N61165.AR.003710
CNC CHARLESTON
5090.3a

FINAL ASBESTOS INSPECTION REPORT BUILDINGS X-10, NH-46, 56, 445C, 1503, 1612A, 1649, 1655, 1715 AND 1793 CNC CHARLESTON SC

8/1/1998

SUPERVISOR OF SHIPBUILDING

ASBESTOS INSPECTION REPORT

BUILDINGS X-10, NH-46, 56, 445C, 1503, 1612A, 1649, 1655, 1715 & 1793

CHARLESTON NAVAL COMPLEX
CHARLESTON, SC

FINAL REPORT

Prepared for:

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SC

Prepared by:

Supervisor of Shipbuilding, Conversion
& Repair, USN, (SUPSHIP) Portsmouth, VA
Environmental Detachment Charleston, SC
1899 North Hobson Avenue
North Charleston, SC, 29405-2106

AUGUST 1998

DEPARTMENT OF THE NAVY
SUPERVISOR OF SHIPBUILDING, CONVERSION AND REPAIR, USN
PORTSMOUTH, VIRGINIA, ENVIRONMENTAL DETACHMENT CHARLESTON
1895 NORTH HOBSON AVENUE, BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

IN REPLY REFER TO:
Ser: 745
SEP 1 1998

MEMORANDUM

From: Director, Supervisor of Shipbuilding, Conversion and Repair, USN, Portsmouth, Va., Environmental Detachment, Charleston, SC (SPORTENVDETCHASN)

To: Southern Division Naval Facilities Engineering Command (Mr. Archie Browder)

Subj: **ASBESTOS INSPECTION FINAL REPORT**

Ref: (a) Statement of Work for Asbestos Survey of 30 Buildings, Project No. C98019

Encl: (1) Asbestos Inspection Final Report for final group of ten buildings (3copies).

1. As requested per reference (a), the Asbestos Inspection Final Report for the final group of ten buildings of the project is provided for your review/action via enclosure (1). The report includes Buildings X-10, NH-46, 56, 445C, 1503, 1612A, 1649, 1655, 1715 and 1793. Cost estimates for remediation and demolitions are also included. Points of contact concerning this report are Ricky Butler at (843) 743-6777, (ext.236) or Mark Moltzen at ext. 238.

for M K Tamotell
E. R. Dearhart

Copy to (w/o encls.):
File

ASBESTOS INSPECTION REPORT

BUILDINGS X-10, NH-46, 56, 445C, 1503, 1612A, 1649, 1655, 1715 & 1793

CHARLESTON NAVAL COMPLEX
CHARLESTON, SC

Engineering Branch Head: _____ **Date:** 9/1/98

Asbestos Team Leader: _____ **Date:** 9/1/98

Prepared By: _____ **Date:** 9/1/98

SURVEY PERFORMED BY:
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405

CHARLESTON NAVAL COMPLEX

ASBESTOS INSPECTION REPORT

TABLE OF CONTENTS

Page No.

I. **EXECUTIVE SUMMARY ..... SECTION I-1**

REPORT INTRODUCTION 1
FINDINGS SUMMARY 2
RENOVATION/DEMOLITION 2
REPORT ORGANIZATION 3
ABATEMENT COSTS 3
DISCLAIMER 3

II. **BUILDING SUMMARIES ..... SECTION II-1**

BUILDINGS **Page No.**

BLDG. X-10: General Warehouse ..... BLDG X-10

BLDG. NH-46: Administrative Office (DESRON 20 / 36) ..... BLDG NH-46

BLDG. 56: Elec/Mech Group Shops ..... BLDG 56

BLDG. 445C: Gas Bottle Shed ..... BLDG 445C

BLDG. 1503: Warehouse ..... BLDG 1503

BLDG. 1612A: CO2 Storage Shed ..... BLDG 1612A

BLDG. 1649: Storage Shed (DRMO) ..... BLDG 1649

BLDG. 1655: General Warehouse ..... BLDG 1655

BLDG. 1715: Maintenance Shop ..... BLDG 1715

BLDG. 1793: Substation Building: ..... BLDG 1793

III. **LABORATORY ANALYTICAL RESULTS SUMMARY ..... SECTION III-1**

IV. **COPIES OF CHAIN OF CUSTODY RECORDS ..... SECTION IV-1**

V. **TRAINING QUALIFICATIONS ..... SECTION V-1**

I. EXECUTIVE SUMMARY

1. INTRODUCTION

Asbestos Building Inspectors from Environmental Detachment, Charleston, SC conducted a survey to identify asbestos containing material (ACM) at Charleston Naval Complex. The surveys were conducted between July and August of 1998. The results of the survey provide an inventory of ACM in ten buildings; Buildings X-10, NH-46, 56, 445C, 1503, 1612A, 1649, 1655, 1715 & 1793.

All inspectors were certified by an EPA accredited training center under the Asbestos Hazard Emergency Response Act (AHERA), as Building Inspectors. All supervisors and inspectors were employees of Environmental Detachment Charleston. Copies of individual certificates are in the **TRAINING** section of this report.

Suspect ACM was identified and sampled in accordance with AHERA guidelines. Some materials suspected of being ACM were assumed to be ACM and not sampled. Assumed materials included floor tile, sheet flooring, gaskets and ventilation transition boots. Some materials weren't identified as ACM because they were portable and removable (e.g. blackboards, fire hoses, stage curtains), were not safe to sample (e.g. electrical insulation), or sampling would have damaged the material and impaired the normal system operation/integrity (e.g. heating/ventilation/AC systems, furnace, boiler door and pipe gaskets).

Bulk samples were analyzed by the Environmental Detachment, Laboratory Division. The Laboratory participates in the Navy's Asbestos Identification Proficiency Testing Program. The Industrial Hygiene Division of Naval Hospital Charleston analyzed Quality Assurance samples. The QA results were used to verify the accuracy of Environmental Detachment lab analyses. Polarized Light Microscopy (PLM) was used to analyze samples. Materials identified as ACM and either sampled or assumed were designated a homogeneous area by similarity of color, texture and date of application.

Each homogeneous area was assessed in accordance with the "ASBESTOS FACILITY INVENTORY/ASSESSMENT PROTOCOL," NEESA 70.2-010, developed by the NAVAL FACILITIES ENGINEERING SERVICE CENTER (NFESC). The NFESC protocol establishes an algorithm rating for each homogeneous area based on condition, quantity, friability, exposure potential, number of persons exposed, building significance and percentage of asbestos present in the material. The **BUILDING SUMMARY TABLES** list the ratings for each homogeneous area. The rating is heavily weighted by condition, friability, exposure potential and building significance. If the rating system is used to prioritize buildings for abatement, note that buildings occupied at the time of the inspection have homogeneous areas with significantly higher ratings than unoccupied buildings. Ratings are probably more useful to prioritize abatement of homogeneous areas within a building.

2. FINDINGS SUMMARY

Of the ten buildings inspected, six contained confirmed asbestos of which three contained friable asbestos (Buildings X-10, NH-46 & 56). Building 56 contained damaged ACM. Buildings 445C, 1612A, 1649 & 1655 contained no confirmed ACM at the time of inspection. See individual **Building Summaries** for specific locations, quantities and conditions. Buildings containing asbestos are required to be included in an Operations and Maintenance (O&M) Program. Any identified asbestos containing material not removed must be maintained following the guidelines of an O&M Plan.

3. RENOVATION/DEMOLITION

The National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61 requires written notification to the Environmental Protection Agency/local Air Quality Management District at least ten working days prior to demolition or renovation of ACM in quantities of 260 linear feet, 160 square feet, 35 cubic feet, or greater, except in cases of emergencies. Contractors are advised to verify most current regulations prior to start of work.

II. BUILDING SUMMARIES

The following pages report observations noted and suggest actions required as a result of an Asbestos survey conducted by Environmental Detachment Charleston personnel between July and August 1998. Ten buildings at Charleston Naval Complex were inspected for possible presence of suspect/assumed asbestos. This section provides *Description, Findings, Observations, Recommended Abatement Action, and Recommendations for Operations and Maintenance* for each building inspected.

Materials identified as ACM and either sampled or assumed were designated as homogeneous areas by similarity of color, texture and date of application. Assessment of each homogeneous area was done in accordance with the *ASBESTOS FACILITY INVENTORY/ASSESSMENT PROTOCOL*, NEESA 70.2-010, developed by the NAVAL FACILITIES ENGINEERING SERVICE CENTER (NFESC). The NFESC protocol establishes an algorithm rating for each homogeneous area based on condition, quantity, friability, exposure and potential number of persons exposed, building significance and percentage of asbestos present in the material. The rating is heavily weighted by condition, friability, exposure potential and building significance. If the rating system is used to prioritize buildings for abatement, it should be noted that buildings occupied at the time of the inspection have homogeneous areas with significantly higher ratings than unoccupied buildings. Ratings are probably more useful in setting priorities for abatement of all homogeneous areas within a single building than in ranking the order of abatement of multiple buildings.

The room numbers shown on the CAD drawings and referenced in the report were assigned by the inspectors at the time of inspection. The Room numbering system is as follows:

Basement, B series; Crawlspace, C series; Attic, A series; Entry/exit points, E series; Stairwells, S series; Hallways, H series; 1st floor, 100 series; 2nd floor, 200 series; 3rd floor, 300 series; 4th floor, 400 series, etc.

BUILDING X-10: General Warehouse

1. DESCRIPTION:

Building X-10 is a 24,735 square-foot building. It is a single story, concrete block structure with metal windows. The arched roof is covered with a rolled, composition sheet material. The year built was 1972. The following information was identified during the survey and from the analysis of the samples taken:

- Sixteen homogeneous areas were identified during the initial survey.
- Zero homogeneous areas were assumed to contain asbestos.
- Sixteen of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- Seven of the suspected homogeneous areas were confirmed to contain asbestos.
- Nine of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Sixteen homogeneous areas with suspected ACM were identified. Thirty-two samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in one of the homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- H-4: MISC, FLOOR TILE, 9" x 9", Green w/white marble & mastic, was Non-friable and Not Damaged.
- H-5: MISC, FLOOR TILE, 12" x 12", Grey w/white marble & mastic, was Non-friable and Not Damaged.
- H-6: MISC, FIRE DOOR, Grey insulation, was Low-friable and Not Damaged.
- H-7: MISC, FLOOR TILE, 12" x 12", White w/black marble & mastic, was Non-friable and Not Damaged.
- H-8: MISC, FLOOR TILE, 12" x 12", Beige w/brown marble & mastic, was Non-friable and Not Damaged.
- H-15: MISC, SEALER, Black, was Non-friable and Not Damaged.
- H-16: MISC, SEALER, Silver, was Non-friable and Not Damaged.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- H-2: MISC, MORTAR, 8" x 8" x 16", Grey
- H-3: MISC, CEILING TILE, 2' x 4', White w/small holes

- H-9: MISC, FLOOR TILE, 12" x 12", Blue w/mastic
- H-10: MISC, COVING MASTIC, Black
- H-11: MISC, MORTAR, BRICK, 3" x 3" x 8", Grey
- H-12: MISC, CAULKING, White
- H-13: MISC, GLAZING, WINDOW EXTERIOR, Grey
- H-14: MISC, ROOFING, COMPOSITION SHEET, Snow white w/tar

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- H-4: MISC, FLOOR TILE, Green w/white marble & mastic: O&M
- H-5: MISC, FLOOR TILE, Grey w/white marble & mastic: O&M
- H-6: MISC, FIRE DOOR, Grey insulation: O&M
- H-7: MISC, FLOOR TILE, White w/black marble & mastic: O&M
- H-8: MISC, FLOOR TILE, Beige w/brown marble & mastic: O&M
- H-15: MISC, SEALER, Black: O&M
- H-16: MISC, SEALER, Silver: O&M

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC FIRE DOOR is Confirmed, Low-friable ACM.

- H-6 (FIRE DOOR, Grey insulation) is located in Rooms 104, 105, 106.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- H-5 (FLOOR TILE, Grey w/white marble & mastic) is located in Room 103.

- H-4 (FLOOR TILE, Green w/white marble & mastic) is located in Rooms 103, 106, 200.
- H-7 (FLOOR TILE, White w/black marble & mastic) is located in Room 105.
- H-8 (FLOOR TILE, Beige w/brown marble & mastic) is located in Rooms 105, 108.

MISC SEALER is Confirmed, Non-friable ACM.

- H-15 (SEALER, Black) is located on the Roof.
- H-16 (SEALER, Silver) is located on the Roof.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. X-10

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	3,417 SF	0						
		Rooms 100, 101, 102, 103, 106, 107, 108, 109, 200								
2	N	Misc, MORTAR, 8" x 8" x 16", Grey	21,640 SF	0						
		Rooms 100, 103, 104, 105, EXT								
3	N	Misc, CEILING TILE, 2' x 4', White w/small holes	8,850 SF	0						
		Rooms 100, 104								
4	Y	Misc, FLOOR TILE, 9" x 9", Green w/white marble & mastic	695 SF	1	Non	PD	0.0	O&M		
		Rooms 103, 106, 200								
5	Y	Misc, FLOOR TILE, 12" x 12", Grey w/white marble & mastic	42 SF	1	Non	PD	0.0	O&M		
		Rooms 103								
6	Y	Misc, FIRE DOOR, Grey insulation	360 SF	3	Low	PD	0.0	O&M		
		Rooms 104, 105, 106								
7	Y	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	225 SF	1	Non	PD	0.0	O&M		
		Rooms 105								
8	Y	Misc, FLOOR TILE, 12" x 12", Beige w/brown marble & mastic	421 SF	1	Non	PD	0.0	O&M		
		Rooms 105, 108								
9	N	Misc, FLOOR TILE, 12" x 12", Blue w/mastic	361 SF	0						
		Rooms 107, 109								
10	N	Misc, COVING MASTIC, Black	157 LF	0						
		Rooms 108, 109, 200								
11	N	Misc, MORTAR, BRICK, 3" x 3" x 8", Grey	1,176 SF	0						
		Rooms EXT								
12	N	Misc, CAULKING, White	500 LF	0						
		Rooms EXT								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability. Mod= Moderate, Condition PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, GLAZING, WINDOW EXTERIOR, Grey	144 LF	0						
		Rooms EXT								
14	N	Misc, ROOFING, COMPOSITION SHEET, Snow white w/tar	31,000 SF	0						
		Rooms ROOF								
15	Y	Misc, SEALER, Black	1,000 LF	1	Non	PD	0.0	O&M		
		Rooms ROOF								
16	Y	Misc, SEALER, Silver	1,000 SF	1	Non	PD	0.0	O&M		
		Rooms ROOF								

Note Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition. PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

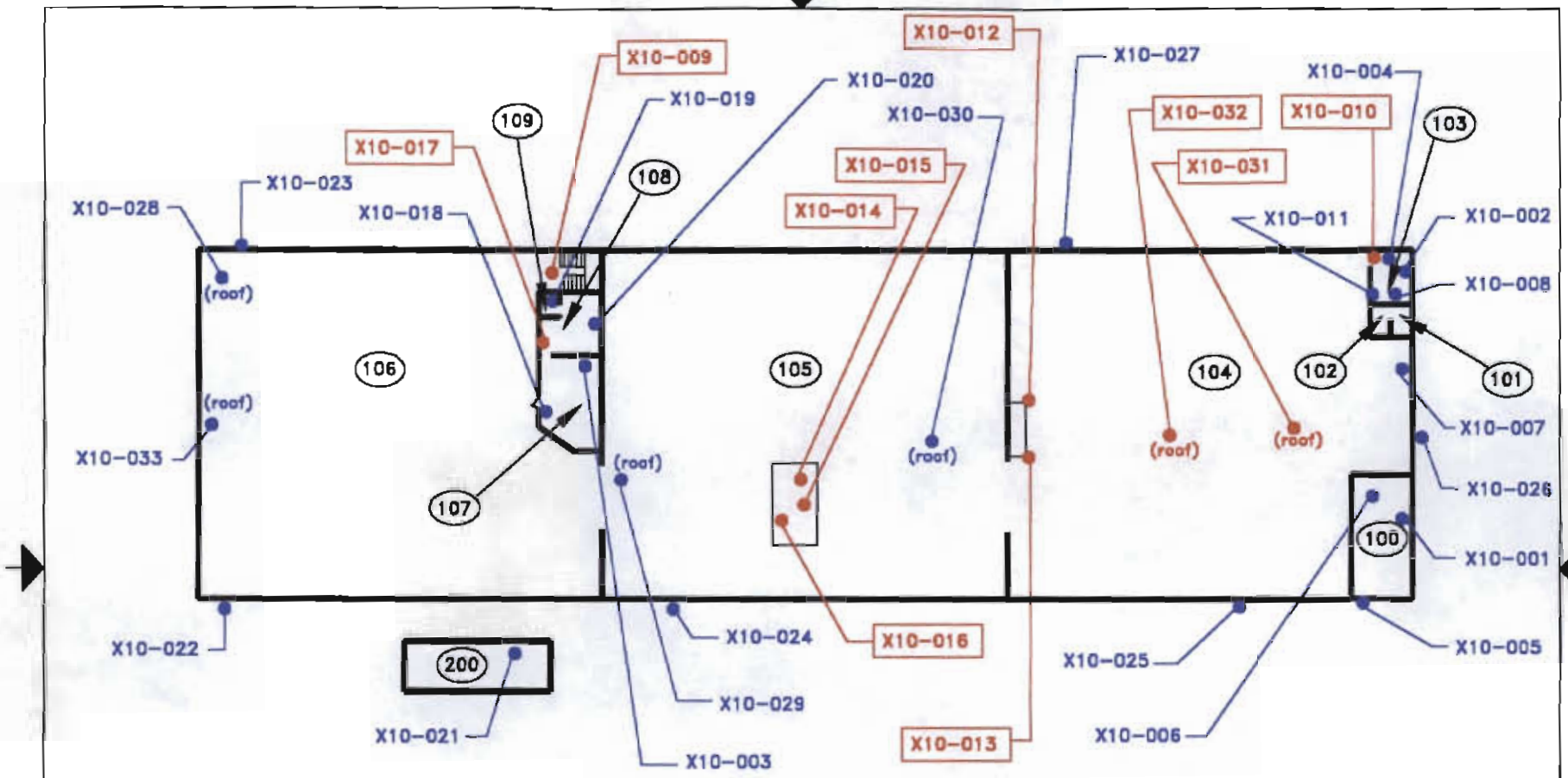
Building No. X-10

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	X10-001	100	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/14/98	07/15/98	No Asbestos Detected	0%
1	NO	X10-002	103	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/14/98	07/15/98	No Asbestos Detected	0%
1	NO	X10-003	107	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/14/98	07/15/98	No Asbestos Detected	0%
2	NO	X10-004	103	Misc, MORTAR, 8" x 8" x 16", Grey	07/14/98	07/15/98	No Asbestos Detected	0%
2	NO	X10-005	EXT	Misc, MORTAR, 8" x 8" x 16", Grey	07/14/98	07/15/98	No Asbestos Detected	0%
3	NO	X10-006	100	Misc, CEILING TILE, 2' x 4', White w/small holes	07/14/98	07/15/98	No Asbestos Detected	0%
4	NO	X10-008	103	Misc, FLOOR TILE, Green w/white marble & mastic	07/14/98	07/15/98	No Asbestos Detected	0%
4	YES	X10-009	106	Misc, FLOOR TILE, Green w/white marble & mastic	07/14/98	07/15/98	Chrysotile	2%
5	YES	X10-010	103	Misc, FLOOR TILE, Grey w/white marble & mastic	07/14/98	07/15/98	Chrysotile	2%
5	NO	X10-011	103	Misc, FLOOR TILE, Grey w/white marble & mastic	07/14/98	07/15/98	No Asbestos Detected	0%
6	YES	X10-012	104	Misc, FIRE DOOR, Grey insulation	07/14/98	07/15/98	Chrysotile	70%
6	YES	X10-013	104	Misc, FIRE DOOR, Grey insulation	07/14/98	07/15/98	Chrysotile	70%
7	YES	X10-014	105	Misc, FLOOR TILE, White w/black marble & mastic	07/14/98	07/15/98	Chrysotile	2%
7	NO	X10-015	105	Misc, FLOOR TILE, White w/black marble & mastic	07/14/98	07/15/98	No Asbestos Detected	0%
8	NO	X10-016	105	Misc, FLOOR TILE, Beige w/brown marble & mastic	07/14/98	07/15/98	No Asbestos Detected	0%
8	YES	X10-017	105	Misc, FLOOR TILE, Beige w/brown marble & mastic	07/14/98	07/15/98	Chrysotile	4%
9	NO	X10-018	107	Misc, FLOOR TILE, Blue w/mastic	07/14/98	07/15/98	No Asbestos Detected	0%
9	NO	X10-019	109	Misc, FLOOR TILE, Blue w/mastic	07/14/98	07/15/98	No Asbestos Detected	0%
10	NO	X10-020	108	Misc, COVING MASTIC, Black	07/14/98	07/15/98	No Asbestos Detected	0%
10	NO	X10-021	200	Misc, COVING MASTIC, Black	07/14/98	07/15/98	No Asbestos Detected	0%
11	NO	X10-022	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	07/14/98	07/15/98	No Asbestos Detected	0%
11	NO	X10-023	EXT	Misc, MORTAR, 3" x 3" x 8", Grey	07/14/98	07/15/98	No Asbestos Detected	0%
12	NO	X10-024	EXT	Misc, CAULKING, White	07/14/98	07/15/98	No Asbestos Detected	0%
12	NO	X10-025	EXT	Misc, CAULKING, White	07/14/98	07/15/98	No Asbestos Detected	0%
13	NO	X10-026	EXT	Misc, GLAZING, Grey	07/14/98	07/15/98	No Asbestos Detected	0%
13	NO	X10-027	EXT	Misc, GLAZING, Grey	07/14/98	07/15/98	No Asbestos Detected	0%
14	NO	X10-028	ROOF	Misc, ROOFING, Snow white w/tar	07/14/98	07/15/98	No Asbestos Detected	0%
14	NO	X10-029	ROOF	Misc, ROOFING, Snow white w/tar	07/14/98	07/15/98	No Asbestos Detected	0%
15	NO	X10-030	ROOF	Misc, SEALER, Black	07/14/98	07/15/98	No Asbestos Detected	0%
15	YES	X10-031	ROOF	Misc, SEALER, Black	07/14/98	07/15/98	Chrysotile	3%
16	YES	X10-032	ROOF	Misc, SEALER, Silver	07/14/98	07/15/98	Chrysotile	3%
16	NO	X10-033	ROOF	Misc, SEALER, Silver	07/14/98	07/15/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

Bldg. No.	Homo No.	Material Description	Quantity	Rat-ing	Fria-bility	Condition	% D	Recommended Action
X-10	4	Misc, FLOOR TILE, 9" x 9", Green w/white marble & mastic	695 SF	1	Non	Not Damaged	0 00	O&M
Locations:		Rooms 103, 106, 200						
X-10	5	Misc, FLOOR TILE, 12" x 12", Grey w/white marble & mastic	42 SF	1	Non	Not Damaged	0.00	O&M
Locations.		Rooms 103						
X-10	6	Misc, FIRE DOOR, Grey insulation	360 SF	3	Low	Not Damaged	0.00	O&M
Locations.		Rooms 104, 105, 106						
X-10	7	Misc, FLOOR TILE, 12" x 12", White w/black marble & mastic	225 SF	1	Non	Not Damaged	0.00	O&M
Locations:		Rooms 105						
X-10	8	Misc, FLOOR TILE, 12" x 12", Beige w/brown marble & mastic	421 SF	1	Non	Not Damaged	0 00	O&M
Locations:		Rooms 105, 108						
X-10	15	Misc, SEALER, Black	1,000 LF	1	Non	Not Damaged	0.00	O&M
Locations:		Rooms ROOF						
X-10	16	Misc, SEALER, Silver	1,000 SF	1	Non	Not Damaged	0.00	O&M
Locations:		Rooms ROOF						

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity· SF= Square Footage, LF= Linear Feet, Friability. Mod= Moderate, Non= Non-Friable, Recommended Action. O&M= Operation and Maintenance, Refer to the Operations and Maintenance Plan for standard O&M and Repair procedures.



