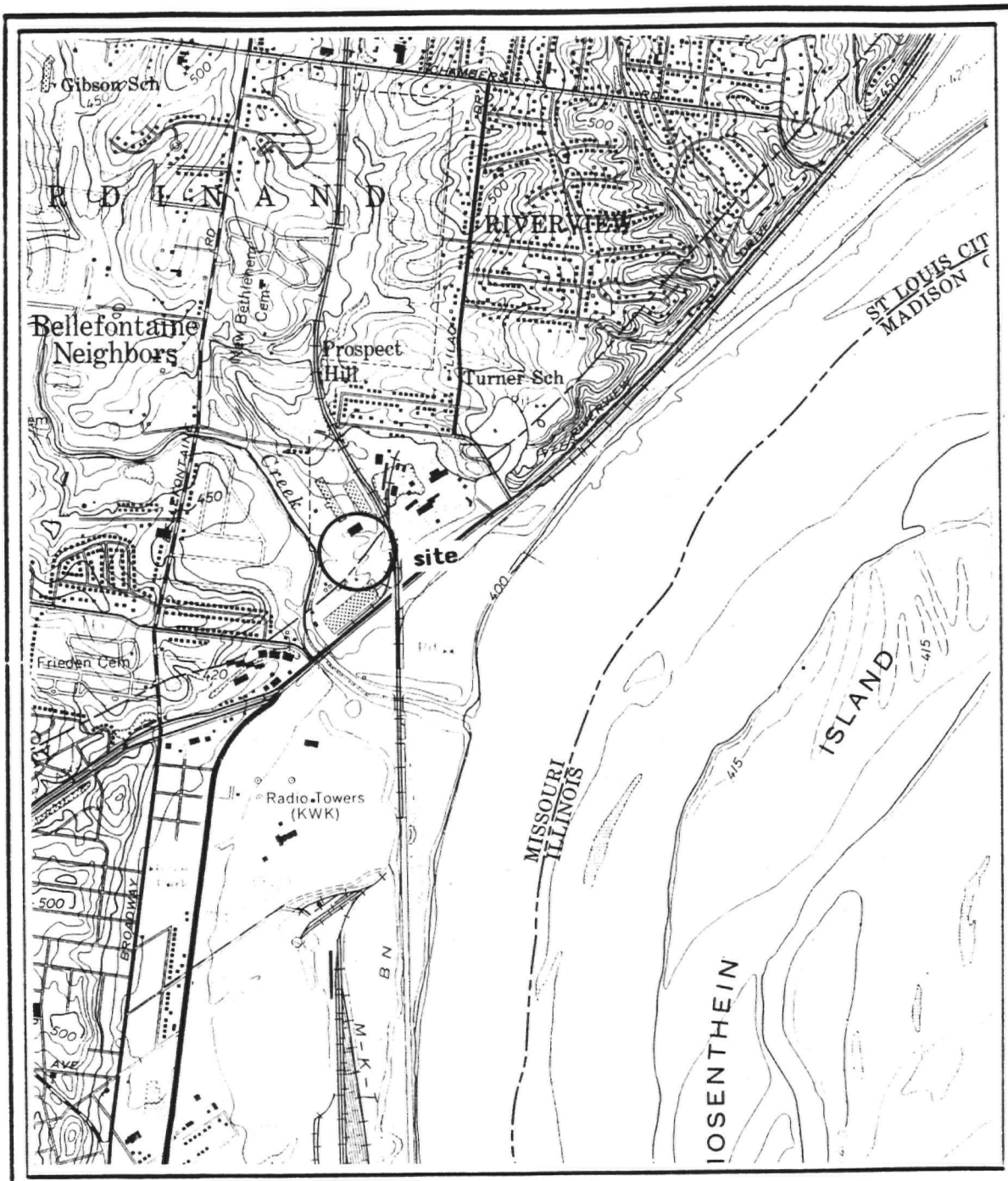
ATTACHMENT A

07KF 30290454 1.0

Superfund

0100



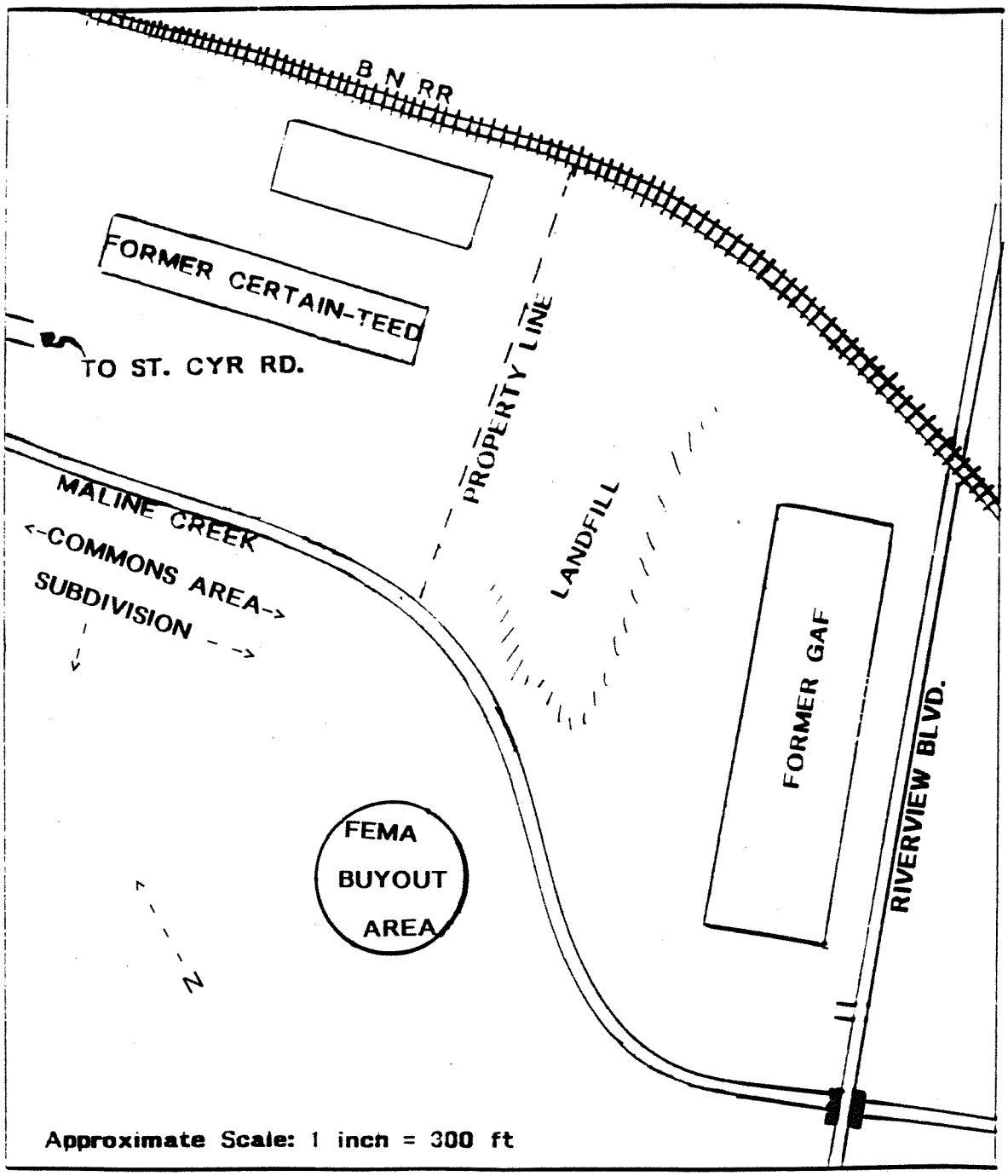
CERTAINTEED/MALINE CREEK SITE LOCATION MAP

BELLEFONTAINE NEIGHBORS, MISSOURI

TDD#: T07-9412-016

PAN#: EMO0307SEA

QUADRANGLE LOCATION



CERTAIN-TEED TRANSITE PIPE SITE (MALINE CREEK)

