N61165.AR.003737
CNC CHARLESTON
5090.3a

FINAL REPORT OF ASBESTOS ABATEMENT AND CORRESPONDING ENVIRONMENTAL CONSULTING SERVICES CONDUCTED AT BUILDING 643 PASSPORT FACILITY CNC CHARLESTON SC

5/1/1999

CAPE ENVIRONMENTAL MANAGEMENT, INC.

CAPE
ENVIRONMENTAL
MANAGEMENT
I N C

Final Report of Asbestos Abatement and Corresponding Environmental Consulting Services Conducted at Building 643, Passport Facility Charleston Naval Base Charleston, South Carolina

Contract No. N62467-98-D-1012
Delivery No. 0013

CAPE Project No. 80023.016.000

prepared for:

Mr. Archie Browder
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, SC 29419-9010

prepared by:

Cape Environmental Management Inc
2302 Parklake Drive, Suite 200
Atlanta, GA 30345-2907

May 1999

DAPS
Scan Date 3-30-09
Operator
Location Code BINDER0664

CAPE
ENVIRONMENTAL
MANAGEMENT
I N C

Final Report of Asbestos Abatement and Corresponding Environmental Consulting Services Conducted at Building 643, Passport Facility Charleston Naval Base Charleston, South Carolina

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2155 Eagle Drive
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2302 Parklake Drive, Suite 200
Atlanta, GA 30345-2907

May 1999

Background, ambient, personal and final clearance air sampling was conducted where appropriate during the execution of these activities and analyzed by phase contrast microscopy (PCM) by Robert M. Beasley Jr.of AEC Environmental Consultants in accordance with the NIOSH 7400 Method and are included in Appendix F of this report.

We appreciate the opportunity to serve you on this project and hope that you will call if we can be of further assistance to you.

Sincerely,

Cape Environmental Management Inc

HLKitt

Herman L. Kitt
Vice President

JS/don
ih\80023.016.00\finalrpt

Appendices
A - F

Appendix A

Notification Form

I. PROCEDURE, INCLUDING ANALYTICAL METHOD, IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL: Asbestos materials have been identified by the owner.
During the abatement process, area air sampling will be collected to document asbestos fiber release and employee exposure level. Samples collected will be analyzed by phase contrast microscopy (PCM), at a minimum.

VII. APPROXIMATE AMOUNT OF ASBESTOS, INCLUDING, NON-FRIABLE

1.Regulated ACM to be removed 2.Category I ACM not removed	RACM To be Removed	ACM Not To Removed	ACM To be Removed
Pipe- duct mastic			12,000 sf
Black mastic			1,000 lf
Surface Area- floor mastic			20,00 sf
ACM off Facility Component	None	None	None

VIII.SCHEDULED DATES FOR ASBESTOS REMOVAL (MM/DD/YY)
Approx.start date:1/4/99 Completion:2/26/99

Work Hours: 7:30-4:00 Work Days: Mon-Fri(May Vary)

IX. SCHEDULED DATES FOR DEMO/RENOVATION (MM/DD/YY)
Start: Completion:

X. DESCRIPTION OF PLANNED DEMOLITION OR RENOVATION WORK, AND METHOD(S)TO BE USED: Floor tile & mastic will be thoroughly wet and removed using heat guns or lamps to soften the tile. Acoustical tile will be used using full containment methods. Pipe insulation will be removed using the glovebag method. All materials will be thoroughly wet and placed in double bags. All materials will be placed in a lined dumpster for disposal.

XI. DESCRIPTION OF WORK PRACTICES AN ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE DEMOLITION AND RENOVATION SITE: All materials will be removed using wet removal methods, double bagged, placed in a lined dumpster, and transported to a SCDHEC approved landfill for disposal in accordance with applicable regulations.

CERTIFIED MAIL
RECEIPT #

NOTIFICATION OF DEMOLITION AND RENOVATION
December 30, 1998

Operator Project# Postmark Date Received Notification

I. TYPE OF NOTIFICATION (O-Original R-Revised C-Cancelled)

II.FACILITY INFORMATION (Identify Owner, Removal Contractor,and other operator)

OWNER NAME:Department of the Navy
ADDRESS: Charleston Naval Base
CITY:Charleston STATE:SC ZIP:29402
CONTACT: Phone:

REMOVAL CONTRACTOR: Environmental Management Services, Inc.
ADDRESS:7291 Cross County Rd.
CITY:N. Charleston STATE:SC ZIP:29418
CONTACT:Frank Harris TEL:803-552-9488
License # 272 Expiration: 5/99

OTHER OPERATOR:Cape Environmental
ADDRESS:2302 Parklake Drive
CITY:Atlanta STATE:GA ZIP:30345
CONTACT:Herman Kitt TEL:770-908-7219

III. TYPE OF OPERATION (O-Ordered Demo E-Emergency Renovation R-Renovation)R
IV. IS ASBESTOS PRESENT? (Yes/No): Yes
V. FACILITY DESCRIPTION: (Include Building Name, Number and Floor or Room Number)
BUILDING NAME: Passport Facility, Building 643
ADDRESS:Bainbridge Rd.
CITY:Charleston STATE:SC County:Charleston
LOCATION:Same
BUILDING SIZE:60,000 sf AGE IN YEARS: 25 +
# of Floors:2
PRESENT:Passport PRIOR USE:Passport

FACILITY SURVEYED BY:

PROJECT DESIGNER:Dept. of the Navy

XII. WASTE TRANSPORTER # 1

NAME:EMS Waste Services
ADDRESS:7291 Cross County Rd.
CITY:Charleston STATE: South Carolina
ZIP: 29418

XIII.WASTE DISPOSAL SITE
NAME:Berkely County Landfill
ADDRESS:555 Oakley Rd.
CITY:Moncks Corner STATE: SC ZIP:29461

XV. FOR EMERGENCY RENOVATIONS:
Date and Hour of Emergency:

Description of the sudden, unexpected event:
Explanation of how the event caused unsafe conditions or would cause equipment damage or an reasonable financial burden:

XVI. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT UNEXPECTED ASBESTOS IN FOUND OR PREVIOUSLY NON-FRIABLEASBESTOS MATERIAL BECOMES CRUMBLED, PULVERLIZED, OR REDUCED TO POWDER. Asbestos containing materials have been identified by the owner. If additional asbestos containing materials are found, the owner, consultant and SCDHEC will be notified.

XVII.I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF THIS REGULATION (40 CFR PART 61, SUBPART M)WILL BE ON-SITE DURING THE DEMOLITION OR RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS.
(Required 1 year after promulgation)

(Signature of Owner/Operator) Date 12/30/98

XVIII. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT.

(Signature of Owner/Operator) Date 12/30/98

Appendix B

State Contractor License

The State of South Carolina

Department of Health and Environmental Control

ABESTOS ABATEMENT LICENSE

THIS CERTIFIES THAT

Cape Environmental Management

has met the requirements of South Carolina Regulation No. 61-86.1
for licensing in the category of:

Contractor

The holder of this license shall comply with all applicable requirements of said regulation. This license is not transferable and shall expire one year from the date shown below.

Director, Program Development & Support Division
Bureau of Air Quality

DATE: *June 05, 1998*

LICENSE NO: *560*

This license is the property of the Department and must be surrendered on demand. Contractors must post a copy of this licence in a conspicuous place at each worksite.