LEGEND

(XXX) — Indicates unique room number assigned by inspector

XXX-XXX — Indicates sample locations which tested positive for asbestos

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING X-10
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-20-98	B.D. MURRAY	ORIG

SCALE: NONE | SHEET 1 of 1

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building X-10

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	$13,390	-	$130	-	$74,365
Material/equipment costs	$5,656	-	$ 270	-	$30,711
Disposal costs	$2,009	-	$100	-	$26,720
Total cost	**$21,055**	**-**	**$500**	**-**	**$131,796**

The total cost for removal of all asbestos listed in the Building Summary Table is $21,055, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is $500 and the cost for demolition after asbestos removal is $131,796.

BUILDING NH-46: Administrative Office

1. DESCRIPTION:

Building NH-46 is a 35,800 square-foot building. It is a single story, cinder block and concrete structure with a basement. The roof is composed of terra cotta tiles. The year built was 1941. The following information was identified during the survey and from the analysis of the samples taken:

- Thirty-seven homogeneous areas were identified during the initial survey
- One homogeneous area was assumed to contain asbestos.
- Thirty-six of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- Seven of the suspected homogeneous areas were confirmed to contain asbestos.
- Twenty-nine of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Thirty-six homogeneous areas with suspected ACM were identified. Seventy samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in one of the homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- H-4: MISC, FLOOR TILE, 9" x 9", Green w/white marble & mastic, was Non-friable and Not Damaged.
- H-5: MISC, FLOOR TILE, 9" x 9", Green w/black marble & mastic, was Non-friable and Not Damaged.
- H-6: MISC, FLOOR TILE, 9" x 9", Grey w/white marble & mastic, was Non-friable and Not Damaged.
- H-7: MISC, FLOOR TILE, 9" x 9", Red w/white marble & mastic, was Non-friable and Not Damaged.
- H-9: MISC, FLOOR TILE, 9" x 9", Brown w/white marble & mastic, was Non-friable and Not Damaged.
- H-10: MISC, CEILING TILE, 2' x 2', White w/big holes, was Low-friable and Not Damaged.
- H-23: MISC, FLOOR TILE, 12" x 12", Beige w/white marble & mastic, was Non-friable and Not Damaged.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, CINDER BLOCK AND MORTAR, 4" x 8" x 16", Grey
- H-2: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- H-3: MISC, MORTAR, BRICK, 3" x 3" x 8", Grey
- H-8: MISC, CEILING TILE, 2' x 4', White w/long grooves
- H-11: MISC, CEILING TILE, 2' x 2', White w/small grooves
- H-12: MISC, CEILING TILE, 2' x 4', White w/wings
- H-13: MISC, COVING MASTIC, 4", Brown
- H-14: MISC, COVING MASTIC, 4", Black
- H-15: MISC, GROUT, TILES, 6" x 6", Grey
- H-16: MISC, COVING MASTIC, 6", Brown
- H-17: MISC, GROUT, TILE, 6" x 12", White
- H-19: MISC, GROUT, CERAMIC TILE, 3" x 6", White
- H-20: MISC, GROUT, CERAMIC TILE, 3" Beige, Grey
- H-21: MISC, GROUT, CERAMIC TILE, 3" Blue, Grey
- H-22: MISC, CEILING TILE, 2' x 4', White w/bird feet
- H-24: MISC, CEILING TILE, 2' x 4', White w/small pinholes
- H-26: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- H-27: TSI, FITTING, CLOTH WRAPPED, White
- H-28: MISC, GROUT, CERAMIC TILE, 6" x 6", White
- H-29: MISC, CINDER BLOCK AND MORTAR, 6" x 6", Grey
- H-30: MISC, GROUT, CERAMIC TILE, 2" x 2", Grey
- H-31: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- H-32: MISC, GROUT, CERAMIC TILE, 2" x 2", Grey
- H-33: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- H-34: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- H-35: MISC, GLAZING, WINDOW EXTERIOR, White
- H-36: MISC, SHEETROCK, PAINTED, White w/mud & tape
- H-37: MISC, CEILING TILE, 2' x 4', White w/large holes

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- H-18: MISC, VIBRATION JOINT, Black, was Non-friable and Not Damaged.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- H-4: MISC, FLOOR TILE, Green w/white marble & mastic: O&M
- H-5: MISC, FLOOR TILE, Green w/black marble & mastic: O&M
- H-6: MISC, FLOOR TILE, Grey w/white marble & mastic: O&M
- H-7: MISC, FLOOR TILE, Red w/white marble & mastic: O&M
- H-9: MISC, FLOOR TILE, Brown w/white marble & mastic: O&M
- H-10: MISC, CEILING TILE, 2' x 2', White w/big holes: Remove/O&M
- H-18: MISC, VIBRATION JOINT, Black: O&M
- H-23: MISC, FLOOR TILE, Beige w/white marble & mastic: O&M

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC CEILING TILE is Confirmed, Low-friable ACM.

- H-10 (CEILING TILE, 2' x 2', White w/big holes) is located in Rooms 123, B-119.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- H-4 (FLOOR TILE, Green w/white marble & mastic) is located in Rooms B-109, B-111.

- H-6 (FLOOR TILE, Grey w/white marble & mastic) is located in Room B-115.

- H-7 (FLOOR TILE, Red w/white marble & mastic) is located in Room B-115.

- H-9 (FLOOR TILE, Brown w/white marble & mastic) is located in Room B-119.

- H-5 (FLOOR TILE, Green w/black marble & mastic) is located in Room B-111.

- H-23 (FLOOR TILE, Beige w/white marble & mastic) is located in Rooms 118, 119, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, E-001, H-100, H-101.

MISC VIBRATION JOINT is Assumed, Non-friable ACM.

- H-18 (VIBRATION JOINT, Black) is located in Rooms 106, H-101.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY

Building No. NH-46

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, CINDER BLOCK AND MORTAR, 4" x 8" x 16", Grey	24 SF	0						
		Rooms B-101								
2	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	4,327 SF	0						
		Rooms B-101, B-102, B-103, B-104, B-105, B-106, B-107, B-108, B-109, BH-100, BH-101								
3	N	Misc, MORTAR, BRICK, 3" x 3" x 8", Grey	240 SF	0						
		Rooms B-107								
4	Y	Misc, FLOOR TILE, 9" x 9", Green w/white marble & mastic	423 SF	10	Non	PD	0.0	Remove/O&M		
		Rooms B-109, B-111								
5	Y	Misc, FLOOR TILE, 9" x 9", Green w/black marble & mastic	66 SF	10	Non	PD	0.0	Remove/O&M		
		Rooms B-111								
6	Y	Misc, FLOOR TILE, 9" x 9", Grey w/white marble & mastic	104 SF	10	Non	PD	0.0	Remove/O&M		
		Rooms B-115								
7	Y	Misc, FLOOR TILE, 9" x 9", Red w/white marble & mastic	104 SF	10	Non	PD	0.0	Remove/O&M		
		Rooms B-115								
8	N	Misc, CEILING TILE, 2' x 4', White w/long grooves	3,428 SF	0						
		Rooms 102, 103, 115, 117, 118, 119, 120, 130, B-115, B-119, H-100, H-101								
9	Y	Misc, FLOOR TILE, 9" x 9", Brown w/white marble & mastic	25 SF	10	Non	PD	0.0	Remove/O&M		
		Rooms B-119								
10	Y	Misc, CEILING TILE, 2' x 2', White w/big holes	447 SF	20	Low	PD	0.0	Remove/O&M		
		Rooms 123, B-119								
11	N	Misc, CEILING TILE, 2' x 2', White w/small grooves	2,671 SF	0						
		Rooms 100, 113								
12	N	Misc, CEILING TILE, 2' x 4', White w/wings	390 SF	0						
		Rooms 101, 114								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action: O&M= Operation and Maintenance

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, COVING MASTIC, 4", Brown	461 LF	0						
		Rooms 103, 132, 135, H-100, H-101								
14	N	Misc, COVING MASTIC, 4", Black	1,400 LF	0						
		Rooms 103, 115, 117, 118, 119, 120, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 133, 134, 136, E-001, H-101								
15	N	Misc, GROUT, TILES, 6" x 6", Grey	3,120 SF	0						
		Rooms 103, 105, 106, 107, 109, 118, 119, 120, 121, 122, 137								
16	N	Misc, COVING MASTIC, 6", Brown	45 LF	0						
		Rooms 106, 132								
17	N	Misc, GROUT, TILE, 6" x 12", White	164 SF	0						
		Rooms 106, 112								
18	A	Misc, VIBRATION JOINT, Black	24 SF	10	Non	PD	0.0	O&M		
		Rooms 106, H-101								
19	N	Misc, GROUT, CERAMIC TILE, 3" x 6", White	2,922 SF	0						
		Rooms 107, 109								
20	N	Misc, GROUT, CERAMIC TILE, 3" Beige, Grey	63 SF	0						
		Rooms 108								
21	N	Misc, GROUT, CERAMIC TILE, 3" Blue, Grey	50 SF	0						
		Rooms 110								
22	N	Misc, CEILING TILE, 2' x 4', White w/bird feet	661 SF	0						
		Rooms 111, 112, 138, 139								
23	Y	Misc, FLOOR TILE, 12" x 12", Beige w/white marble & mastic	4,678 SF	10	Non	PD	0.0	Remove/O&M		
		Rooms 118, 119, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, E-001, H-100, H-101								
24	N	Misc, CEILING TILE, 2' x 4', White w/small pinholes	4,009 SF	0						
		Rooms 121, 124, 125, 126, 127, 128, 129, 131, 132, 133, 134, 135, 136, 137, E-001, H-101								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition. PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
25	N	Misc, FLOOR TILE, 12" x 12", Dark brown w/mastic	1,046 SF	0						
		Rooms 117, 123								
26	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	200 SF	0						
		Rooms 121								
27	N	TSI, FITTING, CLOTH WRAPPED, White	6 SF	0						
		Rooms 122								
28	N	Misc, GROUT, CERAMIC TILE, 6" x 6", White	456 SF	0						
		Rooms 122, 135, 137								
29	N	Misc, CINDER BLOCK AND MORTAR, 6" x 6", Grey	160 SF	0						
		Rooms 125, 126, 128, 129								
30	N	Misc, GROUT, CERAMIC TILE, 2" x 2", Grey	136 SF	0						
		Rooms 138								
31	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	544 SF	0						
		Rooms 138								
32	N	Misc, GROUT, CERAMIC TILE, 2" x 2", Grey	207 SF	0						
		Rooms 139								
33	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	828 SF	0						
		Rooms 139								
34	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	16,177 SF	0						
		Rooms EXT								
35	N	Misc, GLAZING, WINDOW EXTERIOR, White	3,600 LF	0						
		Rooms EXT								
36	N	Misc, SHEETROCK, PAINTED, White w/mud & tape	34,834 SF	0						
		Rooms 102, 103, 105, 106, 108, 109, 110, 113, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 139, E-001, H-100, H-101								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material, Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity, SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. NH-46

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
37	N	Misc, CEILING TILE, 2' x 4', White w/large holes	40 SF	0						
		Rooms 130								

Note: Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material. Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity. SF= Square Footage, LF= Linear Feet, Friability. Mod= Moderate, Condition PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY INDUSTRIAL LABORATORY TEST REPORT

Building No. NH-46

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	NH46-001	B-101	Misc, CINDER BLOCK AND MORTAR, 4" x 8" x 16", Grey	08/03/98	08/05/98	No Asbestos Detected	0%
1	NO	NH46-002	B-101	Misc, CINDER BLOCK AND MORTAR, 4" x 8" x 16", Grey	08/03/98	08/05/98	No Asbestos Detected	0%
2	NO	NH46-003	B-102	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	08/03/98	08/05/98	No Asbestos Detected	0%
2	NO	NH46-004	B-103	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	08/03/98	08/05/98	No Asbestos Detected	0%
3	NO	NH46-005	B-107	Misc, MORTAR, 3" x 3" x 8", Grey	08/03/98	08/05/98	No Asbestos Detected	0%
3	NO	NH46-006	B-107	Misc, MORTAR, 3" x 3" x 8", Grey	08/03/98	08/05/98	No Asbestos Detected	0%
4	YES	NH46-007	B-109	Misc, FLOOR TILE, Green w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
4	YES	NH46-008	B-111	Misc, FLOOR TILE, Green w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
5	YES	NH46-009	B-111	Misc, FLOOR TILE, Green w/black marble & mastic	08/03/98	08/05/98	Chrysotile	2%
5	YES	NH46-010	B-111	Misc, FLOOR TILE, Green w/black marble & mastic	08/03/98	08/05/98	Chrysotile	2%
6	YES	NH46-011	B-115	Misc, FLOOR TILE, Grey w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
6	YES	NH46-012	B-115	Misc, FLOOR TILE, Grey w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
7	YES	NH46-013	B-115	Misc, FLOOR TILE, Red w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
7	YES	NH46-014	B-115	Misc, FLOOR TILE, Red w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
8	NO	NH46-015	B-115	Misc, CEILING TILE, 2' x 4', White w/long grooves	08/03/98	08/05/98	No Asbestos Detected	0%
8	NO	NH46-016	B-119	Misc, CEILING TILE, 2' x 4', White w/long grooves	08/03/98	08/05/98	No Asbestos Detected	0%
9	YES	NH46-017	B-119	Misc, FLOOR TILE, Brown w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
9	YES	NH46-018	B-119	Misc, FLOOR TILE, Brown w/white marble & mastic	08/03/98	08/05/98	Chrysotile	2%
10	YES	NH46-019	B-119	Misc, CEILING TILE, 2' x 2', White w/big holes	08/03/98	08/05/98	Amosite	3%
10	YES	NH46-020	B-119	Misc, CEILING TILE, 2' x 2', White w/big holes	08/03/98	08/05/98	Amosite	3%
11	NO	NH46-021	100	Misc, CEILING TILE, 2' x 2', White w/small grooves	08/03/98	08/20/98	No Asbestos Detected	0%
11	NO	NH46-022	100	Misc, CEILING TILE, 2' x 2', White w/small grooves	08/03/98	08/20/98	No Asbestos Detected	0%
12	NO	NH46-023	101	Misc, CEILING TILE, 2' x 4', White w/wings	08/03/98	08/20/98	No Asbestos Detected	0%
12	NO	NH46-024	101	Misc, CEILING TILE, 2' x 4', White w/wings	08/03/98	08/20/98	No Asbestos Detected	0%
13	NO	NH46-025	132	Misc, COVING MASTIC, 4", Brown	08/11/98	08/20/98	No Asbestos Detected	0%
13	NO	NH46-026	132	Misc, COVING MASTIC, 4", Brown	08/11/98	08/20/98	No Asbestos Detected	0%
14	NO	NH46-027	103	Misc, COVING MASTIC, 4", Black	08/03/98	08/20/98	No Asbestos Detected	0%
14	NO	NH46-028	103	Misc, COVING MASTIC, 4", Black	08/03/98	08/20/98	No Asbestos Detected	0%
15	NO	NH46-029	105	Misc, GROUT, 6" x 6", Grey	08/03/98	08/20/98	No Asbestos Detected	0%

TEST METHOD Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT 1%

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY INDUSTRIAL LABORATORY TEST REPORT

Building No. NH-46

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
15	NO	NH46-030	105	Misc, GROUT, 6" x 6", Grey	08/03/98	08/20/98	No Asbestos Detected	0%
16	NO	NH46-031	132	Misc, COVING MASTIC, 6", Brown	08/11/98	08/20/98	No Asbestos Detected	0%
16	NO	NH46-032	132	Misc, COVING MASTIC, 6", Brown	08/11/98	08/20/98	No Asbestos Detected	0%
17	NO	NH46-033	106	Misc, GROUT, 6" x 12", White	08/03/98	08/20/98	No Asbestos Detected	0%
17	NO	NH46-034	106	Misc, GROUT, 6" x 12", White	08/03/98	08/20/98	No Asbestos Detected	0%
19	NO	NH46-035	109	Misc, GROUT, 3" x 6", White	08/03/98	08/20/98	No Asbestos Detected	0%
19	NO	NH46-036	109	Misc, GROUT, 3" x 6", White	08/03/98	08/20/98	No Asbestos Detected	0%
20	NO	NH46-037	108	Misc, GROUT, 3" Beige, Grey	08/03/98	08/20/98	No Asbestos Detected	0%
20	NO	NH46-038	108	Misc, GROUT, 3" Beige, Grey	08/03/98	08/20/98	No Asbestos Detected	0%
21	NO	NH46-039	110	Misc, GROUT, 3" Blue, Grey	08/11/98	08/20/98	No Asbestos Detected	0%
21	NO	NH46-040	110	Misc, GROUT, 3" Blue, Grey	08/11/98	08/20/98	No Asbestos Detected	0%
22	NO	NH46-041	111	Misc, CEILING TILE, 2' x 4', White w/bird feet	08/11/98	08/20/98	No Asbestos Detected	0%
22	NO	NH46-042	111	Misc, CEILING TILE, 2' x 4', White w/bird feet	08/11/98	08/20/98	No Asbestos Detected	0%
23	YES	NH46-043	H-100	Misc, FLOOR TILE, Beige w/white marble & mastic	08/11/98	08/20/98	Chrysotile	2%
23	YES	NH46-044	H-100	Misc, FLOOR TILE, Beige w/white marble & mastic	08/11/98	08/20/98	Chrysotile	2%
24	NO	NH46-045	132	Misc, CEILING TILE, 2' x 4', White w/small pinholes	08/11/98	08/20/98	No Asbestos Detected	0%
24	NO	NH46-046	132	Misc, CEILING TILE, 2' x 4', White w/small pinholes	08/11/98	08/20/98	No Asbestos Detected	0%
26	NO	NH46-049	121	Misc, GROUT, 4" x 4", White	08/11/98	08/20/98	No Asbestos Detected	0%
26	NO	NH46-050	121	Misc, GROUT, 4" x 4", White	08/11/98	08/20/98	No Asbestos Detected	0%
27	NO	NH46-051	122	TSI, FITTING, White	08/11/98	08/20/98	No Asbestos Detected	0%
27	NO	NH46-052	122	TSI, FITTING, White	08/11/98	08/20/98	No Asbestos Detected	0%
28	NO	NH46-053	122	Misc, GROUT, 6" x 6", White	08/11/98	08/20/98	No Asbestos Detected	0%
28	NO	NH46-054	122	Misc, GROUT, 6" x 6", White	08/11/98	08/20/98	No Asbestos Detected	0%
29	NO	NH46-055	125	Misc, CINDER BLOCK AND MORTAR, 6" x 6", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
29	NO	NH46-056	125	Misc, CINDER BLOCK AND MORTAR, 6" x 6", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
30	NO	NH46-057	138	Misc, GROUT, 2" x 2", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
30	NO	NH46-058	138	Misc, GROUT, 2" x 2", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
31	NO	NH46-059	138	Misc, GROUT, 4" x 4", White	08/11/98	08/20/98	No Asbestos Detected	0%
31	NO	NH46-060	138	Misc, GROUT, 4" x 4", White	08/11/98	08/20/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