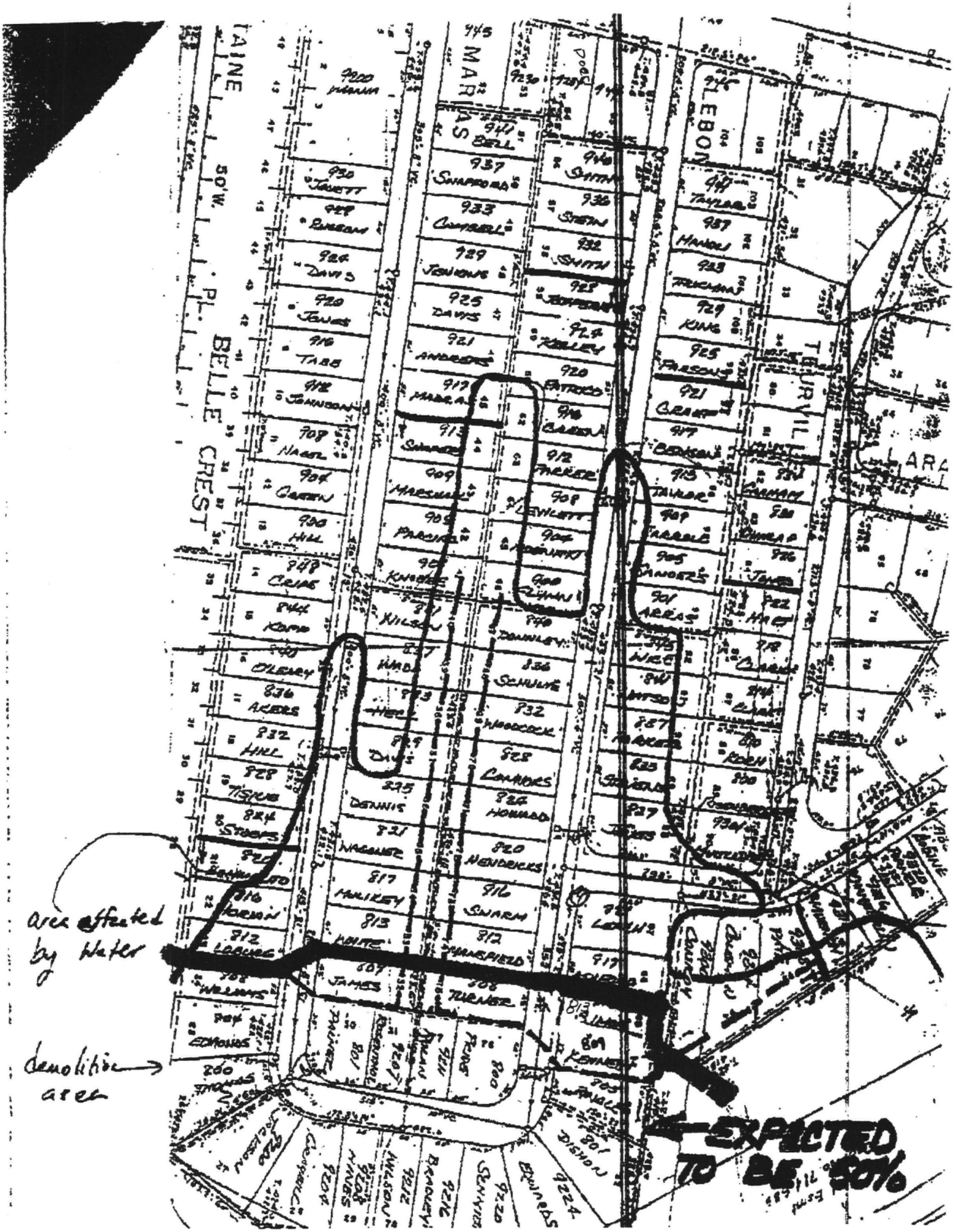
T07-9412-016

EMO0307SEA

SITE MAP

ATTACHMENT B

Former CertainTeed Facility
St Cyr Road
Landfill Area
<---Creek--->
<---Commons Area--->
Former GAF Facility
FEMA Buyout Area
Bellefontaine Road
Surrey Lane Athletic Association
Lebon
Marias


area effected by Water
demolition area
EXPECTED TO BE 50%
BELLE CREST
MARYLAND
LEBON
TURVILL

ATTACHMENT C

AIR SAMPLE RESULTS SUMMARY

Sample #	Location/Description	Method	Results
MLC-001	Top of Landfill Area on site	TEM-AHERA	ND
MLC-002	Southeast End of Branch Metals on site below landfill	"	"
MLC-003	North Bank of Maline Creek on former CertainTeed property	"	"
MLC-004	Northwest End Commons Area south of site/Maline Creek	TEM-AHERA NIOSH 7400 PCM NIOSH 7402 TEM	ND <0.001 ND
MLC-005	Duplicate of MLC-004	TEM-AHERA	ND
MLC-006	Center of Commons Area along Maline Creek south of site	"	35.8
MLC-007	Southeast End of Commons Area near FEMA demolition area	"	17.9
MLC-008	813 Lebon-back yard in FEMA demolition area	"	17.9
MLC-009	941 Marias-back yard west of flood affected zone	"	ND
MLC-010	925 Marias-front yard west of flood affected zone	"	ND
MLC-011	Surrey Lane Athletic Assn. ball field #5 west of site	"	ND
MLC-012	Center of Bethlehem Cemetary ~4/10 mile north of site	"	ND
MLC-013	Field Blank #1	"	ND
MLC-014	Field Blank #2	"	ND
MLC-015	Lab Blank	"	ND
MLC-016	836 Lebon-front yard in flood affected zone west of FEMA demolition area	TEM-AHERA NIOSH 7400 PCM NIOSH 7402 TEM	ND 0.0018 ND

TEM-AHERA results reported in asbestos structures/mm2
NIOSH 7400 PCM results reported in fibers/cc, not asbestos specific
NIOSH 7402 TEM results reported in asbestos fibers/cc
ND=NONDETECT

ENVIRONMENTAL OPTIONS
187 BAKER AVENUE
SAINT LOUIS, MO 63119

DATE: 1/5/95
PROJECT NAME: Certain-Teed/Maline Creek **CLIENT** Ecology & Environment (EAT) **ANALYTICAL METHOD:**
PROJECT # 95-002-A **ADDRESS:** Earth City, MO
PROJECT LOCATION: St. Louis, MO

SAMPLE #	TYPE/ACT	PUMP #	SAMPLE LOCATION	TIME	ON	TIME	OFF	MIN.	FLWRATE	VOLUME	STRUCTURES/MM	FIBERS/CC	RESULTS
001	BKG	5971	Top of Landfill	7	26	15	25	479	2.9	1389.0			
002	BKG	5976	SE. of Branch Metal	7	38	15	31	473	2.9	1372.0			
003	BKG	5972	SW Parking Lot	7	44	15	36	472	3.0	1416.0			
004	BKG	5975	West Enc Commons	8	5	15	43	458	2.8	1260.0			
005	BKG	5973	West Enc Commons	8	6	15	44	458	3.0	1374.0			
006	BKG	691791	Center of Commons	8	10	15	48	458	3.0	1374.0			
007	BKG	691793	SE Commons	8	16	15	54	458	3.0	1374.0			
008	BKG	691794	Demo Area 813 Lebon	8	19	15	55	456	3.0	1368.0			
009	BKG	691792	941 Marias Back Yd	8	31	16	5	454	3.0	1362.0			
010	BKG	PS-4	925 Marias Front Yd	8	35	16	8	453	3.0	1359.0			

COMMENTS:	SAMPLE Type	Activity	CALIBRATION Pump #	Begin	End	ROTOMETER # Mean	Corr	Fow Rate
	PER-Personal	PR-Site Prep	5971	3.0	2.8	2.9	0	2.9
	CLR-Clearance	GR-Gross Removal	5976	3.0	2.8	2.9	0	2.9
	I/A-Inside W/A	GB-Glovebag	5972	3.0	3.0	3.0	0	3.0
	O/A-Outside WA	CU-Clean Up	5975	3.0	2.8	2.9	0	2.9
	NEG-Negative Air	PA-Patch & Repair	5973	3.0	3.0	3.0	0	3.0
	F/BLK-Field Blank		691791	3.0	3.0	3.0	0	3.0
	BKG-Background		691793	3.0	3.0	3.0	0	3.0
	L/BLK-Lab Blank		691794	3.0	3.0	3.0	0	3.0
			691792	3.0	3.0	3.0	0	3.0
			PS-4	3.0	3.0	3.0	0	3.0

FIELD BLANK AVE:
LAB BLANK: ANALYTICAL METHOD: T.E.M. SAMPLED BY: Matthew Burcham
LOT NUMBER: GEOMETRIC MEAN (s/mm2)
FILTER AREA sq. mm: 385 GEOMETRIC MEAN (f/cc) ANALYZED BY:
FIELD AREA sq. mm: 0.0076
PORE SIZE: 0.45um REVIEWED BY:

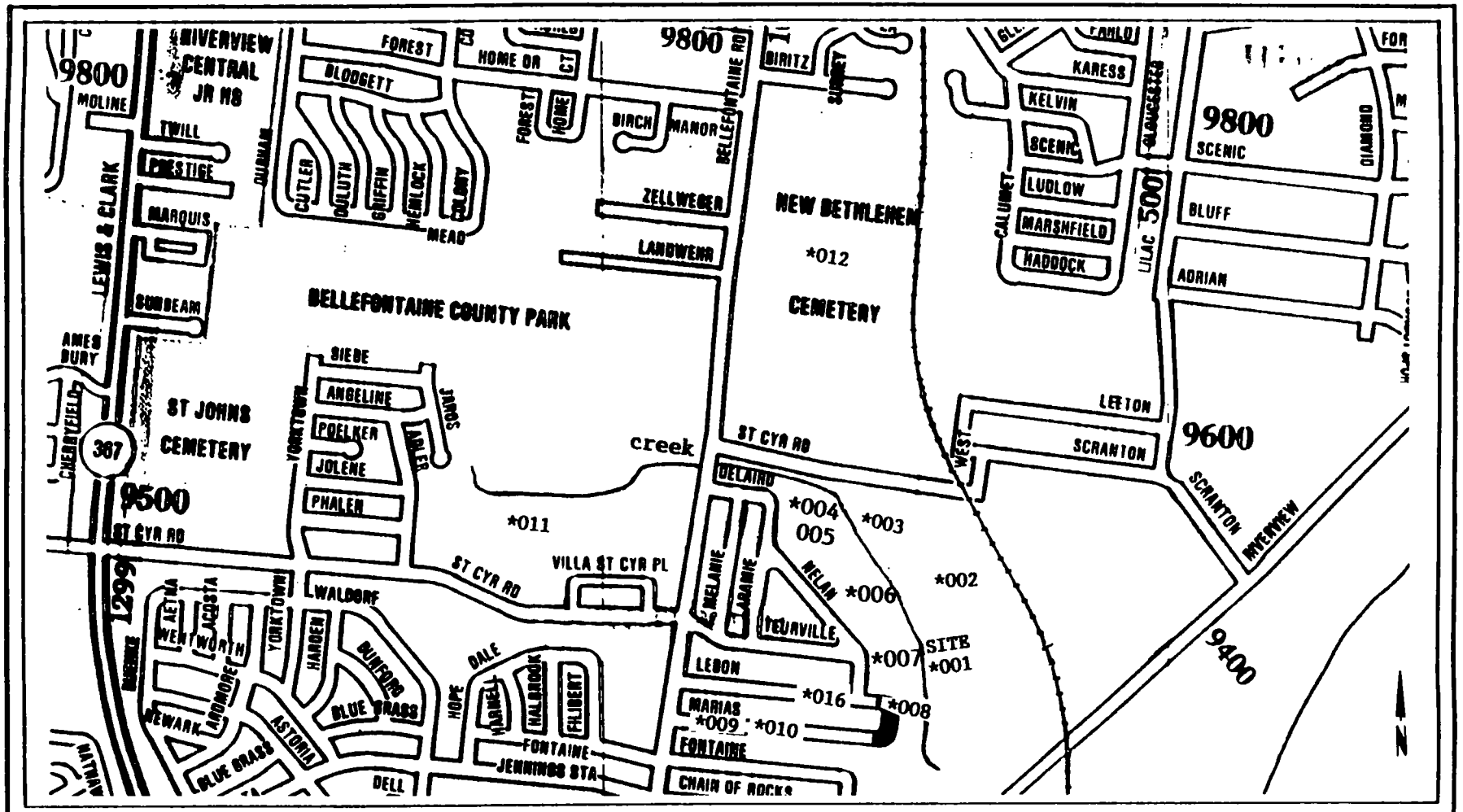
ENVIRONMENTAL OPTIONS
187 BAKER AVENUE
SAINT LOUIS, MO 63119