DHEC 3468 (2/1997)

The State of South Carolina

Department of Health and Environmental Control

ABESTOS ABATEMENT LICENSE

THIS CERTIFIES THAT

Cape Environmental Management

has met the requirements of South Carolina Regulation No. 61-86.1
for licensing in the category of:

Contractor

The holder of this license shall comply with all applicable requirements of said regulation. This license is not transferable and shall expire one year from the date shown below.

Director, Program Development & Support Division
Bureau of Air Quality

DATE: *January 12, 1999*

LICENSE NO: *560*

This license is the property of the Department and must be surrendered on demand. Contractors must post a copy of this licence in a conspicuous place at each worksite.

DHEC 3468 (2/1997)

Appendix C

Worker's Documentation

- South Carolina License
- Training Certificates

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 43485

This Certifies that

Nemesio S Mendez

465-WC-6753

No Company Affiliation

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1. This license is not transferable to any other licensee or company and shall expire one year from *03/13/98*.

03/16/98

ORIGINAL

03/16/98 11:42 PM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

ITSS

INDUSTRIAL TRAINING AND SUPPORT SERVICES
INCORPORATED

THIS IS TO CERTIFY THAT

NEMESIO SALOMON MENDEZ

has on **03/ 13/98**, in Richmond, VA
completed the requirements for asbestos accreditation under Section 206 of TSCA, Title II, 15 U.S.C. 2646

AHERA Asbestos Worker Initial

an 32 hours training course, as approved by the State of Virginia and the U.S.E.P.A. under 40 C.F.R. 763 (AHERA) on **03/10/98 - 03/13/98.** The student named heron has both attended the course listed above, and passed the associated examination on **03/13/98** with a score of 70% or better

NEMESIO SALOMON M
Student's Signature

Dr Omar Gonzalez
Instructor, Omar Gonzalez

Dr Omar Gonzalez
Dr. Omar Gonzalez, President.

SS#: 465-90-6753 - DOB: 07/18/62 - CERT.#: 031398001AWI - THIS CERT. EXPIRES ON: 03/13/99
MD COMAR 26.11.21. APPROVAL #: 48-00-21

I.T.S.S - 10200 Seacliff Lane - Richmond, VA. 23236 - 1-804-276-8852 - 1-804-276-8449
(the original certificate is printed on light blue parchment paper)

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 44445

This Certifies that

Oscar Arriza

435-WC-6706

No Company Affiliation

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1. This license is not transferable to any other licensee or company and shall expire one year from 11/30/98.

12/17/98

ORIGINAL

12/17/98 10:55 PM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

CR-001126

Princeton

Industrial Training Institute

This is to Certify that

Oscar Flores [redacted]arriza — 435-44-6706

Name — Social Security Number

has passed the examination and successfully completed the training program

of a four day, thirty two hour Spanish Language

Asbestos Abatement Worker Course

in compliance with TSCA Title II

In recognition thereof this CERTIFICATE OF COMPLETION is hereby presented.

Nov 30, Dec 1,2,3, 98	3-Dec-98	Nov,24-99
Inclusive dates of instructi	Date of Examination	Date of Expiration

Carl Garrett — Ted Woodings

Instructor Carl Garrett — Director Ted Woodings

Certificate # : 1747

347 S Elm St. Greensboro, NC 27401

© Goes 462 1/2

LITHO. IN U.S.A.

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 40018

This Certifies that

Walter G Carias

607-WE-5237

No Company Affiliation

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1. This license is not transferable to any other licensee or company and shall expire one year from 12/12/98.

12/21/98

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

ORIGINAL

12/21/98 14:54 PM

Bureau of Air Quality

CR-001126

Princeton

Industrial Training Institute

This is to Certify that

Walter Carias Morales — Name

607-56-5237 — Social Security Number

has passed the examination and successfully completed the training program

of a one day, eight hours Spanish Language

Asbestos Abatement Refresher Worker Course

in compliance with TSCA Title II

In recognition thereof this CERTIFICATE OF COMPLETION is hereby presented.

12-Dec-98	12-Dec-98	12-Dec-99
Inclusive dates of instruction	Date of Examination	Date of Expiration

Instructor Carl Garrett

Director Ted Woodings

Certificate # : 1760

347 S. Elm St. Greensboro, NC 27401

DHEC

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 43931

This Certifies that

Juan Agustin Avila

441-70-6671

No Company Affiliation

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1.

This license is not transferable to any other licensee or company and shall expire one year from 07/09/98.

07/13/98

ORIGINAL

07/13/98 13:21 PM

Bureau of Air Quality

John E. Hilsey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

MSK Ambiental

34514.4796CERT/REM

903 N.W. 6TH Avenue, Fort Lauderdale, Florida 33311 (954) 524-7208

This is to Certify that

Jose Agapito Avila

421-98-4671

1409 W.English Rd., High Point,NC

has successfully completed

Asbestos Worker Course

29-Jun-98 TO 2-Jul-98

Asbestos courses comply with Section 206 TSCA 15 USC 2646

and has passed an examination upon course comple

Trainer(s): Vicencio Romero

Training Address: 161 S.Walnut Circle,Greensboro,NC

Examination administered upon course completion.

Rafael O. Abreu, Course Sponsor

Certificate Number..... 92394

Course Number SB9827

This Certificate Expires

2-Jul-99 7/2/99

© 6088 442

LITHO.IN U.S.A.

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 44347

This Certifies that

James W Miller

573-SE-0747

Environmental Management Service

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Supervisor

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1.

This license is not transferable to any other licensee or company

and shall expire one year from 05/10/98.

The holder of this license is qualified in accordance with requirements of the Asbestos Hazard Emergency Response Act of 1986 (AHERA) to perform as an abatement worker.

11/10/98

John E. Hussey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

Bureau of Air Quality

ORIGINAL

11/10/98 16:20 PM

CR-001126

AMERICAN ENVIRONMENTAL SAFETY INSTITUTE

203 Ridgeland Circle
Easley, SC 29640-1130
Phone: (864) 855-3060
Fax: (864) 855-3074

Certifies that:

James W. Miller
SS#: 573-39-0747

Attended and satisfactorily passed an examination covering the contents of the following course, approved by EPA under TSCA Title II for asbestos accreditation:

"Supervision of Asbestos Abatement Projects"
Offered May 2,3,8,9,& 10,1998, at 227 Gateway Drive, Aiken, SC

S98-0514
Certificate Number

May 10, 1998
Date Passed Exam

May 10, 1999
EPA Accreditation Expires

Kimberlie Cleveland-Petrillo
Principal Instructor - Signature

James L. Petrillo
Course Director - Signature

Kimberlie Cleveland-Petrillo
Principal Instructor - Typed

James L. Petrillo
Course Director - Typed

Duplicate Certificate (XX) Yes ( ) No Date Issued: 5/10/98

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 42202

This Certifies that

Juan A Reyes

623-WE-6578

No Company Affiliation

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1.

This license is not transferable to any other licensee or company

and shall expire one year from 02/20/98.

