

**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 28 of 36

Request activity fill out numbers 101-112 prior to inspection.

Rating Score NDO

UIC N65113 Activity NPWC

Homogeneous area # 28 Homo. Area (SF/LF) 10005

Claimant NAUFAC EFD N62472

Contains friable ACM [Yes/No] Y

POC Gres Pye Phone 688-2465 Bldg # 11

Public access [Yes/No] N

Prop Rec # 200107 Bldg. Area (SF) 56,076

Contractor & inspector name BCM ENGINEERS

Area PW Cat Code 82109 Yr built 1906

Inspector Signature, State of Accreditation/Accred. #  
E Ridschlag

Survey date 2-23-91 = 2-25-91

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_ \*

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**C ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other \_\_\_\_\_ \*

**HM ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [OM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM]vinyl flooring [NT]steam pipe [O]other \_\_\_\_\_ \*

1005 QUANTITY: Enter quantity with S for sq. ft. or L for DIAMETER in inches for piping.  
313A 313B linear feet of piping \_\_\_\_\_ 314

**B QUANTITY RANGE:** Enter letter for closest range  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units

**C DEGREE OF FRIABILITY:** Enter letter describing friability  
316 [A] high [B] moderate [C] low [D] non

DAMAGE: Percent Extent: (a) localized (b) distributed Type: (a) Deteriorating (b) Water (c) Physical  
Amt. exposed (%): 100 Amt. accessible (%): 5 (within arms reach?) Potential for air erosion? Y  
Proximity to repair items?: Y Influence of vibration?: N Comments: \_\_\_\_\_

2'x4' CEILING TILE (PITTED)

**E CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACMB w/potential for significant damage  
[D] ACMB w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

25 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos  
319 \_\_\_\_\_

**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**G RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

and In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>28</u>											
Sample number	<u>6657</u>	<u>5363</u>	<u>9505</u>									
(%)	<u>0</u>	<u>0</u>	<u>0</u>									
	341	343	345	347	349	351	353	355	357			
TYPE	342	344	346	348	350	352	354	356	358			



Include comments on NAVOSH DAP/MIS for... in appropriate narrative sections

Laboratory name and address: BCM Laboratory Division

1850 Gravers Road

Norristown, Pa. 19401

(215) 275-0281

BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 29 of 36

Request activity fill out numbers 101-112 prior to inspection.

Rating Score DO  
201

UIC N65113 Activity NPWC  
101 102

Homogeneous area # 29 Homo. Area (SF/LF) 500SF  
204 205

Claimant NAUFAC EFD N62472  
103 104

Contains friable ACM [Yes/No] Y  
206

POC Greg Pye Phone 688-2465 Bldg # 11  
105 106 107

Public access [Yes/No] N  
207

Prop Rec # 200107 Bldg. Area (SF) 56,076  
108 109

Contractor & inspector name BCM ENGINEERS  
208

Area PW Cat Code 82109 Yr built 1906  
use 110 111 112

Inspector Signature, State of Accreditation/Accred. #  
M W YCO

Survey date 2-23-91 → 2-25-91  
209

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_ \*

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**C ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other \_\_\_\_\_ \*

**HM ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles-[JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other \_\_\_\_\_ \*

**QUANTITY:** Enter quantity with S for sq. ft. or L for linear feet of piping  
313A 313B 500 S DIAMETER in inches for piping. 314

**C QUANTITY RANGE:** Enter letter for closest range  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units  
**D DEGREE OF FRIABILITY:** Enter letter describing friability  
316 [A] high [B] moderate [C] low [D] non

**DAMAGE:** Percent 1 Extent: (a) localized X (b) distributed \_\_\_\_\_ Type: (a) Deteriorating \_\_\_\_\_ (b) Water \_\_\_\_\_ (c) Physical X  
Amt. exposed (%): 100 Amt. accessible (%): 10 (within arms reach?) Potential for air erosion? N  
Proximity to repair items?: Y Influence of vibration?: Y Comments: \_\_\_\_\_

2'x4' CEILING TILE (SQUIGLLE)

**B CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage  
[D] ACBM w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

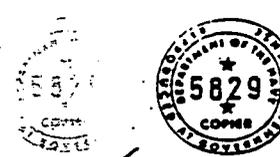
**PERSONS POTENTIALLY EXPOSED, ACTUAL:** Enter the actual number of persons potentially exposed to asbestos  
319 25

**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**G RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>29</u>									
Sample number	<u>7181</u>	<u>8221</u>	<u>9769</u>							
(%)	<u>0</u>	<u>0</u>	<u>0</u>							
	341	343	345	347	349	351	353	355	357	
TYPE	342	344	346	348	350	352	354	356	358	



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BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 30 of 36

Request activity fill out numbers 101-112 prior to inspection.

Rating Score D18

UIC N65113 Activity NPWC

Homogeneous area # 30 Hom. Area (SF/LF) 2000

Claimant NAUFAC EFD N62472

Contains friable ACM [Yes/No] Y

POC Gres Pye Phone 688-2465 Bldg # 11

Public access [Yes/No] N M WYCO

Prop Rec # 200107 Bldg. Area (SF) 56,076

Contractor & inspector name BCM ENGINEERS

Area PW Cat Code 82109 Yr built 1906

Inspector Signature, State of Accreditation/Accred. # M W Y C O

Survey date 2-23-91 - 2-25-91

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_ \*

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**E ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other \_\_\_\_\_ \*

**MM ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other \_\_\_\_\_ \*

**3000 S QUANTITY:** Enter quantity with S for sq. ft. or L for DIAMETER in inches for piping.  
313A 313B linear feet of piping

**B QUANTITY RANGE:** Enter letter for closest range **D DEGREE OF FRIABILITY:** Enter letter describing friability  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units 316 [A] high [B] moderate [C] low [D] non

**DAMAGE:** Percent 2 Extent: (a) localized (b) distributed X Type: (a) Deteriorating X (b) Water X (c) Physical X  
Amt. exposed (%): 100 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? N  
Proximity to repair items?: N Influence of vibration?: X Comments: \_\_\_\_\_

12" x 12" FLOOR TILE (WHITE)

**B CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage  
[D] ACBM w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

**25 PERSONS POTENTIALLY EXPOSED, ACTUAL:** Enter the actual number of persons potentially exposed to asbestos  
319

**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**H RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>30</u>	<u>30</u>	<u>30</u>						
Sample number	<u>GL 8544</u>	<u>7562</u>	<u>2710</u>						
(%)	<u>2</u>	<u>2</u>	<u>2</u>						
	<u>341-5</u>	<u>343</u>	<u>345</u>	<u>347</u>	<u>349</u>	<u>351-5</u>	<u>353</u>	<u>355</u>	<u>357</u>
TYPE	<u>A</u>	<u>A</u>	<u>A</u>						
	<u>342-5</u>	<u>344</u>	<u>346</u>	<u>348</u>	<u>350</u>	<u>352-5</u>	<u>354</u>	<u>356</u>	<u>358</u>



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BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 03 of 36

Request activity fill out numbers 101-112 prior to inspection.  
 UIC N65113 Activity NPWC  
 Claimant NAUFAC EFD N62472  
 POC Gres Pye Phone 688-2465 Bldg # 11  
 Prop Rec # 200107 Bldg. Area (SF) 56,076  
 Area PW Cat Code 82109 Yr built 1906  
 use 110

Rating Score PD11  
 Homogeneous area # 31 Hom. Area (SF/LF) 200  
 Contains friable ACM [Yes/No] Y  
 Public access [Yes/No] N  
 Contractor & inspector name BCM ENGINEERS  
 Inspector Signature, State of Accreditation/Accred. # M W YCO  
 Survey date 2-23-91 - 2-25-91

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
 301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
 [F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
 302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
 [H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
 [O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
 303 [A] critical [B] essential [C] non-essential

**E ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
 311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other \_\_\_\_\_

**MM ASBESTOS FUNCTION:** Enter one of following codes  
 312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [OM]asbestos-cement pipe [ET]duct  
 [FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles-[JT]hot water tank [KT]boiler  
 [LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other \_\_\_\_\_

**200 S QUANTITY:** Enter quantity with S for sq. ft. or L for DIAMETER in inches for piping.  
 313A 313B linear feet of piping 314

**S QUANTITY RANGE:** Enter letter for closest range  
 315 [A] >5000 units [B] 1000-5000 units [C] <1000 units

**D DEGREE OF FRIABILITY:** Enter letter describing friability  
 316 [A] high [B] moderate [C] low [D] non

**DAMAGE:** Percent 0 Extent: (a) localized (b) distributed Type: (a) Deteriorating (b) Water (c) Physical  
 Amt. exposed (%): 100 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? N  
 Proximity to repair items?: N Influence of vibration?: Y Comments: \_\_\_\_\_

12" x 12" GREEN FLOOR TILE

**D CONDITION:** Enter letter describing condition  
 317 [A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage  
 [D] ACBM w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
 318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

**25 PERSONS POTENTIALLY EXPOSED, ACTUAL:** Enter the actual number of persons potentially exposed to asbestos  
 319

**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
 320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**H RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
 330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
 [G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
 [A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>31</u>	<u>31</u>	<u>31</u>						
Sample number	<u>GL-5035</u>	<u>1623</u>	<u>9613</u>						
(%)	<u>2</u>	<u>2</u>	<u>2</u>						
TYPE	<u>A</u>	<u>A</u>	<u>A</u>						



Include comments on NAVOSH DAP/MIS for... in appropriate narrative sections

Laboratory name and address: BCM Laboratory Division  
1850 Gravers Road  
Norrstown, Pa. 19401  
(215) 275-0281

BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 032 of 36

Request activity fill out numbers 101-112 prior to inspection.

UIC N65113 Activity NPWC  
101 102

Claimant NAUFAC EFD N62472  
103 104

POC Gres Pye Phone 688-2465 Bldg # 11  
105 106 107

Prop Rec # 200107 Bldg. Area (SF) 56,076  
108 109

Area PW Cat Code 82109 Yr built 1906  
use 110 111 112

Rating Score PDO  
201

Homogeneous area # 32 Homo. Area (SF/E) 200  
204 205

Contains friable ACM [Yes/No] Y  
206

Public access [Yes/No] N  
207

Contractor & inspector name BCM ENGINEERS  
208

Inspector Signature, State of Accreditation/Accred. #  
M W Y C O

M W Y C O

Survey date 2-23-91 → 2-25-91  
209

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
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**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
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[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

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**I ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other MASTIC \*

**O ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other BASEBOARD MASTIC\*

**200 CF QUANTITY:** Enter quantity with S for sq. ft. or L for linear feet of piping  
313A 313B NA DIAMETER in inches for piping.  
314

**C QUANTITY RANGE:** Enter letter for closest range  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units  
**D DEGREE OF FRIABILITY:** Enter letter describing friability  
316 [A] high [B] moderate [C] low [D] non

**DAMAGE:** Percent 0 Extent: (a) localized (b) distributed Type: (a) Deteriorating (b) Water (c) Physical  
Amt. exposed (%): 0 Amt. accessible (%): 100 (within arms reach?) Potential for air erosion? N  
Proximity to repair items?: N Influence of vibration?: N Comments: \_\_\_\_\_

BASEBOARD & MASTIC

**D CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACM w/potential for significant damage  
[D] ACM w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
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**25 PERSONS POTENTIALLY EXPOSED, ACTUAL:** Enter the actual number of persons potentially exposed to asbestos  
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**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
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**6 RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
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[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>32</u>	<u>32</u>	<u>32</u>	_____	_____	_____	_____	_____	_____
Sample number	<u>6L 9299</u>	<u>6412</u>	<u>5935</u>	_____	_____	_____	_____	_____	_____
(%)	<u>0</u>	<u>0</u>	<u>0</u>	_____	_____	_____	_____	_____	_____
	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358



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Norristown, Pa. 19401

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BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 33 of 36

Request activity fill out numbers 101-112 prior to inspection.

Rating Score PDO

UIC N65113 Activity NPWC

Homogeneous area # 33 Homo. Area (SF/LF) 5000

Claimant NAVFAC EFD N62472

Contains friable ACM [Yes/No] Y

POC Gres Pye Phone 688-2465 Bldg # 11

Public access [Yes/No] N M WYCO

Prop Rec # 200107 Bldg. Area (SF) 56,076

Contractor & inspector name BCM ENGINEERS

Area PW Cat Code 82109 Yr built 1906

Inspector Signature, State of Accreditation/Accred. # \_\_\_\_\_

Survey date 2-23-91 = 2-25-91

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[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_

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302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**G ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other \_\_\_\_\_

**GS ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other \_\_\_\_\_

**5000 S QUANTITY:** Enter quantity with S for sq. ft. or L for linear feet of piping DIAMETER in inches for piping.  
313A 313B \_\_\_\_\_ 314

**B QUANTITY RANGE:** Enter letter for closest range DEGREE OF FRIABILITY: Enter letter describing friability.  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units 316 [A] high [B] moderate [C] low [D] non

**DAMAGE:** Percent 1 Extent: (a) localized (b) distributed X Type: (a) Deteriorating (b) Water (c) Physical X  
Amt. exposed (%): 100 Amt. accessible (%): 75 (within arms reach?) Potential for air erosion? N  
Proximity to repair items?: N Influence of vibration?: N Comments: \_\_\_\_\_

WALL PLASTER

**D CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACM w/potential for significant damage  
[D] ACM w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

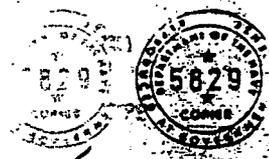
**25 PERSONS POTENTIALLY EXPOSED, ACTUAL:** Enter the actual number of persons potentially exposed to asbestos  
319 \_\_\_\_\_

**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**G RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE: enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>33</u>	<u>33</u>	<u>33</u>	_____	_____	_____	_____	_____	_____
Sample number	<u>6L</u>	<u>4063</u>	<u>6790</u>	<u>3005</u>	_____	_____	_____	_____	_____
(%)	<u>0</u>	<u>0</u>	<u>0</u>	_____	_____	_____	_____	_____	_____
	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358



Include comments on NAVOSH DAP/MIS for... in appropriate narrative sections

Laboratory name and address: BCM Laboratory Division

1850 Gravers Road

Norristown, Pa. 19401

(215) 275-0281

BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 34 of 36

Request activity fill out numbers 101-112 prior to inspection.

Rating Score PDO  
201

UIC N65113 Activity NPWC  
101 102

Homogeneous area # 34 Homo. Area (SF/LF) 2000  
204 205

Claimant NAUFAC EFD N62472  
103 104

Contains friable ACM [Yes/No] Y  
206

POC Greg Pye Phone 688-2465 Bldg # 11  
105 106 107

Public access [Yes/No] N  
207 M WYCO

Prop Rec # 200107 Bldg. Area (SF) 56,076  
108 109

Contractor & inspector name BCM ENGINEERS  
208

Inspector Signature, State of Accreditation/Accred. # \_\_\_\_\_

Area PW Cat Code 82109 Yr built 1906  
use 110 111 112

Survey date 2-23-91 - 2-25-91  
209

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_ \*

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**E ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other \_\_\_\_\_ \*

**O ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other DRYWALL \*

2000 S QUANTITY: Enter quantity with S for sq. ft. or L for X DIAMETER in inches for piping.  
313A 313B linear feet of piping 314

**B QUANTITY RANGE:** Enter letter for closest range **D DEGREE OF FRIABILITY:** Enter letter describing friability  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units 316 [A] high [B] moderate [C] low [D] non

**DAMAGE:** Percent 1 Extent: (a) localized X (b) distributed \_\_\_\_\_ Type: (a) Deteriorating \_\_\_\_\_ (b) Water \_\_\_\_\_ (c) Physical X  
Amt. exposed (%): 100 Amt. accessible (%): 75 (within arms reach?) Potential for air erosion? N  
Proximity to repair items?: N Influence of vibration?: N Comments: \_\_\_\_\_

DRYWALL & JOINT COMPOUND

**D CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACBM w/potential for significant damage.  
[D] ACBM w/potential for damage [E] no damage or no potential for damage

**A EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

25 **PERSONS POTENTIALLY EXPOSED, ACTUAL:** Enter the actual number of persons potentially exposed to asbestos  
319

**C PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**G RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>34</u>	<u>34</u>	<u>34</u>	_____	_____	_____	_____	_____	_____
Sample number	<u>2782</u>	<u>8490</u>	<u>5126</u>	_____	_____	_____	_____	_____	_____
(%)	<u>0</u>	<u>0</u>	<u>0</u>	_____	_____	_____	_____	_____	_____
	341	343	345	347	349	351	353	355	357
TYPE	342	344	346	348	350	352	354	356	358



Include comments on NAVOSH DAP/HIS for... in appropriate narrative sections

Laboratory name and address: BCM Laboratory Division

1850 Gravers Road

Norristown, Pa. 19401

(215) 275-0281

BOILER PLANT IS MANNED 24 HRS A DAY



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 35 of 36

Request activity fill out numbers 101-112 prior to inspection.

UIC N65113 Activity NPWC  
101 102

Claimant NAUFAC EFD N62472  
103 104

POC Grespye Phone 688-2465 Bldg # 11  
105 106 107

Prop Rec # 200107 Bldg. Area (SF) 56,076  
108 109

Area PW Cat Code 82109 Yr built 1906  
110 111 112

Rating Score PD11  
201

Homogeneous area # 35 Homo. Area (SF/LF) 56,000  
204 205

Contains friable ACM [Yes/No] Y  
206

Public access [Yes/No] N M WYCO  
207

Contractor & inspector name BCM ENGINEERS  
208

Inspector Signature, State of Accreditation/Accred. #  
Murphy

Survey date 2-23-91 - 2-25-91  
209

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_ \*

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**I ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other ROOFING \*

**O ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [DM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other ROOFING \*

56000 S QUANTITY: Enter quantity with S for sq. ft. or L for linear feet of piping. NA DIAMETER in. inches for piping.  
313A 313B 314

**A QUANTITY RANGE:** Enter letter for closest range  
315 [A] >5000 units [B] 1000-5000 units [C] <1000 units  
**D DEGREE OF FRIABILITY:** Enter letter describing friability  
316 [A] high [B] moderate [C] low [D] non

DAMAGE: Percent 0 Extent: (a) localized (b) distributed Type: (a) Deteriorating (b) Water (c) Physical  
Amt. exposed (%): 100 Amt. accessible (%): 0 (within arms reach?) Potential for air erosion? N  
Proximity to repair items?: Y Influence of vibration?: Y Comments: \_\_\_\_\_

ROOFING

**D CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACM w/potential for significant damage  
[D] ACM w/potential for damage [E] no damage or no potential for damage

**B EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

25 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos  
319

**O PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**H RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area # 35 ASSUMED

Sample number NOT SAMPLED

(%) 26  
341 343 345 347 349 351 353 355 357

TYPE A  
342 344 346 348 350 352 354 356 358



Include comments on NAVOSH OAP/MIS for... in appropriate narrative sections

Laboratory name and address: BCM Laboratory Division

1850 Gravers Road

Norristown, Pa. 19401

(215) 275-0281

BOILER PLANT IS MANNED 24 HRS A DAY

BUILDING ROOF NOT SAMPLED DUE TO ACCESSIBILITY PROBLEMS, COLD INCLEMENT WEATHER, AND ON INSTRUCTIONS FROM SITE CONTACT.



**ASBESTOS FACILITY INVENTORY FORM**  
(For each homogeneous area) Sheet 36 of 36

Request activity fill out numbers 101-112 prior to inspection.

Rating Score PD10

UIC N65113 Activity N PWC

Homogeneous area # 36 Homo. Area (SF/LF) 5000

Claimant NAUFAC EFD N62472

Contains friable ACM [Yes/No] Y

POC Greg Pye Phone 688-2465 Bldg # 11

Public access [Yes/No] N

Prop Rec # 200107 Bldg. Area (SF) 56,076

Contractor & inspector name BCM ENGINEERS

Area PW Cat Code 82109 Yr built 1906

Inspector Signature, State of Accreditation/Accred. # M W YCO

Survey date 2-23-91 - 2-25-91

**E BUILDING TYPE:** (Determine during pre-inspection meeting) Enter one of following letters  
301 [A] operations/training [B] housing or community [C] research/test [D] supply [E] utilities  
[F] maintenance/production [G] administrative [H] medical/dental [I] other \_\_\_\_\_ \*

**F BUILDING DESC.:** (Determine during pre-inspection meeting) Enter one of following letters  
302 [A] cafeteria [B] penthouse [C] attic [D] classroom [E] mechanical [F] boiler [G] locker room  
[H] storage [I] office [J] gym [K] shop [L] laboratory [M] dormitory [N] shower room  
[O] lavatory [P] hall/lobby [Q] plenum [R] crawl space [S] auditorium [T] hanger bay [U] other \_\_\_\_\_

**A FACILITY CRITICALITY:** (Determine during pre-inspection meeting) Enter one of following letters  
303 [A] critical [B] essential [C] non-essential

**I ASBESTOS FORM:** Enter one of following letters [A]blanket [B]molded [C]preformed  
311 [D]aircell [E]sheet [F]sprayed-on [G]trowelled-on [H]loose fill [I]other FLASHING \*

**O ASBESTOS FUNCTION:** Enter one of following codes  
312 [AS]acoustical insulation [BT]wall insulation [CM]gasket/seal [PM]transite [OM]asbestos-cement pipe [ET]duct  
[FT]hi-temp hot water line [GS] surface coating [HM]ceiling tile [IM]shingles [JT]hot water tank [KT]boiler  
[LS]structure fireproofing [MM] vinyl flooring [NT]steam pipe [O]other ROOF FLASHING \*

5000 S QUANTITY: Enter quantity with S for sq. ft. or L for DIAMETER in inches for piping.  
313A 313B linear feet of piping 314

**B QUANTITY RANGE:** Enter letter for closest range 315 [A] >5000 units [B] 1000-5000 units [C] <1000 units  
**D DEGREE OF FRIABILITY:** Enter letter describing friability. 316 [A] high [B] moderate [C] low [D] non

DAMAGE: Percent 3 Extent: (a) localized (b) distributed X Type: (a) Deteriorating X (b) Water (c) Physical  
Amt. exposed (%): \_\_\_\_\_ Amt. accessible (%): \_\_\_\_\_ (within arms reach?) Potential for air erosion? u  
Proximity to repair items?: u Influence of vibration?: u Comments: \_\_\_\_\_

ROOF FLASHING

**D CONDITION:** Enter letter describing condition  
317 [A] significantly damaged ACM [B] damaged ACM [C] ACM w/potential for significant damage  
[D] ACM w/potential for damage [E] no damage or no potential for damage

**B EXPOSURE POTENTIAL:** Enter letter best describing exposure potential  
318 [A] accessible/occupied [B] accessible/unoccupied [C] inaccessible/likely [D] inaccessible/unlikely

25 PERSONS POTENTIALLY EXPOSED, ACTUAL: Enter the actual number of persons potentially exposed to asbestos  
319

**O PERSONS POTENTIALLY EXPOSED, RANGE:** Enter letter of the range that best describes answer above (318)  
320 [A] >100 people [B] 40-100 people [C] 10-40 people [D] <10 people

**G RECOMMENDED ACTION:** Enter one or more letters that best describe priorities for recommended action  
330 [A] immediate action [B] planned action [C] isolate area [D] restrict access [E] cleanup area [F] repair  
[G] preventive measures [H] O&M program [I] encapsulation [J] enclose [K] remove [L] other \_\_\_\_\_

In (%), enter actual percent of asbestos in sample. In TYPE, enter letter describing type of asbestos in sample  
[A] chrysotile [B] amosite [C] tremolite [D] crocidolite [E] anthophyllite [F] actinolite

Homogeneous area #	<u>36 ASSUMED</u>									
Sample number	<u>NOT SAMPLED</u>									
(%)	<u>26</u>									
	341	343	345	347	349	351	353	355	357	
TYPE	<u>A</u>									
	342	344	346	348	350	352	354	356	358	



Include comments on NAVOSH DAP/MIS for... in appropriate narrative sections

Laboratory name and address: BCM Laboratory Division

1850 Gravers Road

Norristown, Pa. 19401

(215) 275-0281

BOILER PLANT IS MANNED 24 HRS A DAY

NOT SAMPLED AS PER HOMO ANDA # 35





NAVOSH DEFICIENCY ABATEMENT PROGRAM  
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME: ASBESTOS ASSESSMENT/ABATEMENT BUILDING # 11  
SERIAL NO.:  
UIC: 0265113

PROGRAM: ASBESTOS  
FUNDING COMMAND:  
STATUS: PP (PRELIMINARY PLANNING)

DATE PREPARED: 3 FEB 92  
DATE INPUT:  
DATE REVISED:  
PROJ NO.:

AGENCY: DEPARTMENT OF THE NAVY

ACTIVITY: 1. PWC, GREAT LAKES  
ADDRESS: GREAT LAKES, ILLINOIS

NAVFAC CONTACT:

NARRATIVE

(Limit of 65 positions per line including spaces and punctuation)

2. PROBLEM DESCRIPTION:

THE MAJORITY OF THE SUSPECT MATERIAL IN THIS BUILDING IS ASBESTOS-CONTAINING. IT IS PHYSICALLY DAMAGED IN SOME AREAS AND COULD BE A POTENTIAL HAZARD TO OCCUPANTS.

3. SPECIFIC HAZARD AND LOCATION:

HAZ #	CONDITION	FACILITY RATING/RANKING	
5	DAMAGED	D56	1
25	DAMAGED	D43	2
9	DAMAGED	D39	3
3	DAMAGED	D39	4
22	DAMAGED	D36	5
21	DAMAGED	D36	6
20	DAMAGED	D36	7
11	DAMAGED	D32	8
2	DAMAGED	D32	9



NAVOSH DEFICIENCY ABATEMENT PROGRAM  
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME

SERIAL NO.

UIC

ASBESTOS ASSESSMENT/ABATEMENT BUILDING # 11

1065113

4 INTERIM CONTROL MEASURES:

HAF#	RECOMMENDATION
5	PREVENTATIVE MEASURES
25	PREVENTATIVE MEASURES
9	PREVENTATIVE MEASURES
3	PREVENTATIVE MEASURES
22	PREVENTATIVE MEASURES
20	PREVENTATIVE MEASURES

5. EFFECTIVENESS OF INTERIM CONTROL MEASURES:

N/A

6. PROPOSED CORRECTIVE ACTION AND EFFECTIVENESS:

HAF#	RECOMMENDATION	HAF#	RECOMMENDATION
5	REMOVE	21	OAM PROGRAM
25	REMOVE	20	REMOVE
9	REMOVE	11	OAM PROGRAM
3	REMOVE	2	OAM PROGRAM
22	REMOVE		

7. OTHER RELEVANT INFORMATION:  
LOCAL CONTACT:

MARK SCHULTZ: (708) 688-2465

ASBESTOS EFD CONTACT: THOM SNYDER, I.H. (215) 897-6280



NAVOSH DEFICIENCY ABATEMENT PROGRAM  
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME ASBESTOS ASSESSMENT/ABATEMENT BUILDING # 11	SERIAL NO.	UIC N65113
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8. APPLICABLE STANDARDS:

29 CFR 1910.1001

29 CFR 1926.58

EPA 40 CFR 61, SUBPART M

9. ORIGINAL COST OF SAFETY AND HEALTH MEASURES: (IN THOUSANDS OF DOLLARS)

FY	CONSTRUCTION				REPAIR			
	DESIGN	FND	CONSTR	FND	DESIGN	FND	CONSTR	FND
					3) 1K		8K	
					5) 7K		67K	
					7) 6K		60K	
					20) 0.5K		4K	
					22) 3K		32K	
	TOTAL				TOTAL			

10. PROJECT SCHEDULE:

	ACTIVITY (MMM/YY)	REGULATION (MMM/YY)
DESIGN (START) (DDMMYY)		JUNE 1986
CONSTR (START)		
OPERATION (START)		
FINAL COMPLIANCE		

11 MISCELLANEOUS DATA:

APPROPRIATION	REGIONAL MEDICAL CENTER
HEALTH CATEGORY	HAZARD SUBCATEGORY
HAZARD CATEGORY	VARIOUS LOCATIONS
	NO

12. BUILDINGS AFFECTED:

PROPERTY RECORD CARD NO(S)

200107



NAVOSH DEFICIENCY ABATEMENT PROGRAM  
MANAGEMENT INFORMATION SYSTEM FORMAT (DAP/MIS)

NAVFACINST 5100.14A

PROJECT NAME ASBESTOS ASSESSMENT/ABATEMENT BUILDING # 11	SERIAL NO.	UIC N0513
---	------------	--------------

13. HAZARD CONTROL ASSESSMENT

SAFETY		OR	HEALTH	
111) SPECIFIC HAZARD			111) SPECIFIC HAZARD	
			(CONDITION) DAMAGED D56	
121) HAZARD VIOLATION (Regulations)			121) HAZARD VIOLATION (Regulations)	
			FACILITY RATING/RANKING 2 OF 36	
131) PROBABILITY (Check one)			131) CONCENTRATION OF HAZARD	
<input type="checkbox"/> A LIKELY <input type="checkbox"/> B. PROBABLE <input type="checkbox"/> C. POSSIBLE <input type="checkbox"/> D UNLIKELY			UNITS:	
141) MOST LIKELY INJURY			15) CONCENTRATION ABOVE CEILING	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	
151) DAYS LOST PER INCIDENT (Check one)			14) CURRENT STANDARDS: (Units must be same as item 3)	
<input type="checkbox"/> A 4200 <input type="checkbox"/> B. 2500-4199 <input type="checkbox"/> C 1200-2499 <input type="checkbox"/> D 400-1199 <input type="checkbox"/> E 100-399 <input type="checkbox"/> F 30-99 <input type="checkbox"/> G LESS THAN 30			151) TIME BETWEEN EXPOSURE AND HARMFUL IMPACTS (Check one)	
			<input type="checkbox"/> A. IMMEDIATE <input type="checkbox"/> B. IN MONTHS <input type="checkbox"/> C. IN YEARS	
161) NORMAL WORKING POPULATION EXPOSED TO HAZARD (Employees) (Check one)				
<input type="checkbox"/> A 1-4 <input type="checkbox"/> B. 5-9 <input type="checkbox"/> C. 10-50 <input type="checkbox"/> D. MORE THAN 50				
171) RATE OF EXPOSURE TO HAZARD (HOURS/YEAR PER PERSON EXPOSED) (Check one)				
<input type="checkbox"/> A LESS THAN 40 <input type="checkbox"/> B. 40-150 <input type="checkbox"/> C 151-959 <input type="checkbox"/> D. 960-2000 <input type="checkbox"/> E. MORE THAN 2000				
181) INSTALLED COST OF CORRECTIVE ACTION (\$X10 <sup>3</sup> ) (Check one)				
<input type="checkbox"/> A LESS THAN 40 <input type="checkbox"/> B 40-60 <input type="checkbox"/> C. 61-80 <input type="checkbox"/> D. 81-100 <input type="checkbox"/> E. MORE THAN 100				
191) CHANGE IN ANNUAL O&M COST (\$X10 <sup>3</sup> ) (Check one)				
<input type="checkbox"/> A LESS THAN (5) <input type="checkbox"/> B. (5)-0 <input type="checkbox"/> C. 1-5 <input type="checkbox"/> D 6-10 <input type="checkbox"/> E. MORE THAN 10				
1101) TIME TO ACCOMPLISH THE CONSTRUCTION OF CORRECTIVE ACTION (Months) (Check one)				
<input type="checkbox"/> A 1-3 <input type="checkbox"/> B 4-6 <input type="checkbox"/> C 7-9 <input type="checkbox"/> D. 10-12 <input type="checkbox"/> E. 13-24 <input type="checkbox"/> F MORE THAN 24				

SAFETY		OR	HEALTH	
1111) UPON COMPLETION WILL THE SAFETY PROJECT BE IN FULL LEGAL COMPLIANCE? (Check one)			1111) UPON COMPLETION, WHAT WILL THE ESTIMATED CONCENTRATION OF THE DESIGNATED HEALTH HAZARD BE?	
<input type="checkbox"/> YES <input type="checkbox"/> NO			CONCENTRATION _____ THE UNITS MUST BE SAME AS ITEM 3.	
1121) CHANGE IN ENERGY CONSUMPTION CAUSED BY CORRECTIVE ACTION (10 <sup>6</sup> BTU/Year)				
<input type="checkbox"/> A LESS THAN (500) <input type="checkbox"/> B (500) 0 <input type="checkbox"/> C 1-500 <input type="checkbox"/> D 501-1000 <input type="checkbox"/> E. MORE THAN 1000				
1131) EFFECTIVE LIFE OF CORRECTIVE ACTION (Years)				
<input type="checkbox"/> A MORE THAN 10 <input type="checkbox"/> B 5-10 <input type="checkbox"/> C. 3-4 <input type="checkbox"/> D. 1-2 <input type="checkbox"/> E. LESS THAN 1				
1141) POTENTIAL FOR RELOCATING THE PROCESS OF FUNCTION TO AVOID THE HAZARD (Check one)				
<input type="checkbox"/> A HIGH <input type="checkbox"/> B MEDIUM <input type="checkbox"/> C LOW				
1151) EXPECTED LIFE OF HAZARDOUS OPERATION (Years) (Check one)				
<input type="checkbox"/> A MORE THAN 10 <input type="checkbox"/> B 6-10 <input type="checkbox"/> C 3-5 <input type="checkbox"/> D 1-2 <input type="checkbox"/> E. LESS THAN 1				

DAP MIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

PUBLIC WORKS OFFICER (Signature)	CODE	DATE
ACTIVITY HEALTH AND SAFETY OFFICER (Signature)	CODE	DATE
INDUSTRIAL HYGIENIST (Health projects only) (Signature)	CODE	DATE





BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-4041	1	First Floor	Exhaust manifold Pipe insul	2% 10% 5% 83%	Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-2924	1	First Floor	Exhaust manifold pipe insul	30% 70%	Cellulose Filler
GL-8293	1	First Floor	Exhaust manifold pipe insul	65% 35%	Fibrous Glass Cellulose
GL-9630	2	First Floor	Turbine #3 insulation	99% Trace	Filler Synthetic Fiber
GL-7656	2	First Floor	Turbine #2 insulation	5% 65% 30%	Chrysotile Asbestos Fibrous Glass Filler
GL-6393	2	First Floor	Turbine #1 insulation	2% 68% 30%	Chrysotile Asbestos Fibrous Glass Filler
GL-2750	3	Basement	Hot water tank insulation	45% 25% 30%	Amosite Asbestos Chrysotile Asbestos Filler
GL-1701	3	Basement	Hot water tank insulation	5% 65% 30%	Amosite Asbestos Chrysotile Asbestos Filler
GL-7524	3	Basement	Hot water tank insulation	2% 30% 20% 48%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-6934	4	Basement	Aircell - Boiler 4	5% 85% 10%	Chrysotile Asbestos Cellulose Filler
GL-6875	4	First Floor	Aircell Boiler 4	85% 15%	Chrysotile Asbestos Filler

**BUILDING NO. 11**

<b>Sample No.</b>	<b>HA#</b>	<b>Sample Location</b>	<b>Description</b>	<b>PLM</b>	<b>Results</b>
GL-3055	4	First Floor	Aircell Boiler 4	5% 85% 10%	Chrysotile Asbestos Cellulose Filler
GL-1924	5	Basement	Mag steam line area 1-3	5% 60% 35%	Amosite Asbestos Chrysotile Asbestos Filler
GL-7409	5	Basement	Mag steam line area 1-3	5% 85% 10%	Fibrous Glass Filler Synthetic Fiber
GL-3528	5	Basement	Mag steam line area 1-3	20% 2% 78%	Amosite Asbestos Chrysotile Asbestos Filler
GL-5137	6	Basement	Breeching - boiler 1	10% 20% 35% 35%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-2406	6	First Floor	Breeching - Boiler 1	10% 20% 35% 35%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-6721	6	First Floor	Breeching - Boiler 1	5% 15% 45% 35%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-1775	7	Basement	Breeching patch 10 SF	10% 20% 35% 35%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-2610	8	Basement	Breeching - Boiler 2	35% 15% 30% 20%	Chrysotile Asbestos Fibrous Glass Cellulose Filler

BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-5218	8	First Floor	Breeching - Boiler 2	5% 15% 20% 5% 55%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-9006	8	First Floor	Breeching - Boiler 2	5% 10% 85%	Chrysotile Asbestos Fibrous Glass Filler
GL-4872	9	Basement	Breeching - Boiler 3	5% 20% 35% 40%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-2832	9	First Floor	Breeching - Boiler 3	2% 5% 30% 63%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-7221	9	Second Floor	Breeching - Boiler 3	2% 10% 30% 58%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-9591	10	Third Floor	Boiler exhaust	2% 10% 30% 58%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Filler
GL-5092	10	Third Floor	Boiler exhaust	35% 65%	Amosite Asbestos Filler
GL-1230	10	Third Floor	Boiler exhaust	35% 65%	Amosite Asbestos Filler
GL-2543	11	First Floor	Aircell mudded fitting	2% 45% 53%	Chrysotile Asbestos Fibrous Glass Filler

**BUILDING NO. 11**

<b>Sample No.</b>	<b>HA#</b>	<b>Sample Location</b>	<b>Description</b>	<b>PLM</b>	<b>Results</b>
GL-9893	11	First Floor	Aircell mudded fitting	2% 45% 53%	Chrysotile Asbestos Cellulose Filler
GL-9786	11	First Floor	Aircell mudded fitting	5% 10% 85%	Fibrous Glass Cellulose Filler
GL-1103	12	First Floor	Fittings on 10" line	Trace 5% 10% Trace 83%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-5488	12	First Floor	Fittings of 10" line	20% Trace 5% 74%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-1490	12	First Floor	Fittings of 10" line	20% 2% 78%	Amosite Asbestos Chrysotile Asbestos Filler
GL-2885	13	Second Floor	4" Fitting on Fiber Glass	10% 5% 85%	Fibrous Glass Cellulose Filler
GL-9866	13	Second Floor	4" Fitting on Fiber Glass	5% 2% 93%	Fibrous Glass Cellulose Filler
GL-7310	13	Second Floor	4" Fitting on Fiber Glass	40% 10% 50%	Fibrous Glass Cellulose Filler
GL-4201	14	First Floor	10" Fittings on Fiber Glass	50% 10% 40%	Chrysotile Asbestos Cellulose Filler

**BUILDING NO. 11**

<b>Sample No.</b>	<b>HA#</b>	<b>Sample Location</b>	<b>Description</b>	<b>PLM</b>	<b>Results</b>
GL-2725	14	First Floor	10" Fittings on Fiber Glass	30% 30% 10% 30%	Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-8933	14	First Floor	10" Fittings on Fiber Glass	10% 20% 30% 40%	Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-7866	15	First Floor	Water heater tanks	28% 2% 70%	Fibrous Glass Cellulose Filler
GL-7398	15	First Floor	Water heater tanks	40% 10% 50%	Fibrous Glass Cellulose filler
GL-8396	15	First Floor	Water heater tanks	10% 10% 80%	Fibrous Glass Cellulose Filler
GL-7725	16	First Floor	Fittings on Fiber Glass	30% 20% 50%	Fibrous Glass Cellulose Filler
GL-6808	16	First Floor	Fittings on Fiber Glass	40% 10% 50%	Fibrous Glass Cellulose Filler
GL-7724	16	First Floor	Fittings on Fiber Glass	40% 10% 5% 45%	Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-2354	17	First Floor	Condensor Tank	30% 70%	Fibrous Glass Filler
GL-5794	17	First Floor	Condensor Tank	40% 20% 40%	Chrysotile Asbestos Cellulose Filler

**BUILDING NO. 11**

<b>Sample No.</b>	<b>HA#</b>	<b>Sample Location</b>	<b>Description</b>	<b>PLM</b>	<b>Results</b>
GL-9472	17	First Floor	Condensor Tank	40% 30% 30%	Fibrous Glass Cellulose Filler
GL-3505	18	Basement	Boiler 4 exhaust	30% 20% 50%	Chrysotile Asbestos Cellulose Filler
GL-8655	18	Basement	Boiler 4 exhaust	Trace 30% 20% 49%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-5880	18	Basement	Boiler 4 exhaust	2% 30% 20% 48%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-2943	19	Second Floor	Boiler 4 breeching	30% 10% 60%	Chrysotile Asbestos Cellulose Filler
GL-2918	19	Second Floor	Boiler 4 breeching	10% 20% 70%	Fibrous Glass Cellulose Filler
GL-4044	19	Basement	Boiler 4 breeching	5% 45% 10% 45%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-9801	20	Second Floor	Oil Supply Pipe Insulation	10% 30% 20% 40%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-7806	20	Second Floor	Oil Supply Pipe Insulation	10% 30% 10% 50%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler

BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-9937	20	Second Floor	Oil Supply Pipe Insulation	10% 30% 10% 50%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-9479	21	Basement	Oil Supply Mudded pipe fitting	30% 10% 10% 50%	Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-9925	21	First Floor	Oil Supply Mudded pipe fitting	10% 20% 10% 60%	Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-3678	21	First Floor	Oil Supply Mudded pipe fitting	10% 30% 60%	Chrysotile Asbestos Cellulose Filler
GL-5204	22	First Floor	Blow down tank	10% 30% 10% 10% 40%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-7585	22	First Floor	Blow down tank	10% 30% 10% 10% 40%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler

BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-7624	22	First Floor	Blow down tank	10% 30% 10% 5% 45%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-3071	23	Fourth Floor	3" fittings on fiber glass	60% 10% 30%	Fibrous Glass Cellulose Filler
GL-7195	23	Fourth Floor	3" fittings on fiber glass	60% 10% 30%	Fibrous Glass Cellulose Filler
GL-7288	23	Third Floor	3" fittings on fiber glass	60% 20% 20%	Fibrous Glass Cellulose Filler
GL-7696	24	Basement	Wall insulation near oil heater	30% 70%	Cellulose Filler
GL-5629	24	Basement	Wall insulation near oil heater	10% 90%	Cellulose Filler
GL-8810	24	Basement	Wall insulation near oil heater	10% 90%	Cellulose Filler
GL-1797	25	Throughout	10" steam line	20% 30% 10% 40%	Amosite Asbestos Chrysotiles Asbestos Cellulose Filler
GL-5643	25	Throughout	10" steam line	10% 20% 10% 10% 50%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-6185	25	Throughout	10" steam line	30% 2% 5% 63	Amosite Asbestos Chrysotile Asbestos Cellulose Filler

BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-8314	26	Second Floor	Boiler #5 breaching & exch	30% 2% 5% 63%	Amosite Asbestos Chrysotile Asbestos Cellulose Filler
GL-1370	26	2½ Floor	Boiler #5 breaching & exch	2% 10% 2% 5% 81%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-3808	26	Fourth Floor	Boiler #5 breaching & exch	2% 10% 2% 5% 81%	Amosite Asbestos Chrysotile Asbestos Fibrous Glass Cellulose Filler
GL-1493	27	First Floor	Boiler #6 breaching & exch	20% 80%	Fibrous Glass Filler
GL-9793	27	Fifth Floor	Boiler #6 breaching & exch	20% 10% 70%	Amosite Asbestos Chrysotile ASbestos Filler
GL-9025	27	Sixth Floor	Boiler #6 breaching & exch	25% 5% 70%	Amosite Asbestos Chrysotile Asbestos Filler
GL-6657	28	Office	2'x4' Pitted Ceiling Tile	20% 45% 35%	Fibrous Glass Cellulose Filler
GL-5363	28	Office	2'x4' Pitted Ceiling Tile	20% 45% 35%	Fibrous Glass Cellulose Filler
GL-9505	28	Office	2'x4' Pitted Ceiling Tile	20% 45% 35%	Fibrous Glass Cellulose Filler

BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-7181	29	Third Floor	2'x4' Ceiling Tile	20% 45% 35%	Fibrous Glass Cellulose Filler
GL-8221	29	Second Floor	2'x4' Ceiling Tile standard	20% 45% 35%	Fibrous Glass Cellulose Filler
GL-9769	29	Second Floor	2'x4' Ceiling Tile standard	20% 45% 35%	Fibrous Glass Cellulose Filler
GL-8544	30	Third Floor	12"x12" White Floor Tile	2% 98%	Chrysotile Asbestos Filler
GL-7562	30	Third Floor	12"x12" White Floor Tile	2% 98%	Chrysotile Asbestos Filler
GL-2710	30	Third Floor	12"x12" White Floor Tile	2% 98%	Chrysotile Asbestos Filler
GL-5035	31	Third Floor	12"x12" Green Floor Tile	2% 98%	Chrysotile Asbestos Filler
GL-1623	31	Third Floor	12"x12" Green Floor Tile	2% 98%	Chrysotile Asbestos Filler
GL-9613	31	Third Floor	12"x12" Green Floor Tile	2% 98%	Chrysotile Asbestos Filler
GL-9299	32	Third Floor	Baseboard and Mastic	100%	Filler
GL-6412	32	Third Floor	Baseboard and Mastic	100%	Filler
GL-5935	32	Third Floor	Baseboard and Mastic	100%	Filler
GL-4063	33	Third Floor	Wall plaster	100%	Filler
GL-6790	33	2½ Floor	Wall plaster	100%	Filler
GL-3005	33	Second Floor	Wall plaster	100%	Filler

BUILDING NO. 11

Sample No.	HA#	Sample Location	Description	PLM	Results
GL-8782	34	Office	Drywall and Joint Compound	2% 5% 93%	Fibrous Glass Cellulose Filler
GL-8990	34	Office	Drywall and Joint Compound	2% 5% 93%	Fibrous Glass Cellulose Filler
GL-5126	34	Office	Drywall and Joint Compound	2% 5% 93%	Fibrous Glass Cellulose Filler





BCM Laboratory Division

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FINAL REPORT

PAGE : 1

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The results have been checked and authorized for release.

CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131011  
Location : GL-6185  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	30	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	63	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



# BCM Laboratory Division

1850 Gravers Road  
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FINAL REPORT

PAGE : 2

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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131012  
Location : GL-8314  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

### Test Description

### Results

### Units

Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92  
EPA-600/M4-82-020

Test Description	Results	Units
Color	WHITE	
Amosite - Asbestos	30	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	63	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received.



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131013  
Location : GL-1370  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	81	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	2	%

Comment: N/D - Not detected  
Results apply only to sample as received



# BCM Laboratory Division

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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131014  
Location : GL-3808  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	81	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	2	%

Comment: N/D - Not detected

Results apply only to sample as received



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Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131016  
Location : GL-9793  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	20	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131017  
Location : GL-9025  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	25	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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### CLIENT

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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131018  
Location : GL-6657  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	45	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected

Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131019  
Location : GL-5363  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	45	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131020  
Location : GL-9505  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	45	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received



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### CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131021  
Location : GL-7181  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	45	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected

Results apply only to sample as received



BCM Laboratory Division

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FINAL REPORT

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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131022  
Location : GL-8221  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	45	%
Other fibers : fibrous glass	20	%
Comment: N/D - Not detected Results apply only to sample as received		



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131023  
Location : GL-9769  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	45	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131024  
Location : GL-8544  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	98	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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## CLIENT

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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131025  
Location : GL-7562  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	98	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131026  
Location : GL-2710  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	98	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected

Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131027  
Location : GL-5035  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	GREEN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	98	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131028  
Location : GL-1623  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
-----	-----	-----
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	GREEN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	98	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131029  
Location : GL-9613  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	GREEN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	98	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected

Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131030  
Location : GL-9299  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BROWN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	100	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131031  
Location : GL-6412  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
------------------	---------	-------

Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92  
EPA-600/M4-82-020

Color	BROWN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	100	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131032  
Location : GL-5935  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BROWN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	100	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131033  
Location : GL-4063  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	100	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131034  
Location : GL-6790  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	100	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131035  
Location : GL-3005  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	100	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131036  
Location : GL-8782  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

### Test Description

### Results

### Units

Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92  
EPA-600/M4-82-020

Test Description	Results	Units
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	93	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	2	%

Comment: N/D - Not detected  
Results apply only to sample as received



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131037  
Location : GL-8990  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	93	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	2	%

Comment: N/D - Not detected  
Results apply only to sample as received



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131038  
Location : GL-5126  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	93	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	2	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/09/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 43536

Ref BLDG 11  
BCM Sample #: 131125  
Location : GL-1493  
Client ID :

Date Sampled : 02/25/91  
Date Received : 09/19/91  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/03/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	80	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200179  
Location : GL-7310  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY/SLVR	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	40	%

Comment: N/D - Not detected  
Results apply only to sample as received

Comment: SILVER LAYER IS 100% FILLER.



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200180  
Location : GL-4201  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	50	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200181  
Location : GL-2725  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	30	%

Comment: N/D - Not detected  
Results apply only to sample as received



# BCM Laboratory Division

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FINAL REPORT

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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200182  
Location : GL-8933  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY/SLVR	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	30	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received

Comment: SILVER LAYER IS 100% FILLER.



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200183  
Location : GL-7866  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	2	%
Other fibers : fibrous glass	28	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200184  
Location : GL-7398  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	40	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200185  
Location : GL-8396  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	80	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200186  
Location : GL-7725  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	30	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200187  
Location : GL-6808  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	40	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER

BCM MALL

Date : 01/10/92

BCM # : 07-0421-01

P.O.# :

Order# : 45106

Ref BLDG 11

BCM Sample #: 200188

Location : GL-7724

Client ID :

Date Sampled : 02/25/91

Date Received : 01/03/92

Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	40	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	45	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected

Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200189  
Location : GL-2354  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	30	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200190  
Location : GL-5794  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	40	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200191  
Location : GL-9472  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	30	%
Other fibers : fibrous glass	40	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200192  
Location : GL-3505  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200193  
Location : GL-8655  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	TRACE	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	49	%
Other fibers : cellulose	20.	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected

Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200194  
Location : GL-5880  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	48	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200195  
Location : GL-2943  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
-----	-----	-----
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	YELLOW	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	60	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200196  
Location : GL-2918  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected

Results apply only to sample as received



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200197  
Location : GL-4044  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	5	%
Chrysotile - Asbestos	40	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	45	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200198  
Location : GL-9801  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200199  
Location : GL-7806  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected

Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200200  
Location : GL-9937  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200201  
Location : GL-9479  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200202  
Location : GL-9925  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	60	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received



# BCM Laboratory Division

1850 Gravers Road  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200203  
Location : GL-3678  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	60	%
Other fibers : cellulose	30	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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### CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200204  
Location : GL-5204  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
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## CLIENT

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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200205  
Location : GL-7585  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200206  
Location : GL-7624  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	45	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200207  
Location : GL-3071  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	60	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200208  
Location : GL-7195  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	60	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200209  
Location : GL-7288  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	20	%
Other fibers : cellulose	20	%
Other fibers : fibrous glass	60	%

Comment: N/D - Not detected  
Results apply only to sample as received



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BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200210  
Location : GL-7696  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BLK/SILV	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	30	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200211  
Location : GL-5629  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BLK/SLVR	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	90	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200212  
Location : GL-8810  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92 EPA-600/M4-82-020		
Color	BLK/SLVR	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	90	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected.  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200213  
Location : GL-1797  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	20	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45106

Ref BLDG 11  
BCM Sample #: 200214  
Location : GL-5643  
Client ID :

Date Sampled : 02/25/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by L. COX on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	20	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	50	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
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### CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200143  
Location : GL-4041  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	83	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200144  
Location : GL-2924  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	70	%
Other fibers : cellulose	30	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200145  
Location : GL-8293  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	65	%
Other fibers : cellulose	35	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200146  
Location : GL-9630  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	99	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%
Other fibers : synthetic fibers	TRACE	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200147  
Location : GL-7656  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	65	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200148  
Location : GL-6393  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	68	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200149  
Location : GL-2750  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	45	%
Chrysotile - Asbestos	25	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200150  
Location : GL-1701  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	5	%
Chrysotile - Asbestos	65	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	30	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200151  
Location : GL-7524  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	30	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	48	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received



# BCM Laboratory Division

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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200152  
Location : GL-6934  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	10	%
Other fibers : cellulose	85	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected

Results apply only to sample as received



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### CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01.  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200153  
Location : GL-6875  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	85	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	15	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200154  
Location : GL-3055  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	10	%
Other fibers : cellulose	85	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref. BLDG 11  
BCM Sample #: 200155  
Location : GL-1924  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	5	%
Chrysotile - Asbestos	60	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200156  
Location : GL-7409  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	LT BLUE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	85	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	5	%
Other fibers : synthetic fibers	10	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200157  
Location : GL-3528  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	20	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	78	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200158  
Location : GL-5137  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	20	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	35	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200159  
Location : GL-2406  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	20	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	35	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200160  
Location : GL-6721  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	5	%
Chrysotile - Asbestos	15	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	45	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200161  
Location : GL-1775  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	10	%
Chrysotile - Asbestos	20	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	35	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	35	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200162  
Location : GL-2610  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	35	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	20	%
Other fibers : cellulose	30	%
Other fibers : fibrous glass	15	%

Comment: N/D - Not detected  
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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200163  
Location : GL-5218  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	5	%
Chrysotile - Asbestos	15	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	55	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	20	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200164  
Location : GL-9006  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	85	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200165  
Location : GL-4872  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	5	%
Chrysotile - Asbestos	20	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	40	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	35	%

Comment: N/D - Not detected  
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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200166  
Location : GL-2832  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	63	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	30	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200167  
Location : GL-7221  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92 EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	58	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	30	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200168  
Location : GL-9591  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	GREY	
Amosite - Asbestos	2	%
Chrysotile - Asbestos	10	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	58	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	30	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200169  
Location : GL-5092  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	35	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	65	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200170  
Location : GL-1230  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	35	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	65	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200171  
Location : GL-2543  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Trémolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	53	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	45	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200172  
Location : GL-9893  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	53	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	45	%

Comment: N/D - Not detected  
Results apply only to sample as received



# BCM Laboratory Division

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Norristown, PA 19401  
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FINAL REPORT

PAGE : 31

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The results have been checked and authorized for release.

## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200173  
Location : GL-9786  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	85	%
Other fibers : cellulose	10	%
Other fibers : fibrous glass	5	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200174  
Location : GL-1103  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	TAN	
Amosite - Asbestos	TRACE	%
Chrysotile - Asbestos	5	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	83	%
Other fibers : cellulose	TRACE	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
Results apply only to sample as received



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## CLIENT

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ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200175  
Location : GL-5488  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	20	%
Chrysotile - Asbestos	TRACE	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	74	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200176  
Location : GL-1490  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	WHITE	
Amosite - Asbestos	20	%
Chrysotile - Asbestos	2	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	78	%
Other fibers : cellulose	N/D	%
Other fibers : fibrous glass	N/D	%

Comment: N/D - Not detected  
Results apply only to sample as received



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200177  
Location : GL-2885  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	85	%
Other fibers : cellulose	5	%
Other fibers : fibrous glass	10	%

Comment: N/D - Not detected  
Results apply only to sample as received



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CLIENT

US NAVY-GREAT LAKES  
ATTN: TIM RIEMER  
BCM MALL

Date : 01/10/92  
BCM # : 07-0421-01  
P.O.# :  
Order# : 45105

Ref BLDG 11  
BCM Sample #: 200178  
Location : GL-9866  
Client ID :

Date Sampled : 02/23/91  
Date Received : 01/03/92  
Sampler : ER

Test Description	Results	Units
Bulk Asbestos (PLM & Dispersion Staining) by E. ALICK on 01/06/92		
EPA-600/M4-82-020		
Color	BEIGE	
Amosite - Asbestos	N/D	%
Chrysotile - Asbestos	N/D	%
Crocidolite - Asbestos	N/D	%
Tremolite - Asbestos	N/D	%
Anthophyllite - Asbestos	N/D	%
Actinolite - Asbestos	N/D	%
Filler	93	%
Other fibers : cellulose	2	%
Other fibers : fibrous glass	5	%

Comment: N/D - Not detected  
Results apply only to sample as received

Chain of Custody





BCM Engineers Inc.

Engineers, Planners, Scientists  
and Laboratory Services  
• Citycorp Plaza, Ste. 520  
• 8420 W. Bryn Mawr Ave.  
• Chicago, IL 60631

# CHAIN OF CUSTODY RECORD

Client/Description <i>US NAVY/GREAT LAKES-PWC BLDG 11</i>			Samplers Signature: <i>E. Redochlag</i>		
Project No.: <i>07-0421-01</i>	Total No. of Samples: <i>102</i>	Type of Sample: Bulk <input checked="" type="checkbox"/> Air <input type="checkbox"/>	Analytical Method Requested:		
Project Manager <i>B.L. Epstein</i>	BCM No.:	P.O. No.:	1. PCM      3. PLM <u>5. PLM With Dispersion Staining</u> 2. TEM      4. SEM      6. X-Ray Diffraction		

Date	Sample ID:						
<i>2/23/91</i>	<i>GL 4041</i>	<i>2/23/91</i>	<i>GL-1775</i>	<i>2/25/91</i>	<i>GL-7310</i>	<i>2/25/91</i>	<i>GL 4044</i>
	<i>2924</i>		<i>2610</i>		<i>4201</i>		<i>9801</i>
	<i>8293</i>		<i>5218</i>		<i>2725</i>		<i>7806</i>
	<i>9130</i>		<i>9006</i>		<i>8933</i>		<i>9237</i>
	<i>7656</i>		<i>4872</i>		<i>7866</i>		<i>9479</i>
	<i>6393</i>		<i>2832</i>		<i>7398</i>		<i>9925</i>
	<i>2750</i>		<i>7221</i>		<i>8396</i>		<i>3678</i>
	<i>1701</i>		<i>9591</i>		<i>7725</i>		<i>5204</i>
	<i>7524</i>		<i>5092</i>		<i>6808</i>		<i>7585</i>
	<i>6834</i>		<i>1230</i>		<i>7724</i>		<i>7624</i>
	<i>6875</i>		<i>2543</i>		<i>2354</i>		<i>3071</i>
	<i>3055</i>	<i>2/23/91</i>	<i>9893</i>		<i>5794</i>		<i>7195</i>
	<i>1924</i>	<i>2/25/91</i>	<i>9786</i>		<i>9472</i>		<i>7288</i>
	<i>7409</i>		<i>1103</i>		<i>3505</i>		<i>7696</i>
	<i>3528</i>		<i>5488</i>		<i>8655</i>		<i>5629</i>
	<i>5137</i>		<i>1490</i>		<i>5880</i>		<i>8810</i>
	<i>2406</i>		<i>2885</i>		<i>2943</i>		<i>1797</i>
<i>2/23/91</i>	<i>GL 6721</i>	<i>2/23/91</i>	<i>GL 9866</i>	<i>2/25/91</i>	<i>GL 2918</i>	<i>2/25/91</i>	<i>GL 5643</i>

Date: <i>9-19-91</i> Company Name/Address: Sent By: <i>Dain Reunis</i> 1	Date: Company Name/Address: Received By:      3	Archive of Chain of Custody Date: Company Name/Address: Received By:      5
Date: Company Name/Address: Received By:      2	Date: Company Name/Address: Received By:      4	Termination of Chain of Custody Date: Authorized By: Company Name:      6



# BCM Engineers Inc.

Engineers, Planners, Scientists  
and Laboratory Services  
• Citycorp Plaza, Ste. 520  
• 8420 W. Bryn Mawr Ave.  
• Chicago, IL 60631

## CHAIN OF CUSTODY RECORD

Client/Description: <i>US NAVY / GREAT LAKES - PWC BLDG 11 (cont'd)</i>				Samplers Signature: <i>E. P. Schlegel</i>			
Project No.: <i>DB-0421-01</i>		Total No. of Samples: <i>30</i>		Type of Sample: Bulk <input checked="" type="checkbox"/> Air <input type="checkbox"/>		Analytical Method Requested:	
Project Manager: <i>B.L. Epstein</i>		BCM No.:		P.O. No.:		1. PCM      3. PLM      5. PLM With Dispersion Staining 2. TEM      4. SEM      6. X-Ray Diffraction	
Date	Sample ID:	Date	Sample ID:	Date	Sample ID:	Date	Sample ID:
<i>2/25/91</i>	<i>GL 6185</i>	<i>2/25/91</i>	<i>GL - 9613</i>				
	<i>8314</i>		<i>9299</i>				
	<i>1370</i>		<i>6412</i>				
	<i>3808</i>		<i>5935</i>				
	<i>1493</i>		<i>4063</i>				
	<i>9793</i>		<i>6790</i>				
	<i>9025</i>		<i>3005</i>				
	<i>6657</i>		<i>8782</i>				
	<i>5363</i>		<i>8990</i>				
	<i>9505</i>	<i>2/25/91</i>	<i>GL 5126</i>				
	<i>7181</i>						
	<i>8221</i>						
	<i>9769</i>						
	<i>8544</i>						
	<i>7562</i>						
	<i>2710</i>						
	<i>5035</i>						
<i>2/25/91</i>	<i>GL 1623</i>						
Date: <i>9-19-91</i>		Date:		Archive of Chain of Custody			
Company Name/Address:		Company Name/Address:		Date:			
Sent By: <i>Jim Ramin</i> 1		Received By:		Company Name/Address:			
				Received By:      5			
Date:		Date:		Termination of Chain of Custody			
Company Name/Address:		Company Name/Address:		Date:			
Received By:      2		Received By:		Authorized By:			
				Company Name:      6			

COMPREHENSIVE ENVIRONMENTAL SURVEY  
NAVAL STATION GREAT LAKES, ILLINOIS  
BUILDING 11 DE-AERATOR AREA

Prepared for:

Department of the Navy  
Naval Station Great Lakes  
Naval Facilities Engineering Command, Midwest  
201 Decatur Avenue, Building 1-A  
Great Lakes, Illinois 60088

Prepared by:



ENVIRONMENTAL DESIGN INTERNATIONAL INC.  
200 South Michigan Avenue, Suite 700  
Chicago, Illinois 60604  
(312) 356-5400  
[www.envdesigni.com](http://www.envdesigni.com)

March 28, 2008  
EDI Project No. 1602.002.01

Approved for Release By:

A handwritten signature in black ink that reads 'Lois Kimmelman'. The signature is written in a cursive style with a horizontal line underneath the name.

Lois Kimmelman, CIH  
Asbestos Project Designer



*Environmental Design  
International inc.*

March 28, 2008

Mr. Carlo Luciano  
Naval Station Great Lakes  
Building 1A  
201 Decatur Avenue  
Great Lakes, Illinois 60088

SUBJECT:    **COMPREHENSIVE ENVIRONMENTAL SURVEY  
BUILDING 11 DE-AERATOR AREA  
GREAT LAKES NAVAL BASE  
GREAT LAKES, ILLINOIS 60088  
EDI PROJECT NO. 1602.002.01**

Dear Mr. Luciano:

Enclosed please find the Comprehensive Environmental Survey for Building 11 de-aerator area at the Great Lakes Naval Base, Great Lakes, Illinois prepared by Environmental Design International inc.

Environmental Design International inc. performed the inspections on March 19 and 25, 2008. Building materials which the inspectors identified as suspect asbestos and lead containing materials were sampled. Samples were submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory for asbestos analysis, and to an Environmental Lead Laboratory Accreditation Program (ELLAP) accredited laboratory for lead analysis. Laboratory results indicate that some materials sampled contained asbestos and lead.

Please refer to the attached report for sample logs, sample results, building drawings, photographs, recommendations and certifications.

Please feel free to contact us at (312) 356-5400 with any comments or questions regarding this report.

Sincerely,

**Environmental Design International inc.**

David Sawicki  
Director, Environmental Health and Safety

Lois Kimmelman, CIH  
Asbestos Project Designer

cc:        IH/1602.002.01

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II.	SAMPLING PROCEDURE	2
III.	CONCLUSIONS	3
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### DEFINITIONS

### APPENDICES

APPENDIX A:	ASBESTOS CONTAINING HOMOGENEOUS AREAS
APPENDIX B:	NON-ASBESTOS CONTAINING HOMOGENEOUS AREAS
APPENDIX C:	ASBESTOS SAMPLE LOGS
APPENDIX D:	SITE DRAWINGS
APPENDIX E:	ASBESTOS SAMPLE DRAWINGS
APPENDIX F:	ASBESTOS CONTAINING AREA DRAWINGS
APPENDIX G:	ASBESTOS SAMPLE PHOTOGRAPHS
APPENDIX H:	ASBESTOS LABORATORY RESULTS AND CERTIFICATIONS
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APPENDIX L:	LEAD SAMPLE PHOTOGRAPHS
APPENDIX M:	ENVIRONMENTAL DESIGN INTERNATIONAL CERTIFICATIONS

## **EXECUTIVE SUMMARY**

Environmental Design International inc. (EDI) was retained by the Department of the Navy, Naval Facilities Engineering, Command Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0002, to perform a comprehensive environmental survey of the thermal system in the de-aerator area of Building 11 at the Great Lakes Naval Base in Great Lakes, Illinois and determine the approximate amount, location and condition of friable and non-friable asbestos-containing building materials, lead-based paint, lead containing paint, and other hazardous materials. EDI understands that the building is scheduled for thermal system insulation renovation and re-insulation of the thermal system.

On March 19, 2008 EDI's accredited inspector Lynwood Slaughter and Jarrett Land, technician, performed a visual inspection of the de-aerator area of Building 11 and collected samples of various types of suspect asbestos containing building materials samples located throughout the de-aerator area of Building 11. Refer to Appendix D for a Building 11 site drawing. During the inspection EDI targeted suspect asbestos containing materials as the focus of the survey. Results of the inspection are included throughout the remainder of the report.

A total of sixty-three (63) bulk samples of suspect ACBM were collected by a licensed Asbestos Building Inspector on March 19, 2008. Refer to Appendix C and Appendix E for asbestos sample numbers and sampling locations. The suspect ACBM samples accompanied by a chain of custody form were delivered to Environmental Design International inc. laboratory in Chicago, Illinois.

There were twelve (12) homogeneous areas that contained asbestos in regulated quantities. Refer to Appendix A and Appendix F for positive homogeneous areas. No other bulk samples contained asbestos in regulated quantities.

In addition, several components of the de-aerator area were observed to be painted. On March 25, 2008, EDI's accredited lead inspector Lynwood Slaughter performed a visual inspection of the painted components and collected samples of the different color paints. A total of four paint chip samples were collected from the metal stair components, support columns, pipe fittings and tanks. The paint samples and accompanying chain of custody form were delivered for analysis to EMSL Laboratory in Chicago, Illinois. Results of the paint sampling indicated that silver and yellow paint contained lead.

Mercury thermostats were observed in the de-aerator area of Building 11. However, these components will not be impacted by the proposed renovation. No evidence of fluorescent lighting or ballasts, mold, stockpiled material, aboveground storage tanks or stored chemicals were observed during this survey.

## I. INTRODUCTION

Environmental Design International inc. (EDI) was retained by the Department of the Navy, Naval Facilities Engineering, Command Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0002, to perform a comprehensive environmental survey of the thermal system in de-aerator area in Building 11 at the Great Lakes Naval Base in Great Lakes, Illinois and determine the approximate amount, location and condition of friable and non-friable asbestos-containing building materials, lead based paint, lead containing paint, and other hazardous materials. EDI understands that the building is scheduled for thermal system insulation renovation and re-insulation of the thermal system.

On March 19, 2008 EDI's accredited asbestos inspector Lynwood Slaughter collected bulk samples of various types of suspect asbestos containing building materials (ACBM) located throughout the de-aerator area in Building 11. The asbestos samples were categorized as thermal system insulation. The environmental survey report was prepared under the auspices of a licensed Asbestos Project Designer. Please refer to Appendix M for EDI personnel accreditations.

The bulk sampling was performed in accordance with Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) and National Emissions Standards for Air Pollutants (NESHAP) 40 CFR 61, Appendix M protocols for asbestos.

On March 25, 2008 EDI's accredited lead inspector Lynwood Slaughter collected paint chip samples from various components located in the de-aerator area in Building 11. The paint chip samples were categorized by the substrate material of the painted components.

The lead-based paint (LBP) inspection was conducted following the U.S. Department of Housing and Urban Development (HUD) *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* (1995 and 1997 Revision). Please refer to Appendix K for LBP inspection results.

## LIMITATIONS OF SURVEY

- All quantities of ACBM are approximate and should be field verified prior to abatement activities.
- All quantities of LBP are approximate and should be field verified prior to abatement activities. Please refer to Appendix I for listed LBP components.

## II. SAMPLING PROCEDURE

### Asbestos Bulk Sampling Procedure

For each homogeneous area a minimum of three (3) bulk samples were collected. For homogeneous areas that consisted of more than one layer the material was handled as one combined sample. Samples were collected according to AHERA and NESHAP protocols.

During sample collection, the following protocols were followed:

1. All non-essential personnel were restricted from the area where the sampling was conducted.
2. Each sample was placed in a clear plastic bag, which was wet wiped, sealed and labeled.
3. Each sample was identified with an individual sample number using a permanent marker on the sample container.
4. The location of each sample, with its individual sample number, was recorded on an area map (refer to Appendices F and H).
5. Each sample number was recorded in the Sample Log (refer to Appendix C) and on the Bulk Sample Chain of Custody Form (refer to Appendix H).
6. The sample site opening was sealed to minimize the release of fibers and to prevent water from leaking into the building.
7. The sampling tools were thoroughly cleaned with a damp disposable towel.
8. Upon completion of sampling, the areas were returned to their original condition.

### CHAIN OF CUSTODY

A Chain of Custody record accompanied all samples collected. The individually sealed and labeled samples were placed in a one-gallon zip-lock bag, which was then sealed prior to leaving the inspection site. The double-bagged samples and chain of custody forms were then transported to an accredited laboratory.

### LABORATORY ANALYSIS

The bulk samples of suspect ACBM and chain of custody forms were submitted to Environmental Design International Laboratory, an accredited National Voluntary Laboratory Accreditation Program (NVLAP) laboratory, on March 19, 2008. The bulk samples were analyzed for asbestos content utilizing a polarized light microscopy in accordance with EPA Method 600/R-93/116. Laboratory analytical results and Environmental Design International Laboratory certifications are contained in Appendix H.

### Paint Chip Collection

Paint chip samples were collected for verification of lead in paint in the de-aerator area in Building 11. Sampling was conducted according to HUD *guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1995 and 1997 revision)*. After the painted

surfaces were identified and grouped into homogeneous areas EDI collected paint chip samples from these areas. Samples were collected by scraping all paint layers off the substrate material using a straight edge razor blade. Samples were placed into individual sample bags with a unique sample number (such as P01) after collection. On March 25, 2008, samples were submitted to EMSL Analytical, Inc. in Chicago, Illinois, an Environmental Lead Laboratory Accreditation Program (ELLAP) accredited laboratory and were analyzed following EPA Method SW 846 3050B and 7420 (flame atomic absorption spectroscopy).

Proper chain-of-custody procedures were followed for this inspection. These procedures provide a written tracking mechanism that lists the person responsible for the sample from collection to delivery to the laboratory. Sample identification numbers and material descriptions were recorded on the chain-of-custody forms.

### **III. CONCLUSIONS**

During this survey, accessible de-aerator areas in Building 11 of the Great Lakes Naval Base, Great Lakes, Illinois were inspected for suspect environmental hazards. Materials categorized as suspect were sampled according to regulatory protocols. The following is a summary of the suspect materials.

#### **ASBESTOS**

##### Thermal System Insulation

Thermal System Insulation (TSI) materials that contained asbestos in regulated quantities located in the de-aerator area of Building 11 included: 24" pipe; 15" drain line; wall tank insulation; 36" 350 lb. Steam line and fittings; 58" header insulation (north & south); 46" 3 lb. Steam insulation and fittings to east and west DA; 350 lb. Line from boilers 5 & 6; 45" pipe insulation of north & south headers (125 lb. to 60 lb. Reducer); and, the 14" 125 lb. pipe insulation and fittings off the north & south headers. There were 21 homogeneous materials that were observed and sampled to verify that asbestos was present. Of the 21 homogeneous materials, 12 were asbestos containing materials. No other TSI materials in the building contained asbestos in regulated quantities.

##### Asbestos in Soil

No soil samples were collected during this survey. Soil sampling was not part of the scope of work for this survey.

#### **LEAD**

##### Lead Based Paint

HUD guidelines define LBP as paint containing 0.5 percent or greater lead by weight (when calculated as lead metal in a dried solid form), 5000 milligrams per kilogram (mg/kg). Painted surfaces on interior building components were observed to be in fair condition. Based on field observations, two colors of paint were evident in the areas that would be affected by renovations, yellow and silver. Each paint color appeared to have been applied at the same time. Based on analytical results, both yellow and silver paints are LBP.

##### Lead in Soil

No soil samples were collected during this survey. Soil sampling was not part of the scope of work for this survey.

#### **ELECTRICAL**

##### PCBs

No fluorescent lights or ballasts were observed in the de-aerator area of the building.

#### Mercury Lights and Switches

Mercury thermometers were observed in the de-aerator area of Building 11. However, these components will not be affected by the proposed renovations.

#### **CHEMICAL STORAGE/STOCKPILED MATERIAL**

No chemicals or stockpiled materials were observed in the de-aerator area of the building.

#### **ABOVEGROUND STORAGE TANKS**

No aboveground storage tanks were observed in the de-aerator area of the building.

#### IV. RECOMMENDATIONS

Environmental Design International inc. (EDI) was retained by the Department of the Navy, Naval Facilities Engineering, Command Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0002, to perform a comprehensive environmental survey of the de-aerator area in Building 11 at the Great Lakes Naval Base in Great Lakes, Illinois to determine the approximate amount, location and condition of friable and non-friable asbestos-containing building materials, lead based paint, lead containing paint, and other hazardous materials. EDI understands that the building is scheduled for asbestos abatement and re-insulation of the thermal system in the de-aerator area.

Bulk samples that were collected that contain asbestos in regulated quantities include 24" pipe; 15" drain line; wall tank insulation; 36" 350 lb. Steam line and fittings; 58" header insulation (north & south); 46" 3 lb. Steam insulation and fittings to east and west DA; 350 lb. Line from boilers 5 & 6; 45" pipe insulation of north & south headers (125 lb. to 60 lb. Reducer); and, the 14" 125 lb. pipe insulation and fittings off the north & south headers and are located throughout the de-aerator area of Building 11.

The 24" pipe; 15" drain line; wall tank insulation; 36" 350 lb. Steam line and fittings; 58" header insulation (north & south); 46" 3 lb. Steam insulation and fittings to east and west DA; 350 lb. Line from boilers 5 & 6; 45" pipe insulation of north & south headers (125 lb. to 60 lb. Reducer); and, the 14" 125 lb. pipe insulation and fittings off the north & south headers are considered Category 2 Friable materials. The condition of the homogeneous areas is considered good. Subpart M of 40 CFR 61 of the National Emissions Standard for Hazardous Pollutants (NESHAP) states that all regulated asbestos containing material (RACM) that is friable must be abated prior to renovation. The asbestos must be abated by a licensed asbestos abatement contractor under NESHAP regulations at a minimum.

In addition, several components of the de-aerator area were observed to be painted. Based on the results of paint sampling both silver and yellow paint contained lead and should be abated.

Mercury thermostats were observed in the de-aerator area of Building 11. However, these components will not be impacted by the proposed renovation. No evidence of fluorescent lighting or ballasts, above ground storage tanks or stored chemicals were observed during this survey.

## **V. LIMITATIONS OF SURVEY**

This report is based solely on the scope of work provided and the assumptions based on this limited access survey. Any new information that becomes available concerning the subject site should be provided to EDI so that our evaluations, conclusions, and recommendations may be revised and modified accordingly. All materials tested are assumed homogeneous throughout the proposed renovation areas.

## DEFINITIONS

The following definitions are intended to provide the reader with a better understanding of the terminology used in this report.

### **Asbestos**

The general name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and are separable into fibers. Asbestos includes the asbestiform varieties of chrysotile (serpentine); corundum (corundum); amosite (cumingtonite-ferro); anthophyllite; and actinolite.

### **Asbestos-Containing Material**

Asbestos containing materials (ACM) are materials that are found to contain greater than one percent by weight asbestos content as determined by polarized light microscopy (PLM) analysis.

### **Accessible Areas**

An accessible area of the building is any area that the survey team is permitted to inspect and that can be inspected without the disassembly of complicated mechanical or rigid structural components of the building. Examples of accessible areas of the building are interior floors, walls, ceilings, areas above suspended ceilings, return air shafts (normally), mechanical piping exteriors, and equipment exteriors, etc.

### **Damaged material**

A "damaged" material contains a few water stains or less than one-tenth of insulation with missing jackets and/or crushed insulation or water stains, gouges, punctures, or marks on surface up to one-tenth of the insulation if the damage is evenly distributed or up to one-quarter if the damage is localized.

### **Inaccessible Areas**

An inaccessible area is any area where inspection access is not permitted or requires a considerable amount of mechanical or structural disassembly to inspect. Inaccessible areas normally only investigated prior to renovation or demolition activities. Examples of inaccessible areas are pipe chases behind solid walls, mechanically encased insulation, or unsafe areas.

### **Friable Material**

A material, that when dry, may be crumbled, pulverized or reduced to powder by hand pressure is a friable material. Examples of friable materials include: pipe insulation, boiler or tank insulation, or sprayed-on fireproofing.

### **Non-friable Material**

A material, that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure. Non-friable materials may become friable through damage or deterioration. Examples of non-friable materials include: intact floor tile, transit building panels, or well maintained roofing materials.

**Homogeneous Area**

A homogeneous area is defined as a group of materials that is uniform in texture and appearance, was stalled at one time, and is likely to consist of more than one type or formation of material.

**Significantly Damaged Material**

A “significantly damaged” material contains missing jackets on at least one-tenth of the piping or equipment and/or is crushed, heavily gouged, or punctured insulation on at least one-tenth of pipe runs/rises, boilers, tanks, ducts, etc., if the damage is evenly distributed or one-quarter of the damage is localized.

**APPENDIX A**

**ASBESTOS CONTAINING HOMOGENEOUS AREAS**



**APPENDIX B**

**NON-ASBESTOS CONTAINING HOMOGENEOUS AREAS**



**APPENDIX C**

**ASBESTOS SAMPLE LOGS**



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
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### BUILDING 11 DE-AERATOR AREA – GREAT LAKES NAVAL BASE

HA 1-01	24" Pipe Insulation-2 Lines	SW Corner/Grate Level	15%
HA 1-02	24" Pipe Insulation-2 Lines	SW Corner/Grate Level	NA
HA 1-03	24" Pipe Insulation-2 Lines	SW Corner/Grate Level	NA
HA 2-04	24" Water Line Insulation	West End	ND
HA 2-05	24" Water Line Insulation	West End	ND
HA 2-06	24" Water Line Insulation	West End	ND
HA 3-07	24" Water Line Fitting	West End	ND
HA 3-08	24" Water Line Fitting	West End	ND
HA 3-09	24" Water Line Fitting	West End	ND
HA 4-10	15" Drain Line Insulation	West End	15%
HA 4-11	15" Drain Line Insulation	West End	NA
HA 4-12	15" Drain Line Insulation	West End	NA
HA 5-13	Wall Tank Insulation	West End	15%
HA 5-14	Wall Tank Insulation	West End	NA
HA 5-15	Wall Tank Insulation	West End	NA
HA 6-16	36" 350 lb. Steam Line Insulation	West End Upper Level	20%
HA 6-17	36" 350 lb. Steam Line Insulation	West End Upper Level	NA
HA 6-18	36" 350 lb. Steam Line Insulation	West End Upper Level	NA
HA 7-19	36" 350 lb. Steam Line Fittings	West End Upper Level	20%
HA 7-20	36" 350 lb. Steam Line Fittings	West End Upper Level	NA
HA 7-21	36" 350 lb. Steam Line Fittings	West End Upper Level	NA
HA 8-22	56" Reducer Insulation-2 Runs	West End Upper Level	ND
HA 8-23	56" Reducer Insulation-2 Runs	West End Upper Level	ND
HA 8-24	56" Reducer Insulation-2 Runs	West End Upper Level	ND
HA 9-25	56" Reducer Outlet Fittings	West End Upper Level	ND
HA 9-26	56" Reducer Outlet Fittings	West End Upper Level	ND
HA 9-27	56" Reducer Outlet Fittings	West End Upper Level	ND

**Note: All results greater than 1% are considered asbestos containing. ND = None Detected**

Inspectors Name Lynwood Slaughter	Date Samples were Collected 3/19/08
Inspector's Signature	Date Lab Results Received 3/20/08



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
---------------	---------------------------------	-----------------	--------------------

### BUILDING 11 DE-AERATOR AREA – GREAT LAKES NAVAL BASE

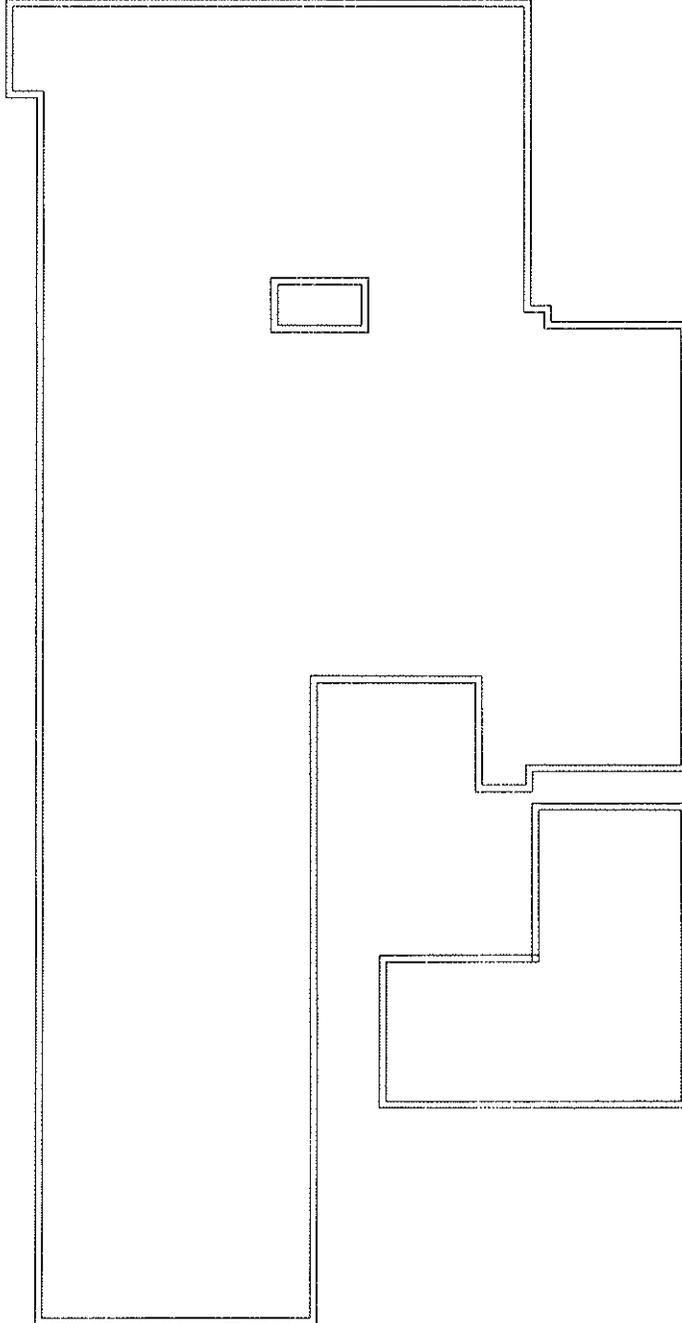
HA 10-28	58" Header (N & S) Insulation	Center Location	30%
HA 10-29	58" Header (N & S) Insulation	Center Location	NA
HA 10-30	58" Header (N & S) Insulation	Center Location	NA
HA 11-31	DA Tank Insulation/Jacket	East Side Upper/Lower Levels	ND
HA 11-32	DA Tank Insulation/Jacket	East Side Upper/Lower Levels	ND
HA 11-33	DA Tank Insulation/Jacket	East Side Upper/Lower Levels	ND
HA 12-34	DA Tank Manhole Insulation	East Side Upper/Lower Levels	ND
HA 12-35	DA Tank Manhole Insulation	East Side Upper/Lower Levels	ND
HA 12-36	DA Tank Manhole Insulation	East Side Upper/Lower Levels	ND
HA 13-37	Feed Water Heaters Insulation	East End	ND
HA 13-38	Feed Water Heaters Insulation	East End	ND
HA 13-39	Feed Water Heaters Insulation	East End	ND
HA 14-40	Feed Water Heaters Fittings	East End	ND
HA 14-41	Feed Water Heaters Fittings	East End	ND
HA 14-42	Feed Water Heaters Fittings	East End	ND
HA 15-43	46" 3 lb. Steam Line Insulation	E & W Upper Levels	20%
HA 15-44	46" 3 lb. Steam Line Insulation	E & W Upper Levels	NA
HA 15-45	46" 3 lb. Steam Line Insulation	E & W Upper Levels	NA
HA 16-46	46" 3 lb. Steam Line Fittings	E & W Upper Levels	25%
HA 16-47	46" 3 lb. Steam Line Fittings	E & W Upper Levels	25%
HA 16-48	46" 3 lb. Steam Line Fittings	E & W Upper Levels	25%
HA 17-49	350 lb. Steam Line Insulation	East End-Lead from Boiler 5/6	25%
HA 17-50	350 lb. Steam Line Insulation	East End-Lead from Boiler 5/6	NA
HA 17-51	350 lb. Steam Line Insulation	East End-Lead from Boiler 5/6	NA
HA 18-52	45" Pipe Insulation	Center on Grate on N/S Headers	25%
HA 18-53	45" Pipe Insulation	Center on Grate on N/S Headers	NA
HA 18-54	45" Pipe Insulation	Center on Grate on N/S Headers	NA
HA 19-55	125 lb. Pipe Insulation Fittings	Center on Grate off N/S Headers	30%
HA 19-56	125 lb. Pipe Insulation Fittings	Center on Grate off N/S Headers	NA
HA 19-57	125 lb. Pipe Insulation Fittings	Center on Grate off N/S Headers	NA

**Note: All results greater than 1% are considered asbestos containing. ND = None Detected NA=Not Analyzed**

Inspectors Name Lynwood Slaughter	Date Samples were Collected 3/19/08
Inspector's Signature	Date Lab Results Received 3/20/08



**APPENDIX D**  
**SITE DRAWINGS**



NOT TO SCALE

FIGURE:

01

**NAVAL FACILITIES ENGINEERING**  
**COMMAND MIDWEST**  
**210 DECATUR AVENUE, BUILDING 1A**  
**GREAT LAKES NAVAL BASE**  
**GREAT LAKES, ILLINOIS 60088**

**ENVIRONMENTAL DESIGN INTERNATIONAL INC.**  
**200 S. MICHIGAN AVENUE, SUITE 700**  
**CHICAGO, IL 60604 PHONE: (312) 556-5400**



TITLE: BUILDING 11

SITE PLAN

GREAT LAKES, ILLINOIS 60088

APPROVED BY: R.S.G.

