

PROJECT DESCRIPTION : KMR DEMOLITION B509 & B522 AND REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL, HILO, STATE OF HAWAII, DEPARTMENT OF DEFENSE, HAWAII ARMY NATIONAL GUARD, JOB NO. CA-202007

**LOCATION : HAWAII ARMY NATIONAL GUARD KMR GROUNDS
1304 KEKUANAOA STREET
HILO, HAWAII 96720**

SCOPE OF WORK/SPECIFICATIONS:

Supply of all necessary materials, labor, and use of tools and equipment to implement and complete, in safe and acceptable procedures and workmanship, the total abatement of all building components containing hazardous materials, and total demolition, removal, and disposal of Bldg. 509 (Organizational Classroom) and Bldg. 522 (Indoor Firing Range), in strict compliance to the rules and regulations on materials bagging, storing, handling, transporting, and disposal, set by the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and by the Federal, State, and Local Agencies. The principal work items shall be but not limited to the following:

- A. Workers and adjacent building Users' protection;**
- B. Preparatory work;**
- C. Total abatement of building components containing hazardous materials (bagging/storing, handling, transporting, disposing, or recycling);**
- D. Total demolition work;**
- E. Ground encapsulation (remediation);**
- F. Final clean-up;**
- G. Reports.**

A. Workers and adjacent building Users' protection.

1.) Certified Industrial Hygienist:

To ensure health protection to abatement Workers and adjacent building Users, the Contractor shall hire the services of a Certified Industrial Hygienist (CIH) with working experience in the asbestos and lead-contaminated dust, and other hazardous materials abatement work, to monitor the air quality inside and outside the confined areas during the abatement work. The CIH shall be given authority to order the Contractor's Project Manager or Superintendent to stop the abatement work at any time he/she determines that the site working conditions are not within the specification requirements and applicable regulations. The work stoppage shall continue until corrective actions have been taken and specified conditions restored to the satisfaction of the air monitoring specialist.

2.) OSHA Competent Person:

The Contractor shall hire/assign, as member of the abatement team, an OSHA accredited "Competent Person" who shall have the responsibility to ensure that the compliance program for the project is adhered to by all personnel at the project site.

3.) OSHA required Compliance Program:

The Contractor shall prepare the OSHA required written Compliance Program for the purpose of preventing employee exposure above the Permissible Exposure Limit (PEL) and address how that will be done whether that be through the use of engineering controls, respiratory protection, or by use of good work practices.

4.) Site security

- a.) The work areas are to be restricted only to authorized, trained, and protected personnel. These may include the Contractor's employees, the HIARNG/FMO Project Manager (FMO PM) and his assigned Inspector, the Facility Users' Safety Officer, State and Local Inspectors, and any other designated individuals. A list of authorized personnel shall be established prior to job start.
- b.) A Visitor/Worker Entry Log shall be maintained.
- c.) The Contractor shall have control, subject to the approval of the FMO PM and the HIARNG Facility Commander, of security in the work area and in proximity of Contractor's equipment and materials. The Contractor shall take whatever necessary steps necessary to safeguard his work and also the property of the State and HIARNG.

5.) Personal Protective Equipment (PPE)

The Contractor must provide the minimum regulation requirement for Personal Protective Equipment to all Workers, FMO PM and Inspector, HIARNG Safety Officer, State and local Inspectors, and other authorized personnel while in the construction site and when entry to the work areas is necessary.

NOTES: IMPORTANT CORRECTIONS ON BUILDING NUMBER DESIGNATION AND DESCRIPTION

The attach Hazardous Materials Survey Report described Building 509 as the Medical Building and the Firing Range as Building 552. Corrected building description and building number designation are as follows:

- **Building 509 (Organizational Classroom)**
- **Building 522 (Firing Range)**

B. Preparatory Work:

1. Application and procurement of all necessary Permits from all concerned Government and Private Agencies, for the demolition of structures and transport of hazardous materials to recycling plants or dump sites.
2. Application of permit and secure approval, if required, from the Department of

Transportation/Airport Division (DOT/AD), for the use of mobile crane/s and other equipment of which height/s may be restricted due to the sensitivity of Airport operations and safety.

3. Erection of temporary dust barriers along Organizational Classroom Building 509 and Indoor Firing Range Building 522 perimeters as containment barrier for debris, dust, and other airborne particles, and to prevent non-project personnel from entering the work area. Temporary dust barriers shall be erected only around buildings that are to be abated and demolished. All other structures in the area must remain accessible throughout the abatement and demolition/removal work period.
Minimum height of dust barriers are as follow:
For Organizational Classroom Building (Bldg. 509) : 8 feet
For Indoor Firing Range Building (Bldg. 522) : 8 feet
4. Laying and fixing of “boom” barriers on the ground around each building before the start of abatement and demolition work, as sediment and erosion control barriers. Use the compost filter socks with twelve (12”) inch-diameter netting. Use 2” x 2” wooden stakes spaced at ten (10’) feet on centers to hold the filter socks in place. Use any brand/model provided it meets the US Army Corps of Engineers’ standard specifications.
5. Delivery and placement to a designated area of temporary trash bin/s appropriate for storing hazardous materials before hauling/transport to permitted disposal site/s.
6. Installation of safety/warning signs and placement of barricades and cones.
7. Cut off and cap all water lines that feed the building except the existing hose bib outside the building. Cover the hose bib with sturdy wooden box to protect it from being damage during demolition work.

C. Total abatement of building components containing hazardous materials (bagging/storing, handling, transporting, disposing, or recycling):

Hazardous materials surveys were conducted for Organizational Classroom Building 509, Indoor Firing Range Building 522, and two other building structures in the area. (The two other buildings are not included in this Scope of Work). A set of Hazardous Materials Survey Report is attach. Interested Bidder/Contractor must read the report thoroughly to have full understanding of the scope of hazardous materials total abatement work and use the data in the preparation of quantity and cost estimates.

Prior to and during demolition work, total abatement (removal) of building components containing hazardous materials and any loose (in cans or bags) hazardous materials stored inside the building must be implemented. OSHA rules and regulations on safety and health protection of Workers and nearby building Users must be strictly complied with.

All building components containing hazardous materials and loose (in cans or bags) hazardous materials stored inside the buildings must be bagged/wrapped,

transported, and disposed with strict compliance to the rules and regulations set by the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and by the Federal, State, and Local Agencies.

The Hazardous Materials Survey Report shows the leachable lead detected from the bullet trap of Bldg. 522 (Firing Range) was at <5 mg/L as determined by TCLP analysis. Hawaii landfill acceptance criteria is at <5 mg/L. The interested Bidder must include in their bid estimate the cost of removal and disposal of the bullet trap soil. It shall be the Bidder's responsibility to take site data (measurements of the bullet trap) to be used as basis of their quantity and cost estimates.

The Hazardous Materials Survey Report shows contamination of soil around each building's footprint. Contaminated soil around and underneath each building shall remain in place for encapsulation (remediation).

Disposal of chemicals and rinse (contaminated) water directly on the open grounds or into any inlets of rain water drains and sewer lines inside the HIARNG Compound and the nearby outside inlets tied in to the HIARNG drain system shall constitute violations of HIARNG's sanitary sewer and NPDES permits. No chemicals or rinsed water shall be disposed into the inlets of HIARNG's rain water or sewer lines /system or directly on the open grounds inside and nearby the HIARNG Compound. Chemical and waste (contaminated) water must be contained in the Contractor-owned leak-proof containers. All waste water must be hauled out of the HIARNG Compound and dumped into an EPA or City & County approved dumping station.

D. Total demolition work:

Construction or as-built plans of any of the buildings to be demolished are not available. Actual building measurements taken and recorded are as follow:

Indoor Firing Range Building 522:	38 ft. W x 55 ft. L
Organizational classroom Building 509:	34 ft. W x 198 ft. L

The interested Bidder/Contractor shall be responsible in taking the actual measurements of the building footprints, height, and other relevant data, for quantity and cost estimating purposes.

Demolition work shall include the Organizational Classroom and Indoor Firing Range Buildings' whole building components above the concrete slab level, and the whole concrete slabs and all masonry/concrete components attached to it. In the absence of structural plans, use an **average of twelve (12") inches** concrete slab thickness for estimating purposes. Demolition and removal work of the concrete slab shall be done with precaution to minimize disturbance of soil underneath and around the slab.

Based on the attached Hazardous Materials Survey Report, soil around each building's footprint is contaminated. Before removal/transport of demolished concrete slabs, remove soil attached to the slab.

After completing the concrete slabs demolition and removal work, contaminated

soil around and underneath each building shall remain in place for encapsulation.

Notes: For Items of Work C and D, the costs of transport, disposal, and processing of hazardous and/or contaminated materials to the authorized Landfill / Disposal Site / Processing Plants, must be considered in the preparation of bid estimates.

Contractor must include in their bid cost estimate the cost of transport and disposal of hazardous and/or contaminated materials required to be shipped and disposed in the U.S. Mainland.

E. Ground encapsulation:

After slab demolition and removal work, encapsulate the whole areas of Buildings 509 and 522 slabs' footprints with six (6") inches thick of planting soil and roll to a compacted density appropriate for grass planting. Areas of encapsulation shall extend outward by a least two (2') feet around the demolished slabs' perimeters. The additional two (2') feet encapsulation areas must be included in the bid quantity and cost estimates.

After ground grading and compaction, spray-plant the whole encapsulation soil with hydro mulch of same grass variety as the existing. Install temporary irrigation sprinkler systems. The Contractor shall include costs of labor and materials to continually irrigate the planted areas until the grasses have fully grown.

F. Final clean-up:

Dismantle and remove from construction sites all temporary dust barriers, erosion control barriers, trash bins, portable storage and toilets, Contractor's equipment, safety signs and barriers.

Clean all areas affected by the construction project by removing excess construction materials and all other debris.

Patch all ground depressions caused by the Contractor's vehicles with planting soil and tamper to a desired compaction.

G. Reports

1. Project Environmental Documentations/Reports:

The Contractor shall read and comply with the instructions shown in the attached HIARNG Environmental Contractor Requirements in the preparation and submittal of Hazardous Materials Inventory Log, Monthly Waste Generation Report, Spill Prevention Control and Countermeasure Plan, and other requirements listed, applicable to the Project.

2. Prepare and submit the **Hazardous Materials Abatement Close-Out Report** to the FMO PM. Report shall contain documents on delivery/transport and receipts of hazardous materials disposal from authorized disposal Plants and landfill, and

receipts of recyclable but contaminated materials from authorized recycling Plants. Report shall also include Government permits for transport and disposal.

3. Submit report of solid wastes transported and disposed. Report shall mention the estimated weight (in tons or pounds) of solid wastes.

HIARNG Environmental Reports preparation/submittals, Permits, and Instructions:

- A. Mandatory Environmental Logs and Report
The Contractor shall read and comply with the instructions shown in the attached HIARNG Environmental Contractor Requirements in the preparation and submittals of Hazardous Materials Inventory Log, Monthly Waste Generation Reports, Spill Prevention Control and Countermeasure Plan, and other requirements listed, applicable to the Project.
- B. The Contractor shall be responsible for the assessment, application, payment, and for obtaining the required Environmental Permits for the transport and disposal of hazardous and solid wastes.
- C. The Contractor shall characterize and identify disposal requirements for old leftover construction materials through coordination with HIARNG Environmental Office to ensure compliance with applicable hazardous waste and wastewater regulations and permits.
- D. Disposal of chemicals and dust rinse water into any inlets of rain water drain and sewer lines inside the HIARNG Compound and the nearby outside inlets tied in to the HIARNG drain system shall constitute violations of HIARNG's sanitary sewer and NPDES permits. No chemicals or rinsed water shall be disposed into the inlets of HIARNG's rain water or sewer lines/system or on the open grounds inside and nearby the HIARNG Compound.
- E. If Contractor-owned electric power generator is brought at site, the Contractor must supply sufficient spill response supplies. If spills happen, the Contractor must implement cleanup work immediately.

JOINT INSPECTION AND PUNCHLISTING:

The Contractor and FMO PM shall conduct a joint inspection to determine if there are any work that need to be corrected or completed, and prepare a list. A joint punch list shall be conducted again after the completion of corrective work.

SUBMITTALS:

1. Contractor's licenses required for this project are as follows:
B, C-19, C-24. DOH Certified Contractor for lead abatement and other hazardous materials abatement work.

2. Prior to start of work, the Contractor must submit a Work and Safety Program.
3. Submit a written and signed certificate that the recyclable materials were delivered to and accepted by an authorized recycling plant Operator.
4. Submit a report of estimated weight of recyclable and non-recyclable solid wastes generated.
5. Submit a report of estimated weight or volume of non-recyclable materials shipped to the U.S. Mainland.

SAFETY MEASURES IMPLEMENTATION, INSTRUCTIONS TO BIDDERS:

1. The Contractor must implement all health and safety measures in accordance with the present EPA, OSHA, Local, and Federal Government Rules and Regulations with regard to the abatement contamination with and exposure to hazardous materials. Safety signs, warning signs, and barricades shall be posted/placed at areas where necessary.
2. The Contractor's Workers shall at all times, within the project site, wear the required OSHA standard Personnel Protective Equipment appropriate for the work activities being performed.
3. The Contractor, if necessary, shall provide their power generation equipment.
4. The Contractor shall provide portable toilets for field workers and be responsible for its cleaning and maintenance.
5. The Contractor shall provide portable storage for materials and equipment that will be kept at site during the progress of construction work. The Government shall not be held liable for any loss of the Contractor's materials or equipment.

ATTACHMENTS:

1. Scope of Work/Specifications, Submittals, Instruction to Bidders, Other (these eight pages)
2. Hazardous Materials Survey Report and Pictures
 - Part I (23 pages)
 - Part II (19 pages)
 - Part III (15 pages)
 - Part IV (15 pages)
 - Part V (15 pages)
 - Part VI (9 pages)
3. Topo Map showing locations of Bldg. 509 and Bldg. 522 (1 sheet)
4. HIARNG Environmental Office Forms (six pages)

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 BACKGROUND.....	1
1.1 REGULATORY REQUIREMENTS FOR DEMOLITION/RENOVATION	1
1.2 TASKS.....	2
1.3 LIMITATIONS.....	3
1.4 RESULTS OF PREVIOUS INVESTIGATIONS	4
PROPERTY DESCRIPTION	5
1.5 GENERAL.....	5
1.6 BUILDING MATERIALS.....	5
2.0 SAMPLING PROCEDURES	6
2.1 SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS.....	6
2.2 PAINTED SURFACES.....	6
2.3 CANEC MATERIAL.....	6
2.4 TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) FOR DEMOLITION.....	6
2.5 SOIL.....	7
3.0 OBSERVATIONS AND MATERIALS INVENTORY	8
3.1 PCBS	8
3.2 MERCURY	9
3.3 HAZARDOUS MATERIALS	10
4.0 ANALYSIS RESULTS	11
5.0 CONCLUSIONS AND RECOMMENDATIONS	18
5.1 ASBESTOS-CONTAINING MATERIALS.....	18
5.2 LEAD-BASED AND LEAD-CONTAINING PAINT.....	19
5.3 TCLP.....	19
5.4 PCBS	20
5.5 MERCURY	20
5.6 HAZARDOUS MATERIALS	20
5.7 CANEC MATERIALS.....	21
5.8 SOIL CONTAMINANTS	21
6.0 CERTIFICATIONS	22
7.0 APPENDICES	23

1.0 BACKGROUND

ENPRO Environmental was retained by to perform sampling and analysis for hazardous materials at Keaukaha Military Reservation (KMR) Buildings 509, ~~552, 624, and 622B~~ located in Hilo, Hawaii. ⁵²²

The purpose of this project was to assess the presence or absence of readily accessible and identifiable hazardous materials. Hazardous materials include, but are not limited to, PCB-containing ballasts/transformers, mercury-containing lamps, stored chemicals, asbestos-containing material and lead-containing paints, arsenic containing canec wall and ceiling board, and lead and chlordane soil contaminants.

1.1 REGULATORY REQUIREMENTS FOR DEMOLITION/RENOVATION

Mercury

All florescent light tubes are considered to be mercury-containing. When lamps are taken out of service and intended to be discarded, they become regulated Universal Waste.

PCB

During removal, identify PCB vs. non-PCB ballasts per label identification. Leaking PCB ballasts require special handling and disposal. All other ballasts meet the definition of a non-regulated Small Capacitor and therefore do not have specialized disposal requirements.

Asbestos

The removal of regulated asbestos containing building material (RACM) is required prior to demolition for all RACM that exceeds the threshold limits as defined in the regulations, National Emission Standards for Hazardous Air Pollutants (NESHAPS).

Notification to the State of Hawaii, Department of Health is required for all demolition projects in Hawaii. Requirements for NESHAPS RACM occur when a cumulative threshold limit of 160 square feet, 260 linear feet of pipe insulation and/or 35 cubic feet is exceeded.

Lead Containing Paints

When the property is demolished, OSHA regulations apply to abatement workers. Additionally, demolition debris shall need to be sampled and tested (using TCLP analytical procedures) to meet municipal disposal site acceptance criteria.

Lead and Chlordane Soil Contaminants

The State of Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Office provides criteria for acceptable concentrations of soil contaminants known as Tier 1 Environmental Action Levels (EALs). In the event that concentrations of lead or chlordane in soil are determined to be greater than the Tier 1 EALs for those contaminants, additional investigation and remediation may be required. If contaminated soil is to be managed in place, an Environmental Hazard Evaluation (EHE) and Environmental Hazard Management Plan (EHMP) should be submitted to the DOH HEER Office for approval with a request for a no further action (NFA) designation.