DATE: 1/5/95
PROJECT NAME: Certain-Teed/Maline Creek **CLIENT** Ecology & Environment (TAT) **ANALYTICAL METHOD:**
PROJECT # 95-002-A **ADDRESS:** Earth City, MO
PROJECT LOCATION: St. Louis, MO

SAMPLE #	TYPE/ACT	PUMP #	SAMPLE LOCATION	TIME ON		TIME OFF		MIN.	FLW RATE	VOLUME	STRUCTURES/MM	FIBERS/CC	RESULTS
011	BKG	PS-3	Ball Field	8	45	16	8	443	3.0	1329.0			
012	BKG	PG-1	Cemetery	8	54	16	12	438	3.0	1314.0			
013	F/BLK	----	Field Blank	----	----	----	----	----	----	----			
014	F/BLK	----	Field Blank	----	----	----	----	----	----	----			
015	L/BLK	----	Lab Blank	----	----	----	----	----	----	----			
016	BKG	4735	836 Labon Front Yd	11	0	17	17	377	3.2	1206.0			

COMMENTS:	SAMPLE Type	Activity	CALIBRATION Pump #	Begin	End	ROTOMETER # Mean	Corr	Flow Rate
#1011 First Field 2nd Base	PEF-Personal	PR-Site Prep	PS-3	3.0	3.0	3.0	0	3.0
	CLR-Clearance	GR-Gross Removal	PG-1	3.0	3.0	3.0	0	3.0
	I/A-Inside W/A	GB-Glovebag	4735	3.4	3.0	3.2	0	3.2
	O/A-Outside WA	CU-Clean Up						
	NEG-Negative Air	PA-Patch & Repair						
	F/BLK-Field Blank							
	BKG-Background							
	L/BLK-Lab Blank							

FIELD BLANK AVE:
LAB BLANK: ANALYTICAL METHOD: T.E.M. SAMPLED BY: Matthew Burcham
LOT NUMBER: GEOMETRIC MEAN (s/mm2)
FILTER AREA sq. mm: 385 GEOMETRIC MEAN (f/cc) ANALYZED BY:
FIELD AREA sq. mm: 0.0078
PORE SIZE: 0.45um REVIEWED BY:



* = sample point/number
*013,014 = field blanks
*015 = lab blank

CertainTeed/Maline Creek Site Air Sampling Locations

(soil samples also collected at each of these locations)

TDD#: T07-9412-016

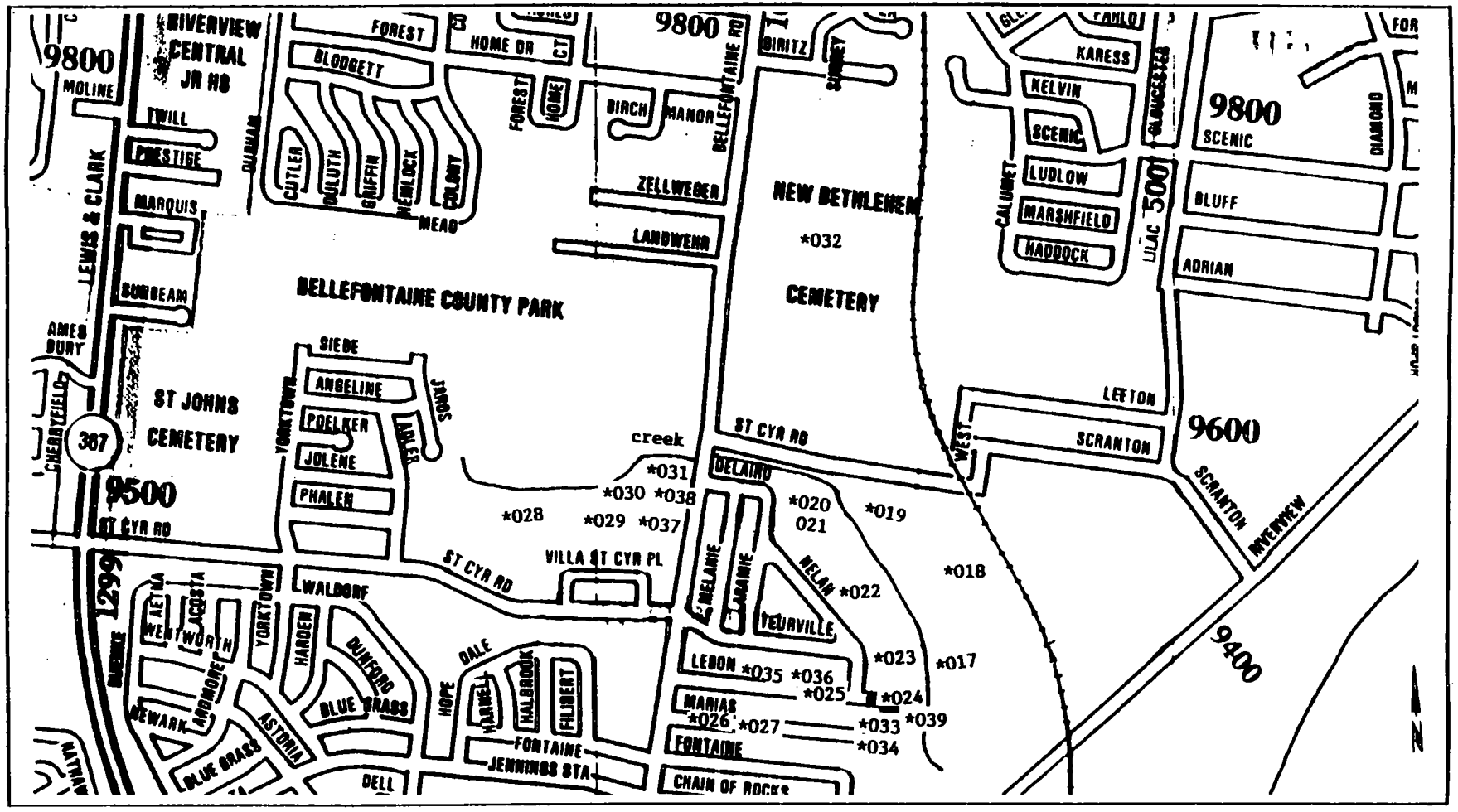
PAN#: EMO0307SEA

SOIL SAMPLE RESULTS SUMMARY

Sample #	Location/Description	Method	Results
MLC-017	Top of Landfill Area on site	TEM-Chatfield	ND <1% if present
MLC-018	Southeast End of Branch Metals on site below landfill	"	chrysotile trace <1%
MLC-019	North Bank of Maline Creek on former CertainTeed property	"	chrysotile greater than 1%
MLC-020	Northwest End Commons Area south of site/Maline Creek	TEM-Chatfield PLM-40 CFR 763	chrysotile trace <1% chrysotile trace <1%
MLC-021	Duplicate of MLC-020	TEM-Chatfield	ND <1% if present
MLC-022	Center of Commons Area along Maline Creek south of site	"	"
MLC-023	Southeast End of Commons Area near FEMA demolition area	"	"
MLC-024	813 Lebon-back yard in FEMA demolition area	"	chrysotile trace <1%
MLC-025	836 Lebon-front yard-flood affected zone west of FEMA demolition area	TEM-Chatfield PLM-40 CFR 763	chrysotile trace <1% ND <1% if present
MLC-026	941 Marias-back yard west of flood affected zone	TEM-Chatfield	chrysotile trace <1%
MLC-027	925 Marias-front yard west of flood affected zone	"	"
MLC-028	Surrey Lane Athletic Assn. edge of field #5 west of site	"	ND <1% if present
MLC-029	Surrey Lane Athletic Assn. left field area-field #7	"	"
MLC-030	Surrey Lane-deposit area along Maline Creek between field 6 & 8	"	"
MLC-031	Surrey Lane-along Maline Creek 50 yards north of circle drive	"	"