PROJ. NO.: 602.002.01

DWG.

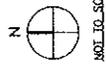
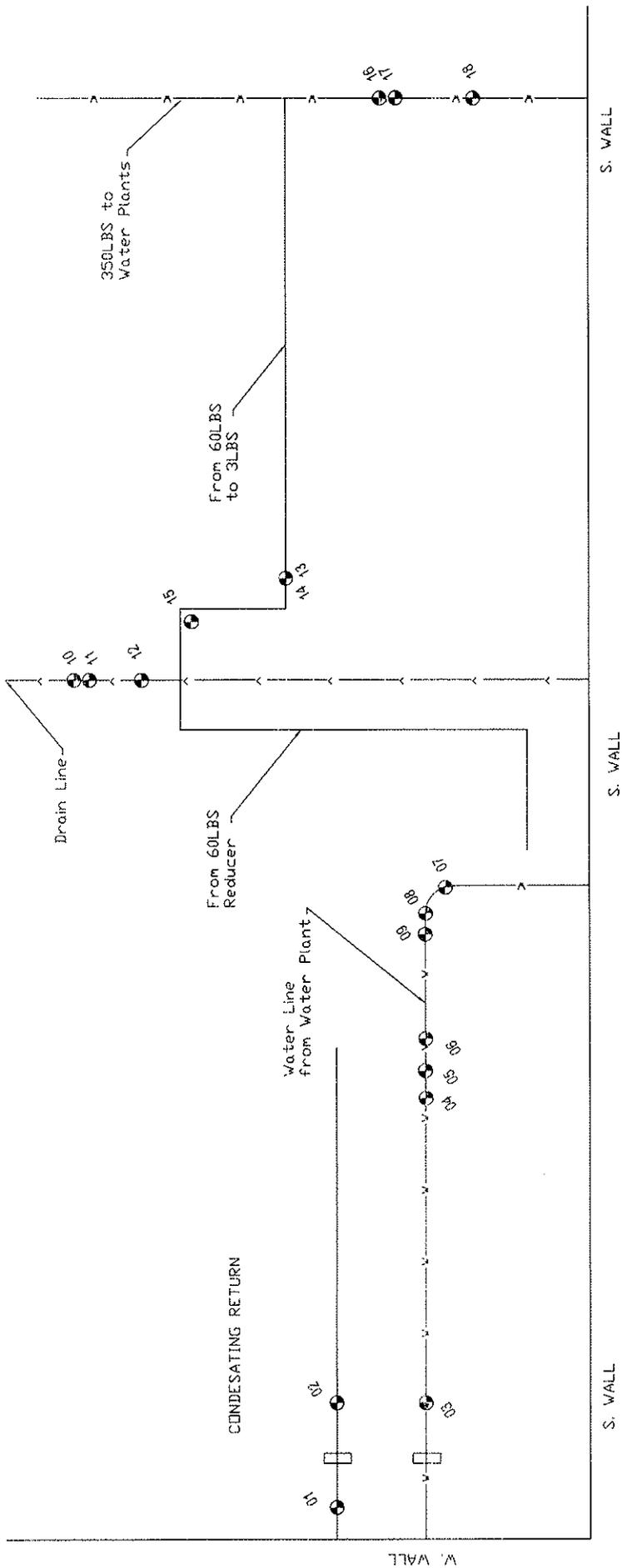
DRAWN BY: S. Veredo

DATE: 03-27-2008

DWG. NO.: 01

**APPENDIX E**

**ASBESTOS SAMPLE DRAWINGS**

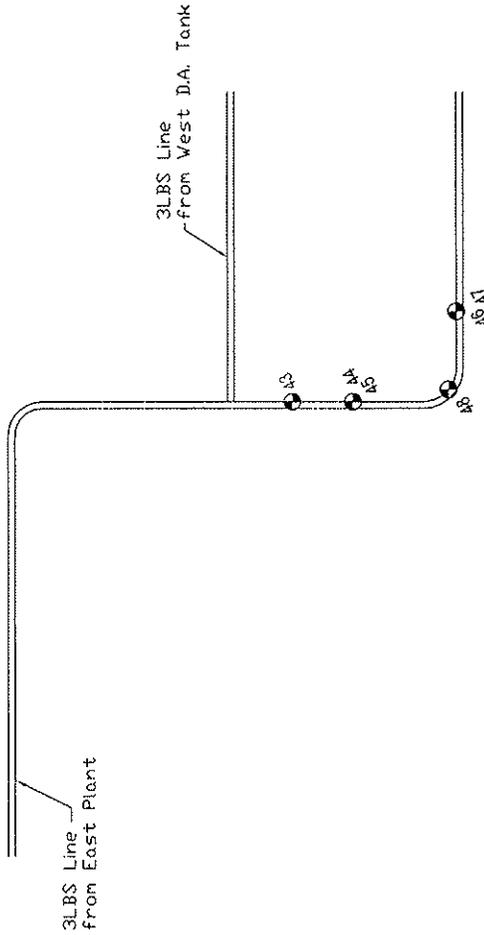
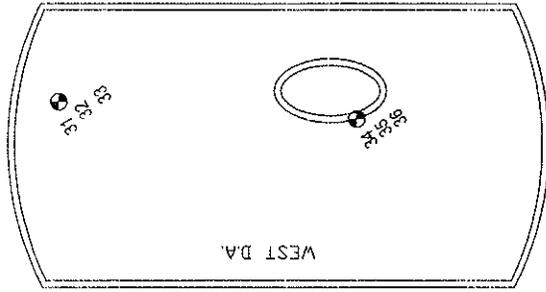


DRAWN BY: S. Vercio	APPROVED BY: R.S.C.	TITLE: BUILDING 11 DE-AERATOR AREA
DATE: 03-27-2008	PROJ. NO. 1602.002.01	ABOVE GRATE-SOUTH END
DWG. NO.: 02	DWG.	ASBESTOS SAMPLE LOCATIONS
		GREAT LAKES, ILLINOIS 60088

**EDI**  
 ENVIRONMENTAL DESIGN INTERNATIONAL Inc.  
 200 S. MICHIGAN AVENUE, SUITE 700  
 CHICAGO, IL 60604 PHONE: (312)-356-5400

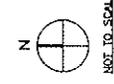
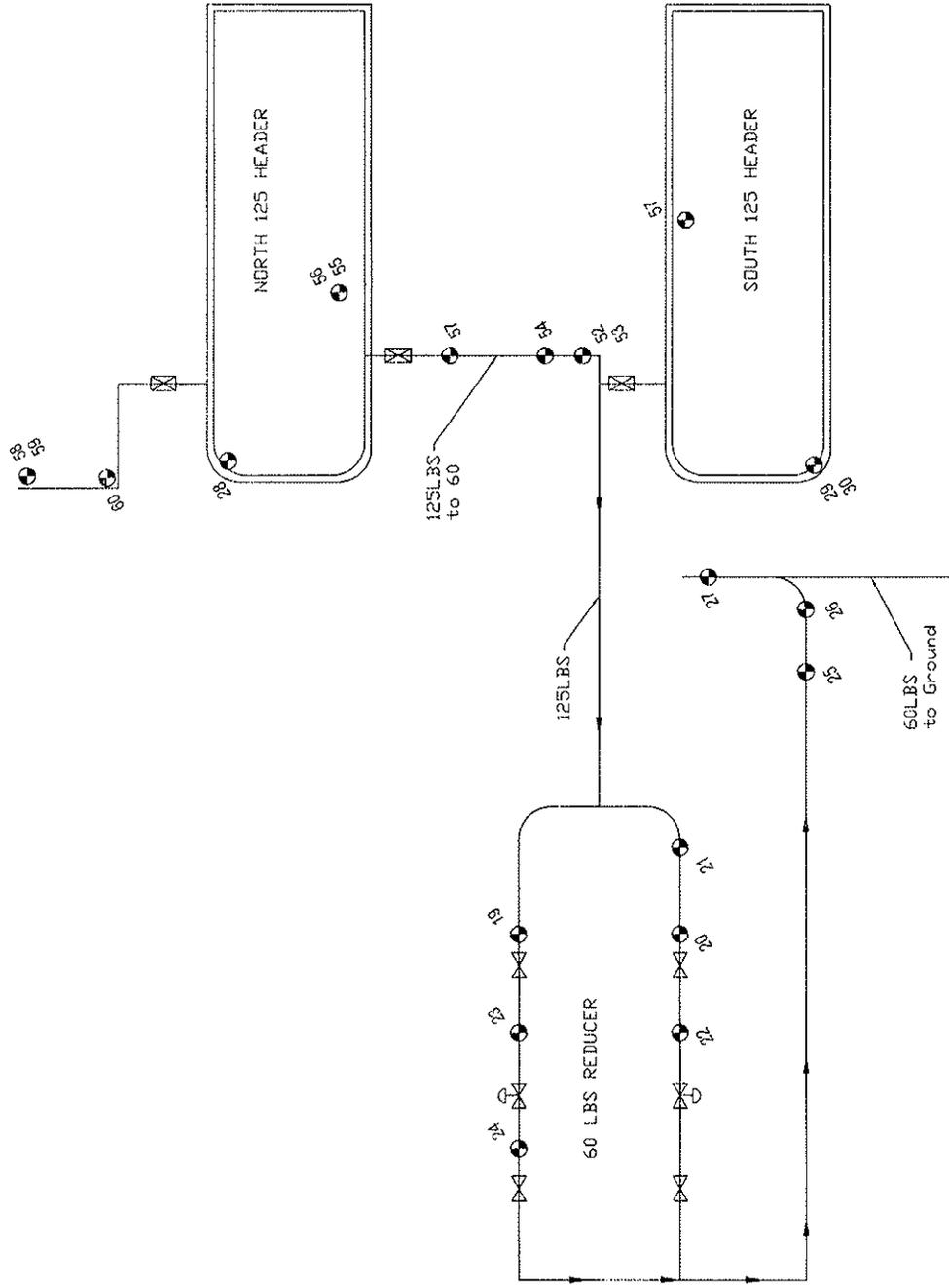
NAVAL FACILITIES ENGINEERING  
 COMMAND MIDWEST  
 210 DECATUR AVENUE, BUILDING 1A  
 GREAT LAKES NAVAL BASE  
 ILLINOIS 60088

FIGURE:  
 02

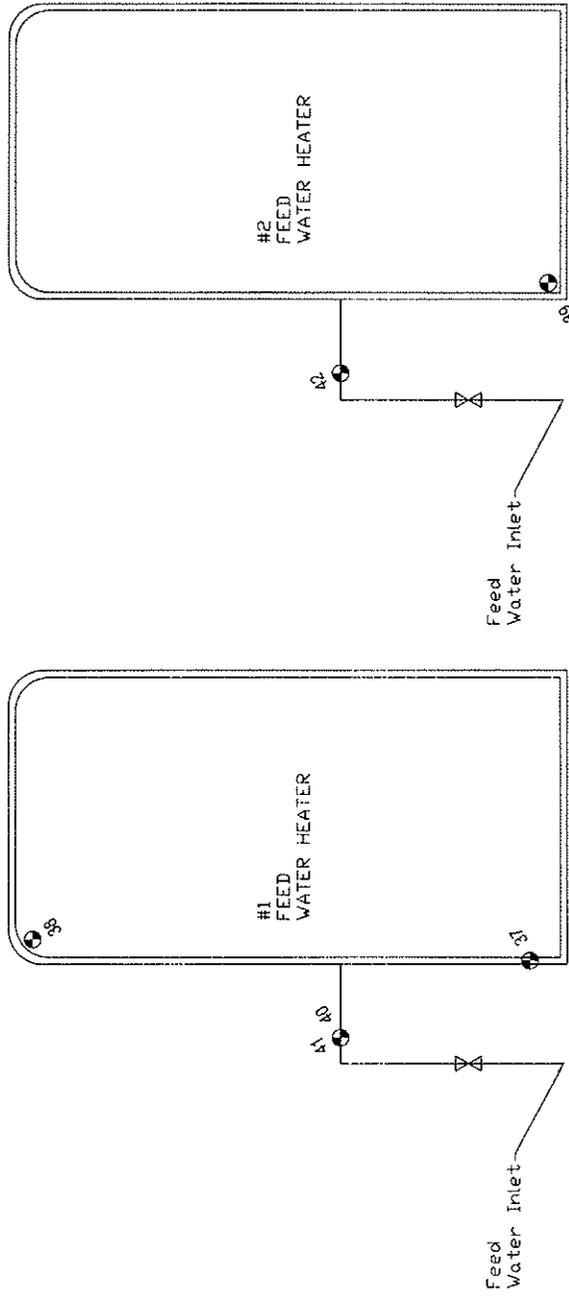


NOT TO SCALE

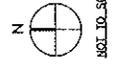
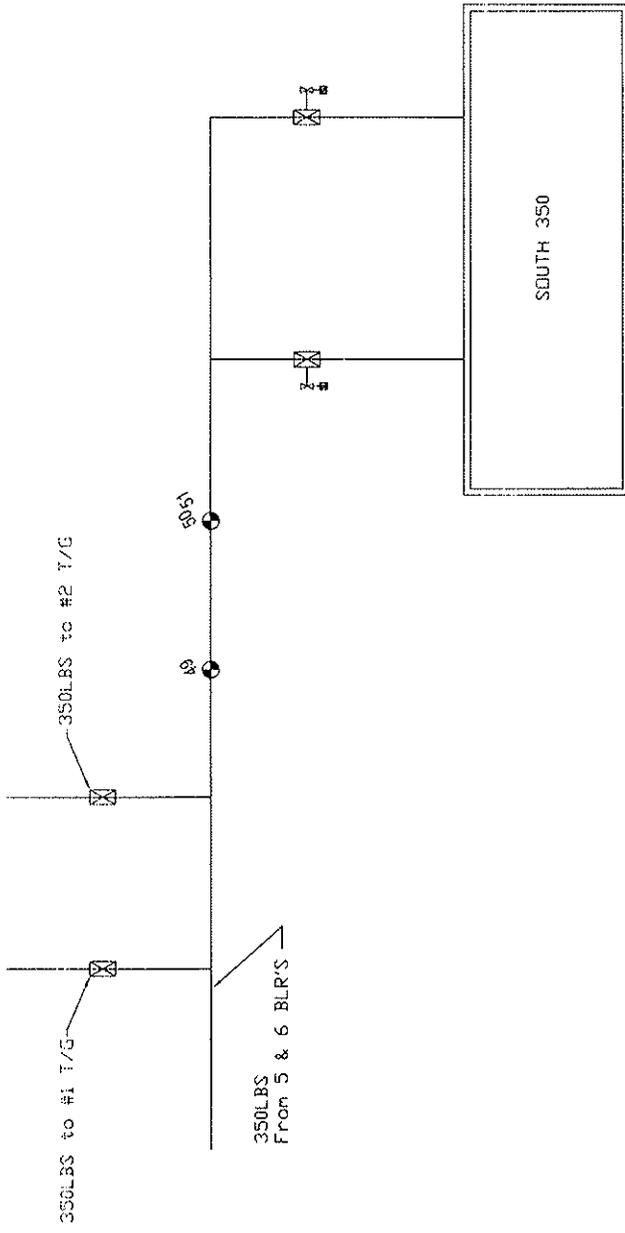
DRAWN BY: S. Vando	APPROVED BY: R.S.G.	TITLE: BUILDING 11 DE-AERATOR AREA	NAVAL FACILITIES ENGINEERING	FIGURE:
DATE: 03-27-2008	PROJ. NO: 1602.002.01	ABOVE GRATE-SOUTH END	COMMAND MIDWEST	03
DWG. NO.: 03	DWG.	ASBESTOS SAMPLE LOCATIONS	210 DECATUR AVENUE, BUILDING 1A	
		GREAT LAKES, ILLINOIS 60088	GREAT LAKES NAVAL BASE	
			ILLINOIS 60088	
			ENVIRONMENTAL DESIGN INTERNATIONAL, INC.	
			200 S. MICHIGAN AVENUE, SUITE 700	
			CHICAGO, IL 60604 PHONE: (312)-356-5400	
			<b>EDI</b>	



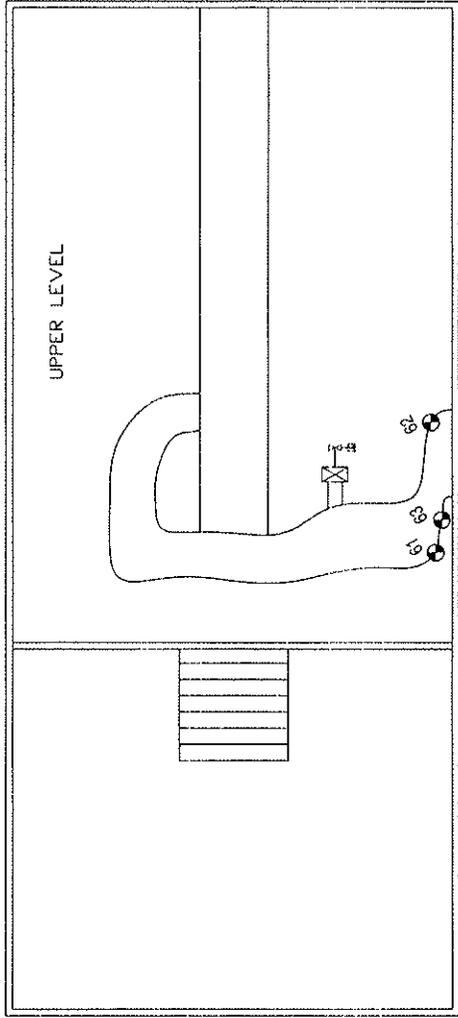
DRAWN BY: S. Yanco	APPROVED BY: R.S.G.	TITLE: BUILDING 11 DE-AERATOR AREA	FIGURE: 04
DATE: 03-27-2008	PROJ. NO. 1802.002.01	ABOVE GRATE-SOUTH END	
DWG. NO.: 04	DWG. DHC	ASBESTOS SAMPLE LOCATIONS	
		GREAT LAKES, ILLINOIS 60088	
		ENVIRONMENTAL DESIGN INTERNATIONAL, Inc.	NAVAL FACILITIES ENGINEERING
		200 S. MICHIGAN AVENUE, SUITE 700	COMMAND MIDWEST
		CHICAGO, IL 60604 PHONE: (312)-356-5400	210 DECATUR AVENUE, BUILDING 1A
			GREAT LAKES NAVAL BASE
			ILLINOIS 60088



DRAWN BY: S. Varado	APPROVED BY: R.S.G.	TITLE: BUILDING 11, DE-AERATOR AREA	FIGURE: 05
DATE: 03-27-2008	PROJ. NO. 1602.002.01	ABOVE GRATE-SOUTH END	
DWG. NO.: 05	DWG.	ASBESTOS SAMPLE LOCATIONS	
		GREAT LAKES, ILLINOIS 60088	
		ENVIRONMENTAL DESIGN INTERNATIONAL, INC. 200 S. MICHIGAN AVENUE, SUITE 700 CHICAGO, IL 60604 PHONE: (312) 566-5400	
		<b>EDI</b>	
		NAVAL FACILITIES ENGINEERING COMMAND MIDWEST 210 DECATUR AVENUE, BUILDING 1A GREAT LAKES, ILLINOIS 60088	



DRAWN BY: S. Vando DATE: 01-27-2008 DWG. NO.: 06	APPROVED BY: R.S.G. PROJ. NO. 1602.002.01 DWG.	TITLE: BUILDING 11 DE-AERATOR AREA ABOVE GRATE-SOUTH END ASBESTOS SAMPLE LOCATIONS	<b>EDI</b> ENVIRONMENTAL DESIGN INTERNATIONAL, INC 200 S. MICHIGAN AVENUE SUITE 700 CHICAGO, IL 60604 PHONE: (312)-356-5408	NAVAL FACILITIES ENGINEERING COMMAND MIDWEST 210 DECATUR AVENUE, BUILDING 1A GREAT LAKES NAVAL BASE ILLINOIS 60088	FIGURE: 06
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NOT TO SCALE

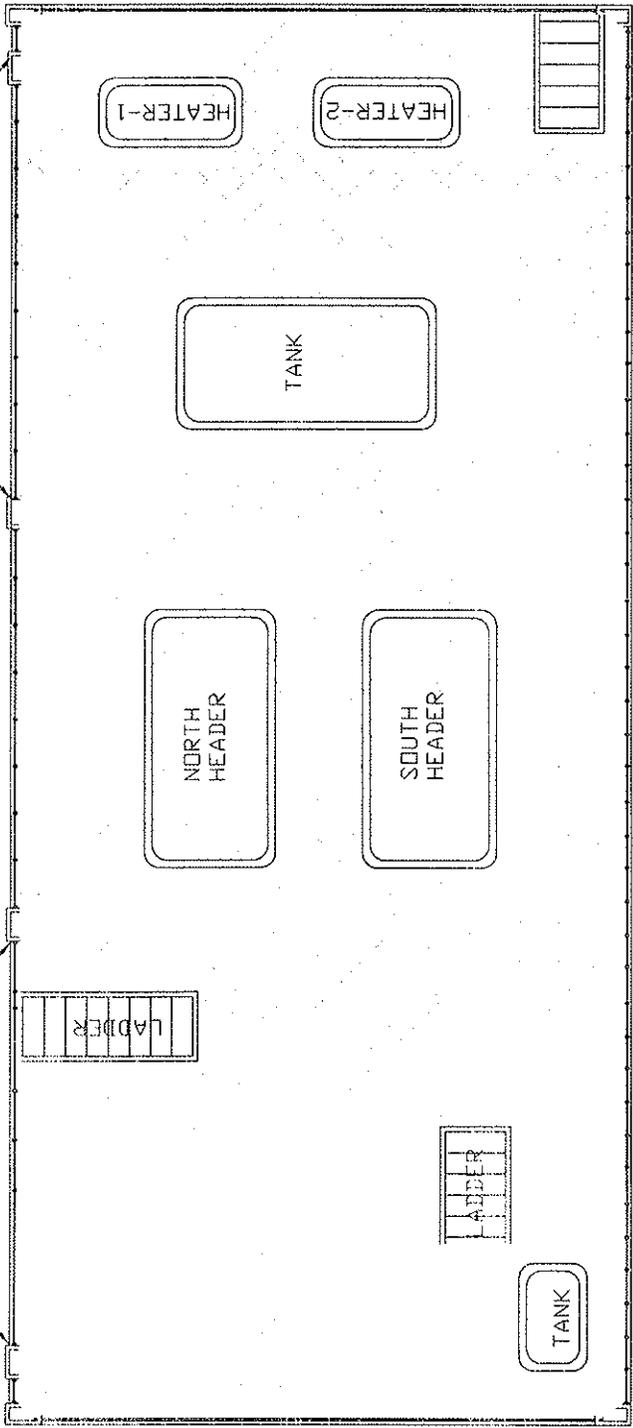
DRAWN BY: S. Vando DATE: 03-27-2008 DWG. NO.: 07	APPROVED BY: R.S.G. PROJ. NO. 1502.002.01 DWG.	TITLE: BUILDING 11 DE-AERATOR AREA ABOVE GRATE-SOUTH END ASBESTOS SAMPLE LOCATIONS GREAT LAKES, ILLINOIS 60088	 ENVIRONMENTAL DESIGN INTERNATIONAL, INC. 200 S. MICHIGAN AVENUE, SUITE 700 CHICAGO, IL 60604 PHONE: (312) 386-5400	NAVAL FACILITIES ENGINEERING COMMAND MIDWEST 210 DECATUR AVENUE, BUILDING 1A GREAT LAKES NAVAL BASE GREAT LAKES, ILLINOIS 60088	FIGURE: 07
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**APPENDIX F**

**ASBESTOS CONTAINING AREA DRAWINGS**

COLUMNS

COLUMNS



- ASBESTOS CONTAMINANT MATERIALS  
MATERIALS TO ABATE
1. 24" PIPE INSULATION
  2. 90° ELBOW INSULATION
  3. 90° ELBOW INSULATION
  4. 3/4" 350 LB. STEAM LINE INSULATION AND FITTINGS
  5. 90° HEADER INSULATION
  6. 48" 350 LB. STEAM LINE INSULATION
  7. 450 LB. STEAM INSULATION
  8. 45" PIPE INSULATION
  9. 125 LB. PIPE INSULATION AND FITTINGS



ASBESTOS ABATEMENT AREA-GRADE LEVEL TO CEILING AND COLUMNS TO SOUTH WALL



NOT TO SCALE

DRAWN BY: S. Vellido DATE: 05-27-2008 DWG. NO.: 08	APPROVED BY: R.S.G. PROJ. NO.: 1602.002.01 DWG.	TITLE: BUILDING 11 CE-HEBATOR AREA ASBESTOS ABATEMENT AREA THERMAL SYSTEM INSULATION GREAT LAKES, ILLINOIS 60098	ENVIRONMENTAL DESIGN INTERNATIONAL, INC. 200 S. MICHIGAN AVENUE, SUITE 700 CHICAGO, IL 60604 PHONE: (312)-358-3400	NAVAL FACILITIES ENGINEERING COMMAND MIDWEST 210 DECATUR AVENUE, BUILDING 1A GREAT LAKES NAVAL BASE GREAT LAKES, ILLINOIS 60098	FIGURE: 08
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**APPENDIX G**

**ASBESTOS PHOTOGRAPHS**

PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-19-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> Sample # HA1-01; South West Wall- 24" Pipe Insulation.</p>	
<p>PHOTO #1</p>	

<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-19-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> Sample # HA1-02; South West Wall- 24" Pipe Insulation.</p>	
<p>PHOTO # 2</p>	

PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-19-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> Sample # HA1-03; South West Wall- 24" Pipe Insulation.</p>	
<p>PHOTO #3</p>	

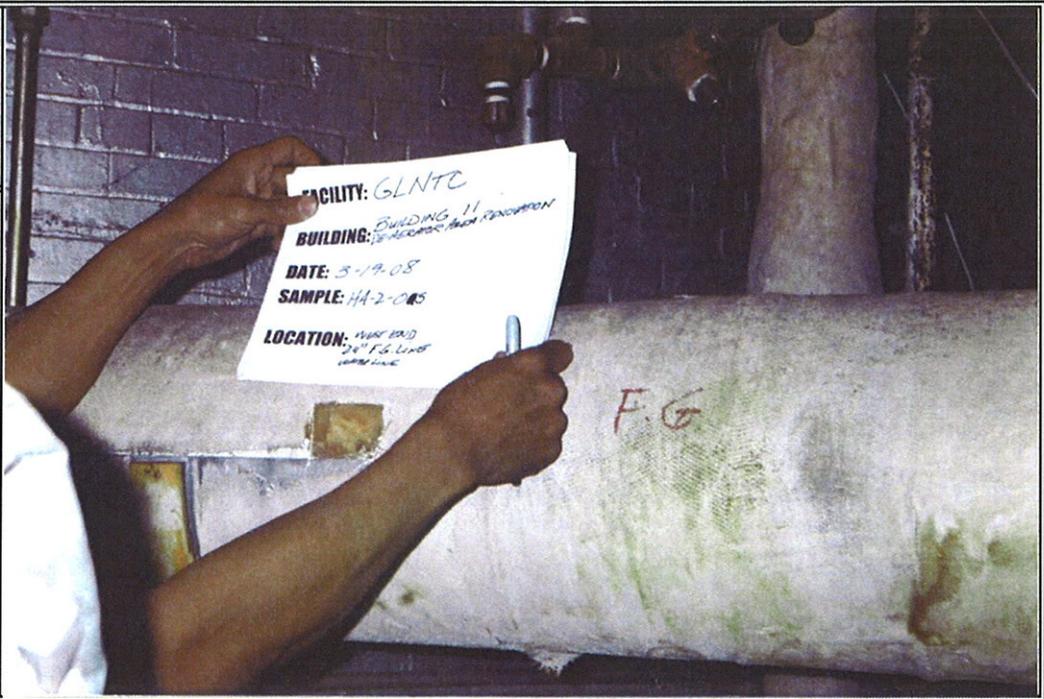
<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-19-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> Sample # HA2-04; West End- 24" Fiber Glass Water Line.</p>	
<p>PHOTO #4</p>	

**PHOTOGRAPH LOG**

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
Jarrett Land

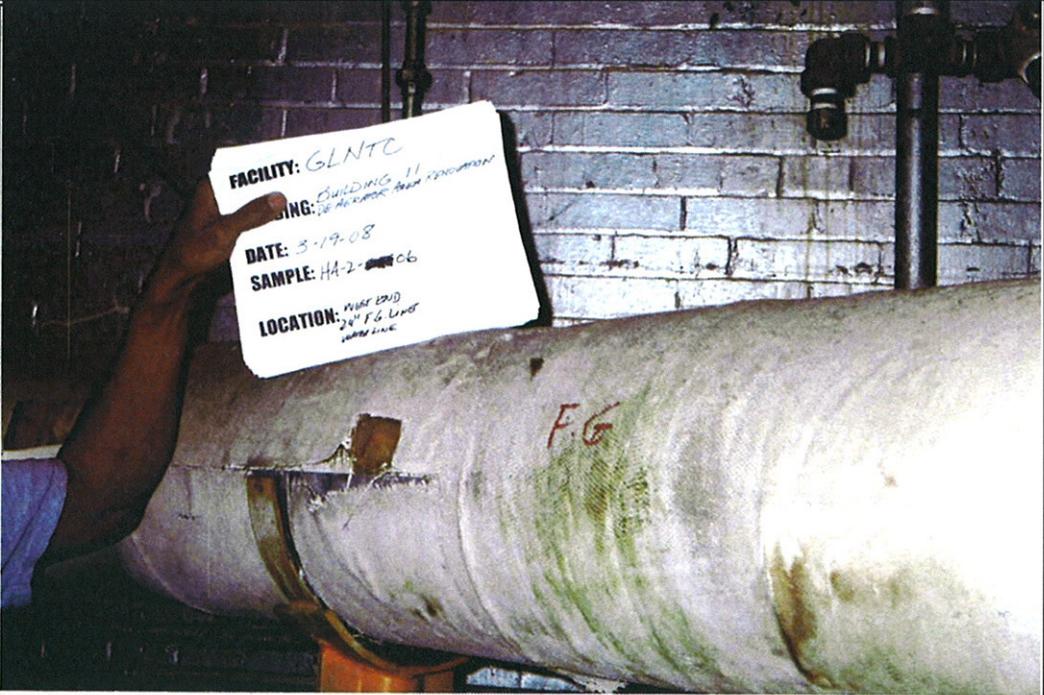
**Description:**  
Sample # HA2-05;  
West End- 24" Fiber  
Glass Water Line.



**PHOTO #5**

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
Jarrett Land

**Description:**  
Sample # HA2-06;  
West End- 24" Fiber  
Glass Water Line.



**PHOTO #6**

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>          Jarrett Land</p>	
<p><b>Description:</b>          Sample # HA3-07,08,          &amp; 09; West End- 24"          Fiber Glass Water Line          Joint.</p>	
<p>PHOTO # 7</p>	

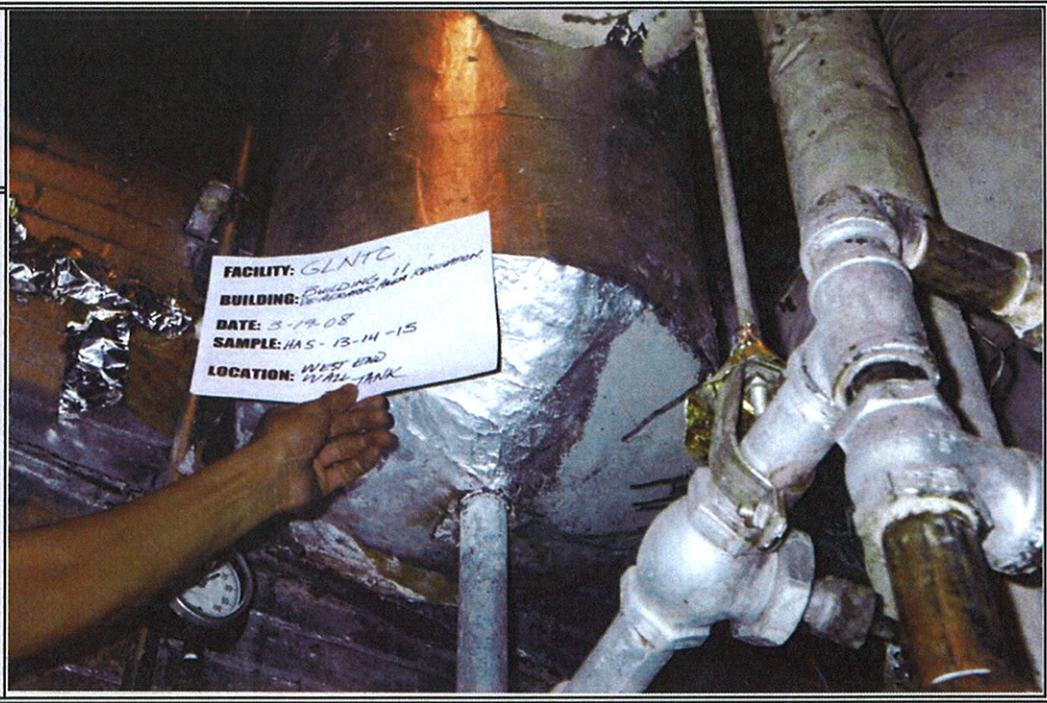
<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>          Jarrett Land</p>	
<p><b>Description:</b>          Sample # HA4-          10,11,12; West End-          Drin Line.</p>	
<p>PHOTO # 8</p>	

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA5-13, 14,  
 15; West End- Wall  
 Tank Insulation.

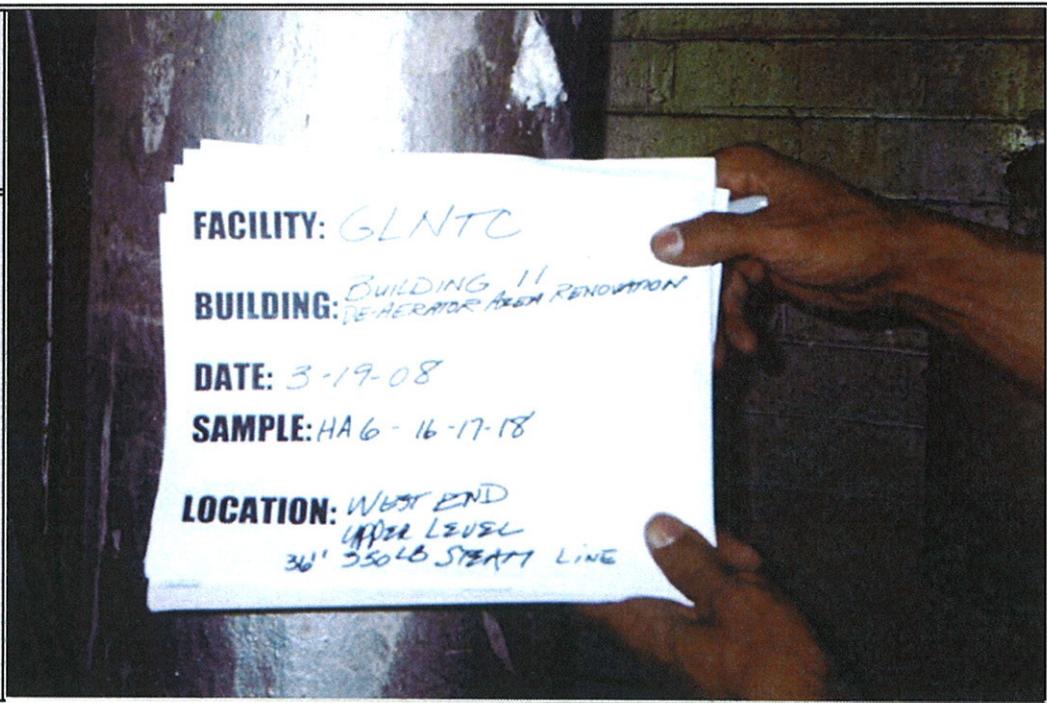
**PHOTO # 9**



**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA6-16, 17,  
 18; West End- Upper  
 Level 36" 350lb Steam  
 Line.

**PHOTO # 10**



<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>          Jarrett Land</p>	
<p><b>Description:</b>          Sample # HA7-19, 20, 21; West End- Upper Level 36" 350lb Steam Line Joint.</p> <p style="text-align: right;"><b>PHOTO # 11</b></p>	

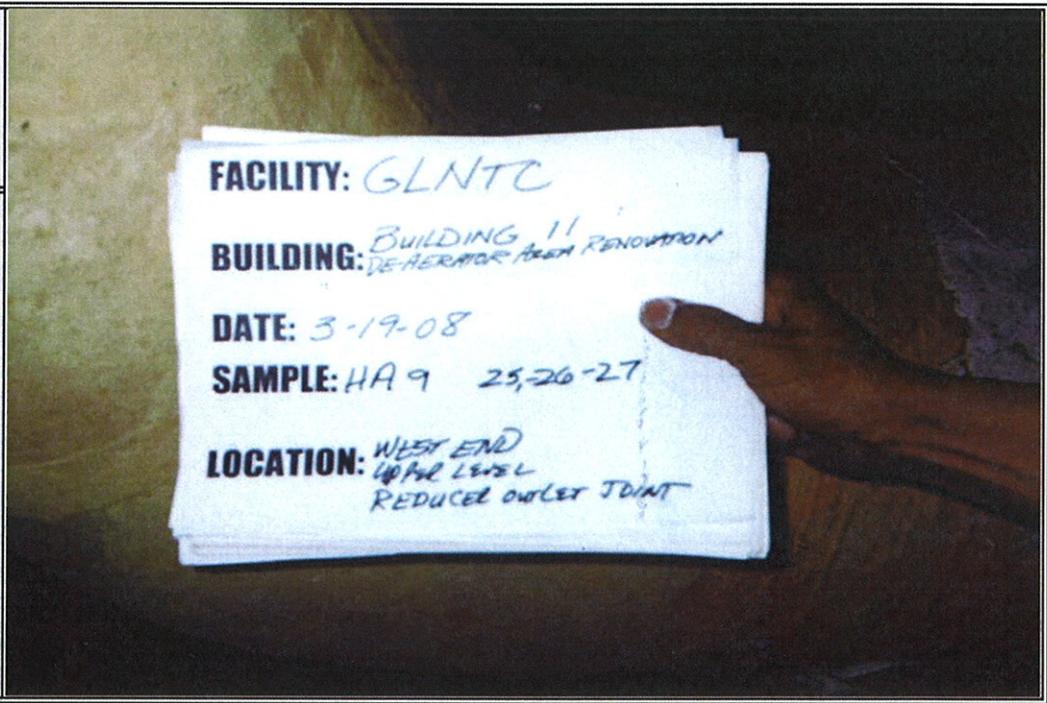
<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>          Jarrett Land</p>	
<p><b>Description:</b>          Sample # HA8-22, 23, 24; West End- Upper Level Reducer Fiber Glass Insulation.</p> <p style="text-align: right;"><b>PHOTO # 12</b></p>	

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA9-25, 26, 27; West End- Upper Level Reducer Outlet Joint.

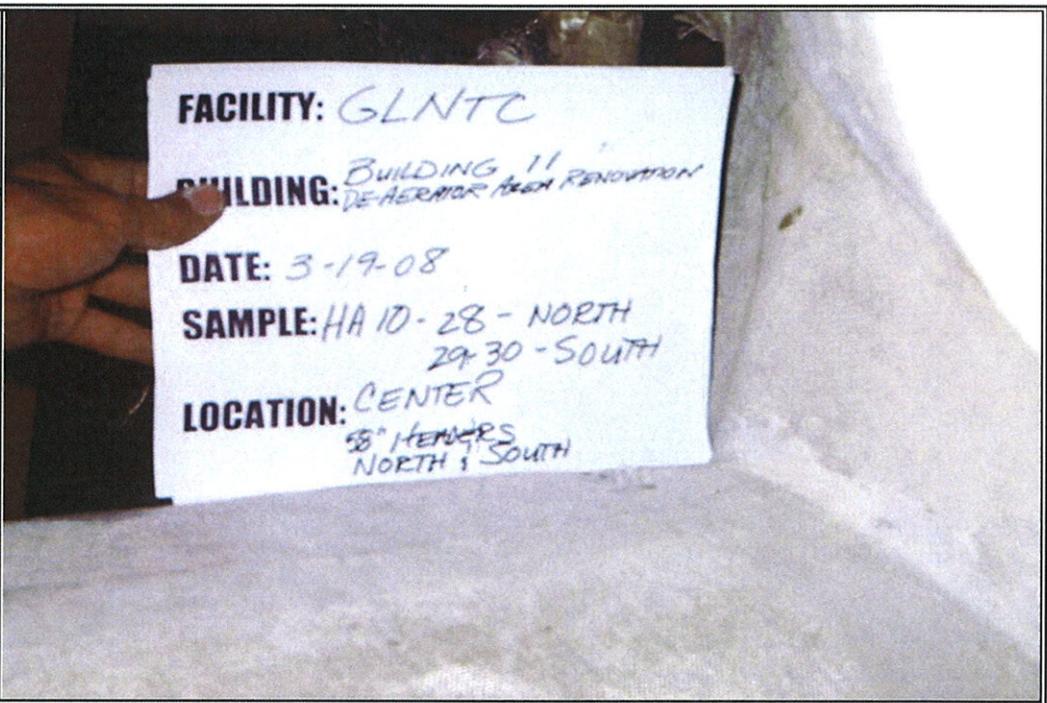
**PHOTO # 13**



**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA10-28 North Header, 29 & 30 South Header; Center Floor- 58" Headers North & South.

