaan	Library	Exterior	Room	Wall	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	12:18:57
84	Kasaan	Library	Exterior	Room	Wall	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	12:19:10
85	Kasaan	Library	Exterior	Room	Wall	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	12:19:56
86	Kasaan	Library	Exterior	Room	Wall	Wood	A	-0.1 mg/cm2		Negative	2	10/31/2019	12:20:13
87	Kasaan	Library	Exterior	Room	Wall	Wood	A	0 mg/cm2		Negative	2	10/31/2019	12:20:26
88	Kasaan	Library	Exterior	Window		Wood	A	0 mg/cm2		Negative	2	10/31/2019	12:20:41
89	Kasaan	Library	Exterior	Window		Wood	A	0.1 mg/cm2		Negative	2	10/31/2019	12:20:58
90	Kasaan	Library	Exterior	Window		Wood	A	-0.2 mg/cm2		Negative	2	10/31/2019	12:21:17
91	Kasaan	Library	Exterior	Window		Wood	A	0 mg/cm2		Negative	2	10/31/2019	12:21:30
92	Kasaan	Library	Exterior	Room	Wall	Wood	B	0 mg/cm2		Negative	2	10/31/2019	12:21:48
93	Kasaan	Library	Exterior	Room	Wall	Wood	B	0 mg/cm2		Negative	2	10/31/2019	12:22:01
94	Kasaan	Library	Exterior	Room	Wall	Wood	B	-0.3 mg/cm2		Negative	2	10/31/2019	12:22:52
95	Kasaan	Library	Exterior	Room	Wall	Wood	B	-0.2 mg/cm2		Negative	2	10/31/2019	12:23:12
96	Kasaan	Library	Exterior	Room	Wall	Wood	C	-0.3 mg/cm2		Negative	2	10/31/2019	12:23:39
97	Kasaan	Library	Exterior	Room	Wall	Wood	C	-0.1 mg/cm2		Negative	2	10/31/2019	12:23:55
98	Kasaan	Library	Exterior	Room	Wall	Wood	C	-0.1 mg/cm2		Negative	2	10/31/2019	12:24:07
99	Kasaan	Library	Exterior	Window		Wood	C	-0.1 mg/cm2		Negative	2	10/31/2019	12:24:24
100	Kasaan	Library	Exterior	Room	Wall	Wood	C	0.1 mg/cm2		Negative	2	10/31/2019	12:24:44
101	Kasaan	Library	Exterior	Room	Wall	Wood	C	0 mg/cm2		Negative	2	10/31/2019	12:25:00
102	Kasaan	Library	Exterior	Room	Wall	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	12:25:18
103	Kasaan	Library	Exterior	Room	Wall	Wood	D	-0.1 mg/cm2		Negative	2	10/31/2019	12:25:36
104	Kasaan	Library	Exterior	Room	Wall	Wood	D	0 mg/cm2		Negative	2	10/31/2019	12:25:50
105	Kasaan	Library	Exterior	Window		Wood	D	-0.3 mg/cm2		Negative	2	10/31/2019	12:26:09
106	Kasaan	Library	Exterior	Window		Wood	D	-0.2 mg/cm2		Negative	2	10/31/2019	12:26:24
107	Kasaan	Library	Exterior	Window		Wood	D	0.1 mg/cm2		Negative	2	10/31/2019	12:26:41
108	Kasaan	Library	Exterior	Room	Wall	Wood	D	0.1 mg/cm2		Negative	2	10/31/2019	12:26:59
	<b>Kasaan</b>	<b>Calibration</b>	<b>Calibration</b>					<b>1.1 mg/cm2</b>		<b>Positive</b>	<b>5</b>	<b>10/31/2019</b>	<b>12:27:17</b>
	<b>Kasaan</b>	<b>Calibration</b>	<b>Calibration</b>					<b>1.1 mg/cm2</b>		<b>Positive</b>	<b>5</b>	<b>10/31/2019</b>	<b>12:27:35</b>
	<b>Kasaan</b>	<b>Calibration</b>	<b>Calibration</b>					<b>1.1 mg/cm2</b>		<b>Positive</b>	<b>5</b>	<b>10/31/2019</b>	<b>12:27:53</b>

**13.5 Cost Estimate Tables**

**SUMMARY COST ESTIMATE  
PROPERTY ASSESSMENT & CLEANUP PLAN  
KASAAN LIBRARY, KASAAN, ALASKA  
ASBESTOS-CONTAINING MATERIALS ABATEMENT**

**BGES, INC.**

<b>Asbestos Abatement</b>			<b>\$ 21,890</b>
<b>Abatement Company</b>			
Mobilization		Lump Sum = \$	5,000
Abatement of Asbestos-Containing Materials (ACMs)		Lump Sum = \$	10,000
Replacement of Abated Materials		Lump Sum = \$	5,000
<b>Transportation and Disposal of ACMs</b>			
Transportation from Craig to Juneau	4	pallets@	\$ 113 = \$ 450
Disposal	6	cubic yards@	\$ 240 = \$ 1,440
<b>ESTIMATED TOTAL =</b>			<b>\$ 21,890</b>