SOIL SAMPLE RESULTS SUMMARY CONTINUED

Sample #	Location/Description	Method	Results
MLC-032	Center of Bethlehem Cemetary ~4/10 mile north of site	TEM-Chatfield	ND <1% if present
MLC-033	813 Marias-back yard just west of FEMA demolition area	"	"
MLC-034	812 Marias-west side yard just west of demolition area	"	"
MLC-035	929 Lebon-front yard beyond west limit of flood zone	"	"
MLC-036	905 Lebon-front yard just at west limit of flood zone	"	chrysotile trace <1%
MLC-037	Surrey Lane Athletic Assn. field #8-short center field	"	ND <1% if present
MLC-038	Surrey Lane field #8 home plate	"	"
MLC-039	9224 Lebon-demolition material home in FEMA demolition area	"	chrysotile greater than 1%



* = sample point/number

samples 017-038 = soil samples
sample 039 = demolition material

CertainTeed/Maline Creek Site Soil/Bulk Samples

TDD#: T07-9412-016

PAN#: EMO0307SEA

Dave Kinroth - Ecology & Environment

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Don Hamera - EPA	CertainTeed/Maline Creek	5 / 1 / 95	1 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: ~~CASSETTE~~ ~~CUBITAINER~~	7402 BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other X	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										Air
MLC-001	1										TEM AHERA Method only
MLC-002											
MLC-003											
* MLC-004											* TEM AHERA + 7402 Method
MLC-005											TEM AHERA Method Only
MLC-006											
MLC-007											
MLC-008											
MLC-009											
MLC-010											
MLC-011											
MLC-012											
MLC-013											
MLC-014											
MLC-015											
* MLC-016											* TEM AHERA + 7402 Method
MLC-017		1					X				TEM - Asbestos in Soil
MLC-018											
MLC-019											
* MLC-020											* TEM and PLM Asbestos in Soil
MLC-021											TEM - Asbestos in Soil
MLC-022											
MLC-023											
MLC-024											

Air

Soil

DESCRIPTION OF SHIPMENT

39 PIECE(S) CONSISTING OF 2 BOX(ES)

_____ ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Dave Kinroth (X SEALED / UNSEALED)	1-6-95	1410	William Lowry (SEALED / UNSEALED)	Delivered to Lab for Analysis
RELINQUISHED BY (SEALED / UNSEALED)	DATE	TIME	RECEIVED BY (SEALED / UNSEALED)	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (SEALED / UNSEALED)	DATE	TIME	RECEIVED BY (SEALED / UNSEALED)	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

Dave Kinroth - Ecology & Environment

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Don Hamera - EPA	CertainTeed / Maline Creek	5 / 1 / 95	2 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	BOTTLE 4oz.	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
* MLC-025		1					X				* TEM and PLM Asbestos in Soil
MLC-026											TEM Asbestos in Soil
MLC-027											
MLC-028											
MLC-029											
MLC-030											
MLC-031											
MLC-032											
MLC-033											
MLC-034											
MLC-035											
MLC-036											
MLC-037											
MLC-038											
MLC-039											
		END									

DESCRIPTION OF SHIPMENT

39 PIECE(S) CONSISTING OF 2 BOX(ES)

_____ ICE CHEST(S); OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER: _____

_____ COURIER

X SAMPLER CONVEYED

_____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Dave Kinroth (X SEALED / UNSEALED)	1-6-95	1410	William Lowry (SEALED / UNSEALED)	Delivered to Lab for Analysis
RELINQUISHED BY (SEALED / UNSEALED)	DATE	TIME	RECEIVED BY (SEALED / UNSEALED)	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (SEALED / UNSEALED)	DATE	TIME	RECEIVED BY (SEALED / UNSEALED)	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri

Superfund Site No:
Site Code:

Epa Number: MLC - 001
Contract Number: 68-WO-0037

Priority: 1 week
Medium: Air

Clean-up Area
Layer

Date Collected: 1-5-95

TIME: 1525

Team Leader:

Samplers: Matt Burcham

Sample Depth: — in.

No. Of Aliquots: —

COMMENTS:

Volume 1389.0 liters

Collected on top of landfill area between former CertainTeed property and former GAF property

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 002
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1531

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1372.0 liters

East - ~~North~~ South D.K. East End of Branch Metals Building - below landfill area - former CertainTeed Property

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
Cassette .45 μ mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 003
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1536

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1416.0 liters
Parking lot Area just south of entry drive to former CertainTeed property - Along Northern Bank of Maline Creek

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 u mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 004
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1543
Team Leader:
Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS: Volume 1260.0 liters
Northwest End of Commons Area behind subdivision along south bank of Maline Creek - southwest of former CertainTeed Property near transite outcrops along creek bank.

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 u mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis and 7400 7402 NIOSH Methods

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 005
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1544

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1374.0 liters

Collocated Duplicate of MLC-004

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis only

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 006
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1548

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1374.0 liters

Center of Commons Area - South - ~~Southwest~~ D.K. of Former CertainTeed Property along South bank of Maline Creek

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 007
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1554

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1374.0 liters

South East End of Commons Area near Demolition Area South of former CertainTeed Property and transite landfill Area - on South Bank of Maline Creek

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 u Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 008
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1555

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:
Volume 1368.0 liters
Demolition Area - in backyard at 813 Lebon

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 009
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1605

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:
Volume 1362.0 liters

941 Marias - Backyard
~~South~~ West D.K. of Flood Affected Zone

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 010
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1608

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1359.0 liters

925 Marias - Front yard

D.K. ~~South~~ West of Flood Affected Zone

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

ENVIRONMENT & ENERGY CONSULTANTS inc.

- INDUSTRIAL HYGIENE
- ENGINEERING
- MICROSCOPY
- CHEMISTRY
- SAFETY

Report No.: 95-01-00043

Sample Identification: MLC-011, Ball Field

EEC Lab No.: 7841

ANALYTICAL INFORMATION:

Sample volume, liters:	1329
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0044
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.016

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 011
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1608

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1329.0 liters

Collected on edge of Baseball Diamond #5 at Surrey Lane Athletic Association Fields near intersection of Bellefontaine & St. Cyr Roads ~~East~~ D.K. West of Site - Former CertainTeed Property

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 012
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1612

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1314.0 liters

Collected from Bethlehem Cemetary due North from the site - Approximately 4/10 mile from site

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 013
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: : : :
Team Leader:
Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Field Blank #1

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 014
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: - - - -

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:
Field Blank #2

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 015
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: — / — / — / —

Team Leader:

Samplers: Matt Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

LAB Blank

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ Mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC-016
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Air

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1717

Team Leader:

Samplers: Burcham
Sample Depth: — in.
No. Of Aliquots: —

COMMENTS:

Volume 1206.0 liters

836 Lebon Front Yard
West of Demolition Area

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
Cassette .45 μ mixed cellulose ester filter	None	TEM AHERA Asbestos Analysis and 7400 7402 NIOSH Methods

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 017
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1105

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil collected on top of landfill Area between former CertainTeed property and former GAF property - associated with Air Sample MCC-001

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 018
Contract Number: 68-WC-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1126

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil- east - ~~Northeast~~ South D.K. of Branch Metals building - below landfill Area - former CertainTeed Property - Associated with Air sample MLC-002

SAMPLE CONTAINER	PRESERVATIVE	ANAL REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC-019
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1140

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil from lot area south of entry drive to former CertainTeed Property - Along Northern Bank of Maline Creek - Transite pieces were observed on the surface here - associated with Air Sample MLC-003

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 020
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1155

Team Leader:

Samplers: Kimoth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Northwest End of Commons Area - Associated with Air sample MLC-004

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis + PLM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 021
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1155

Team Leader:

Samplers: Kimroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Collocated Duplicate of MLC-020

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 022
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1205

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Center of Commons Area by Playground Area - associated with Air Sample MLC-006

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 023
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1210

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Commons Area - East-Southeast End - associated with Air Sample MLC-007

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
Superfund Site No:
City/State: Bellefontaine Neighbors, Missouri
Site Code:

Epa Number: MLC - 024
Priority: 1week
Contract Number: 68-WO-0037
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1215

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Demolition Area - Backyard 813 Lebon - associated with Air Sample MLC-008

SAMPLE CONTAINER	PRESERVATIVE	ANAL REQ REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 025
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1224
Team Leader:
Samplers: Kinroth
Sample Depth: 0-2 in.
No. Of Aliquots: 1
Collected from 625 cm² area

COMMENTS:

Soil - 836 Lebon Front yard - associated with air sample MLC-016

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis + PLM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 026
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1324
Team Leader:
Samplers: Kinroth
Sample Depth: 0-2 in.
No. Of Aliquots: 1
Collected from 625 cm^2 area

COMMENTS:

Soil-941 Marias - Backyard - associated with Air Sample MLC-009

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 027
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1319

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

925 Marias - Front yard - Associated with Air Sample MLC-010

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 028
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1334

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil- Edge of field - left field on Baseball Diamond #5 Surrey Lane Athletic Association Fields near intersection of Bellefontaine & St. Cyr Roads - Associated with Air Sample MLC-011.

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 029
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1348

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil - East of Backstop #6 in left field of baseball field #7 at Surrey Lane Athletic Association Fields.

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
Superfund Site No:
City/State: Bellefontaine Neighbors, Missouri
Site Code:

Epa Number: MLC - 030
Priority: 1 week
Contract Number: 68-WO-0037
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1400

Team Leader:

Samplers: Hamera

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Along Maline Creek - South Bank - Sediment Deposit Area North of Driveway on bank by treeline between baseball fields #6 & #8 at Surrey Lane Athletic Association

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 031
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1405

Team Leader:

Samplers: Hamera

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil- along South Creek bank - at Surrey Lane Athletic Association approximately 50 yards to North from Northeast end of Circle drive by baseball Field #8

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 032
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1332

Team Leader:

Samplers: Burcham

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil- Bethlehem Cemetary - Due North of Site ~ 4/10 mile associated with Air Sample MLC-012

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 033
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1304

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil - 813 Marias - backyard - Directly ~~South~~ West of Dik. Demolition Area

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 034
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer
Date Collected: 1-5-95
TIME: 1311
Team Leader:
Samplers: Kinroth
Sample Depth: 0-2 in.
No. Of Aliquots: 1
Collected from 625 cm^2 area

COMMENTS:

Soil- 812 Marias — Front yard — side of House
just ~~South~~ West D.K. of Demolition Area

SAMPLE CONTAINER	PRESERVATIVE	ANAL SIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 035
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1240

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil- 929 Lebon Front yard - outside (beyond) western
End of flood affected area

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 036
Contract Number: 68-WO-0037
Priority: 1 week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1259

Team Leader:

Samplers: Kinroth

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil- 905 Lebon - Front yard by Street Curb - this front yard was affected by flooding in 1993.