04/07/98

ORIGINAL

04/07/98 16:38 PM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

MSK Ambiental

34384.6541CERT/REM

903 N.W. 6TH Avenue, Fort Lauderdale, Florida 33311 (954) 524-7208

This Is to Certify that

Juan A.Reyes

623-09-6578

314 State St , Winston Salem, NC

has successfully completed

Asbestos Worker Refresher

20-Feb-98 TO 20-Feb-98

Asbestos courses comply with Section 206 TSCA 15 UCS 2646

Complies with Sec. 206 TSCA 15 USC 2646

Trainer(s): Vicencio Romero

Training Address: 161 S.Walnut Circle,Greensboro, NC

Examination administered upon course completion.

This Certificate Expires

20-Feb-99 2/20/99

Rafael O. Abreu, Course Sponsor

Certificate Number..... 90792

Course Number **SB9808**

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 44387

This Certifies that

Daniel R Tinajero

452-WC-7110

Environmental Management Services Inc

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1. This license is not transferable to any other licensee or company and shall expire one year from 07/30/98.

11/25/98

ORIGINAL

11/25/98 09:49 AM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

CB-001126

Medical University of South Carolina

College of Health Professions

Program in Environmental Health Sciences

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

Certifies that

DANIEL R. TINAJERO

Attended and Satisfactorily completed the

Asbestos Abatement Worker

conducted July 27 through July 30, 1998

and satisfactorily passed an exam on July 30, 1998.

AUGET LARGIENDO
UNIV. MED.
CAR. AUS.
1824

4W27010-00255	32	452-21-7110	T. A. Rowland, III
Certificate number	Contact Hours	ID Number	Program Director
July 30, 1998	July 29, 1999		Daniel N. Infinger III
Exam Date	Certificate Expires		Instructor

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

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 40536

This Certifies that

Mario Benitez Ceriel

621-90-2761

No Company Affiliation

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1.

This license is not transferable to any other licensee or company and shall expire one year from 03/16/98.

03/16/98

ORIGINAL

03/16/98 11:39 PM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

ITSS

INDUSTRIAL TRAINING AND SUPPORT SERVICES
INCORPORATED

THIS IS TO CERTIFY THAT

MARIO BENITEZ CURIEL

has on **03/14/98**, in Richmond, VA
completed the requirements for asbestos accreditation under Section 206 of TSCA, Title II, 15 U.S.C. 2646

AHERA Asbestos Worker Refresher

an 8 hours training course, as approved by the State of Virginia and the U.S.E.P.A. under 40 C.F.R. 763 (AHERA) on **03/14/98**. The student named heron has both attended the course listed above, and passed the associated examination on **03/14/98** with a score of 70% or better

MARIO BENITEZ CURIEL
Student's Signature

Dr Omar Gonzalez
Instructor, Omar Gonzalez

Dr Omar Gonzalez
Dr. Omar Gonzalez, President.

SS#: 621-10-2761 - DOB: 05/24/75 - CERT.#: 031498001AWR - THIS CERT. EXPIRES ON: 03/14/99
MD COMAR 26.11.21. APPROVAL #: 48-00-21

I.T.S.S - 10200 Seacliff Lane - Richmond, VA. 23236 - 1-804-276-8852 - 1-804-276-8449
(the original certificate is printed on light yellow parchment paper)

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 44023

This Certifies that

Apolinar Perez

248-KE-3530

Environmental Management Services

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1.

This license is not transferable to any other licensee or company

and shall expire one year from 07/25/98.

08/03/98

ORIGINAL

08 03 98 15:18 PM

Bureau of Air Quality

John E. Hussey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

ITSS

INDUSTRIAL TRAINING AND SUPPORT SERVICES
INCORPORATED

THIS IS TO CERTIFY THAT

APOLINAR PEREZ, M.

has on **07/25/98**, in Richmond, VA
completed the requirements for asbestos accreditation under Section 206 of TSCA, Title II, 15 U.S.C. 2646

AHERA Asbestos Worker Refresher

an 8 hours training course, as approved by the State of Virginia and the U.S.E.P.A. under 40 C.F.R. 763 (AHERA) on **07/25/98**. The student named heron has both attended the course listed above, and passed the associated examination on **07/25/98** with a score of 70% or better

Student's Signature

Dr Omar Gonzalez
Instructor, Omar Gonzalez

Dr Omar Gonzalez
Dr. Omar Gonzalez, President.

SS#: 248-20-3590 - DOB: 01/04/75 - CERT.#: 072598092AWIc - THIS CERT. EXPIRES ON: 07/25/99
MD COMAR 26.11.21. APPROVAL #: 48-00-21

I.T.S.S - 10200 Seacliff Lane - Richmond, VA. 23236 - 1-804-276-8852 - 1-804-276-8449
(the original certificate is printed on light yellow parchment paper)

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 44025

This Certifies that

Juan Garcia Martinez

608-WE-4531

Environmental Management Services

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan, 40 CFR 763 Subpart E Appendix C, for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1. This license is not transferable to any other licensee or company and shall expire one year from *07/25/98*.

08/03/98

ORIGINAL

08/03/98 15:24 PM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

ITSS

INDUSTRIAL TRAINING AND SUPPORT SERVICES
INCORPORATED

THIS IS TO CERTIFY THAT

JUAN GARCIA MARTINEZ

has on **07/25/98**, in Richmond, VA
completed the requirements for asbestos accreditation under Section 206 of TSCA, Title II, 15 U.S.C. 2646

AHERA Asbestos Worker Refresher

an 8 hours training course, as approved by the State of Virginia and the U.S.E.P.A. under 40 C.F.R. 763 (AHERA) on **07/25/98**. The student named heron has both attended the course listed above, and passed the associated examination on **07/25/98** with a score of 70% or better

Student's Signature

Instructor, Omar Gonzalez

Dr. Omar Gonzalez, President

SS#: 608-34-4531 - DOB: 11/10/40 - CERT.#: 072598004AWR - THIS CERT. EXPIRES ON: 07/25/99
MD COMAR 26.11.21. APPROVAL #: 48-00-21

I.T.S.S - 10200 Seacliff Lane - Richmond, VA. 23236 - 1-804-276-8852 - 1-804-276-8449
(the original certificate is printed on light yellow parchment paper)

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASBESTOS ABATEMENT LICENSE

No. 43975

This Certifies that

Anthony Ford

250-WE-1229

Environmental Management Services

has satisfactorily completed the training required by South Carolina Regulation No. 61-86.1 and the EPA Model Accreditation Plan. 40 CFR 763 Subpart E Appendix C. for the category of

Worker

The holder of this license shall comply with all the requirements of said Regulation. This license allows the holder to perform abatement activities involving RACM that is in or on interior structural members or other parts of a regulated facility with the exception of Asbestos-Containing Material subject to the requirements of Section XI of SC DHEC Regulation No. 61-86.1

This license is not transferable to any other licensee or company

and shall expire one year from 02/18/95

07/20/98

ORIGINAL

07 20 98 11:43 PM

Bureau of Air Quality

John E. Hursey, Director
Program Development & Support Division
Bureau of Air Quality
South Carolina Department of Health & Environmental Control

Medical University of South Carolina

College of Health Professions

Program in Environmental Health Sciences

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

Certifies that

ANTHONY J. FORD

Attended and Satisfactorily completed the

Asbestos Abatement Worker Refresher

conducted February 18 through February 18, 1998

and satisfactorily passed an exam on February 18, 1998.