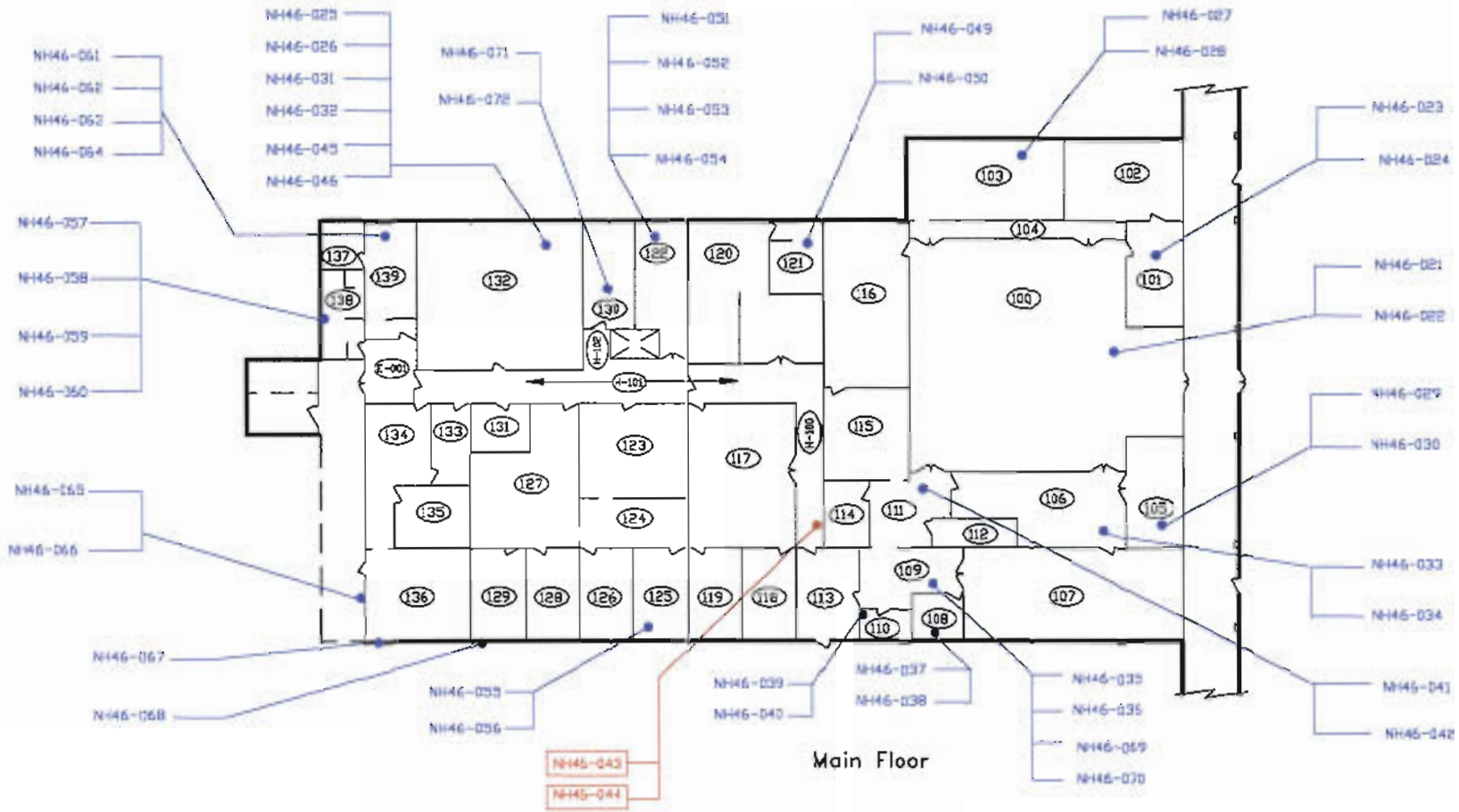
Building No. NH-46

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
32	NO	NH46-061	139	Misc, GROUT, 2" x 2", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
32	NO	NH46-062	139	Misc, GROUT, 2" x 2", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
33	NO	NH46-063	139	Misc, GROUT, 4" x 4", White	08/11/98	08/20/98	No Asbestos Detected	0%
33	NO	NH46-064	139	Misc, GROUT, 4" x 4", White	08/11/98	08/20/98	No Asbestos Detected	0%
34	NO	NH46-065	EXT	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
34	NO	NH46-066	EXT	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	08/11/98	08/20/98	No Asbestos Detected	0%
35	NO	NH46-067	EXT	Misc, GLAZING, White	08/11/98	08/20/98	No Asbestos Detected	0%
35	NO	NH46-068	EXT	Misc, GLAZING, White	08/11/98	08/20/98	No Asbestos Detected	0%
36	NO	NH46-069	109	Misc, SHEETROCK, White w/mud & tape	08/03/98	08/20/98	No Asbestos Detected	0%
36	NO	NH46-070	109	Misc, SHEETROCK, White w/mud & tape	08/03/98	08/20/98	No Asbestos Detected	0%
37	NO	NH46-071	130	Misc, CEILING TILE, 2' x 4', White w/large holes	08/11/98	08/20/98	No Asbestos Detected	0%
37	NO	NH46-072	130	Misc, CEILING TILE, 2' x 4', White w/large holes	08/11/98	08/20/98	No Asbestos Detected	0%

TEST METHOD Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT 1%

Bldg. No.	Homo No.	Material Description	Quantity	Rat-ing	Fria-bility	Condition	% D	Recommended Action
NH-46	4	Misc, FLOOR TILE, 9" x 9", Green w/white marble & mastic	423 SF	10	Non	Not Damaged	0 00	O&M
Locations		Rooms B-109, B-111						
NH-46	5	Misc, FLOOR TILE, 9" x 9", Green w/black marble & mastic	66 SF	10	Non	Not Damaged	0.00	O&M
Locations:		Rooms B-111						
NH-46	6	Misc, FLOOR TILE, 9" x 9", Grey w/white marble & mastic	104 SF	10	Non	Not Damaged	0 00	O&M
Locations.		Rooms B-115						
NH-46	7	Misc, FLOOR TILE, 9" x 9", Red w/white marble & mastic	104 SF	10	Non	Not Damaged	0.00	O&M
Locations.		Rooms B-115						
NH-46	9	Misc, FLOOR TILE, 9" x 9", Brown w/white marble & mastic	25 SF	10	Non	Not Damaged	0 00	O&M
Locations.		Rooms B-119						
NH-46	10	Misc, CEILING TILE, 2' x 2', White w/big holes	447 SF	20	Low	Not Damaged	0.00	Remove/O&M
Locations		Rooms 123, B-119						
NH-46	18	Misc, VIBRATION JOINT, Black	24 SF	10	Non	Not Damaged	0.00	O&M
Locations:		Rooms 106, H-101						
NH-46	23	Misc, FLOOR TILE, 12" x 12", Beige w/white marble & mastic	4,678 SF	10	Non	Not Damaged	0 00	O&M
Locations:		Rooms 118, 119, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, E-001, H-100, H-101						

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity. SF= Square Footage, LF= Linear Feet, Friability. Mod= Moderate, Non= Non-Friable, Recommended Action O&M= Operation and Maintenance, Refer to the Section III Operations and Maintenance Plan for standard O&M and Repair procedures



LEGEND

(XXX) —Indicates unique room number assigned by Inspector

XXXX-XXX —Indicates sample locations which tested positive for asbestos

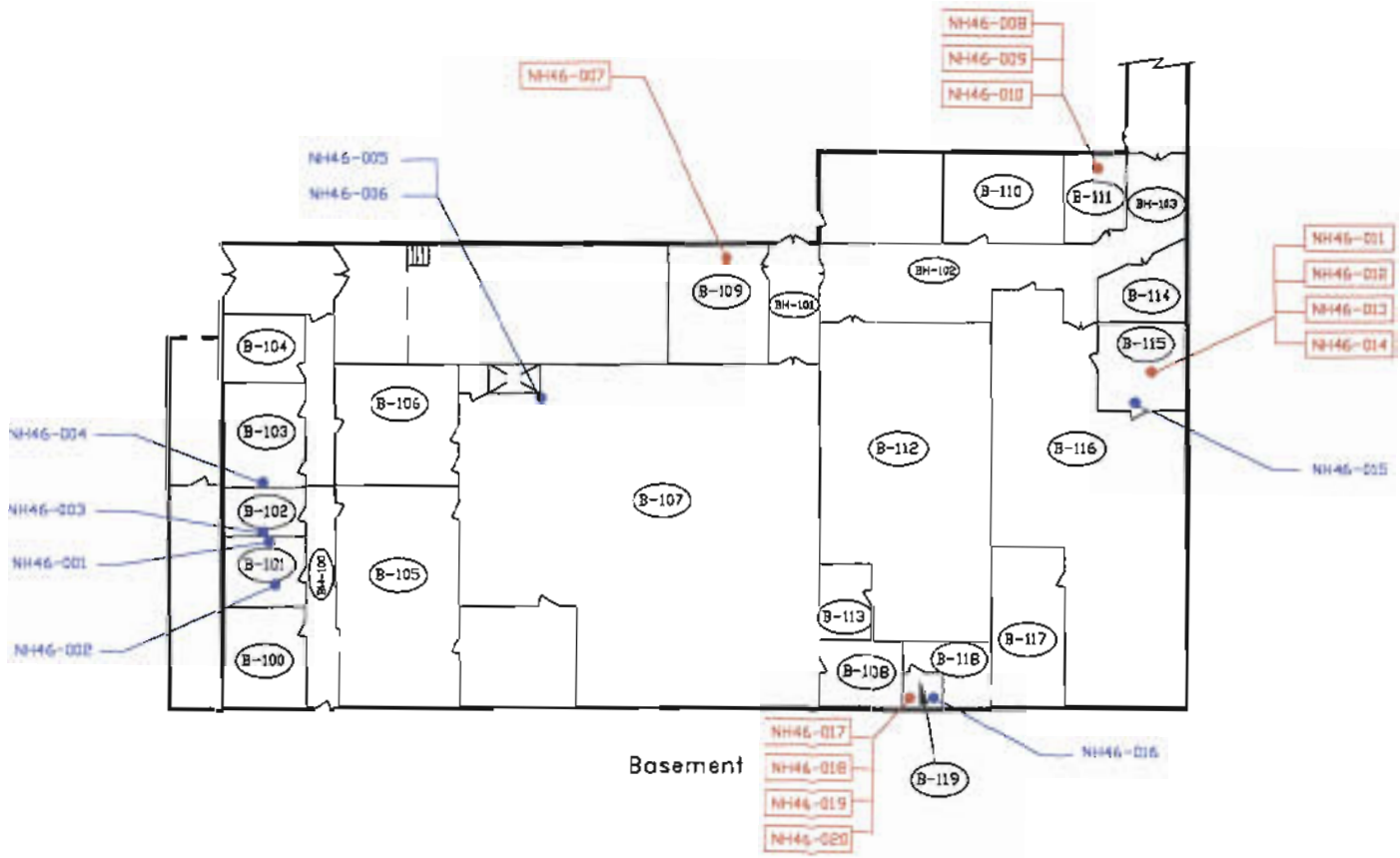
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING NH-46
CHARLESTON NAVAL BASE, CHARLESTON SC

DATE	PREPARED BY:	REV
8-26-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 1 OF 2



LEGEND

(xxx) – Indicates unique room number assigned by Inspector

xxxx-xxx – Indicates sample locations which tested positive for asbestos

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE - BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BLDG NH-46
CHARLESTON NAVAL BASE, CHARLESTON SC

DATE	PREPARED BY:	REV
8-26-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 2 OF 2

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building NH-46

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	$ 33,122	-	$ 3,488	-	$ 107,357
Material/equipment costs	$ 13,549	-	$ 1,696	-	$ 35,387
Disposal costs	$ 4,968	-	$ 523	-	$ 38,673
Total cost	**$ 51,639**	**-**	**$ 5,707**	**-**	**$ 181,417**

The total cost for removal of all asbestos listed in the Building Summary Table is $21,055, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is $500 and the cost for demolition after asbestos removal is $131,796.

BUILDING 56: Elec/Mech Group Shops

1. DESCRIPTION:

Building 56 is a 42,000 square-foot building. It is a two story, concrete structure with metal windows and a built-up roof. The year built was 1937. The following information was identified during the survey and from the analysis of the samples taken:

- Twenty-nine homogeneous areas were identified during the initial survey.
- Zero homogeneous areas were assumed to contain asbestos.
- Twenty-nine of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- Twelve of the suspected homogeneous areas were confirmed to contain asbestos.
- Seventeen of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Twenty-nine homogeneous areas with suspected ACM were identified. Sixty-six samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in two of the homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- H-3: TSI, PIPE, CLOTH WRAPPED, White, was Low-friable and Not Damaged.
- H-4: TSI, FITTING, CLOTH WRAPPED, White, was Low-friable and Not Damaged.
- H-5: MISC, GLAZING, WINDOW INTERIOR, Red, was Non-friable and Not Damaged.
- H-8: MISC, UNDERCOAT,SINK, Black, was Non-friable and Not Damaged.
- H-9: MISC, MASTIC, White vent duct, was Non-friable and Not Damaged.
- H-10: MISC, FLOOR TILE, 9" x 9", Green w/mastic, was Non-friable and Not Damaged.
- H-14: MISC, FLOOR TILE, 12" x 12", Dark brown w/white marble & mastic, was Non-friable and Not Damaged.
- H-24: TSI, Grey insulation board, was Non-friable and Not Damaged.
- H-26: MISC, SEALER, Grey, was Non-friable and Not Damaged.

- H-27: MISC, SEALER, Light grey, was Non-friable and Not Damaged.
- H-28: MISC, FLOOR TILE, 9" x 9", Grey w/mastic, was Non-friable and Not Damaged.
- H-29: MISC, FLOOR TILE, 12" x 12", Grey & black w/mastic, was Non-friable and Not Damaged.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, FLOOR TILE, 12" x 12", Brown w/white & black marble & mastic
- H-2: MISC, CEILING TILE, 2' x 4', White w/long grooves
- H-6: MISC, MORTAR, 4" x 10" x 12", Grey / terra cotta tile
- H-7: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey
- H-11: MISC, COVING MASTIC, 6", Black
- H-12: MISC, CEILING TILE, 2' x 4', White w/short grooves
- H-13: MISC, CEILING TILE, 2' x 4', White w/many grooves
- H-15: MISC, COVING MASTIC, 4", Black
- H-16: MISC, SHEETROCK, PAINTED, White w/mud & tape
- H-17: MISC, CEILING TILE, 12" x 12", White w/pinholes
- H-18: MISC, GROUT, CERAMIC TILE, 4" x 4", Grey
- H-19: MISC, COVING MASTIC, 4", Brown
- H-20: MISC, FIREBRICK, W/MORTAR, Grey
- H-21: TSI, Grey furnace insulation
- H-22: MISC, CAULKING, White
- H-23: MISC, CEILING TILE, 12" x 12", White
- H-25: MISC, ROOFING, TAR AND GRAVEL, Black w/felt

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

Other suspect ACM noted, but not sampled, includes valve packing, various piping systems / components gasket material and drain piping joint compound.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- H-3: TSI, PIPE, White: Remove/Repair/ O&M
- H-4: TSI, FITTING, White: Remove/Repair/ O&M
- H-5: MISC, GLAZING, Red: Remove/Repair/ O&M
- H-8: MISC, UNDERCOAT,SINK, Black: O&M

- H-9: MISC, MASTIC, White vent duct: O&M
- H-10: MISC, FLOOR TILE, Green w/mastic: O&M
- H-14: MISC, FLOOR TILE, Dark brown w/white marble & mastic: O&M
- H-24: TSI, Grey insulation board: Remove
- H-26: MISC, SEALER, Grey: O&M
- H-27: MISC, SEALER, Light grey: O&M
- H-28: MISC, FLOOR TILE, Grey w/mastic: O&M
- H-29: MISC, FLOOR TILE, Grey & black w/mastic: O&M

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

TSI FITTING is Confirmed, Low-friable ACM.

- H-4 (FITTING, White) is located in Rooms 101, 112, 200, 202, 203, 209, 212.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- H-14 (FLOOR TILE, Dark brown w/white marble & mastic) is located in Room 103.

- H-10 (FLOOR TILE, Green w/mastic) is located in Rooms 102, 104, 105, 106, 107, 108, 109.

- H-29 (FLOOR TILE, Grey & black w/mastic) is located in Rooms 102, 104, 105, 106, 107, 108, 109, 111, 113, 212.

- H-28 (FLOOR TILE, Grey w/mastic) is located in Rooms 104, 105, 106, 107, 108, 109.

MISC GLAZING is Confirmed, Non-friable ACM.

- H-5 (GLAZING, Red) is located in Rooms 101, 102, 104, 106, 108, 112, 200, 201, 202, 205, 206, 207, 209, 212.

MISC MASTIC is Confirmed, Non-friable ACM.

- H-9 (MASTIC, White vent duct) is located in Rooms 101, 102, 203, 211.

TSI is Confirmed, Non-friable ACM.

- H-24 (, Grey insulation board) is located in Room 210.

TSI PIPE is Confirmed, Low-friable ACM.

- H-3 (PIPE, White) is located in Rooms 101, 108, 112, 200, 202, 203, 209, 211, 212.

MISC SEALER is Confirmed, Non-friable ACM.

- H-26 (SEALER, Grey) is located on the Roof.
- H-27 (SEALER, Light grey) is located on the Roof.

MISC UNDERCOAT,SINK is Confirmed, Non-friable ACM.

- H-8 (UNDERCOAT,SINK, Black) is located in Rooms 101, 109.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 56

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, FLOOR TILE, 12" x 12", Brown w/white & black marble & mastic	256 SF	0						
		Rooms 100								
2	N	Misc, CEILING TILE, 2' x 4', White w/long grooves	256 SF	0						
		Rooms 100								
3	Y	TSI, PIPE, CLOTH WRAPPED, White	3,174 LF	20	Low	PD	0.0	Remove/Repair/ O&M		
		Rooms 101, 108, 112, 200, 202, 203, 209, 211, 212								
4	Y	TSI, FITTING, CLOTH WRAPPED, White	642 SF	20	Low	PD	0.0	Remove/Repair/ O&M		
		Rooms 101, 112, 200, 202, 203, 209, 212								
5	Y	Misc, GLAZING, WINDOW INTERIOR, Red	7,500 SF	10	Non	PD	0.0	Remove/Repair/ O&M		
		Rooms 101, 102, 104, 106, 108, 112, 200, 201, 202, 205, 206, 207, 209, 212								
6	N	Misc, MORTAR, 4" x 10" x 12", Grey / terra cotta tile	4,580 SF	0						
		Rooms 101, 112, 208, 212								
7	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	396 SF	0						
		Rooms 101, 109, 110, 209								
8	Y	Misc, UNDERCOAT,SINK, Black	12 SF	10	Non	PD	0.0	O&M		
		Rooms 101, 109								
9	Y	Misc, MASTIC, White vent duct	470 SF	10	Low	PD	0.0	O&M		
		Rooms 101, 102, 203, 211								
10	Y	Misc, FLOOR TILE, 9" x 9", Green w/mastic	2,171 SF	10	Non	PD	0.0	O&M		
		Rooms 102, 104, 105, 106, 107 108, 109								
11	N	Misc, COVING MASTIC, 6", Black	176 LF	0						
		Rooms 102, 105, 107								
12	N	Misc, CEILING TILE, 2' x 4', White w/short grooves	4,064 SF	0						
		Rooms 102, 103, 104, 106, 108, 201, 205, 212								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
13	N	Misc, CEILING TILE, 2' x 4', White w/many grooves	1,384 SF	0						
		Rooms 102, 202								
14	Y	Misc, FLOOR TILE, 12" x 12", Dark brown w/white marble & mastic	774 SF	10	Non	PD	0.0	O&M		
		Rooms 103								
15	N	Misc, COVING MASTIC, 4", Black	340 LF	0						
		Rooms 104, 106, 108, 109, 111								
16	N	Misc, SHEETROCK, PAINTED, White w/mud & tape	3,012 SF	0						
		Rooms 106, 108, 109, 110, 113, 203, 204, 205, 206, 207, 212								
17	N	Misc, CEILING TILE, 12" x 12", White w/pinholes	3,400 SF	0						
		Rooms 103, 105, 108, 212								
18	N	Misc, GROUT, CERAMIC TILE, 4" x 4", Grey	3,056 SF	0						
		Rooms 109, 110, 200, 201, 202, 203, 204, 205, 206, 207, H-200								
19	N	Misc, COVING MASTIC, 4", Brown	33 LF	0						
		Rooms 110, 206, 207								
20	N	Misc, FIREBRICK, W/MORTAR, Grey	450 SF	0						
		Rooms 114								
21	N	TSI, Grey furnace insulation	1,800 SF	0						
		Rooms 114								
22	N	Misc, CAULKING, White	20 LF	0						
		Rooms 201								
23	N	Misc, CEILING TILE, 12" x 12", White	122 SF	0						
		Rooms 202								
24	Y	TSI, Grey insulation board	6 SF	10	Non	PD	0.0	Remove		
		Rooms 210								

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Condition: PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
25	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	42,000 SF	0						
		Rooms ROOF								
26	Y	Misc, SEALER, Grey	10,000 SF	10	Non	PD	0.0	O&M		
		Rooms ROOF								
27	Y	Misc, SEALER, Light grey	500 SF	10	Non	PD	0.0	O&M		
		Rooms ROOF								
28	Y	Misc, FLOOR TILE, 9" x 9", Grey w/mastic	1,311 SF	10	Non	PD	0.0	O&M		
		Rooms 104, 105, 106, 107, 108, 109								
29	Y	Misc, FLOOR TILE, 12" x 12", Grey & black w/mastic	3,637 SF	10	Non	PD	0.0	O&M		
		Rooms 102, 104, 105, 106, 107, 108, 109, 111, 113, 212								

Note: Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material: Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

Building No. 56

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	56-001	100	Misc, FLOOR TILE, Brown w/white & black marble & mastic	07/16/98	07/20/98	No Asbestos Detected	0%
1	NO	56-002	100	Misc, FLOOR TILE, Brown w/white & black marble & mastic	07/16/98	07/20/98	No Asbestos Detected	0%
2	NO	56-003	100	Misc, CEILING TILE, 2' x 4', White w/long grooves	07/16/98	07/20/98	No Asbestos Detected	0%
2	NO	56-004	100	Misc, CEILING TILE, 2' x 4', White w/long grooves	07/16/98	07/20/98	No Asbestos Detected	0%
3	YES	56-005	101	TSI, PIPE, White	07/16/98	07/20/98	Amosite	40%
3	YES	56-005	101	TSI, PIPE, White	07/16/98	07/20/98	Chrysotile	3%
3	YES	56-006	112	TSI, PIPE, White	07/16/98	07/20/98	Chrysotile	5%
3	NO	56-007	212	TSI, PIPE, White	07/16/98	07/20/98	No Asbestos Detected	0%
3	YES	56-008	203	TSI, PIPE, White	07/16/98	07/20/98	Amosite	40%
3	YES	56-008	203	TSI, PIPE, White	07/16/98	07/20/98	Crocidolite	2%
3	YES	56-009	209	TSI, PIPE, White	07/16/98	07/20/98	Chrysotile	2%
3	YES	56-010	112	TSI, PIPE, White	07/16/98	07/20/98	Amosite	85%
4	YES	56-011	101	TSI, FITTING, White	07/16/98	07/20/98	Chrysotile	10%
4	YES	56-011	101	TSI, FITTING, White	07/16/98	07/20/98	Amosite	30%
4	YES	56-012	112	TSI, FITTING, White	07/16/98	07/20/98	Chrysotile	40%
4	YES	56-012	112	TSI, FITTING, White	07/16/98	07/20/98	Amosite	2%
4	NO	56-013	212	TSI, FITTING, White	07/16/98	07/20/98	No Asbestos Detected	0%
5	NO	56-014	101	Misc, GLAZING, Red	07/16/98	07/20/98	No Asbestos Detected	0%
5	YES	56-015	200	Misc, GLAZING, Red	07/16/98	07/20/98	Chrysotile	2%
6	NO	56-016	101	Misc, MORTAR, 4" x 10" x 12", Grey / terra cotta tile	07/16/98	07/20/98	No Asbestos Detected	0%
6	NO	56-017	208	Misc, MORTAR, 4" x 10" x 12", Grey / terra cotta tile	07/16/98	07/20/98	No Asbestos Detected	0%
7	NO	56-018	101	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	07/16/98	07/20/98	No Asbestos Detected	0%
7	NO	56-019	209	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	07/16/98	07/20/98	No Asbestos Detected	0%
8	YES	56-020	101	Misc, UNDERCOAT,SINK, Black	07/16/98	07/20/98	Chrysotile	2%
8	YES	56-021	109	Misc, UNDERCOAT,SINK, Black	07/16/98	07/20/98	Chrysotile	2%
9	YES	56-022	101	Misc, MASTIC, White vent duct	07/16/98	07/20/98	Chrysotile	40%
9	NO	56-023	102	Misc, MASTIC, White vent duct	07/16/98	07/20/98	No Asbestos Detected	0%
9	NO	56-024	211	Misc, MASTIC, White vent duct	07/16/98	07/20/98	No Asbestos Detected	0%
10	YES	56-025	102	Misc, FLOOR TILE, Green w/mastic	07/16/98	07/20/98		0%
10	YES	56-026	104	Misc, FLOOR TILE, Green w/mastic	07/16/98	07/20/98	Chrysotile	2%
11	NO	56-027	102	Misc, COVING MASTIC, 6", Black	07/16/98	07/20/98	No Asbestos Detected	0%
11	NO	56-028	105	Misc, COVING MASTIC, 6", Black	07/16/98	07/20/98	No Asbestos Detected	0%
12	NO	56-029	102	Misc, CEILING TILE, 2' x 4', White w/short grooves	07/16/98	07/20/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT. 1%