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 037
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1415

Team Leader:

Samplers: Hamera

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Surrey Lane Athletic Association - edge of infield in grass
Directly behind 2nd Base - Ball Field #8

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 038
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil

Clean-up Area
Layer

Date Collected: 1-5-95
TIME: 1430

Team Leader:

Samplers: Hamera

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Soil - directly next to home plate on Ball Field #8 at Surrey Lane Athletic Association

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY.REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY. KS. 66115

Site Name: CertainTeed / Maline Creek
City/State: Bellefontaine Neighbors, Missouri
Superfund Site No:
Site Code:

Epa Number: MLC - 009
Contract Number: 68-WO-0037
Priority: 1week
Medium: Soil/Solid

Clean-up Area
Layer

Date Collected: 1-~~5~~ 4-95 D.K.

TIME: 1515

Team Leader:

Samplers: Kruse

Sample Depth: 0-2 in.

No. Of Aliquots: 1

Collected from 625 cm^2 area

COMMENTS:

Demolition Material from home in Demolition Zone at 9224 Lebon

SAMPLE CONTAINER	PRESERVATIVE	ANALYSIS REQUESTED
4oz. JAR	None	TEM Asbestos Analysis

ENVIRONMENT & ENERGY CONSULTANTS inc.

- INDUSTRIAL HYGIENE
- ENGINEERING
- MICROSCOPY
- CHEMISTRY
- SAFETY

Report No. 95-01-00043 January 18, 1995

Project: Certainteed / Maline Creek P. O. No. 99630
TDD #T07-9410-083

Determination of asbestos content by transmission electron microscopy on sixteen (16) air monitoring cassettes submitted on January 6, 1995.

Ecology & Environment, Inc.
Cloverleaf Bldg. 3, 6405 Metcalf
Overland Park, KS 66202 Attn: Ms. Audra Gier

TEST REPORT

The analytical results for the samples submitted are reported on the following pages. The table below contains a summary of results:

SUMMARY OF ANALYTICAL RESULTS:

Sample Identification	E.E.C. Lab No.	Sample Volume (liters)	Asbestos Structures (Struct./cc)	Asbestos Structures (Struct./mm^2)
MLC-001	7831	1389	*ND	0.0
MLC-002	7832	1372	*ND	0.0
MLC-003	7833	1416	*ND	0.0
MLC-004	7834	1260	*ND	0.0
MLC-005	7835	1374	*ND	0.0
MLC-006	7836	1374	**NSS	35.8
MLC-007	7837	1374	**NSS	17.9
MLC-008	7838	1368	**NSS	17.9
MLC-009	7839	1362	*ND	0.0
MLC-010	7840	1359	*ND	0.0
MLC-011	7841	1329	*ND	0.0
MLC-012	7842	1314	*ND	0.0
MLC-013	7843	N/A	*ND	0.0
MLC-014	7844	N/A	*ND	0.0
MLC-015	7845	N/A	*ND	0.0
MLC-016	7846	1206	*ND	0.0

* None Detected
** Not Statistically Significant (One to four asbestos structures detected)

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- CHEMISTRY
- SAFETY

Report No.: 95-01-00043

Sample Identification: MLC-001, Top Of Landfill

EEC Lab No.: 7831

ANALYTICAL INFORMATION:

Sample volume, liters:	1389
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0050
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.018

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-002, S.E. Of Branch Metals

EEC Lab No.: 7832

ANALYTICAL INFORMATION:

Sample volume, liters:	1372
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0050
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.019

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

Structure Composition	Number of structures of each type				
	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

Structure Composition	Length of asbestos structures	
	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-003, SW Parking Lot

EEC Lab No.: 7833

ANALYTICAL INFORMATION:

Sample volume, liters:	1416
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0049
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.018

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-004, West Enc. Commons

EEC Lab No.: 7834

ANALYTICAL INFORMATION:

Sample volume, liters:	1260
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0047
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.017

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-005, West Enc. Commons

EEC Lab No.: 7835

ANALYTICAL INFORMATION:

Sample volume, liters:	1374
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0050
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.019

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-006, Center Of Commons

EEC Lab No.: 7836

ANALYTICAL INFORMATION:

Sample volume, liters:	1374
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	35.8
Analytical sensitivity structures/cc:	0.0050
Asbestos concentration, structures/cc:	**NSS
95% confidence interval, structures/cc:	0 - 0.036

** Not Statistically Significant (One to four structures detected)

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	2	2
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	2	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-007, NE Commons

EEC Lab No.: 7837

ANALYTICAL INFORMATION:

Sample volume, liters:	1374
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	17.9
Analytical sensitivity structures/cc:	0.0050
Asbestos concentration, structures/cc:	**NSS
95% confidence interval, structures/cc:	0 - 0.028

** Not Statistically Significant (One to four structures detected)

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	1	1
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	1	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-008, Demo Area

EEC Lab No.: 7838

ANALYTICAL INFORMATION:

Sample volume, liters:	1368
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0558
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	6
Asbestos concentration, structures/mm^2:	17.9
Analytical sensitivity structures/cc:	0.0050
Asbestos concentration, structures/cc:	**NSS
95% confidence interval, structures/cc:	0 - 0.028

** Not Statistically Significant (One to four structures detected)

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	1	1
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	1	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-009, 941 Marias Back Yd.

EEC Lab No.: 7839

ANALYTICAL INFORMATION:

Sample volume, liters:	1362
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0043
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.016

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

Structure Composition	Number of structures of each type: Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

Structure Composition	Length of asbestos structures: < 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-010, 925 Marias Front Yd.

EEC Lab No.: 7840

ANALYTICAL INFORMATION:

Sample volume, liters:	1359
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0044
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.016

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-013, Field Blank

EEC Lab No.: 7843

ANALYTICAL INFORMATION:

Sample volume, liters:	N/A
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	N/A
Asbestos concentration, structures/cc:	*ND

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-014, Field Blank

EEC Lab No.: 7844

ANALYTICAL INFORMATION:

Sample volume, liters:	N/A
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	N/A
Asbestos concentration, structures/cc:	*ND

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-015, Lab Blank

EEC Lab No.: 7845

ANALYTICAL INFORMATION:

Sample volume, liters:	N/A
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	N/A
Asbestos concentration, structures/cc:	*ND

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

Structure Composition	Number of structures of each type: Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

Structure Composition	Length of asbestos structures: < 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

Sample Identification: MLC-016, 836 Labon Front Yd.

EEC Lab No.: 7846

ANALYTICAL INFORMATION:

Sample volume, liters:	1206
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0049
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.018

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Report No.: 95-01-00043

METHOD:

The air monitoring cassettes submitted were prepared and analyzed for asbestos structure content in accordance with methods contained in 40 CFR Part 763, Appendix A to Subpart E. A transmission electron microscope equipped with an energy dispersive X-ray analysis unit (EDX) was used in the analysis. The asbestos structures were identified by their morphology, selected area electron diffraction pattern and/or EDX spectrum.

Environment & Energy Consultants, Inc. is accredited in the National Voluntary Laboratory Accreditation Program for Asbestos Fiber Analysis (Laboratory ID Number 1072).

This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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Electron Microscopist

Kelly Vaccaro: Kelly Vaccaro
Electron Microscopist

Date Completed: January 13, 1995

Respectfully submitted,

Roman J. Narconis Jr.

Roman J. Narconis, Jr., Mgr.
Electron Microscopy Lab
Microanalytical Lab

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Report No.: 95-01-00043

Sample Identification: MLC-012, Cemetary

EEC Lab No.: 7842

ANALYTICAL INFORMATION:

Sample volume, liters:	1314
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.0651
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	7
Asbestos concentration, structures/mm^2:	0.0
Analytical sensitivity structures/cc:	0.0045
Asbestos concentration, structures/cc:	*ND
95% confidence interval, structures/cc:	0 - 0.017

* None Detected

NOTE: When less than five (5) asbestos structures are detected, the airborne asbestos concentration is best represented by a range of possible values. Refer to the 95% confidence interval.