AUGET LARGIENDO
UNIV. MED.
CAR. AUS.
1824

4WR27150-01731	8	250-39-1229	T. A. Rowland, III
Certificate number	Contact Hours	ID Number	Program Director
February 18, 1998	February 17, 1999		T. A. Rowland III
Exam Date	Certificate Expires		Instructor

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

Appendix D

Respirator Fit Test

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Jan Grier Date 1/19/99

SS# 604-34-4531

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate Test Operator: _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

_____

_____

_____

Signature _____ Date 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Apolinar Perez Date 1/19/99

SS# 248-20-3596

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate Test Operator: _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

_____

_____

_____

Signature _____ Date 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Mario Benitez **Date** 1/19/99

SS# 621-10-2761

Challenge Agent:

_____ **Sodium** ✓ **Bitrex 1-2**

_____ **Irritant Smoke**

_____ **Isoamyl Acetate** **Test Operator:** _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

_____

_____

_____

Signature _____ **Date** 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Anthony Ford **Date** 1/19/99

SS# 250-39-1229

Challenge Agent:

_____ **Sodium** ✓ **Bitrex 1-2**

_____ **Irritant Smoke**

_____ **Isoamyl Acetate** **Test Operator:** _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

Signature _____ **Date** 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Jose Avila Date 1/19/99

SS# 421-98-6671

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate Test Operator: _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

Signature _____ Date 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name MARCO Hernandez **Date** 1/19/99

SS# 576-92-3902

Challenge Agent:

_____ **Sodium** ✓ **Bitrex 1-2**

_____ **Irritant Smoke**

_____ **Isoamyl Acetate** **Test Operator:** _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

_____

_____

_____

Signature _____ **Date** 1/19/99
Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Nemesio Mendez Date 1/19/99

SS# 465-90-6753

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate Test Operator: _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

Signature _____ Date 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Daniel Tingyed **Date** 1/19/99

SS# 452-21-7110

Challenge Agent:

_____**Sodium** ✓ **Bitrex 1-2**

_____**Irritant Smoke**

_____**Isoamyl Acetate** **Test Operator:** _____

Respirators:

Brand	Model	Size	Satisfactory
____MSA	____COMFO II	____Small	✓ Yes
____EASI-AIR (3M)	____7200	✓ Medium	____No
____NORTH	✓ 7700-30	____Large	

COMMENTS:

_____

_____

_____

Signature _____ **Date** 1/19/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name OSCAR Flores **Date** 12/7/98

SS# 435-44-6706

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate **Test Operator:** _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

_____

_____

_____

Signature _____ **Date** 12/7/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Juan Reyes Date 12/11/98

SS# 623-09-6578

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate Test Operator: _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

Signature _____ Date 12/11/98

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name Walter Morales Date 12/22/98

SS# 607-56-5237

Challenge Agent:

_____ Sodium ✓ Bitrex 1-2

_____ Irritant Smoke

_____ Isoamyl Acetate Test Operator: _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

Signature [signature] Date 12/22/99

Test Operator

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

RESPIRATOR FIT TEST RECORD

Name James Miller **Date** 12/7/99

SS# 573-39-0747

Challenge Agent:

_____ **Sodium** ✓ **Bitrex 1-2**

_____ **Irritant Smoke**

_____ **Isoamyl Acetate** **Test Operator:** _____

Respirators:

Brand	Model	Size	Satisfactory
____ MSA	____ COMFO II	____ Small	✓ Yes
____ EASI-AIR (3M)	____ 7200	✓ Medium	____ No
____ NORTH	✓ 7700-30	____ Large	

COMMENTS:

_____

_____

_____

Signature _____ Date 12/7/99

Test Operator

Appendix E

Waste Manifest

ENVIRONMENTAL MANAGEMENT SERVICES

Project/ID # N9901017

Asbestos Abatement
Demolition
Environmental Management
Lead Remediation

7291 Cross County Road • N. Charleston, SC 29418

(843) 552-9488 • FAX (843) 552-9729

Generator

1. Work site name and mailing address: BLDG. 643 CHAS. NAVY BASE
Owner's name: Dept. of State
Owner's telephone no.:

2. Operator's name and address: Environmental Management Services, Inc. 7291 Cross County Road • N. Charleston, SC 29418
Operator's telephone no.: 843-552-9488

3. Waste disposal site (WDS) name, mailing address, and physical site location: BERKELEY COUNTY LANDFILL OAKLEY RD. MONCKS CORNER SC
WDS telephone no.:

4. Name, and address of responsible agency: SCDHEC 2600 Bull St. COLUMBIA SC

5. Description of materials	6. Containers No. Type	7. Total Quantity m3 (yd3)
NON FRIABLE DUCT MASTIC	40 CY	10 CY

8. Special handling instructions and additional information: See Reverse For Instructions

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
FRANK HARRIS PRES		1 7 99

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
JERRY W KING Address and telephone no.	Jerry W King	1/11/99

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator: BCWTSA-C+D
Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Sonny Dougherty Land. Env. Coor.	Sonny Dougherty	1-11-99

Waste Shipment Record

ENVIRONMENTAL MANAGEMENT SERVICES

Project/ID # N9901017

Asbestos Abatement
Industrial Hygiene
Environmental Management
Lead Remediation

P.O. Box 568 • Summerville, SC 29485 (803) 875-9633 • FAX (803) 875-9518

Generator

1. Work site name and mailing address Bldg. 643 CNSY	Owner's name Dept. of State	Owner's telephone no.
2. Operator's name and address Environmental Management Services, Inc. 622 Old Trolley Rd., Suite 120, Summerville, SC 29485		Operator's telephone no. 803-875-9633
3. Waste disposal site (WDS) name, mailing address, and physical site location Berkeley County Landfill Oakley Rd. Moncks Corner SC		WDS telephone no.
4. Name, and address of responsible agency SCDHEC 2600 Bull Street Columbia SC 29201		

5. Description of materials	6. Containers No. Type	7. Total Quantity m3 (yd3)
Non-friable Duct Mastic	1 40 cy	30 cy

8. Special handling instructions and additional information

See Reverse

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
FRANK HARRIS Pres.	[signature]	1/13/99

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title Address and telephone no.	Signature	Month Day Year
JERRY W KING	[signature]	1/14/99

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title Address and telephone no.	Signature	Month Day Year

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator: BCWSA - CHD

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Sonny Daugherty Landfill Env. Coor.	[signature]	1-14-99

(Continued)

White Copy - Environmental Management Services • Yellow Copy - Hauler • Pink Copy - Landfill Disposal Site • Gold Copy - Supervisor

Waste Shipment Record

ENVIRONMENTAL MANAGEMENT SERVICES

Project/ID #N 9901017

Asbestos Abatement
Industrial Hygiene
Environmental Management
Lead Remediation

P.O. Box 568 • Summerville, SC 29485

(803) 875-9633 • FAX (803) 875-9518

Generator

1. Work site name and mailing address PASSPORT SAC Bld 643	Owner's name EMS [redacted]	Owner's telephone no. 722 9488
2. Operator's name and address Environmental Management Services, Inc. 622 Old Trolley Rd., Suite 120, Summerville, SC 29485		Operator's telephone no. 803-875-9633
3. Waste disposal site (WDS) name, mailing address, and physical site location Berkley County Land Fill		WDS telephone no. 761 2215
4. Name, and address of responsible agency DHEC		