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY INDUSTRIAL LABORATORY TEST REPORT

Building No. 56

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
12	NO	56-030	108	Misc, CEILING TILE, 2' x 4', White w/short grooves	07/16/98	07/20/98	No Asbestos Detected	0%
13	NO	56-031	102	Misc, CEILING TILE, 2' x 4', White w/many grooves	07/16/98	07/20/98	No Asbestos Detected	0%
13	NO	56-032	202	Misc, CEILING TILE, 2' x 4', White w/many grooves	07/16/98	07/20/98	No Asbestos Detected	0%
14	YES	56-033	103	Misc, FLOOR TILE, Dark brown w/white marble & mastic	07/16/98	07/20/98	Chrysotile	10%
14	YES	56-034	103	Misc, FLOOR TILE, Dark brown w/white marble & mastic	07/16/98	07/20/98	Chrysotile	10%
15	NO	56-035	104	Misc, COVING MASTIC, 4", Black	07/16/98	07/20/98	No Asbestos Detected	0%
15	NO	56-036	106	Misc, COVING MASTIC, 4", Black	07/16/98	07/20/98	No Asbestos Detected	0%
16	NO	56-037	106	Misc, SHEETROCK, White w/mud & tape	07/16/98	07/20/98	No Asbestos Detected	0%
16	NO	56-038	203	Misc, SHEETROCK, White w/mud & tape	07/16/98	07/20/98	No Asbestos Detected	0%
17	NO	56-039	108	Misc, CEILING TILE, 12" x 12", White w/pinholes	07/16/98	07/20/98	No Asbestos Detected	0%
17	NO	56-040	212	Misc, CEILING TILE, 12" x 12", White w/pinholes	07/16/98	07/20/98	No Asbestos Detected	0%
18	NO	56-041	109	Misc, GROUT, 4" x 4", Grey	07/16/98	07/20/98	No Asbestos Detected	0%
18	NO	56-042	200	Misc, GROUT, 4" x 4", Grey	07/16/98	07/20/98	No Asbestos Detected	0%
19	NO	56-043	110	Misc, COVING MASTIC, 4", Brown	07/16/98	07/20/98	No Asbestos Detected	0%
19	NO	56-044	206	Misc, COVING MASTIC, 4", Brown	07/16/98	07/20/98	No Asbestos Detected	0%
20	NO	56-045	114	Misc, FIREBRICK, Grey	07/16/98	07/20/98	No Asbestos Detected	0%
20	NO	56-046	114	Misc, FIREBRICK, Grey	07/16/98	07/20/98	No Asbestos Detected	0%
20	NO	56-047	114	Misc, FIREBRICK, Grey	07/16/98	07/20/98	No Asbestos Detected	0%
21	NO	56-048	114	TSI, Grey furnace insulation	07/16/98	07/20/98	No Asbestos Detected	0%
21	NO	56-049	114	TSI, Grey furnace insulation	07/16/98	07/20/98	No Asbestos Detected	0%
21	NO	56-050	114	TSI, Grey furnace insulation	07/16/98	07/20/98	No Asbestos Detected	0%
22	NO	56-051	201	Misc, CAULKING, White	07/16/98	07/20/98	No Asbestos Detected	0%
22	NO	56-052	201	Misc, CAULKING, White	07/16/98	07/20/98	No Asbestos Detected	0%
23	NO	56-053	202	Misc, CEILING TILE, 12" x 12", White	07/16/98	07/20/98	No Asbestos Detected	0%
23	NO	56-054	202	Misc, CEILING TILE, 12" x 12", White	07/16/98	07/20/98	No Asbestos Detected	0%
24	YES	56-055	210	TSI, Grey insulation board	07/16/98	07/20/98	Chrysotile	70%
24	YES	56-056	210	TSI, Grey insulation board	07/16/98	07/20/98	Chrysotile	70%
25	NO	56-057	ROOF	Misc, ROOFING, Black w/felt	07/16/98	07/20/98	No Asbestos Detected	0%
25	NO	56-058	ROOF	Misc, ROOFING, Black w/felt	07/16/98	07/20/98	No Asbestos Detected	0%
26	YES	56-059	ROOF	Misc, SEALER, Grey	07/16/98	07/20/98	Chrysotile	70%
26	YES	56-060	ROOF	Misc, SEALER, Grey	07/16/98	07/20/98	Chrysotile	70%
27	YES	56-061	ROOF	Misc, SEALER, Light grey	07/16/98	07/20/98	Chrysotile	50%
27	YES	56-062	ROOF	Misc, SEALER, Light grey	07/16/98	07/20/98	Chrysotile	40%

TEST METHOD. Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT. 1%

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

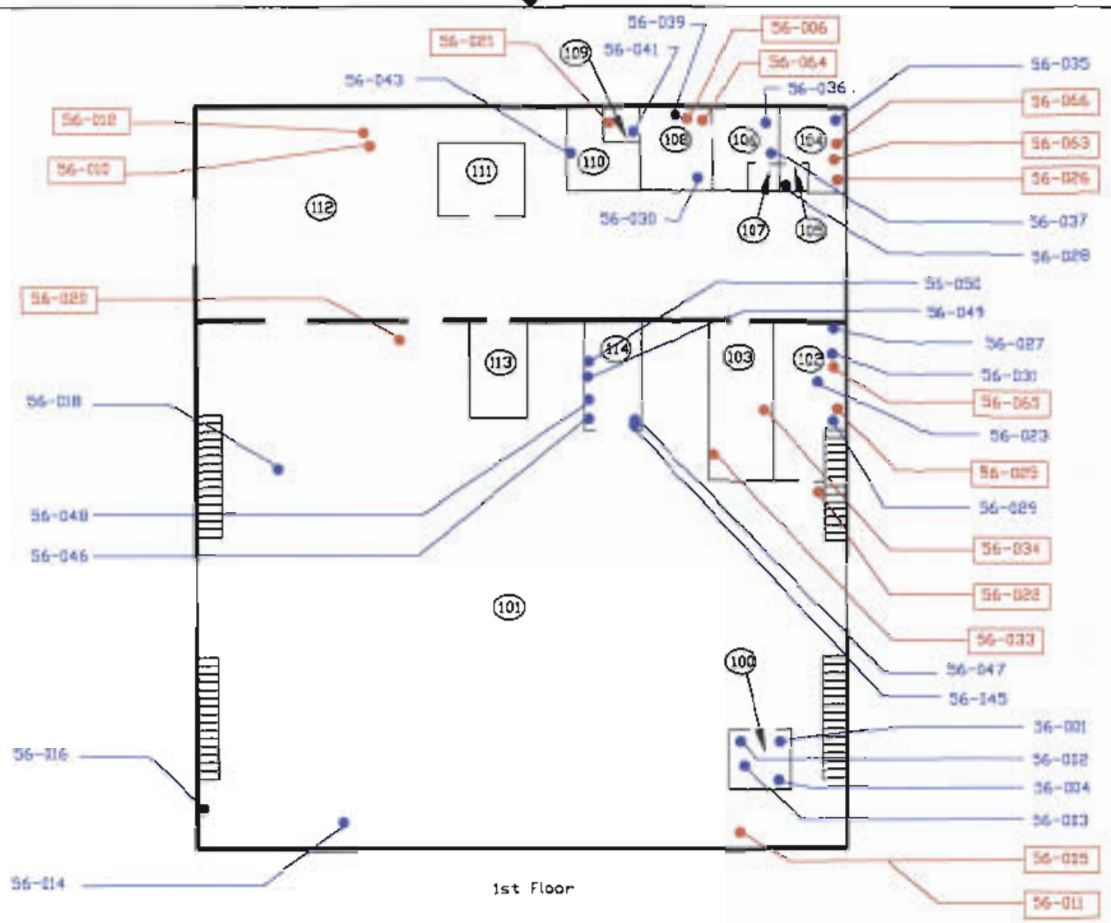
Building No. 56

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
28	YES	56-063	104	Misc, FLOOR TILE, Grey w/mastic	07/16/98	07/23/98		0%
28	YES	56-064	108	Misc, FLOOR TILE, Grey w/mastic	07/16/98	07/23/98		0%
29	YES	56-065	102	Misc, FLOOR TILE, Grey & black w/mastic	07/16/98	07/23/98		0%
29	YES	56-066	104	Misc, FLOOR TILE, Grey & black w/mastic	07/16/98	07/23/98		0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

Bldg. No.	Homo No.	Material Description	Quantity	Rat-ing	Fria-bility	Condition	% ID	Recommended Action
56	3	TSI, PIPE, CLOTH WRAPPED, White	3,174 LF	20	Low	Not Damaged	0 00	Remove/Repair/ O&M
Locations. Rooms 101, 108, 112, 200, 202, 203, 209, 211, 212								
56	4	TSI, FITTING, CLOTH WRAPPED, White	642 SF	20	Low	Not Damaged	0.00	Remove/Repair/ O&M
Locations: Rooms 101, 112, 200, 202, 203, 209, 212								
56	5	Misc, GLAZING, WINDOW INTERIOR, Red	7,500 SF	10	Non	Not Damaged	0.00	Remove/Repair/ O&M
Locations: Rooms 101, 102, 104, 106, 108, 112, 200, 201, 202, 205, 206, 207, 209, 212								
56	8	Misc, UNDERCOAT,SINK, Black	12 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 101, 109								
56	9	Misc, MASTIC, White vent duct	470 SF	10	Low	Not Damaged	0.00	O&M
Locations: Rooms 101, 102, 203, 211								
56	10	Misc, FLOOR TILE, 9" x 9", Green w/mastic	2,171 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 104, 105. 106, 107, 108, 109								
56	14	Misc, FLOOR TILE, 12" x 12", Dark brown w/white marble & mastic	774 SF	10	Non	Not Damaged	0.00	O&M
Locations. Rooms 103								
56	24	TSI, Grey insulation board	6 SF	10	Non	Not Damaged	0.00	Remove
Locations: Rooms 210								
56	26	Misc, SEALER, Grey	10,000 SF	10	Non	Not Damaged	0 00	O&M
Locations: Rooms ROOF								
56	27	Misc, SEALER, Light grey	500 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms ROOF								
56	28	Misc, FLOOR TILE, 9" x 9", Grey w/mastic	1,311 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 104, 105, 106, 107, 108, 109								
56	29	Misc, FLOOR TILE, 12" x 12", Grey & black w/mastic	3,637 SF	10	Non	Not Damaged	0.00	O&M
Locations: Rooms 102, 104, 105, 106, 107, 108, 109, 111, 113, 212								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action. O&M= Operation and Maintenance, Refer to the Operations and Maintenance Plan for standard O&M and Repair procedures



LEGEND

(xxx) – Indicates unique room number assigned by inspector

xx-xxx – Indicates sample locations which tested positive for asbestos

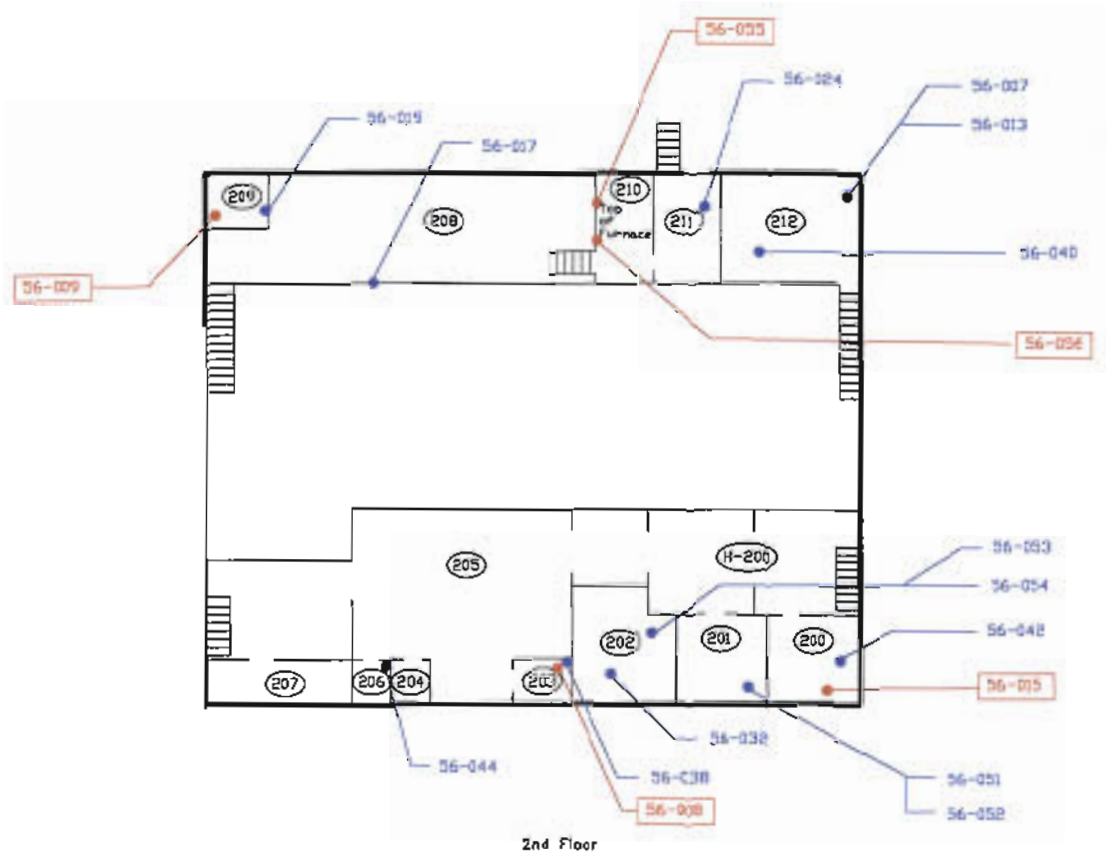
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2108

SAMPLE LOCATIONS
BLDG 56
CHARLESTON NAVAL BASE, CHARLESTON SC

DATE	PREPARED BY:	REV
8-24-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 1 OF 3



2nd Floor

LEGEND

(XXX) —Indicates unique room number assigned by inspector

XX-XXX — Indicates sample locations which tested positive for asbestos

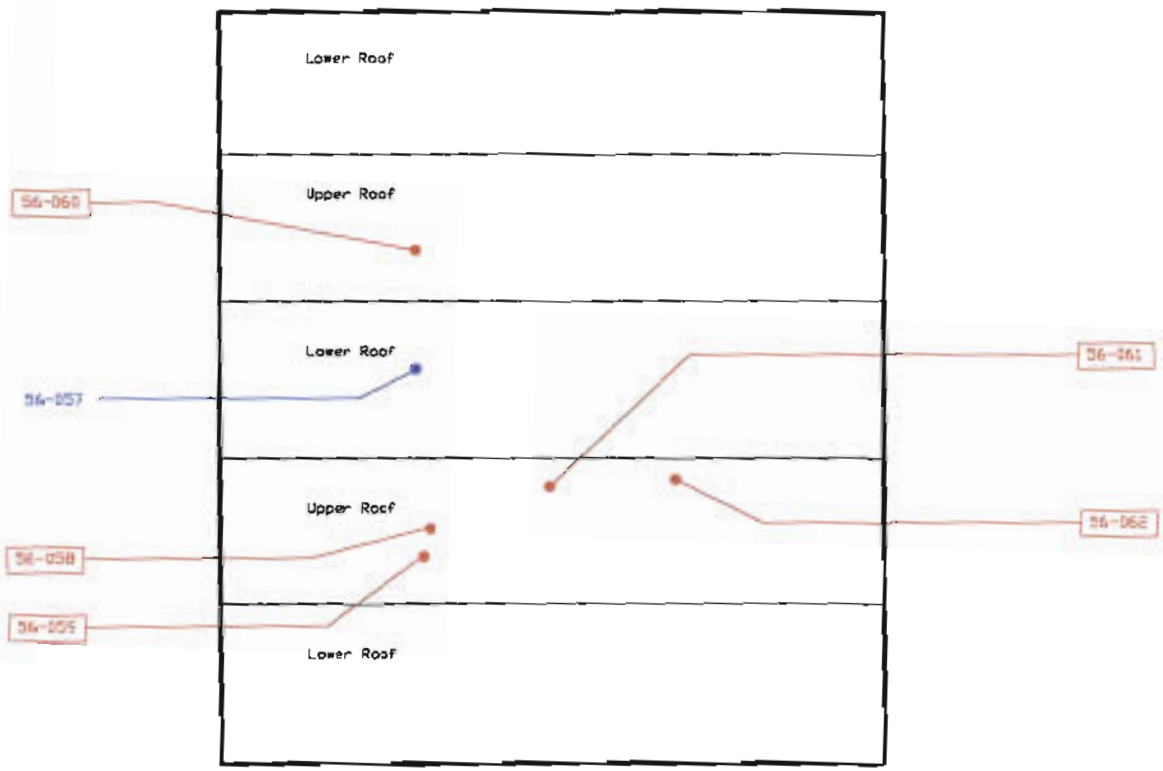
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE - BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BLDG 56
CHARLESTON NAVAL BASE, CHARLESTON SC

DATE	PREPARED BY:	REV
8-24-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 2 OF 3



Roof

LEGEND

XX-XXX -- Indicates sample locations which tested positive for asbestos

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE - BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BLDG 56
CHARLESTON NAVAL BASE, CHARLESTON SC

DATE	PREPARED BY:	REV
8-24-98	B.D. MURRAY	ORIG

SCALE: NONE | SHEET 3 OF 3

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 56

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	$ 135,266	-	$ 39,816	-	$ 125,842
Material/equipment costs	$ 54,406	-	$ 16,227	-	$ 41,508
Disposal costs	$ 20,290	-	$ 5,972	-	$ 45,371
Total cost	**$ 209,962**	**-**	**$ 62,015**	**-**	**$ 212,721**

The total cost for removal of all asbestos listed in the Building Summary Table is $ 209,962, the total cost for repairs to damaged and/or friable asbestos listed in the Building Summary Table is $ 62,015 and the cost for demolition after asbestos removal is $ 212,721.

BUILDING 445C: Gas Bottle Shed

1. DESCRIPTION:

Building 445C is a 1,500 square-foot building. It is an open-sided, single story, metal structure with a pitched metal roof. The year built was 1988. The following information was identified during the survey and from the analysis of the samples taken:

- No homogeneous areas were identified during the initial survey.
- No homogeneous areas were assumed to contain asbestos.
- No homogeneous areas were suspected to contain asbestos and sampled to confirm.
- No suspected homogeneous areas were confirmed to contain asbestos.
- No suspect homogenous areas were identified as asbestos free.

2. FINDINGS:

No homogeneous areas with suspected ACM were identified. No samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- None.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- None.

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- None.

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

- O & M not required. No ACM present.

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 445C

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	N/A	-	N/A	-	$ 5,088
Material/equipment costs	N/A	-	N/A	-	$ 3,423
Disposal costs	N/A	-	N/A	-	$ 1,620
Total cost	**$ 0**	**-**	**$ 0**	**-**	**$ 10,131**

No suspect material was found during the inspection, therefore no abatement costs are provided. The cost for demolition is $ 10,131.

BUILDING 1503: Warehouse

1. DESCRIPTION:

Building 1503 is a 61,200 square-foot building. It is a single story, metal siding structure with metal windows and a pitched metal roof. The year built was 1964. The following information was identified during the survey and from the analysis of the samples taken:

- Eight homogeneous areas were identified during the initial survey.
- Zero homogeneous areas were assumed to contain asbestos.
- Eight of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- Two of the suspected homogeneous areas were confirmed to contain asbestos.
- Six of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Eight homogeneous areas with suspected ACM were identified. Sixteen samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- H-6: MISC, FLOOR TILE, 12" x 12", Orange w/cream marble & mastic, was Non-friable and Not Damaged.
- H-7: MISC, GLAZING, WINDOW INTERIOR, White, was Non-friable and Not Damaged.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, FLOOR TILE, 12" x 12", Brown w/white marble & mastic
- H-2: MISC, COVING MASTIC, Brown
- H-3: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- H-4: MISC, CEILING TILE, 2' x 2', White
- H-5: MISC, MASTIC, Black
- H-8: MISC, MORTAR, 8" x 8" x 16", Grey

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

Other suspect ACM noted, but not sampled, includes valve packing and various piping systems / components gasket material.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- H-6: MISC, FLOOR TILE, Orange w/cream marble & mastic: O&M
- H-7: MISC, GLAZING, White: O&M

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC FLOOR TILE is Confirmed, Non-friable ACM.