If soil is to be disturbed at the project site, then United States Occupational Safety and Health Administration (OSHA) regulations apply to all workers. OSHA permissible exposure limits (PELs) for lead and chlordane provide maximum allowable airborne concentrations of soil contaminants. The use of National Institute for Occupational Safety and Health (NIOSH) approved personal protective equipment (PPE) will decrease the risk of worker exposure. Personal and ambient air monitoring for contaminants of potential concern (COPCs) may be used to assess worker exposure risk to airborne contaminants.

Additionally, demolition debris shall need to be sampled and tested (using TCLP analytical procedures) for leachable lead in order to meet municipal disposal site acceptance criteria.

1.2 TASKS

The tasks of performing the hazardous materials investigation and assessment included:

- 1) Investigation of accessible areas of the project site for suspect asbestos-containing building materials. Collection of samples and analysis by microscopy of suspect asbestos-containing materials.
- 2) Investigation of accessible areas of the project site to evaluate and collect representative samples of the different applications of paint. Laboratory analysis of collected paint samples by atomic absorption to determine lead content.
- 3) Investigation of accessible areas of the project site to evaluate and collect representative samples of canec wall and ceiling board. Laboratory analysis of canec samples to determine arsenic content.

- 4) Investigation of accessible areas of the project site for PCB-containing ballasts and mercury-containing lamps.
- 5) Inventory and documentation of stored chemicals located on site.
- 6) Collection of a representative sample of building materials for TCLP analysis.
- 7) Collection of soil samples for lead and chlordane analysis.
- 8) Preparation of a technical report presenting the data and findings of our assessment.

1.3 LIMITATIONS

This project has included an asbestos containing material (ACM) renovation/demolition survey of the project site in preparation for the complete demolition of the structures at the project site to the ground level.

As defined by the DOH, a renovation/demolition survey is “An inspection that is based on NESHAP, which pertains to renovation and/or demolition of a building or a specific part of a building”. All areas which were reasonably assumed to contain ACM were inspected.

The purpose of this project was to assess the presence of identifiable suspect asbestos containing materials, and the location, condition and quantity of the asbestos containing materials. All thermal system insulation (TSI), and all other suspect ACM encountered during demolition activities, and not identified in this report shall be *presumed* asbestos containing material (PACM) or, alternatively, sampled and analyzed for asbestos content.

All accessible areas were inspected. Excluded from detailed observation were the following areas:

- The roof of Building 509 ^(Organizational Classroom) ~~(the medical building)~~
- The roof of Building ~~552~~ ⁵²² (the firing range)
- All hidden areas

Access to these areas was not provided by the client at the time of the investigation. The following suspect ACM was identified and not sampled during the investigation:

- Roof sealant around vent pipes in Building 509

The above listed material should be considered PACM and abated prior to demolition, or, alternatively, sampled and analyzed for asbestos content prior to demolition activities.

All other suspect ACM identified at the project site was sampled. Suspect materials not sampled and analyzed due to limitations or inaccessibility which shall be disturbed during

demolition/renovation activities must be sampled and analyzed for asbestos, or be identified as PACM. Suspect ACM which may be encountered during demolition includes, but is not limited to:

- TSI;
- surfacing materials including skim coat, paint, texture;
- drywall, tape, and joint compound;
- floor coverings, mastic;
- roofing materials;
- patching materials;
- grout;
- window glaze;
- sealants;
- concrete fillers;
- transite-like materials;
- wallboard;
- and ceiling panels.

ENPRO has relied upon the client or the client's representative for access and assumes no liability for areas not identified by the client or the client's representatives. ENPRO is not responsible for inspecting, assessing or otherwise consulting with respect to hidden or inaccessible materials. Hidden areas that may not be sampled are behind walls, above ceilings, inside utility conduits and ventilation ducts, and exterior roofing.

This investigation is limited to the structure and aboveground portions of the subject property only.

This report should be considered in conjunction with any previous hazardous materials investigation reports completed for the project site. This survey report is not an asbestos abatement project specification, all quantifications are estimates and specific layers of homogenous materials identified as asbestos or non-asbestos materials by the laboratory analysis are not segregated in ENPRO's quantifications. ENPRO recommends that the client retain a certified Asbestos Project Designer to prepare asbestos abatement project specifications to address the removal of ACM at the project site prior to demolition/renovation

1.4 RESULTS OF PREVIOUS INVESTIGATIONS

No known previous investigations for asbestos-containing materials or lead-containing paint were available for review.

Hazardous Materials Survey
Project Number: 1207-00351-HAZ

4

KMR Buildings 509, ~~552, 624, and 622B~~
522 Hilo, Hawaii

PROPERTY DESCRIPTION

1.5 GENERAL

The project site was located in Hilo, on the east side of the island of Hawaii. Access to the project site was from Airport Road, to the north.

The project site consisted of four structures, as follow:

- ~~A vacant Quonset hut, approximately twenty one feet by fifty-five feet (Building 624)~~
Organizational Classroom
- A single-story former ~~medical facility~~, approximately thirty-four feet by one-hundred and ninety-eight feet (Building 509)
- A former partially enclosed shooting range, approximately fifty-five feet by thirty-eight feet (Building ~~552~~
522)
- ~~A former metal grease rack, approximately sixty five feet by fourteen feet (Building 622B)~~

1.6 BUILDING MATERIALS

~~The Quonset hut was constructed of a corrugated metal roof and wooden walls with concrete masonry unit (CMU) foundations. The medical building was constructed of wooden exterior walls, drywall and canec interior walls, and a metal roof. The firing range was constructed of a CMU and canec walls and metal roofs. The grease rack was painted metal on asphalt and soil.~~
Organizational Classroom

Suspect materials sampled for asbestos included silver paint, CMU coat, roof sealant, canec wall and ceiling board, drywall, joint compound, concrete floor skim coat, ceiling panels, vinyl floor tile and mastic, vault door insulation, vault wall skim coat.

Suspect materials sampled for lead included interior and exterior paints.

Suspect materials sampled for arsenic included canec wall board and canec ceiling board materials.

2.0 SAMPLING PROCEDURES

2.1 SUSPECT ASBESTOS CONTAINING BUILDING MATERIALS

During the investigation, suspect asbestos-containing building materials, including miscellaneous material and flooring were sampled, quantified, and assessed for current condition and friability.

Representative samples of suspect materials were collected from sixteen homogeneous areas. Forty-eight bulk samples were submitted for analysis. The bulk samples were analyzed by polarized light microscopy using EPA Method 600/M4-82-020 by a NVLAP (National Voluntary Laboratory Accreditation Program) accredited laboratory.

2.2 PAINTED SURFACES

During the investigation, the investigator sampled, assessed, and located the various painted surfaces of the project site. A representative sampling of interior and exterior painted surfaces was performed.

A total of fourteen samples were collected and analyzed for total lead content using EMC SOP Method #L01/1 and EPA SW-846 Method 7420.

2.3 CANEC MATERIAL

During the investigation, the investigator sampled, assessed, and located the various canec wall board and ceiling materials on the project site. A representative sampling of the canec building material was performed. A total of three bulk samples of canec material were collected and analyzed using EPA Method 6020 Series for Total Metals.

2.4 TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) FOR DEMOLITION

During the investigation, the investigator collected sub-samples from building materials from each of the three buildings at the project site (not including the grease rack), and submitted three composite samples for TCLP lead analysis.

The sub-samples included: metal, concrete, painted wood and caulking from the Quonset hut; painted wood, canec, metal, concrete, caulking, and vinyl floor tiles from Building 509; and,

metal, concrete, and canec wall board from the firing range structure. The sub-samples were collected using the following method:

1. Different building components to be removed were identified (e.g. foundation, framing, siding, roof, drywall, trim, windows, doors, insulation etc.).
2. Sub-samples of each component were collected using a power drill, or by removing portions of the component. The sub-samples were then carefully selected with the objective that the resulting composite sample will be representative of the structure as a whole.
3. The sub-samples were combined together. The resulting weight of the composite sample was equal to or greater than 100-grams.
4. The composite sample was submitted for TCLP analysis by ESN Pacific.

The results of TCLP analyses for the composite sample were:

- ~~TCLP-1, Quonset Hut; non-detect for leachable lead~~
- TCLP-2, Gun Range; leachable lead detected at <5 mg/L
- TCLP-3, Building 509; leachable lead detected at >5 mg/L

Hawaii landfill acceptance criteria requires that construction debris contain less than 5.0 mg/L leachable lead as determined by TCLP analysis. All debris determined to contain greater than 5 mg/L leachable lead must be shipped to a mainland landfill certified to accept such designated hazardous material.

2.5 SOIL

During the investigation, the investigator collected composite soil samples from around the perimeter of each of the four structures, and an additional sample from the soil beneath the bullet trap at the firing range. The composite soil samples consisted of five to twelve arbitrarily selected representative sub-samples of the surface soil around the building. For each composite sample, the sub-samples were collected using a stainless steel trowel. Sub-samples from each location were combined in a Ziploc[®] bag and labeled with the structure and area from which the samples were collected. Between collections of each composite sample from the five locations the sampling trowel cleaned to prevent cross contamination.

Soil samples were submitted to ESN Pacific for analysis of lead content using Total Metal by Atomic Absorption EPA Method 7420 and for analysis of organochlorine pesticides using EPA Method 8081A (Modified).

3.0 OBSERVATIONS AND MATERIALS INVENTORY

3.1 PCBs

Light Ballasts

A total of fifty-seven fluorescent light fixtures were observed on the project site, (at the gun range and Building 509). All ballasts associated with these fifty-seven fixtures are assumed to contain PCBs.

PCB ballasts are found in the housing of fluorescent, mercury vapor, and high intensity discharge lighting that were manufactured prior to 1980. Over the years, old fixtures have been decommissioned during demolition, renovation, general maintenance projects, and energy-saving lighting installations. When ballasts are put out of service, they become subject to Federal and State waste regulations. The primary law regulating PCBs is the Toxic Substance Control Act (TSCA).

TSCA regulates the manufacture, sale, use, and disposal of certain chemical substances, and requires testing, tracking, pre-screening, and record keeping of chemical products. TSCA also regulates the disposal of PCBs. In specific situations, ballasts are exempt from TSCA requirements. For instance, TSCA does not regulate the disposal of non-leaking, Small Capacitors. A fluorescent lamp ballast is classified as a Small Capacitor if it contains less than 3 pounds of dielectric fluid and/or has a total volume of less than 100 cubic inches. A lighting ballast is also considered a Small Capacitor if it has a volume between 100 and 200 cubic inches and has a total weight of less than nine pounds. Small Capacitors are subject to TSCA under two conditions:

- If the Small Capacitor is leaking PCB's, it is regulated as a PCB Article, as defined in 40 CFR 761.3 of the federal PCB regulations. PCB Articles with concentrations at 500 parts per million (ppm) or greater must be disposed of in an incinerator complying with 40 CFR 761.70, or in a chemical waste landfill complying with 40 CFR 761.75. PCB Articles disposed at a chemical waste landfill must be drained of all free flowing PCBs and the drained PCBs greater than 500 ppm must be disposed of by incineration meeting the specifications in 40 CFR 761.70
- In the second condition, Small Capacitors (intact or leaking) owned by any person who manufactures or at any time manufactured PCB-containing capacitors or PCB-containing equipment defined in 40 CFR 761.60(b)(2)(iv), must ensure delivery of the PCB-containing capacitor to a TSCA-permitted incinerator for disposal. PCB-containing ballasts also may be subject to regulation under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA has many features including establishing reportable levels

for certain substances and a notification requirement for release of these substances. PCBs are a hazardous substance under CERCLA reportable quantity requirements and releases exceeding one pound during a 24-hour period must be reported to the National Response Center (NRC), as specified in Section 102 (a) of CERCLA. For information on reporting requirements, contact NRC at 1-800-424-8802.

All light ballasts observed on the project site meet the definition of a non-regulated Small Capacitor and therefore not regulated per disposal requirements.

Hydraulic Lift Equipment

Visual observation for hydraulic lift equipment or components containing hydraulic fluid that potentially contains PCBs was conducted. No in-ground hydraulic lift equipment was observed on site at the time of our reconnaissance.

Electrical Transformers

Pole-mounted electrical transformers were observed near the north and the west corners of Building 509. The transformers near the west corner of the building were identified with the following numbers: 32602, 32603, and 32575. The pole-mounted transformers near the north corner of the building were not clearly labeled.

The electrical transformers were not within the project site, however, if the transformers are to be disturbed, or should the transformers be observed to leak, they may contaminate the project site. No evidence of corrosion or leakage was observed at the time of the site visit. In the event that the pole-mounted transformers will be disturbed during demolition, the Hawaiian Electric Light Company (HELCO), or the owner of any privately-owned transformers should be contacted to confirm that the transformers are PCB-Free.

For transformers which are owned and operated by HELCO, HELCO is responsible for remediating any environmental impacts they might cause.

3.2 MERCURY

A total of fifty-seven fluorescent light fixtures were observed on the project site, along with approximately twenty spare fluorescent light tubes. All fluorescent light tubes associated with these fifty-seven fixtures, and all additional light tubes located at the project site, are considered to be mercury-containing. These lamps, also referred to as “universal waste lamps” are defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but

are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

Universal Waste Regulations apply to the above lamps only when such lamps are taken out of service intended for disposal. A used lamp becomes a waste on the date it is discarded.

A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

- (1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.
- (2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

3.3 HAZARDOUS MATERIALS

Limited amounts of hazardous materials were stored on the project site. The following hazardous materials observed to be stored on the project site:

- ~~One gallon rusted can of paint in Quonset hut~~

4.0 ANALYSIS RESULTS

Table 1 presents the results of the asbestos analyses. The table includes the sample number, the location, the material sampled, and the analytical result.

Table 2 presents the summary and quantity of asbestos-containing materials present on the project site, as confirmed through laboratory analysis, the friability of the identified ACM, and the condition of the material

Table 1
Asbestos Sampling Locations and Analytical Results

SAMPLE NUMBER	LOCATION	MATERIAL	ASBESTOS DETECTED
A-001A	Quonset Hut	Roofing, Silver	Yes
		Roofing, Black	Yes
A-001B	Quonset Hut	Roofing, Silver	Yes*
		Roofing, Black	Yes*
A-001C	Quonset Hut	Roofing, Silver	Yes*
		Roofing, Black	Yes*
A-002A	Quonset Hut	Coating, Silver	Yes
		CMU, Gray	No
A-002B	Quonset Hut	Coating, Silver	Yes*
		CMU, Gray	No
A-002C	Quonset Hut	Coating, Silver	Yes*
		CMU, Gray	No
A-003A	Quonset Hut	Roof Patch, Silver	Yes
		Roof Patch, Black	Yes
A-003B	Quonset Hut	Roof Patch, Silver	Yes
		Roof Patch, Black	Yes
A-003C	Quonset Hut	Roof Patch, Silver	Yes
		Roof Patch, Black	Yes
A-004A	Quonset Hut	CMU Grout, Gray	No
A-004B	Quonset Hut	CMU Grout, Gray	No
A-004C	Quonset Hut	CMU Grout, Gray	No
A-005A	Building 509	Ext. Window Caulk, Gray	No
A-005B	Building 509	Ext. Window Caulk, Gray	No
A-005C	Building 509	Ext. Window Caulk, Gray	No

*This sample is assumed to contain asbestos due to the laboratory-confirmed presence of asbestos in a sample collected from a homogeneous material.

Table 1 (continued)
Asbestos Sampling Locations and Analytical Results

SAMPLE NUMBER	LOCATION	MATERIAL	ASBESTOS DETECTED
A-006A	Building 509	Vinyl Floor Tile, Red Mastic, Black	Yes No
A-006B	Building 509	Vinyl Floor Tile, Red Mastic, Black	Yes* Yes
A-006C	Building 509	Vinyl Floor Tile, Red Mastic, Black	Yes* Yes*
A-007A	Building 509	Concrete Floor Skim Coat	No
A-007B	Building 509	Concrete Floor Skim Coat	No
A-007C	Building 509	Concrete Floor Skim Coat	No
A-008A	Building 509	Vinyl Floor Tile, White Mastic, Black	Yes Yes
A-008B	Building 509	Vinyl Floor Tile, White Mastic, Black	Yes* Yes*
A-008C	Building 509	Vinyl Floor Tile, White Mastic, Black	Yes* Yes*
A-009A	Building 509, North	Drywall Joint Compound	No No
A-009B	Building 509, North	Drywall Joint Compound	No No
A-009C	Building 509, North	Drywall Joint Compound	No No
A-010A	Building 509, South	Ceiling Panel, White	No
A-010B	Building 509, South	Ceiling Panel, White	No
A-010C	Building 509, South	Ceiling Panel, White	No
A-011A	Building 509	Large Floor Tile, Gray Mastic, Black	Yes Yes
A-011B	Building 509	Large Floor Tile, Gray Mastic, Black	Yes Yes
A-011C	Building 509	Large Floor Tile, Gray Mastic, Black	Yes Yes
A-012A	Building 509	Vinyl Floor Tile, Beige Mastic, Black	Yes Yes
A-012B	Building 509	Vinyl Floor Tile, Beige Mastic, Black	Yes* Yes*
A-012C	Building 509	Vinyl Floor Tile, Beige Mastic, Black	Yes* Yes*

*This sample is assumed to contain asbestos due to the laboratory-confirmed presence of asbestos in a sample collected from a homogeneous material.