**PHOTO # 14**



<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA11-31, 32, 33; East Side- West D.A. Tank Insulation.

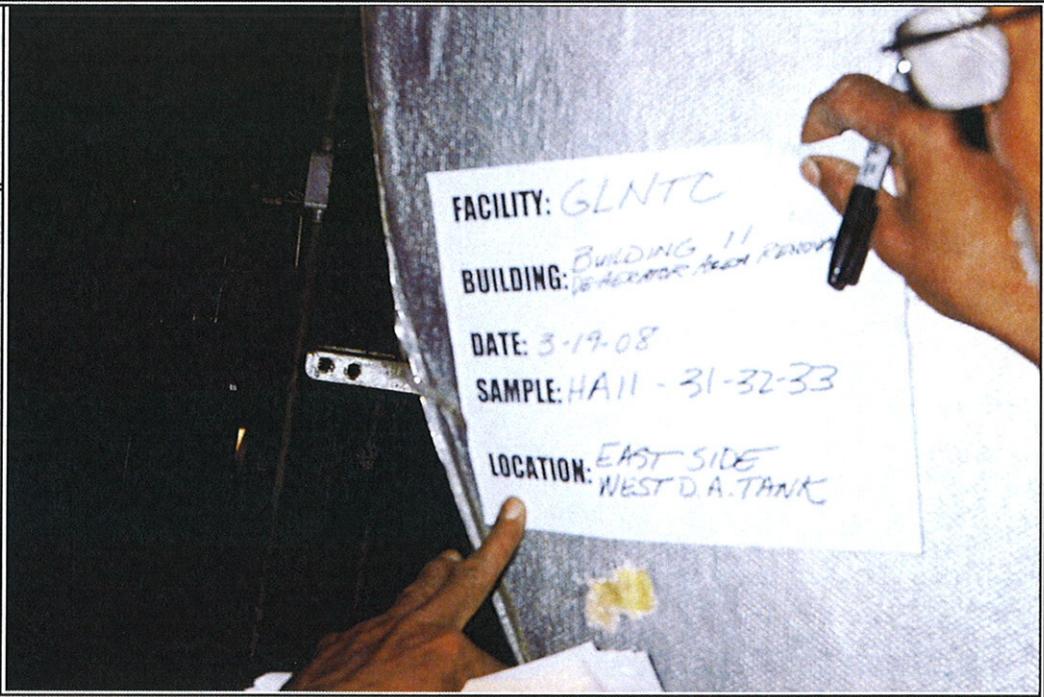


PHOTO # 15

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA12-34, 35, 36; East Side- West D.A. Tank Man Hold Insulation.

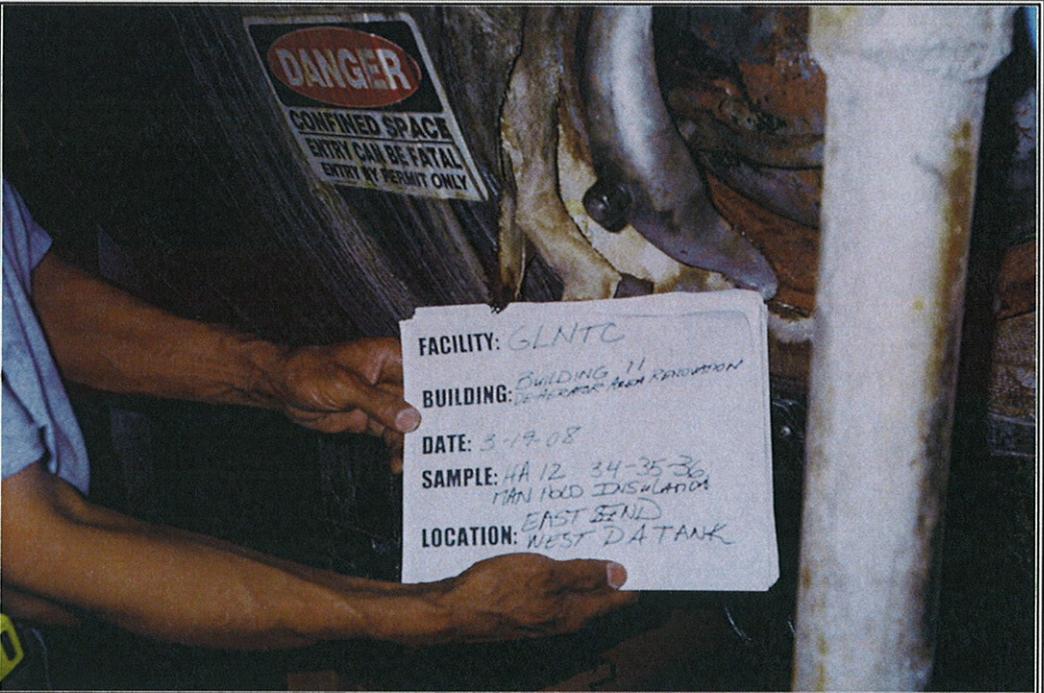


PHOTO # 16

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA13-37, 38,  
 39; East Side- Feed  
 Water Heater #1 & #2.

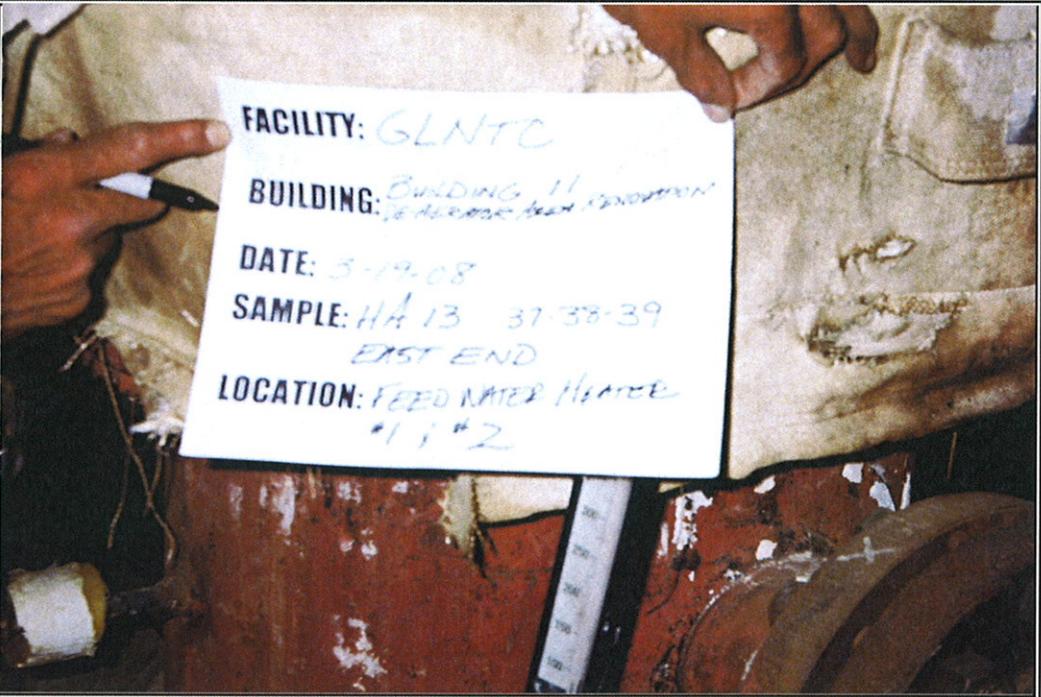


PHOTO # 17

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA14-40, 41,  
 42; East Side- Feed  
 Water Heater #1 & #2  
 Joints.

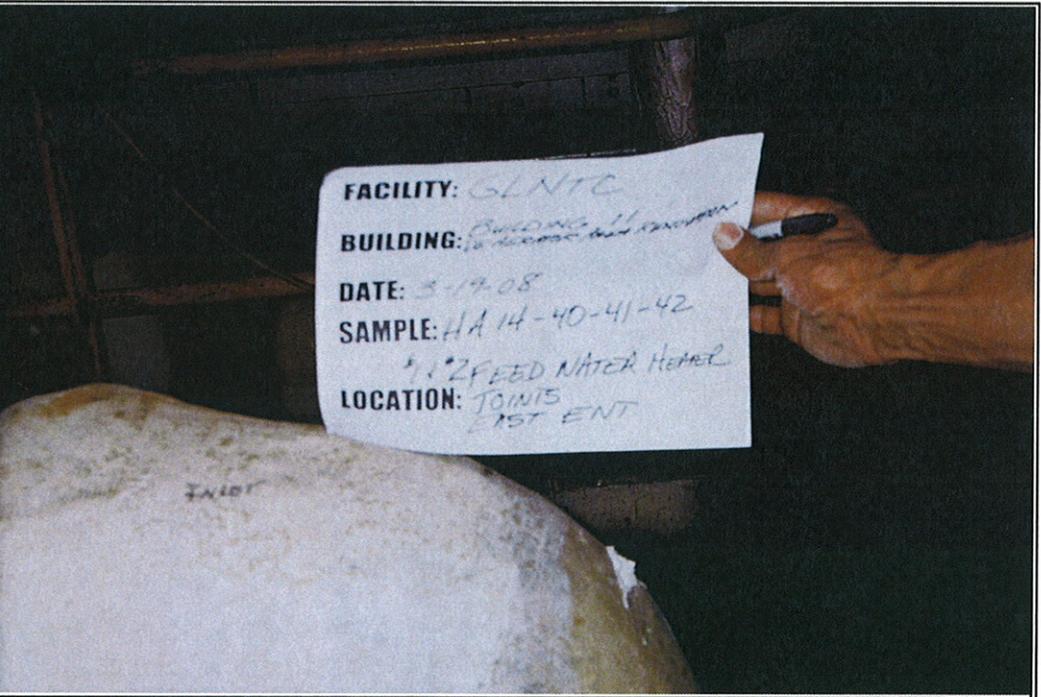
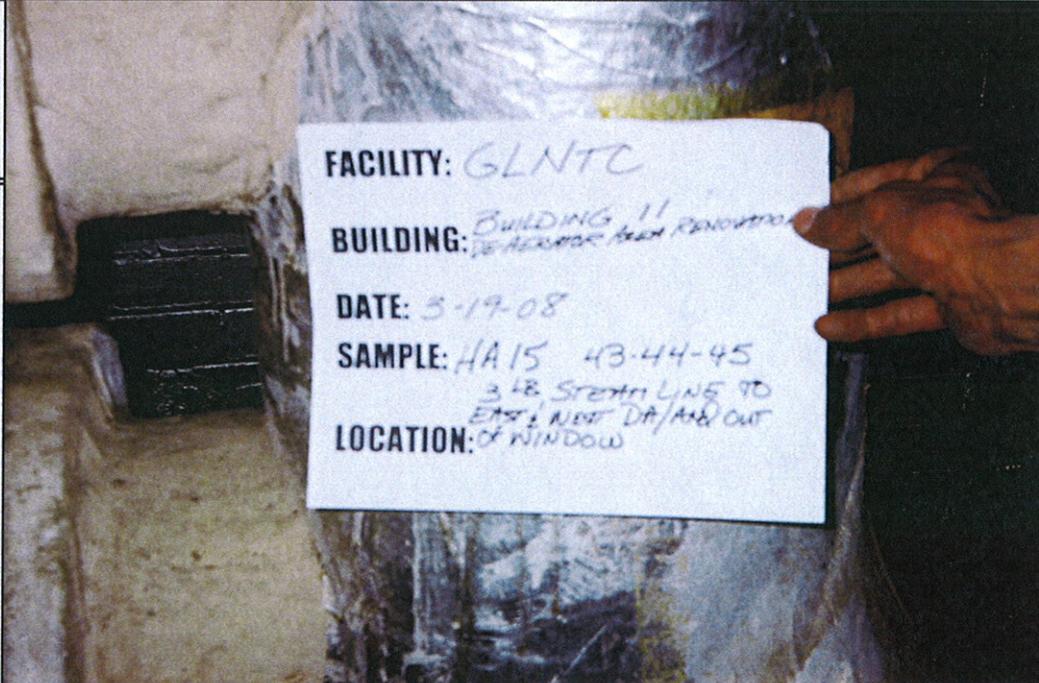
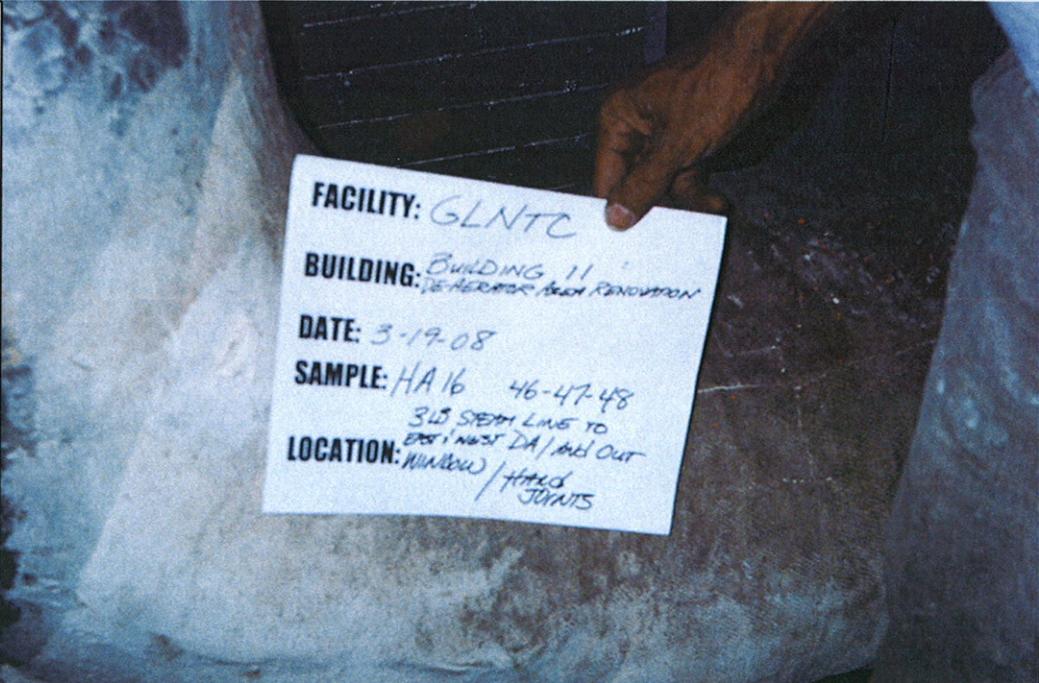


PHOTO # 18

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>  Jarrett Land</p>	
<p><b>Description:</b>  Sample # HA15-43, 44, 45; East Side- 3 lb Steamline to East &amp; West DA/ out of window.</p>	
<p>PHOTO # 19</p>	

<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>  Jarrett Land</p>	
<p><b>Description:</b>  Sample # HA16-46, 47, 48; East Side- 3 lb Steamline to East &amp; West DA/ out of window/ Hard Joints.</p>	
<p>PHOTO # 20</p>	

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA17-49, 50,  
 51; East Side- 350 lb  
 Steamline from 5 & 6  
 boilers.

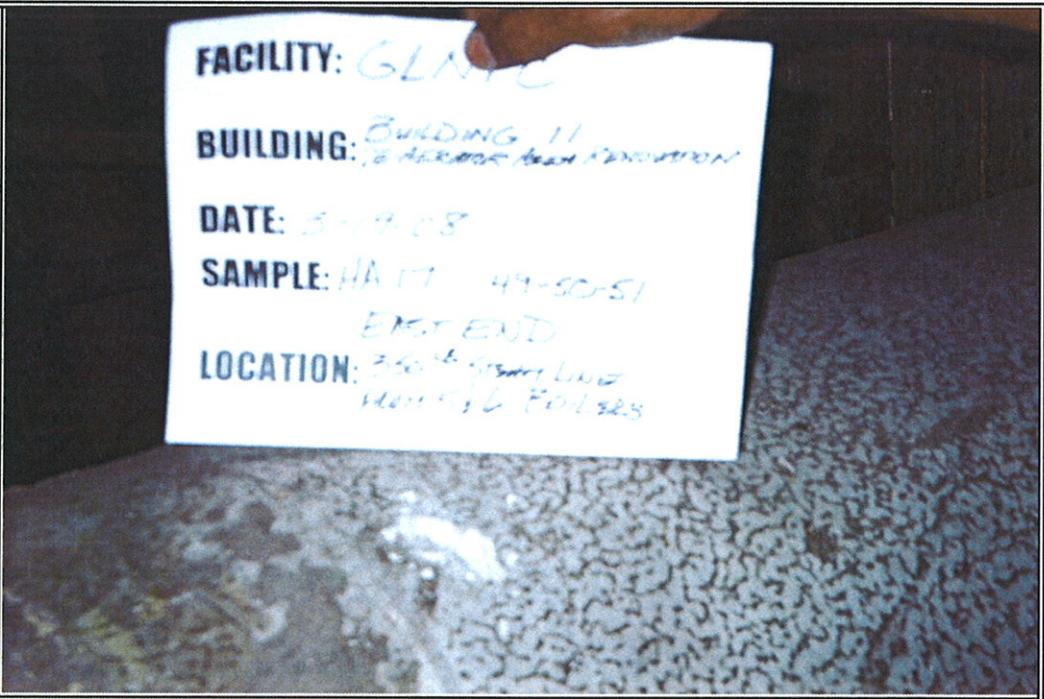


PHOTO # 21

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA18-52, 53,  
 54; 45" Pipe off North  
 & South Headers  
 125lbs to 60lb reducer.

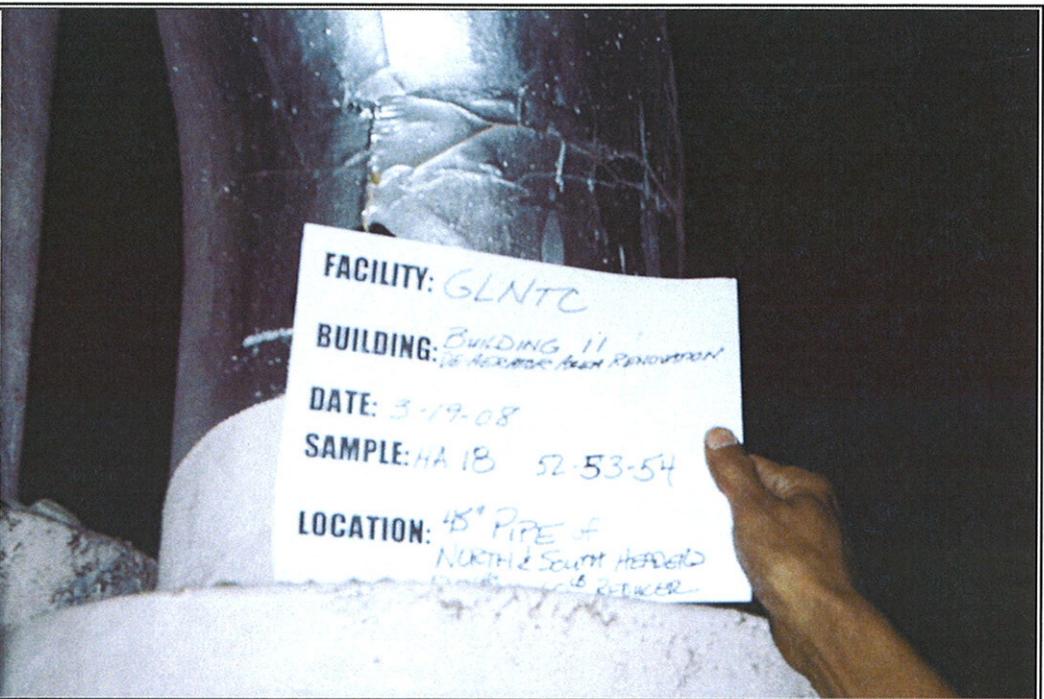


PHOTO # 22

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

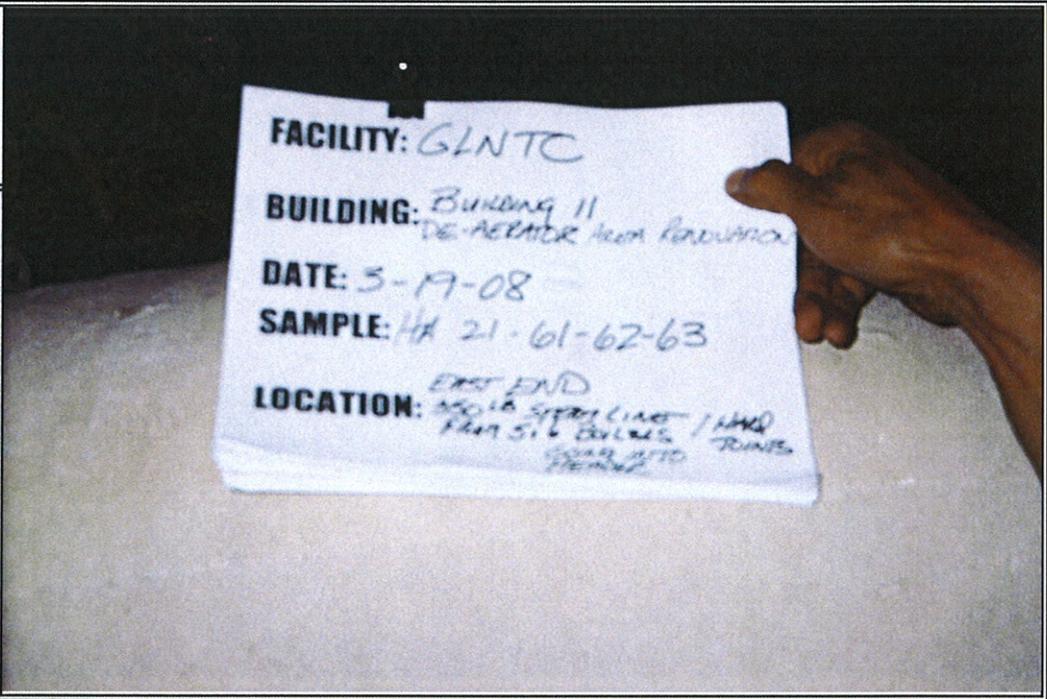
<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>          Jarrett Land</p>	
<p><b>Description:</b>          Sample # HA19-55, 56, 57; 125lb Pipe to 14" Main Off Headers North &amp; South/ Hard Joints.</p> <p style="text-align: right;"><b>PHOTO # 23</b></p>	

<p><b>Project:</b> 1602.002.01  <b>Date:</b> 03-19-08  <b>Photographed By:</b>          Jarrett Land</p>	
<p><b>Description:</b>          Sample # HA20-58, 59, 60; 125lb Pipe to 14" Main Off Headers North &amp; South/ Hard Joints.</p> <p style="text-align: right;"><b>PHOTO # 24</b></p>	

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

**Project:** 1602.002.01  
**Date:** 03-19-08  
**Photographed By:**  
 Jarrett Land

**Description:**  
 Sample # HA21-61, 62,  
 63; East End 350lb  
 Steamline from 5 & 6  
 boilers Going into  
 Header/ Hard Joints.



**PHOTO # 25**

**APPENDIX H**

**ASBESTOS LABORATORY RESULTS  
AND CERTIFICATIONS**







CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

277 W. National Ave Blvd  
Columbus, Ohio 43215  
phone: 614.252.0540  
fax: 614.252.0543

564 Broadway  
State 740  
Cary, Indiana 46402  
phone: 319.881.7700

3031 N. 14th Street  
Warrens, WI 53222  
phone: 414.476.3131  
fax: 414.476.2204

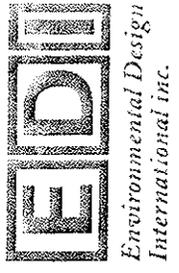
240 S. Michigan Ave., Suite 700  
Chicago, Illinois 60604  
phone: 312.456.5400  
fax: 312.456.5499

Batch # 501295

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No. <i>L. Submitted 1002-001-01</i>		2. Sampling Site Address/Contact Telephone No. <i>Coltec - Bldg 11 De-Aerated Area Expansion</i>		Indicate Analysis Requested														
3. Sampled by (Signature) <i>Frank</i>		5. Date of Sample Shipment <i>3/20/08</i>		6. Date Results Needed														
4. # of Samples in Shipment <i>60</i>		Method Preserved		TIME (Minutes)														
Sample Location/Description		Matrix		# of Containers														
Item No.	Sample Number	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	NONE	OTHER	Date	Sampling Time	VOLUME (L)	
1	HA7 - 21	X													3/19/08			
2	HA8 - 22																	
3	23																	
4	24																	
5	HA9 - 25																	
6	26																	
7	27																	
8	HA10 - 28																	
9	29																	
10	30																	
Time In:		Time Out:		Total Hours:		Signature:		Print Name:		Company/Agency Affiliation:		Condition Noted:						
Released by (Signature) <i>Shuffler</i>		Date/Time Released <i>3/20/08</i>		Delivery Method <i>Aimed</i>		Released by (Signature)		Date/Time Released		Company/Agency Affiliation		Condition Noted						
Comments:		To Archive/Disposal																





**CHAIN OF CUSTODY / ANALYSIS REQUEST FORM**

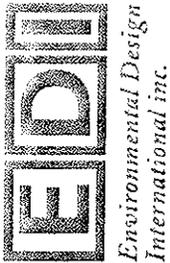
200 S. Michigan Ave., Suite 700  
Chicago, Illinois 60604  
phone: 312.356.5400 fax: 312.356.5409

504 Broadway  
Suite 740  
Gary, Indiana 46402  
phone: 219.881.7700 fax: 219.881.7700

277 W. National Blvd.  
Columbus, Ohio 43215  
phone: 614.252.0540 fax: 614.252.0543

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

Item No.	Sample Number	Sample Location/Description	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	NONE	OTHER	Method Preserved			VOLUME (L)	TIME (Minutes)	# of Containers	Indicate Analysis Requested		
																Date	Time	6. Date Results Needed						
1	HA14-41	EXIST END FLOW WATER	X																					
2	42	WATER TANK # 2																						
3	HA15-43	310 STEAM LINE TO EXIST WEST																						
4	44	EXIST END FLOW WATER																						
5	45	EXIST END FLOW WATER																						
6	HA16-46	EXIST END FLOW WATER																						
7	47	EXIST END FLOW WATER																						
8	48	EXIST END FLOW WATER																						
9	HA17-49	EXIST END 550 LB STEAM LINE																						
10	50	EXIST END 550 LB STEAM LINE																						
Time In:			Time Out:			Total Hours:			Signature:			Print Name:												
Released by (Signature)			Date/Time Released			Delivery Method			Released by (Signature)			Date/Time Released			Company/Agency Affiliation			Condition Noted						



**CHAIN OF CUSTODY / ANALYSIS REQUEST FORM**

*Batch # S01295*

201 S. Michigan Ave., Suite 700  
Chicago, Illinois 60604  
phone: 312.556.5400 fax: 312.556.5499

3031 N. 114th Street  
Wauwatosa, WI 53222  
phone: 414.476.3131 fax: 414.476.2201

504 Broadway  
Suite 740  
Gary, Indiana 46402  
phone: 219.881.7700

277 W. Nationwide Blvd.  
Columbus, Ohio 43215  
phone: 614.252.0540 fax: 614.252.0543

**Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.**

1. Sender's Name/Project No.		2. Sampling Site Address/Contact Telephone No.										Indicate Analysis Requested											
L. Spangher 1602-001-01		CWC - Bldg 11 DE-Asbestos Area Renovation										ASB											
3. Sampled by (Signature)		5. Date of Sample Shipment				6. Date Results Needed																	
MAD		3/20/08																					
Item No.	Sample Number	Sample Location/Description	Matrix							Method Preserved			Sampling Time	VOLUME (L)	TIME (Minutes)	# of Containers							
			WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	NONE					OTHER						
1	HA 17-51	E157 END 350 TO SLOTH LINE																					
2	HA 18-52	FLOOR 516 BOILERS																					
3	53	45" PIPE OFF NORTH SOUTH																					
4	54	125" OFF HEADERS N/S JOINTS																					
5	HA 19-55	125" TO PIPE TO 14" MAIN																					
6	56	125" OFF HEADERS N/S JOINTS																					
7	57	125" TO PIPE TO 14" OFF																					
8	HA 20-58	HEADERS N/S INSULATION																					
9																							
10																							
Time In:		Time Out:		Total Hours:				Signature:				Print Name:											
Released by (Signature)		Date/Time Released		Delivery Method				Released by (Signature)				Date/Time Released				Company/Agency Affiliation				Condition Noted			
Jung		3/20/08		Hand																			



**LABORATORY ANALYSIS REPORT**

BATCH# 501295

*Bulk Asbestos Identification*

Client	Site Building 11
Client Reference 1602.002.01	Sender Lynwood Slaughter
Date Received 03/21/2008 by Joseph Anzlovar	Date Analyzed 03/21/2008 by Joseph Anzlovar
Date Collected 03/20/2008 by Lynwood Slaughter	Date Reported 03/21/2008 by Jarrett Land
Method EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
HA1-01	1	Yes	Amosile 10 - 15	Cellulose 5 - 10	Binder 75	Yes	White	South West Wall 24" Pipe
HA2-04	2	No		Fibrous Glass 85 - 90	Binder 10		White Brown	West End 24" F.G. Water Line
HA2-05	3	No		Fibrous Glass 85 - 90	Binder 10		White Brown	West End 24" F.G. Water Line
HA2-06	4	No		Fibrous Glass 85 - 90	Binder 10		White Brown Silver	West End 24" F.G. Water Line
HA3-07	5	No		Fibrous Glass 100		Yes	Yellow	West End 24" F.G. Water Line Joint
HA3-08	6	No		Fibrous Glass 100		Yes	Yellow	West End 24" F.G. Water Line Joint
HA3-09	7	No		Fibrous Glass 100		Yes	Yellow	West End 24" F.G. Water Line Joint
HA4-10	8	Yes	Amosile 10 - 15	Cellulose 5 - 10	Binder 75		White Gray	West End 15" Drain Line
HA5-13	9	Yes	Chrysotile 10 - 15	Cellulose 5 - 10	Binder 75	Yes	Gray	West End Wall Tank Insulation
HA6-16	10	Yes	Chrysotile 1 - 5 Amosile 10 - 15	Fibrous Glass 1 - 5 Cellulose 1 - 5	Binder 70	Yes	White	W. End Upper Level 36" 350lb Staem Line
HA7-19	11	Yes	Chrysotile 15 - 20	Fibrous Glass 5 - 10 Cellulose 10 - 15	Binder 55		Gray	W. End Upper Level 36" 350lb Staem Line Joint
HA8-22	12	No		Fibrous Glass 70 - 75	Binder 25	Yes	Gray	W. End Upper Level 56" Reducer
HA8-23	13	No		Fibrous Glass 70 - 75	Binder 25	Yes	Gray	W. End Upper Level 56" Reducer
HA8-24	14	No		Fibrous Glass 70 - 75	Binder 25	Yes	Gray	W. End Upper Level 56" Reducer
HA9-25	15	No		Fibrous Glass 60 - 65 Cellulose 25 - 30	Binder 5		Tan Brown	W. End Upper Level Reducer Outlet Joints

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written approval of the laboratory.

  
 ANALYST

# LABORATORY ANALYSIS REPORT

BATCH# 501295

## Bulk Asbestos Identification

Client	Site Building 11
Client Reference 1602.002.01	Sender Lynwood Slaughter
Date Received 03/21/2008 by Joseph Anzlovar	Date Analyzed 03/21/2008 by Joseph Anzlovar
Date Collected 03/20/2008 by Lynwood Slaughter	Date Reported 03/21/2008 by Jarrett Land
Method EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
							Gray	
HA9-26	16	No		Fibrous Glass 60 - 65 Cellulose 25 - 30	Binder 5		Tan Brown Gray	W. End Upper Level Reducer Outlet Joints
HA9-27	17	No		Fibrous Glass 60 - 65 Cellulose 25 - 30	Binder 5		Tan Brown Gray	W. End Upper Level Reducer Outlet Joints
HA10-28	18	Yes	Chrysotile 25 - 30	Cellulose 25 - 30	Binder 40		Gray	N. & S. Center 58" Header Insulation
HA11-31	19	No		Fibrous Glass 60 - 65 Cellulose 25 - 30	Binder 5		Brown Gray Silver Yellow	E. Side/ W. D.A. Tank Metal Jacket Insulation
HA11-32	20	No		Fibrous Glass 60 - 65 Cellulose 25 - 30	Binder 5		Brown Gray Silver Yellow	E. Side/ W. D.A. Tank Metal Jacket Insulation
HA11-33	21	No		Fibrous Glass 60 - 65 Cellulose 25 - 30	Binder 5		Brown Gray Silver Yellow	E. Side/ W. D.A. Tank Metal Jacket Insulation
HA12-34	22	No		Fibrous Glass 60 - 65 Cellulose 1 - 5	Binder 30		Brown Gray	E. Side/ Grate Level W. D.A. Tank Man Hole
HA12-35	23	No		Fibrous Glass 60 - 65 Cellulose 1 - 5	Binder 30		Brown Gray	E. Side/ Grate Level W. D.A. Tank Man Hole
HA12-36	24	No		Fibrous Glass 60 - 65	Binder 30		Brown	E. Side/ Grate Level W. D.A. Tank

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written approval of the laboratory.

  
ANALYST

# LABORATORY ANALYSIS REPORT

BATCH# 501295

## Bulk Asbestos Identification

<b>Client</b>	<b>Site</b> Building 11
<b>Client Reference</b> 1602.002.01	<b>Sender</b> Lynwood Slaughter
<b>Date Received</b> 03/21/2008 by Joseph Anzlovar	<b>Date Analyzed</b> 03/21/2008 by Joseph Anzlovar
<b>Date Collected</b> 03/20/2008 by Lynwood Slaughter	<b>Date Reported</b> 03/21/2008 by Jarrett Land
<b>Method</b> EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
				Cellulose 1 - 5			Gray	Man Hole
HA13-37	25	No		Fibrous Glass 45 - 50	Binder 35		White	E. Side/ Grate Level Water Heaters 1 & 2
				Cellulose 10 - 15			Gray	
HA13-38	26	No		Fibrous Glass 40 - 45	Binder 40		White	E. Side/ Grate Level Water Heaters 1 & 2
				Cellulose 10 - 15			Gray	
HA13-39	27	No		Fibrous Glass 40 - 45	Binder 40		White	E. Side/ Grate Level Water Heaters; 1 & 2
				Cellulose 10 - 15			Gray	
HA14-40	28	No		Fibrous Glass 60 - 65	Binder 35		Gray	E. Side/ Grate Level Water Heaters 1 & 2 Joints
							Yellow	
HA14-41	29	No		Fibrous Glass 60 - 65	Binder 35	Yes	Gray	E. Side/ Grate Level Water Heaters 1 & 2 Joints
HA14-42	30	No		Fibrous Glass 60 - 65	Binder 35		Gray	E. Side/ Grate Level Water Heaters 1 & 2 Joints
							Yellow	
HA15-43	31	Yes	Amosile 15 - 20	Cellulose 10 - 15	Binder 65		Brown Gray	E. Side/ E. & W. D.A 3lb Steamline
HA16-46	32	Yes	Chrysotile 15 - 20	Cellulose 15 - 20	Binder 55		Gray	E. Side/ E. & W. D.A 3lb Steamline Joints
			Amosile 1 - 5					
HA17-49	33	Yes	Chrysotile 1 - 5	Cellulose 15 - 20	Binder 55	Yes	Gray	E. Side/ 5 & 6 Boile 350lb Steamline
			Amosile 15 - 20					
HA18-52	34	Yes	Chrysotile 1 - 5	Cellulose 15 - 20	Binder 55	Yes	Gray	N. & S. Headers 125lb to 60lb Reducer
			Amosile 15 - 20					
HA19-55	35	Yes	Chrysotile 10 - 15	Fibrous Glass 10 - 15	Binder 40		Gray	N. & S. Headers 125lb to 14" off

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written approval of the laboratory.

  
ANALYST

# LABORATORY ANALYSIS REPORT

BATCH# 501295

## Bulk Asbestos Identification

Client	Site Building 11
Client Reference 1602.002.01	Sender Lynwood Slaughter

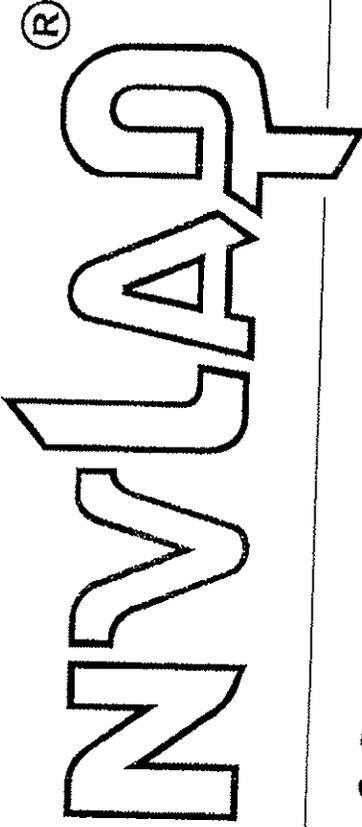
Date Received 03/21/2008 by Joseph Anzlovar      Date Analyzed 03/21/2008 by Joseph Anzlovar  
 Date Collected 03/20/2008 by Lynwood Slaughter      Date Reported 03/21/2008 by Jarrett Land  
 Method EPA-600/R-93/116, using Polarized Light Microscopy

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
			Amosile 10 - 15	Cellulose 10 - 15				Header Joints
HA20-58	36	Yes	Chrysotile 10 - 15	Fibrous Glass 10 - 15	Binder 40		Gray	N. & S. Headers 125lb to 14" off Header
			Amosile 10 - 15	Cellulose 10 - 15				
HA21-61	37	No		Fibrous Glass 85 - 90	Binder 10		White Brown	E.Side/ 5 & 6 Boiler 350lb Steamline into Header
HA21-62	38	No		Fibrous Glass 85 - 90	Binder 10		White Brown	E.Side/ 5 & 6 Boiler 350lb Steamline into Header
HA21-63	39	No		Fibrous Glass 85 - 90	Binder 10		White Brown	E.Side/ 5 & 6 Boiler 350lb Steamline into Header

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written approval of the laboratory.