- H-6 (FLOOR TILE, Orange w/cream marble & mastic) is located in Room 101.

MISC GLAZING is Confirmed, Non-friable ACM.

- H-7 (GLAZING, White) is located in Rooms 101, 102, 103.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 1503

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, FLOOR TILE, 12" x 12", Brown w/white marble & mastic	391 SF	0						
		Rooms 100, 102								
2	N	Misc, COVING MASTIC, Brown	120 LF	0						
		Rooms 100, 101, 102								
3	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	1,100 SF	0						
		Rooms 100, 101, 102, 103								
4	N	Misc, CEILING TILE, 2' x 2', White	361 SF	0						
		Rooms 100								
5	N	Misc, MASTIC, Black	5 LF	0						
		Rooms 100								
6	Y	Misc, FLOOR TILE, 12" x 12", Orange w/cream marble & mastic	30 SF	9	Non	PD	0.0	O&M		
		Rooms 101								
7	Y	Misc, GLAZING, WINDOW INTERIOR, White	1,324 LF	9	Non	PD	0.0	O&M		
		Rooms 101, 102, 103								
8	N	Misc, MORTAR, 8" x 8" x 16", Grey	50 SF	0						
		Rooms EXT								

Note Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition. PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action. O&M= Operation and Maintenance

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

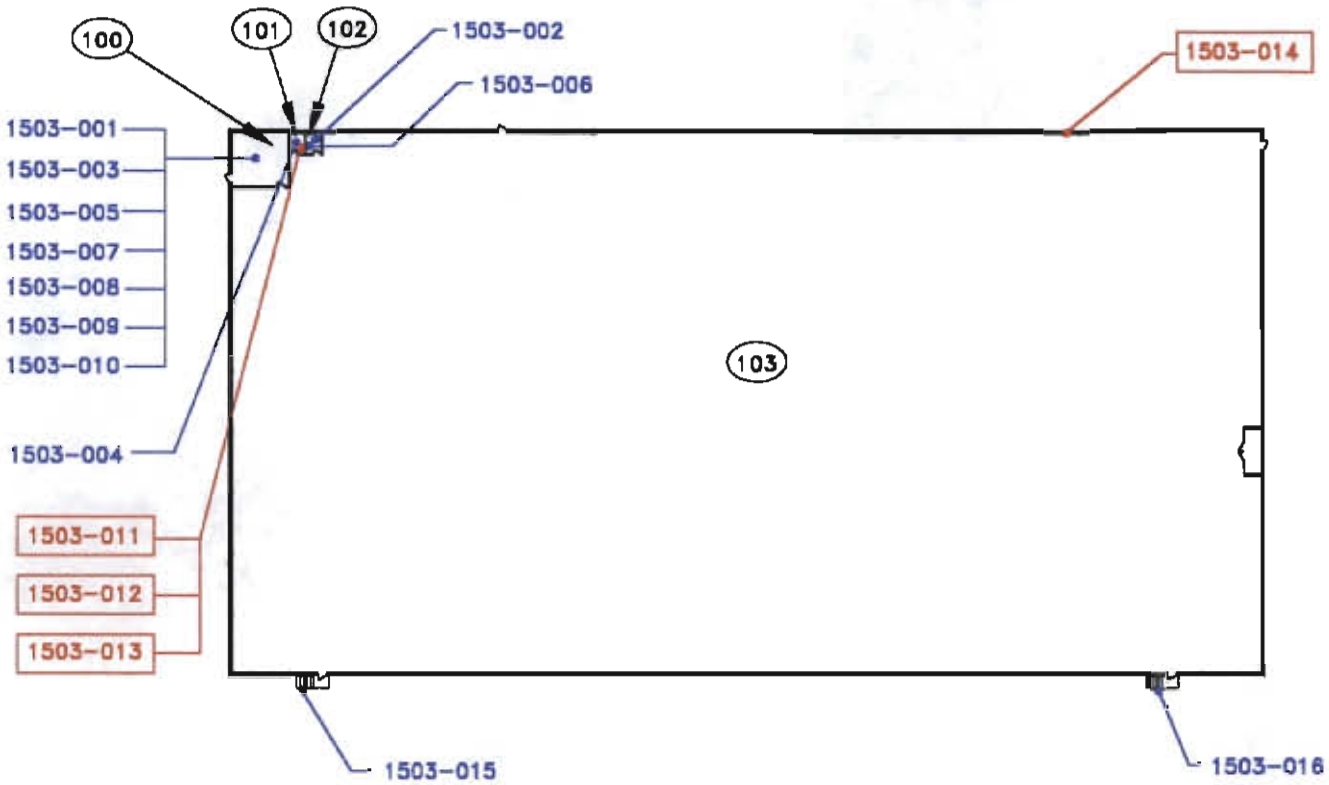
Building No. 1503

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1503-001	100	Misc, FLOOR TILE, Brown w/white marble & mastic	07/20/98	07/22/98	No Asbestos Detected	0%
1	NO	1503-002	102	Misc, FLOOR TILE, Brown w/white marble & mastic	07/20/98	07/22/98	No Asbestos Detected	0%
2	NO	1503-003	100	Misc, COVING MASTIC, Brown	07/20/98	07/22/98	No Asbestos Detected	0%
2	NO	1503-004	101	Misc, COVING MASTIC, Brown	07/20/98	07/22/98	No Asbestos Detected	0%
3	NO	1503-005	100	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/20/98	07/22/98	No Asbestos Detected	0%
3	NO	1503-006	102	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/20/98	07/22/98	No Asbestos Detected	0%
4	NO	1503-007	100	Misc, CEILING TILE, 2' x 2', White	07/20/98	07/23/98	No Asbestos Detected	0%
4	NO	1503-008	100	Misc, CEILING TILE, 2' x 2', White	07/20/98	07/22/98	No Asbestos Detected	0%
5	NO	1503-009	100	Misc, MASTIC, Black	07/20/98	07/22/98	No Asbestos Detected	0%
5	NO	1503-010	100	Misc, MASTIC, Black	07/20/98	07/22/98	No Asbestos Detected	0%
6	YES	1503-011	101	Misc, FLOOR TILE, Orange w/cream marble & mastic	07/20/98	07/22/98	Chrysotile	2%
6	YES	1503-012	101	Misc, FLOOR TILE, Orange w/cream marble & mastic	07/20/98	07/22/98	Chrysotile	2%
7	YES	1503-013	101	Misc, GLAZING, White	07/20/98	07/22/98	Chrysotile	2%
7	YES	1503-014	103	Misc, GLAZING, White	07/20/98	07/22/98	Chrysotile	2%
8	NO	1503-015	EXT	Misc, MORTAR, 8" x 8" x 16", Grey	07/20/98	07/22/98	No Asbestos Detected	0%
8	NO	1503-016	EXT	Misc, MORTAR, 8" x 8" x 16", Grey	07/20/98	07/22/98	No Asbestos Detected	0%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT. 1%

Bldg. No.	Homo No.	Material Description	Quantity	Rat-ing	Fria-bility	Condition	% D	Recommended Action
1503	6	Misc, FLOOR TILE, 12" x 12", Orange w/cream marble & mastic	30 SF	9	Non	Not Damaged	0.00	O&M
Locations. Rooms 101								
1503	7	Misc, GLAZING, WINDOW INTERIOR, White	1,824 LF	9	Non	Not Damaged	0 00	O&M
Locations: Rooms 101, 102, 103								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action. O&M= Operation and Maintenance, Refer to the Operations and Maintenance Plan for standard O&M and Repair procedures.



LEGEND

(xxx) — Indicates unique room number assigned by inspector

xxxx-xxx — Indicates sample locations which tested positive for asbestos

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING 1503
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-18-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 1 of 1

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 1503

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	$ 11,102	-	N/A	-	$ 183,089
Material/equipment costs	$ 4,741	-	N/A	-	$ 45,006
Disposal costs	$ 1,665	-	N/A	-	$ 66,111
Total cost	**$ 17,508**	-	**$ 0**	-	**$ 294,206**

The total cost for removal of all asbestos listed in the Building Summary Table is $ 209,962. The cost for demolition after asbestos removal is $ 212,721.

BUILDING 1612A: CO2 Storage Shed

1. DESCRIPTION:

Building 1612A is a 120 square-foot building. It is an open-sided, single story, metal structure with a pitched metal roof. The year built was 1964. The following information was identified during the survey and from the analysis of the samples taken:

- No homogeneous areas were identified during the initial survey.
- No homogeneous areas were assumed to contain asbestos.
- No homogeneous areas were suspected to contain asbestos and sampled to confirm.
- No suspected homogeneous areas were confirmed to contain asbestos.
- No suspect homogenous areas were identified as asbestos free.

2. FINDINGS:

No homogeneous areas with suspected ACM were identified. No samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- None.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- None.

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- None.

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

- O & M not required. No ACM present.

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 1612A

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	N/A	-	N/A	-	$ 974
Material/equipment costs	N/A	-	N/A	-	$ 317
Disposal costs	N/A	-	N/A	-	$ 130
Total cost	**$ 0**	**-**	**$ 0**	**-**	**$ 1,421**

No suspect material was found during the inspection, therefore no abatement costs are provided. The cost for demolition is $ 1,421.

BUILDING 1649: Storage Shed (DRMO)

1. DESCRIPTION:

Building 1649 is a 4,375 square-foot building. It is an open-sided, single story, metal structure with a pitched metal roof. The year built was 1992. The following information was identified during the survey and from the analysis of the samples taken:

- No homogeneous areas were identified during the initial survey.
- No homogeneous areas were assumed to contain asbestos.
- No homogeneous areas were suspected to contain asbestos and sampled to confirm.
- No suspected homogeneous areas were confirmed to contain asbestos.
- No suspect homogenous areas were identified as asbestos free.

2. FINDINGS:

No homogeneous areas with suspected ACM were identified. No samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- None.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- None.

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- None.

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

- O & M not required. No ACM present.

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 1649

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	N/A	-	N/A	-	$ 13,661
Material/equipment costs	N/A	-	N/A	-	$ 6,355
Disposal costs	N/A	-	N/A	-	$ 4,726
Total cost	**$ 0**	**-**	**$ 0**	**-**	**$ 24,742**

No suspect material was found during the inspection, therefore no abatement costs are provided. The cost for demolition is $ 24,742.

BUILDING 1655: General Warehouse

1. DESCRIPTION:

Building 1655 is a 12,480 square-foot building. It is a two story, cinder block and metal siding structure with metal windows and a pitched metal roof. The year built was 1992. The following information was identified during the survey and from the analysis of the samples taken:

- Eight homogeneous areas were identified during the initial survey.
- Zero homogeneous areas were assumed to contain asbestos.
- Eight of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- No suspected homogeneous areas were confirmed to contain asbestos.
- Eight of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Eight homogeneous areas with suspected ACM were identified. Twenty-one samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- None.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, COVING MASTIC, Black
- H-2: MISC, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape
- H-3: MISC, COVING MASTIC, Grey
- H-4: MISC, GROUT, CERAMIC TILE, 2" x 2", Grey
- H-5: MISC, GROUT, CERAMIC TILE, 4" x 4", White
- H-6: MISC, MASTIC, White vent duct
- H-7: SURFACING, SPRAYED ON ACOUSTICAL, COTTAGE CHEESE, White
- H-8: MISC, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- None.

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

- O & M not required. No ACM present.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 1655

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, COVING MASTIC, Black	68 LF	0						
		Rooms 100								
2	N	Misc, SHEETROCK, PAINTED, 4' x 8', White w/mud & tape	4,109 SF	0						
		Rooms 100, 101, 102, 104, 105, 106, 107, 200, 201, H-100, H-200								
3	N	Misc, COVING MASTIC, Grey	68 LF	0						
		Rooms H-100								
4	N	Misc, GROUT, CERAMIC TILE, 2" x 2", Grey	72 SF	0						
		Rooms 101, 102								
5	N	Misc, GROUT, CERAMIC TILE, 4" x 4", White	48 SF	0						
		Rooms 101, 102								
6	N	Misc, MASTIC, White vent duct	325 SF	0						
		Rooms 103, 200								
7	N	Surfacing, SPRAYED ON ACOUSTICAL, COTTAGE CHEESE, White	556 SF	0						
		Rooms 104, 105, 106, 201								
8	N	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	2,160 SF	0						
		Rooms EXT								

Note. Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition. PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

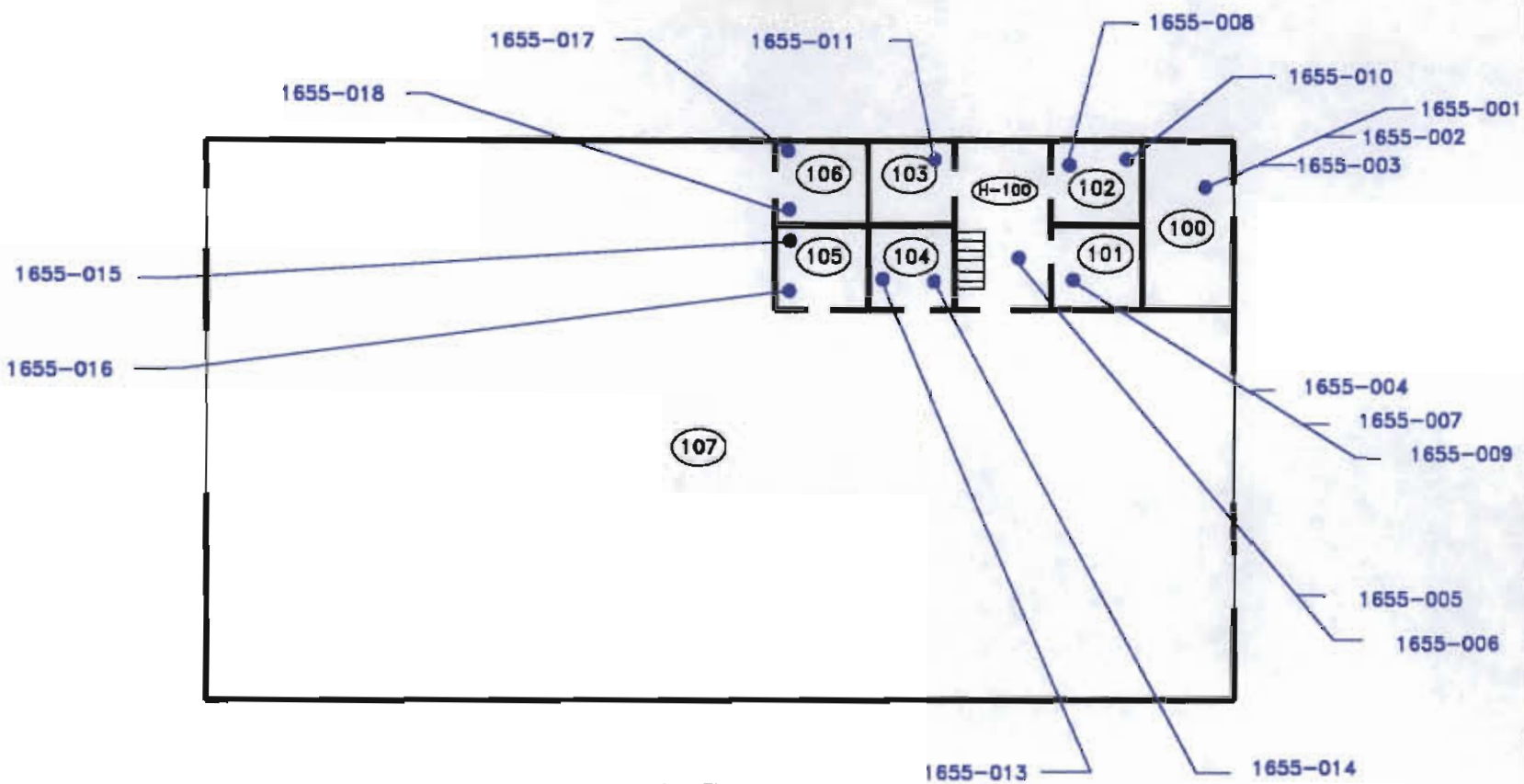
LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

Building No. 1655

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1655-001	100	Misc, COVING MASTIC, Black	07/21/98	07/23/98	No Asbestos Detected	0%
1	NO	1655-002	100	Misc, COVING MASTIC, Black	07/21/98	07/23/98	No Asbestos Detected	0%
2	NO	1655-003	100	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/21/98	07/23/98	No Asbestos Detected	0%
2	NO	1655-004	101	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/21/98	07/23/98	No Asbestos Detected	0%
3	NO	1655-005	H-100	Misc, COVING MASTIC, Grey	07/21/98	07/23/98	No Asbestos Detected	0%
3	NO	1655-006	H-100	Misc, COVING MASTIC, Grey	07/21/98	07/23/98	No Asbestos Detected	0%
4	NO	1655-007	101	Misc, GROUT, 2" x 2", Grey	07/21/98	07/23/98	No Asbestos Detected	0%
4	NO	1655-008	102	Misc, GROUT, 2" x 2", Grey	07/21/98	07/23/98	No Asbestos Detected	0%
5	NO	1655-009	101	Misc, GROUT, 4" x 4", White	07/21/98	07/23/98	No Asbestos Detected	0%
5	NO	1655-010	102	Misc, GROUT, 4" x 4", White	07/21/98	07/23/98	No Asbestos Detected	0%
6	NO	1655-011	103	Misc, MASTIC, White vent duct	07/21/98	07/23/98	No Asbestos Detected	0%
6	NO	1655-012	200	Misc, MASTIC, White vent duct	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-013	104	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-014	104	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-015	105	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-016	105	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-017	106	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-018	106	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
7	NO	1655-019	201	Surfacing, SPRAYED ON ACOUSTICAL, White	07/21/98	07/23/98	No Asbestos Detected	0%
8	NO	1655-020	EXT	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	07/21/98	07/23/98	No Asbestos Detected	0%
8	NO	1655-021	EXT	Misc, CINDER BLOCK AND MORTAR, 8" x 8" x 16", Grey	07/21/98	07/23/98	No Asbestos Detected	0%

TEST METHOD. Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT. 1%



1st Floor

LEGEND

(xxx) — Indicates unique room number assigned by Inspector

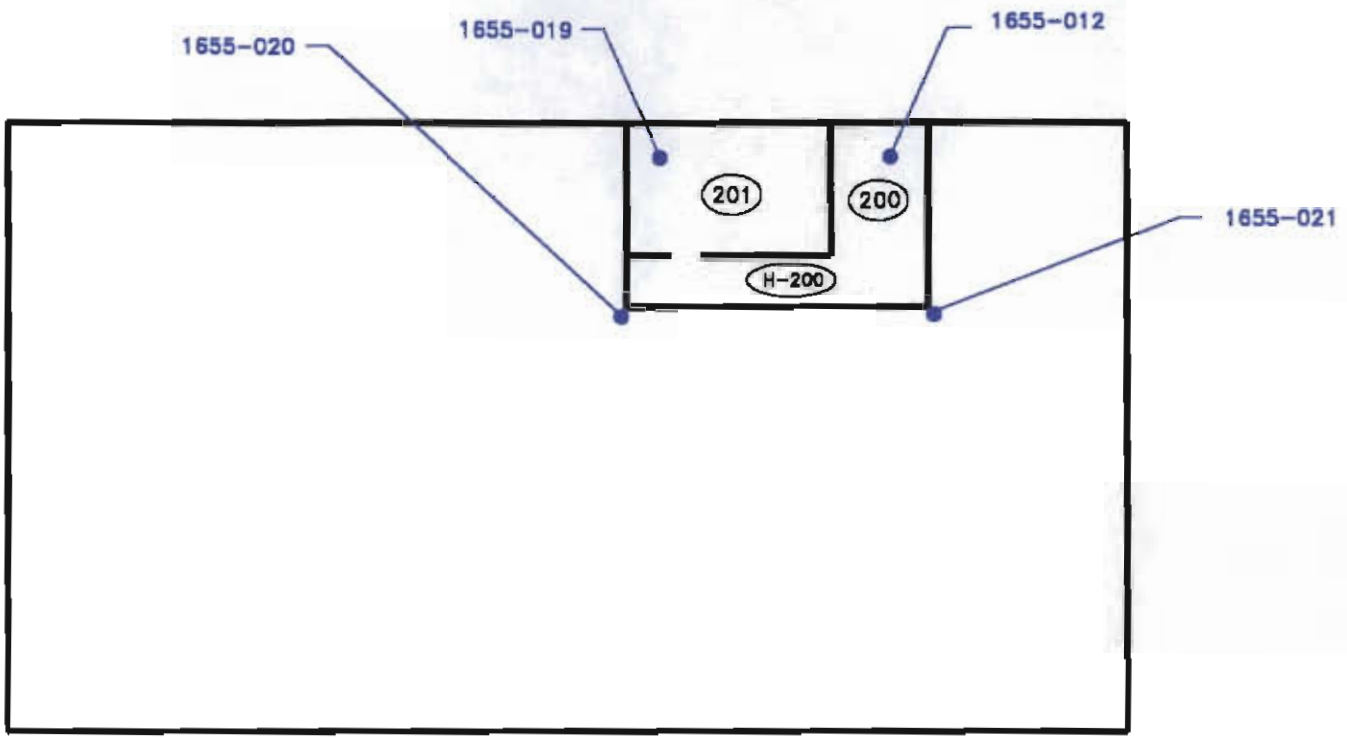
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING 1655
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-21-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 1 of 2



2nd Floor

LEGEND

(xxx) — Indicates unique room number assigned by inspector

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING 1655
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-21-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 2 of 2

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 1655

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	N/A	-	N/A	-	$ 37,826
Material/equipment costs	N/A	-	N/A	-	$ 15,519
Disposal costs	N/A	-	N/A	-	$ 13,482
Total cost	**$ 0**	**-**	**$ 0**	**-**	**$ 66,827**

No suspect material was found to contain asbestos during the inspection, therefore no abatement costs are provided. The cost for demolition is $ 66,827.