ANALYTICAL RESULTS:

	Number of structures of each type				
Structure Composition	Fibers	Bundles	Clusters	Matrices	Total
Chrysotile	0	0	0	0	0
Amphibole	0	0	0	0	0

	Length of asbestos structures	
Structure Composition	< 5 micrometers	>= 5 micrometers
Chrysotile	0	0
Amphibole	0	0

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Electron Microscopy Lab

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AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7831 Filter: [4] MCE [ ] PC Pore: 0.45 Analyst SB
Client ID No. MLC-001 Filter Area (mm²) 385 Date 11-1-95
Instrument ID P300#1 Grid ID's 219 F2, F4, F6 Volume 1389
Magnification 20,000X GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 F2 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 F4 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4	NSD											
5	NSD											
6	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: 0.0 Structures/mm² NSD Structures/cc
Analytical Sensitivity: 0.0050 Structures/cc

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Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7832 Filter: |4| MCE | | PC Pore: 0.45 Analyst SD
Client ID No. MLC-002 Filter Area (mm²) 385 Date 1/10/95
Instrument ID P300#1 Grid ID's 219 F8, F10, G1 Volume 1372
Magnification 20,000X GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 F8 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 F10 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4	NSD											
5	NSD											
6	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: 0.0 Structures/mm² NSD Structures/cc
Analytical Sensitivity: 0.0050 Structures/cc

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Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7833 Filter: | ✓ | MCE | | PC Pore: 0.45 Analyst SB
Client ID No. MLC-003 Filter Area (mm²) 385 Date 1/10/95
Instrument ID P300#1 Grid ID's 219 G3, G5, G7 Volume 14/6
Magnification 20,000 X GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 G3 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 G5 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4	NSD											
5	NSD											
6	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

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Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7834 Filter: [ ] MCE [ ] PC Pore: 0.45 Analyst SB
Client ID No. MLC-004 Filter Area (mm²) 385 Date 1/10/95
Instrument ID P300#1 Grid ID's 219 G9, H2, H1 Volume 1260
Magnification 20,000x GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7

Grid ID 219 G9 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 H2 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4	NSD											
5	NSD											
6	NSD											
7	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7835 Filter: |4| MCE | | PC Pore: 0.45 Analyst SB
Client ID No. MLC-005 Filter Area (mm²) 385 Date 1/12/95
Instrument ID P300#1 Grid ID's 219 H6, H8, H10 Volume 1374
Magnification 20,000X GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 H6 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 H8 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
4	NSD											
5	NSD											
6	NSD											

Struct. Type: B = Bundle C = Cluster M = Matrix F = Fiber NSD = No Structures Detected NSS = Not Statistically Significant

Asbestos Concentration: 0.0 Structures/mm² NSD Structures/cc
Analytical Sensitivity: Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7836 Filter: |✓| MCE | | PC Pore: 0.45 Analyst SB
Client ID No. MLC-006 Filter Area (mm²) 385 Date 1/11/95
Instrument ID P300#1 Grid ID's 219 I1, I3, I5 Volume 1374
Magnification 21,000X GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 I1 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1	NSD											
2	1	M	✓		5.3A				✓			
3	NSD											

Grid ID 219 I3 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
4	2	M	✓		5.3A				✓			
5	NSD											
6	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: 35.8 Structures/mm² Structures/cc
Analytical Sensitivity: 0.0050 Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

... Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7837 Filter: | N | MCE | | PC Pore 0.45 Analyst SB
Client ID No. MLC-007 Filter Area (mm²) 385 Date 1/11/95
Instrument ID P300#1 Grid ID's 219 J2, J4, J6 Volume 1374
Magnification 20,000x GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 J2 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 J4 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
4	NSD											
5	NSD											
6	1	M	✓		5.3A				✓			

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: 17.9 Structures/mm² NSS Structures/cc
Analytical Sensitivity: 0.0050 Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7836 Filter: |4| MCE | | PC Pore: 0.45 Analyst SB
Client ID No. MLC-008 Filter Area (mm²) 385 Date 1/11/95
Instrument ID P3C#1 Grid ID's 219 J8, J10, K1 Volume 1368
Magnification 20,000X GO Area (mm²) 00093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 J8 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219 J10 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4	1	M	✓		5.34				✓			
5	NSD											
6	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: 17.9 Structures/mm² NSS Structures/cc
Analytical Sensitivity: 0.0050 Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7839 Filter: [M] MCE [ ] PC Pore: 0.45 Analyst SB
Client ID No. MLC-009 Filter Area (mm²) 385 Date 1/11/95
Instrument ID P300#1 Grid ID's 219K4, K6, K8 Volume 1362
Magnification 20,000x GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7

Grid ID 219K4 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											

Grid ID 219K6 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4	NSD											
5	NSD											
6	NSD											
7	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: 0.0 Structures/mm² ND Structures/cc
Analytical Sensitivity: 0.0043 Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7840 Filter: [1] MCE [ ] PC Pore: 0.45 Analyst KU
Client ID No. MLC-010 Filter Area (mm²) 385 Date 1/13/95
Instrument ID P300#2 Grid ID's 219 K10, L1, L3 Volume 1359
Magnification 20,000 GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7

Grid ID 219 K10 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1		NSD										
2		NSD										
3		NSD										

Grid ID 219 L1 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
4		NSD										
5		NSD										
6		NSD										
7		NSD										

Struct. Type: B = Bundle C = Cluster M = Matrix F = Fiber NSD = No Structures Detected NSS = Not Statistically Significant

Asbestos Concentration: 0.0 Structures/mm² ND Structures/cc
Analytical Sensitivity: 0.0044 Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7841 Filter: | ✓ MCE | | PC Pore: 0.45 Analyst KU
Client ID No. MLC-011 Filter Area (mm²) 385 Date 1/13/95
Instrument ID P300 #7 Grid ID's 219 L5 L7 L9 Volume 1329
Magnification 20,000 GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 L5 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1		NSD										
2		NSD										
3		NSD										

Grid ID 219 L7 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
4		NSD										
5		NSD										
6		NSD										
7		NSD										

Struct. Type: B = Bundle C = Cluster M = Matrix F = Fiber NSD = No Structures Detected NSS = Not Statistically Significant

Asbestos Concentration: NSD Structures/mm² NSD Structures/cc
Analytical Sensitivity: 0.0044 Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7842 Filter: |✓| MCE | | PC Pore: .45 Analyst KJ
Client ID No. MLC-012 Filter Area (mm²) 385 Date 1/13/95
Instrument ID P 300 #2 Grid ID's 219 M2, M4, M6 Volume 1314
Magnification 20,000 GO Area (mm²) 0.00093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 6

Grid ID 219 M2 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1		NSD										
2		NSD										
3		NSD										

Grid ID 219 M4 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
4		NSD										
5		NSD										
6		NSD										
7		NSD										

Struct. Type: B = Bundle C = Cluster M = Matrix F = Fiber NSD = No Structures Detected NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7843 Filter: | ✓ MCE | | PC Pore: 0.45 Analyst KV
Client ID No. MLC-013 Filter Area (mm²) 385 Date 1/13/94
Instrument ID P300#2 Grid ID's 219 M8 M10, N1 Volume NA
Magnification 20,000 GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7 Field Blank

Grid ID 219 M8 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1		NSD										
2		NSD										
3		NSD										
4		NSD										

Grid ID 219 M10 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
5		NSD										
6		NSD										
7		NSD										

Struct. Type: B = Bundle C = Cluster M = Matrix F = Fiber NSD = No Structures Detected NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

... Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7844 Filter: [✓] MCE [ ] PC Pore: 0.45 Analyst SB
Client ID No. MLC-014 Filter Area (mm²) 385 Date 1/13/95
Instrument ID P300#1 Grid ID's 219 N7,N9,02 Volume NA
Magnification 20,000x GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7 Field Blank

Grid ID 219 N7 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											
4	NSD											

Grid ID 219N9 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
5	NSD											
6	NSD											
7	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7845 Filter: | | MCE | ✓ | PC Pore: 0.45 Analyst KU
Client ID No. MLC-015 Filter Area (mm²) 385 Date 1/13/95
Instrument ID P300#2 Grid ID's 219 04,06,08 Volume NA
Magnification 20,000 GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7 Lab Blank

Grid ID 219 04 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
1		NSD										
2		NSD										
3		NSD										
4		NSD										

Grid ID 219 06 EDAX Disk No.

G.O. No.	Structure No.	Structure Type	Length (um) <5	Length (um) >=5	SEAD Obs. Row Dist.	SEAD Obs. Film No.	EDXA Observations Elements Observed	EDXA Observations File No.	Classification Asbestos Chrys	Asbestos Amph	Asbestos Type	Non-Asb.
5		NSD										
6		NSD										
7		NSD										

Struct. Type: B = Bundle M = Matrix NSD = No Structures Detected
C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

Environment & Energy Consultants, Inc.
Electron Microscopy Lab

Report No. 95-01-00043

AIRBORNE SAMPLE COUNT SHEET

EEC Lab No. 7846 Filter: [4] MCE [ ] PC Pore 0.45 Analyst SB
Client ID No. MLC-016 Filter Area (mm²) 385 Date 1/13/95
Instrument ID P300 #1 Grid ID's 219 010, P1, P3 Volume 1206
Magnification 20,000X GO Area (mm²) 0.0093 Comments
Acc. Voltage (kV) 100 No. GO to be analyzed 7

Grid ID 219 010 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
1	NSD											
2	NSD											
3	NSD											
4	NSD											

Grid ID 219 P1 EDAX Disk No.

G.O.	Structure		Length (um)		SEAD Obs.		EDXA Observations		Classification			
					Row	Film		File	Asbestos			Non-
No.	No.	Type	<5	>=5	Dist.	No.	Elements Observed	No.	Chrys	Amph	Type	Asb.
5	NSD											
6	NSD											
7	NSD											

Struct. B = Bundle M = Matrix NSD = No Structures Detected
Type: C = Cluster F = Fiber NSS = Not Statistically Significant

Asbestos Concentration: _____ Structures/mm² _____ Structures/cc
Analytical Sensitivity: _____ Structures/cc

ENVIRONMENT
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CONSULTANTS inc.

• INDUSTRIAL HYGIENE
• ENGINEERING
• MICROSCOPY
• CHEMISTRY
• SAFETY

Report No.: 95-01-00046

January 18, 1995
P. O. No. 99630
TDD #T07-9410-083

Determination of fiber content on two (2) air cassettes submitted.

Ecology & Environment, Inc.
Cloverleaf Bldg. 3, 6405 Metcalf
Overland Park, KS 66202

Attn: Ms. Audra Gier

Dear Ms. Gier,

Attached please find Test Report (ITL 95-01-00036) for samples submitted to Environment & Energy Consultants Inc. on January 6, 1995. The samples were submitted to Industrial Testing Laboratories, Inc. for analysis in accordance with NIOSH Method 7400, "Fibers", Revision #3, Mayn 1989.