5. Description of materials	6. Containers No.	Type	7. Total Quantity m3 (yd3)
non friable insulation & mastic	1		30 yd

8. Special handling instructions and additional information

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Daniel R. Tinasco Sup	[signature]	28 JAN 99

Transporter

10. Transporter 1 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
EMS Waste Service 7 Address and telephone no. Berkley County N Chas S.C.	[signature]	28 JAN 99

11. Transporter 2 (Acknowledgment of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Address and telephone no.		

Disposal Site

12. Discrepancy indication space

13. Waste disposal site owner or operator: BCW SA - CTD

Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
Sonny Dougherty Land Env. Coor.	[signature]	1-28-99

(Continued)

White Copy - Environmental Management Services • Yellow Copy - Hauler • Pink Copy - Landfill Disposal Site • Gold Copy - Supervisor

Waste Shipment Record

Appendix F

Phase contrast Microscopy (PCM) Analysis

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-4-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BLDG. 643

5-2018 - P-1322

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
/	BL	/	/	FIELD BLANK	/	/	/	/	/	0	/	100	/
/	BL	/	/	LAB BLANK	/	/	/	/	/	0	/	100	/
1	B	2/4	A-1	FIRST DECK Rm 114C	1300	1700	240	12	2880	16	0	100	0.003
2	B	2/4	A-2	" " Rm 107	1310	1710	240	12	2880	10	0	100	0.002
3	B	2/4	A-3	" " Rm 129	1315	1715	240	12	2880	9	0	100	<0.002
4	B	2/4	A-4	2nd DECK, Rm 207	1320	1720	240	12	2880	11	0	100	0.002
5	B	2/4	A-5	" " , Rm 225	1320	1721	241	12	2892	14	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- [x] Rotometer # A-1
- [ ] Critical Orifice # _____
- [ ] Buret
- [ ] Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
1	1300	12	MB
2	1310	12	MB
3	1315	12	MB
4	1320	12	MB
5	1320	12	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
1	1700	12	MB
2	1710	12	MB
3	1715	12	MB
4	1720	12	MB
5	1721	12	MB

F/cc Calculation = $\frac{\left(\frac{FCS - FCB}{Fld}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: _____

PPE:
- ____ SCBA
- ____ Type C Resp.
- ____ PAPR
- ____ Half Face Filter Resp.
- ____ Disposable Suit
- ____ Booties
- ____ Hood
- ____ Other

Removal Type:
- [ ] Aggressive
- [ ] Glovebag
- [ ] Outdoor
- [x] Other

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-6-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BLDG. 643

r-2095-P-Cinc225.

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm²

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			Field Blank						0		100	
	BL			Lab Blank						0		100	
6	A	2/4	A-1	Rm 131	0710	1510	480	6.0	2880	31	0	100	0.005
7	A	2/4	A-2	Rm 11	0715	1515	480	6.0	2880	34	0	100	0.006
8	A	2/4	A-3	Hallway, First Deck	0720	1520	480	6.0	2880	19	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
6	0710	6	RB
7	0715	6	RB
8	0720	6	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
6	1510	6.0	RB
7	1515	6.0	RB
8	1520	6.0	RB

F/cc Calculation = $\frac{\left(\frac{FCS-FCB}{Fld}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: NO Friable asbestos was Removed only non-friable mastic on ducting
Heavy Amounts of Fiberglass in Area, Will move pumps to Outer areas.

PPE:
____ SCBA
____ Type C Resp.
____ PAPR
X Half Face Filter Resp
____ Disposable Suit
____ Booties
____ Hood
____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-7-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BLDG. 643

P-2098 - P-715-2405

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 50%
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
9	A	2/4	A-1	Rm 131, INSIDE WORK AREA	0720	1320	360	5.0	1800	61	0	100	0.016
10	A	2/3	A-2	DOCK ENTRANCE, EAST	0730	1530	480	5.0	2400	16	0	100	0.003
11	A	1/3	A-3	OUTSIDE BLDG., EAST	0735	1530	475	5.0	2375	11	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☐ Rotometer # _____
- ☐ Critical Orifice # _____
- ☐ Buret
- ☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init

Post Cal Data

Sample #	Time	FR (LPM)	Init

F/cc Calculation = $\frac{(FCS - FCB)}{FIB} \times (AF)$ / $1000 \cdot T \cdot FR \cdot GFA$

Comments: _____

PPE:
- ____ SCBA
- ____ Type C Resp.
- ____ PAPR
- ____ Half Face Filter Resp.
- ____ Disposable Suit
- ____ Boolies
- ____ Hood
- ____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☐ Other

Collected by: _____
Analyzed by: _____
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-8-99
Client: Cape Environmental
Site: CHRS NAV BASE
Project Name: Bldg. 643

P-2045 - P-9185724

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			Field Blank						0		100	
	BL			Lab Blank						0		100	
12	A	2/4	A-1	Hallway, South	0730	1540	490	5.0	2450	48	0	100	0.0096
13	A	2/3	A-2	Bay Area, East	0740	1541	481	5.0	2405	16	0	100	0.003
14	A	1/3	A-3	Outside Bldg. East	0745	1545	480	5.0	2400	9	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- [x] Rotometer # A-1
- [ ] Critical Orifice #
- [ ] Buret
- [ ] Electronic Primary Std.

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
12	0730	5.0	M
13	0740	5.0	M
14	0745	5.0	M

Post Cal Data

Sample #	Time	FR (LPM)	Init
12	1540	5.0	M
13	1541	5.0	M
14	1545	5.0	M

F/cc Calculation = $\frac{(\frac{FCS-FCB}{Fld}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments:

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
- [ ] Aggressive
- [ ] Glovebag
- [ ] Outdoor
- [x] Other

Non-Fr. Ho. Dust Mastic Removal

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 95-01-001 Date: 1-11-99
Client: Cape Environmental
Site: CHAS NAV BASE
Project Name: BLDG. 643

F-2010-F PB.02c

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00755 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD BLANK						0		100	
	BL			LAB BLANK						0		100	
15	A	2/4	A-1	HALLWAY, SOUTH	0730	1530	480	5.0	2400	77	0	100	0.014
16	A	2/3	A-2	BAY AREA, EAST	0730	1531	481	5.0	2405	11	0	100	0.002
17	A	1/3	A-3	OUTSIDE BLDG., EAST	0745	1546	481	5.0	2405	9	0	100	<0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
15	0730	5.0	MB
16	0730	5.0	MB
17	0745	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
15	1530	5.0	MB
16	1531	5.0	MB
17	1546	5.0	MB

$$F/cc\ Calculation = \frac{\left(\frac{FCS - FCB}{Fld}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$$

Comments: _____

PPE:
____ SCBA
____ Type C Resp.
____ PAPR
X Half Face Filter Resp.
____ Disposable Suit
____ Booties
____ Hood
____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☐ Other
Non-Friable Mastic On

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: ____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 94-01-001 Date: 1-12-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BLDG. 643

V-2070 F-918 5358

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
18	A	2/4	A-1	Hallway, Center	0701	1501	480	5.0	2400	31	0	100	0.006
19	A	2/3	A-2	Bay Area, EAST	0706	1506	480	5.0	2400	14	0	100	0.003
20	A	1/3	A-3	OUTSIDE, North	0710	1515	485	5.0	2425	11	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- [x] Rotometer # A-1
- [ ] Critical Orifice #
- [ ] Buret
- [ ] Electronic Primary Std.