Table 1 (continued)
Asbestos Sampling Locations and Analytical Results

SAMPLE NUMBER	LOCATION	MATERIAL	ASBESTOS DETECTED
A-013A	Building 509, South	Drywall Joint Compound	No No
A-013B	Building 509, South	Drywall	No
A-013C	Building 509, South	Drywall Joint Compound	No No
A-014A	Building 509	Vault Door, Beige/Black	No
A-014B	Building 509	Vault Door, Beige/Black	No
A-014C	Building 509	Vault Door, Beige/Black	No
A-015A	Building 509	Vault Wall, Beige/Gray	No
A-015B	Building 509	Vault Wall, Beige/Gray	No
A-015C	Building 509	Vault Wall, Beige/Gray	No
A-016A	Gun Range	CMU Block, Gray Grout, Gray	No No
A-016A	Gun Range	CMU Block, Gray Grout, Gray	No No
A-016A	Gun Range	CMU Block, Gray Grout, Gray	No No

*This sample is assumed to contain asbestos due to the laboratory-confirmed presence of asbestos in a sample collected from a homogeneous material.

Table 2
Sampled ACM Assessment Summary and Quantity

SAMPLE NUMBER	MATERIAL/ FRIABILITY	CONDITION Good/Fair/Poor	ESTIMATED QUANTITY Square feet
A-001	Roofing, Silver, (5% Chrysotile), non-friable Roofing, Black, (8% Chrysotile), non-friable	Poor	1,800 ft²
A-002	CMU Coating, Silver, (5% Chrysotile), non-friable	Poor	300 ft²
A-003	Roof Patch, Silver, (5% Chrysotile), non-friable Roof Patch, Black, (3% Chrysotile), non-friable	Fair	10 ft²

Table 2 (Continued)
Sampled ACM Assessment Summary and Quantity

SAMPLE NUMBER	MATERIAL/ FRIABILITY	CONDITION Good/Fair/Poor	ESTIMATED QUANTITY Square feet
A-006	Vinyl Floor Tile, Red/Brown, (20% Chrysotile), non-friable Mastic, Black, (3% Chrysotile), non-friable	Fair	500 ft ²
A-008	Vinyl Floor Tile, White/Brown (15% Chrysotile), non-friable Mastic, Black (3% Chrysotile), non-friable	Fair	225 ft ²
A-011	Large VFT, Gray, (3% Chrysotile), non-friable Mastic, Black, (10% Chrysotile), non-friable	Fair	150 ft ²
A-012	VFT, Off-White, (5% Chrysotile), non-friable Mastic, Black, (5% Chrysotile), non-friable	Fair	81 ft ²

Table 3 presents the results of the total lead analyses. The table includes the sample number, sample location, the material sampled, and the analytical result.

Table 3
Paint Sample Locations and Analytical Results – Total Lead

SAMPLE NUMBER	LOCATION	MATERIAL	TOTAL LEAD (% by Weight)
LP-1	Quonset Hut Exterior	Paint – Silver	0.050
LP-2	Quonset Hut Exterior	Paint – Yellow	0.044
LP-3	Quonset Hut Interior	Paint – White	BRL
LP-4	Building 509 Interior	Paint – White	0.381
LP-5	Building 509 Interior Trim	Paint – Brown	0.083
LP-6	Building 509 Interior	Paint – Blue	BRL
LP-7	Building 509 Exterior	Paint – Yellow	4.81
LP-8	Building 509 Exterior Trim	Paint – Brown	4.84

BRL = Below Reportable Limits

Table 3 (Continued)
Paint Sample Locations and Analytical Results – Total Lead

SAMPLE NUMBER	LOCATION	MATERIAL	TOTAL LEAD (% by Weight)
LP-9	Building 509 Interior Trim	Paint – Green	0.151
LP-10	Gun Range	Paint – Cream	BRL
LP-11	Gun Range	Paint – Green	BRL
LP-12	Gun Range	Paint – Pink	0.019
LP-13	Grease Rack	Paint – Yellow	12.4
LP-14	Grease Rack	Paint – Pink	14.5

BRL = Below Reportable Limits

The EPA defines Lead Based Paint (LBP) as paint containing 0.5% lead (Pb), or greater, by weight. The paint chip samples collected from the grease rack and from the exterior of Building 509 were determined to be LBP. Six other paint chip samples were lead-containing.

Table 4 presents the results of the total arsenic analyses. The table includes the sample number, sample location, the material sampled, and the analytical result.

Canec Material Sample Locations and Analytical Results – Total Arsenic (As)

SAMPLE NUMBER	LOCATION	MATERIAL	TOTAL LEAD mg/kg
AS-1	Firing Range	Canec Wall	ND
AS-2	Building 509	Canec Ceiling	1,700
AS-3	Building 509	Canec Wall	2,100

ND = Non-Detect

The canec wall and ceiling board from Building 509 contained Arsenic. Worker protection protocols should be established to prevent exposure of workers during demolition activities per OSHA requirements. There are no special disposal requirements for arsenic-contaminated canec board.

Table 5 presents the results of the TCLP-lead analyses. The table includes the sample number, sample location, the material sampled, and the analytical result

Table 5
Building Materials Sampling Locations and Analytical Results TCLP- Lead

SAMPLE NUMBER	LOCATION	MATERIAL	TCLP - LEAD (mg/L)
TCLP-1	Quonset Hut	Representative composite sample	ND
TCLP-2	Gun Range	Representative composite sample	1.51
TCLP-3	Building 509	Representative composite sample	10.3

ND = Not Detected

Table 6 presents the results of the composite soil sample lead and organochlorine pesticide analyses. The table includes the sample number, sample location, the analytical result of contaminants identified, and the State of Hawaii Department of Health (DOH) Tier 1 Environmental Action Level (EAL) for each identified contaminant. EALs are listed for both Unrestricted Land Use and Commercial/Industrial Land Use.

Table 6
Composite Soil Samples Analytical Results for Lead and Organochlorine Pesticides

SAMPLE NUMBER	LOCATION	IDENTIFIED SOIL CONTAMINANT	CONCENTRATION (mg/kg)	DOH EAL for UNRESTRICTED LAND USE (mg/kg)	DOH EAL for COMMERCIAL / INDUSTRIAL LAND USE (mg/kg)
Soil 1	Grease Rack	Lead	525/545	200	800
Soil 2	Building 509	Lead	353	200	800
		Alpha Chlordane	0.007	16	29
Soil 3	Gun Range Perimeter	Lead	345	200	800

mg/kg = milligram per kilogram

Table 6 (Continued)

Composite Soil Samples Analytical Results for Lead and Organochlorine Pesticides

SAMPLE NUMBER	LOCATION	IDENTIFIED SOIL CONTAMINANT	CONCENTRATION (mg/kg)	DOH EAL for UNRESTRICTED LAND USE (mg/kg)	DOH EAL for COMMERCIAL / INDUSTRIAL LAND USE (mg/kg)
Soil 4	Quonset Hut	Lead	116	200	800
		Aldrin	3.494	0.92	8.4
		Dieldrin	5.890	1.5	11
		Endrin	0.126	3.7	30
		DDD	0.019	2.0	7.2
		DDT	0.034	1.7	5.6
		Endrin Ketone	0.030	3.7	30
Soil 5	Bullet Trap	Lead	6,540	200	800

mg/kg = milligram per kilogram

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 ASBESTOS-CONTAINING MATERIALS

Seven of the sixteen homogenous materials which were samples were determined to contain asbestos. The asbestos containing materials consisted of roofing material, CMU coating, and roofing patch on the Quonset hut structure; and, vinyl floor tile and mastic in Building 509. Additionally, roofing sealant observed at Building 509 was not sampled because it was inaccessible, however that material should be treated as PACM or, alternatively, sampled and analyzed for asbestos content prior to being disturbed. Generally, the materials were in fair or poor condition.

For all samples analyzed as less than ten percent asbestos content, the Client may request analysis by Point Count to determine a more accurate asbestos content. Any samples analyzed to contain less than one percent asbestos using the PLM method are required to be analyzed using the Point Count method or alternatively be presumed to be asbestos containing. Materials determined to contain less than one percent asbestos are not considered asbestos containing materials (ACM) by the EPA.

Recommendation

If demolition or renovation are to occur at the subject property, all CMU and roofing coat, sealant and patch on the Quonset hut and all vinyl floor tile and mastic, and roofing patch in Building 509 are assumed to be asbestos containing materials, and should be treated as such. Alternatively, further sampling could be conducted on the roofing patch of Building 509 in order to determine whether the material contains asbestos.

Prior to and during demolition and renovation, any fibrous or suspected asbestos-containing materials uncovered that were not analyzed, should be sampled and analyzed at a NVLAP accredited microscopy laboratory. The removal of regulated asbestos containing building material is required for all RACM (regulated asbestos-containing material) that exceeds the threshold limits as defined in the regulations promulgated as the National Emission Standards for Hazardous Air Pollutants (NESHAPS). All RACM must be removed prior to routine demolition and renovation activities that will disturb the material, by a specialty licensed contractor (C-19) adhering to contract specifications developed and based on the results of the inspection and assessment, and EPA, OSHA, and State of Hawaii DOH regulations. Each owner or operator of a demolition or renovation activity shall provide the Department of Health with a separate written notification of intention to demolish or renovate at least 10 working days before the work is to begin, and update the notice as necessary.

5.2 LEAD-BASED AND LEAD-CONTAINING PAINT

Ten of the fourteen paint chip samples analyzed for total lead content were determined to contain lead. Four of those samples were determined to be Lead Based Paint (LBP) as defined by the EPA (greater than 0.5% lead by weight).

EPA regulations effective April 2010 require that specialized lead-based paint training is required for all renovators/painters who disturb greater than six square feet of interior painted surfaces per room or greater than twenty square feet of exterior painted surfaces in target housing and child-occupied facilities constructed prior to 1978. If an assessment has not been conducted to determine if lead based paint (LBP) is present in a pre-1978 structure, the paint may be presumed by the contractor to be LBP, and all requirements apply. Affected areas may be sampled and tested by a certified lead inspector and if no LBP is present, these regulations do not apply. These regulations do not apply to complete demolition jobs.

Additional regulations specifically addressing lead-based paint include Housing and Urban Development (HUD) (1995) guidelines and the Consumer Product Safety Act (1977). These regulations are for housing and consumer products.

OSHA regulations apply to worker protection during renovation and demolition activities.

Recommendation

If the property is to undergo renovation or demolition, OSHA regulations apply to abatement workers. Additionally, demolition debris shall need to be sampled and tested (per TCLP) to meet municipal disposal site acceptance criteria. Other than demolition considerations, no other regulations apply.

5.3 TCLP

~~The results for the composite samples collected for Toxicity Characteristic Leaching Procedure (TCLP) testing for leachable lead determined that the Quonset Hut did not contain leachable lead at concentration equal to or greater than the laboratory's detection limits.~~

The TCLP results for the composite sample collected from the gun range was determined to contain leachable lead at less than 5 mg/L. However, the TCLP result for the composite sample collected from Building 509 was determined to contain leachable lead at greater than 5 mg/L.

~~A composite sample of the grease rack was not collected; however, based on the analytical results which identified LBP coating on the grease rack, the demolition debris from the grease rack should be analyzed by TCLP analysis in order to determine disposal requirements.~~

Recommendation

The building materials sampled from ~~Quonset hut~~ and the gun range meet the acceptance criteria for local disposal.

The building materials sampled from Building 509 are characteristic of hazardous waste based on their lead content. We recommend targeted sampling to reduce the amount of material requiring disposal as a hazardous waste.

5.4 PCBs

PCBs (polychlorinated biphenyl) are heavily regulated under the Toxic Substances Control Act (TSCA), which obligates a property owner to clean up any spills occurring on their property. Fluorescent light fixtures are present at the project site. Many fluorescent light fixtures manufactured prior to 1980 may have contained ballasts with PCBs.

A total of fifty-seven fluorescent light fixtures were observed on the project site. All ballasts associated with the fifty-seven light fixtures are assumed to contain PCBs.

Recommendation

Properly dispose of all fluorescent light ballasts present on the project site.

5.5 MERCURY

A total of fifty-seven fluorescent light fixtures and approximately twenty spare fluorescent tubes were observed on the project site. All fluorescent light tubes associated with these fixtures are considered to be mercury-containing.

Recommendation

All fluorescent light lamps associated with these fixtures are considered to be mercury-containing. When lamps are taken out of service and intended to be discarded, they become regulated universal wastes.

5.6 HAZARDOUS MATERIALS

Limited amounts of hazardous materials were stored on the project site. The following hazardous materials observed to be stored on the project site:

- One gallon rusty paint can

Recommendation

Properly dispose of waste hazardous materials.

5.7 CANEC MATERIALS

Arsenic containing caned wall board and ceiling board were identified in Building 509.

Recommendation

Provide appropriate OSHA/NIOSH approved personal protective equipment (PPE) to protect workers during demolition activities.

5.8 SOIL CONTAMINANTS

The following soil contaminants were identified at concentrations greater than DOH Tier 1 EAL for Unrestricted Land Use:

- ~~Lead in soil at the Grease Rack~~
- Lead in soil at Building 509
- Lead in soil at the Gun Range perimeter and the Bullet Trap
- ~~Aldrin in soil at the Quonset hut~~
- ~~Dieldrin in soil at the Quonset hut~~

The following soil contaminants were identified at concentrations greater than DOH Tier 1 EAL for Commercial/Industrial Land Use:

- Lead in soil at the Gun Range Bullet Trap

Recommendation

Depending on the proposed land use, contaminated soil at the ~~Grease Rack~~, Building 509, the Gun Range perimeter, ~~and the Quonset hut~~ may require remediation. The soil beneath the Bullet Trap should be handled as lead contaminated regardless of proposed land use. A plan for remediation or removal/disposal of soil beneath the Bullet Trap should be incorporated into demolition plans at the project site.

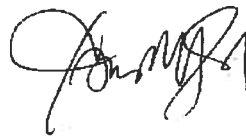
OSHA regulations apply to demolition workers and all other workers exposed to soil contaminants at the project site.

6.0 CERTIFICATIONS

ENPRO Environmental (ENPRO) has completed a Hazardous Materials Survey (HAZ) for the Keaukaha Military Reservation (KMR) Buildings 509, 522, 624, and 622B in Hilo Hawaii (project site). The survey followed the methods and procedures consistent with good commercial or customary practice designed to conform to acceptable industry standards. This report is exclusively for the use and benefit of the Client identified on the title page of the report and is not for the use or benefit of, nor may it be relied upon by, any other person or entity. The contents of this report may not be quoted in whole or in part or distributed to any person or entity other than the Client hereof without, in each case, the written consent of the undersigned or the Client.



Investigated and Prepared By:	Sven Lindstrom, Project Manager
HIASB Certification Number:	2994
Lead Certification Number	PB-02969



Reviewed By:	Randy Herold, President
HIASB Certification Number:	2565

Hazardous Materials Survey	22	KMR Buildings 509, 522, 624, and 622B
Project Number: 1207-00351-HAZ		522 Hilo, Hawaii

7.0 APPENDICES

Photographs

Figures

Analytical Results

Glossary






	Negative Asbestos Sample
	Positive Asbestos Sample
	Paint Sample

Figure 1
Aerial Image of Project Site Structures



Photo 14
Organizational Classroom
Building 509 - Former ~~Medical Building~~



Photo 15

Pole Mounted Transformers West of Building 509



Photo 16

Asbestos-Containing Vinyl Floor Tiles in Buiding 509



Photo 17

Arsenic-Containing Canec Ceiling Material in Building 509

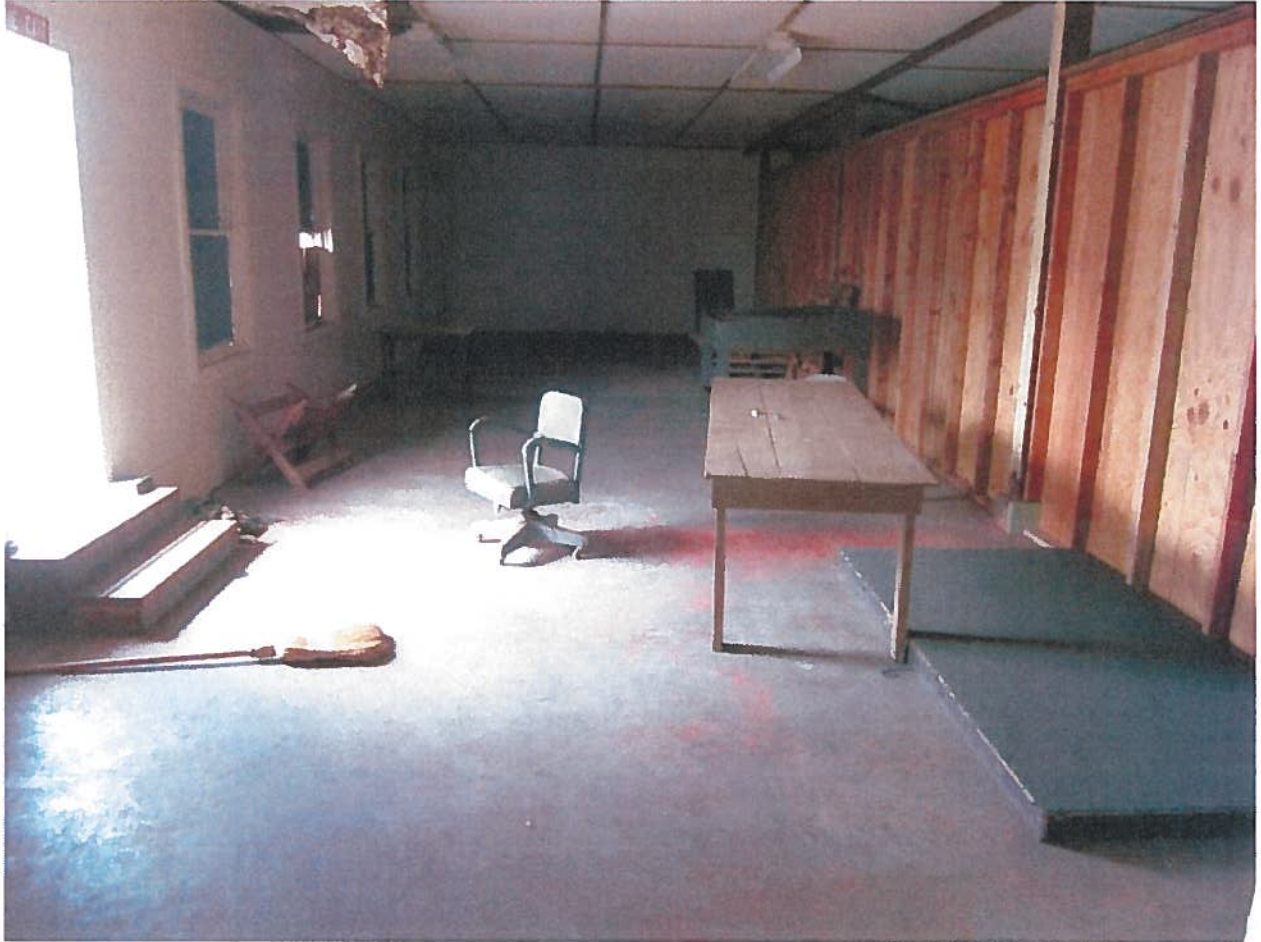


Photo 18

North Main Room in Building 509



Photo 19

South Main Room in Building 509



Photo 20

Mercury Containing Light Tubes Stored in Building 509



Photo 21

Mercury Containing Light Tubes Stored in Building 509



Photo 22

Possible PCB Containing Light Ballasts and Mercury Containing Light Tubes in Building
509