BUILDING 1715: Maintenance Shop

1. DESCRIPTION:

Building 1715 is a 1,240 square-foot building. It is a single story, metal structure with a pitched metal roof. The year built was 1968. The following information was identified during the survey and from the analysis of the samples taken:

- Seven homogeneous areas were identified during the initial survey.
- Zero homogeneous areas were assumed to contain asbestos.
- Seven of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- Three of the suspected homogeneous areas were confirmed to contain asbestos.
- Four of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Seven homogeneous areas with suspected ACM were identified. Nineteen samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- H-5: MISC, UNDERCOAT,SINK, White, was Non-friable and Not Damaged.
- H-6: MISC, MASTIC, Black, was Non-friable and Not Damaged.
- H-7: MISC, SEALER, Silver, was Non-friable and Not Damaged.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, SHEETROCK, PLAIN, 4' x 8', White w/mud & tape
- H-2: SURFACING, SPRAYED ON ACOUSTICAL, COTTAGE CHEESE, White
- H-3: MISC, FLOOR TILE, 12" x 12", Blue w/white marble & mastic
- H-4: MISC, CEILING TILE, 2' x 4', White

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- H-5: MISC, UNDERCOAT,SINK, White: O&M
- H-6: MISC, MASTIC, Black: O&M
- H-7: MISC, SEALER, Silver: O&M

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC MASTIC is Confirmed, Non-friable ACM.

- H-6 (MASTIC, Black) is located on the Roof.

MISC SEALER is Confirmed, Non-friable ACM.

- H-7 (SEALER, Silver) is located on the Roof.

MISC UNDERCOAT,SINK is Confirmed, Non-friable ACM.

- H-5 (UNDERCOAT,SINK, White) is located in Room 102.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY

Building No. 1715

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, SHEETROCK, PLAIN, 4' x 8', White w/mud & tape	1,444 SF	0						
		Rooms 100, 102								
2	N	Surfacing, SPRAYED ON ACOUSTICAL, COTTAGE CHEESE, White	680 SF	0						
		Rooms 100								
3	N	Misc, FLOOR TILE, 12" x 12", Blue w/white marble & mastic	160 SF	0						
		Rooms 101								
4	N	Misc, CEILING TILE, 2' x 4', White	160 SF	0						
		Rooms 101								
5	Y	Misc, UNDERCOAT,SINK, White	6 SF	9	Non	PD	0.0	O&M		
		Rooms 102								
6	Y	Misc, MASTIC, Black	600 SF	9	Non	PD	0.0	O&M		
		Rooms ROOF								
7	Y	Misc, SEALER, Silver	1,840 SF	9	Non	PD	0.0	O&M		
		Rooms ROOF								

Note Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability. Mod= Moderate, Condition PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

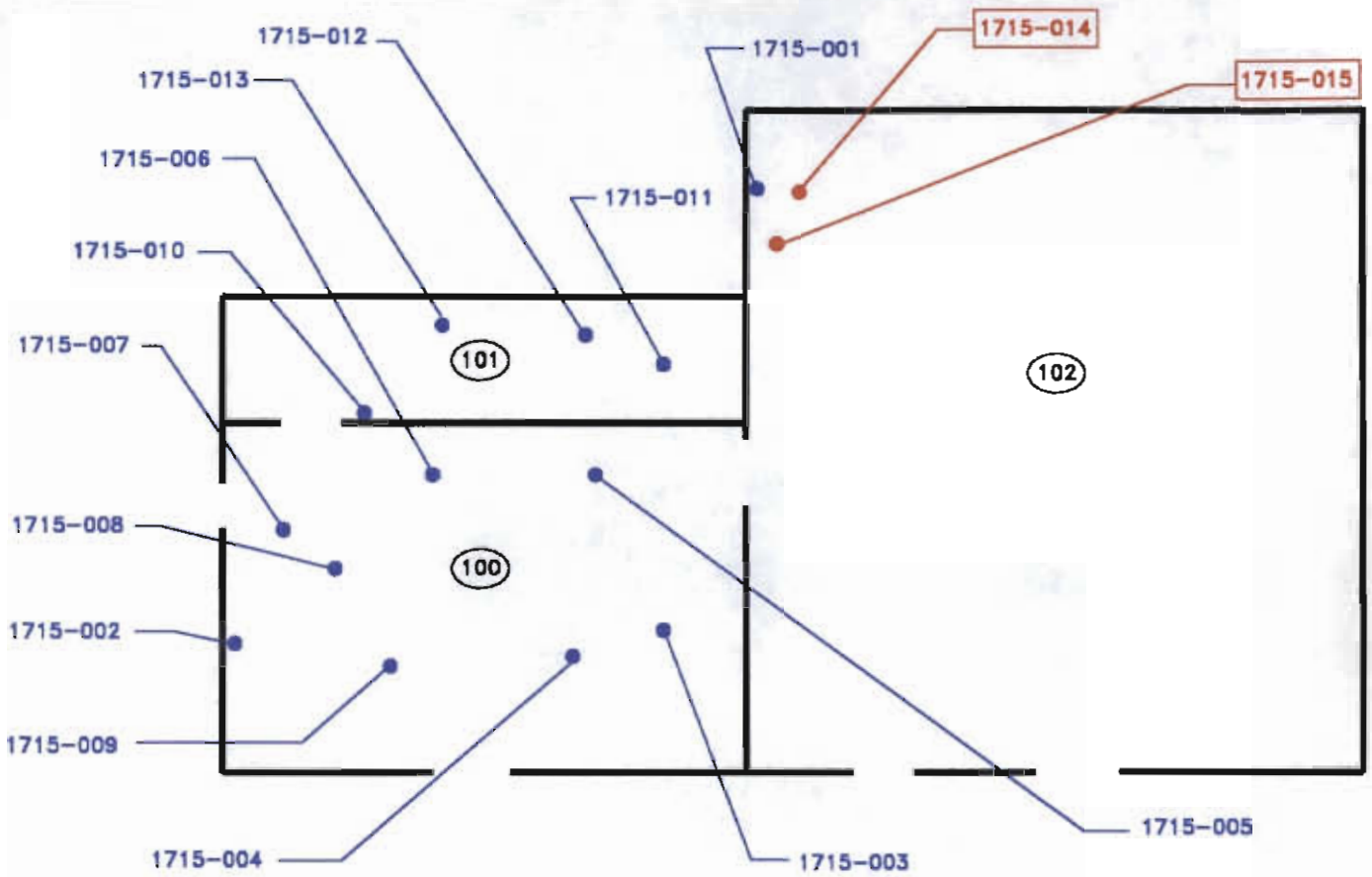
Building No. 1715

Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1715-001	100	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/20/98	07/21/98	No Asbestos Detected	0%
1	NO	1715-002	102	Misc, SHEETROCK, 4' x 8', White w/mud & tape	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-003	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-004	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-005	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-006	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-007	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-008	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
2	NO	1715-009	100	Surfacing, SPRAYED ON ACOUSTICAL, White	07/20/98	07/21/98	No Asbestos Detected	0%
3	NO	1715-010	101	Misc, FLOOR TILE, Blue w/white marble & mastic	07/20/98	07/21/98	No Asbestos Detected	0%
3	NO	1715-011	101	Misc, FLOOR TILE, Blue w/white marble & mastic	07/20/98	07/21/98	No Asbestos Detected	0%
4	NO	1715-012	101	Misc, CEILING TILE, 2' x 4', White	07/20/98	07/21/98	No Asbestos Detected	0%
4	NO	1715-013	101	Misc, CEILING TILE, 2' x 4', White	07/20/98	07/21/98	No Asbestos Detected	0%
5	YES	1715-014	102	Misc, UNDERCOAT,SINK, White	07/20/98	07/21/98	Chrysotile	40%
5	YES	1715-015	102	Misc, UNDERCOAT,SINK, White	07/20/98	07/21/98	Chrysotile	40%
6	YES	1715-016	ROOF	Misc, MASTIC, Black	07/20/98	07/21/98	Chrysotile	30%
6	YES	1715-017	ROOF	Misc, MASTIC, Black	07/20/98	07/21/98	Chrysotile	30%
7	YES	1715-018	ROOF	Misc, SEALER, Silver	07/20/98	07/21/98	Chrysotile	2%
7	YES	1715-019	ROOF	Misc, SEALER, Silver	07/20/98	07/21/98	Chrysotile	2%

TEST METHOD: Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT: 1%

Bldg. No.	Homo No.	Material Description	Quantity	Rat-ing	Fria-bility	Condition	% D	Recommended Action
1715	5	Misc, UNDERCOAT,SINK, White	6 SF	9	Non	Not Damaged	0.00	O&M
Locations· Rooms 102								
1715	6	Misc, MASTIC, Black	600 SF	9	Non	Not Damaged	0 00	O&M
Locations· Rooms ROOF								
1715	7	Misc, SEALER, Silver	1,840 SF	9	Non	Not Damaged	0 00	O&M
Locations. Rooms ROOF								

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity· SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action. O&M= Operation and Maintenance, Refer to the Operations and Maintenance Plan for standard O&M and Repair procedures



LEGEND

(xxx) — Indicates unique room number assigned by inspector

xxxx-xxx — Indicates sample locations which tested positive for asbestos

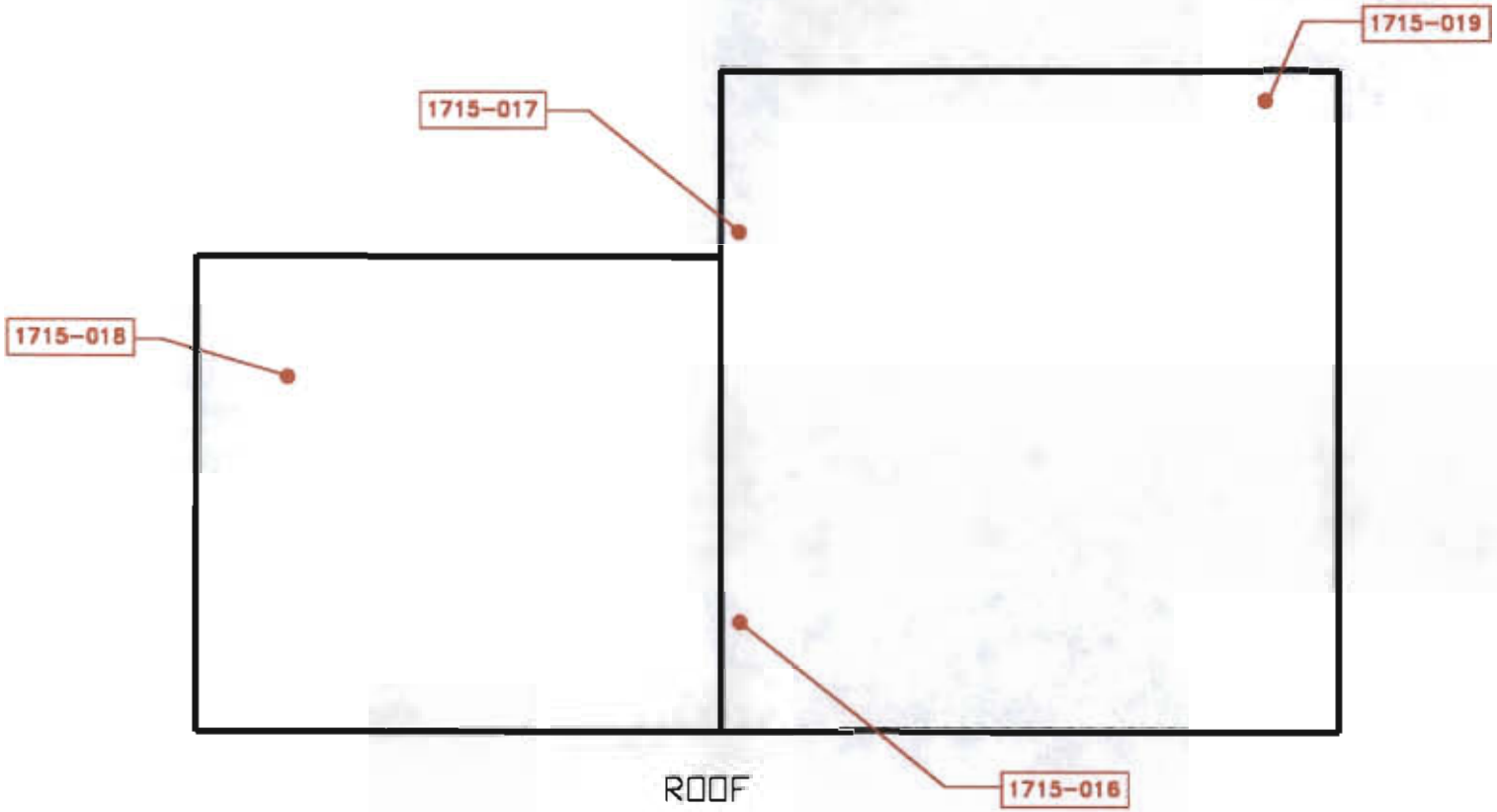
ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE - BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING 1715
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-18-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 1 of 2



LEGEND

XXXX-XXX — Indicates sample locations which tested positive for asbestos

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE - BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING 1715
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-18-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 2 of 2

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 1715

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	$ 12,293	-	N/A	-	$ 4,313
Material/equipment costs	$ 5,218	-	N/A	-	$ 2,837
Disposal costs	$ 1,844	-	N/A	-	$ 1,340
Total cost	**$ 19,355**	-	**$ 0**	-	**$ 8,490**

The total cost for removal of all asbestos listed in the Building Summary Table is $ 19,355. The cost for demolition after asbestos removal is $ 8,490.

BUILDING 1793: Substation Building

1. DESCRIPTION:

Building 1793 is a 1,248 square-foot building. It is a single story, concrete block structure with a built-up roof. The year built was 1974. The following information was identified during the survey and from the analysis of the samples taken:

- Four homogeneous areas were identified during the initial survey.
- Zero homogeneous areas were assumed to contain asbestos.
- Four of the homogeneous areas were suspected to contain asbestos and sampled to confirm.
- One of the suspected homogeneous area was confirmed to contain asbestos.
- Three of the suspected homogenous areas did not contain asbestos.

2. FINDINGS:

Four homogeneous areas with suspected ACM were identified. Eight samples were collected and analyzed. Sample results are summarized in the Laboratory Test Results table in this section. Friable asbestos was found in no homogeneous areas.

Confirmed ACM. The following homogeneous areas sampled were confirmed to contain asbestos:

- H-3: MISC, MASTIC, Black, was Non-friable and Not Damaged.

Asbestos Free. Asbestos was not detected in the following homogeneous areas:

- H-1: MISC, MORTAR, 8" x 8" x 16", Grey
- H-2: MISC, CAULKING, Grey
- H-4: MISC, ROOFING, TAR AND GRAVEL, Black w/felt

Assumed ACM. The following homogeneous areas were assumed to contain asbestos:

- None.

3. OBSERVATIONS:

No observations.

4. RECOMMENDED ABATEMENT ACTIONS:

Recommended actions for the following homogeneous areas:

- H-3: MISC, MASTIC, Black: O&M

5. RECOMMENDATIONS FOR OPERATIONS AND MAINTENANCE:

Operations and Maintenance recommendations for confirmed and assumed homogeneous areas of ACM are found in the Operations & Maintenance Table of this section. The materials listed below should be maintained following the guidelines in an O & M Plan during regular maintenance and small-scale repair activities until removed.

MISC MASTIC is Confirmed, Non-friable ACM.

- H-3 (MASTIC, Black) is located on the Exterior.

BUILDING SUMMARY TABLE

CHARLESTON NAVAL COMPLEX ASBESTOS BUILDING SURVEY

Building No. 1793

H-No	ACM Y,N,A	Material Description	Quantity	Rating	Fria-bility	Cond	% D	Recommended Action	Cost Estimate	Comments
1	N	Misc, MORTAR, 8" x 8" x 16", Grey	5,100 SF	0						
		Rooms 100, EXT								
2	N	Misc, CAULKING, Grey	100 LF	0						
		Rooms EXT								
3	Y	Misc, MASTIC, Black	10 LF	6	Non	PD	0.0	O&M		
		Rooms EXT								
4	N	Misc, ROOFING, TAR AND GRAVEL, Black w/felt	1,248 SF	0						
		Rooms ROOF								

Note Cost estimates are found in the Building Summary section of each building

H-No= Homogenous Area Number, ACM= Asbestos Containing Material. Y=Yes, N= No, A= Assumed, TSI= Thermal System Insulation, Misc= Miscellaneous, Quantity SF= Square Footage, LF= Linear Feet, Friability Mod= Moderate, Condition. PD= Potential for Damage, D= Damaged, SD= Significantly Damaged, Recommended Action O&M= Operation and Maintenance

LABORATORY TEST RESULTS TABLE

CHARLESTON NAVAL COMPLEX
ASBESTOS BUILDING SURVEY
INDUSTRIAL LABORATORY TEST REPORT

Building No. 1793

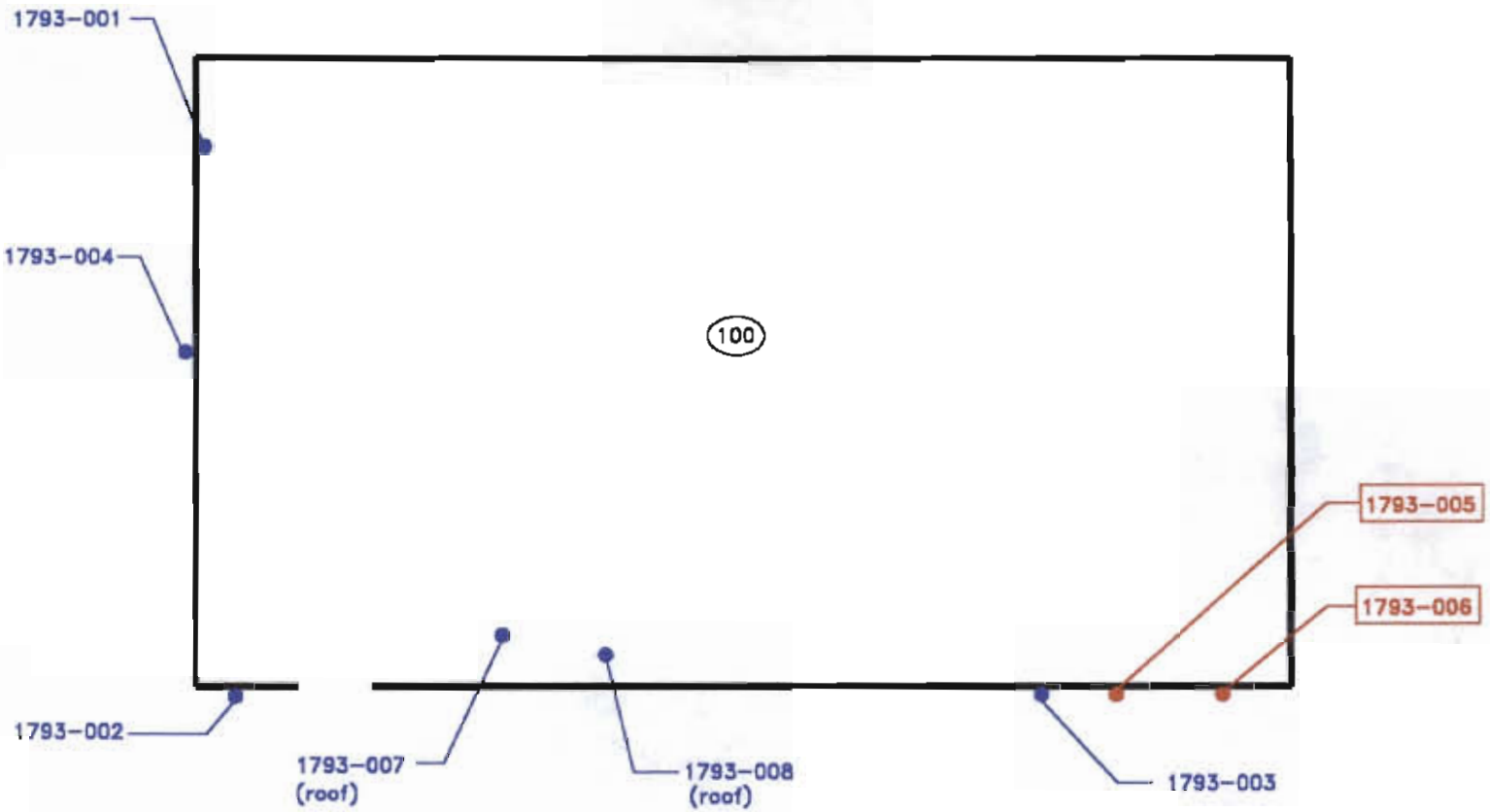
Homo. Area No.	ASB Y/N	Sample Number	Room Number	Material Description:	Date Sampled	Date Analyzed	Sample Results	Percent Asbestos
1	NO	1793-001	100	Misc, MORTAR, 8" x 8" x 16", Grey	07/20/98	07/22/98	No Asbestos Detected	0%
1	NO	1793-002	EXT	Misc, MORTAR, 8" x 8" x 16", Grey	07/20/98	07/22/98	No Asbestos Detected	0%
2	NO	1793-003	EXT	Misc, CAULKING, Grey	07/20/98	07/22/98	No Asbestos Detected	0%
2	NO	1793-004	EXT	Misc, CAULKING, Grey	07/20/98	07/22/98	No Asbestos Detected	0%
3	YES	1793-005	EXT	Misc, MASTIC, Black	08/18/98	08/19/98	Chrysotile	3%
3	YES	1793-006	EXT	Misc, MASTIC, Black	08/18/98	08/19/98	Chrysotile	3%
4	NO	1793-007	ROOF	Misc, ROOFING, Black w/felt	08/18/98	08/18/98	No Asbestos Detected	0%
4	NO	1793-008	ROOF	Misc, ROOFING, Black w/felt	08/18/98	08/18/98	No Asbestos Detected	0%

TEST METHOD. Method for the determination of Asbestos in bulk building materials (EPA/600/R-93/116) DETECTION LIMIT. 1%

Bldg. No.	Homo No.	Material Description	Quantity	Rat-ing	Fria-bility	Condition	% D	Recommended Action
1793	3	Misc, MASTIC, Black	10 LF	6	Non	Not Damaged	0.00	O&M

Locations: Rooms EXT

Homo No= Homogenous Area Number, ACM= Asbestos Containing Material, TSI= Thermal System Insulation, MISC= Miscellaneous, Quantity: SF= Square Footage, LF= Linear Feet, Friability: Mod= Moderate, Non= Non-Friable, Recommended Action: O&M= Operation and Maintenance, Refer to the Operations and Maintenance Plan for standard O&M and Repair procedures



LEGEND

(xxx) — Indicates unique room number assigned by inspector

xxxx-xxx — Indicates sample locations which tested positive for asbestos

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE – BUILDING 30
NORTH CHARLESTON, SOUTH CAROLINA 29405-2106

SAMPLE LOCATIONS
BUILDING 1793
CHARLESTON NAVAL BASE, CHARLESTON, SC

DATE	PREPARED BY:	REV
8-18-98	B.D. MURRAY	ORIG

SCALE: NONE

SHEET 1 of 1

Charleston Naval Complex
Asbestos Abatement & Demolition Estimates

Building 1793

The estimates below reflect costs for removal of all asbestos listed in the Building Summary Table, repair of friable or damaged asbestos only, if applicable, and demolition of building after asbestos removal.