If there are any questions, or need of additional information, please contact me at (314) 771-4436.

Respectfully submitted,

William J. Lowry

William J. Lowry, CIH
Vice President, Operations

WL/bjk

2350 S. SEVENTH STREET ST. LOUIS, MISSOURI 63104-4296 (314) 771-4436

INDUSTRIAL TESTING LABORATORIES inc.

Chemical Analysis
Materials Testing
Environmental Evaluation

2350 S. Seventh Street • St. Louis, Missouri 63104-4296
314/771-7111
314/771-9573 FAX

Report: 95-01-00036

January 11, 1995

P. O. No. 99630
TDD #T07-9410-083

Project: Certainteed/Maline Creek

Determination of the fiber content on two (2) air cassettes submitted.

Ms. Audra Gier
Ecology & Environment, Inc.
Cloverleaf Bldg. 3, 6405 Metcalf
Overland Park, KS 66202

TEST REPORT

ITL Number	Volume (Liters)	Fibers Counted	Fields Counted	Density (fibers/mm2)	Concentration (fibers/cc)
148998	1260	2.0	100	2.5	<0.0010
148999	1206	4.5	100	5.7	0.0018

Counting was performed at 400X using Phase Contrast Microscopy in accordance with NIOSH Method 7400, "Fibers", Revision #3, May 1989.

PCM provides an index of airborne fibers. The quantitative working range is 0.04 to 0.5 fibers/cc for a 1000-L air sample. The Limit of Detection depends on sample volume and the quantity of interfering dust, and is less than 0.01 fiber/cc for atmospheres free of interferences. PCM is primarily used for estimating asbestos concentrations, although it does not differentiate between asbestos and other fibers. Fibers less than approximately 0.25 micrometers will not be detected by this method.

Comparability of interlaboratory results can be approximated at 213% above and 49% below the count as the upper and lower confidence limits for fiber counts greater than 20.

Analyst: D-C R

Analysis Completed: 1/10/95

Respectfully submitted,

William J Lowry

William J. Lowry, CIH
Industrial Hygiene Manager

165452

INDUSTRIAL TESTING LABORATORIES inc.

2350 S. Seventh Street • St. Louis, Missouri 63104-4296

Chemical Analysis

Materials Testing

Environmental Evaluation

314/771-7111
314/771-9573 FAX

Report: 95-01-00036

SAMPLE INDEX

ITL Number	Sample Identification
148998	MLC004, 1/5/95, West Enc. Commons, Background
148999	MLC-016, 1/5/95, 836 Laon Front Yd., Background

ENVIRONMENT & ENERGY CONSULTANTS inc.

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Report No. 95-01-00043A

January 18, 1995

Project: Certainteed / Maline Creek

P.O. No. 99630
TDD #T07-9410-083

Determination of asbestos content by transmission electron microscopy on two (2) air monitoring cassettes submitted on January 6, 1995.

Ecology & Environment, Inc.
Cloverleaf Bldg. 3
6405 Metcalf
Overland Park, KS 66202

Attn: Ms. Audra Gier

TEST REPORT

A total of two (2) samples were collected using air monitoring cassettes with 0.80 micrometer pore size, mixed cellulose ester filters.

The analytical results for the samples submitted are reported on the following pages. The table below contains a summary of results:

SUMMARY OF ANALYTICAL RESULTS:

Sample Identification	E.E.C. Lab No.	Sample Volume (liters)	Asbestos Fibers (Counted)	Asbestos Ratio, %
MLC-004	7834	1260	0	0
MLC-016	7846	1206	0	0

Type Of Asbestos Found: None Detected

ENVIRONMENT & ENERGY CONSULTANTS inc.

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Report No.: 95-01-0043A

Sample Identification: MLC-004, West End Commons

EEC Lab No.: 7834

ANALYTICAL INFORMATION:

NIOSH 7402 Method (Asbestos Fibers >5 um, 3:1 aspect ratio)

Sample volume, liters:	1260
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.3720
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	40
Analytical sensitivity fibers/cc:	0.0008
Asbestos concentration, fibers/cc:	None Detected
Asbestos equivalency ratio, %:	0

ANALYTICAL RESULTS:

Number of fibers of each type

Chrysotile	Amphiboles	Non-Asbestos
0.0	0.0	9.5

2350 S. SEVENTH STREET ST. LOUIS, MISSOURI 63104-4296 (314) 771-4436

ENVIRONMENT & ENERGY CONSULTANTS inc.

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Report No.: 95-01-0043A

Sample Identification: MLC-016, 836 Labon Front Yd.

EEC Lab No.: 7846

ANALYTICAL INFORMATION:

NIOSH 7402 Method (Asbestos Fibers >5 um, 3:1 aspect ratio)

Sample volume, liters:	1206
Filter type:	MCE, 0.45 micrometers
Total area analyzed, mm^2:	0.3720
Effective filter area, mm^2:	385
Average grid opening area, mm^2:	0.00930
No. of grid openings analyzed:	40
Analytical sensitivity fibers/cc:	0.0008
Asbestos concentration, fibers/cc:	None Detected
Asbestos equivalency ratio, %:	0

ANALYTICAL RESULTS:

Number of fibers of each type

Chrysotile	Amphiboles	Non-Asbestos
0.0	0.0	1.0

2350 S. SEVENTH STREET ST. LOUIS, MISSOURI 63104-4296 (314) 771-4436

ENVIRONMENT & ENERGY CONSULTANTS inc.

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Report No.: 95-01-00043A

METHOD:

NIOSH 7402 - TEM

The air monitoring cassettes submitted were prepared and analyzed for asbestos structure content in accordance with methods contained in NIOSH Method 7402, NIOSH Manual of Analytical Methods (NMAM), Fourth Ed., 8/15/94. A transmission electron microscope equipped with an energy dispersive X-ray analysis unit (EDX) was used in the analysis. The asbestos structures were identified by their morphology, selected area electron diffraction pattern and/or EDX spectrum.

The analysis results are expressed in percent. This represents a ratio of asbestos fibers found to non-asbestos fibers found in the sample.

Environment & Energy Consultants, Inc. is accredited in the National Voluntary Laboratory Accreditation Program for Asbestos Fiber Analysis (Laboratory ID Number 1072).

This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Susan Barnes: Susan Barnes
Electron Microscopist

Kelly Vaccaro: Kelly Vaccaro
Electron Microscopist

Date Completed: January 13, 1995

Respectfully submitted,

Roman J. Narconis Jr.

Roman J. Narconis, Jr., Mgr.
Electron Microscopy Lab

2350 S. SEVENTH STREET ST. LOUIS, MISSOURI 63104-4296 (314) 771-4436

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- INDUSTRIAL HYGIENE
- ENGINEERING
- MICROSCOPY
- CHEMISTRY
- SAFETY

(1)

NIOSH 7402
TEM SAMPLE COUNT SHEET

Report No. 95-01-00043
ITL Lab No. 7834
Client Sample No. MLC-004
Instrument I.D. EM 300R #2
Magnification 20,000/1,000
Acc. Voltage 100

Filter Type 0.45 MCA
Filter Area 385 mm²
Grid ID's 219 P9, Q2, Q4
GO Area 0.0093 mm²
No. GO to be Analyzed 40

Operator KU
Date 1/13/94
Volume

Grid ID

Disk No.

GO No.	Structure No.	Structure Type	Length < 10 um	Length >= 10 um	ED Observation Chrys.	Amph.	Nonasb.	Neg.	EDAX
219	P9								
1	NSD								
2	NSD								
3	NSD								
4	NSD								
5	1	F	20	0.15			✓		
6	1.5	M	15	2.5			✓		
7	NSD								
8	NSD								
9	NSD								
10	NSD								
11	NSD								
12	NSD								
13	NSD								
14	2.5	F	13.5	1			✓		
14	3.5	M	12.0	0.15			✓		
219	Q2								
15	NSD								
16	4.5	F	5.5	0.2			✓		
17	NSD								
18	NSD								
19	5.5	F	13.5	0.25			✓		
20	NSD								
21	NSD								
22	NSD								
23	NSD								
24	NSD								
25	NSD								
26	NSD								
27	7.5	F	3.5	0.4			✓		
28	6.5	F	5.5	0.5			✓		
28	NSD								

B = Bundle
C = Cluster
F = Fiber
M = Matrix

NSD = No structures detected
N = No diffraction obtained
GO = Grid Opening
Asbestos Concentration: _____

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(2)

NIOSH 7402
TEM SAMPLE COUNT SHEET

Report No. 95-01-00043
ITL Lab No. 7834
Client Sample No. MLC-004
Instrument I.D. EM 300R#2
Magnification 20,000/1,000
Acc. Voltage 100

Filter Type 0.45 MCE
Filter Area 385 mm²
Grid ID's 219 09 02 04
GO Area 0.0093 mm²
No. GO to be Analyzed 40

Operator KU
Date 1/13/95
Volume

Grid ID

Disk No.