  
 ANALYST

United States Department of Commerce  
National Institute of Standards and Technology



# Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101868-0

**Environmental Design International inc.**  
Chicago, IL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

## **BULK ASBESTOS FIBER ANALYSIS**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated 18 June 2005).*

2007-10-01 through 2008-09-30

Effective dates



*Dolly A. Bruce*  
For the National Institute of Standards and Technology



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**Environmental Design International inc.**  
200 South Michigan Avenue, Suite 700  
Chicago, IL 60604  
Mr. Joseph F. Anzlovar  
Phone: 312-356-5400 x222 Fax: 312-356-5499  
E-Mail: janzlovar@envdesigni.com

**BULK ASBESTOS FIBER ANALYSIS (PLM)**

**NVLAP LAB CODE 101868-0**

*NVLAP Code      Designation / Description*

18/A01            EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2007-10-01 through 2008-09-30

*Effective dates*

*Sally S. Bruce*

For the National Institute of Standards and Technology



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899

August 30, 2007

Mr. Joseph F. Anzlovar  
Environmental Design International inc.  
200 South Michigan Avenue, Suite 700  
Chicago, IL 60604

NVLAP Lab Code: 101868-0

Dear Mr. Anzlovar:

I am pleased to inform you that continuing accreditation for specific test methods in Bulk Asbestos Fiber Analysis (PLM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until September 30, 2008, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP logo in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Thomas R. Davis, Sr. Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

Sally S. Bruce, Chief  
Laboratory Accreditation Program

Enclosure(s)

SEP - 4 2007

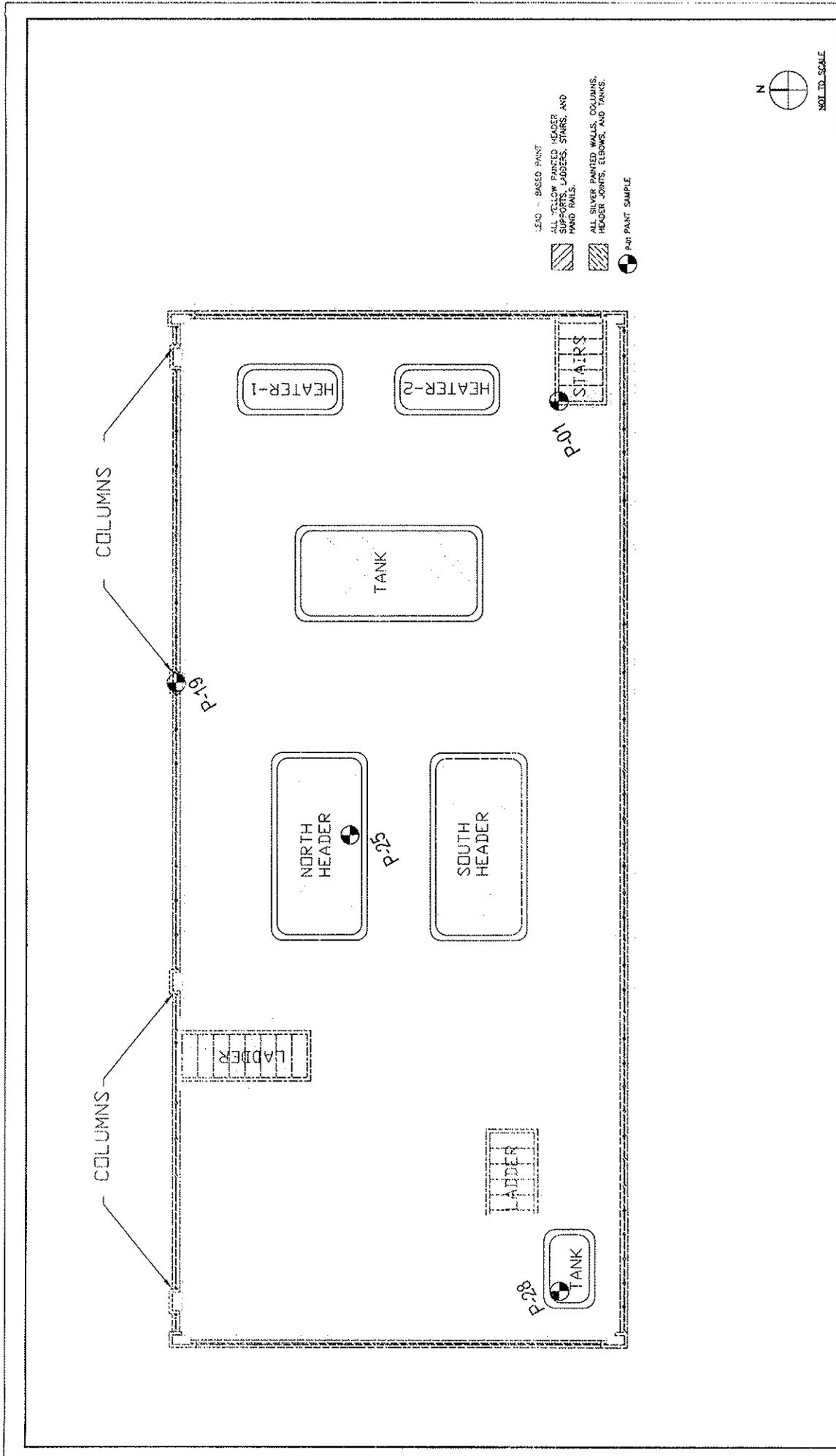


**APPENDIX I**  
**LEAD SAMPLE LOGS**



**APPENDIX J**

**LEAD CONTAINING AREA DRAWINGS**



DRAWN BY: S. Vercso	APPROVED BY: R.S.G.	TITLE: BUILDING 11 DE-AERATOR AREA	NAVAL FACILITIES ENGINEERING	FIGURE:
DATE: 03-27-2008	PROJ. NO. 1602.002.01	PAINT SAMPLE LOCATIONS	COMMAND MIDWEST	09
DWG. NO.: 09	DWG.	AND LEAD-BASED PAINT ABATEMENT AREA	210 DECATUR AVENUE, BUILDING 1A	
		GREAT LAKES, ILLINOIS 60088	GREAT LAKES NAVAL BASE	
			GREAT LAKES, ILLINOIS 60088	

**EDI**  
 ENVIRONMENTAL DESIGN INTERNATIONAL, INC.  
 200 S. MICHIGAN AVENUE, SUITE 700  
 CHICAGO, IL 60604 PHONE: (312) 358-5400

**APPENDIX K**

**LEAD LABORATORY RESULTS  
AND CERTIFICATIONS**



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

200 S. Michigan Ave., Suite 200  
Chicago, Illinois 60604  
Phone: 312.326.5200  
Fax: 312.396.7296

Offices also in:  
Columbus, Ohio  
Cuyahoga Falls, Ohio  
Merrillville, Wisconsin

200S014300

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No. <i>L. S. Lambert / 1602-002-01</i>		2. Sampling Site Address/Contact Telephone No. <i>UMFC - Bldg 11</i>		Indicate Analysis Requested		Laboratory Number															
3. Sampled by (Signature) <i>MAK</i>		4. # of Samples in Shipment <i>4</i>		5. Date of Sample Shipment <i>3/25/08</i>			6. Date Results Needed <i>24hr</i>														
Item No	Sample Number	Sample Location/Description	COMP	GRAV	WATER	SOIL		AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4	ICE	NONE	OTHER	Date	Sampling Time	VOLUME (L)	TIME (Minutes)	# of Containers
1	P01	S.E. Wall / Yellow Headrail	X																		
2	P19	West / Grate / Support																			
3	P25	Throughput / Silver Pipe																			
4	P28	West corner / Silver Tank																			
5																					
6																					
7																					
8																					
9																					
10																					
Time In: <i>3:15pm</i>		Time Out:		Total Hours:		Signature: <i>[Signature]</i>		Date/Time Released: <i>3:25:08</i>		Company/Agency Affiliation: <i>Glenn Lazaro</i>		Condition Noted:									
Released by (Signature): <i>[Signature]</i>		Date/Time Released: <i>3/25/08</i>		Delivery Method: <i>Hand</i>		To Archive/Disposal: <i>SAMPLES ACCEPTED FOR ANALYSIS BY ENSE ANALYTICAL INC. CHICAGO, IL.</i>		Release by (Signature): <i>[Signature]</i>		Date/Time Released: <i>3:25:08</i>		Company/Agency Affiliation: <i>Glenn Lazaro</i>									
Comments: <i>Re Submitted!</i>																					



EMSL Analytical, Inc.

2444 W. George Street, Chicago, IL 60618

Phone: (773) 313-0099 Fax: (773) 313-0139 Email: chicagolab@emsl.com

Attn: **Ray Noriega**  
**Environmental Design International**  
**200 S. Michigan Ave**  
**Suite 700**  
**Chicago, IL 60604**

Customer ID: EDI51  
Customer PO: CC101549\$120  
Received: 03/25/08 1:57 PM  
EMSL Order: 260801436

Fax: (312) 356-5499 Phone: (312) 356-5400  
Project: 1602.002.01-Bldg 11

EMSL Proj:  
Report Date: 3/26/2008

**Lead in Paint Chips by Flame AAS (SW 846 3050B and 7420\*)**

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
P01 S.E. Wall/Yellow Handrail	0001	3/25/2008	3/26/2008	18 % wt
P19 West/Grate Level/Support Columns	0002	3/25/2008	3/26/2008	8.3 % wt
P25 Throughout/Grate Level/Silver Pipe Elbows	0003	3/25/2008	3/26/2008	0.20 % wt
928 West Comer/Grate Level/Silver Tank	0004	3/25/2008	3/26/2008	0.17 % wt

Andrei Poluchowicz, Laboratory Manager  
or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

\* slight modifications to methods applied Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted. Samples received in good condition unless otherwise noted.

AIHA ELLAP 102992



# The American Industrial Hygiene Association

acknowledges that

## EMSL Analytical, Inc.

244 West George Street, Chicago, IL 60618  
Laboratory III, 102992

has fulfilled the requirements of the AHA Laboratory Quality Assurance Program (LQAP), hereby, continuing to the ISO/IEC 17025:1999 international standard, General Requirements for the Competence of Testing and Calibration Laboratories. The above named laboratory, along with all previous from which her activities are performed as listed above, have been accredited by AHA in the following:

### ACCREDITATION PROGRAMS

- INDUSTRIAL HYGIENE Accreditation Expires:
- ENVIRONMENTAL LEAD Accreditation Expires: 01/01/2008
- ENVIRONMENTAL MICROBIOLOGY Accreditation Expires: 12/01/2007
- FOOD Accreditation Expires:

Specific Pleasured Testing (POT) Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued participation (renewal) upon successful compliance with LQAP requirements. This certificate is not valid without the attached Scope of Accreditation.

*R. M. Bond*

Don Anderson, Dept. VIII  
President, AHA

Date issued: 04/14/05

Don Anderson, Dept. VIII  
President, AHA

**APPENDIX L**  
**LEAD SAMPLE PHOTOGRAPHS**

PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

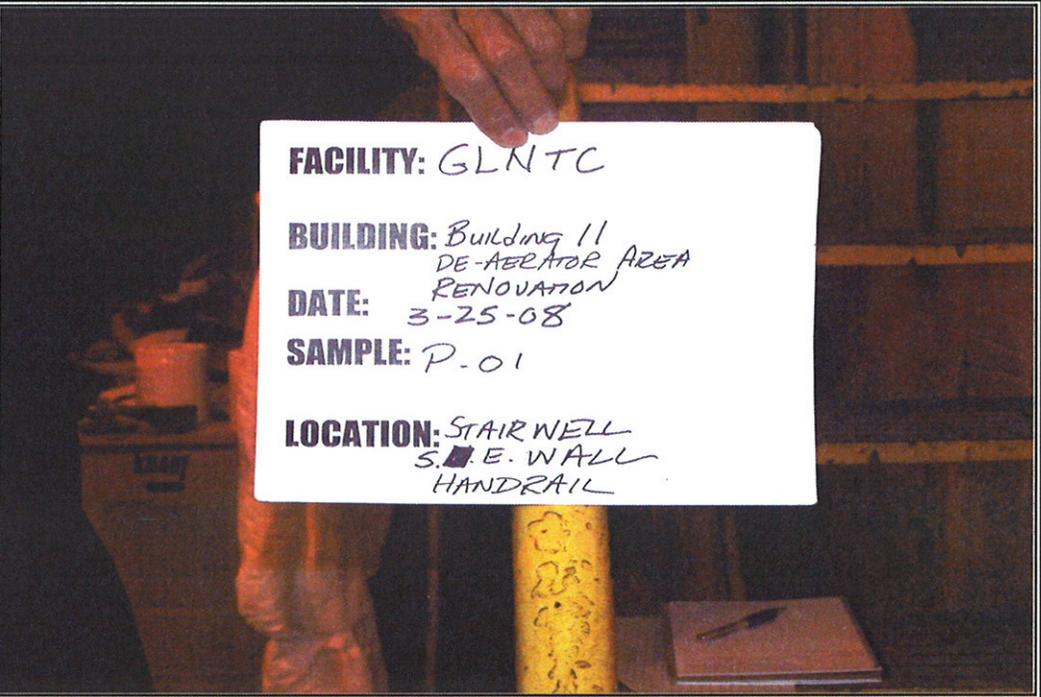
<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-25-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> <b>Sample #</b> P-01; <b>Stairwell, South East Wall- Yellow Handrail.</b></p>	

PHOTO #1

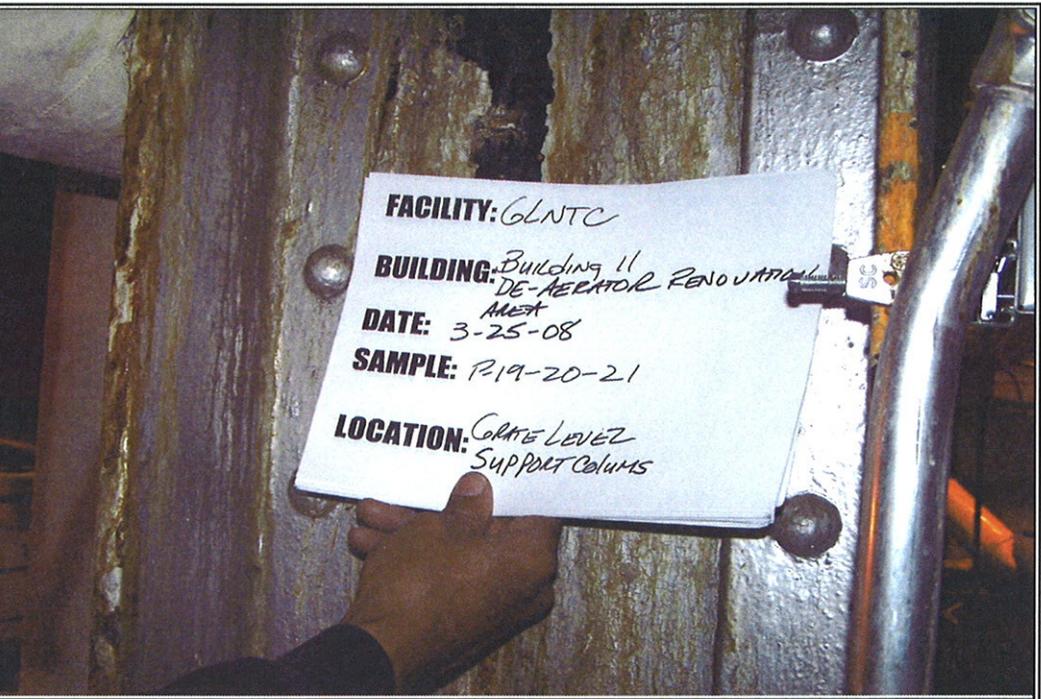
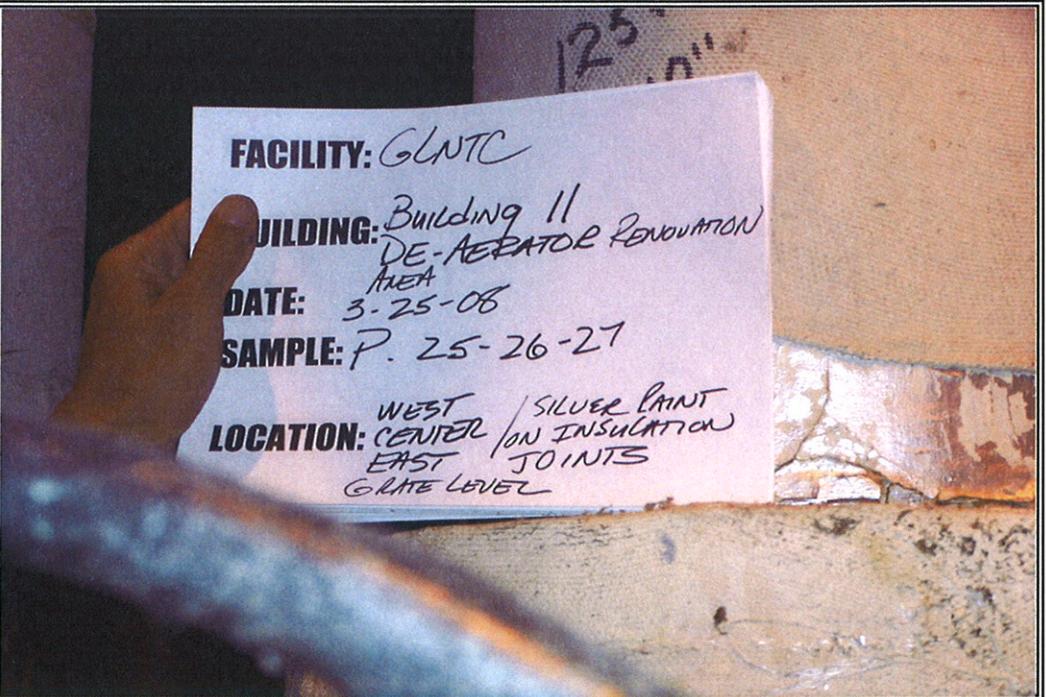
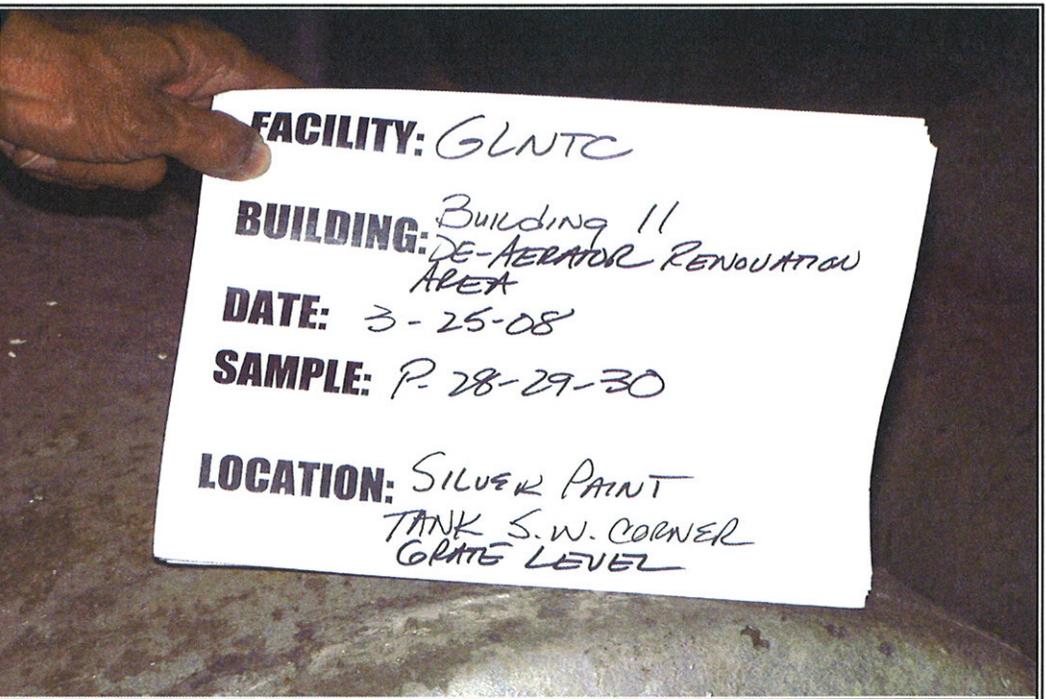
<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-25-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> <b>Sample #</b> P-19; Grate Level, Support Columns.</p>	

PHOTO # 2

PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Base
---------------------	------------------------

<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-25-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> Sample # P-25; Throughout Grate Level, Silver Pipe Elbows/ Joints.</p>	
<p>PHOTO #3</p>	

<p><b>Project:</b> 1602.002.01 <b>Date:</b> 03-25-08 <b>Photographed By:</b> Jarrett Land</p>	
<p><b>Description:</b> Sample # P-28; West Corner Grate Level, Silver Tank.</p>	
<p>PHOTO #4</p>	

**APPENDIX M**

**ENVIRONMENTAL DESIGN INTERNATIONAL  
CERTIFICATIONS**



**ASBESTOS  
PROFESSIONAL  
LICENSE**

ID NUMBER 100 - 02914 ISSUED 4/7/2007 EXPIRES 05/15/2008

LYNWOOD W SLAUGHTER  
4120 INDIAN HILL DRIVE  
COUNTRY CLUB HILL, IL 60478



Environmental Health  
See Reverse for Endorsements

**ENDORSEMENTS**

**TC EXPIRES**

INSPECTOR

2/16/2008

**AIR SAMPLING PROFESSIONAL**

**Alteration of this license shall result in legal action**

This license issued under authority of the State of Illinois  
Department of Public Health

This license is valid only when accompanied  
by a valid training course certificate.



**ASBESTOS  
PROFESSIONAL  
LICENSE**

ID NUMBER 100 - 10796      ISSUED 4/16/2007      EXPIRES 05/15/2008

LOIS KIMMELMAN  
83 GROVELAND AVENUE  
RIVERSIDE, IL 60546



Environmental Health  
See Reverse for Endorsements

ENDORSEMENTS

TC EXPIRES

PROJECT DESIGNER

3/30/2008

**Alteration of this license shall result in legal action**

This license issued under authority of the State of Illinois  
Department of Public Health

This license is valid only when accompanied  
by a valid training course certificate.

COMPREHENSIVE ENVIRONMENTAL SURVEY  
NAVAL STATION GREAT LAKES, ILLINOIS  
BUILDING 11 DE-AERATOR (LOWER SECTION)/350 HEADER AREA

Prepared for:

Department of the Navy  
Naval Station Great Lakes  
Naval Facilities Engineering Command, Midwest  
201 Decatur Avenue, Building 1-A  
Great Lakes, Illinois 60088

Prepared by:



ENVIRONMENTAL DESIGN INTERNATIONAL INC.  
200 South Michigan Avenue, Suite 700  
Chicago, Illinois 60604  
(312) 356-5400  
[www.envdesigni.com](http://www.envdesigni.com)

May 8, 2008  
EDI Project No. 1602.004.01

Approved for Release By

A handwritten signature in blue ink, appearing to read 'D. Sawicki', is written over a horizontal line. The signature is stylized and fluid.

David L. Sawicki, CPG, PG  
Director, Environmental Health and Safety



*Environmental Design  
International inc.*

200 S. Michigan Avenue, Suite 700  
Chicago, Illinois 60604

phone: 312.356.5400

fax: 312.356.5499

May 8, 2008

Mr. Bill Busko  
Naval Station Great Lakes  
Building 1A  
201 Decatur Avenue  
Great Lakes, Illinois 60088

**SUBJECT:** Comprehensive Environmental Survey  
Building 11 De-Aerator (Lower Section)/350 Header Area  
**GREAT LAKES NAVAL BASE**  
Great Lakes, Illinois 60088  
EDI Project NO. 1602.004.01

Dear Mr. Busko:

Enclosed please find the Comprehensive Environmental Survey for Building 11 De-Aerator (Lower Section)/350 header area at the Great Lakes Naval Base, Great Lakes, Illinois prepared by Environmental Design International inc.

Environmental Design International inc. performed the inspections on April 29, 2008. Building materials which the inspectors identified as suspect asbestos and lead containing materials were sampled. Samples were submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) certified laboratory for asbestos analysis, and to an Environmental Lead Laboratory Accreditation Program (ELLAP) accredited laboratory for lead analysis. Laboratory results indicate that some materials sampled contained asbestos and lead.

Please refer to the attached report for sample logs, sample results, building drawings, photographs, recommendations and certifications.

Please feel free to contact us at (312) 356-5400 with any comments or questions regarding this report.

Sincerely,

**Environmental Design International inc.**

David L. Sawicki, CPG, PG  
Director, Environmental Health and Safety

cc: IH/1602.004.01

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APPENDIX B:	NON-ASBESTOS CONTAINING HOMOGENEOUS AREAS
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## EXECUTIVE SUMMARY

Environmental Design International inc. (EDI) was retained by the Department of the Navy, Naval Facilities Engineering, Command Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0005, to perform a comprehensive environmental survey of the thermal system in the de-aerator (Lower Section)350 header area of Building 11 at the Great Lakes Naval Base in Great Lakes, Illinois. At the request of Mr. Bill Busko, the survey area was changed from the de-aerator lower level area to include the de-aerator/350 header area of Building 11. The scope of work also included determining the approximate amount, location, and condition of friable and non-friable asbestos-containing building materials, lead-based paint, and other hazardous materials. EDI understands that the building is scheduled for thermal system insulation renovation and re-insulation of that system.

On April 29, 2008, EDI's accredited and Illinois Department of Public Health (IDPH) licensed asbestos inspectors Lynwood Slaughter and Randolph Livingston, performed a visual inspection of the project area and collected samples of various types of suspect asbestos containing building materials (ACBMs). A total of seventy-five (75) bulk samples of ACBM were collected. There were a total of eight (8) homogeneous areas that contained asbestos in regulated quantities.

During the survey, EDI identified several building components of the de-aerator/350 header area that were painted. On April 29, 2008, EDI's accredited lead inspectors Lynwood Slaughter and Randolph Livingston, performed a visual inspection of the painted components and collected samples of the different color paints. A total of six paint chip samples were collected including samples from the metal stair stringers, support columns, vertical and horizontal I-beams and hand rail. Five of the samples contained lead above the definition the U.S. Department of Housing and Urban Development (HUD) has defined as "Lead-Based Paint".

No Mercury thermostats were observed in the de-aerator/350 header area of Building 11. No evidence of fluorescent lighting or ballasts, mold, stockpiled material, or stored chemicals were observed during this survey. One aboveground storage tank was observed in the de-aerator/350 header area on the upper level. This tank was new and not in operation.

## I. INTRODUCTION

EDI was retained by the Department of the Navy, Naval Facilities Engineering, Command Midwest, under Navy Contract Number N40083-07-A-0016, BPA Call Number 0005, to perform a comprehensive environmental survey of the thermal system in de-aerator (lower section)350 header area of Building 11 at the Great Lakes Naval Base in Great Lakes, Illinois. At the request of Mr. Bill Busko, the survey area was changed from the de-aerator lower level area to include the de-aerator/350 header area of Building 11. The scope also included determining the approximate amount, location and condition of friable and non-friable asbestos-containing building materials, lead based paint, and other hazardous materials. EDI understands that the building is scheduled for thermal system insulation renovation and re-insulation of the thermal system.

On April 29, 2008 EDI's IDPH accredited asbestos inspectors Lynwood Slaughter and Randolph Livingston collected bulk samples of various types of suspect ACM located throughout the de-aerator/350 header area in Building 11. In addition, EDI IDPH lead risk assessors Mr. Slaughter and Mr. Livingston collected paint chip samples from various components located in the de-aerator/350 header area in Building 11. The paint chip samples were categorized by the substrate material of painted components. Please refer to Appendix K for EDI personnel certifications.

### LIMITATIONS OF SURVEY

- All quantities of ACM are approximate and should be field verified prior to abatement activities.
- All quantities of LBP are approximate and should be field verified prior to abatement activities. Please refer to Appendix I for listed LBP components.

## II. SAMPLING PROCEDURES

### Asbestos Bulk Sampling Procedures

Asbestos Bulk sampling was performed in accordance with U.S. Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) and National Emissions Standards for Air Pollutants (NESHAP) 40 CFR 61, Appendix M protocols for asbestos.

### **Asbestos Inspection Methodology**

EDI performed a visual inspection of the de-aerator/350 header area of building 11, including thermal systems insulation, in order to identify homogeneous areas of suspected ACM. Homogeneous areas are materials that are similar in color, texture, and general appearance as determined by site observations by experienced asbestos building inspectors.

EDI collected bulk asbestos samples using wet sampling methods and a coring device or sample cutter, as appropriate, to collect a cross-section of the suspect material. Sample collection tools were decontaminated between samples by washing with soap and water and dried by disposable towels to avoid cross contamination.

EDI placed each sample into a clean and unused bag marked with a unique sample identification number. For each sample, the identification number, a brief material description, location, and estimated quantity of material type were recorded on a bulk sample log sheet. Estimated quantities of ACM are included in Appendices A.

Proper chain-of-custody procedures were followed for this inspection. These procedures provide a written tracking mechanism that lists the person responsible for the sample from collection to delivery to the laboratory. Sample identification numbers and material descriptions were recorded on the chain-of-custody forms.

All samples were analyzed by EDI's Laboratory, which is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). Samples were analyzed using Polarized Light Microscopy (PLM) and supplemented with dispersion staining. PLM is an EPA-approved method, which utilizes a light microscope equipped with polarized filters (EPA Method 600/R-93/116). Laboratory certifications are contained in Appendix I.

A total of seventy-five (75) bulk samples of ACBM were collected. Specific sample descriptions are summarized in Appendices A, B and C. The EPA defines ACM as a material that contains greater than 1% asbestos by PLM analysis. Figure 1 depicts the approximate sampling locations and is provided in Appendix D. Bulk sample analytical results are provided in Appendix F.

## **Lead-Based Paint Sampling Procedures**

EDI performed a visual inspection of the de-aerator/350 header area of building 11, including painted surfaces, in order to identify homogeneous areas of paint. Paint chip samples were collected for verification of lead in paint in the de-aerator area/350 header area in Building 11. Sampling was conducted according to HUD *guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1995 and 1997 revision)*. After the painted surfaces were identified and grouped into homogeneous areas EDI collected paint chip samples from these areas. Samples were collected by scraping all paint layers off the substrate material using a straight edge razor blade. Samples were placed into individual sample bags with a unique sample number (such as P01) after collection. On April 30, 2008, samples were submitted to EMSL Analytical, Inc. in Chicago, Illinois, an Environmental Lead Laboratory Accreditation Program (ELLAP) accredited laboratory and were analyzed following EPA Method SW 846 3050B and 7420 (flame atomic absorption spectroscopy). Please refer to Appendix I for LBP sample results and laboratory certifications.

Proper chain-of-custody procedures were followed for this inspection. These procedures provide a written tracking mechanism that lists the person responsible for the sample from collection to delivery to the laboratory. Sample identification numbers and material descriptions were recorded on the chain-of-custody forms.

A total of six paint chip samples were collected from painted surfaces throughout the project area. Paint samples were collected from the following areas:

- Metal stair stringers;
- Support columns;
- Vertical I-Beams;
- Vertical post;
- Horizontal I-beams; and
- Hand rail.

Figure 2 depicts the approximate sampling locations of suspect paint and is provided in Appendix H.

## **Hazardous Material Inspection Methodology**

EDI performed a visual inspection of the de-aerator/350 header area of building 11. Specific areas of concern include polychlorinated byphenols (PCBs) fluorescent light ballasts, potential mercury-containing devices, stockpiled hazardous chemicals and aboveground storage tanks.

### **III. RESULTS**

During this survey, accessible areas of the de-aerator (lower section)/350 header area in Building 11 of the Great Lakes Naval Base, Great Lakes, Illinois were inspected for suspect environmental hazards. The following is a summary of the results of the survey:

#### **ASBESTOS**

In total, there were 25 homogeneous materials that were observed and sampled to evaluate for the presence of asbestos. Of the 25 homogeneous building materials that were identified, only 8 contained asbestos in regulated quantities. These areas included:

- 41 inch, 350 pound (lb) steam supply line to west reducer pipe insulation;
- 41 inch 350 lb. steam supply to west red sta2 pipe line insulation;
- 41 inch 350 lb. steam supply to west red sta2 pipe line fitting insulation;
- 41 inch 350 lb. steam supply to water plant pipe line insulation;
- 41 inch 350 lb. steam supply to water plant pipe fitting insulation;
- 56 inch steam supply line out of header pipe insulation;
- 56 inch steam supply line out of header pipe fitting insulation; and
- 31 inch 350 lb. supply steam pipe line fitting insulation.

No other ACB Materials in the de-aerator/350 header area of Building 11 contained asbestos. Laboratory results for the samples are included in Appendix F; Appendix A contains a summary of the Asbestos Containing Homogenous sample areas; Appendix B contains the Non-Asbestos Containing Homogeneous sample areas; and Appendix E contains copies of photographs documenting the sample collection.

#### **LEAD**

HUD guidelines define lead-based paint (LBP) as paint that contains 0.5 percent or greater lead by weight (when calculated as lead metal in a dried solid form) or 5000 milligrams per kilogram (mg/kg). Painted surfaces containing lead in excess of the HUD content include:

- Yellow Hand Rail;
- Yellow Vertical I-Beam;
- Gray/Silver Horizontal I-Beam;
- Yellow Vertical Post; and
- Yellow Stair Stringer.

The surfaces of these surfaces were observed to be in poor condition. Appendix G contains a copy of the Lead Sample Logs; Appendix I contains a copy of the laboratory results; and Appendix contains copies of photographs depicting the painted surfaces.

## **ELECTRICAL**

### PCBs

No fluorescent lights or ballasts were observed in the de-aerator/350 header area of the building.

### Mercury Lights and Switches

No potential mercury-containing devices were observed in the de-aerator/350 header area of Building 11.

## **CHEMICAL STORAGE/STOCKPILED MATERIAL**

No chemicals or stockpiled materials were observed in the de-aerator/350 header area of the building.

## **ABOVEGROUND STORAGE TANKS**

One aboveground storage tank was observed in the de-aerator/350 header area on the upper level; However, this tank appeared to be new on not in service.

#### **IV. RECOMMENDATIONS**

Bulk samples that were collected that contain asbestos in regulated quantities include:

- 41 inch 350 lb. steam supply line to west reducer pipe
- 41 inch 350 lb. steam supply to west red sta2 pipe line and fittings
- 41 inch 350 lb. steam supply to water plant pipe line and fittings
- 56 inch steam supply line out of header pipe and fittings
- 31 inch 350 lb. supply steam pipe line fittings

These materials are considered to be Category 2 Friable materials. The condition of these materials is good. Subpart M of 40 CFR 61 of the NESHAP states that all regulated asbestos containing material (RACM), that is friable, must be abated prior to renovation. All asbestos materials must be abated by a licensed asbestos abatement contractor under NESHAPS regulations, at a minimum.

In addition, several components of the de-aerator/350 header area were observed to be painted. Based on the results of paint sampling both silver and yellow paint contained lead and should be abated prior to any renovations that would affect these components in the area.

No mercury-containing devices were observed in the de-aerator/350 header area of Building 11. No evidence of fluorescent lighting or ballasts, or the storage of hazardous chemicals was observed during this survey. One aboveground storage tank was observed in the de-aerator/350 header area on the upper level. This tank appeared new and not in service. .

## **V.       LIMITATIONS OF SURVEY**

This report is based solely on the scope of work provided and the assumptions based on this limited access survey. Any new information that becomes available concerning the subject site should be provided to EDI so that our evaluations, conclusions, and recommendations may be revised and modified accordingly. All materials tested are assumed homogeneous throughout the proposed renovation areas.

## **DEFINITIONS**

The following definitions are intended to provide the reader with a better understanding of the terminology used in this report.

### **Asbestos**

The general name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and are separable into fibers. Asbestos includes the asbestiform varieties of chrysotile (serpentine); corcidolite (riebeckite); amosite (cummingtonite-ferrite); anthophyllite; and actinolite.

### **Asbestos-Containing Material**

Asbestos containing materials (ACM) are materials that are found to contain greater than one percent by weight asbestos content as determined by polarized light microscopy (PLM) analysis.

### **Accessible Areas**

An accessible area of the building is any area that the survey team is permitted to inspect and that can be inspected without the disassembly of complicated mechanical or rigid structural components of the building. Examples of accessible areas of the building are interior floors, walls, ceilings, areas above suspended ceilings, return air shafts (normally), mechanical piping exteriors, and equipment exteriors, etc.

### **Damaged material**

A “damaged” material contains a few water stains or less than one-tenth of insulation with missing jackets and/or crushed insulation or water stains, gouges, punctures, or mars on surface up to one-tenth of the insulation if the damage is evenly distributed or up to one-quarter if the damage is localized.

### **Inaccessible Areas**

An inaccessible area is any area where inspection access is not permitted or requires a considerable amount of mechanical or structural disassembly to inspect. Inaccessible areas normally only investigated prior to renovation or demolition activities. Examples of inaccessible areas are pipe chases behind solid walls, mechanically encased insulation, or unsafe areas.

### **Friable Material**

A material, that when dry, may be crumbled, pulverized or reduced to powder by hand pressure is a friable material. Examples of friable materials include: pipe insulation, boiler or tank insulation, or sprayed-on fireproofing.

### **Non-friable Material**

A material, that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure. Non-friable materials may become friable through damage or deterioration. Examples of non-friable materials include: intact floor tile, transite building panels, or well maintained roofing materials.

**Homogeneous Area**

A homogeneous area is defined as a group of materials that is uniform in texture and appearance, was stalled at one time, and is likely to consist of more than one type or formation of material.

**Significantly Damaged Material**

A “significantly damaged” material contains missing jackets on at least one-tenth of the piping or equipment and/or is crushed, heavily gouged, or punctured insulation on at least one-tenth of pipe runs/rises, boilers, tanks, ducts, etc., if the damage is evenly distributed or one-quarter of the damage is localized.

APPENDIX A  
ASBESTOS CONTAINING HOMOGENEOUS AREAS



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS CONTAINING HOMOGENEOUS AREAS

Homogeneous Area	Description of Homogeneous Area	Category Type	Condition	Quantity
------------------	---------------------------------	---------------	-----------	----------

### BUILDING 11 DE-AERATOR/350 HEADER AREA - GREAT LAKES NAVAL BASE

06	41" 350 lb. Steam Supply Line to West Reducer Pipe Insulation	Friable	Good	40 LF
07	41" 350 lb. Steam Supply to West Red Sta2 Pipe Line Insulation	Friable	Good	50 LF
08	41" 350 lb. Steam Supply to West Red Sta2 Pipe Fitting Insulation	Friable	Good	7 EA
011	41" 350 lb. Steam Supply to Water Plant Pipe Line Insulation	Friable	Good	210 LF
012	41" 350 lb. Steam Supply to Water Plant Pipe Fittings	Friable	Good	8 EA
17	56" Steam Supply Line out of Header Pipe Insulation	Friable	Good	110 LF
18	56" Steam Supply Line out of Header Pipe Fitting Insulation	Friable	Good	8 EA
20	31"350 lb. Supply Steam Pipe Line Fitting Insulation	Friable	Good	12 EA

LF = Linear Feet

EA = Each

SF = Square Feet

Assumed = Material is already labeled as "Asbestos Containing Material"

**APPENDIX B**

**NON-ASBESTOS CONTAINING HOMOGENEOUS AREAS**



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## NON-ASBESTOS CONTAINING HOMOGENEOUS AREAS

Homogeneous Area	Description of Homogeneous Area	Category Type	Condition
------------------	---------------------------------	---------------	-----------

### BUILDING 11 DE-AERATOR/350 HEADER AREA - GREAT LAKES NAVAL BASE

01	41" Water Pipe Line Insulation	Friable	Poor
02	54" Water Pipe Line Insulation	Friable	Good
03	11" Water Pipe Line Insulation	Friable	Good
04	36" 350 lb Steam Pipe Line Insulation	Friable	Good
05	36" 350 lb Steam Pipe Line Insulation	Friable	Good
09	66" Header Pipe Insulation	Friable	Good
10	66" Header Pipe Fitting Insulation	Friable	Good
13	54" 350 lb. Supply to Water Plant Pipe Tape	Friable	Good
14	61" 350 lb. Steam Pipe Line Header Insulation	Friable	Good
15	66" 350 lb. Steam Pipe Line Insulation	Friable	Good
16	66" 350 lb. Steam Pipe Line Fittings Insulation	Friable	Good
19	31" 350 Supply Steam Pipe Line Insulation	Friable	Good
21	11" North & South Headers Pipe Line Insulation	Friable	Good
22	31" Water Pipe Line Insulation	Friable	Good
23	31" Water Pipe Line Fittings Insulation	Friable	Good
24	14" Transar #4 Pipe Line Insulation	Friable	Good
25	14" Transar #4 Pipe Line Fittings Insulation	Friable	Good

**APPENDIX C**  
**ASBESTOS SAMPLE LOGS**



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
---------------	---------------------------------	-----------------	--------------------

### BUILDING 11 DE-AERATOR AREA - GREAT LAKES NAVAL BASE

HA 1-01	41" Water Pipe Line Insulation	350 Header Area West End	ND
HA 1-02	41" Water Pipe Line Insulation	350 Header Area West End	ND
HA 1-03	41" Water Pipe Line Insulation	350 Header Area West End	ND
HA 2-04	54" Water Pipe Line Insulation	West Wall of 350 Header Area	ND
HA 2-05	54" Water Pipe Line Insulation	West Wall of 350 Header Area	ND
HA 2-06	54" Water Pipe Line Insulation	West Wall of 350 Header Area	ND
HA 3-07	11" Water Pipe Line Insulation	North Wall East End	ND
HA 3-08	11" Water Pipe Line Insulation	North Wall East End	ND
HA 3-09	11" Water Pipe Line Insulation	North Wall East End	ND
HA 4-10	36" 350 lb Steam Pipe Line Insulation	West End Above Grate	ND
HA 4-11	36" 350 lb Steam Pipe Line Insulation	West End Above Grate	ND
HA 4-12	36" 350 lb Steam Pipe Line Insulation	West End Above Grate	ND
HA 5-13	36" 350 lb Steam Pipe Fitting Insulation	West End Above Grate	ND
HA 5-14	36" 350 lb Steam Pipe Fitting Insulation	West End Above Grate	ND
HA 5-15	36" 350 lb Steam Pipe Fitting Insulation	West End Above Grate	ND
HA 6-16	41" 350 lb. Steam Supply Line to West Reducer Pipe	Off North Header	30%
HA 6-17	41" 350 lb. Steam Supply Line to West Reducer Pipe	Off North Header	NA
HA 6-18	41" 350 lb. Steam Supply Line to West Reducer Pipe	Off North Header	NA
HA 7-19	41" 350 lb. Steam Supply to West Red Sta2 Pipe Line	Off North Header	40%
HA 7-20	41" 350 lb. Steam Supply to West Red Sta2 Pipe Line	Off North Header	NA
HA 7-21	41" 350 lb. Steam Supply to West Red Sta2 Pipe Line	Off North Header	NA

**Note: All results greater than 1% are considered asbestos containing. ND = None Detected**

Inspectors Name Lynwood Slaughter and Randy Livingston	Date Samples were Collected 4/29/08
Inspector's Signature	Date Lab Results Received 4/30/08



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
---------------	---------------------------------	-----------------	--------------------

### BUILDING 11 DE-AERATOR AREA - GREAT LAKES NAVAL BASE

HA 8-22	41" 350 lb. Steam Supply to West Red Sta2 Pipe Fitting	Off North Header	40%
HA 8-23	41" 350 lb. Steam Supply to West Red Sta2 Pipe Fitting	Off North Header	NA
HA 8-24	41" 350 lb. Steam Supply to West Red Sta2 Pipe Fitting	Off North Header	NA
HA 9-25	66" Header Pipe Insulation	Off North Header	ND
HA 9-26	66" Header Pipe Insulation	Off North Header	ND
HA 9-27	66" Header Pipe Insulation	Off North Header	ND
HA 10-28	66" Header Pipe Fitting Insulation	Above South Header Area	ND
HA 10-29	66" Header Pipe Fitting Insulation	Above South Header Area	ND
HA 10-30	66" Header Pipe Fitting Insulation	Above South Header Area	ND
HA 11-31	41" 350 lb. steam supply to water plant pipe line Insulation	North Header Area	40%
HA 11-32	41" 350 lb. steam supply to water plant pipe line Insulation	North Header Area	NA
HA 11-33	41" 350 lb. steam supply to water plant pipe line Insulation	North Header Area	NA
HA 12-34	41" 350 lb. steam supply to water plant pipe fitting Insulation	North Header Area	35%
HA 12-35	41" 350 lb. steam supply to water plant pipe fitting Insulation	North Header Area	NA
HA 12-36	41" 350 lb. steam supply to water plant pipe fitting Insulation	North Header Area	NA
HA 13-37	54" 350 lb. Supply to Water Plant Pipe Tape	South Header Area	ND
HA 13-38	54" 350 lb. Supply to Water Plant Pipe Tape	South Header Area	ND

**Note: All results greater than 1% are considered asbestos containing. ND = None Detected**

Inspectors Name Lynwood Slaughter and Randy Livingston	Date Samples were Collected 4/29/08
Inspector's Signature	Date Lab Results Received 4/30/08



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
---------------	---------------------------------	-----------------	--------------------