	Total Removal		Repair		Demolition
Labor costs	$ 215	-	N/A	-	$ 4,337
Material/equipment costs	$ 113	-	N/A	-	$ 2,856
Disposal costs	$ 50	-	N/A	-	$ 1,348
Total cost	**$ 378**	**-**	**$ 0**	**-**	**$ 8,541**

The total cost for removal of all asbestos listed in the Building Summary Table is $ 378. The cost for demolition after asbestos removal is $ 8,541.

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: X-10 DATE : 7/15/98

INSPECTORS NAMES: Nelson (PRINT)

INSPECTOR SIGNATURE / LICENSE # : Randy E Todd 22218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
nvironmental Detachment Charleston, SC CNC-X-10 - 001	1	Rm-100	Sheetrock/mud/tape	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 002	1	Rm-103	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 003	1	Rm 107	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 004	2	Rm-103	Mortar	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 005	2	EXT	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 006	3	Rm-100	CT	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 007	3	Rm 104	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 008	4	Rm 103	9x9 FT/mastic	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 009	4	Rm 106	↓ green floor tile	>1% chrysotile
nvironmental Detachment Charleston, SC CNC-X-10 - 010	5	Rm 103	12x12 FT mastic	>1% chrysotile
nvironmental Detachment Charleston, SC CNC-X-10 - 011	5	Rm 103	floor tile ↓	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 012	6	Rm 104	TSI-	70% chrysotile

FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS-FREE ON THE BASIS OF PLM.

SHEET 1 OF 3

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: X-10 DATE: 7/15/98

INSPECTORS NAMES: Nelson (PRINT)

INSPECTOR SIGNATURE / LICENSE #: Randy Cobb 23218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
nvironmental Detachment Charleston, SC CNC-X-10 - 013	6	Rm 104	TSI	70% CHRYSOTILE
nvironmental Detachment Charleston, SC CNC-X-10 - 014	7	Rm 105	12x12 FT/mastic	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 015	7	Rm 105	↓	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 016	8	Rm 105	12x12 FT/mastic	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 017	8	Rm 108	↓	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 018	9	Rm 107	12x12 FT/mastic	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 019	9	Rm 109	↓	* Tile: Not determined
nvironmental Detachment Charleston, SC CNC-X-10 - 020	10	Rm 108	Covin/mastic	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 021	10	Rm 200	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 022	11	EXT	Mortar	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 023	11	EXT	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 024	12	EXT	Caulking	NONE

FLOOR TILE CAN NOT BE determined TO BE ASBESTOS FREE ON THE BASIS OF PLM.

SHEET 2 OF 3

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: X-10 DATE: 7/15/98

INSPECTORS NAMES: NELSON (PRINT)

INSPECTOR SIGNATURE / LICENSE #: [signature] 33218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
nvironmental Detachment Charleston, SC CNC-X-10 - 025	12	EXT.	CAULKING	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 026	13	EXT	GLAZING	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 027	13	EXT	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 028	14	ROOF	ROLL ROOF/TAR	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 029	14	ROOF	↓	NONE
nvironmental Detachment Charleston, SC CNC-X-10 - 030	15	ROOF	SEALER MASTIC	>1% CHRYSOTILE ~~NONE~~ 7-13-98
nvironmental Detachment Charleston, SC CNC-X-10 - 031	15	ROOF	MASTIC TAR	3% CHRYSOTILE
nvironmental Detachment Charleston, SC CNC-X-10 - 032	16	ROOF	TAR ON BACK ~~SEALANT~~ GREY SEALANT	3% CHRYSOTILE
nvironmental Detachment Charleston, SC CNC-X-10 - 033	16	ROOF	SILVER SEALANT	NONE

SHEET 3 OF 3

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE: 8/3/98

INSPECTORS NAMES: ADKINS / MAY
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-NH46 - 001	1	B-101	4"x8"x16 Concrete Block & mortar	NONE
Environmental Detachment Charleston SC CNC-NH46 - 002	1	B-101		NONE
Environmental Detachment Charleston, SC CNC-NH46 - 003	2	B-102	8"x8"x16 Concrete Block & mortar	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 004	2	B-103		NONE
Environmental Detachment Charleston, SC CNC-NH46 - 005	3	B-107	Brick & mortar	NONE
Environmental Detachment Charleston SC CNC-NH46 - 006	3	B-107		NONE
Environmental Detachment Charleston, SC CNC-NH46 - 007	4	B-109	9"x9" Green F/T w/mastic	>1% Chrysotile
Environmental Detachment Charleston SC CNC-NH46 - 008	4	B-111	Tile & mastic	>1% Chrysotile
Environmental Detachment Charleston SC CNC-NH46 - 009	5	B-111	9"x9" white F/T w/mastic	>1% Chrysotile
Environmental Detachment Charleston, SC CNC-NH46 - 010	5	B-111	Tile & mastic	>1% Chrysotile
Environmental Detachment Charleston, SC CNC-NH46 - 011	6	B-115	9"x9" Gray F/T w/mastic	>1% Chrysotile
Environmental Detachment Charleston SC CNC-NH46 - 012	6	B-115	Tile & mastic	>1% Chrysotile

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE : 8/3/98

INSPECTORS NAMES: ADKINS / MAY (PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 2/524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-NH46 - 013	7	B-115	9"x9" RED FIT w/MASTIC	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-NH46 - 014	7	B-115	TILE & MASTIC	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-NH46 - 015	8	B-115	LONG GROOVE CEILING TILE	NONE
Environmental Detachment Charleston SC CNC-NH46 - 016	8	B-119		NONE
Environmental Detachment Charleston, SC CNC-NH46 - 017	9	B-119	9"x9" BROWN FIT w/MASTIC	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-NH46 - 018	9	B-119	TILE & MASTIC	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-NH46 - 019	10	B-119	BIG HOLES CEILING TILE	3% AMOSITE
Environmental Detachment Charleston SC CNC-NH46 - 020	10	B-119	CEILING TILE	3% AMOSITE

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE: 8-17-98

INSPECTORS NAMES: A. CHARLES / R. ADKINS
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : Hamiett Charles 21091 / Randy Adkins 22218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-NH46 - 021	11	Rm 100	CEILING TILE 2x2 SMALL GROOVE	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 022	11	Rm 100	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 023	12	Rm 101	CEILING TILE 2x4' WINGS	NONE
Environmental Detachment Charleston SC CNC-NH46 - 024	12	Rm 101	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 025	13	Rm 132	4" BROWN COVING / MASTIC	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 026	13	Rm 132	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 027	14	Rm 103	4" BLACK COVING / MASTIC	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 028	14	Rm 103	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 029	15	Rm 105	6"x6" QUARRY TILE RED / GROUT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 030	15	Rm 105	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 031	16	Rm 132	6" BROWN COVING / MASTIC	NONE
Environmental Detachment Charleston SC CNC-NH46 - 032	16	Rm 132	↓	NONE

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE : 8-17-98

INSPECTORS NAMES: H. CHARLES / R. ADKINS
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : Harriett Charles 21091 / Randy E. Adk 22218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-NH46 - 033	17	RM 106	6"X12" GREEN QUARRY TILE/GROUT	NONE
Environmental Detachment Charleston SC CNC-NH46 - 034	17	RM 106	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 035	19	RM 109	3"X6" CERAMIC TILE - WHITE/ GROUT	NONE
Environmental Detachment Charleston SC CNC-NH46 - 036	19	RM 109	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 037	20	RM 108	3" HEX CERAMIC TILE BEIGE/ GROUT	NONE
Environmental Detachment Charleston SC CNC-NH46 - 038	20	RM 108	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 039	21	RM 110	3" HEX CERAMIC TILE BLUE/ GROUT	NONE
Environmental Detachment Charleston SC CNC-NH46 - 040	21	RM 110	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 041	22	RM 111	2'X4' BIRD FEET CT	NONE
Environmental Detachment Charleston SC CNC-NH46 - 042	22	RM 111	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 043	23	H-100	FLOOR TILE 12"X12"* BEIGE W/ WHITE MARBLE (BLACK MASTIC)	TILE: NOT DETERMINED > 1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-NH46 - 044	23	H-100	↓ (BLACK MASTIC)	* TILE: NOT DETERMINED > 1% CHRYSOTILE

FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF OLM.

SHEET 2 OF 5

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE: 8-17-98

INSPECTORS NAMES: H. CHARLES / R. ADKINS
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: Harriett Charles 21091 / Randy Adkins 2221

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NH46 - 045	24	RM 132	2'X4 CEILING TILE SMALL PIN HOLES FT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 046	24	↓	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 047				
Environmental Detachment Charleston SC CNC-NH46 - 048				
Environmental Detachment Charleston, SC CNC-NH46 - 049	26	RM 121	4"X4" CERAMIC TILE YELLOW/ GROUT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 050	26	↓	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 051	27	RM 122	T FITTING TSI	NONE
Environmental Detachment Charleston SC CNC-NH46 - 052	27	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 053	28	RM 122	6"X6" CERAMIC TILE / YELLOW / GROUT	NONE
Environmental Detachment Charleston SC CNC-NH46 - 054	28	↓	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 055	29	RM 125	6"X6" CONCRETE BLOCK - MORTAR	NONE
Environmental Detachment Charleston SC CNC-NH46 - 056	29	↓	↓	NONE

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE: 8-17-98

INSPECTORS NAMES: H. CHARLES / R. ADKINS (PRINT)

INSPECTOR SIGNATURE / LICENSE #: Harriett Charles 21091 / Randy E. [illegible] 22218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-NH46 - 057	30	RM ~~126~~ 138	2"X2" PINK CERAMIC TILE / GROUT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 058	30	RM ~~126~~ 138	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 059	31	RM 138	4"X4" PINK CERAMIC TILE / GROUT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 060	31	RM 138	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 061	32	RM ~~126~~ 139	2"X2" DARK BEIGE CERAMIC TILE - GROUT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 062	32	RM ~~126~~ 139	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 063	33	RM ~~126~~ 139	4"X4" BEIGE CERAMIC TILE / GROUT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 064	33	RM ~~126~~ 139	~~8"X16" CONCRETE BLOCK~~ / ↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 065	34	EXT.	CONCRETE BLOCK 8"X16"	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 066	34	EXT	↓	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 067	35	EXT	WINDOW GLAZING WHITE	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 068	35	EXT	↓	NONE

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: NH-46 DATE: 8-17-98

INSPECTORS NAMES: H. CHARLES / R. ADKINS
(PRINT)

INSPECTOR SIGNATURE / LICENSE # Harriett Charles 21091 / Randy E. [illegible] 22218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-NH46 - 069	36	RM ~~109~~ 109	4'x8' SHEETROCK MUD AND TAPE	NONE
Environmental Detachment Charleston SC CNC-NH46 - 070	36	RM 109	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 071	37	RM ~~109~~ 130	2'x4' WHITE (EXTRA LARGE HOLES CT	NONE
Environmental Detachment Charleston, SC CNC-NH46 - 072	37	RM 130	↓	NONE
Environmental Detachment Charleston SC CNC-NH46 - 073				
Environmental Detachment Charleston, SC CNC-NH46 - 074				
Environmental Detachment Charleston SC CNC-NH46 - 075				

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE : 7/7/98

INSPECTORS NAMES: MAY/Nelson
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W.E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-56 - 001	1	Room 100	12"x12" DARK BROWN F/T w/MASTIC	* TILE: NOT determined
Environmental Detachment Charleston SC CNC-56 - 002	1	Room 100	F/T	* TILE: NOT determined
Environmental Detachment Charleston SC CNC-56 - 003	2	Room 100	LONG GROOVE Ceiling TILE	NONE
Environmental Detachment Charleston SC CNC-56 - 004	2	Room 100		NONE
Environmental Detachment Charleston SC CNC-56 - 005	3	Room 101	TSI Piping	Amosite=40% Chrysotile=3%
Environmental Detachment Charleston SC CNC-56 - 006	3	Room 112	TSI	5% Chrysotile
Environmental Detachment Charleston SC CNC-56 - 007	3	Room ~~200~~ 212		NONE
Environmental Detachment Charleston SC CNC-56 - 008	3	Room 203	TSI	Amosite=40% Crocidolite=>1%
Environmental Detachment Charleston SC CNC-56 - 009	3	Room 204	TSI	>1% Chrysotile
Environmental Detachment Charleston SC CNC-56 - 010	3	Room ~~2#~~ 112	TSI	85% Amosite
Environmental Detachment Charleston SC CNC-56 - 011	4	Room 101	TSI Fitting	Amosite=30% Chrysotile=10%
Environmental Detachment Charleston SC CNC-56 - 012	4	Room 112	TSI	Amosite=>1% Chrysotile=40%

* FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS FREE ON THE BASIS OF PLM.

SHEET 1 OF 6

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE : 7/17/98

INSPECTORS NAMES: MAY/Nelson
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-56 - 013	4	Room ~~200~~ 212	TSI Fitting	NONE
Environmental Detachment Charleston, SC CNC-56 - 014	5	Room 101	WINDOW GLAZING	NONE
Environmental Detachment Charleston SC CNC-56 - 015	5	Room 200	RED GLAZING	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 016	6	Room 101	TERRACOTTA TILE w/MORTAR	NONE
Environmental Detachment Charleston SC CNC-56 - 017	6	Room 208		NONE
Environmental Detachment Charleston SC CNC-56 - 018	7	Room 101	CONCRETE BLOCK w/MORTAR	NONE
Environmental Detachment Charleston SC CNC-56 - 019	7	Room 209		NONE
Environmental Detachment Charleston SC CNC-56 - 020	8	Room 101	SINK BLACK UNDERCOATING	>1% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-56 - 021	8	Room 109	BLACK MAT	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 022	9	Room 101	TSI VENT DUCT	40% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 023	9	Room 102		NONE
Environmental Detachment Charleston SC CNC-56 - 024	9	Room 211		NONE

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE: 7/17/98

INSPECTORS NAMES: MAY / Nelson
(PRINT)

INSPECTOR SIGNATURE / LICENSE #: W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-56 - 025	10	Room 102	~~12"x12" white w/black~~ GREEN TILE Floor Tile w/mastic	>1% Chrysotile
Environmental Detachment Charleston SC CNC-56 - 026	10	Room 104	GREEN TILE	>1% Chrysotile
Environmental Detachment Charleston SC CNC-56 - 027	11	Room 102	6" Black coving w/mastic	NONE
Environmental Detachment Charleston SC CNC-56 - 028	11	Room 105		NONE
Environmental Detachment Charleston SC CNC-56 - 029	12	Room 102	Short Groove Ceiling Tile	NONE
Environmental Detachment Charleston SC CNC-56 - 030	12	Room 108		NONE
Environmental Detachment Charleston SC CNC-56 - 031	13	Room 102	Many grooves Ceiling Tile	NONE
Environmental Detachment Charleston SC CNC-56 - 032	13	Room 202		NONE
Environmental Detachment Charleston SC CNC-56 - 033	14	Room 103	12"x12" Brown & white Floor Tile w/mastic	* Tile: Not determined
Environmental Detachment Charleston SC CNC-56 - 034	14	Room 103		* Tile: Not determined
Environmental Detachment Charleston SC CNC-56 - 035	15	Room 104	4" Black coving w/mastic	NONE
Environmental Detachment Charleston, SC CNC-56 - 036	15	Room 106		NONE

Floor Tile can not be determined to be asbestos-free on the basis of PLM.

SHEET 3 OF 6

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE : 7/17/98

INSPECTORS NAMES: MAY / Nelson
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-56 - 037	16	Room 106	Sheetrock w/mud & Tape	NONE
Environmental Detachment Charleston SC CNC-56 - 038	16	Room 203	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 039	17	Room 108	12"x12" pin Hole Ceiling Tile w/mastic	NONE
Environmental Detachment Charleston SC CNC-56 - 040	17	Room 212	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 041	18	Room 109	4"x 4" Quarry Tile w/mortar	NONE
Environmental Detachment Charleston, SC CNC-56 - 042	18	Room 200	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 043	19	Room 110	4" Brown coving w/mastic	NONE
Environmental Detachment Charleston SC CNC-56 - 044	19	Room 206	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 045	20	Room 114	Block insulation	NONE
Environmental Detachment Charleston SC CNC-56 - 046	20	Room 114	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 047	20	Room 114	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 048	21	Room 114	Furnace insulation	NONE

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE : 7/17/98

INSPECTORS NAMES: MAY / Nelson
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W.E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-56 - 049	21	Room 114	FURNACE INSULATION	NONE
Environmental Detachment Charleston SC CNC-56 - 050	21	Room 114	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 051	22	Room 201	CAULKING	NONE
Environmental Detachment Charleston SC CNC-56 - 052	22	Room 201	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 053	23	Room 202	12" X 12" TEXTURE Ceiling TILE	NONE
Environmental Detachment Charleston SC CNC-56 - 054	23	Room 202	↓	NONE
Environmental Detachment Charleston SC CNC-56 - 055	24	Room 210	TSI INSULATION BOARD	70% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 056	24	Room 210	TSI Insulation Board	70% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 057	25	ROOF	FELT TAR & ROCK	NONE
Environmental Detachment Charleston SC CNC-56 - 058	25	↓	TAR	TRACE < 1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 059	26	↓	TAR GRAY SEALANT	70% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 060	26	↓	SEALANT TAR	70% CHRYSOTILE

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE : 7/17/98

INSPECTORS NAMES: MAY/NELSON
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W.E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-56 - 061	27	ROOF	LIGHT GRAY TAR SEALANT	50% CHRYSOTILE
Environmental Detachment Charleston SC CNC-56 - 062	27	ROOF	TAR SEALANT	40% CHRYSOTILE

SHEET 6 OF 6

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 56 DATE : 7/23/98

INSPECTORS NAMES: MAY
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W.E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
CNC-56-063	28	Room 104	9"x9" GRAY FLOOR TILE w/MASTIC	* TILE: Not determined
CNC 56-064	28	Room 108	↓	* TILE: Not determined
CNC 56-065	29	Room 102	12"x12" GRAY & BLACK FLOOR TILE w/MASTIC	* TILE: Not determined
CNC 56-066	29	Room 104	↓	* TILE: Not determined

SHEET 1 OF 1

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1503 DATE: 7/20/98

INSPECTORS NAMES: Nelson / MAY
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-1503 - 001	1	Room 100	12"x12" BROWN & WHITE FLOOR TILE W/MASTIC	* TILE: Not determined
Environmental Detachment Charleston SC CNC-1503 - 002	1	Room 102	↓	* TILE: Not determined
Environmental Detachment Charleston, SC CNC-1503 - 003	2	Room 100	4" BROWN COVING W/MASTIC	NONE
Environmental Detachment Charleston, SC CNC-1503 - 004	2	Room 101	↓	NONE
Environmental Detachment Charleston, SC CNC-1503 - 005	3	Room 100	Sheet Rock W/MUD & Tape	NONE
Environmental Detachment Charleston, SC CNC-1503 - 006	3	Room 102	↓	NONE
Environmental Detachment Charleston SC CNC-1503 - 007	4	Room 100	LONG GROOVE Ceiling TILE	NONE
Environmental Detachment Charleston SC CNC-1503 - 008	4	Room 100	↓	NONE
Environmental Detachment Charleston SC CNC-1503 - 009	5	Room 100	BLACK MASTIC AROUND DOOR	NONE
Environmental Detachment Charleston, SC CNC-1503 - 010	5	Room 100	↓	NONE
Environmental Detachment Charleston, SC CNC-1503 - 011	6	Room 101	12"x12" ORANGE FLOOR TILE W/ MASTIC	* TILE: Not determined CHRYSOTILE >1%
Environmental Detachment Charleston SC CNC-1503 - 012	6	Room 101	↓ MASTIC	* TILE: Not determined CHRYSOTILE >1%

. FLOOR TILE CAN NOT BE DETERMINED TO BE ASBESTOS-FREE ON THE BASIS OF P.L.M.