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
18	0701	5.0	MB
19	0706	5.0	MB
20	0710	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
18	1501	5.0	MB
19	1506	5.0	MB
20	1515	5.0	MB

F/cc Calculation = $\frac{\left(\frac{F_{CS}-F_{CB}}{F_{IG}}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments:

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- [x] Half Face Filter Resp.
- [x] Disposable Suit
- [x] Booties
- [x] Hood
- ___ Other

Removal Type:
- [ ] Aggressive
- [ ] Glovebag
- [ ] Outdoor
- [ ] Other

Collected by: [signature]
Analyzed by: [signature]
Reviewed by

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-13-99
Client: CAPE Environmental
Site: CHAS NAV Base
Project Name: BLDG. 643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD BLANK						0		100	
	BL			LAB BLANK						0		100	
21	A	2/4	A-1	Hallway, Center	0905	1500	475	5.0	2375	36	0	100	0.007
22	A	2/3	A-2	Bay Area, East	0718	1518	480	5.0	2400	16	0	100	0.003
23	A	1/3	A-3	Outside, North	0720	1520	480	5.0	2400	12	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☒ Rotometer # A-1
- ☐ Critical Orifice # _____
- ☐ Buret
- ☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
21	0705	5.0	BB
22	0718	5.0	BB
23	0720	5.0	BB

Post Cal Data

Sample #	Time	FR (LPM)	Init
21	1500	5.0	BB
22	1518	5.0	BB
23	1520	5.0	BB

F/cc Calculation = $\frac{(FCS - FCB)/Fld}{1000 \cdot T \cdot FR \cdot GFA} \times (AF)$

Comments: _____

PPE:
- ____ SCBA
- ____ Type C Resp.
- ____ PAPR
- ☒ Half Face Filter Resp.
- ☒ Disposable Suit
- ☒ Booties
- ☒ Hood
- ____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non-friable Asbestos Mastic

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-14-99
Client: CADE Environmental
Site: CHAS NAU Base
Project Name: Bldg. 643

V-2070 P-9106848

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506.
Area of Filter:(AF) 385 mm.
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
24	A	2/4	A-1	Hallway, Center	0801	1601	480	5.0	2400	29	0	100	0.006
25	A	2/3	A-2	Bay Area, EAST	0810	1610	480	5.0	2400	9	0	100	<0.002
26	A	1/3	A-3	OUTSIDE, North	0830	1630	480	5.0	2400	9.5	0	100	<0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☒ Rotometer # A-1
- ☐ Critical Orifice #
- ☐ Buret
- ☐ Electronic Primary Std.

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
24	0801	5.0	M
25	0810	5.0	B
26	0830	5.0	B

Post Cal Data

Sample #	Time	FR (LPM)	Init
24	1601	5.0	[illegible]
25	1610	5.0	B
26	1630	5.0	B

F/cc Calculation = $\frac{\left(\frac{FCS - FCB}{Fla}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments:

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- ✓ Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 49-01-001 Date: 1-15-99
Client: CAPE Environmental
Site: CHAS NAV Base
Project Name: BLDG. 643

D-2098 P-918-7244

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00725 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
27	A	2/4	A-1	Hallway, Center	0700	1400	420	5.0	2100	49	0	100	0.01
28	A	2/3	A-2	Bay Area, East	0701	1401	420	5.0	2100	11	0	100	0.002
29	A	1/3	A-3	Outside, North	0705	1405	420	5.0	2100	14	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice #
☐ Buret
☐ Electronic Primary Std.

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
27	0700	5.0	RB
28	0701	5.0	RB
29	0705	5.0	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
27	1400	5.0	RB
28	1401	5.0	RB
29	1405	5.0	RB

F/cc Calculation = $\frac{(\frac{FCS-FCB}{Fld}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments:

PPE:
___ SCBA
___ Type C Resp.
___ PAPR
X Half Face Filter Resp.
X Disposable Suit
X Booties
X Hood
___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non Friable Duct Mastic

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-10-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BLDG 643

ID-2099

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm²

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
30	A	2/4	A-1	2nd DECK, LANDING BAY	0710	1516	~~486~~ 506	~~5.0~~ 5.0	~~2430~~ 2530	61	0	100	0.012
31	A	1/3	A-2	1st Floor - North	0712	1517	485	5.0	2425	16	0	100	0.003
32	A	1/3	A-3	1st Floor - EAST	0716	1520	484	5.0	2420	12	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☒ Rotometer # A-1
- ☐ Critical Orifice # _____
- ☐ Buret
- ☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
30	0710	5.0	RB
31	0712	5.0	RB
32	0716	5.0	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
30	1516	5.0	RB
31	1517	5.0	RB
32	1520	5.0	RB

F/cc Calculation = $\frac{(\frac{FCS - FCB}{Fld}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: Heavy Particulates (Fiberglass fibers, Sheetrock dust, Carb, tile Dust Sample # 30.

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☐ Other

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 5-01-021 Date: 1-11-99

Client: CAPE Environmental

Site: CAAS NAS Base

Project Name: BLDG. 643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00185 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
33	A	2/4	A-1	2nd Deck, Landing Bay	0721	1530	489	5.0	2445	46	0	100	0.009
34	A	1/3	A-2	1st Floor - North	0740	1530	470	5.0	2350	11	0	100	0.002
35	A	1/3	A-3	1st Floor - EAST	0726	1531	485	5.0	2425	17	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1

☐ Critical Orifice # _____

☐ Buret

☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
33	0721	5.0	RB
34	0740	5.0	RB
35	0726	5.0	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
33	1530	5.0	RB
34	1530	5.0	RB
35	1531	5.0	RB

F/cc Calculation = $\frac{(\frac{FCS - FCB}{Fld}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: #33 (Fiberglass particulate)

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other

Nonfriable Mastic -

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-20-99
Client: CADE Environmental
Site: CAAS Nav Base
Project Name: Bldg. 643

D-19 1

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm.
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
36	A	2/4	A-1	2nd DECK, Dark Area	0726	1530	484	5.0	2420	72	0	100	0.01
37	A	1/3	A-2	1st Floor, North, OWA	0730	1531	481	5.0	2405	15	0	100	0.003
38	A	1/3	A-3	1st Flor - EAST, OWA	0741	1535	474	5.0	2370	125	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- [x] Rotometer # A-1
- [ ] Critical Orifice # _____
- [ ] Buret
- [ ] Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
36	0726	5.0	JB
37	0730	5.0	JB
38	0741	5.0	JB

Post Cal Data

Sample #	Time	FR (LPM)	Init
36	1530	5.0	JB
37	1531	5.0	JB
38	1535	5.0	JB

F/cc Calculation = $\frac{(FCS - FCB)}{Fld} \times (AF)$ / $1000 \cdot T \cdot FR \cdot GFA$

Comments: _____

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- ✓ Disposable Suit
- ✓ Booties
- ✓ Hood
- ___ Other

Removal Type:
- [ ] Aggressive
- [ ] Glovebag
- [ ] Outdoor
- [x] Other

Nina Ann L. Cail

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-21-99
Client: Cape Environmental
Site: Cities Nav Base
Project Name: BUD6 643