Photo 23

Asbestos Containing Floor Tile in Building 509



Photo 24

Non-ACM Vault in Building 509



Photo 25

TCLP Sample Collected from Building 509



Photo 26

Composite Soil Sample Collected from Perimeter of Building 509

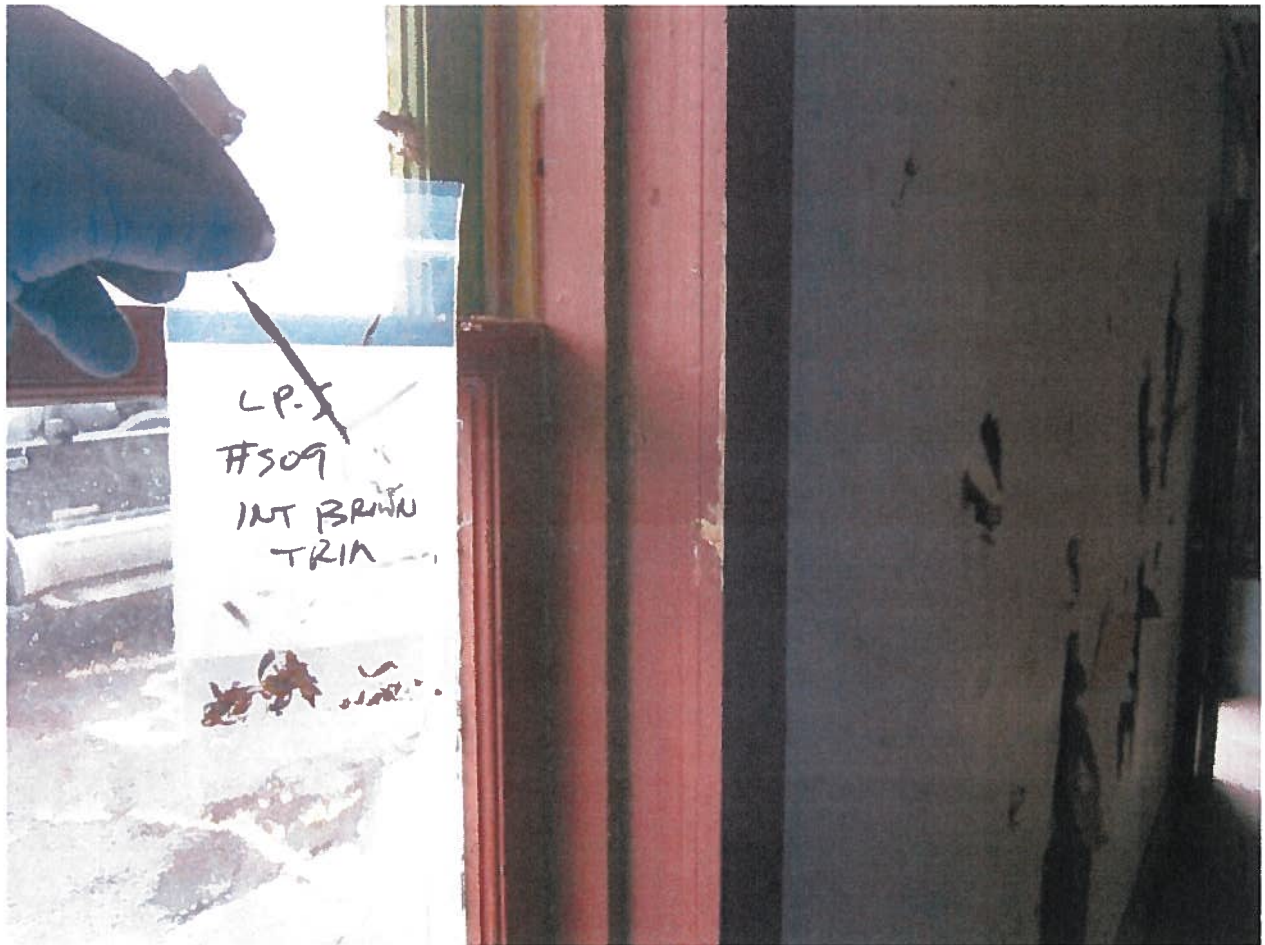


Photo 27

Lead-Containing Interior Brown Trim Paint Sample LP-5

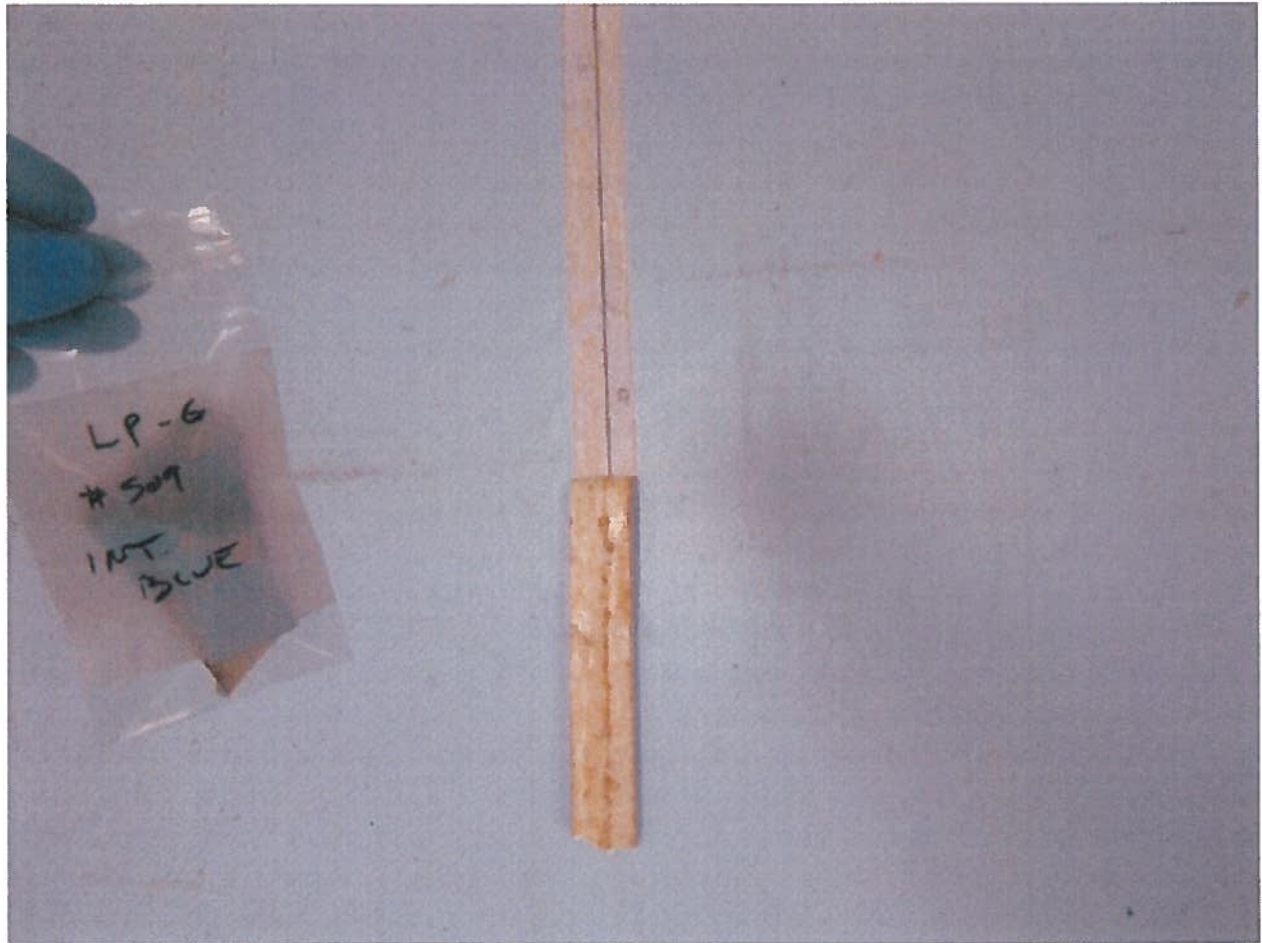


Photo 28

Lead-Containing Interior Blue Paint Sample LP-6



Photo 29

Building 509 Exterior Lead Based Paint (LBP) Sample LP-7 and LBP Brown Trim



Photo 30

Lead-Containing Interior Green Trim Paint Sample LP-9



Photo 31

Non-ACM Window Caulk in Building 509 Sample A-005A



Photo 32

Asbestos-Containing Vinyl Floor Tile and Mastic in Building 509 Sample A-006A



Photo 33

Non-ACM Concrete Skim Coat Building 509 Sample A-007C



Photo 34

Asbestos-Containing Vinyl Floor Tile and Mastic Sample A-008A

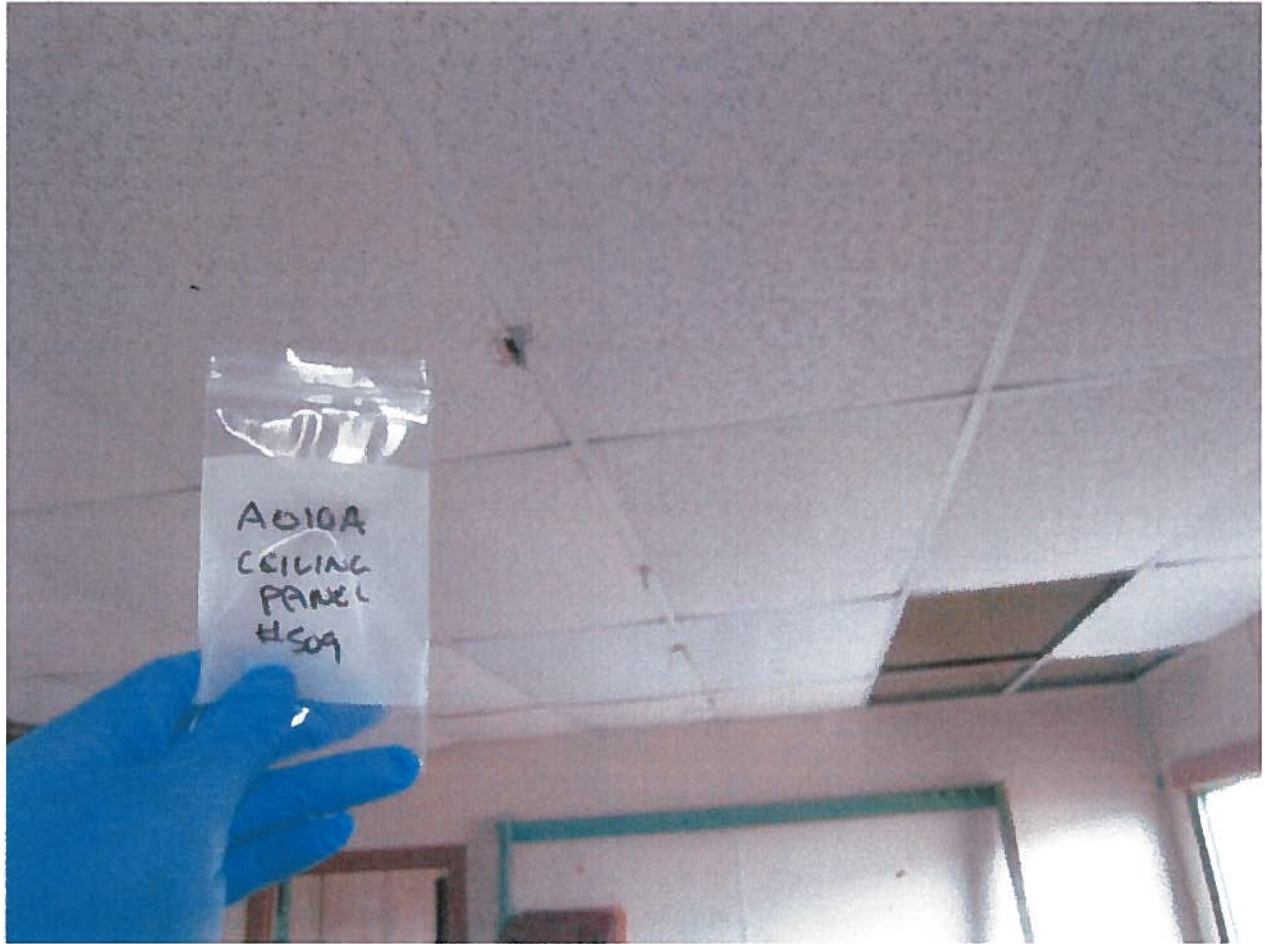


Photo 35

Non-ACM Ceiling Panels Sample A-010A



Photo 36

Asbestos-Containing Vinyl Floor Tile and Mastic Sample A-011A



Photo 37

Asbestos-Containing Vinyl Floor Tile and Mastic Sample A-012B



Photo 38

Non-ACM Drywall and Joint Compound in Building 509 Sample A-013C



Photo 39

Non-ACM Vault Door Insulation Sample A-014A

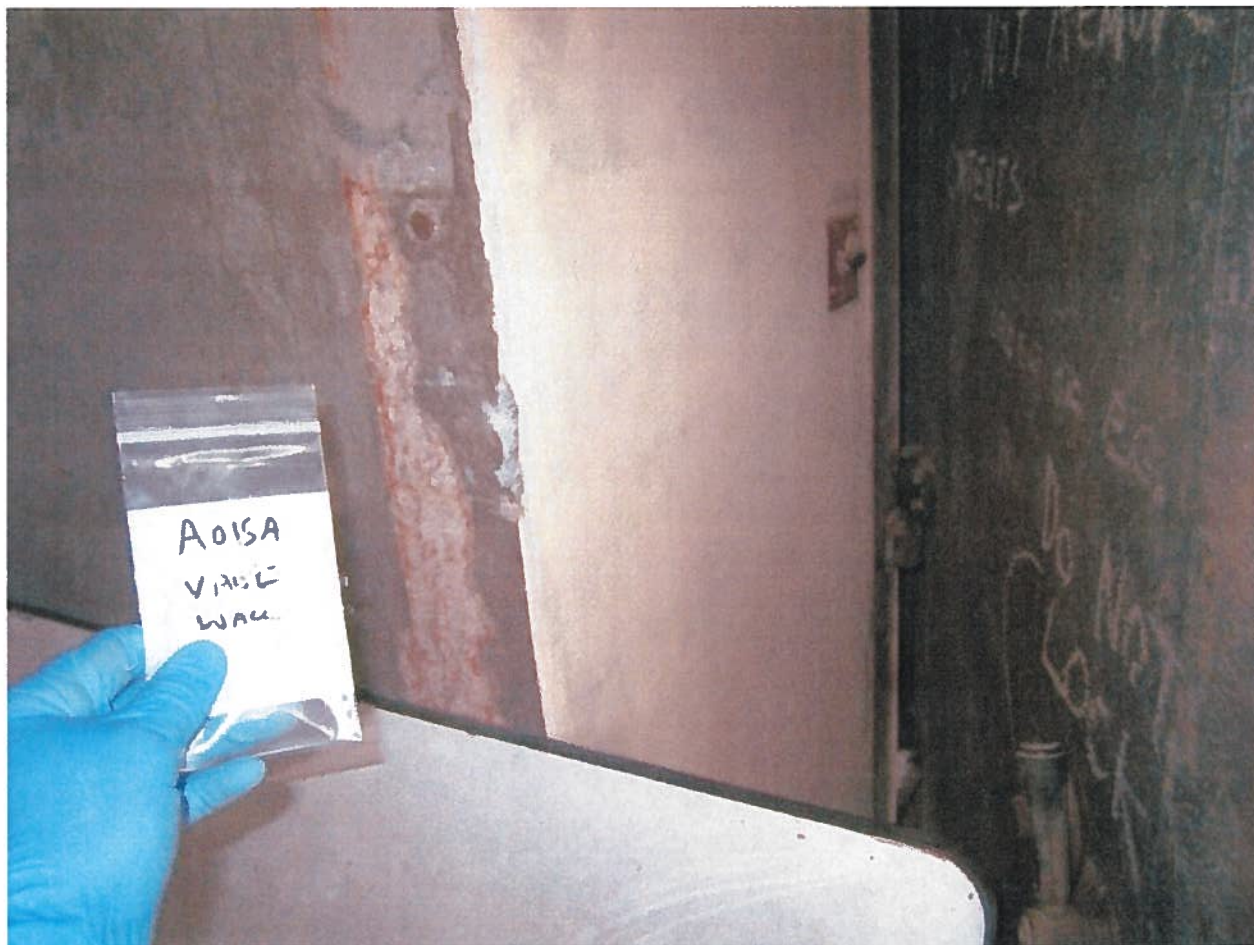


Photo 40

Non-ACM Vault Wall Coat Sample A-015A



Photo 42

Metal Roof of Firing Range with No Suspect Materials



Photo 43

CMU Wall with NON-ACM Grout at Firing Range



Photo 44

Non-Arsenic Containing Canec Walls at Firing Range



Photo 45

Soil Sample Collected from Perimeter of Firing Range



Photo 46

TCLP Sample from Firing Range



Photo 47

Firing Range Perimeter Composite Soil Sample



Photo 48

Lead Contaminated Soil Sample From Beneath Bullet Trap



Photo 49

Non-Arsenic-Containing Canec at Firing Range



Photo 50

Cream Paint Sample Collected from Firing Range Wall



Photo 51

Green Paint Sample LP-11 Collected from Firing Range



Photo 52

Lead-Containing Pink Paint Sample LP-12

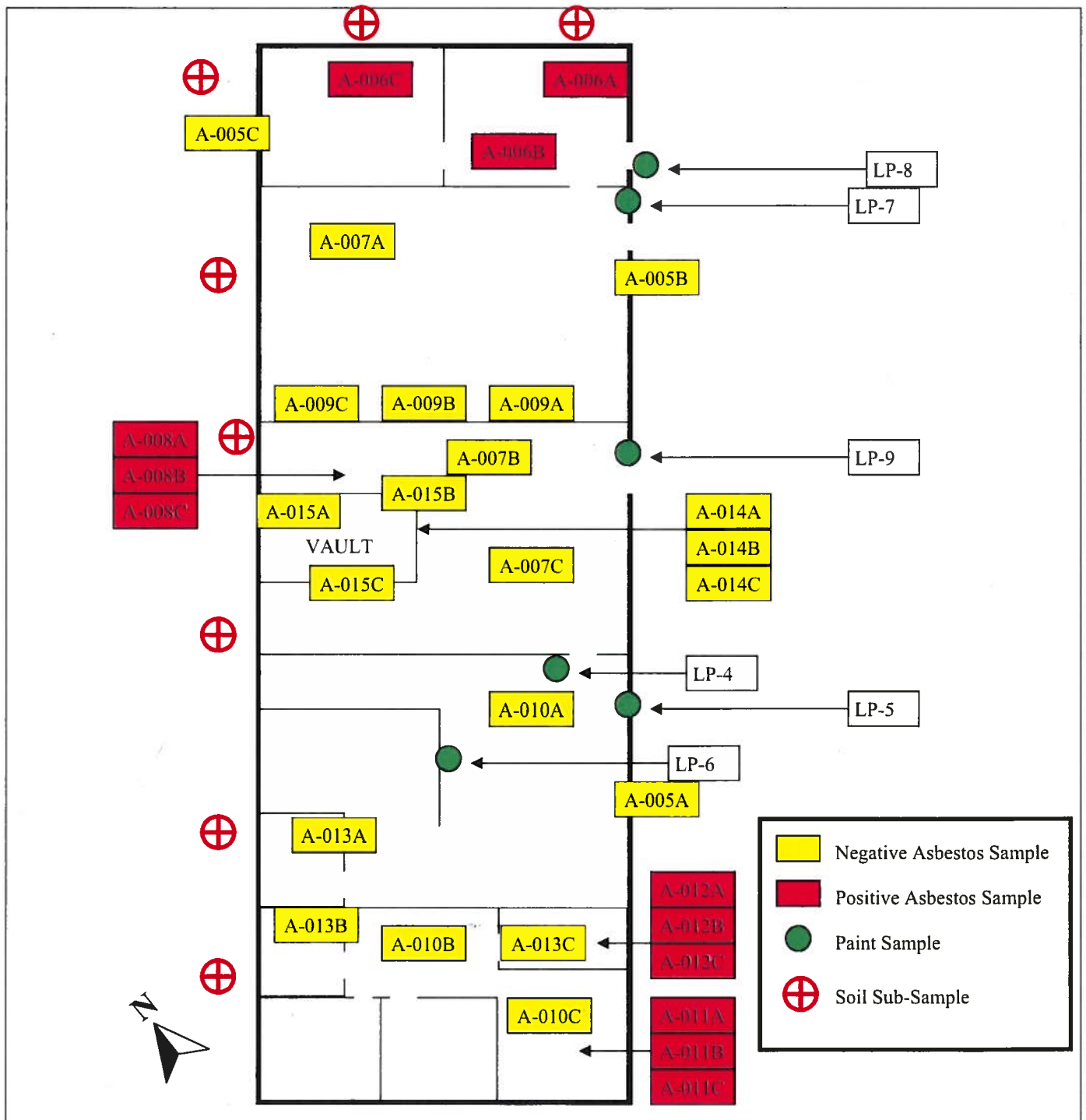


Figure 3
Building 509

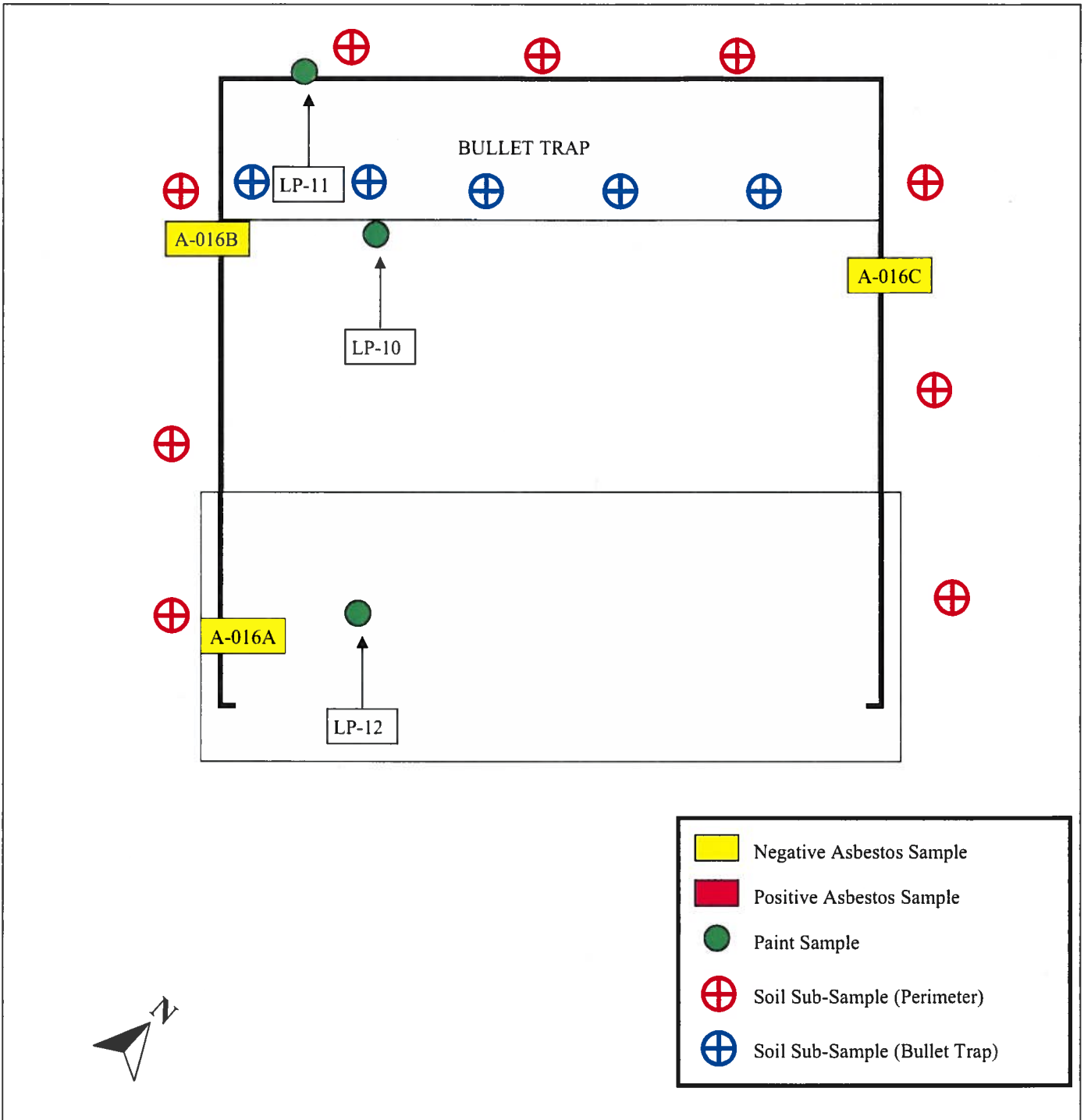


Figure 4
522
Building 522 - Firing Range and Bullet Trap

EMC LABS, INC.

Laboratory Report

0115698

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	ENPRO	Job# / P.O. #:	1207-00351-HA2
Address:	151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received:	07/30/2012
Collected:	07/26/2012	Date Analyzed:	08/02/2012
Project Name:	HILO KMR	Date Reported:	08/03/2012
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	SVEN LINDSTROM
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0115698-009 A-003C	QUONSET HUT	LAYER 1 Roof Patch, Silver Note: *Not analyzed per client request LAYER 2 Roof Patch, Black Note: *Not analyzed per client request			
0115698-010 A-004A	QUONSET HUT	CMU Grout, Gray	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-011 A-004B	QUONSET HUT	CMU Grout, Gray	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-012 A-004C	QUONSET HUT	CMU Grout, Gray	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-013 A-005A	BLDG 509 EXT WINDOW	Ext. Window Caulk, Beige	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-014 A-005B	BLDG 509 EXT WINDOW	Ext. Window Caulk, Beige	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%

EMC LABS, INC.

Laboratory Report

0115698

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENPRO	Job# / P.O. #: 1207-00351-HA2
Address: 151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received: 07/30/2012
Collected: 07/26/2012	Date Analyzed: 08/02/2012
Project Name: HILO KMR	Date Reported: 08/03/2012
Address:	EPA Method: EPA 600/M4-82-020
	Submitted By: SVEN LINDSTROM
	Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0115698-015 A-005C	BLDG 509 EXT WINDOW	Ext. Window Caulk, Beige	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-016 A-006A	BLDG 509	LAYER 1 VFT, Red/ Brown	Yes	Chrysotile 20%	Carbonates Gypsum Mica Binder/Filler 80%
		LAYER 2 Mastic, Black	No	None Detected	Cellulose Fiber 1% Carbonates Gypsum Mica Binder/Filler 99%
0115698-017 A-006B	BLDG 509	LAYER 1 VFT, Red/ Brown Note: *Not analyzed per client request			
		LAYER 2 Mastic, Black	Yes	Chrysotile 3%	Cellulose Fiber 2% Carbonates Gypsum Mica Quartz Binder/Filler 95%
0115698-018 A-006C	BLDG 509	LAYER 1 VFT, Red/ Brown Note: *Not analyzed per client request			
		LAYER 2 Mastic, Black Note: *Not analyzed per client request			

EMC LABS, INC.

Laboratory Report
0115698

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENPRO	Job# / P.O. #: 1207-00351-HA2
Address: 151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received: 07/30/2012
Collected: 07/26/2012	Date Analyzed: 08/02/2012
Project Name: HILO KMR	Date Reported: 08/03/2012
Address:	EPA Method: EPA 600/M4-82-020
	Submitted By: SVEN LINDSTROM
	Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0115698-019 A-007A	BLDG 509	Concrete Floor Skim Coat, Gray	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-020 A-007B	BLDG 509	Concrete Floor Skim Coat, Gray	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-021 A-007C	BLDG 509	Concrete Floor Skim Coat, Gray	No	None Detected	Carbonates Gypsum Quartz Binder/Filler 100%
0115698-022 A-008A	BLDG 509	LAYER 1 VFT, White/ Brown	Yes	Chrysotile 15%	Carbonates Gypsum Mica Quartz Binder/Filler 85%