### BUILDING 11 DE-AERATOR AREA – GREAT LAKES NAVAL BASE

HA 13-39	54" 350 lb. Supply to Water Plant Pipe Tape	South Header Area	ND
HA 14-40	61" 350 lb. Steam Pipe Line Header Insulation	North Header Area	ND
HA 14-41	61" 350 lb. Steam Pipe Line Header Insulation	North Header Area	ND
HA 14-42	61" 350 lb. Steam Pipe Line Header Insulation	North Header Area	ND
HA 15-43	66" 350 lb. Steam Pipe Line Insulation	North Header Area	ND
HA 15-44	66" 350 lb. Steam Pipe Line Insulation	North Header Area	ND
HA 15-45	66" 350 lb. Steam Pipe Line Insulation	North Header Area	ND
HA 16-46	66" 350 lb. Steam Pipe Line Fittings Insulation	North Header Center Area	ND
HA 16-47	66" 350 lb. Steam Pipe Line Fittings Insulation	North Header Center Area	ND
HA 16-48	66" 350 lb. Steam Pipe Line Fittings Insulation	North Header Center Area	ND
HA 17-49	56" Steam Supply Line out of Header Pipe Line Insulation	South Header East Area	25%
HA 17-50	56" Steam Supply Line out of Header Pipe Line Insulation	South Header East Area	NA
HA 17-51	56" Steam Supply Line out of Header Pipe Line Insulation	South Header East Area	NA
HA 18-52	56" Steam Supply Line out of Header Pipe Fitting	South Header East Area	25%
HA 18-53	56" Steam Supply Line out of Header Pipe Fitting	South Header East Area	NA
HA 18-54	56" Steam Supply Line out of Header Pipe Fitting	South Header East Area	NA
HA 19-55	31" 350 Supply Steam Pipe Line Insulation	North Header East Area	ND

**Note: All results greater than 1% are considered asbestos containing. ND = None Detected**

Inspectors Name Lynwood Slaughter and Randy Livingston	Date Samples were Collected 4/29/08
Inspector's Signature	Date Lab Results Received 4/30/08



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
---------------	---------------------------------	-----------------	--------------------

### BUILDING 11 DE-AERATOR AREA – GREAT LAKES NAVAL BASE

HA 19-56	31" 350 Supply Steam Pipe Line Insulation	North Header East Area	ND
HA 19-57	31" 350 Supply Steam Pipe Line Insulation	North Header East Area	ND
HA 20-58	31" 350 lb. Supply Steam Line Fittings Insulation	North Header East Area	65%
HA 20-59	31" 350 lb. Supply Steam Line Fittings Insulation	North Header East Area	NA
HA 20-60	31" 350 lb. Supply Steam Line Fittings Insulation	North Header East Area	NA
HA 21-61	11" North & South Headers Pipe Line Insulation	North Header East Area	ND
HA 21-62	11" North & South Headers Pipe Line Insulation	North Header East Area	ND
HA 21-63	11" North & South Headers Pipe Line Insulation	North Header East Area	ND
HA 22-64	31" Water Pipe Line Insulation	Upper Grate Level East Area	ND
HA 22-65	31" Water Pipe Line Insulation	Upper Grate Level East Area	ND
HA 22-66	31" Water Pipe Line Insulation	Upper Grate Level East Area	ND
HA 23-67	31" Water Pipe Line Fittings Insulation	Upper Grate Level East Area	ND
HA 23-68	31" Water Pipe Line Fittings Insulation	Upper Grate Level East Area	ND
HA 23-69	31" Water Pipe Line Fittings Insulation	Upper Grate Level East Area	ND
HA 24-70	14" Transar #4 Pipe Line Insulation	Northeast Quarter	ND
HA 24-71	14" Transar #4 Pipe Line Insulation	Northeast Quarter	ND
HA 24-72	14" Transar #4 Pipe Line Insulation	Northeast Quarter	ND

**Note: All results greater than 1% are considered asbestos containing. ND = None Detected NA=Not Analyzed**

Inspectors Name Lynwood Slaughter and Randy Livingston	Date Samples were Collected 4/29/08
Inspector's Signature	Date Lab Results Received 4/30/08



# ENVIRONMENTAL DESIGN INTERNATIONAL INC.

## ASBESTOS SAMPLE LOG

Sample Number	Description of Sampled Material	Sample Location	Laboratory Results
---------------	---------------------------------	-----------------	--------------------

### BUILDING 11 DE-AERATOR AREA – GREAT LAKES NAVAL BASE

HA 25-73	14" Transar #4 Pipe Fittings Insulation	Northeast Quarter	ND
HA 25-74	14" Transar #4 Pipe Fittings Insulation	Northeast Quarter	ND
HA 25-75	14" Transar #4 Pipe Fittings Insulation	Northeast Quarter	ND

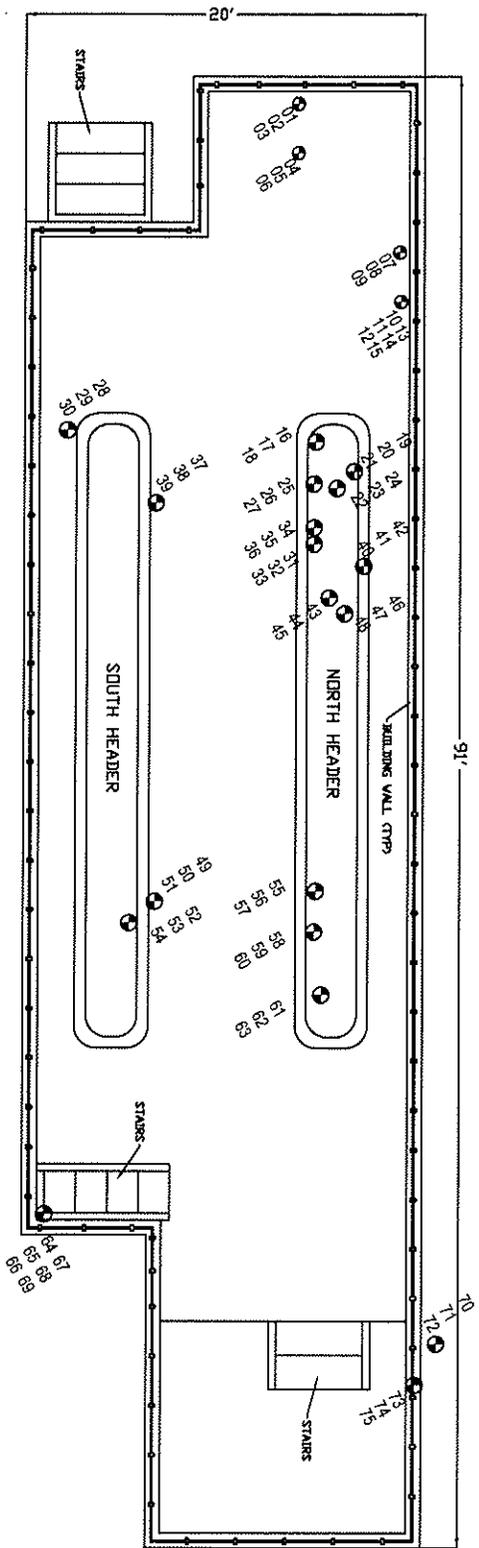
Note: All results greater than 1% are considered asbestos containing. ND = No Asbestos Detected  
 NA = sample not analyzed due to previous positive sample  
 75 samples collected  
 8 samples greater than 1% asbestos content  
 0 samples less than 1% asbestos content  
 16 samples not analyzed due to "stop at first positive" analysis  
 51 samples no asbestos detected

Inspectors Name Lynwood Slaughter and Randy Livingston	Date Samples were Collected 4/29/08
Inspector's Signature	Date Lab Results Received 4/30/08

**APPENDIX D**

**FIGURE 01**

**ASBESTOS SAMPLE LOCATION DRAWING**



LEGEND  
 ○ APPROXIMATE ASBESTOS  
 BULK SAMPLE LOCATION



NOT TO SCALE

DESIGN BY: S. BOWLE	APPROVED BY: R.S.G.	TITLE: BUILDING 11 DE-ASANTON/350 HEADER AREA
DATE: 05-05-2008	PROJ. NO. 1602.004.01	GRADE LEVEL TO CEILING
DWG. NO.: 01		APPROXIMATE ASBESTOS SAMPLE LOCATIONS
		GREAT LAKES, ILLINOIS 60088



ENVIRONMENTAL DESIGN INTERNATIONAL, INC.  
 200 S. MICHIGAN AVENUE, SUITE 700  
 CHICAGO, IL 60604 PHONE: (312)-564-5400

NAVAL FACILITIES ENGINEERING  
 COMMAND MIDWEST  
 210 DECATUR AVENUE, BUILDING 1A  
 GREAT LAKES NAVAL BASE  
 GREAT LAKES, ILLINOIS 60088

FIGURE:  
 01

**APPENDIX E**  
**ASBESTOS SAMPLE PHOTOGRAPHS**

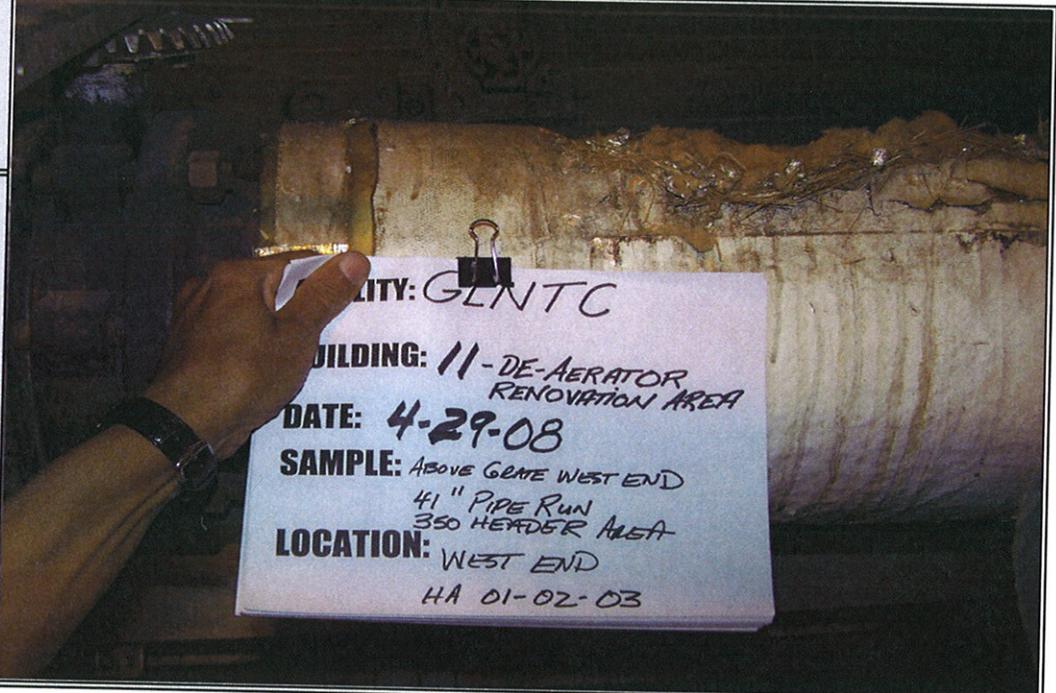
PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA1-01, 02  
& 03 West End - 41 in.  
Fiberglass Pipe  
Insulation.

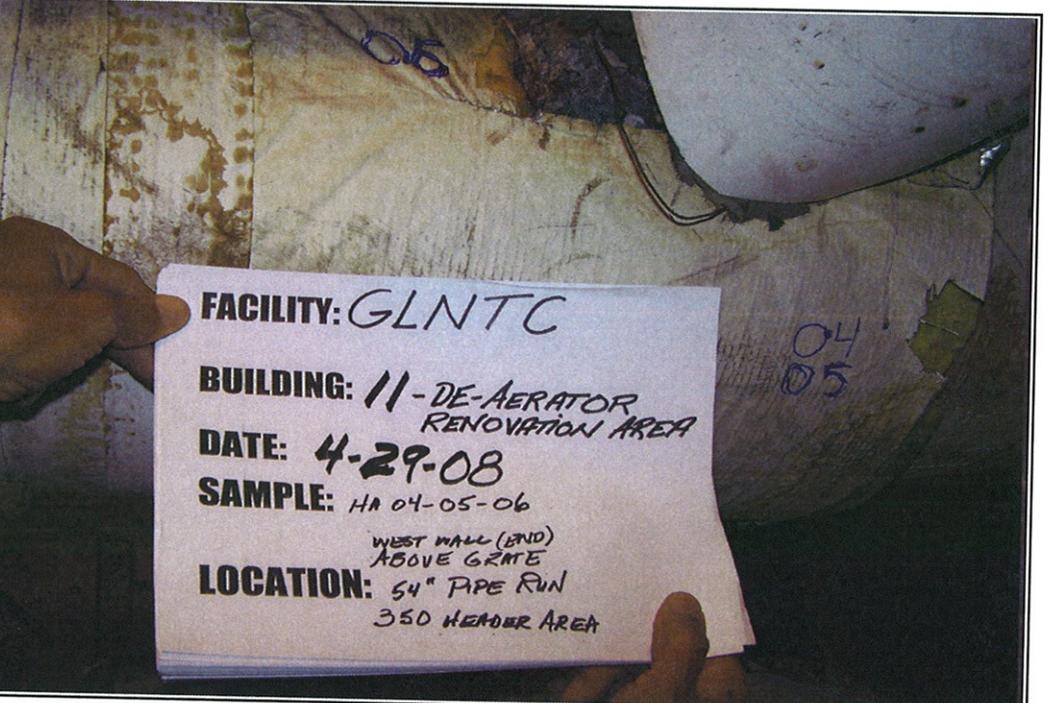
PHOTO #1



**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA2-04, 05  
& 06; West Wall (End) -  
54 in Fiberglass Pipe  
Insulation.

PHOTO # 2



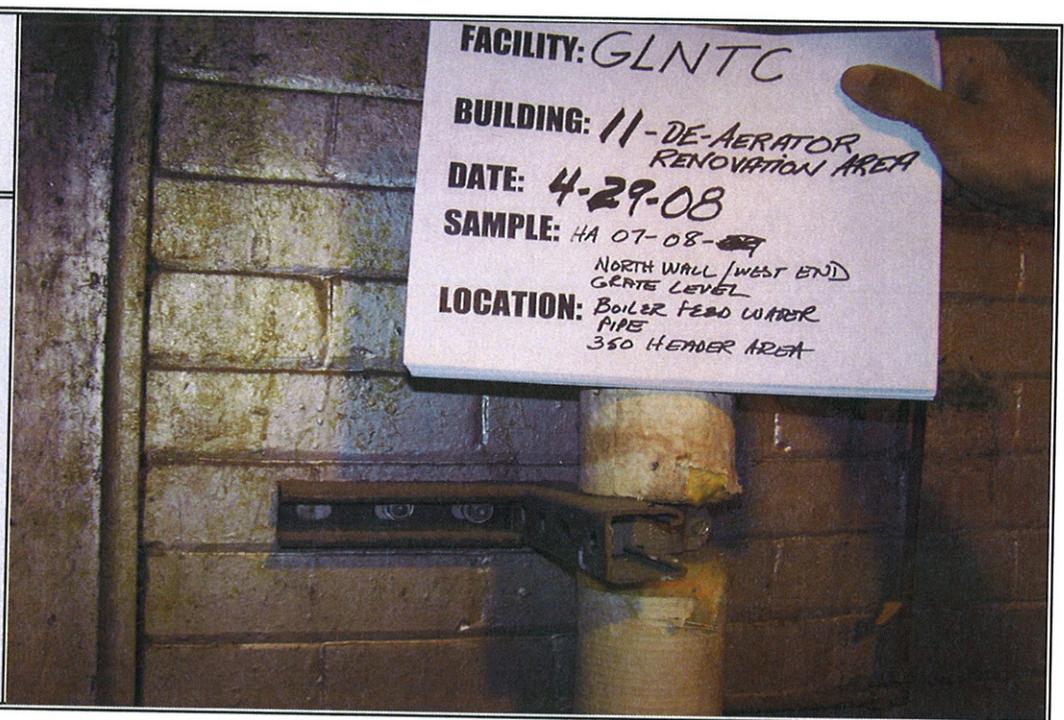
PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA3-07 & 08; North Wall West (END)- 11 in. Fiberglass Pipe Insulation.

PHOTO #3



**FACILITY:** GLNTC  
**BUILDING:** 11-DE-AERATOR RENOVATION AREA  
**DATE:** 4-29-08  
**SAMPLE:** HA 07-08-~~09~~  
NORTH WALL / WEST END  
GATE LEVEL  
**LOCATION:** BOILER FEED WATER PIPE  
350 HEADER AREA

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA3-09; North Wall West (END)- 11 in. Fiberglass Pipe Insulation..

PHOTO # 4



**FACILITY:** GLNTC  
**BUILDING:** 11-DE-AERATOR RENOVATION AREA  
**DATE:** 4-29-08  
**SAMPLE:** HA 09-~~08~~-~~09~~  
NORTH WALL / WEST END  
GATE LEVEL  
**LOCATION:** BOILER FEED WATER PIPE  
350 HEADER AREA

PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA4-10, 11,  
& 12; West End- 36 in.  
350 lb. Steam Pipe  
Insulation.

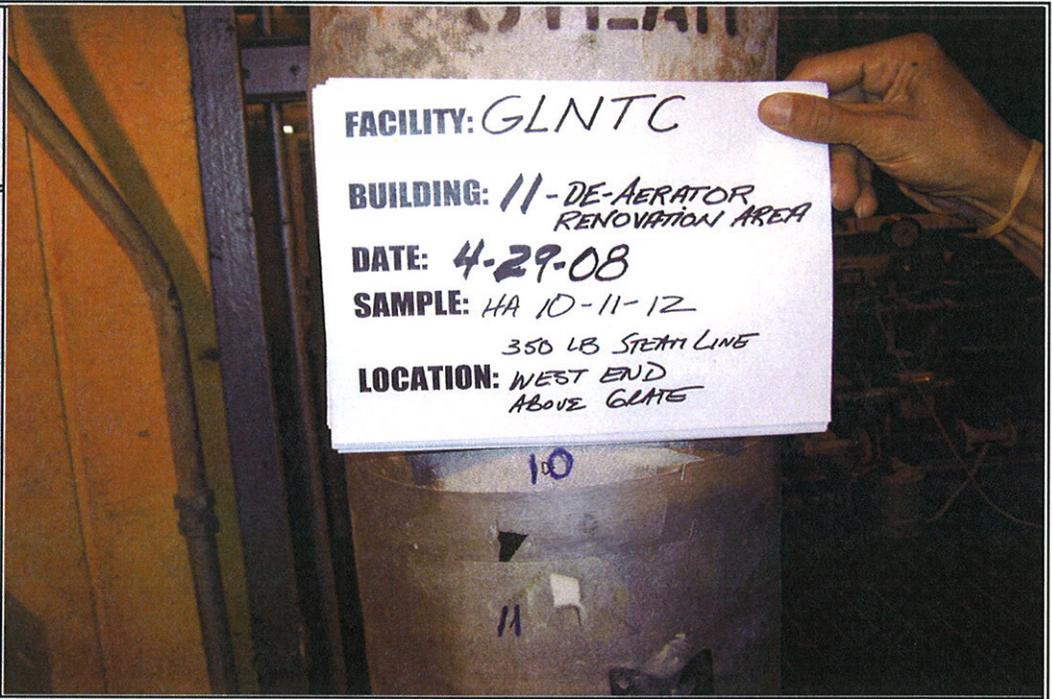


PHOTO #5

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA5-13, 14  
& 15; West End- 36 in.  
350 lb. Steam Pipe  
Fittings Insulation.

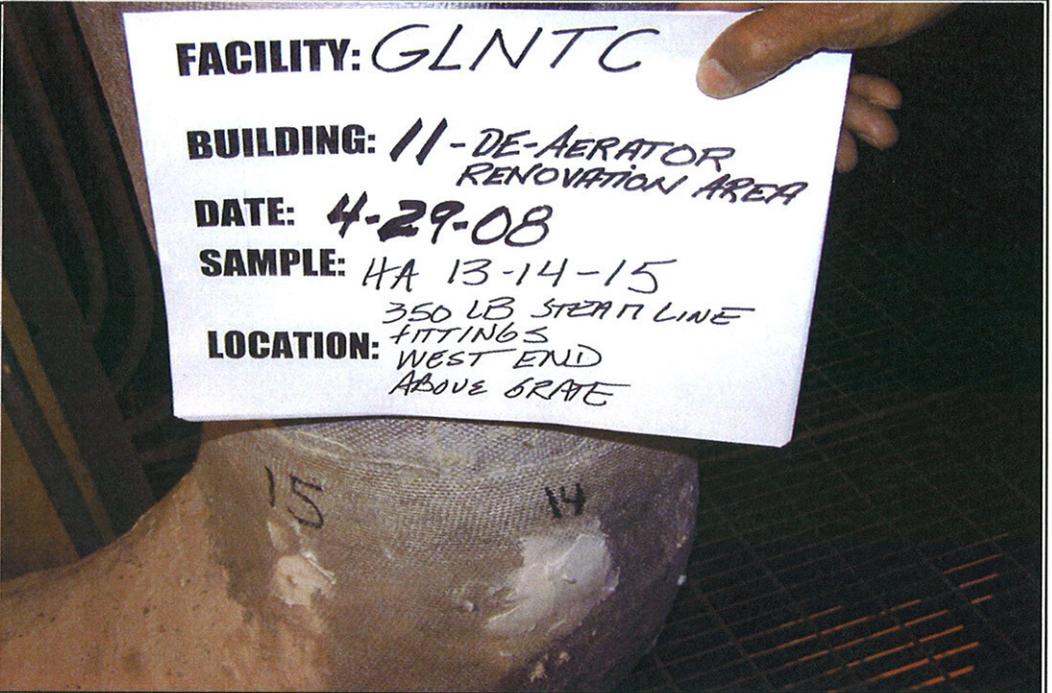


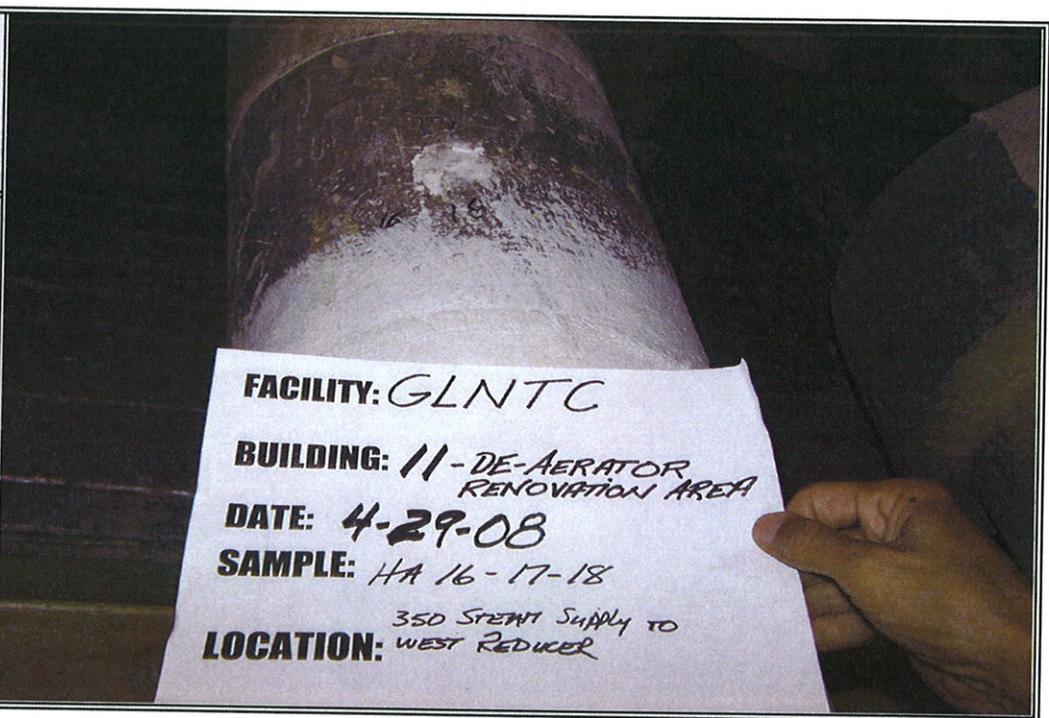
PHOTO #6

<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA6-16,17 & 18; Northwest Quarter - 41 in. 350 lb Steam Supply to West Reducer Pipe Insulation.

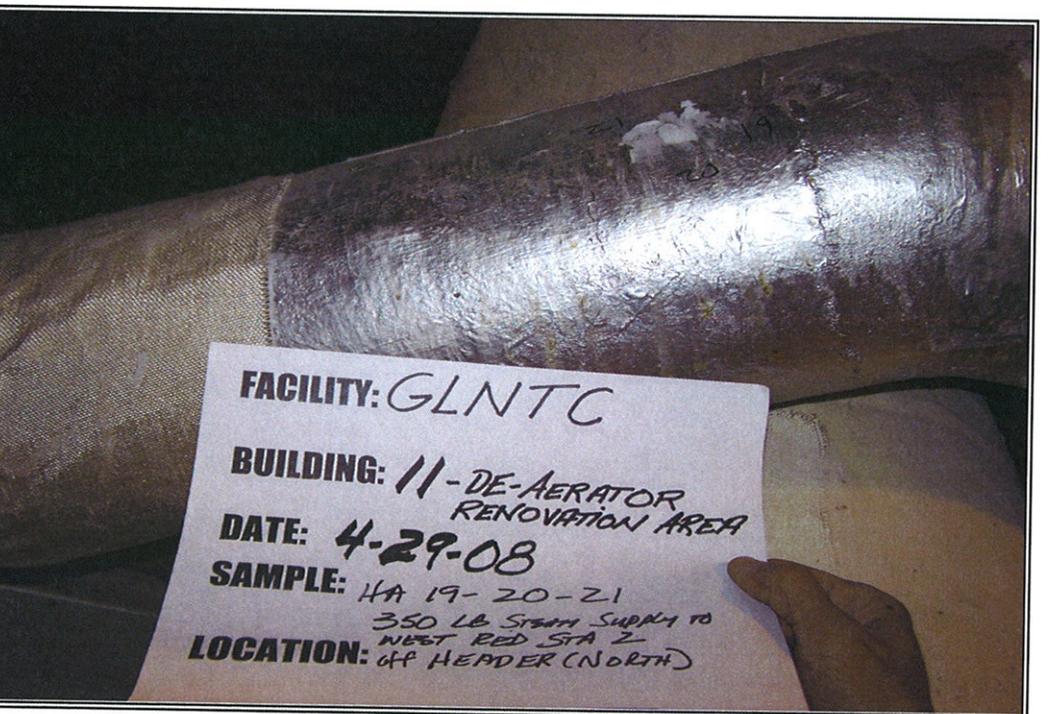
PHOTO # 7



**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA7-19,20,21; 41 in. 350 lb. Steam Supply to West Red Sta 2 Pipe Line Insulation off North Header.

PHOTO # 8

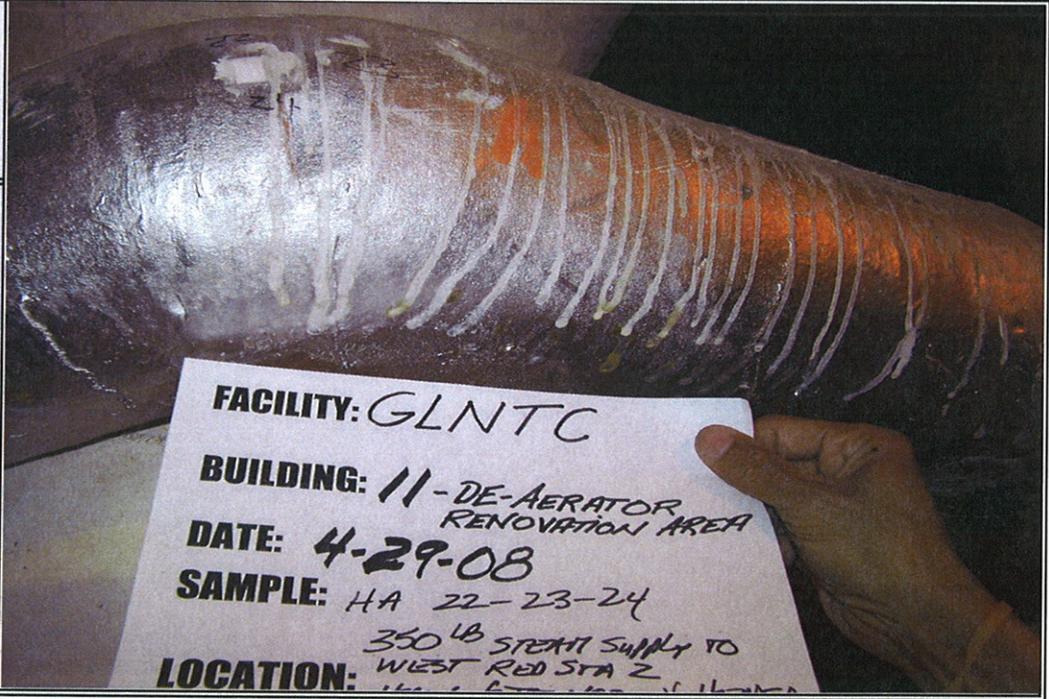


<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA8-22, 23 & 24; 41 in. 350 lb. Steam Supply to West Red Sta 2 Pipe Fitting Insulation off North Header.

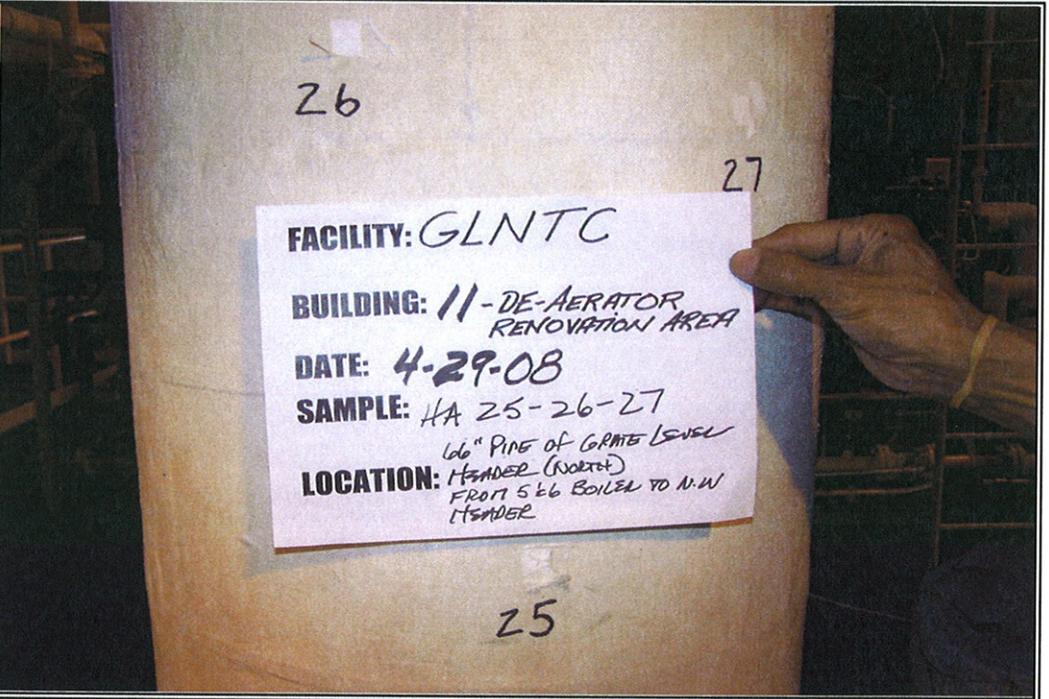
PHOTO # 9



**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA9-25, 26, 27; 66 in. Pipe Insulation off North Header.

PHOTO # 10



<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

<p><b>Project:</b> 1602.004.01  <b>Date:</b> 04-29-08  <b>Photographed By:</b>  Randy Livingston</p>	
<p><b>Description:</b>  Sample # HA10-28, 29, 30; 66 in. Pipe Fitting Off North Header.</p>	
<p>PHOTO # 11</p>	

<p><b>Project:</b> 1602.004.01  <b>Date:</b> 04-29-08  <b>Photographed By:</b>  Randy Livingston</p>	
<p><b>Description:</b>  Sample # HA11-31, 32, 33; 41 in. 350 lb. Steam Supply Pipe Line to Water Plant North Header.</p>	
<p>PHOTO # 12</p>	

<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA12-34, 35, 36; 41 in. 350 lb. Steam Supply Pipe Line to Water Plant North Header.

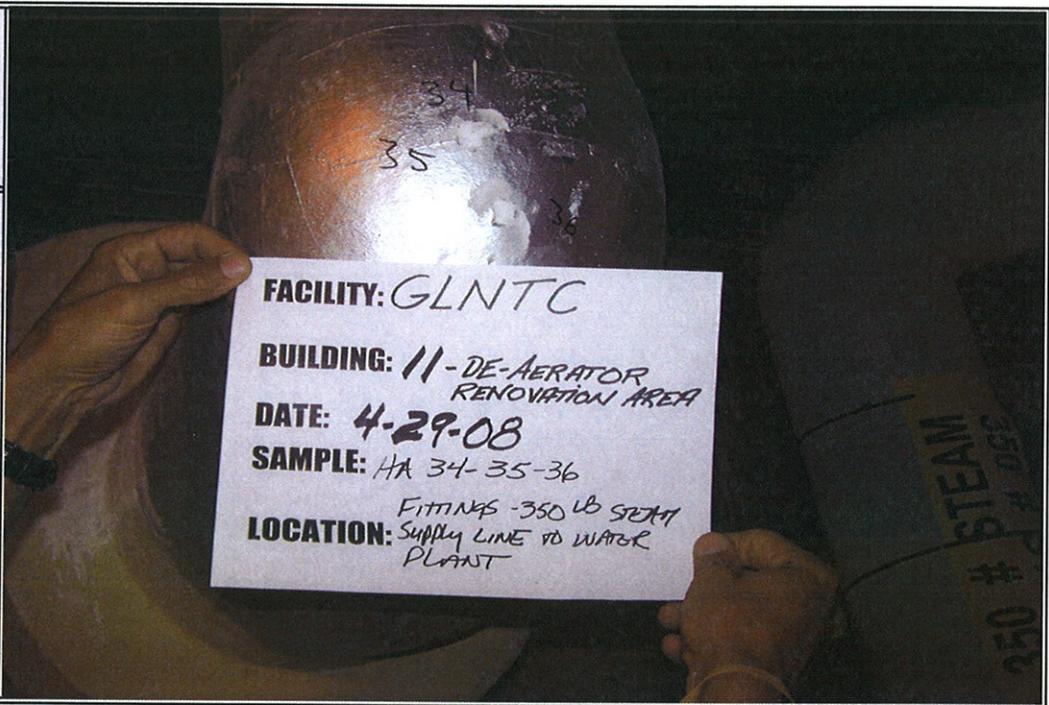


PHOTO # 13

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA13-37, 38 & 39; Tape on 54 in. 350 lb. Steam Pipe Line to Water Plant.

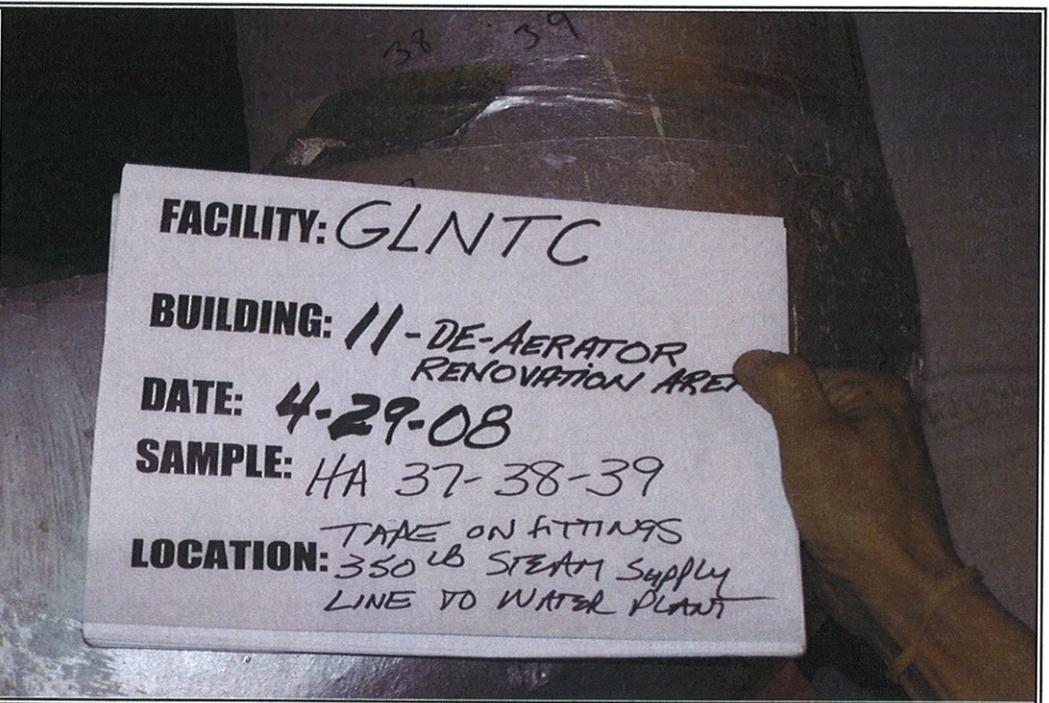
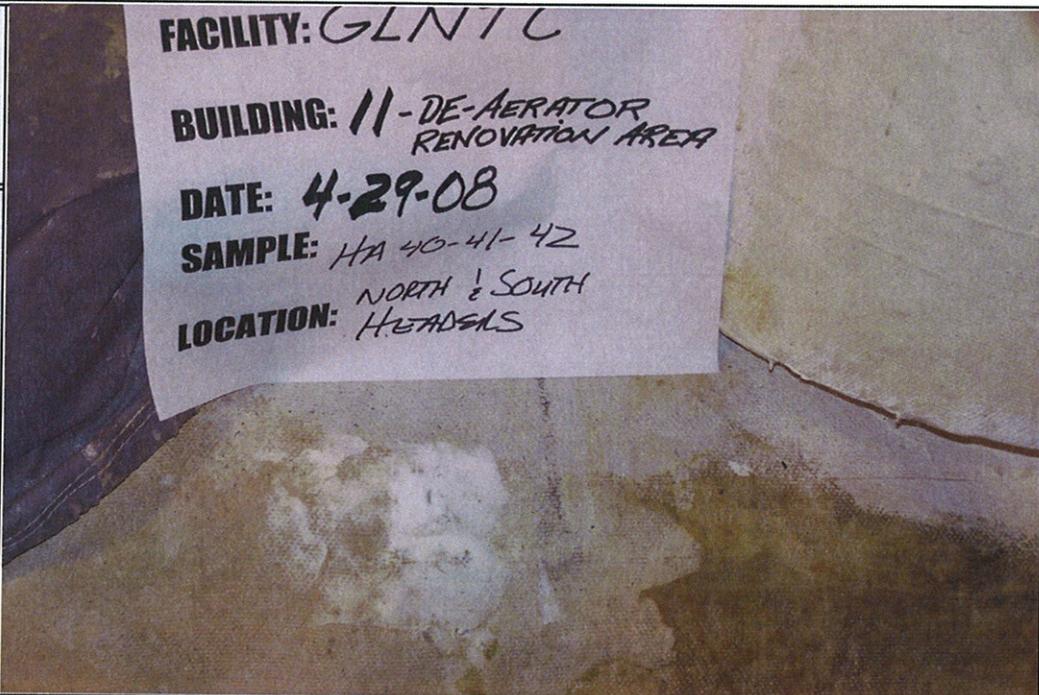
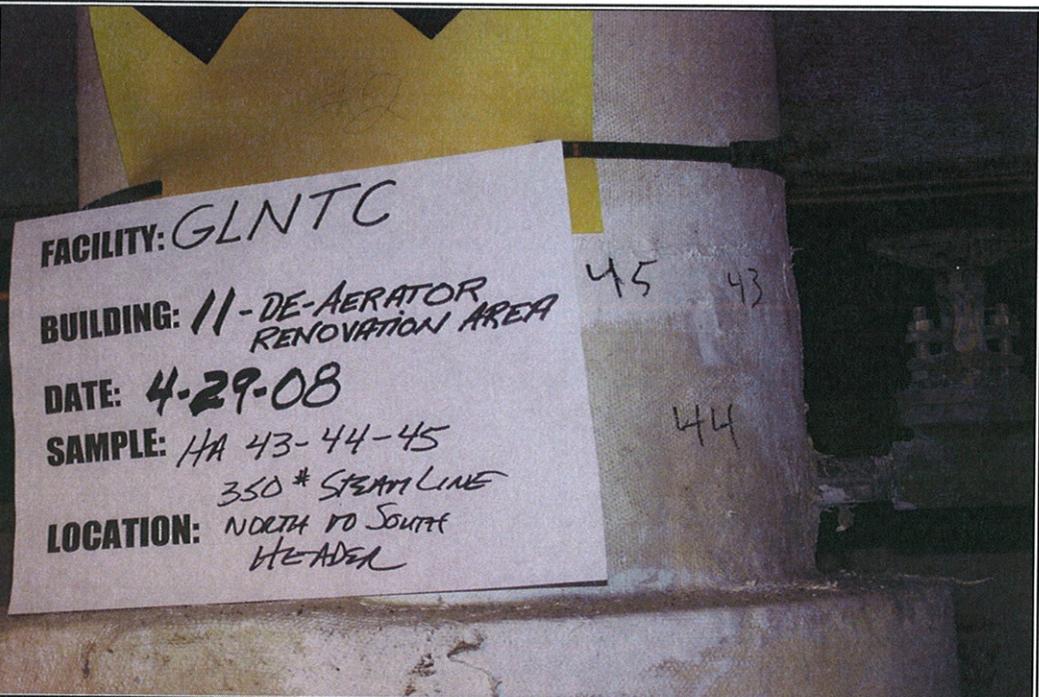


PHOTO # 14

<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

<p><b>Project:</b> 1602.004.01  <b>Date:</b> 04-29-08  <b>Photographed By:</b>  Randy Livingston</p>	
<p><b>Description:</b>  Sample # HA14-40, 41, 42; 61 in. North &amp; South Pipe Line Header Insulation.</p> <p style="text-align: center;"><b>PHOTO # 15</b></p>	

<p><b>Project:</b> 1602.004.01  <b>Date:</b> 04-29-08  <b>Photographed By:</b>  Randy Livingston</p>	
<p><b>Description:</b>  Sample # HA15-43, 44, 45; 66 in. 350 lb. North to South Steam Pipe Insulation.</p> <p style="text-align: center;"><b>PHOTO # 16</b></p>	

**Project Name**

Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area

**Project:** 1602.004.01

**Date:** 04-29-08

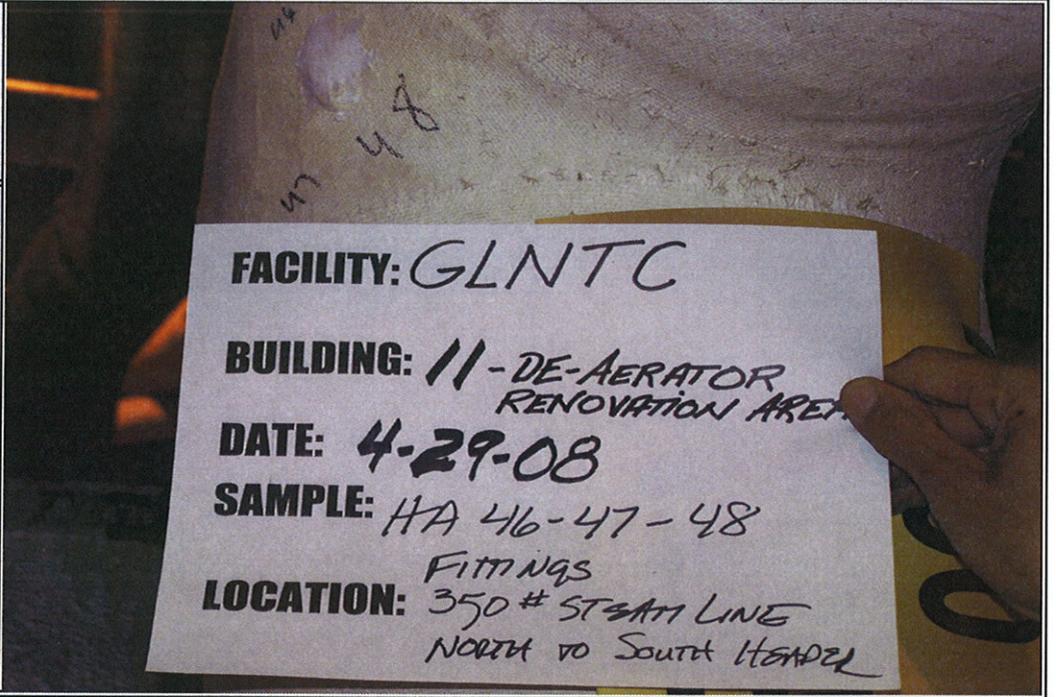
**Photographed By:**

Randy Livingston

**Description:**

Sample # HA16-46, 47, 48; 66 in. 350 lb. North to South Steam Pipe Line Insulation.