E 20-11

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			Field Blank						0		100	
	BL			Lab Blank						0		100	
39	4	A	A-1	2nd Deck, Dock Area	0741	1531	470	5.0	2350	56.5	0	100	0.01
40	3	A	A-2	1st Deck, North	0745	1531	466	5.0	2330	19	0	100	0.004
41	3	A	A-3	1st Deck, East	0746	1540	474	5.0	2370	12	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☒ Rotometer # A-1
- ☐ Crirical Orifice # _____
- ☐ Buret
- ☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
39	0741	5.0	KB
40	0745	5.0	KB
41	0746	5.0	KB

Post Cal Data

Sample #	Time	FR (LPM)	Init
39	1531	5.0	KB
40	1531	5.0	KB
41	1540	5.0	KB

F/cc Calculation = $\frac{(FCS - FCB)}{F/g} \times (AF)$ / $1000 \cdot T \cdot FR \cdot GFA$

Comments: _____

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- ✓ Half Face Filter Resp.
- ✓ Disposable Suit
- ✓ Booties
- ✓ Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☐ Other

[illegible] Removal

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-22-99
Client: Care Environmental
Site: CHAS NAV Base
Project Name: Bldg. 643

D-2099 1

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm.
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			Field Blank							0		100
	BL			Lab Blank							0		100
42	A	2/4	A-1	2nd Deck Loading Dock	0705	1530	505	5.0	2525	41	0	100	0.008
43	A	1/3	A-2	1st Deck, North, area	0706	1531	505	5.0	2525	11.5	0	100	0.002
44	A	1/3	A-3	1st Deck, East, area	0710	1531	501	5.0	2505	16	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
42	0705	5.0	MB
43	0706	5.0	MB
44	0710	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
42	1530	5.0	MB
43	1531	5.0	MB
44	1531	5.0	MB

F/cc Calculation = $\frac{\left(\frac{FCS \cdot FCB}{Fld}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: _____

PPE:
___ SCBA
___ Type C Resp.
___ PAPR
X Half Face Filter Resp.
X Disposable Suit
X Booties
X Hood
___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☐ Other

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 94-01-001 Date: 1-25-
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BUD6.643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
45	A	2/4	A-1	2nd Deck Condy Dock	0712	1514	482	5.0	2410	19	0	100	0.004
46	A	1/3	A-2	1st Deck, PWA, North	0715	1516	481	5.0	2405	11	0	100	0.002
47	A	1/3	A-3	1st Deck, PWA, East	0718	1517	479	5.0	2395	10	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☒ Rotometer # A-1
- ☐ Critical Orifice # _____
- ☐ Buret
- ☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
45	0712	5.0	RB
46	0715	5.0	RB
47	0718	5.0	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
45	1514	5.0	RB
46	1516	5.0	RB
47	1517	5.0	RB

F/cc Calculation = $\frac{(\frac{FCS - FCB}{Fld}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: _____

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non-Friable Direct Mat'l

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 97-01 001 Date: 1-26-99
Client: CAPE Environmental
Site: CHRS NAV BASE
Project Name: B-106 643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD BLANK						0		100	
	BL			LAB BLANK						0		100	
48	A	2/4	A-1	2nd Deck, Cond, Dock	0741	1512	451	5.0	2255	71	0	100	0.015*
49	A	1/3	A-2	1st Deck, North, OWA	0745	1515	450	5.0	2250	14	0	100	0.003
50	A	1/3	A-3	1st Deck, East, OWA	0747	1516	449	5.0	2245	13	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
48	0741	5.0	WB
49	0745	5.0	WB
50	0747	5.0	WB

Post Cal Data

Sample #	Time	FR (LPM)	Init
48	1512	5.0	WB
49	1515	5.0	WB
50	1516	5.0	WB

F/cc Calculation = $\frac{(F_{CS} - F_{CB}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: Mike Mount onsite for ~ 10:30 - 1430

PPE:
___ SCBA
___ Type C Resp.
___ PAPR
X Half Face Filter Resp.
X Disposable Suit
X Booties
X Hood
___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Nontoxic Dust Mater

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-27-99
Client: Cape Environmental
Site: CNAS Naval Base
Project Name: B.06. 643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) 0.0785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD BLANK						0		100	
	BL			LAB BLANK						0		100	
51	A	2/4	A-1	2nd Deck Cargo Dock	0705	1515	490	5.0	2450	41	0	100	0.008
52	A	1/3	A-2	1st Deck, North, OWA	0712	1516	484	5.0	2420	9.5	0	100	0.002
53	A	1/3	A-3	1st Deck, East, OWA	0716	1517	481	5.0	2405	11	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
51	0705	5.0	MB
52	0712	5.0	MB
53	0716	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
51	1515	5.0	MB
52	1516	5.0	MB
53	1517	5.0	MB

F/cc Calculation = $\frac{(FCS - FCB)}{Fld} \times (AF)$ / $1000 \cdot T \cdot FR \cdot GFA$

Comments:

PPE:
____ SCBA
____ Type C Resp.
____ PAPR
X Half Face Filter Resp.
X Disposable Suit
X Booties
X Hood
____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non-Friable Non-Metric

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-28-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BLDG. 643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD BLANK						0		100	
	BL			LAB BLANK						0		100	
54	A	2/4	A-1	2nd Deck, Load Dock	0705	1510	485	5.0	2425	31	0	100	0.006
55	A	1/3	A-2	1st Deck, North, OWA	0709	1510	481	5.0	2405	11	0	100	0.002
56	A	1/3	A-3	1st Deck, East, OWA	0710	1512	482	5.0	2410	9	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
54	0705	5.0	RB
55	0707	5.0	RB
56	0710	5.0	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
54	1510	5.0	RB
55	1510	5.0	RB
56	1512	5.0	RB

F/cc Calculation = $\frac{(FCS - FCB)}{Fld} \times (AF)$ / $1000 \cdot T \cdot FR \cdot GFA$

Comments: _____

PPE:
____ SCBA
____ Type C Resp.
____ PAPR
X Half Face Filter Resp.
X Disposable Suit
X Booties
X Hood
____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Asbestos Matrix Removal

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 1-29-99
Client: CAPE Environmental
Site: CANS NAV Base
Project Name: BLDG. 643

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD BLANK						0		100	
	BL			LAB BLANK						0		100	
57	A	2/4	A-1	2nd Deck 2nd Floor, Dock	0701	1510	489	5.0	2445	29.5	0	100	0.006
58	A	1/3	A-2	1st Deck, North, OWA	0705	1515	490	5.0	2450	14	0	100	0.003
59	A	1/3	A-3	1st Deck, EAST, OWA	0707	1515	488	5.0	2440	9.	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- ☒ Rotometer # A-1
- ☐ Crirical Orifice # _____
- ☐ Buret
- ☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
57	0701	5.0	MB
58	0705	5.0	MB
59	0707	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
57	1510	5.0	MB
58	1515	5.0	MB
59	1515	5.0	MB

F/cc Calculation = $\frac{(\frac{FCS - FCB}{Fld}) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: _____

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non Friable / Tyvek

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 2-1-99
Client: CAPE Environmental
Site: CNAS NAV Base
Project Name: BLDG. 643

1/-2162 & 109:104

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
60	2/4	A	A-1	2nd Deck, Conf Deck	0731	1531	480	5.0	2400	26	0	100	0.005
61	1/3	A	A-2	1st Deck, North, aux	0732	1535	483	5.0	2415	4	0	100	0.002
62	1/3	A	A3	1st Deck, EAST, aux	0735	1536	481	5.0	2405	14	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
60	0731	5.0	MB
61	0732	5.0	MB
62	0735	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
60	1531	5.0	MB
61	1535	5.0	MB
62	1536	5.0	MB

F/cc Calculation = $\frac{\left(\frac{FCS - FCB}{Fla}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: 10 HES, New Supervisor James Miller, 13 men onsite, 1 Supervisor.