		LAYER 2 Mastic, Black Note: Difficult to separate adjacent layers	Yes	Chrysotile 2%	Cellulose Fiber Carbonates Gypsum Mica Quartz Binder/Filler 96%
0115698-023 A-008B	BLDG 509	LAYER 1 VFT, White/ Brown Note: *Not analyzed per client request			
		LAYER 2 Mastic, Black Note: *Not analyzed per client request			

EMC LABS, INC.

Laboratory Report

0115698

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	ENPRO	Job# / P.O. #:	1207-00351-HA2
Address:	151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received:	07/30/2012
Collected:	07/26/2012	Date Analyzed:	08/02/2012
Project Name:	HILO KMR	Date Reported:	08/03/2012
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	SVEN LINDSTROM
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0115698-024 A-008C	BLDG 509	LAYER 1 VFT, White/ Brown Note: *Not analyzed per client request LAYER 2 Mastic, Black Note: *Not analyzed per client request				
0115698-025 A-009A	BLDG 509 NORTH AREA	LAYER 1 Drywall, White/ Brown	No	None Detected	Cellulose Fiber Gypsum Carbonates Quartz	10% 90%
		LAYER 2 Joint Compound, Off White	No	None Detected	Cellulose Fiber Carbonates Gypsum Quartz Binder/Filler	<1% 99%
0115698-026 A-009B	BLDG 509 NORTH AREA	LAYER 1 Drywall, White/ Brown	No	None Detected	Cellulose Fiber Gypsum Carbonates Mica Quartz	10% 90%
		LAYER 2 Joint Compound, Off White	No	None Detected	Carbonates Gypsum Quartz Binder/Filler	 100%

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
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Laboratory Report
0115698

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	ENPRO	Job# / P.O. #:	1207-00351-HA2
Address:	151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received:	07/30/2012
Collected:	07/26/2012	Date Analyzed:	08/02/2012
Project Name:	HILO KMR	Date Reported:	08/03/2012
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	SVEN LINDSTROM
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0115698-027 A-009C	BLDG 509 NORTH AREA	LAYER 1 Drywall, White/ Brown	No	None Detected	Cellulose Fiber	10%
					Gypsum Carbonates Quartz	90%
		LAYER 2 Joint Compound, Off White	No	None Detected	Carbonates Gypsum Quartz Binder/Filler	100%
0115698-028 A-010A	BLDG 509 SOUTH AREA	Ceiling Panel, White/ Gray	No	None Detected	Cellulose Fiber Mineral Wool Carbonates Gypsum Perlite Quartz Binder/Filler	40% 40% 20%
0115698-029 A-010B	BLDG 509 SOUTH AREA	Ceiling Panel, White/ Gray	No	None Detected	Cellulose Fiber Mineral Wool Carbonates Gypsum Perlite Quartz Binder/Filler	40% 40% 20%
0115698-030 A-010C	BLDG 509 SOUTH AREA	Ceiling Panel, White/ Gray	No	None Detected	Cellulose Fiber Mineral Wool Carbonates Gypsum Perlite Quartz Binder/Filler	40% 40% 20%

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Laboratory Report

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9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	ENPRO	Job# / P.O. #:	1207-00351-HA2
Address:	151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received:	07/30/2012
Collected:	07/26/2012	Date Analyzed:	08/02/2012
Project Name:	HILO KMR	Date Reported:	08/03/2012
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	SVEN LINDSTROM
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0115698-031 A-011A	BLDG 509 GARAGE	LAYER 1 Large VFT, Gray/ White	Yes	Chrysotile 3%	Carbonates Gypsum Quartz Binder/Filler 97%
		LAYER 2 Mastic, Black	Yes	Chrysotile 10%	Cellulose Fiber <1% Carbonates Gypsum Quartz Binder/Filler 89%
0115698-032 A-011B	BLDG 509 GARAGE	LAYER 1 Large VFT, Gray/ White Note: *Not analyzed per client request			
		LAYER 2 Mastic, Black Note: *Not analyzed per client request			
0115698-033 A-011C	BLDG 509 GARAGE	LAYER 1 Large VFT, Gray/ White Note: *Not analyzed per client request			
		LAYER 2 Mastic, Black Note: *Not analyzed per client request			
0115698-034 A-012A	BLDG 509	LAYER 1 VFT, Off White/ Beige Note: No Carpet Mastic Present	Yes	Chrysotile 5%	Carbonates Quartz Binder/Filler 95%
		LAYER 2 Mastic, Black	Yes	Chrysotile 5%	Cellulose Fiber 1% Quartz Carbonates Binder/Filler 94%

EMC LABS, INC.

Laboratory Report

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9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENPRO	Job# / P.O. #: 1207-00351-HA2
Address: 151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received: 07/30/2012
Collected: 07/26/2012	Date Analyzed: 08/02/2012
Project Name: HILO KMR	Date Reported: 08/03/2012
Address:	EPA Method: EPA 600/M4-82-020
	Submitted By: SVEN LINDSTROM
	Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0115698-035 A-012B	BLDG 509	LAYER 1 VFT, Off White/ Beige Note: *Not analyzed per client request LAYER 2 Mastic, Black Note: *Not analyzed per client request			
0115698-036 A-012C	BLDG 509	LAYER 1 VFT, Off White/ Beige Note: *Not analyzed per client request LAYER 2 Mastic, Black Note: *Not analyzed per client request			
0115698-037 A-013A	BLDG 509 SOUTH	LAYER 1 Drywall, Beige/ Off White LAYER 2 Joint Compound, White/ Off White Note: Difficult to separate adjacent layers	No	None Detected	Cellulose Fiber 10% Gypsum Carbonates Mica Quartz 90%
0115698-038 A-013B	BLDG 509 SOUTH	Drywall, Beige/ Off White Note: No Joint Compound Present	No	None Detected	Cellulose Fiber 10% Gypsum Carbonates Mica Quartz 90%

EMC LABS, INC.