SHEET 1 OF 2

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1503 DATE : 7/20/98

INSPECTORS NAMES: Nelson / MAY
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-1503 - 013	7	ROOM 101	WINDOW GLAZING	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1503 - 014	7	ROOM 103	WINDOW GLAZING	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1503 - 015	8	EXT	CONCRETE BLOCK W/MORTAR	NONE
Environmental Detachment Charleston SC CNC-1503 - 016	8	EXT	↓	NONE

SHEET 2 OF 2

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1655 DATE : 7/22/98

INSPECTORS NAMES: Nelson / May / Adkins
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1655 - 001	1	Room 100	4" Black Coving w/mastic	NONE
Environmental Detachment Charleston SC CNC-1655 - 002	1	Room 100	↓	NONE
Environmental Detachment Charleston SC CNC-1655 - 003	2	Room 100	Sheet Rock w/mud & Tape	NONE
Environmental Detachment Charleston SC CNC-1655 - 004	2	Room 101	↓	NONE
Environmental Detachment Charleston SC CNC-1655 - 005	3	H-100	4" Gray Coving w/mastic	NONE
Environmental Detachment Charleston SC CNC-1655 - 006	3	H-100	↓	NONE
Environmental Detachment Charleston SC CNC-1655 - 007	4	Room 101	2"x2" Ceramic Tile w/Grout	NONE
Environmental Detachment Charleston SC CNC-1655 - 008	4	Room 102	↓	NONE
Environmental Detachment Charleston SC CNC-1655 - 009	5	Room 101	4"x4" Ceramic Tile w/Grout	NONE
Environmental Detachment Charleston, SC CNC-1655 - 010	5	Room 102	↓	NONE
Environmental Detachment Charleston SC CNC-1655 - 011	6	Room 103	White Vent Duct mastic	NONE
Environmental Detachment Charleston SC CNC-1655 - 012	6	Room 200	↓	NONE

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1655 DATE: 7/22/98

INSPECTORS NAMES: Nelson / May / Adkins
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W. E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-1655 - 013	7	Room 104	SPRAYED ON	NONE
Environmental Detachment Charleston SC CNC-1655 - 014	7	Room 104		NONE
Environmental Detachment Charleston SC CNC-1655 - 015	7	Room 105		NONE
Environmental Detachment Charleston SC CNC-1655 - 016	7	Room 105		NONE
Environmental Detachment Charleston SC CNC-1655 - 017	7	Room 106		NONE
Environmental Detachment Charleston SC CNC-1655 - 018	7	Room 106		NONE
Environmental Detachment Charleston SC CNC-1655 - 019	7	Room 201		NONE
Environmental Detachment Charleston SC CNC-1655 - 020	8	EXTERIOR	CONCRETE BLOCK W/MORTAR	NONE
Environmental Detachment Charleston, SC CNC-1655 - 021	8	EXTERIOR		NONE

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1715 DATE : 7/20/98

INSPECTORS NAMES: Nelson (PRINT)

INSPECTOR SIGNATURE / LICENSE # : [signature] 2221B

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-1715 - 001	1	Rm 100	Sheetrock Mud/Tape	NONE
Environmental Detachment Charleston SC CNC-1715 - 002	1	Rm 102	↓	NONE
Environmental Detachment Charleston SC CNC-1715 - 003	2	Rm 100	Spray on Acoustical	NONE
Environmental Detachment Charleston, SC CNC-1715 - 004	2	↓	↓	NONE
Environmental Detachment Charleston SC CNC-1715 - 005	2	↓	↓	NONE
Environmental Detachment Charleston SC CNC-1715 - 006	2	↓	↓	NONE
Environmental Detachment Charleston SC CNC-1715 - 007	2	↓	↓	NONE
Environmental Detachment Charleston SC CNC-1715 - 008	2	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-1715 - 009	2	↓	↓	NONE
Environmental Detachment Charleston, SC CNC-1715 - 010	3	Rm-101	Fit/Mastic *	TILE: Not determined
Environmental Detachment Charleston SC CNC-1715 - 011	3	↓	Floor Tile *	TILE: Not determined
Environmental Detachment Charleston SC CNC-1715 - 012	4	Rm 101	CT	NONE

FLOOR TILE CAN NOT BE DETERMINED
TO BE ASBESTOS-FREE
ON THE BASIS OF PLM.

SHEET 1 OF 2

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1715 DATE : 7/20/98

INSPECTORS NAMES: Nelson (PRINT)

INSPECTOR SIGNATURE / LICENSE # : [signature] 22218

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston SC CNC-1715 - 013	4	Rm-101	CT	NONE
Environmental Detachment Charleston SC CNC-1715 - 014	5	Rm-102	Sink undercoating	40% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1715 - 015	5	Rm-102	SINK UNDERCOAT	40% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1715 - 016	6	Roof	MASTIC	30% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1715 - 017	6	Roof	mastic	30% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1715 - 018	7	Roof	Silver Sealant	>1% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1715 - 019	7	—	SILVER SEALANT	>1% CHRYSOTILE

SHEET 2 OF 2

SMPLOG-98

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1793 DATE : 7/20/98

INSPECTORS NAMES: NELSON / MAY
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : W.E. May 21524

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #, Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1793 - 001	1	INTERIOR	CONCRETE BLOCK W/MORTAR	NONE
Environmental Detachment Charleston SC CNC-1793 - 002	1	EXTERIOR	↓	NONE
Environmental Detachment Charleston SC CNC-1793 - 003	2	EXTERIOR	CAULKING	NONE
Environmental Detachment Charleston SC CNC-1793 - 004	2	EXTERIOR	↓	NONE

SHEET 1 OF 1

ASBESTOS LABORATORY SAMPLE LOG

FACILITY: CNC

BUILDING #: 1793 DATE : 8/18/98

INSPECTORS NAMES: BUTLER / MAY
(PRINT)

INSPECTOR SIGNATURE / LICENSE # : R. Butler 22415

SAMPLE NO.	HOMO #	SAMPLE LOCATION (Room #, Floor #; Etc.)	SAMPLE DESCRIPTION	RESULTS
Environmental Detachment Charleston, SC CNC-1793 - 005	3	EXT	Black Mastic	3% CHRYSOTILE
Environmental Detachment Charleston, SC CNC-1793 - 006	3	EXT	BLACK MASTIC	3% CHRYSOTILE
Environmental Detachment Charleston SC CNC-1793 - 007	4	ROOF	Tar & Felt	NONE
Environmental Detachment Charleston SC CNC-1793 - 008	4	ROOF		NONE

SHEET 1 OF 1

SMPLOG-98

General Engineering ...
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

CHAIN OF CUSTODY RECORD

Page_____ of _____

Client Name/Facility Name: SPORTENVDET CHASN

Collected by/Company: SPORTENVDET CHASN

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type		ASBESTOS TEM - BULK	Remarks
SPRT0756-1	7-16-98	0900				✓	1																	✓	CNC-X-10-008
Sport0756-2	7-16-98	0900				✓	1																	✓	CNC-X-10-011
Sport0756-3	7-16-98	0900				✓	1																	✓	CNC-X-10-014
Sport0756-4	7-16-98	0900				✓	1																	✓	CNC-X-10-017
Sport0756-5	7-16-98	0900				✓	1																	✓	CNC-X-10-019

* ANALYZE FILE ONLY

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
Jimmy L. Smith	7-16-98	1000	Vivian Washington	Vivian Washington	7/16/98	1445	Stephanie Baldwin
Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:	

White = sample collector Yellow = file Pink = with report

General Engineering Laboratories, Inc
2040 Savage Road
Charleston, South Carolina 7
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

CHAIN OF CUSTODY RECORD

Client Name/Facility Name: SPORT ENV DET CHASN

Collected by/Company: SPORT ENV DET CHASN

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type		ASBESTOS TEM - BULK	Remarks
SPORT0770-1	7-23-98	1100				✓	1																	✓	Ft. STEW 616-028
* SPORT0770-2	7-23-98	1100				✓	1																	✓	CNC-57-045
SPORT0770-3	7-23-98	1100				✓	1																	✓	CNC-57-057
SPORT0770-4	7-23-98	1100				✓	1																	✓	CNC-57-069
SPORT0770-5	7-23-98	1100				✓	1																	✓	CNC-1503-001
SPORT0770-6	7-23-98	1100				✓	1																	✓	Ft. STEW-418-008
SPORT0770-7	7-23-98	1100				✓	1																	✓	Ft. STEW-418-009
SPORT0770-8	7-23-98	1100				✓	1																	✓	CNC-1715-010
SPORT0770-9	7-23-98	1100				✓	1																	✓	CNC-56-033
SPORT0770-10	7-23-98	1100				✓	1																	✓	CNC-56-001
SPORT0770-11	7-23-98	1100				✓	1																	✓	Ft. STEW-09-001

* PLEASE ANALYZE BOTH TILE & MASTIC IN THIS SAMPLE. (SPORT0770-2)
ALL OTHER SAMPLES CAN BE ANALYZED JUST ON THE TILE

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
Jammy L. Smith	7-23-98	1300	Vivian Washington	Vivian Washington	7/23/98	1435	Michael Calvary
Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:	

White = sample collector Yellow = file Pink = with report

"3" DAY TURN AROUND

CHAIN OF CUSTODY RECORD

General Engineering Laboratories, Inc
2040 Savage Road
Charleston, South Carolina 29407
P.O. Box 30712
Charleston, South Carolina 29417
(803) 556-8171

Page 1 of 1

Client Name/Facility Name: SPORT ENV DET CHASN

Collected by/Company: SPORT ENV DET CHASN

SAMPLE ANALYSIS REQUIRED (x) - use remarks area to specify specific compounds or methods

Use F or P in the boxes to indicate whether sample was filtered and/or preserved

SAMPLE ID	DATE	TIME	WELL	SOIL	COMP	GRAB	# OF CONTAINERS	pH, conductivity	TOC/DOC	TOX	Chloride, Fluoride, Sulfide	Nitrite/Nitrate	VOC - Specify Method required	METALS - specify	Pesticide	Herbicide	Total Phenol	Acid Extractables	B/N Extractables	PCB's	Cyanide	Coliform - specify type	ASBESTOS	TEM Bulk	Remarks
SPORT0776-1	8-03-98	0930				✓	1																X		CNC-056-064
SPORT0776-2	8-03-98	0930				✓	1																		CNC-056-065

* ANALYZE 7, 16 ONLY

Relinquished by:	Date:	Time:	Received by:	Relinquished by:	Date:	Time:	Received by:
Jimmy L. Smith	8-03-98	0930	Vivian Washington		8/3/98	1515	Stephanie Brockington
Relinquished by:	Date:	Time:	Received by lab by:	Date:	Time:	Remarks:	

White = sample collector Yellow = file Pink = with report

ASBESTOS
CHAIN OF CUSTODY FORM

FACILITY: CNC **BUILDING #:** X-10

INSPECTOR'S NAME(S): Nelson (PRINT) **DATE :** 7/15/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 33

Sample #s	Relinquished by;	Received by;	Date
CNC-X-10-001 thr 033	[signature]	Jimmy L. Smith	7-15-98

Additional Information / Comments

ANALYSIS

Analysis Completed **Sample #s**

Authenticated by: Jimmy L. Smith **Date** 7-15-98 X-10 001 thr 033

Authenticated by: **Date**

Authenticated by: **Date**

>Identification is determined by Polarized Light Microscopy and Dispersion Staining<

Notify of Results: [signature] **Phone** 743-6777-143

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106
(803) 743-6777

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC BUILDING #: NH-46

INSPECTORS NAME: ADKINS / MAY (PRINT) DATE: 8/3/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 20

Sample #s	Relinquished by:	Received by:	Date
CNC-NH46-001 THRU 020	W. E. May	Jimmy L. Smith	8-04-98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by; Jimmy L. Smith	Date 8-05-98		CNC BNH-46 001 THRU 020
Authenticated by;	Date		
Authenticated by;	Date		

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzan Phone 743-6777 Ext - 238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC **BUILDING #:** NH-46

INSPECTORS NAME: H. CHARLES / R. ADKINS (PRINT) **DATE:** 8-17-98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 52

Sample #s	Relinquished by:	Received by:	Date
CNC-NH-46-021 THRU-046	8-17-98 Harriett Charles	W. E. May	8/18/98
CNC NH46 049 thru 072			

Additional Information / Comments

ANALYSIS

Analysis Completed		Sample #s
Authenticated by; Jimmy L. Smith	Date 8-20-98	CNC NH-46 021 THRU 046 NH-46 049 THRU 072
Authenticated by;	Date	
Authenticated by;	Date	

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzen **Phone** 743-6777 Ext. 238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

X-C-5

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC BUILDING #: 56

INSPECTORS NAME: MAY / Nelson (PRINT) DATE : 7/17/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 62

Sample #s	Relinquished by:	Received by:	Date
CNC-56-001 Thru 062	W. E. May	Jimmy J. Smith	7-20-98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by; Jimmy J. Smith	Date 7-20-98		CNC 13-56-001 thru 062
Authenticated by;	Date		
Authenticated by;	Date		

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzen Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC BUILDING #: 56

INSPECTORS NAME: MAY (PRINT) DATE : 7/23/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 4

Sample #s	Relinquished by:	Received by:	Date
CNC-56-063 THRU 066	W.E. May	Jeremy L. Smith	7-23-98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by: Jeremy L. Smith	Date 7-23-98		CNC 56-063 THRU 066
Authenticated by;	Date		
Authenticated by;	Date		

>Identification is determined by Polarized Light Microscopy and Dispersion Staining<

Notify of Results: Maltzer Phone 743-6777 EXT- 238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC BUILDING #: 1503

INSPECTORS NAME: Nelson / MAY (PRINT) DATE : 7/20/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 16

Sample #s	Relinquished by:	Received by:	Date
CNC1503-001 Thru 016	W. E. May	Jimmy L. Smith	7-21-98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by; Jimmy L. Smith	Date 7-22-98		CNC B-1503-001 THRU 016
Authenticated by;	Date		
Authenticated by;	Date		

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: Moltzen Phone 743-6777 Ext-238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC **BUILDING #:** 1655

INSPECTORS NAME: Nelson / Ray (PRINT) **DATE :** 7/22/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 21

Sample #s	Relinquished by:	Received by:	Date
CNC-1655-001 thru 021	[signature]	Jimmy L Smith	7-22-98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by: Jimmy L Smith	Date 7-23-98		B-1655001 thru 021
Authenticated by;	Date		
Authenticated by;	Date		

>Identification is determined by Polarized Light Microscopy and Dispersion Staining<

Notify of Results: [signature] **Phone** 743-6777 Ext 143

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106

ASBESTOS CHAIN OF CUSTODY FORM

FACILITY: CNC **BUILDING #:** 1715

INSPECTORS NAME: NELSON (PRINT) **DATE :** 7/20/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 19

Sample #s	Relinquished by:	Received by:	Date
CNC-1715-001 thru 019	[signature]	Jimmy L. Smith	7-20-98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by; Jimmy L. Smith	Date 7-21-98		CNC B-1715-001 thru 019
Authenticated by;	Date		
Authenticated by;	Date		

> Identification is determined by Polarized Light Microscopy and Dispersion Staining <

Notify of Results: [signature] **Phone** 743-6777-Ext 143

ASBESTOS
CHAIN OF CUSTODY FORM

FACILITY: CNC **BUILDING #:** 1793

INSPECTOR'S NAME(S): Nelson/May (PRINT) **DATE :** 7/20/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 4

Sample #s	Relinquished by;	Received by;	Date
CNC 1793-001 Thru 004	W. E. May	Jenny L Smith	7-22-98

Additional Information / Comments

ANALYSIS

Analysis Completed		Sample #s
Authenticated by;	Date	
Authenticated by;	Date	
Authenticated by;	Date	

>Identification is determined by Polarized Light Microscopy and Dispersion Staining

Notify of Results: Moltzen **Phone** 743-6777 Ext. 238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106
(803) 743-6777

ASBESTOS
CHAIN OF CUSTODY FORM

FACILITY: CNC BUILDING #: 1793

INSPECTOR'S NAME(S): Butler- May (PRINT) DATE : 8/18/98

TOTAL NUMBER OF SAMPLES RELINQUISHED: 4

Sample #s	Relinquished by:	Received by:	Date
CNC-1793-005 THRU 008	R. Butler	W.E. May	8/18/98

Additional Information / Comments

ANALYSIS

Analysis Completed			Sample #s
Authenticated by: Jerry L. Smith	Date 8-19-98		CNC-1793-005 ~~THRU 006~~
Authenticated by: W.E. May	Date 8/19/98		CNC-1793-007 ~~THRU 008~~
Authenticated by:	Date		

>Identification is determined by Polarized Light Microscopy and Dispersion Staining<

Notify of Results: Mattran Phone 743-6777 Ext. 238

ENVIRONMENTAL DETACHMENT CHARLESTON
1899 NORTH HOBSON AVENUE
NORTH CHARLESTON, SC 29405-2106
(803) 743-6777

Westmont, NJ (609) 858-1260 | Piscataway, NJ (908) 981-0580 | Carle Place, NY (516) 997-7251 | Atlanta, GA (770) 866-9190 | Melbourne, FL (407)253-4224 | Ann Arbor, MI (313) 668-6810 | San Mateo, CA (415) 570-5401
EMSL

General Engineering Laboratories, Inc.
Attention: Karen Blakeney
P.O. Box 30712
Charleston, SC 29417

Tuesday, July 23, 1998

Reference No: GA981764

Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method*

Project: NPWC 00197

Sample ID	% Weight of Organic Material	% Weight of Acid Soluble Material	Asbestos Type**	TEM Results** % Asbestos
SPORT 0756-1	32.4	26.6	None Detected	0
SPORT 0756-2	32.8	26.2	None Detected	0
SPORT 0756-3	22.0	68.1	Chrysotile	2.2
SPORT 0756-4	19.2	65.9	Chrysotile	4.1
Yellow Floor Tile SPORT 0756-5	19.0	80.8	None Detected	0
Green Floor Tile SPORT 0756-5	20.0	71.4	None Detected	0

Laboratory Manager
Rachel Travis

*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.
**To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.
NVLAP# 101048-1

Westmont, NJ (609) 858-1260 | Piscataway, NJ (918) 981-0550 | Carle Place, NY (516) 997-7251 | Atlanta, GA (770) 956-9150 | Melbourne, FL (407)253-4224 | Ann Arbor, MI (313) 668-6610 | San Mateo, CA (415) 570-5401

EMSL

General Engineering Laboratories, Inc.
Attention: Karen Blakeney
P.O. Box 30712
Charleston, SC 29417

Tuesday, July 29, 1998

Reference No: GA981840

Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method*

Project: NPWC 00197

Sample ID	% Weight of Organic Material	% Weight of Acid Soluble Material	Asbestos Type	TEM Results** % Asbestos
SPORT 0770-1	28.3	32.0	Chrysotile	33.8
SPORT 0770-2 Tile	26.1	64.8	Chrysotile	1.6
SPORT 0770-2 Mastic	41.4	29.3	Chrysotile	16.1
SPORT 0770-3	21.1	42.6	None Detected	0
SPORT 0770-4	20.4	63.4	None Detected	0
SPORT 0770-5	18.8	77.2	None Detected	0

Laboratory Manager
Rachel Travis

*Results near 1% are not reliable by this method and a more accurate SEM method is recommended
**To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.
NVLAP# 101048-1

Westmont, NJ (609) 858-1260 | Piscataway, NJ (918) 981-0550 | Carle Place, NY (516) 997-7251 | Atlanta, GA (770) 958-9150 | Melbourne, FL (407)253-4224 | Ann Arbor, MI (313) 668-8810 | San Mateo, CA (415) 570-5401

EMSL

General Engineering Laboratories, Inc.
Attention: Karen Blakeney
P.O. Box 30712
Charleston, SC 29417

Tuesday, July 29, 1998

Reference No: GA981840

Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method*

Project: NPWC 00197

Sample ID	% Weight of Organic Material	% Weight of Acid Soluble Material	Asbestos Type	TEM Results* % Asbestos
SPORT 0770-6	15.5	81.8	None Detected	0
SPORT 0770-7	19.3	39.8	None Detected	0
SPORT 0770-8	16.4	81.8	None Detected	0
SPORT 0770-9	21.9	55.7	Chrysotile	10.1
SPORT 0770-10	18.6	77.3	None Detected	0
SPORT 0770-11	26.8	57.7	Chrysotile	8.5

Laboratory Manager
Rachel Travis

*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.
**To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.
NVLAP# 101048-1

Westmont, NJ (609) 858-1280 | Piscataway, NJ (918) 981-0550 | Carle Place, NY (516) 997-7251 | Atlanta, GA (770) 958-9180 | Melbourne, FL (407)253-4224 | Ann Arbor, MI (313) 668-6810 | San Mateo, CA (415) 570-54
EMSL

General Engineering Laboratories, Inc.
Attention: Karen Blakeney
P.O. Box 30712
Charleston, SC 29417

Thursday, August 6, 1998

Reference No: GA981919

Asbestos Analysis of Bulk Samples Performed by Transmission Electron Microscopy (TEM) Chatfield Method*

Project: NPWC 00197

Sample ID	% Weight of Organic Material	% Weight of Acid Soluble Material	Asbestos Type	TEM Results** % Asbestos
SPORT 0776-1	27.9	22.9	Chrysotile	35.7
SPORT 0776-2	29.3	18.8	Chrysotile	36.3

Laboratory Manager
Rachel Travis

*Results near 1% are not reliable by this method and a more accurate SEM method is recommended.
**To ensure results, EMSL recommends the use of SEM as a quality control measure. Without SEM QC the current diagnosis error rate for TEM/NOB and TEM/Chatfield occurs at a frequency of approximately 1-2% of samples analyzed. Without SEM QC, EMSL is not responsible for errors which could have been prevented with SEM QC.
NVLAP# 101048-1

Medical University of South Carolina

College of Health Professions

Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

Certifies that

RICHARD O. BUTLER

Attended and Satisfactorily completed the

Inspecting for Asbestos in Buildings

conducted November 3 through November 05, 1997

and satisfactorily passed an exam on November 05, 1997.

AUGET LARGIENDO
UNIV. MED.
CAR. AUS.
1824

I27150-00766	24	247-15-7024	R. Martin Jones, Ph. D. Chairmain
Certificate number	Contact Hours	ID Number	
November 05, 1997	November 04, 1998		T. A. Rowland III Instructor
Exam Date	Certificate Expires		

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.

Medical University of South Carolina

College of Health Professions

Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

Certifies that

RANDY E. ADKINS

Attended and Satisfactorily completed the

Inspecting for Asbestos in Buildings Refresher

conducted April 1 through April 01, 1998

and satisfactorily passed an exam on April 01, 1998.

AUGET LARGIENDO
UNIV. MED. CAR. AUS. 1824

IR27150-01677	4	251-02-6161	R. Martin Jones, Ph. D. Chairman
Certificate number	Contact Hours	ID Number	
April 01, 1998	March 31, 1999		T. A. Rowland III Instructor
Exam Date	Certificate Expires		

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.

Medical University of South Carolina

College of Health Professions

Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

CAR. AUS.
1824

Certifies that

WILLIAM E. MAY

Attended and Satisfactorily completed the

Inspecting for Asbestos in Buildings Refresher

conducted August 20 through August 20, 1997

and satisfactorily passed an exam on August 20, 1997.

IR27150-01412	4	247-98-0917	R. Martin Jones, Ph. D. Chairmain
Certificate number	Contact Hours	ID Number	

August 20, 1997	August 19, 1998	T. A. Rowland III Instructor
Exam Date	Certificate Expires	

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.

Medical University of South Carolina

College of Health Professions

Department of Environmental Health Sciences

171 Ashley Avenue Charleston, South Carolina, 29425 (803) 792-5315

Certifies that

JOHN J. NELSON

Attended and Satisfactorily completed the

Inspecting for Asbestos in Buildings Refresher

conducted April 1 through April 01, 1998

and satisfactorily passed an exam on April 01, 1998.

AUGET LARGIENDO
UNIV. MED.
CAR. AUS.
1824

IR27150-01681	4	247-80-3440	R. Martin Jones, Ph. D. Chairman
Certificate number	Contact Hours	ID Number	
April 01, 1998	March 31, 1999		T. A. Rowland III Instructor
Exam Date	Certificate Expires		

This certifies that the above recipient has completed the requisite training for Asbestos Accreditation under TSCA Title II.