PPE:
___ SCBA
___ Type C Resp.
___ PAPR
✓ Half Face Filter Resp.
☒ Disposable Suit
☒ Booties
☒ Hood
___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non friable, friable mastic

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 91-01-001 Date: 2-2-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BL06.643

D-262 P9045745
BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance
1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm
LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BL			FIELD Blank						0		100	
	BL			LAB Blank						0		100	
63	A	2/4	A-1	2nd Deck, Landy Dock	0715	1520	485	5.0	2425	17	0	100	0.003
64	A	1/3	A-2	1st Deck, North, aux	0716	1521	485	5.0	2425	6	0	100	0.002
65	A	1/3	A-3	1st Deck, East, aux	0717	1525	488	5.0	2440	9	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure
- ☒ Rotometer # A-1
- ☐ Critical Orifice #
- ☐ Buret
- ☐ Electronic Primary Std.

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
63	0715	5.0	RB
64	0716	5.0	RB
65	0717	5.0	RB

Post Cal Data

Sample #	Time	FR (LPM)	Init
63	1520	5.0	RB
64	1521	5.0	RB
65	1525	5.0	RB

F/cc Calculation = $\frac{(F_{CS}-F_{CB})}{F_{IG}} \times (AF) \over 1000 \cdot T \cdot FR \cdot GFA$

Comments:

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non Friable F.T. mastic

Collected by:
Analyzed by:
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 2-3-99
Client: CAPE Environmental
Site: CHNS NAV Base
Project Name: Bldg. 643

U-2162 P1-9096053

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm
Graticule Area:(GFA) .00785 mm

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
/	BL	/	/	LAB Blank	/	/	/	/	/	0	/	100	/
/	BL	/	/	FIELD Blank	/	/	/	/	/	0	/	100	/
66	A	2/4	A-1	2nd Deck, Landing Pole	0714	1512	478	5.0	2390	29	0	100	0.006
67	A	1/3	A-2	1st Deck, North, OWA	0720	1521	481	5.0	2405	9	0	100	<0.002
68	A	1/3	A-3	1st Deck, EAST, OWA	0722	1522	480	5.0	2400	11.5	0	100	0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

☒ Rotometer # A-1
☐ Critical Orifice # _____
☐ Buret
☐ Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
66	0714	5.0	IB
67	0720	5.0	IB
68	0722	5.0	IB

Post Cal Data

Sample #	Time	FR (LPM)	Init
66	1512	5.0	IB
67	1521	5.0	IB
68	1522	5.0	IB

F/cc Calculation = $\frac{\left(\frac{FCS - FCB}{Fld}\right) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: Removal of Non-Friable floor tile mastic.

PPE:
____ SCBA
____ Type C Resp.
____ PAPR
X Half Face Filter Resp.
X Disposable Suit
X Booties
X Hood
____ Other

Removal Type:
☐ Aggressive ☐ Glovebag ☐ Outdoor ☒ Other
Non-Friable Mastic Removal

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 2-4-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name:

D-2162 P-9096352

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 385 mm,
Graticule Area:(GFA) .00785 mm,

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BC			FIELD Blank									
	BL			LAB BLANK									
69	A	2/4	A-1	2nd Deck, Loading dock	0729	1540	491	5.0	2455	21	0	100	0.004
70	A	1/3	A-2	1st Deck, North, OWA	0745	1541	476	5.0	2380	14	0	100	0.003
71	A	1/3	A-3	1st Deck, EAST, OWA	0750	1550	480	5.0	2400	4	0	100	<0.002

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- [x] Rotometer # A-1
- [ ] Critical Orifice #
- [ ] Buret
- [ ] Electronic Primary Std.

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
69	0729	5.0	IB
70	0745	5.0	IB
71	0750	5.0	MB

Post Cal Data

Sample #	Time	FR (LPM)	Init
69	1540	5.0	MB
70	1541	5.0	MB
71	1550	5.0	IB

F/cc Calculation = $\frac{(FCS - FCB)}{Fig} \times (AF)$ / 1000•T•FR•GFA

Comments:

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- ___ Full Face Resp.
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
- [ ] Aggressive
- [ ] Glovebag
- [ ] Outdoor
- [x] Other

Non Friable Floor Tile Mastic

Collected by: [signature]
Analyzed by: [signature]
Reviewed by:

A • E • C
ENVIRONMENTAL CONSULTANTS
Air Sampling Form

Project #: 99-01-001 Date: 2-5-99
Client: CAPE Environmental
Site: CHAS NAV BASE
Project Name: BUD6. 643

D-2162-1 P-9096932

BL=Blank
B=Background
A=Area
P=Personnel
C=Clearance

1=Outside Bldg.
2=Inside Bldg.
3=Outside Work Area
4=Inside Work Area

Microscope SN.: 506
Area of Filter:(AF) 38.5 mm²
Graticule Area:(GFA) .00785 mm²

LOQ: 10 fibers/100 fields
Method: NIOSH 7400 (A rules)

Sample#	Type	Area	Pump#	Location or Name (LFM-SSN)	Start Time	Stop Time	Total Min.	FR (LPM)	Volume	Fibers Counted	Fibers Counted (Blank corr)	Fields Counted	Fibers/cc (Blank corr)
	BC			FIELD Blank						0		100	
	BC			LAB Blank						0		100	
72	A	2/4	A-1	2nd deck, Landing deck	0701	1410	429	5.0	2145	16	0	100	0.004
73	A	1/3	A-2	1st deck	0701	1415	434	5.0	2170	9	0	100	0.002
74	A	1/3	A-3	1st deck.	0705	1416	431	5.0	2155	11	0	100	0.003

Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA	Worker Name (LFM)	Excursion Limit	8 hr. TWA

Calibration Procedure

- [x] Rotometer # A-1
- [ ] Critical Orifice # _____
- [ ] Buret
- [ ] Electronic Primary Std. _____

TWA Calculation:

Pre Cal Data

Sample #	Time	FR (LPM)	Init
72	0701	5.0	IB
73	0701	5.0	M
74	0705	5.0	IB

Post Cal Data

Sample #	Time	FR (LPM)	Init
72	1410	5.0	IB
73	1415	5.0	DS
74	1416	5.0	M

F/cc Calculation = $\frac{(FCS - FCB) \times (AF)}{1000 \cdot T \cdot FR \cdot GFA}$

Comments: _____

PPE:
- ___ SCBA
- ___ Type C Resp.
- ___ PAPR
- X Half Face Filter Resp.
- ___ Full Face Resp
- X Disposable Suit
- X Booties
- X Hood
- ___ Other

Removal Type:
- [ ] Aggressive
- [ ] Glovebag
- [ ] Outdoor
- [x] Other

Non-friable Floorticle Mastic

Collected by: [signature]
Analyzed by: [signature]
Reviewed by: _____