Laboratory Report

01156989830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726**Bulk Asbestos Analysis by Polarized Light Microscopy**

NVLAP#101926-0

Client:	ENPRO	Job# / P.O. #:	1207-00351-HA2
Address:	151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received:	07/30/2012
Collected:	07/26/2012	Date Analyzed:	08/02/2012
Project Name:	HILO KMR	Date Reported:	08/03/2012
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	SVEN LINDSTROM
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0115698-039 A-013C	BLDG 509 SOUTH	LAYER 1 Drywall, Beige/ Off White	No	None Detected	Cellulose Fiber Gypsum Carbonates Mica Quartz	10% 90%
		LAYER 2 Joint Compound, White/ Off White Note: Difficult to separate adjacent layers	No	None Detected	Cellulose Fiber Carbonates Mica Quartz Binder/Filler	2% 98%
0115698-040 A-014A	BLDG 509 VAULT	Vault Door, Beige/ Black	No	None Detected	Wollastonite Carbonates Gypsum Mica Binder/Filler	2% 98%
0115698-041 A-014B	BLDG 509 VAULT	Vault Door, Beige/ Gray	No	None Detected	Cellulose Fiber Carbonates Gypsum Mica Binder/Filler	1% 99%
0115698-042 A-014C	BLDG 509 VAULT	Vault Door, Beige/ Black	No	None Detected	Cellulose Fiber Carbonates Gypsum Mica Binder/Filler	1% 99%
0115698-043 A-015A	BLDG 509 VAULT	Vault Wall, Beige/ Gray	No	None Detected	Cellulose Fiber Carbonates Quartz Gypsum Perlite Binder/Filler	<1% 99%

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Laboratory Report

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9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: ENPRO Job# / P.O. #: 1207-00351-HA2
Address: 151 HEKILI ST, STE 210 Date Received: 07/30/2012
KAILUA, HI 96734 Date Analyzed: 08/02/2012
Collected: 07/26/2012 Date Reported: 08/03/2012
Project Name: HILO KMR EPA Method: EPA 600/M4-82-020
Address: Submitted By: SVEN LINDSTROM
Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0115698-044 A-015B	BLDG 509 VAULT	Vault Wall, Beige/ Gray	No	None Detected	Cellulose Fiber Carbonates Quartz Gypsum Perlite Binder/Filler	<1% 99%
0115698-045 A-015C	BLDG 509 VAULT	Vault Wall, Beige/ Gray	No	None Detected	Cellulose Fiber Carbonates Quartz Gypsum Perlite Binder/Filler	<1% 99%
0115698-046 A-016A	GUN RANGE	LAYER 1 Block, Gray/ Black/ Red	No	None Detected	Gypsum Quartz Carbonates Binder/Filler	 100%
		LAYER 2 Grout, Gray	No	None Detected	Carbonates Quartz Gypsum Binder/Filler	 100%
0115698-047 A-016B	GUN RANGE	LAYER 1 Block, Gray/ Black/ Red	No	None Detected	Gypsum Quartz Carbonates Binder/Filler	 100%
		LAYER 2 Grout, Gray	No	None Detected	Carbonates Quartz Gypsum Binder/Filler	 100%

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Laboratory Report

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Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	ENPRO	Job# / P.O. #:	1207-00351-HA2
Address:	151 HEKILI ST, STE 210 KAILUA, HI 96734	Date Received:	07/30/2012
Collected:	07/26/2012	Date Analyzed:	08/02/2012
Project Name:	HILO KMR	Date Reported:	08/03/2012
Address:		EPA Method:	EPA 600/M4-82-020
		Submitted By:	SVEN LINDSTROM
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0115698-048 A-016C	GUN RANGE	LAYER 1 Block, Gray/ Black/ Red	No	None Detected	Gypsum Quartz Carbonates Binder/Filler 100%
		LAYER 2 Grout, Gray	No	None Detected	Carbonates Quartz Gypsum Binder/Filler 100%


Analyst - Johann Hofer


Signatory - Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in area percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately less than 1 by area percent. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by any entity to claim product endorsement by NVLAP or any agency of the U.S. Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51st St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 115698
 TAT: 3 day
 Rec'd: JUL 30 PM

COMPANY NAME: ENPRO Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734
 CONTACT: Sven Lindstrom
 Phone/Fax: 866-262-0909 / 866-262-4449
 Email: slindstrom@enproenvironmental.com

BILL TO: _____

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ _____ / Sample \$ _____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [4-Day] [5-Day] [6-10 Day]
 **** Prior to confirmation of turnaround time is required.
 **** Additional charges for rush analysis (please call marketing department for pricing details)
 **** Laboratory analysis may be subject to delay if credit terms are not met.
2. TYPE OF ANALYSIS: (Bulk-PLM) [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]
3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (if you do not indicate preference, EMC will dispose of samples 60 days from analysis)

4. Project Name: Island Colony Hotel - 170700 - HILLO KMA
 P.O. Number: _____ Project Number: 4207-00050-100 1707-00751-MA2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION / MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	A-001A	7/26/12	QUONSET HUT SILVER ROOF	N			
2	A-001B	"	"	Y			
3	A-001C	"	"	Y			
4	A-002A	"	QUONSET HUT CMU COAT	Y			
5	A-002B	"	"	Y			
6	A-002C	"	"	Y			
7	A-003A	"	QUONSET HUT ROOF PATCH	Y			
8	A-003B	"	"	Y			
9	A-003C	"	"	Y			
10	A-004A	"	QUONSET HUT CMU GROUT	Y			
11	A-004B	"	"	Y			
12	A-004C	"	"	Y			
13	A-005A	"	BLDG SOG EXT. WINDOW CAULK	Y			
14	A-005B	"	"	Y			
15	A-005C	"	"	N			
			NEXT PAGE	Y			

SPECIAL INSTRUCTIONS: Stop at first positive. PER homogeneous sample layer

Sample Collector: (Print) S. LINDSTROM (Signature) _____

Relinquished by: S. L. Date/Time: 7/26/12 Received by: FED EX Date/Time: 7/26/12 9:00

Relinquished by: [Signature] Date/Time: _____ Received by: [Signature] Date/Time: 7/30/12

Relinquished by: [Signature] Date/Time: 7/30/12 Received by: [Signature] Date/Time: 7-30-12/0911

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

CHAIN OF CUSTODY
EMC Laboratories
 9830 S. 51st St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: _____
 TAT: 115698
 Rec'd: _____

COMPANY NAME: ENPRO Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734
 CONTACT: Sven Lindstrom
 Phone/Fax: 866-262-0909 / 866-262-4449
 Email: slindstrom@enproenvironmental.com
 Now Accepting: VISA - MASTERCARD

BILL TO: _____ (if different Location)

 Price Quoted: \$ _____ / Sample \$ _____ / Layers _____

- COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)
- TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [4-Day] [5-Day] [6-10 Day]
 **** Prior to confirmation of turnaround time is required.
 **** Additional charges for rush analysis (please call marketing department for pricing details)
 **** Laboratory analysis may be subject to delay if credit terms are not met.
 - TYPE OF ANALYSIS: (Bulk-PLM) (Air-PCM) [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]
 - DISPOSAL INSTRUCTIONS: (Dispose of samples at EMC) / (Return samples to me at my expense)
 (if you do not indicate preference, EMC will dispose of samples 60 days from analysis)

4. Project Name: Island Colony Hotel HILCO KMR
 P.O. Number: _____ Project Number: 4207-00356-ASB-1205-00351-HA2

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION / MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
<u>16</u>	<u>A-006A</u>	<u>7/26/12</u>	<u>BLDG 509 RED/BROWN VPT</u>	<u>Y</u> <u>N</u>			
<u>17</u>	<u>A-006B</u>	<u>"</u>	<u>" + MASTIC</u>	<u>Y</u> <u>N</u>			
<u>18</u>	<u>A-006C</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
<u>19</u>	<u>A-007A</u>	<u>"</u>	<u>BLDG 509 CONC. FLOOR SKIM COAT</u>	<u>Y</u> <u>N</u>			
<u>20</u>	<u>A-007B</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
<u>21</u>	<u>A-007C</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
<u>22</u>	<u>A-008A</u>	<u>"</u>	<u>BLDG 509 WHITE VPT/MASTIC</u>	<u>Y</u> <u>N</u>			
<u>23</u>	<u>A-008B</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
<u>24</u>	<u>A-008C</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
<u>25</u>	<u>A-009A</u>	<u>"</u>	<u>BLDG 509 NORTH AREA DRY WALL +</u>	<u>Y</u> <u>N</u>			
<u>26</u>	<u>A-009B</u>	<u>"</u>	<u>" JOINT COMPAN</u>	<u>Y</u> <u>N</u>			
<u>27</u>	<u>A-009C</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
<u>28</u>	<u>A-010A</u>	<u>"</u>	<u>BLDG 509 SOUTH AREA CEILING</u>	<u>Y</u> <u>N</u>			
<u>29</u>	<u>A-010B</u>	<u>"</u>	<u>" PANEL</u>	<u>Y</u> <u>N</u>			
<u>30</u>	<u>A-010C</u>	<u>"</u>	<u>"</u>	<u>Y</u> <u>N</u>			
			<u>NEXT PAGE</u>	<u>Y</u> <u>N</u>			

SPECIAL INSTRUCTIONS: Stop at first positive. per homogeneous sample layer

Sample Collector: (Print) S. LINDSTROM (Signature) [Signature]

Relinquished by: S.L. Date/Time: 7/26/12 Received by: [Signature] Date/Time: 7/26/12 9:00

Relinquished by: _____ Date/Time: _____ Received by: [Signature] Date/Time: 7/30/12

Relinquished by: [Signature] Date/Time: 7/30/12 Received by: [Signature] Date/Time: 7/30/12 0900

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

CHAIN OF CUSTODY
EMC Laboratories
 9830 S. 51st St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 115698
 TAT:
 Rec'd:

COMPANY NAME: ENPRO Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734
 CONTACT: Sven Lindstrom
 Phone/Fax: 866-262-0909 / 866-262-4449
 Email: slindstrom@enproenvironmental.com
 Now Accepting: VISA - MASTERCARD

BILL TO: _____ (if different Location)

 Price Quoted: \$ _____ / Sample \$ _____ / Layers

- COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)
1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [4-Day] [5-Day] [6-10 Day]
 **** Prior to confirmation of turnaround time is required.
 **** Additional charges for rush analysis (please call marketing department for pricing details)
 **** Laboratory analysis may be subject to delay if credit terms are not met.
2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]
3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 90 days from analysis)

4. Project Name: Island Colony Hotel HILD KIR
 P.O. Number: _____ Project Number: 1207-00355-ASB 1207-03351-ASB

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION / MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
31	A011A	7/26/12	BLDG SO9 LARGE GRAY/WHITE VFT/MASTIC	Y N			
32	A011B	"	"	Y N			
33	A011C	"	"	Y N			
34	A012A	"	BLDG SO9 OFF-WHITE VFT	Y N			
35	A012B	"	" + CARPET MASTIC	Y N			
36	A012C	"	"	Y N			
37	A013A	"	BLDG SO9 SOUTH DRY WALL	Y N			
38	A013B	"	" + DONUT COINTEGRATED	Y N			
39	A013C	"	"	Y N			
40	A014A	"	BLDG SO9 VAULT DOOR	Y N			
41	A014B	"	"	Y N			
42	A014C	"	"	Y N			
43	A015A	"	BLDG SO9 VAULT WALL GWT	Y N			
44	A015B	"	"	Y N			
45	A015C	"	"	Y N			
			NEXT PAGE	Y N			

SPECIAL INSTRUCTIONS: Stop at first positive. For homogeneous sample layers

Sample Collector: (Print) S. LINDSTROM (Signature) [Signature]
 Relinquished by: S Date/Time: 7/26/12 Received by: [Signature] Date/Time: 7/26/12
 Relinquished by: _____ Date/Time: _____ Received by: [Signature] Date/Time: 7/30/12
 Relinquished by: [Signature] Date/Time: 7/30/12 Received by: [Signature] Date/Time: 7-26-12

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.

CHAIN OF CUSTODY
EMC Laboratories
 9830 S. 51st St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: _____
 TAT: 115698
 Rec'd: _____

COMPANY NAME: ENPRO Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734
 CONTACT: Sven Lindstrom
 Phone/Fax: 866-262-0909 / 866-262-4449
 Email: slindstrom@enproenvironmental.com
 Now Accepting: **VISA - MASTERCARD**

BILL TO: _____ (if different Location)

 Price Quoted: \$ _____ / Sample \$ _____ / Layers

- COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)
1. TURNAROUND TIME: [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [4-Day] [5-Day] [6-10 Day]
 **** Prior to confirmation of turnaround time is required.
 **** Additional charges for rush analysis (please call marketing department for pricing details)
 **** Laboratory analysis may be subject to delay if credit terms are not met.
2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]
 3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (if you do not indicate preference, EMC will dispose of samples 60 days from analysis)

4. Project Name: Island Colony Hotel Hilo HI
 P.O. Number: _____ Project Number: 1207-00358-ASB

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION / MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
<u>46</u>	<u>A316A</u>	<u>7/25/12</u>	<u>GRASSY AREA. SANDY GROUND</u>	<u>N</u>			
<u>47</u>	<u>A316B</u>	<u>7/25/12</u>	<u>"</u>	<u>N</u>			
<u>48</u>	<u>A316C</u>	<u>7/25/12</u>	<u>"</u>	<u>N</u>			
<u>LAST ENTRY</u>				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		
				<u>Y</u>	<u>N</u>		

SPECIAL INSTRUCTIONS: Stop at first positive.

Sample Collector: (Print) S. LINDSTROM (Signature) [Signature]
 Relinquished by: S.L. Date/Time: 7/26 Received by: EXPED Date/Time: 7/26
 Relinquished by: [Signature] Date/Time: 7/30/12 Received by: [Signature] Date/Time: 7/30/12
 Relinquished by: [Signature] Date/Time: 7/30/12 Received by: [Signature] Date/Time: 7/30/12

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.



9830 South 51st Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726
emclab@emclabs.com

LEAD (Pb) IN PAINT CHIP SAMPLES
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420


EMC LAB #: L46223		DATE RECEIVED: 07/30/12			
CLIENT: ENPRO Environmental		REPORT DATE: 08/02/12			
		DATE OF ANALYSIS: 08/01/12			
CLIENT ADDRESS: 151 Hekili Street, Suite 210 Kailua, HI 96734		P.O. NO.:			
PROJECT NAME: Hilo KMR		PROJECT NO.: 1207.00351.HAZ			
EMC # L46223-	SAMPLE DATE /12	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
1	07/25	LP 1	Quonset Hut Ext. Silver	0.010	0.050
2	07/25	LP 2	Quonset Hut Ext. Yellow	0.010	0.044
3	07/25	LP 3	Quonset Hut Int. White	0.019	BRL
4	07/25	LP - 4	Bldg 509 Int. White	0.010	0.381
5	07/25	LP - 5	Bldg 509 Int. Brown Trim	0.011	0.083
6	07/25	LP - 6	Bldg 509 Int. Blue	0.010	BRL
7	07/25	LP - 7	Bldg 509 Ext. Yellow	0.100	4.81 [^]
8	07/25	LP - 8	Bldg 509 Ext. Brown Trim	0.100	4.84 [^]
9	07/25	LP - 9	Bldg 509 Int. Green Trim	0.010	0.151


[^] = Dilution Factor Changed * = Excessive Substrate May Bias Sample Results BRL = Below Reportable Limits # = Very Small Amount Of Sample Submitted, May Affect Result

This report applies to the standards or procedures identified and to the samples tested only. The test results are not necessarily indicative or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. Unless otherwise noted, all quality control analyses for the samples noted above were within acceptable limits.

Where it is noted that a sample with excessive substrate was submitted for laboratory analysis, such analysis may be biased. The lead content of such sample may, in actuality, be greater than reported. EMC makes no warranty, express or implied, as to the accuracy of the analysis of samples noted to have been submitted with excessive substrate. Resampling is recommended in such situations to verify original laboratory results.

These reports are for the exclusive use of the addressed client and are rendered upon the condition that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. Samples not destroyed in testing are retained a maximum of sixty (60) days.

ANALYST: 
Jason Thompson

QA COORDINATOR: 
Kurt Kettler



EMC LABS, INC.