PHOTO # 17



**Project:** 1602.004.01

**Date:** 04-29-08

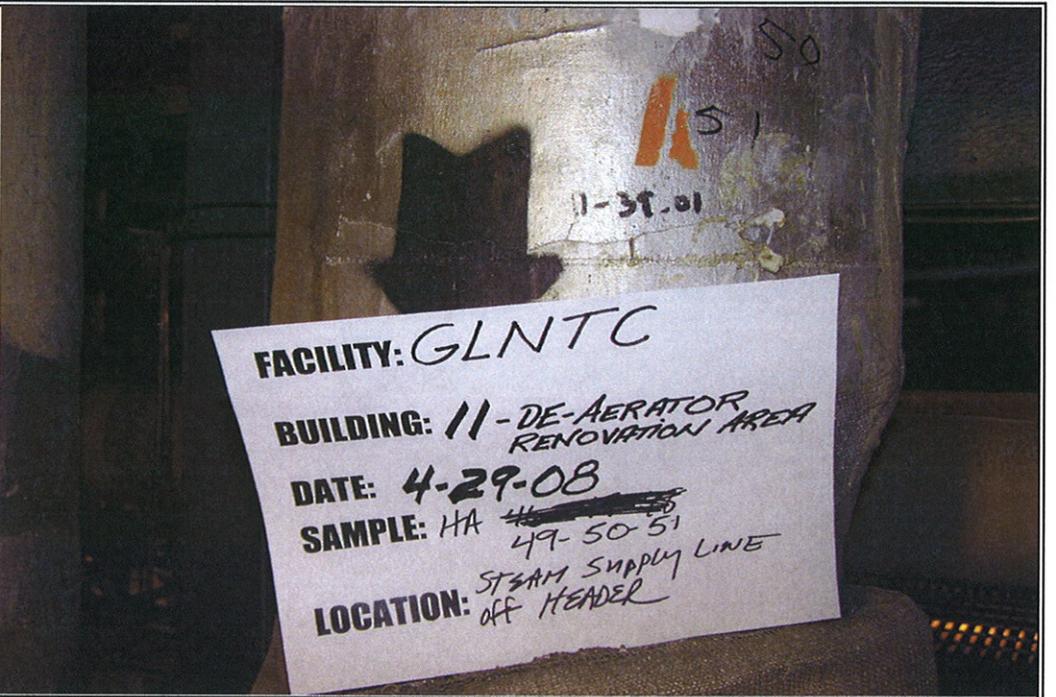
**Photographed By:**

Randy Livingston

**Description:**

Sample # HA17- 49, 50 & 51; 56 in. Steam Supply Pipe Line Insulation Off of Header.

PHOTO # 18

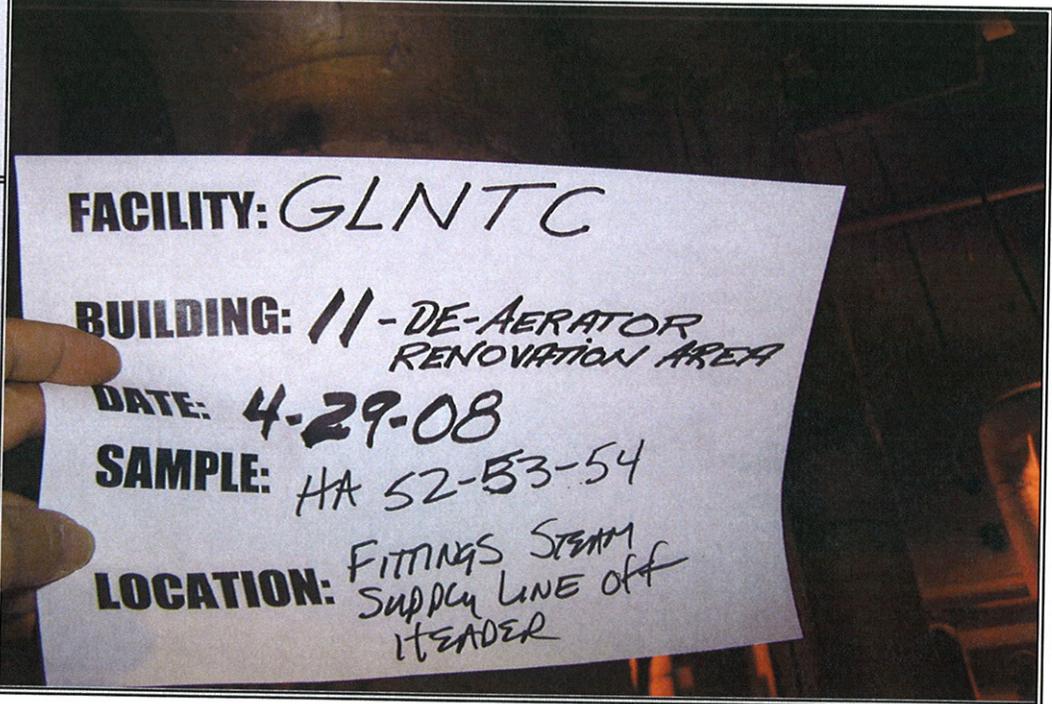


<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA18-52, 53, 54; 56 in. Steam Supply Pipe Line insulation Off of Header.

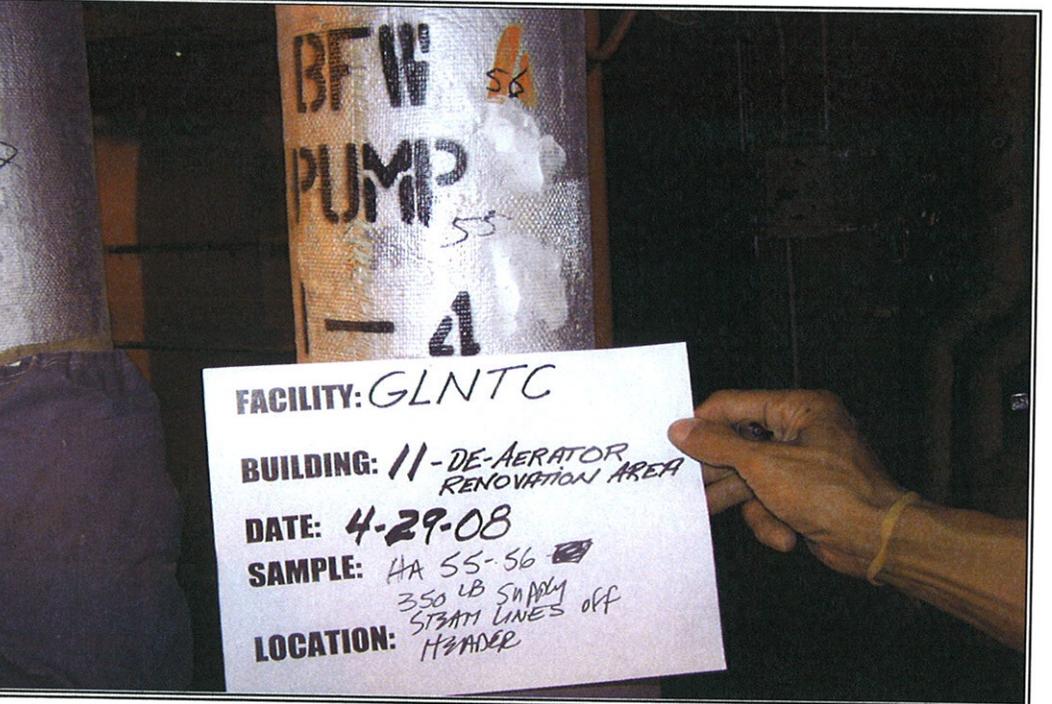
**PHOTO # 19**



**Project:** 1602.004.01  
**Date:** 04-19-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA19-55, & 56; 31 in. 350 lb. Steam Supply Pipe Line Insulation Off of Header.

**PHOTO # 20**

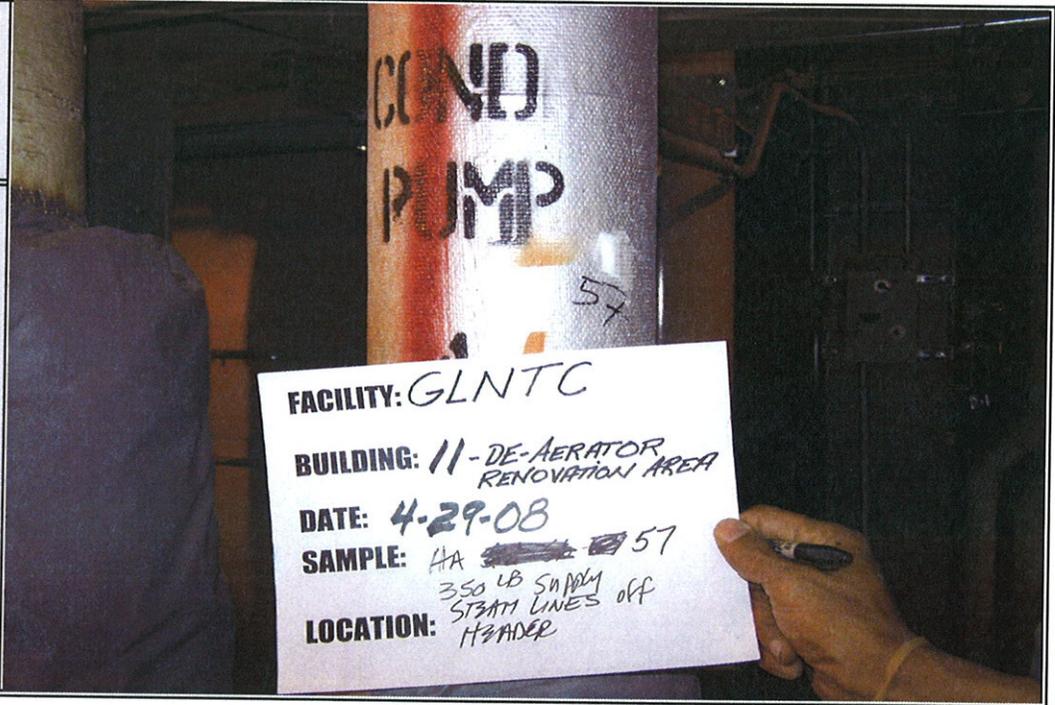


<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA19-57; 31 in. 350 lb. Steam Supply Pipe Line Insulation Off of Header.

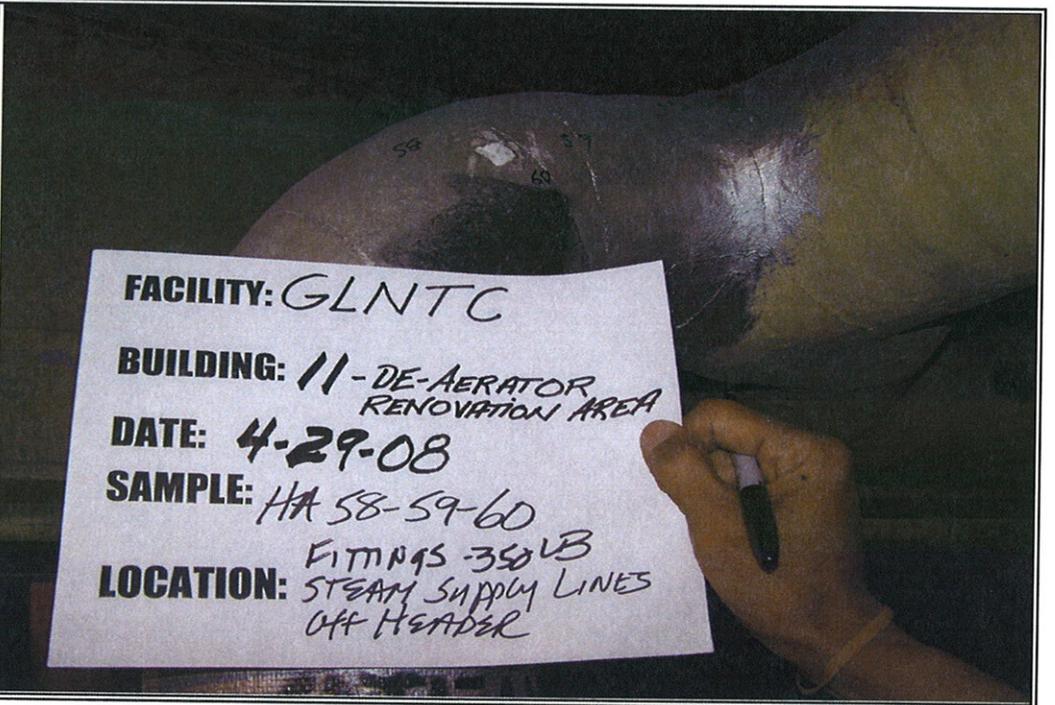
PHOTO # 21



**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA20-58, 59 & 60; 31 in. 350 lb. Steam Supply Pipe Fitting Insulation Off of Header.

PHOTO # 22

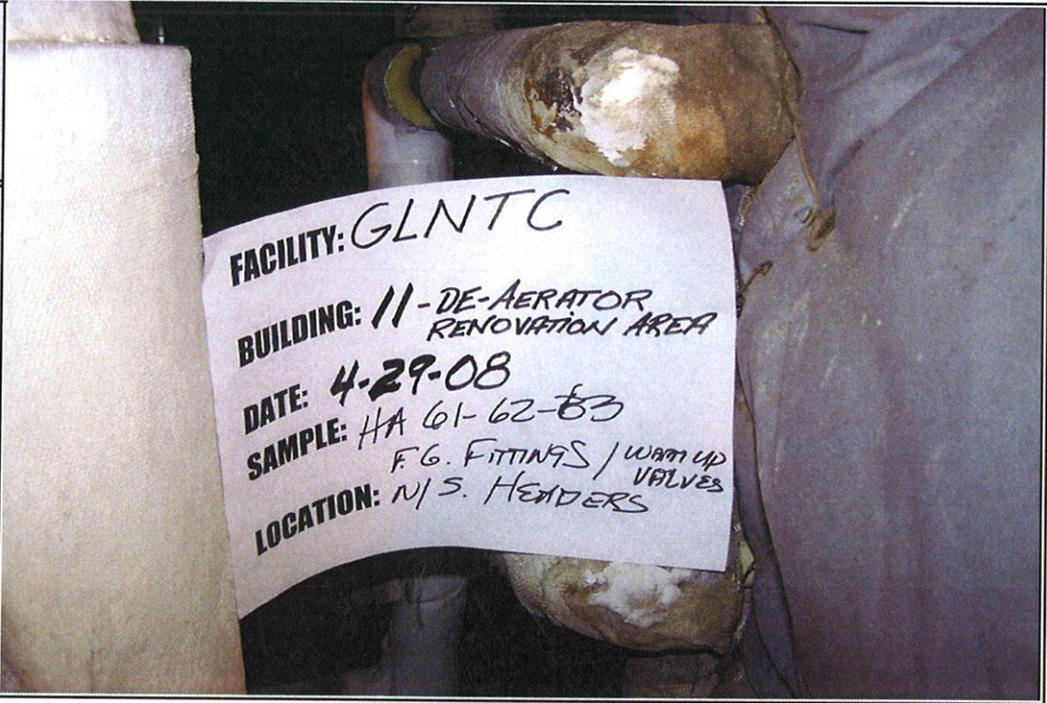


<b>Project Name</b>	Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area
---------------------	---

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA21-61 62  
 & 63; 11 in. Fiberglass  
 Pipe Fittings  
 Insulation.

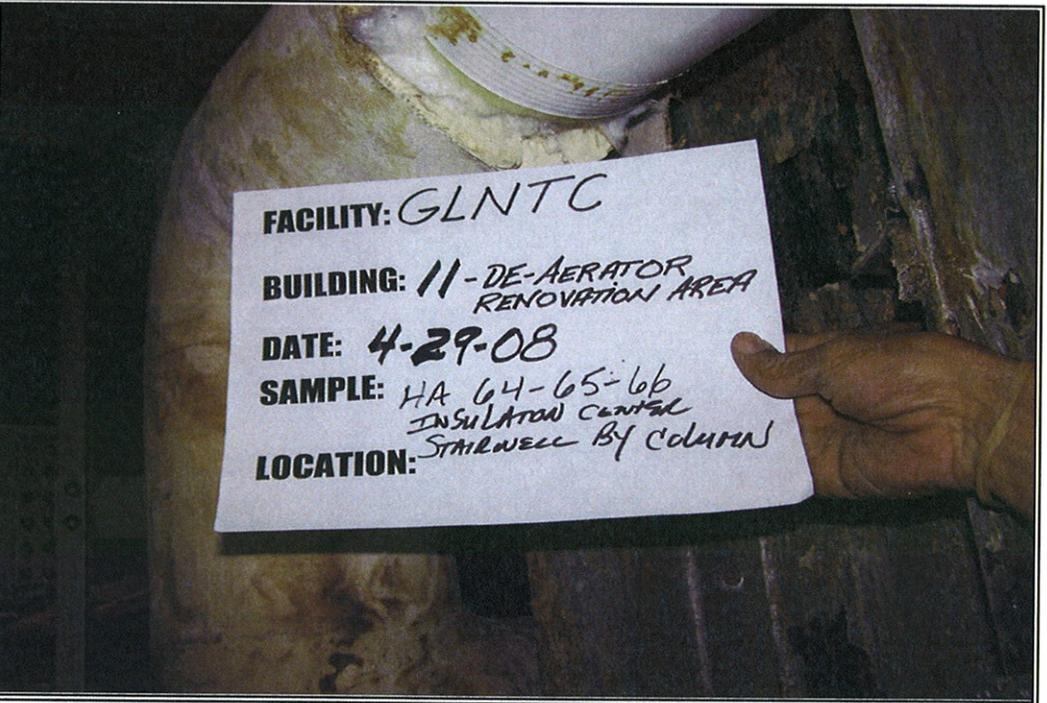
PHOTO # 23



**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
 Randy Livingston

**Description:**  
 Sample # HA22-64, 65  
 & 66; 31 in. Pipe  
 Insulation near the  
 Center Stairs.

PHOTO # 24

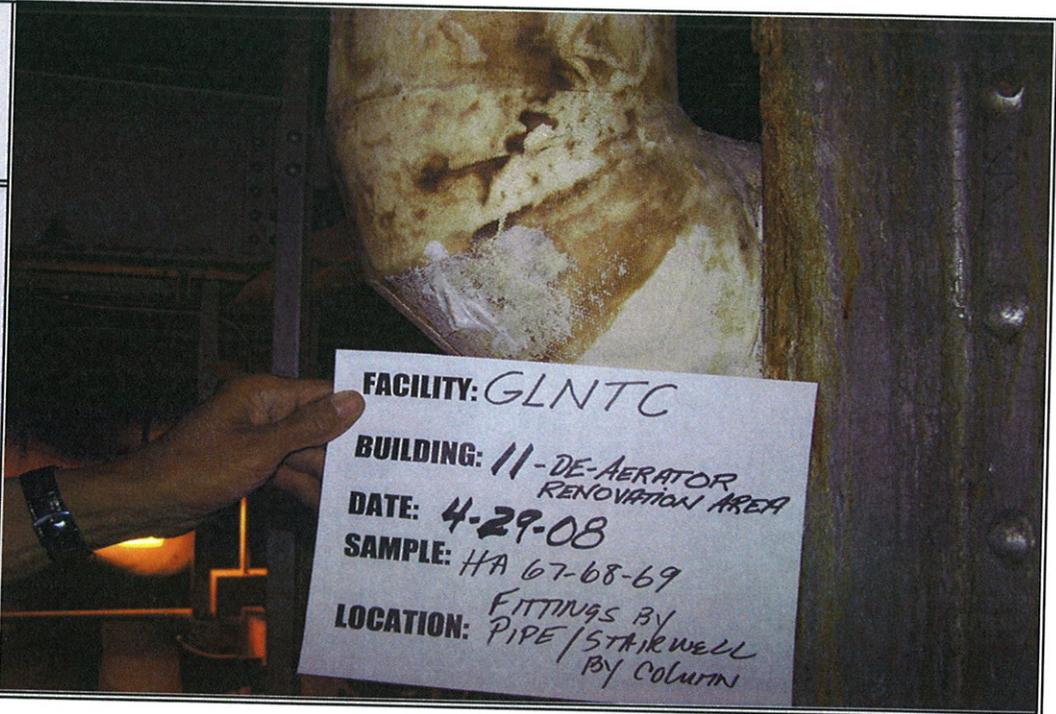


**Project Name** Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA23-67, 68  
& 69; 31 in. Pipe  
Fittings Insulation  
near the Center Stairs.

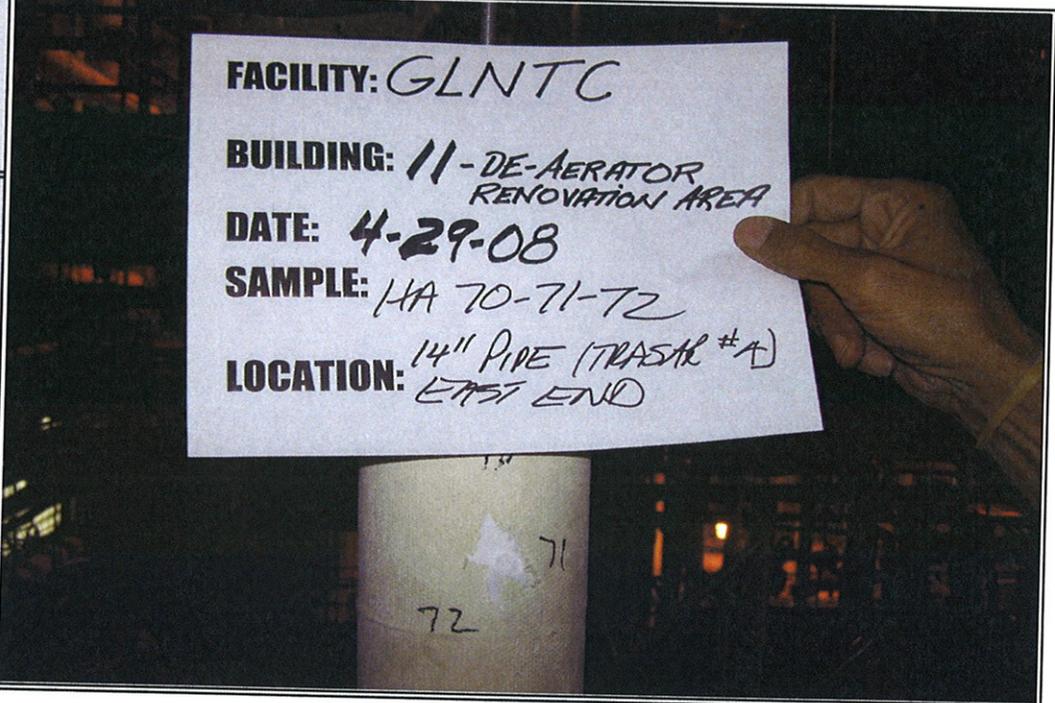
PHOTO # 25



**FACILITY:** GLNTC  
**BUILDING:** 11-DE-AERATOR  
RENOVATION AREA  
**DATE:** 4-29-08  
**SAMPLE:** HA 67-68-69  
**LOCATION:** FITTINGS BY  
PIPE / STAIRWELL  
BY COLUMN

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA24-70, 71  
& 72; 14 in. Transar #4  
Pipe Insulation, East  
End.

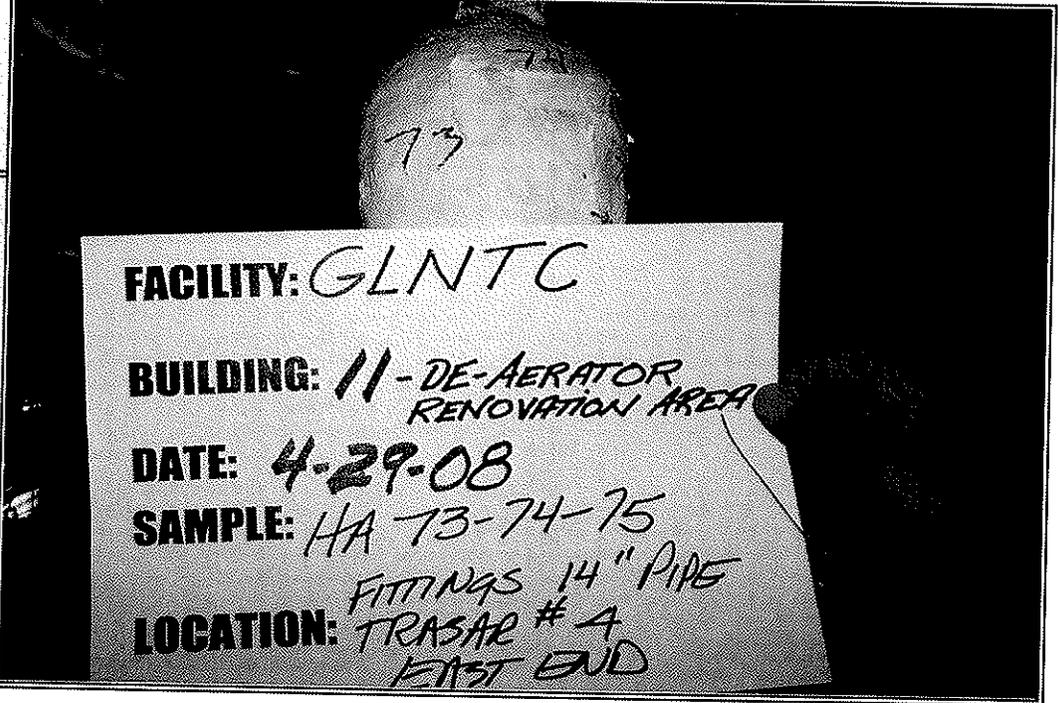


**FACILITY:** GLNTC  
**BUILDING:** 11-DE-AERATOR  
RENOVATION AREA  
**DATE:** 4-29-08  
**SAMPLE:** HA 70-71-72  
**LOCATION:** 14" PIPE (TRANSAR #A)  
EAST END

**Project Name** Great Lakes Naval Training Center-Building 11 De-Aerator/ 350 Header Area

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # HA25-73, 74  
& 75; 14 in Transar #4  
Pipe Fittings Insulation  
East End.



**APPENDIX F**

**ASBESTOS LABORATORY RESULTS AND  
CERTIFICATIONS**





CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

277 W. Nationwide Blvd.  
Columbus, Ohio 43215  
Phone: 614.252.0545  
Fax: 614.252.0548

504 Broadway  
Suite 740  
Cory, Indiana 46402  
Phone: 219.881.7700

3031 N. 14th St.  
Wauwatosa, WI 53222  
Phone: 414.476.4141  
Fax: 414.476.2200

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

Item No	Sample Number	Sample Description	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	NONE	OTHER	Date	Sampling Time	VOLUME (L)	TIME (Minutes)	# of Containers	Indicate Analysis Requested	
																						5. Date of Sample Shipment
1	160300401	PIPE / 350 W / 30" PIPE	X													4/29/08	5-1-08				ASB	
2		END / 350 W / 30" PIPE																				
3	160300402	350 W / 30" PIPE	X																			
4		350 W / 30" PIPE																				
5		350 W / 30" PIPE																				
6	160300403	PIPE / 350 W / 30" PIPE																				
7		END / 350 W / 30" PIPE																				
8																						
9	160300404	PIPE / 350 W / 30" PIPE																				
10		END / 350 W / 30" PIPE																				

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Total Hours: \_\_\_\_\_

Released by (Signature): \_\_\_\_\_

Date/Time Released: \_\_\_\_\_

Company/Agency Affiliation: \_\_\_\_\_

Control/Noted: \_\_\_\_\_

To Archive/Disposal: \_\_\_\_\_



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Batch # 5012977

3031 N. Hoek Street  
Wauwatosa, WI 53222  
Phone: 414.760.0101 Fax: 414.760.0101  
3031 N. Hoek Street  
Wauwatosa, WI 53222  
Phone: 414.760.0101 Fax: 414.760.0101

501 Broadway  
State 740  
Cary, Indiana 46402  
Phone: 614.252.0540 Fax: 614.252.0543  
217 W. Nationwide Blvd  
Columbus, Ohio 43214  
Phone: 614.252.0540 Fax: 614.252.0543

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sample's Name and Project No.		2. Sampling Site Address: Contact Telephone No.		3. Date of Sample Shipment		4. Date Results Needed		5. Indicate Analysis Requested																
L. Slaughter 16060201		GLWC- 864 / 11 DE-ANALYTICAL AREA INVESTIGATION		4/24/08		5-1-08		ASB																
Item No	Sample Matrix	Site / Sample Description	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	NONE	OTHER	6. Method Preserved		Date	Time	VOLUME (L)	TIME (Minutes)	# of Containers		
																Method Preserved	Sampling							
1	NA 7	PIPE 1" / 50 LB STAINLESS STEEL	X															4/24/08						
2	NA 8	4" DUCTILE IRON / 50 LB STAINLESS STEEL																						
3	13	Flange / 4" PIPE																						
4	24																							
5	NA 9	60" PIPE / 50 LB STAINLESS STEEL																						
6	26																							
7	27																							
8	NA 10	FITTINGS / 60" PIPE / 50 LB STAINLESS STEEL																						
9	29																							
10	30																							
Total Hours:		Total Hours:		Signature:		Signature:		Print Name:		Released by (Signature)		Date/Time Released		Company Agency Affiliation		Condition Noted								
30		30		[Signature]		[Signature]		[Name]		[Signature]		[Date]		[Agency]		[Condition]								





Environmental Design International Inc.

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

3031 N. High Street, Westerville, OH 43081
Phone: 614-476-5400

277 W. Nationwide Blvd., Columbus, OH 43215
Phone: 614-352-0540

501 Broadway, State 740, Cary, Indiana 46402
Phone: 219-881-7700

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

Form with sections: 1. Sender's Name/Project No., 2. Sampling Site Address, 3. Sealed by Signature, 4. Date of Sample Shipment, 5. Date Results Needed, 6. Method Preserved, 7. Matrix, 8. Method Preserved, 9. Sampling, 10. Indicate Analysis Requested. Includes a table for sample tracking with columns for Item No., Sample Number, Location/Description, Matrix, Method Preserved, Sampling, and Indicate Analysis Requested.

Vertical text on the right side of the form, including 'To Archive/Disposal' and 'Signature'.



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

275 W. Nationwide Blvd. 504 Broadway 3051 N. 174th Street  
 Columbus, Ohio 43215 State 740 Mariaville, WI 53217  
 phone: 614.251.0540 G. Co., Indiana 46402 phone: 414.476.4131  
 fax: 614.252.0543 phone: 219.881.7301 fax: 414.476.4131  
 fax: 414.476.4131 fax: 414.476.4131

*B. B. Smith SA/29.77*

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Site and Sample Information		2. Sampling Site Address/Contact Telephone No. <b>350 HEADMAN ROAD</b>		Indicate Analysis Requested											
L. S. Slaughter 1602.07.01		GLNTC - Bldg 11 DE-AMATEL ALMA RENOVATION													
3. Samples by Signatures		5. Date of Sample Shipment		6. Date Results Needed											
Kathy L. Smith		4/29/08		5/1/08											
Item No.	Sample Number	Sample Location Description	COMP	GRAB	WATER	SOIL	AIR	Matrix					SAMPLING TIME (Minutes)	# of Containers	Condition Noted
								SLUDGE	OTHER	HCl	HNO3	H2SO4			
1	18-1	PHOTOGRAPH SUPPLY	X												ASB
2	18-2	STEAM LINE HEATER													NA
3	18-3	STEAM SUPPLY													+
4	18-4	STEAM LINE HEATER													NA
5	18-5	STEAM SUPPLY													NA
6	18-6	STEAM LINE													-
7	18-7	STEAM LINE													-
8	18-8	STEAM SUPPLY													-
9	18-9	STEAM LINE													+
10	18-10	STEAM LINE													NA
Total Hours:		Total Hours:		Signature:		Date/Time Released		Company/Agency Affiliation		Condition Noted		Plant Name:			
Kathy L. Smith		4/29/08		ASB											



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

361 N. 14th Street  
 Waukesha, WI 53152  
 Phone: 414.476.4300 Fax: 414.476.4300  
 361 N. Broadway  
 Suite 740  
 County, Indiana 46402  
 Phone: 614.252.0510 Fax: 614.252.0510

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sampler's Name (Print Name)	16021002.01		2. Sampling Site Address/Contact Telephone No. 350 HANNAH AVE		Indicate Analysis Requested	
3. Sampled by (Signature)	15		5. Date of Sample Shipment 4-29-08		6. Date Results Needed 5/1/08	
4. Sample Description	Furnace / Dusts & Particles		Method Preserved		VOLUME (L)	
Sample Number	COMP	GRAB	WATER	SOIL	AIR	SLUDGE
1	X					
2						
3						
4						
5						
6						
7						
8						
9						
10						
Total Hrs.	Total Hours:		Signature:		Print Name:	
Delivered by (Signature)	Delivery Method	Released by (Signature)	Date/Time Released	Company Agency Affiliator		Contaminant Noted
Signature	Hand	Signature	4-29-08 5:50 PM	Hand		
Comments						



**LABORATORY ANALYSIS REPORT**

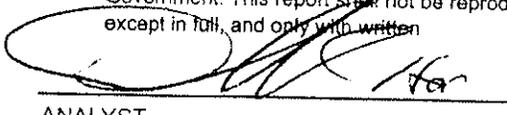
BATCH# 501297

*Bulk Asbestos Identification*

Client	Site Building 11- De-aeror Renovation
Client Reference 1602.004.01	Sender Lynwood Slaughter
Date Received 04/29/2008 by Joseph Anzlovar	Date Analyzed 04/29/2008 by Joseph Anzlovar
Date Collected 04/29/2008 by Lynwood Slaughter	Date Reported 05/04/2008 by Jarrett Land
Method EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
1-01	1	No		Fibrous Glass 80 - 85	Binder 15		White Gray Green	W. End Above Grate 41" Fiber Glass Insul.
1-02	2	No		Fibrous Glass 80 - 85	Binder 15		White Gray Yellow	W. End Above Grate 41" Fiber Glass Insul.
1-03	3	No		Fibrous Glass 80 - 85	Binder 15		White Gray Yellow	W. End Above Grate 41" Fiber Glass Insul.
2-04	4	No		Fibrous Glass 65 - 70 Cellulose 5 - 10	Binder 20		Gray Silver Yellow	W. End Above Grate 54" Fiber Glass Insul.
2-05	5	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		Gray Silver Yellow	W. End Above Grate 54" Fiber Glass Insul.
2-06	6	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		Gray Silver Yellow	W. End Above Grate 54" Fiber Glass Insul.
3-07	7	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		Gray Silver Yellow	N. Wall/Boiler Feed Fiber Glass Insul.
3-08	8	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		Gray Silver Yellow	N. Wall/Boiler Feed Fiber Glass Insul.

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written



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# LABORATORY ANALYSIS REPORT

BATCH# 501297

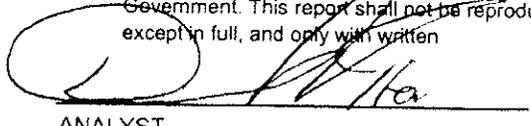
## Bulk Asbestos Identification

Client \_\_\_\_\_ Site Building 11- De-aertor Renovation  
 Client Reference 1602.004.01 Sender Lynwood Slaughter

Date Received 04/29/2008 by Joseph Anzlovar Date Analyzed 04/29/2008 by Joseph Anzlovar  
 Date Collected 04/29/2008 by Lynwood Slaughter Date Reported 05/04/2008 by Jarrett Land  
 Method EPA-600/R-93/116, using Polarized Light Microscopy

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
3-09	9	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		Gray Silver Yellow	N. Wall/Boiler Feed Fiber Glass Insul.
4-10	10	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		White	W. End 350lb Steam Line TSI
4-11	11	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		White	W. End 350lb Steam Line TSI
4-12	12	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		White	W. End 350lb Steam Line TSI
5-13	13	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		White Gray	W. End Fittings 350lb Steam Line TSI
5-14	14	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		White Gray	W. End Fittings 350lb Steam Line TSI
5-15	15	No		Fibrous Glass 60 - 65 Cellulose 5 - 10	Binder 25		White Gray	W. End Fittings 350lb Steam Line TSI
6-16	16	Yes	Chrysotile 1 - 5 Amosite 20 - 25	Fibrous Glass 15 - 20	Binder 50	Yes	White Gray	W. Reducer 41"350lb Steam Line
7-19	19	Yes	Chrysotile 5 - 10 Amosite 25 - 30	Fibrous Glass 20 - 25	Binder 35	Yes	White	W. Reducer 41"350lb Steam Line Sta 2
8-22	22	Yes	Chrysotile 5 - 10 Amosite 25 - 30	Fibrous Glass 20 - 25	Binder 35	Yes	White	W. End 41" Pipe Fittings
9-25	25	No		Fibrous Glass 5 - 10 Cellulose 35 - 40	Binder 50		White	N. Header 66" Pipe Insulation
9-26	26	No		Fibrous Glass 5 - 10 Cellulose 35 - 40	Binder 50		White	N. Header 66" Pipe Insulation
9-27	27	No		Fibrous Glass 5 - 10 Cellulose 35 - 40	Binder 50		White	N. Header 66" Pipe Insulation

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written



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# LABORATORY ANALYSIS REPORT

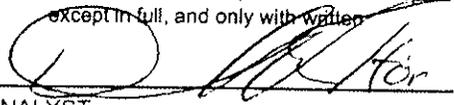
BATCH# 501297

## Bulk Asbestos Identification

<b>Client</b>	<b>Site</b> Building 11- De-aertor Renovation
<b>Client Reference</b> 1602.004.01	<b>Sender</b> Lynwood Slaughter
<b>Date Received</b> 04/29/2008 by Joseph Anzlovar	<b>Date Analyzed</b> 04/29/2008 by Joseph Anzlovar
<b>Date Collected</b> 04/29/2008 by Lynwood Slaughter	<b>Date Reported</b> 05/04/2008 by Járrett Land
<b>Method</b> EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
10-28	28	No		Fibrous Glass 15 - 20 Cellulose 35 - 40	Binder 40	Yes	White	N. Header 66" Pipe Fittings
10-29	29	No		Fibrous Glass 15 - 20 Cellulose 35 - 40	Binder 40	Yes	White	N. Header 66" Pipe Fittings
10-30	30	No		Fibrous Glass 15 - 20 Cellulose 35 - 40	Binder 40	Yes	White	N. Header 66" Pipe Fittings
11-31	31	Yes	Chrysotile 25 - 30 Amosite 5 - 10	Fibrous Glass 20 - 25 Cellulose 25 - 30	Binder 5		White Gray	350lb to Water Plant 41" Pipe Insulation
12-34	34	Yes	Chrysotile 25 - 30 Amosite 1 - 5	Fibrous Glass 20 - 25 Cellulose 25 - 30	Binder 10		White Gray	350lb to Water Plant 41" Pipe Fittings
13-37	37	No		Cellulose 5 - 10	Binder 90		Brown Gray	350lb to Water Plant Insul. Tape 54" Pipe
13-38	38	No		Cellulose 5 - 10	Binder 90		Brown Gray	350lb to Water Plant Insul. Tape 54" Pipe
13-39	39	No		Cellulose 5 - 10	Binder 90		Brown Gray	350lb to Water Plant Insul. Tape 54" Pipe
14-40	40	No		Fibrous Glass 5 - 10 Cellulose 35 - 40	Binder 50	Yes	Gray	N. & S. Headers 61" Pipe Insul.
14-41	41	No		Fibrous Glass 5 - 10 Cellulose 35 - 40	Binder 50	Yes	Gray	N. & S. Headers 61" Pipe Insul.
14-42	42	No		Fibrous Glass 5 - 10 Cellulose 35 - 40	Binder 50	Yes	Gray	N. & S. Headers 61" Pipe Insul.
15-43	43	No		Fibrous Glass 30 - 35 Cellulose 30 - 35	Binder 30		White Gray	350lb Steam Line 66" Pipe Insul.
15-44	44	No		Fibrous Glass 30 - 35 Cellulose 30 - 35	Binder 30		White Gray	350lb Steam Line 66" Pipe Insul.
15-45	45	No		Fibrous Glass 30 - 35	Binder 30		White	350lb Steam Line 66" Pipe Insul

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written permission.