9830 South 51st Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726
emclab@emclabs.com

LEAD (Pb) IN PAINT CHIP SAMPLES
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420


EMC LAB #: L46223		DATE RECEIVED: 07/30/12			
CLIENT: ENPRO Environmental		REPORT DATE: 08/02/12			
		DATE OF ANALYSIS: 08/01/12			
CLIENT ADDRESS: 151 Hekili Street, Suite 210 Kailua, HI 96734		P.O. NO.:			
PROJECT NAME: Hilo KMR		PROJECT NO.: 1207.65413.HAZ			
EMC # L46223-	SAMPLE DATE /12	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
10	07/25	LP - 10	Gun Range Green Paint	0.010	BRL
11	07/25	LP - 11	Gun Range Green	0.010	BRL
12	07/25	LP - 12	Gun Range Pink Paint	0.010	0.019
13	07/25	LP - 13	Grease Rack Yellow	1.0	12.4^^
14	07/25	LP - 14	Grease Rack Pink	1.0	14.5^^

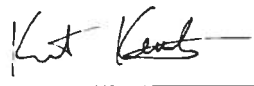
^ = Dilution Factor Changed * = Excessive Substrate May Bias Sample Results BRL = Below Reportable Limits # = Very Small Amount Of Sample Submitted, May Affect Result

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ANALYST: 
Jason Thompson

QA COORDINATOR: 
Kurt Kettler

CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51st St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 140223
 TAT: 3-days
 Rec'd: 7/30/12

COMPANY NAME: ENPRO Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734
 CONTACT: Sven Lindstrom
 Phone/Fax: 866-262-0909 / 866-262-4449
 Email: slindstrom@enproenvironmental.com
 Now Accepting: VISA - MASTERCARD

BILL TO: _____ (if different Location)

 Price Quoted: \$ _____ / Sample \$ _____ / Layers

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2. TYPE OF ANALYSIS: [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]
3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (if you do not indicate preference, EMC will dispose of samples 60 days from analysis)

4. Project Name: Island Colony Hotel HINO KITA
 P.O. Number: _____ Project Number: 1207-0930-ASB (207-80351-HAZ)

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION / MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	LP-1	<u>7/26/12</u>	QUONSET HUT EXT. SILVER	<u>Y</u> N			
2	LP-2	"	QUONSET HUT EXT. YELLOW	Y N			
3	LP-3	"	QUONSET HUT INT. WHITE	Y N			
4	LP-4	"	BLDG 509 INT. WHITE	Y N			
5	LP-5	"	BLDG 509 INT BROWN TRIM	Y N			
6	LP-6	"	BLDG 509 INT BLUE	Y N			
7	LP-7	"	BLDG 509 EXT YELLOW	Y N			
8	LP-8	"	BLDG 509 EXT BROWN TRIM	Y N			
9	LP-9	"	BLDG 509 INT GREEN TRIM	Y N			
10	LP-10	"	GUN RANGE GREEN PAINT	Y N			
11	LP-11	"	GUN RANGE GREEN	Y N			
12	LP-12	"	GUN RANGE PINK PAINT	Y N			
13	LP-13	"	GREASE RACK YELLOW	Y N			
14	LP-14	"	GREASE RACK PINK	Y N			
			<u>LAST ENTRY</u>	Y N			
				Y N			

SPECIAL INSTRUCTIONS: Stop at first positive

Sample Collector: (Print) S. LINDSTROM (Signature) [Signature]
 Relinquished by: S. LINDSTROM Date/Time: 7/26/12 Received by: REDAK Date/Time: 7/26/12
 Relinquished by: Angela Powell Date/Time: 7-30-12 9:30 Received by: [Signature] Date/Time: 7/30/12 9:30
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

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CHAIN OF CUSTODY
 EMC Laboratories
 9830 S. 51st St., Ste B-109
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 (800) 362-3373 Fax (480) 893-1726

LAB#: 146223
 TAT: 3-days
 Rec'd: 7/30/12

COMPANY NAME: ENPRO Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734
 CONTACT: Sven Lindstrom
 Phone/Fax: 866-262-0909 / 866-262-4449
 Email: slindstrom@enproenvironmental.com
 Now Accepting: VISA - MASTERCARD

BILL TO: _____ (if different Location)

 Price Quoted: \$ _____ / Sample \$ _____ / Layers

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3. DISPOSAL INSTRUCTIONS: [Dispose of samples at EMC] / [Return samples to me at my expense]
 (if you do not indicate preference, EMC will dispose of samples 60 days from analysis)

4. Project Name: Island Colony Hotel HILLO KONA
 P.O. Number: _____ Project Number: 1207-00306-ASB (207-00351-HAR)

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION / MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1	LP-1	<u>7/26/12</u>	QUONSET HUT EXT. SILVER	<u>(Y)</u> N			
2	LP-2	"	QUONSET HUT EXT. YELLOW	Y N			
3	LP-3	"	QUONSET HUT INT. WHITE	Y N			
4	LP-4	"	BLDG 509 INT. WHITE	Y N			
5	LP-5	"	BLDG 509 INT BROWN TRIM	Y N			
6	LP-6	"	BLDG 509 INT BLUE	Y N			
7	LP-7	"	BLDG 509 EXT YELLOW	Y N			
8	LP-8	"	BLDG 509 EXT BROWN TRIM	Y N			
9	LP-9	"	BLDG 509 INT GREEN TRIM	Y N			
10	LP-10	"	GUN RANGE GREEN PAINT	Y N			
11	LP-11	"	GUN RANGE GREEN	Y N			
12	LP-12	"	GUN RANGE PINK PAINT	Y N			
13	LP-13	"	GREASE RACK YELLOW	Y N			
14	LP-14	"	GREASE RACK PINK	Y N			
			<u>LAST ENTRY</u>	Y N			

SPECIAL INSTRUCTIONS: Stop at first positive.

Sample Collector: (Print) S. LINDSTROM (Signature) [Signature]
 Relinquished by: S. LINDSTROM Date/Time: 7/26/12 Received by: GED EX Date/Time: 7/26/12
 Relinquished by: [Signature] Date/Time: 7-30-12 9:30 Received by: [Signature] Date/Time: 7/30/12 9:30
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: 7/30/12 9:30

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs.



Environmental Services Network

August 7, 2012

Sven Lindstrom
Enpro Environmental
151 Hekili Street, Suite 210
Kailua, HI 96734

SUBJECT: DATA REPORT – 1207-00351-HA2, Hilo KMR

ESN Project # D1207270400

Mr. Lindstrom:

Please find enclosed a data report for the samples analyzed from the above referenced project for Enpro Environmental. The samples were received intact. Applicable detection limits, QA/QC data, and any issues encountered during analysis are included in the report.

The following tests were conducted:

- Analyses for organochlorine pesticides by EPA 8081 mod.
- Analyses for TCLP Pb by EPA 1311/7000.
- Analyses for total Pb and As by EPA 7000 and 6020.

ESN appreciates the opportunity to have provided analytical services to Enpro Environmental on this project. If you have any further questions relating to the data or report, please do not hesitate to contact us.

Sincerely,

A handwritten signature in blue ink that reads 'Karen Carvallo'. The signature is written in a cursive, flowing style.

Karen Carvallo
Operations Manager

ESN Pacific
2020-B Kahai Street
Honolulu, HI 96819

Ph: (808) 847-0067
esn@esnpacific.com



Environmental Services Network

Enpro Environmental PROJECT #1207-00351-HA2
Hilo KMR

ESN Project #D1207270400

ORGANOCHLORINE PESTICIDES ANALYSES OF SOILS BY EPA 8081A MODIFIED

SAMPLE NUMBER	Method Blank	Soil 1	Soil 2	Soil 3	Soil 4	Soil 5	PQL	MDL
DATE SAMPLED	-	7/26/2012	7/26/2012	7/26/2012	7/26/2012	7/26/2012		
DATE EXTRACTED	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012		
DATE ANALYZED	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012	7/31/2012		
Alpha-BHC	nd	nd	nd	nd	nd	nd	0.005	0.002
Beta-BHC	nd	nd	nd	nd	nd	nd	0.005	0.003
Gamma-BHC (Lindane)	nd	nd	nd	nd	nd	nd	0.005	0.002
Delta-BHC	nd	nd	nd	nd	nd	nd	0.005	0.002
Heptachlor	nd	nd	nd	nd	nd	nd	0.005	0.002
Aldrin	nd	nd	nd	nd	3.494	nd	0.005	0.002
Heptachlor epoxide	nd	nd	nd	nd	nd	nd	0.005	0.002
Gamma-Chlordane	nd	nd	nd	nd	nd	nd	0.005	0.002
Endosulfan I	nd	nd	nd	nd	nd	nd	0.005	0.002
Alpha-Chlordane	nd	nd	0.007	nd	nd	nd	0.005	0.002
Dieldrin	nd	nd	nd	nd	5.890	nd	0.010	0.003
p,p'-DDE	nd	nd	nd	nd	nd	nd	0.010	0.003
Endrin	nd	nd	nd	nd	0.126	nd	0.010	0.003
Endosulfan II	nd	nd	nd	nd	nd	nd	0.010	0.005
p,p'-DDD	nd	nd	nd	nd	0.019	nd	0.010	0.003
Endrin aldehyde	nd	nd	nd	nd	nd	nd	0.010	0.006
Endosulfan sulfate	nd	nd	nd	nd	nd	nd	0.010	0.005
p,p'-DDT	nd	nd	nd	nd	0.034	nd	0.010	0.005
Endrin ketone	nd	nd	nd	nd	0.030	nd	0.010	0.005
Methoxychlor	nd	nd	nd	nd	nd	nd	0.010	0.009
Chlordane (technical)	nd	nd	nd	nd	nd	nd	0.050	0.020
Toxaphene	nd	nd	nd	nd	nd	nd	0.050	0.010
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)

FLAGS

SURROGATE RECOVERY (%)	80%	81%	80%	86%	93%	77%
------------------------	-----	-----	-----	-----	-----	-----

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (TCMX): 65%- 135%

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

	Laboratory Control Spike		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Beta-BHC	0.050	0.041	81.2%
p,p'-DDE	0.100	0.092	91.7%
Endrin ketone	0.100	0.083	83.0%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: 0396 182J

	Matrix Spike			Matrix Spike Duplicate			RPD (%)	FLAGS
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)		
Beta-BHC	0.050	0.040	80.2%	0.050	0.041	82.2%	2.5%	
p,p'-DDE	0.100	1165.606	1165606.0%	0.100	1130.982	1130982.0%	3.0%	
Endrin ketone	0.100	0.082	81.9%	0.100	0.085	84.5%	3.1%	

% Recovery LIMITS: 80% TO 120%

RPD LIMIT: 20%

ANALYSES PERFORMED AND REVIEWED BY : K. Carvallo



Environmental Services Network

Enpro Environmental PROJECT #1207-00351-HA2 Hilo KMR

ESN Project #D1207270400

TOTAL METAL ANALYSES BY ATOMIC ABSORPTION

SAMPLE NUMBER	DATE SAMPLED	DATE DIGESTED	DATE ANALYZED	Lead (Pb) EPA 7420 (mg/kg)	FLAGS
Method Blank	-	7/30/2012	7/30/2012	nd	
Soil 1	7/26/2012	7/30/2012	7/30/2012	545	DF5
Soil 1 Dup	7/26/2012	7/30/2012	7/30/2012	525	DF5
Soil 2	7/26/2012	7/30/2012	7/30/2012	353	
Soil 3	7/26/2012	7/30/2012	7/30/2012	345	
Soil 4	7/26/2012	7/30/2012	7/30/2012	146	
Soil 5	7/26/2012	7/30/2012	7/30/2012	6540	DF 500
PQL				12.5	
MDL				6.25	
2007 HI DOH EAL (Lead action level based on direct exposure to humans.)				200	

DF: Reported result calculated from dilution factor, multiply detection limit by dilution factor.

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added 125
 Measured Conc. 131
 % Recovery 105.0%

Spike Added 125
 Measured Conc. 128
 % Recovery 102.0%

RPD 2.9%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: Soil 1

*Unable to analyze MS/MSD due to large hit of target analyte in sample.

% Recovery LIMITS: 65% TO 135%

RPD LIMIT: 20%

ANALYSES PERFORMED BY : A. Klatte
 DATA REVIEWED BY: K. Carvallo



Environmental Services Network

Enpro Environmental PROJECT #1207-00351-HA2 Hilo KMR

ESN Project #D1207270400

METAL ANALYSES BY TOXICITY CHARACTERISTIC LEACHING PROCEDURE AND ATOMIC ABSORPTION

SAMPLE NUMBER	DATE SAMPLED	DATE ROTATED	DATE DIGESTED	DATE ANALYZED	Lead (Pb) EPA 7420 (mg/L)	FLAGS
Method Blank	-	-	-	-	nd	
TCLP- 1	7/26/2012	7/30/2012	7/31/2012	7/31/2012	nd	
TCLP- 1 Dup	7/26/2012	7/30/2012	7/31/2012	7/31/2012	nd	
✓ TCLP- 2	7/26/2012	7/30/2012	7/31/2012	7/31/2012	1.51	
✓ TCLP- 3	7/26/2012	7/30/2012	7/31/2012	7/31/2012	10.3	
					0.50	
PQL					0.25	
MDL					5.00	
TCLP REGULATORY LEVEL						

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added 5.0
 Measured Conc. 6.1
 % Recovery 122.3%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: TCLP-1

Spike Added 5.0
 Measured Conc. 5.9
 % Recovery 118.4%

Spike Added 5.0
 Measured Conc. 6.5
 % Recovery 129.9%

RPD 9.3%

% Recovery LIMITS: 65% TO 135%
 RPD LIMIT: 20%

ANALYSES PERFORMED BY : A. Klatte
 DATA REVIEWED BY: K. Carvallo

ESN NORTHWEST CHEMISTRY LABORATORY

ESN Pacific
 ENPRO - HILO KMR PROJECT
 Client Project #D1207270400
 Hawaii

ESN Northwest
 1210 Eastside Street SE Suite 200
 Olympia, WA 98501
 (360) 459-4670 (360) 459-3432 Fax
 lab@esnnw.com

Total Metals in Soil by EPA-6020 Series

Sample Number	Date Analyzed	Arsenic (As) (mg/kg)
Method Blank	8/1/2012	nd
AS-1	8/1/2012	nd
AS-2	8/1/2012	1700
AS-3	8/1/2012	2100
Reporting Limits		5.0

"nd" Indicates not detected at listed detection limits.

QA/QC Data - Total Metals EPA-6020

Sample Number: QC Batch							
	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
Arsenic	73.8	74.2	101	73.3	74.6	102	1.3

Laboratory Control Sample			
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
Arsenic	100	108	108

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 80%-120%

ACCEPTABLE RPD IS 35%

M - Matrix Spike recovery failed due to matrix interference.

ESN PACIFIC'S CHAIN-OF-CUSTODY RECORD

CLIENT: EMPRG TAT (circle one): 24-hr 48-hr. 5-day or Other. PAGE 1 OF 1
 ADDRESS: 150 HERRILL SUITE 210 DATE: 7/27/2012
 PHONE: 262-0909 ESN PROJECT #: DIZ07270400
 EMAIL: slidstrem@empresv.com LOCATION/PROJECT NAME: HILLO KM P
 CLIENT PROJECT #: 1207.00351.HAZ Project Manager: S. LINDSTROM COLLECTOR: S. LINDSTROM DATE COLLECTED: 7/26/12

Sample ID#	Depth Time	Sample Type	Container Type	Analytes					Comments	# of Containers	
				8260 HVOC 5035	8260 VOC 5035	8021 or 8260 MBE 5035	8015 TPH-Diesel 5035	8015 TPH-Oil 5035			8082 Chlor. Pesticides 5035
1	4"	SOIL	BAG							MI prep	
2	4"	SOIL	BAG								
3	4"	SOIL	BAG								
4	4"	SOIL	BAG								
5	4"	SOIL	BAG								
6		BULK	BAG								
7		BULK	BAG								
8		BULK	BAG								
9		BULK	BAG								
10		BULK	BAG								
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RELINQUISHED BY: (Signature) [Signature] DATE/TIME 7/27/12 RECEIVED BY: (Signature) [Signature] DATE/TIME 7/27/12
 RELINQUISHED BY: (Signature) [Signature] DATE/TIME 7/27/12 RECEIVED BY: (Signature) [Signature] DATE/TIME 7/27/12
 SAMPLE DISPOSAL INSTRUCTIONS: ESN @ \$5.00/sample or Return to Client RECEIVED TEMP: _____
 SAMPLE RECEIPT: 1 TOTAL # OF CONTAINERS
 COC SEALS Y / NA
 SEALS INTACT Y / NA
 LABORATORY NOTES: _____

GLOSSARY

GLOSSARY

Definitions

Accessible - Relative to the assessment of Building materials, a material is said to be "accessible" if it can be identified, inspected and sampled without causing incidental damage to other Building materials. Materials are not considered inaccessible merely because of the necessity to a) use ladders to reach ceiling materials or b) remove lay-in ceiling tiles to view above false ceilings.

Accredited Asbestos Building Inspector - A person who has successfully completed and been issued an accreditation certificate by an EPA-approved or state administered asbestos training provider. Accreditation must be kept current with annual renewals.

Asbestos-Containing Building Material (ACBM) - A Building material containing more than 1% asbestos as determined by using analytical methodologies specified in NESHAP. See also definitions of Presumed Asbestos Containing Material and Regulated Asbestos Containing Material.

AHERA - Asbestos Hazard Emergency Response Act passed by Congress in 1987 to regulate asbestos in schools. Many aspects of this law now apply to non-school Buildings as authorized through ASHARA.

Asbestos - Any of six naturally occurring fibrous minerals found in certain rock formations. Of the six, chrysotile, amosite and crocidolite are most commonly found in Building materials. When mined and processed, asbestos is typically separated into very thin fibers. Because asbestos is strong, incombustible and corrosion resistant, asbestos was used in many commercial products. Its use peaked in the period from World War II into the early 1970s. When inhaled, asbestos fibers can cause serious health problems.

Asbestos Abatement - Procedures to control fiber release from asbestos containing materials in a Building. These may involve encapsulation, repair, enclosure, encasement, removal, or operations and maintenance programs.

Asbestos Assessment - An investigation of a structure's Accessible components for the purpose of determining the presence and condition of asbestos-containing Building materials. As Asbestos Assessment as defined herein is not intended to be equivalent to a NESHAP Assessment conducted under AHERA sampling protocol.

Asbestos Assessor - A person conducting an Asbestos Assessment pursuant to the ASTM standard.

ASHARA - Asbestos School Hazard Abatement Reauthorization Act of 1989.

Building - As used in the Standard, the term Building includes any Building used for commercial, multifamily (five or more units), or industrial purposes but is not intended to include school Buildings (which are subject to AHERA) or residential Buildings (four or fewer units).

Building/Facility Owner - The legal entity, including a leasee, that exercises control over management and record keeping functions relating to a building and/or facility in which activities covered by 29 CFR 1926.1101 take place.

Bulk Sample - A small piece of a Building material suspected of containing Asbestos which is analyzed by microscopy, under analytical protocols set forth by the EPA or other regulatory agencies, to determine whether Asbestos is present and to determine the amount as an estimated percentage. The sample must be a continuous segment of the material from the surface to the substrate. The analytical result from one or more samples may be inferred to all homogeneous material represented by the piece or pieces of material.

Construction Work - Work for construction, alteration, and/or repair, including painting and redecorating.

Delamination - A condition wherein a surfacing material is losing its bond to its substrate (loss of adhesion) and/or losing its bond to itself (loss of cohesion).

Friable Asbestos - Any material that contains greater than one percent Asbestos, and which, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. This may include previously non-friable material which becomes damaged to the extent that, when dry, it may be crumbled, pulverized, or reduced to powder by hand pressure.

Hawaii Administrative Rule - State of Hawaii regulations governing asbestos are published in HAR Title 11, Chapters 501 through 504.

Homogeneous Area - An area of Surfacing Material, Thermal System Insulation or other miscellaneous Building material that is similar in appearance, color, texture, type and date of installation within a Building or group of Buildings. The selection of homogeneous sampling areas is a subjective process.

Homogeneous Material - Building material that is similar in appearance, color, texture, type and date of installation. The selection of homogeneous sampling materials is a subjective process.

Poor Condition - As defined by NESHAP, means asbestos-containing materials whose binding is losing its integrity as indicated by peeling, cracking, or crumbling of the material.

Laboratory - An entity with proficiency demonstrated by current successful participation in a nationally recognized testing program such as the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute for Standards and Testing (NIST) or an equivalent nationally recognized round robin testing program..

Miscellaneous Material - Interior Building material on structural components, structural members or fixtures such as floor and ceiling tiles, and does not include Surfacing Materials or Thermal System Insulation. This is one of three general categories for Building materials defined in AHERA.

Model Accreditation Program - (MAP) USEPA's program requiring each state to establish an accreditation process for training and certification of asbestos professionals.

NESHAP - National Emission Standard for Hazardous Air Pollutants-rules promulgated by EPA under the Clean Air Act. The rule in general requires Building owners to inspect Buildings for asbestos prior to renovation, remodel or demolition.

O &M (Operations & Maintenance) - Management programs designed to facilitate compliance with regulations and maintain asbestos in good condition within Buildings. Such programs typically include inventories of identified, presumed or suspect ACM, employee training, notification and records maintenance.

Presumed Asbestos-Containing Material (PACM) - As defined by OSHA, means Thermal System Insulation and Surfacing Materials found in Buildings constructed no later than 1980.

Practically Reviewable - Information provided by the source in a manner and in a form that, upon examination, yields relevant information without the need for extraordinary analysis of irrelevant data. When so much documentation is generated that it cannot be feasibly reviewed, the Assessor is not required to review all of the data unless the Assessor and the User so agree. The Assessor should advise the User if available information is not Practically Reviewable.

Regulated Asbestos-Containing Material (RACM) - ACM regulated under NESHAP including a) Friable ACM, b) category I nonfriable ACM (packings, gaskets, resilient floor covering, and asphalt roofing products) that has become friable or that will be or has been subject to sanding, grinding, cutting, or abrading, and c) category II nonfriable ACM (any material, excluding category I nonfriable ACM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure) that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces

expected to act on the material in the course of demolition or renovation operations regulated by NESHAP.

Removal - All operations where ACM and/or PACM is taken out or stripped from structures or substrates, and including demolition operations.

Renovation - The modifying of any existing structure, or portion thereof.

Repair - The overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates, including encapsulation or other repair of ACM or PACM attached to structures or substrates.

Surfacing Material - Asbestos-containing material that is sprayed on, troweled on or otherwise applied to Building surfaces such as acoustical plaster or fireproofing. This is one of the three general categories of Building materials defined in AHERA.

Suspect Material - Building materials that are suspected of containing regulated concentrations of asbestos including, but not limited to, cement pipes, cement wallboard, cement siding, asphalt floor tile, vinyl floor tile, vinyl sheet flooring, flooring backing, construction mastics, (floor tile, carpet, ceiling tile, mirror, etc.) acoustical plaster, decorative plaster, textured paints/coatings, ceiling tile, and lay-in panels, spray applied insulation, blown-in insulation, fireproofing materials, taping compounds (thermal), packing materials (for wall/floor penetrations), high temperature gaskets, laboratory hoods/table tops, fire curtains, elevator equipment panels, elevator brake shoes, HVAC duct insulation, boiler insulation, breeching insulation, ductwork flexible fabric connections, cooling towers, pipe insulation (corrugated air-cell, block, etc.), electrical panel partitions, electrical cloth, electric wiring insulation chalkboards, roofing shingles, roofing felt, base flashing, thermal paper products, fire doors caulking, putties, adhesives, wallboard, joint compounds, vinyl wall coverings, and spackling compounds.

Thermal System Insulation (TSI) - Asbestos-containing material applied to pipes, fittings, boilers, breeching tanks, ducts or other mechanical or structural components to prevent heat transmission or condensation. This is one of the three general categories for Building materials defined in AHERA. TSI that has retained its structural integrity and that has an undamaged protective jacket or wrap that prevents fiber release may be treated as nonfriable.

User - The owner or operator of a Building, any lender who has made a loan secured by the Building, or any third parties having a right to rely on the information provided by an Asbestos Assessment.

List of Acronyms

ACBM - Asbestos- Containing Building Material.

ACM - Asbestos- Containing Material.

AHERA - Asbestos Hazard Emergency Response Act

ASHARA - Asbestos School Hazard Abatement Reauthorization Act

ASTM - American Society for Testing and Materials

CFR - Code of Federal Regulations

CHCM - Certified Hazard Control Manager

CHMM - Certified Hazardous Materials Manager

DOH - State of Hawaii Department of Health

DOT - Department of Transportation

EPA - Environmental Protection Agency

FR - Federal Register

HAR – Hawaii Administrative Rules

HCS - Hazard Communication Standard (OSHA)

HIOSH - Hawaii Occupational Safety and Health

HM - Hazardous Material

MSDS - Material Safety Data Sheet

MSHA - Mine Safety and Health Administration of the U.S. Department of Interior

NESHAP - National Emission Standard for Hazardous Air Pollutants

NIOSH - National Institute for Occupational Safety and Health

O&M - Operation and Maintenance

OSH Act - Occupational Safety and Health Act

OSHA - Occupational Safety and Health Administration

PACM - Presumed Asbestos-Containing Materials

PCM - Phase Contrast Microscopy (Asbestos Air)

PLM - Polarized Light Microscopy (Asbestos Bulk)

ppm - parts per million

QA - Quality Assurance

QC - Quality Control

RACM - Regulated Asbestos-Containing Material

REA - Registered Environmental Assessor

REM - Registered Environmental Manager

REP - Registered Environmental Professional

RQ - Reportable Quantities

USC -United States Code

XRF - X-ray Fluorescence Analyzer



BLDG, 522
FIRING RANGE

BLDG, 509
ORG, CLASSROOM

HIARNG ENVIRONMENTAL CONTRACTOR REQUIREMENTS

PROJECT NAME:	
PROJECT NUMBER:	SUBMISSION DATE:
REVIEWER: ENV-Compliance	DATE REVIEWED:
	DATE RECEIVED:

	COMMENTS
X	In order to facilitate Emergency Planning and Community Right-to-Know Act (EPCRA) reporting requirements, prior to project start and within 30 days of completion of the project, contractor shall submit to HIARNG-ENV a Hazardous Material Inventory Log of chemical products to be used in the project, and provide an update no later than 31 January of each calendar year. The log shall include the product name and manufacturer ID number, container size, amount used, and maximum number of containers to be stored on site at any given day during the project. HIARNG-ENV may waive this requirement based upon contractor request. (Sample inventory log attached). Safety Data Sheets (SDSs) shall be provided or made available to the government COR/project manager and HIARNG-ENV upon request.
X	Prior to project start, Contractor will provide to HIARNG-ENV and the COR/project manager an estimate of the maximum amount of hazardous waste, universal waste, and other regulated waste (e.g., asbestos, lead paint chips, fluorescent lamps, PCB ballasts) expected to be generated per month, and the total amount anticipated to be stored on-site at any given time. Contractor shall also provide name of disposal/recycling facilities and transporters to be used for hazardous waste, including their EPA ID numbers; disposal/recycling facilities and transporters used must be listed on DRMS's lists of Qualified Facilities and Qualified Transporters at http://www.dispositionservices.dla.mil/newenv/hwdisposal.shtml . All waste will be stored in a secured area pending removal for disposal, with signage indicating contact information, and shall be managed, packaged, and transported in accordance with all applicable federal, state, and local regulations. Monthly waste generation reports shall be provided to HIARNG-ENV and the COR/project manager by the 5 th of the month after the end of the month being reported. The reports shall indicate the type of waste and the number of pounds of each type generated in each container each month. (Sample container waste collection log and waste generation report attached).
X	Contractor shall be responsible for all costs for disposal of waste generated from this project and shall provide copies of all waste disposal documentation (including any required lab analyses, waste profiles, and any other supporting documentation) to the HIARNG-ENV and the COR/project manager, along with draft copies of the waste manifests for review prior to waste shipment off-site for disposal. The applicable HIARNG EPA ID Number shall be used on waste manifests, and manifests will only be signed by individuals authorized by HIARNG-ENV.
X	All construction sites are subject to the regulations of 40 CFR 112 <i>Oil Pollution Prevention</i> and are required to prepare a site specific Spill Prevention, Control and Countermeasure (SPCC) plan if storing more than 1320 gallons (G) of POL on site. A copy of the SPCC plan must be submitted to HIARNG-ENV before start of the project and kept readily available on site. If the site is storing less than 1320 G of POL no SPCC plan is required, however, the contractor shall implement the applicable HIARNG SPCC plan.
X	Contractor, in general, shall be responsible for assessing whether the project and/or project activities require environmental permits and are responsible for obtaining, implementing and maintaining all applicable permit requirements.
X	All projects that disturb more than 1 acre of soil, including projects that, considered with other related projects (i.e., are part of a larger common plan of development or sale), cumulatively

	disturb more than 1 acre of soil, are required to obtain an applicable National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit from the Hawaii Department of Health (HDOH) and implement all permit requirements, plans, and inspections. Sites less than 1 acre are required to implement best management practices (BMP's) to prevent contaminated stormwater from leaving the site.
X	Contractors shall be responsible for assessing the need for and obtaining the following permits as applicable: NPDES permits for construction activity, underground injection control well (UIC), oil water separator, grease trap, and individual waste water system. The ENV office shall be copied on all permit correspondence, and shall be provided the original copy of all permits.
X	Contractors are required to install and maintain stormwater Best Management Practices (BMPs) and protective measures (regardless of project size or scope) to prevent the pollution of stormwater to the maximum extent practicable (MEP).
X	Contractor shall be responsible for complying with all existing and applicable HIARNG environmental permits, e.g., National Pollutant Discharge Elimination System (NPDES) permits, UIC permits, Industrial Wastewater Discharge permits (IWDPs), Individual Wastewater System (IWS) permits, etc.
X	Contractor shall post emergency contact sign indicating the name and phone number for the government COR/project manager, the contractor emergency contact, police/fire department 911, and HIARNG ENV 672-1013. (Sample sign attached). Contractor shall report spills immediately to the COR and HIARNG-ENV and complete the HIARNG Spill Incident Report Form as required. Contractor shall immediately clean up all spills IAW federal and state guidelines and to the satisfaction of HIARNG-ENV. Contractor shall maintain adequate spill supplies commensurate with the potential for spills, and will contract out spill cleanup beyond their capabilities. Contractor shall accomplish all regulatory verbal and written notifications to the State Emergency Response Commission, Local Emergency Planning Committee (LEPC), National Response Center (NRC), Environmental Protection Agency (EPA), as applicable, and provide HIARNG-ENV copies of all spill reports submitted.
X	Send to HIARNG-ENV the data for non-hazardous recycled/diverted waste (i.e. waste that does not go into the landfill or H-POWER) and non-hazardous disposed waste for all construction projects. Data can be provided by any means (e.g. receipt copies, Excel table, email message) Data should include: <ul style="list-style-type: none"> Recycled/Diverted waste <ul style="list-style-type: none"> -type of material -net weight -recycle facility (e.g. Schnitzer, Island Recycling, Refrigerant Recycling) -ticket number (if available) -cost/revenue (if applicable) Disposed waste <ul style="list-style-type: none"> -net weight -disposal facility (e.g. PVT, Schnitzer) -ticket number (if available) -cost (if applicable)

HIARNG Spill Incident Report Form

REPORT SPILLS IMMEDIATELY TO HIARNG-ENV AT 672-1013.
 Fax this form to 672-1262 or e-mail ng.hi.hiarng.list.nghi-env-comp@mail.mil within 72 hours of the spill.

1	LOCATION OF SPILL (Facility/Address/Bldg):	DATE & TIME OF SPILL:	
2	CALLER NAME & PHONE NUMBER:	OSC NAME & PHONE NUMBER:	
3	ORGANIZATION REPORTING:		
4	DATE AND TIME OF DISCOVERY:	DURATION OF THE SPILL:	
5	TIME & DATE HIARNG ENV NOTIFIED (672-1013):	PERSON NOTIFIED:	
6	SUBSTANCE SPILLED (<i>Attach SDS</i>):	AMOUNT SPILLED:	SIZE OF AREA IMPACTED:
7	CAUSE AND SOURCE OF THE SPILL:		
8	EXTENT AND SEVERITY OF SPILL: Potential Dangers: <input type="checkbox"/> Fire <input type="checkbox"/> Explosion <input type="checkbox"/> Toxic Fumes/Fluid <input type="checkbox"/> Evacuation Needed <input type="checkbox"/> Damage or Injuries (<i>Specify</i>): Media into Which the Release Occurred or is Likely to Occur (Check all applicable): <input type="checkbox"/> Soil <input type="checkbox"/> Concrete <input type="checkbox"/> Asphalt <input type="checkbox"/> UIC <input type="checkbox"/> Storm Drain <input type="checkbox"/> Swale <input type="checkbox"/> Sewer <input type="checkbox"/> Stream <input type="checkbox"/> Other (<i>Specify</i>): Raining? <input type="checkbox"/> No <input type="checkbox"/> Yes Raining Imminent? <input type="checkbox"/> No <input type="checkbox"/> Yes Direction of Flow:		
9	RESPONSE ACTIONS TAKEN TO STOP, REMOVE, AND MITIGATE EFFECTS OF THE SPILL:		
10	ADDITIONAL ASSISTANCE REQUIRED? <input type="checkbox"/> No <input type="checkbox"/> Yes (<i>Specify</i>):		
11	OTHER HIARNG OR EXTERNAL AGENCIES NOTIFIED (<i>Agency, Individual, Date, Time, and Incident Number Assigned by Agency</i>): <input type="checkbox"/> Fire Dept. <input type="checkbox"/> Ambulance <input type="checkbox"/> Other (<i>Specify</i>):		
12	PREVENTIVE ACTIONS TO BE TAKEN: (<i>NOTE: This incident is required to be covered in the next unit/activity spill training.</i>)		
13	SUBMITTED BY (<i>Name, Title, Phone</i>)		

For Environmental Office Use Only.

1	REPORTABLE? <input type="checkbox"/> No <input type="checkbox"/> Yes	REPORTABLE QTY:	Samples Taken? <input type="checkbox"/> No <input type="checkbox"/> Yes
2	VERBAL NOTIFICATIONS MADE (<i>Indicate Agency, Individual, Date, and Time Notified, and any Incident Number Assigned</i>) <input type="checkbox"/> SERC (HEER): <input type="checkbox"/> LEPC: <input type="checkbox"/> NRC (800) 424-8801: <input type="checkbox"/> Other (<i>Specify</i>): DATE WRITTEN NOTIFICATIONS MADE:		
3	CORRECTIVE ACTIONS TAKEN/ RECOMMENDED TO PRECLUDE RECURRENCE:		

HAZARDOUS MATERIAL INVENTORY LOG

CONTRACTOR NAME:	DATE SUBMITTED:
PROJECT NUMBER & NAME:	
PROJECT DESCRIPTION:	
PROJECT LOCATION:	
PROJECT START DATE:	PROJECT END DATE:
GOVERNMENT PROJECT MANAGER NAME AND PHONE:	REPORT PERIOD (<i>circle</i>): Start Annual End

Submit to HJARNG Environmental Office prior to start of project, within 30 days of completion, and update by 31 January.

PRODUCT NAME AND IDENTIFICATION NUMBER	MANUFACTURER	SIZE OF CONTAINER	ESTIMATED NUMBER OF CONTAINERS FOR PROJECT	MAXIMUM NUMBER OF CONTAINERS STORED ON SITE AT ANY ONE TIME	ACTUAL NUMBER OF CONTAINERS USED	FOR ENV USE

Page ____ of ____