  
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# LABORATORY ANALYSIS REPORT

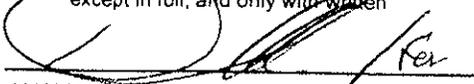
BATCH# 501297

## Bulk Asbestos Identification

<b>Client</b>	<b>Site</b> Building 11- De-aertor Renovation
<b>Client Reference</b> 1602.004.01	<b>Sender</b> Lynwood Slaughter
<b>Date Received</b> 04/29/2008 by Joseph Anzlovar	<b>Date Analyzed</b> 04/29/2008 by Joseph Anzlovar
<b>Date Collected</b> 04/29/2008 by Lynwood Slaughter	<b>Date Reported</b> 05/04/2008 by Jarrett Land
<b>Method</b> EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
				Cellulose 30 - 35			Gray	
16-46	46	No		Fibrous Glass 30 - 35 Cellulose 30 - 35	Binder 30		White Gray	350lb Steam Line 66" Pipe Fittings
16-47	47	No		Fibrous Glass 30 - 35 Cellulose 30 - 35	Binder 30		White Gray	350lb Steam Line 66" Pipe Fittings
16-48	48	No		Fibrous Glass 30 - 35 Cellulose 30 - 35	Binder 30		White Gray	350lb Steam Line 66" Pipe Fittings
17-49	49	Yes	Amosite 20 - 25	Fibrous Glass 20 - 25 Cellulose 1 - 5	Binder 45		Tan	Steam Supp. Header 56" Pipe Insul.
18-52	52	Yes	Amosite 20 - 25	Fibrous Glass 20 - 25  Cellulose 1 - 5	Binder 45		Gray	Steam Supp. Header 56" Pipe Fittings
19-55	55	No		Fibrous Glass 25 - 30 Cellulose 25 - 30	Binder 40		White Gray	350lb Steam Supp. 31" Pipe Insul.
19-56	56	No		Fibrous Glass 25 - 30 Cellulose 25 - 30	Binder 40		White Gray	350lb Steam Supp. 31" Pipe Insul.
19-57	57	No		Fibrous Glass 25 - 30 Cellulose 25 - 30	Binder 40		White Gray	350lb Steam Supp. 31" Pipe Insul.
20-58	58	Yes	Chrysotile 60 - 65	Cellulose 10 - 15	Binder 20		Brown Gray	350lb Steam Supp. 31" Pipe Fittings
21-61	61	No		Fibrous Glass 55 - 60 Cellulose 5 - 10	Binder 30		Gray	N. & S. Headers Fiber Glass Fittings
21-62	62	No		Fibrous Glass 55 - 60 Cellulose 5 - 10	Binder 30		Gray	N. & S. Headers Fiber Glass Fittings
21-63	63	No		Fibrous Glass 55 - 60 Cellulose 5 - 10	Binder 30		Gray	N. & S. Headers Fiber Glass Fittings
22-64	64	No		Cellulose 1 - 5	Binder 95	Yes	White	Center Stairwell Cou 31" Pipe
22-65	65	No		Cellulose 1 - 5	Binder 95	Yes	White	Center Stairwell Cou 31" Pipe
22-66	66	No		Cellulose 1 - 5	Binder 95	Yes	White	Center Stairwell Cou 31" Pipe
23-67	67	No		Fibrous Glass 30 - 35	Binder 55		Tan	Center Stairwell Cou 31" Pipe

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written

  
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# LABORATORY ANALYSIS REPORT

BATCH# 501297

## Bulk Asbestos Identification

<b>Client</b>	<b>Site</b> Building 11- De-aertor Renovation
<b>Client Reference</b> 1602.004.01	<b>Sender</b> Lynwood Slaughter

<b>Date Received</b> 04/29/2008 by Joseph Anzlovar	<b>Date Analyzed</b> 04/29/2008 by Joseph Anzlovar
<b>Date Collected</b> 04/29/2008 by Lynwood Slaughter	<b>Date Reported</b> 05/04/2008 by Jarrett Land
<b>Method</b> EPA-600/R-93/116, using Polarized Light Microscopy	

Field #	Lab #	Asb Detected	% Asbestos	% Fibrous Material	% NonFibrous Material	Ho-mo-gen.	Color	Description, Location
				Cellulose 5 - 10				Fittings
23-68	68	No		Fibrous Glass 30 - 35	Binder 55		Tan	Center Stairwell Cou 31" Pipe Fittings
				Cellulose 5 - 10				
23-69	69	No		Fibrous Glass 30 - 35	Binder 55		Tan	Center Stairwell Cou 31" Pipe Fittings
				Cellulose 5 - 10				
24-70	70	No		Fibrous Glass 30 - 35	Binder 55		White	East End 14" Pipe
				Cellulose 5 - 10				
24-71	71	No		Fibrous Glass 30 - 35	Binder 55		White	East End 14" Pipe
				Cellulose 5 - 10				
24-72	72	No		Fibrous Glass 30 - 35	Binder 55		White	East End 14" Pipe
				Cellulose 5 - 10				
24-73	73	No		Fibrous Glass 30 - 35	Binder 55		White	East End 14" Pipe Fittings
				Cellulose 5 - 10				
24-74	74	No		Fibrous Glass 30 - 35	Binder 55		White	East End 14" Pipe Fittings
				Cellulose 5 - 10				
24-75	75	No		Fibrous Glass 30 - 35	Binder 55		White	East End 14" Pipe Fittings
				Cellulose 5 - 10				

**Note** This report summarizes the analytical results for the bulk material samples submitted for asbestos identification. Analysis of sample was performed in accordance with the Method #EPA-600/R-93/116 utilizing polarized light microscopy with dispersion staining. This report relates only to the items tested and must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced, except in full, and only with written

ANALYST 

United States Department of Commerce  
National Institute of Standards and Technology

**NVLAP**<sup>®</sup>

# Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101868-0

**Environmental Design International inc.**  
Chicago, IL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

**BULK ASBESTOS FIBER ANALYSIS**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated 18 June 2005).

2007-10-01 through 2008-09-30

Effective dates



*Dolly S. Bruce*  
For the National Institute of Standards and Technology



**National Voluntary  
Laboratory Accreditation Program**



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

Environmental Design International inc.  
200 South Michigan Avenue, Suite 700  
Chicago, IL. 60604  
Mr. Joseph F. Anzlovar  
Phone: 312-356-5400 x222 Fax: 312-356-5499  
E-Mail: janzlovar@envdesigni.com

**BULK ASBESTOS FIBER ANALYSIS (PLM)**

**NVLAP LAB CODE 101868-0**

<i>NVLAP Code</i>	<i>Designation / Description</i>
18/A01	EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2007-10-01 through 2008-09-30

*Effective dates*

*Sally S. Bruce*  
For the National Institute of Standards and Technology



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Institute of Standards and Technology**  
Gaithersburg, Maryland 20899

August 30, 2007

Mr. Joseph F. Anzlovar  
Environmental Design International Inc.  
200 South Michigan Avenue, Suite 700  
Chicago, IL 60604

NVLAP Lab Code: 101868-0

Dear Mr. Anzlovar:

I am pleased to inform you that continuing accreditation for specific test methods in Bulk Asbestos Fiber Analysis (PLM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until September 30, 2008, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP logo in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Thomas R. Davis, Sr. Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

*Sally S. Bruce*

Sally S. Bruce, Chief  
Laboratory Accreditation Program

Enclosure(s)

SEP - 4 2007



NIST/NVLAP • 100 Bureau Drive, Stop 2140 • Gaithersburg, MD 20899-2140  
<http://www.nist.gov/nvlap>



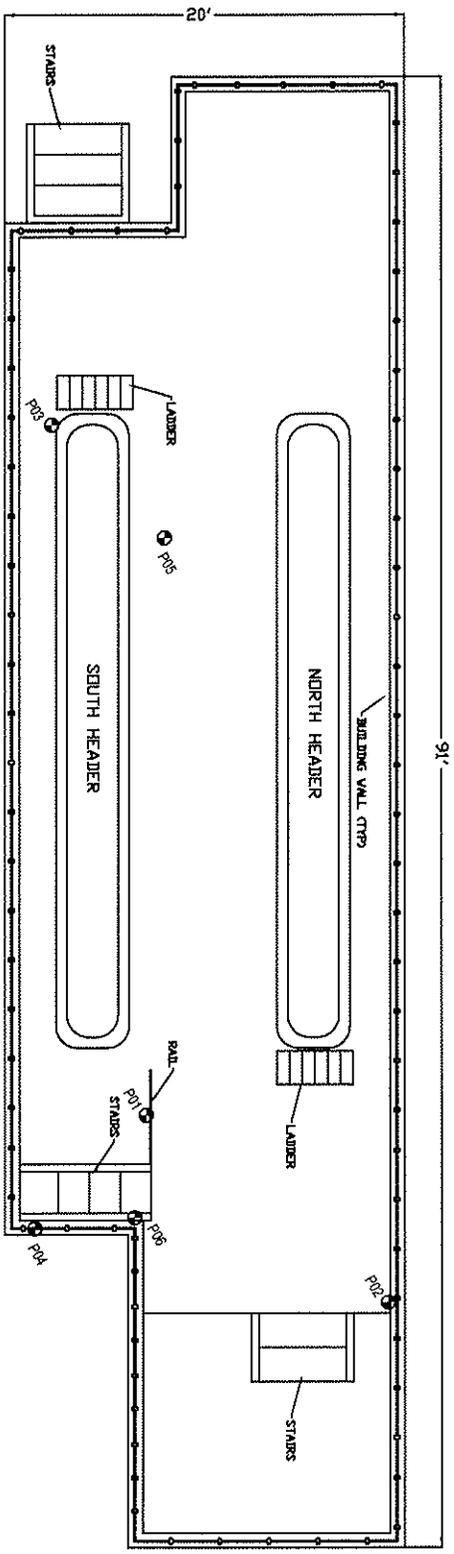
**APPENDIX G**  
**LEAD SAMPLE LOGS**



**APPENDIX H**

**FIGURE 02**

**LEAD CONTAINING AREA DRAWING**



**LEGEND**  
 LEAD-BASED PAINT AREAS  
 POS APPROXIMATE PAINT SAMPLE LOCATIONS



DRAWN BY:	S. BOYLE	APPROVED BY:	R.S.G.	TITLE:	BUILDING 11 DE-ELEVATOR/350 HEADER AREA
DATE:	05-05-2008	PROJ. NO.:	1902.004.01	PAINT SAMPLE LOCATIONS	
DWG. NO.:	02	DWG.		APPROXIMATE LEAD-BASED PAINT SAMPLE LOCATION	
				GREAT LAKES, ILLINOIS 60088	



**EDI ENVIRONMENTAL DESIGN INTERNATIONAL, INC.**  
 200 S. MICHIGAN AVENUE, SUITE 700  
 CHICAGO, IL 60604 PHONE: (312) 536-5400

**NAVAL FACILITIES ENGINEERING**  
 NAVAL COMMAND MIDWEST  
 210 DECATUR AVENUE, BUILDING 1A  
 GREAT LAKES NAVAL BASE  
 GREAT LAKES, ILLINOIS 60088

FIGURES  
 02

**APPENDIX I**

**LEAD LABOARATORY RESULTS AND  
CERTIFICATIONS**



**EMSL Analytical, Inc.**

2444 W. George Street, Chicago, IL 60618

Phone: (773) 313-0099 Fax: (773) 313-0139 Email: [chicagolab@emsl.com](mailto:chicagolab@emsl.com)

Attn: **Randy Livingston**  
**Environmental Design International**  
**200 S. Michigan Ave**  
**Suite 700**  
**Chicago, IL 60604**

Customer ID: ED151  
 Customer PO: CCS180  
 Received: 04/30/08 12:51 PM  
 EMSL Order: 260802155

Fax: (312) 356-5499 Phone: (312) 356-5400  
 Project: 1602-004.01

EMSL Proj:  
 Report Date: 5/1/2008

**Lead in Paint Chips by Flame AAS (SW 846 3050B and 7420\*)**

Client Sample Description	Lab ID	Collected	Analyzed	Lead Concentration
P01 Yellow hand rail	0001	4/30/2008	5/1/2008	21 % wt
P02 Yellow I-beam	0002	4/30/2008	5/1/2008	12 % wt
P03 Gray horizontal I-beam	0003	4/30/2008	5/1/2008	8.5 % wt
P04 Gray vertical I-beam	0004	4/30/2008	5/1/2008	0.44 % wt
P05 Yellow vertical post	0005	4/30/2008	5/1/2008	7.1 % wt
P06 Yellow stair stringers	0006	4/30/2008	5/1/2008	20 % wt

A quality control sample result for these samples did not meet acceptance criteria.

Lisa Odeshoo, Lead Lab Manager  
 or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

\* slight modifications to methods applied. Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits.

AIHA ELLAP 1028R2



107 Haddon Avenue, Westmont, New Jersey 08108

1-800-220-3675

http://www.emsl.com

EMSL ANALYTICAL, Inc.

CHAIN OF CUSTODY

200802155

EMSL Rep:

Your Name:
Company: Environmental Design Intl
Street: 200 S Michigan Ave
Box #: Suite 700
City/State: Chicago, IL Zip 60604

EMSL-Bill to:
Street: Environmental Design Intl
Box #: Suite 700
City/State: Chicago, IL Zip 60604

Third Party Billing requires written authorization from third party

Phone Results to:
Name:
Telephone #:
Project Name/Number: 1602-009.01

Fax Results to:
Name: Randolph Livingston
Fax #: 312-356-5499
Purchase Order #:

TURNAROUND TIME: 3 Hours, 6 Hours, 12 Hours, 24 Hours, 48 Hours, 72 Hours, 4 Days, 5 Days, 6-10 Days
SAMPLE MATRIX: Air, Bulk, Soil, Wipe, Micro-Vac, Drinking Water, Wastewater, Chips, Other

ASBESTOS ANALYSIS

- PCM - Air
NIOSH 7400 (A) Issue 2: August 1994
OSHA-w/TWA
TEM AIR
AHERA 40 CFR, Part 763 Subpart E
NIOSH 7402 Issue 2
EPA Level 1
PLM - Bulk
EPA 600/R-93/116
NY Stratified Point Count
California Air Resource Board (CARB) 435
NIOSH 9002
PLM NOB (Gravimetric) NYS 198.1
EPA Point Count (400 Points)
EPA Point Count (1,000 Points)
Standard Addition Point Count
SOILS
EPA Protocol Qualitative
EPA Protocol Quantitative
EMSL MSD 9000 Method fibers/gram
Superfund EPA 540-R097-028 (dust generation)
TEM BULK
Drop Mount (Qualitative)
Chatfield SOP-1988-02
TEM NOB (Gravimetric) NY 198.4
TEM MICROVAC
ASTM D 5755-95 (Quantitative)
TEM WIPE
ASTM D-6480-99
Qualitative
TEM WATER
EPA 100.1
EPA 100.2
NYS 198.2

LEAD ANALYSIS

- Flame Atomic Absorption
Wipe, SW846-7420 ASTM non ASTM
Soil, SW846-7420
Air, NIOSH 7082
Chips, SW846-7420 or AOAC 5.005 (974-02)
Wastewater, SW 846-7420
TCLP LEAD SW846-1311/7420
Graphite Furnace Atomic Absorption
Air, NIOSH 7105
Wastewater, SW846-7421
Soil, SW846-7421
Drinking Water, EPA 239.2
ICP - Inductively Coupled Plasma
Wipe, SW846-6010 ASTM non ASTM
Soil, SW846-6010
Air, NIOSH 7300

MICROBIAL ANALYSIS

- Air Samples
Mold & Fungi by Air O Cell
Mold & Fungi by Agar Plate count & id
Bacterial Count and Gram Stain
Bacterial Count and Identification
Water Samples
Total Coliforms, Fecal Coliforms
Escherichia Coli, Fecal Streptococcus
Legionella
Salmonella
Giardia and Cryptosporidium
Wipe and Bulk Samples
Mold & Fungi - Direct Examination
Mold & Fungi - (Culture follow up to direct examination if necessary)
Mold & Fungi - Culture (Count & ID)
Mold & Fungi - Culture (Count only)
Bacterial Count & Gram Stain
Bacterial Count & Identification (3 most prominent types)
Other

MATERIALS ANALYSIS

- Full Particle Identification
Optical Particle Identification
Dust Mites and Insect Fragments
Particle Size & Distribution
Product Comparison
Paint Characterization
Failure Analysis
Corrosion Analysis
Glove Box Containment Study
Potrographic Examination of Corr etc
Portland Cement in Workplace Atmospheres (OSHA ID-143)
Man Made Vitrous Fibers - MMVF's
Synthetic Fiber Identification
Other

IAQ ANALYSIS

- Nuisance Dust (NIOSH 0500 & 0600)
Airborne Dust (PM10, TSP)
Silica Analysis by XRD NIOSH 7500
HVAC Efficiency
Carbon Black
Airborne Oil Mist
Other

Client Sample # (S)

Relinquished: [Signature]
Received:
Relinquished:
Received:

Date: 4/30/08
Date: 4/30/08
Date:
Date:
Time:
Time: 12:51pm
Time: 02/02/08
Time:

TOTAL SAMPLE # (6)

SAMPLES ACCEPTED FOR ANALYSIS BY EMSL ANALYTICAL, INC. CHICAGO, IL





3/25/2008

Lab ID#: 102992

Patty Kirkland  
EMSL Analytical, Inc - Chicago  
2444 West George Street  
Chicago, IL 60618

Dear Ms. Kirkland:

The AIHA has approved an extension to your laboratory's current certificate of accreditation in the Environmental Lead Laboratory Accreditation Program (ELLAP) and Environmental Microbiology Laboratory Accreditation Program (EMLAP). This extension will expire on July 1, 2008. Remember that your laboratory's proficiency rating in the PAT programs must be maintained for the new certificate to be issued.

Your laboratory remains an accredited laboratory in the ELLAP, EMLAP programs. Please keep a copy of this letter with your expired certificate. If you have questions or concerns, please feel free to contact Heather L. Thompson, Laboratory Accreditation Specialist at (703) 846 - 0716.

Sincerely,

Cheryl O. Morton  
Director, Laboratory Quality Assurance Dept.



# The American Industrial Hygiene Association

certification from

## EMSL Analytical, Inc.

2441 West Cengage Street, Chicago, IL 60618

Laboratory ID: 162892

has fulfilled the requirements of the 1711a Laboratory Quality Assurance Program (LQAP), thereby conforming to the ISO/IEC 17025:1999 international standard. *General Requirements for the Competence of Testing and Calibration Laboratories* for active testing laboratory, along with supplements from which key requirements published as listed above, have been accredited by AHA in the following:

### ACCREDITATION PROGRAMS

- INDUSTRIAL HYGIENE
  - ENVIRONMENTAL LEAD
  - ENVIRONMENTAL MICROBIOLOGY
  - FOOD
- Accreditation Expires: 04/11/2008  
 Accreditation Expires: 12/01/2007  
 Accreditation Expires:

Specific testing (not methods) within each Accreditation Program for which the above named laboratory obtains accreditation is defined on the attached Scope of Accreditation. A specific accreditation upon successful completion complies with LQAP requirements. This certificate is not valid without the attached Scope of Accreditation.

*David K. ...*  
Director, Accreditation Dept.

*David K. ...*  
Director, AHA

File used 04/11/08



**APPENDIX J**

**LEAD SAMPLE PHOTOGRAPHS**

PHOTOGRAPH LOG

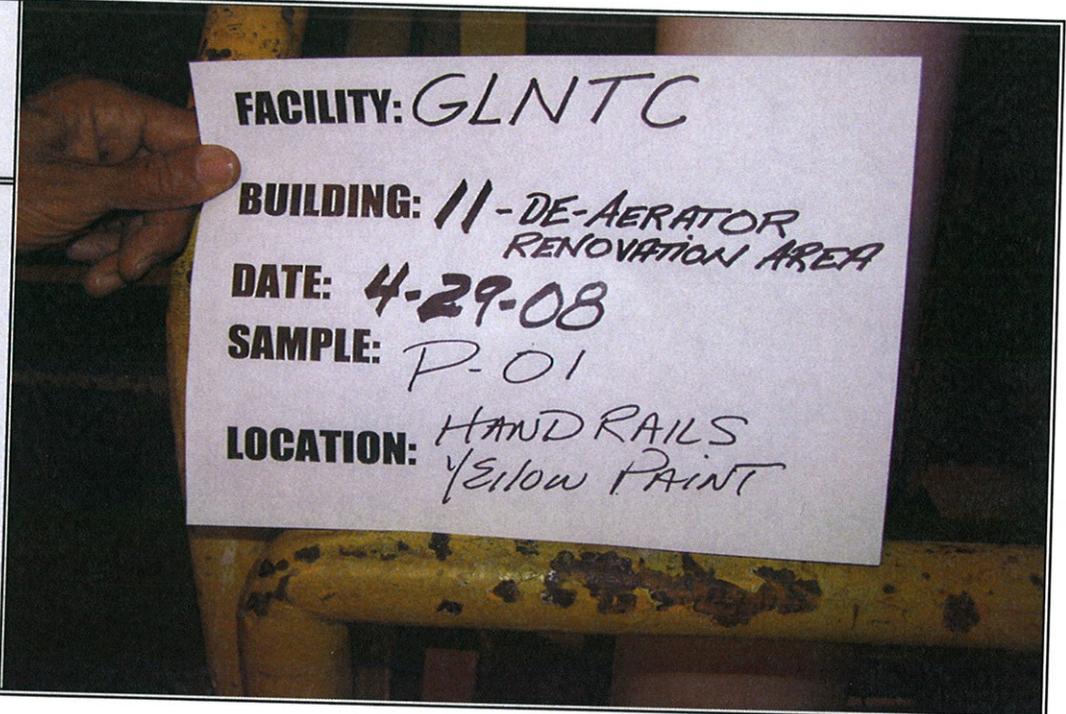
<b>Project Name</b>	Great Lakes Naval Training Center- Building 11 De-Aerator /350 Header Area
---------------------	--

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

---

**Description:**  
Sample # P-01; Yellow Handrail, South Side.

**PHOTO #1**

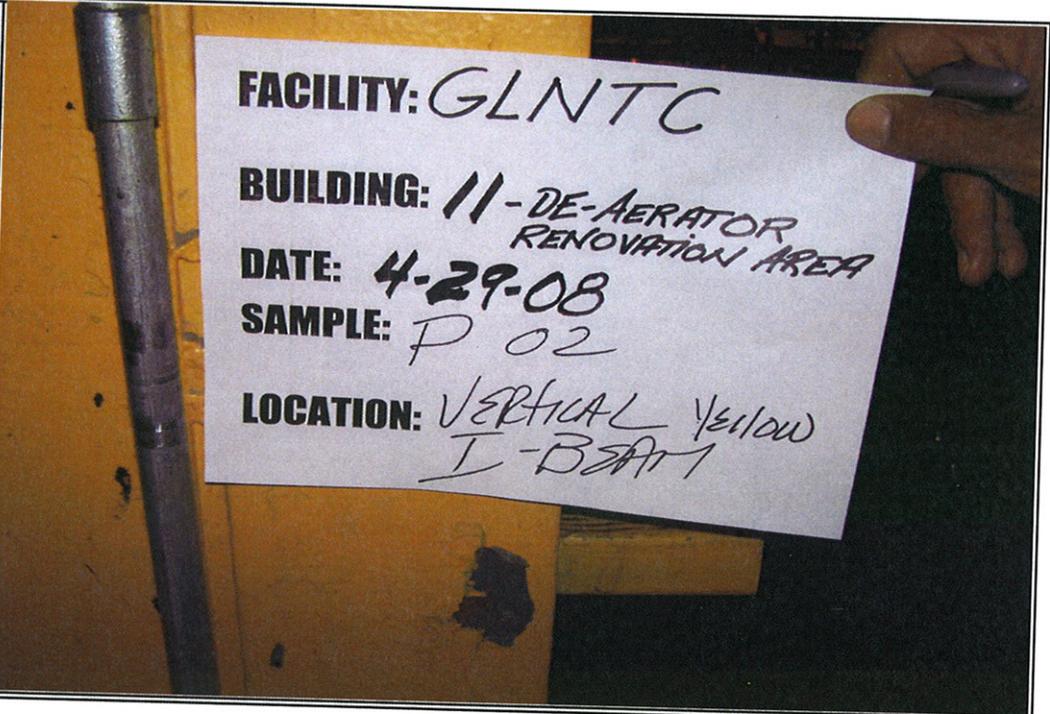


**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

---

**Description:**  
Sample # P-02; Vertical Yellow I-Beam Northeast Quarter.

**PHOTO #2**



PHOTOGRAPH LOG

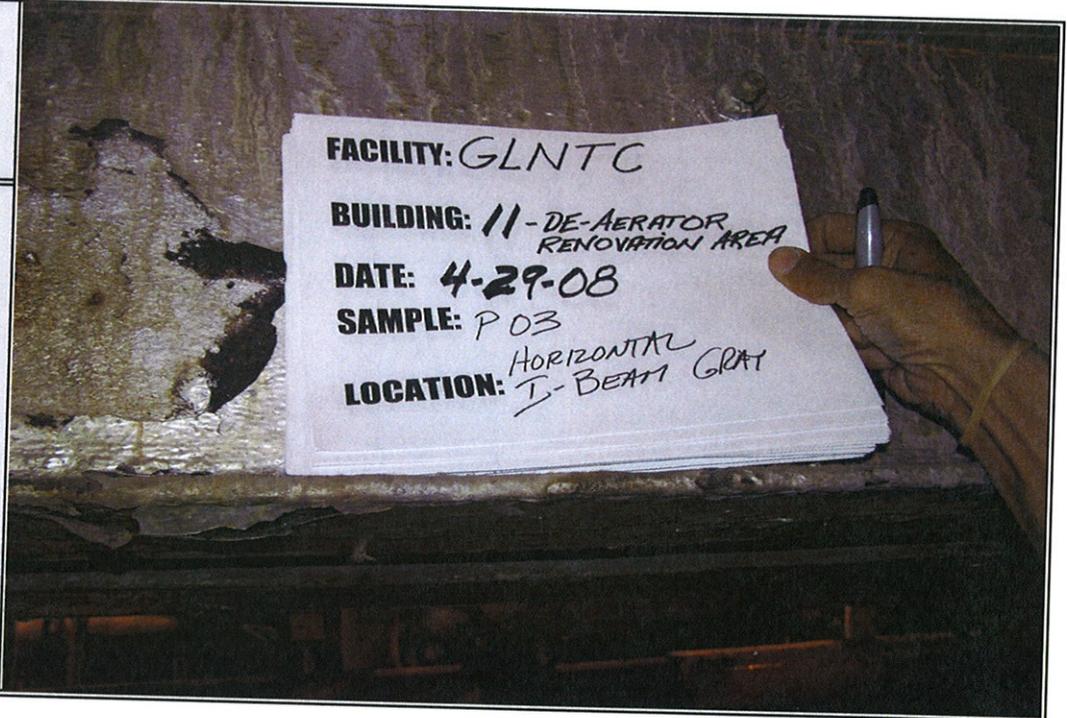
<b>Project Name</b>	Great Lakes Naval Training Center- Building 11 De-Aerator / 350 Header
---------------------	--

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

---

**Description:**  
Sample # P-03;  
Gray/Silver Horizontal  
I-Beam South Side.

**PHOTO #3**



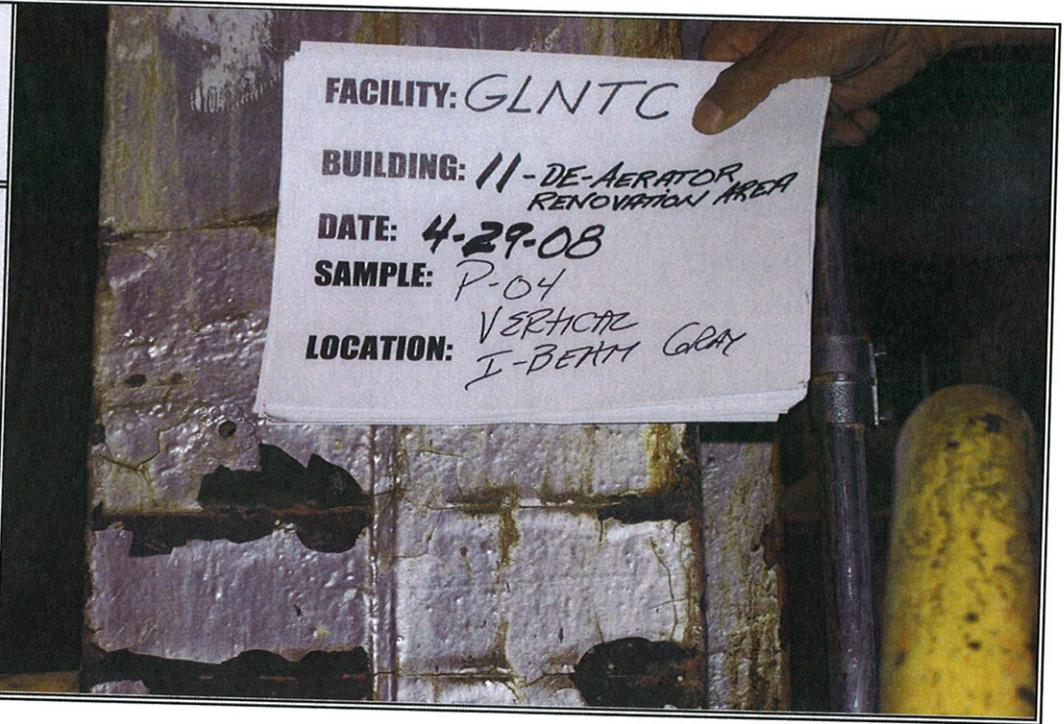
**FACILITY:** GLNTC  
**BUILDING:** 11-DE-AERATOR  
RENOVATION AREA  
**DATE:** 4-29-08  
**SAMPLE:** P 03  
**LOCATION:** HORIZONTAL  
I-BEAM GRAY

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

---

**Description:**  
Sample # P-04;  
Gray/Silver Vertical I-  
Beam Southeast  
Quarter.

**PHOTO #4**



**FACILITY:** GLNTC  
**BUILDING:** 11-DE-AERATOR  
RENOVATION AREA  
**DATE:** 4-29-08  
**SAMPLE:** P-04  
**LOCATION:** VERTICAL  
I-BEAM GRAY

PHOTOGRAPH LOG

<b>Project Name</b>	Great Lakes Naval Training Center- Building 11 De-Aerator / 350 Header
---------------------	--

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # P-05; Yellow  
Vertical Post/Column  
South Center.

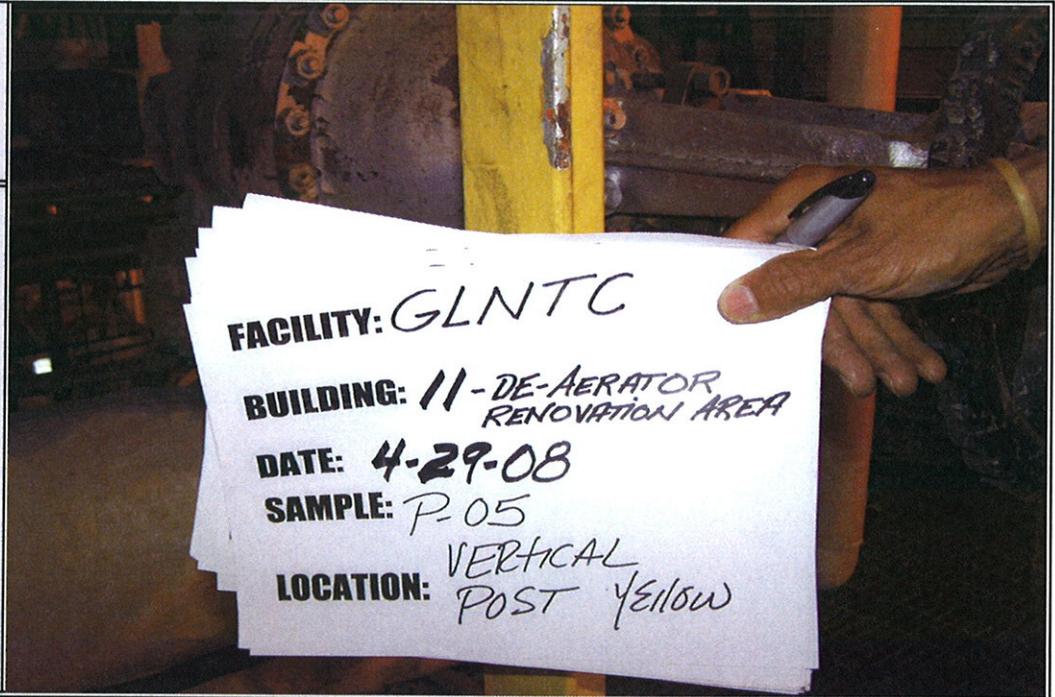


PHOTO #5

**Project:** 1602.004.01  
**Date:** 04-29-08  
**Photographed By:**  
Randy Livingston

**Description:**  
Sample # P-06; Yellow  
Stair Stringer  
Southeast Quarter.

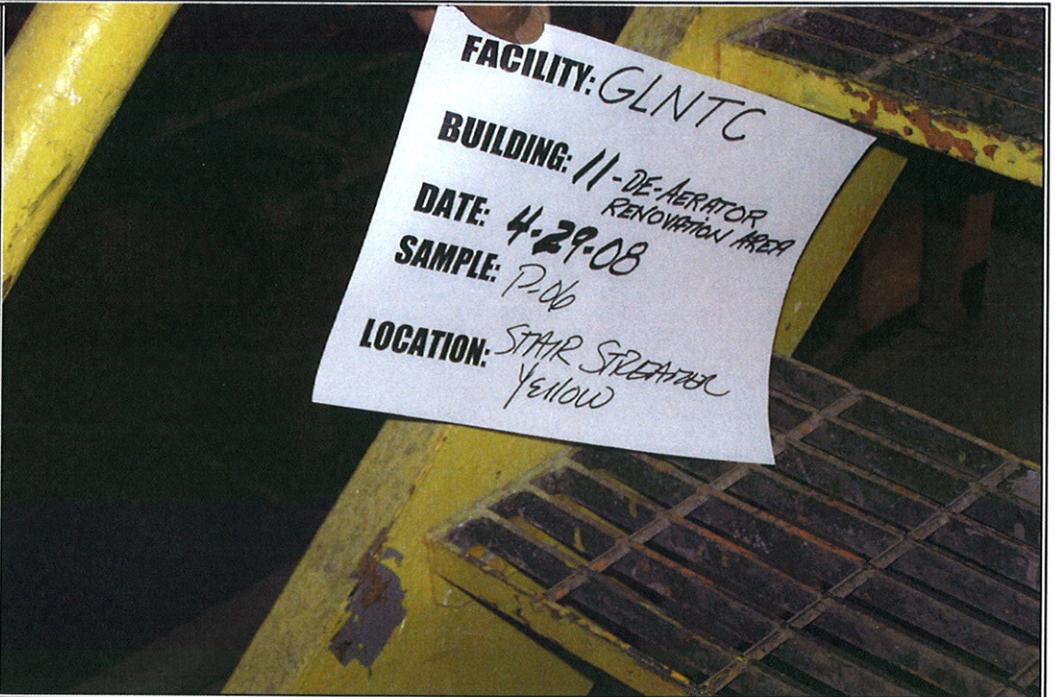


PHOTO #6

**APPENDIX K**  
**EDI PERSONEL CERTIFICATIONS**

**ENDORSEMENTS**

**TC EXPIRES**

INSPECTOR

2/16/2008

**AIR SAMPLING PROFESSIONAL**

**Alteration of this license shall result in legal action**

This license issued under authority of the State of Illinois  
Department of Public Health

This license is valid only when accompanied  
by a valid training course certificate.

**ASBESTOS  
PROFESSIONAL  
LICENSE**

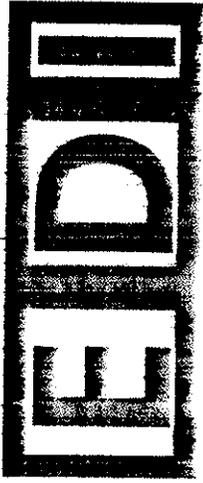
DEPARTMENT OF  
**Public Health**

ID NUMBER	ISSUED	EXPIRES
100-00914	4/7/2007	05/15/2008

**LYNWOOD W SLAUGHTER**  
**4120 INDIAN HILL DRIVE**  
**COUNTRY CLUB HILL, IL 60478**



Environmental Health  
See Reverse for Endorsements



*Environmental Design International inc.*

# Environmental Design International inc. Training

Lynwood W. Slaughter

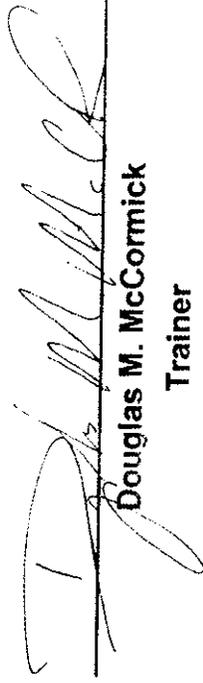
Has successfully completed the 4 hour Asbestos Building Inspector Refresher course and has passed the exam with a score of at least 70%. This course is accredited by the Illinois Department of Public Health for purposes of accreditation in accordance with 32 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II. Training provided by Environmental Design International inc. Training, Chicago, IL (312) 356-5400.

## Asbestos Building Inspector Refresher

Course Date	Exam Date	Expiration Date	Unique Certificate #
February 15, 2008	February 15, 2008	February 15, 2009	EDI-ABIR-021508-004



Environmental Design International inc.  
200 South Michigan Avenue, Suite 700  
Chicago, Illinois 60604  
(312) 356-5400

  
Douglas M. McCormick  
Trainer

*Environmental Design International inc.*

Illinois Department of  
**PUBLIC  
HEALTH**

**LEAD RISK  
ASSESSOR LICENSE**

LEAD ID ISSUED EXPIRES  
064393 1/4/2008 1/31/2009

**Lynwood W Slaughter**  
4120 Indian Hill Dr.  
Country Club Hills, IL 60478



**LEAD PROGRAM**  
Environmental Health

Alteration of this license shall result in legal action  
RISK ASSESSOR CERTIFICATE EXPIRES  
1/1/2010  
This license issued under authority of the State  
of Illinois - Department of Public Health  
This license is valid only when accompanied by  
a valid training course certificate  
If found return to 525 W Jefferson St Springfield, IL 62761

# CERTIFICATE OF ACHIEVEMENT

## Lead Risk Assessment Recertification

Accredited by Illinois Department of Public Health

LYNWOOD SLAUGHTER

This is to certify that \_\_\_\_\_ has completed the 8-HOUR LEAD RISK ASSESSMENT RECERTIFICATION course and successfully passed the examination on 11/01/2007 with a minimum score of 70%. Training was in accordance with Title X, U.S. EPA Model Training Course Curriculum, 1995, the HUD Guidelines, 1995, and the Illinois Dept. of Public Health, 1998.



11-01-2007

Course Dates:

11-01-2010

Expires:

0711R-AR04

Certificate Number:

*N. Penoff*

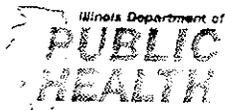
Phone Number: (312) 411-7597

Director of Training

Nicholas J. Penoff

Doctor of Public Health

FORM # L-017B



**ASBESTOS  
PROFESSIONAL  
LICENSE**

ID NUMBER            ISSUED            EXPIRES  
100 - 01934        4/7/2008        05/15/2009

RANDOLPH LIVINGSTON  
300 W ADAMS ST. SUITE 1200  
CHICAGO, IL 60606



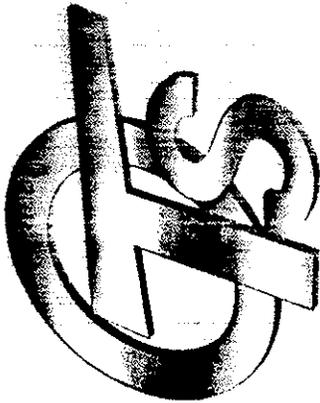
Environmental Health

**ENDORSEMENTS**

**TC EXPIRES**

INSPECTOR	1/4/2009
MANAGEMENT PLANNER	1/4/2009
PROJECT MANAGER	2/1/2009
AIR SAMPLING PROFESSIONAL	

**Alteration of this license shall result in legal action**  
This license issued under authority of the State of Illinois  
Department of Public Health  
This license is valid only when accompanied by a valid  
training course certificate.



# Occupational Training & Supply, Inc.

7233 Adams Street • Willowbrook, IL 60527 • (630) 655-3900

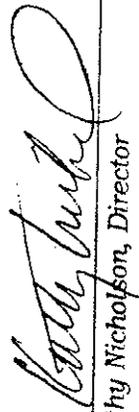
## Randolph Livingston

has successfully completed the 4 hour Asbestos Building Inspector Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

## Asbestos Building Inspector Refresher

Course Date: January 4, 2008  
Expiration Date: January 4, 2009

Exam Date: January 4, 2008  
Certificate: BIR08010400.38

  
Kathy Nicholson, Director

2008

Illinois Department of  
**PUBLIC  
HEALTH**

**LEAD RISK  
ASSESSOR LICENSE**

LEAD ID ISSUED EXPIRES  
003274 12/27/2007 1/31/2009

**Randolph Livingston**  
9549 S Euclid Avenue  
Chicago, IL 60617



LEAD PROGRAM  
Environmental Health

Alteration of this license shall result in legal action  
RISK ASSESSOR CERTIFICATE EXPIRES  
12/2/2008

This license issued under authority of the State  
of Illinois -Department of Public Health

This license is valid only when accompanied by  
a valid training course certificate

If found return to 525 W. Jefferson St Springfield, IL 62761



# Occupational Training & Supply, Inc.

7233 Adams Street • Willowbrook, IL 60527 • (630) 655-3900

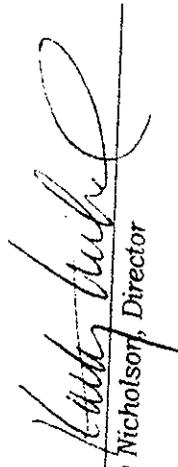
## Randolph Livingston

has successfully completed the 8 hour Lead Risk Assessor Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health in accordance with the Illinois Lead Poisoning Prevention Code.

## Lead Risk Assessor Refresher

Course Date: December 2, 2005  
Expiration Date: December 2, 2008

Exam Date: December 2, 2005  
Certificate: LRAR0512022586

  
Kathy Nicholson, Director

2005