GO No.	Structure No.	Structure Type	Length < 10 um	Length >= 10 um	ED Observation Chrys.	Amph.	Nonasb.	Neg.	EDAX
219	Q4								
29	7.0	M	11.0	1.2			✓		
30	8	F	8.0	0.25			✓		
31	NSD								
32	NSD								
33	NSD								
34	8.5	M	20.0	2.25			✓		
35	NSD								
36	NSD								
37	NSD								
38	NSD								
39	NSD								
40	9.0	M	15.0	0.2			✓		
40	9.5	M	19.0	2.0			✓		

B = Bundle
C = Cluster
F = Fiber
M = Matrix

NSD = No structures detected
N = No diffraction obtained
GO = Grid Opening
Asbestos Concentration: _____

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NIOSH 7402
TEM SAMPLE COUNT SHEET

Report No. 95-01-00043
ITL Lab No. 7846
Client Sample No. MLC-016
Instrument I.D. EM 300R #1
Magnification 1,000-20,000X
Acc. Voltage 100KV

Filter Type 0.45um MCE
Filter Area 385 mm²
Grid ID's 219Q6,Q8,Q10
GO Area 0.0093 mm²
No. GO to be Analyzed 40

Operator SB
Date 1/13/95
Volume 1.2016

Grid ID 219Q6,Q8,Q10

Disk No. _____

GO No.	Structure No.	Structure Type	Length < 10 um	Length >= 10 um	ED Observation Chrys.	Amph.	Nonasb.	Neg.	EDAX
219	Q6								
1	NSD								
2	NSD								
3	NSD								
4	NSD								
5	NSD								
6	NSD								
7	NSD								
8	NSD								
9	NSD								
10	NSD								
11	NSD								
12	NSD								
13	NSD								
14	NSD								
219	Q8								
15	NSD								
16	NSD								
17	NSD								
18	NSD								
19	NSD								
20	NSD								
21	NSD								
22	NSD								
23	NSD								
24	NSD								
25	.5	F	29.0	0.5			✓		
26	NSD								
27	NSD								
28	NSD								
29	NSD								
30	NSD								

B = Bundle
C = Cluster
F = Fiber
M = Matrix

NSD = No structures detected
N = No diffraction obtained
GO = Grid Opening
Asbestos Concentration: _____

INDUSTRIAL TESTING LABORATORIES inc.

NIOSH 7402

TEM SAMPLE COUNT SHEET

Report No. 95-01-00643 Cont'd
ITL Lab No. 7846
Client Sample No. MLC-016
Instrument I.D. EM 300R #1
Magnification 1,000-20,000X
Acc. Voltage 100KV

Filter Type 0.45 Hm MCE
Filter Area 385 mm²
Grid ID's 219 06, 08, 010
GO Area 0.0093 mm²
No. GO to be Analyzed 40

Operator SB
Date 11/13/95
VOLUME 1206

Grid ID 219 06, 08, 010

Disk No. _____

GO No.	Structure No.	Structure Type	Length < 10 um	Length >= 10 um	ED Observation Chrys.	Amph.	Nonasb.	Neg.	EDAX
219	010								
31	NSD								
32	NSD								
33	NSD								
34	NSD								
35	NSD								
36	1.0	F	22.0	2.5			✓		
37	NSD								
38	NSD								
39	NSD								
40	NSD								

B = Bundle
C = Cluster
F = Fiber
M = Matrix

NSD = No structures detected
N = No diffraction obtained
GO = Grid Opening
Asbestos Concentration: _____

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Report No. 95-01-00044

January 18, 1995

Project: Certainteed / Maline Creek

P.O. No. 99630
TDD #T07-9410-083

Determination of asbestos content by transmission electron microscopy on twenty-three (23) bulk samples submitted on January 6, 1995.

Ecology & Environment, Inc.
Cloverleaf Bldg. 3
6405 Metcalf
Overland Park, KS 66202

Attn: Ms. Audra Gier

TEST REPORT

Sample Identification	E.E.C. Lab No.	Residue After Ashing	Residue After Acid Extraction	Asbestos Concentration
MLC-017	7847	84.4%	78.5%	None Detected, Less Than 1% If Present
MLC-018	7848	59.9%	51.6%	Chrysotile, Trace, Less Than 1%
MLC-019	7849	84.1%	52.9%	Chrysotile, Greater Than 1%
MLC-020	7850	84.2%	79.3%	Chrysotile, Trace Less Than 1%
MLC-021	7851	75.8%	69.5%	None Detected, Less Than 1% If Present

Sample Identification	E.E.C. Lab No.	Residue After Ashing	Residue After Acid Extraction	Asbestos Concentration
MLC-022	7852	92.9%	90.2%	None Detected, Less Than 1% If Present
MLC-023	7853	84.6%	80.5%	None Detected, Less Than 1% If Present
MLC-024	7854	50.2%	44.0%	Chrysotile, Trace Less Than 1%
MLC-025	7855	85.6%	81.0%	Chrysotile, Trace Less Than 1%
MLC-026	7856	93.6%	90.2%	Chrysotile, Trace Less Than 1%
MLC-027	7857	86.8%	84.0%	Chrysotile, Trace Less Than 1%
MLC-028	7858	96.3%	85.7%	None Detected, Less Than 1% If Present
MLC-029	7859	97.1%	94.6%	None Detected, Less Than 1% If Present

Sample Identification	E.E.C. Lab No.	Residue After Ashing	Residue After Acid Extraction	Asbestos Concentration
MLC-030	7860	95.0%	92.4%	None Detected, Less Than 1% If Present
MLC-031	7861	88.5%	86.4%	None Detected, Less Than 1% If Present
MLC-032	7862	84.8%	81.9%	None Detected, Less Than 1% If Present
MLC-033	7863	96.7%	84.2%	None Detected, Less Than 1% If Present
MLC-034	7864	92.1%	84.6%	None Detected, Less Than 1% If Present
MLC-035	7865	87.2%	81.9%	None Detected, Less Than 1% If Present
MLC-036	7866	84.4%	80.9%	Chrysotile, Trace Less Than 1%
MLC-037	7867	69.7%	63.7%	None Detected, Less Than 1% If Present

Sample Identification	E.E.C. Lab No.	Residue After Ashing	Residue After Acid Extraction	Asbestos Concentration
MLC-038	7868	98.8%	94.8%	None Detected, Less Than 1% If Present
MLC-039	7869	73.5%	42.3%	Chrysotile, Greater Than 1%

Analysis conducted in accordance with SOP-1988-02 Rev. 1; Analysis of Resilient Floor Tile by Eric J. Chatfield.

Susan Barnes: Susan Barnes
Electron Microscopist

Roman J. Narconis: Roman J. Narconis Jr.
Electron Microscopist

Kelly Vaccaro: Kelly Vaccaro
Electron Microscopist

Date Completed: January 12, 1995

Respectfully submitted,

Roman J. Narconis Jr.

Roman J. Narconis, Jr., Mgr.
Electron Microscopy Lab
Microanalytical Lab

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Report No. 95-01-00045

January 12, 1995

P.O. No. 99630
TDD #T07-9410-083

Ecology & Environment, Inc.
Cloverleaf Bldg. 3
6405 Metcalf
Overland Park, KS 66202

Attn: Ms. Audra Gier

Included in this report are test results obtained on two (2) bulk samples submitted on January 6, 1995.

The following information was provided by the client:

Project: Certainteed / Maline Creek

The results are presented as follows:

Exhibit A: Summary of material concentrations reported as a percentage of the entire sample submitted.

Exhibit B: Layer analysis reported separately with microscopist observations and comments

Exhibits A and B should be evaluated for each sample submitted to obtain a complete understanding of analysis performed.

The United States Environmental Protection Agency defines any sample containing greater than one (1) percent asbestos as an asbestos-containing material (ACM) (40 CFR Part 763). Samples determined to have asbestos concentrations greater than one (1) percent are identified in the test results as asbestos-containing materials.

Material content is determined using polarized light microscopy with dispersion staining in accordance with 40 CFR 763, Appendix A to Subpart F, "Interim Method of the Determination of Asbestos in Bulk Insulation Samples," and all current revisions.

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Report No. 95-01-00045

Results reported as trace indicate constituents found at concentrations of less than one (1) percent.

Environment & Energy Consultants, Inc. is accredited in the National Voluntary Laboratory Accreditation Program for Asbestos Fiber Analysis (Laboratory ID Number 1072).

This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

This test report relates only to the item tested.

Analysis By:

Sue Ferrario: Sue Ferrario
Microanalyst

Analysis Completed: January 11, 1995

Respectfully submitted,

William J. Lowry

William J. Lowry, CIH
Vice President, Operations

Lab No.: 7870 - 7871

SF/nm

2350 S. SEVENTH STREET ST. LOUIS, MISSOURI 63104-4296 (314) 771-4436

Section I of Two Sections
Summary

Analyst's Approval : [SF]

Client: Ecology & Environment, Inc.
Report Number: 95-01-00045

TEST REPORT

EEC Number	Sample Identification	
7870	MLC-020, 1/5/95, Soil	
	Asbestos,Chrysotile	Trace
	Cellulose	1-3%
	Mineral Wool	1-3%
	Unspecified Non-Fibrous Mat'l	Greater than 95%
7871	MLC-025, 1/5/95, Soil	
	No asbestos detected (less than 1% if present)	
	Cellulose	5-10%
	Mineral Wool	1-3%
	Unspecified Non-Fibrous Mat'l	80-90%

Section II of Two Sections
Individual Layer Analysis

Analysts's Approval: [ ]

Client: Ecology & Environment, Inc.
Report Number: 95-01-00045

EEC Number: 7870
Identification: MLC-020, 1/5/95, Soil
Dominant Color: Brown
Gross Sample Appearance: Homogeneous, Non-Fibrous
Sample Type: Dirt

Layer Number: 1 General Description: Powder
Percent of Total Sample: 100%

Material Content	
Asbestos,Chrysotile	Trace
Cellulose	1-3%
Mineral Wool	1-3%
Unspecified Non-Fibrous Material	Greater than 95%

Section II of Two Sections
Individual Layer Analysis

Analysts's Approval: [SF]

Client: Ecology & Environment, Inc.
Report Number: 95-01-00045

EEC Number: 7871
Identification: MLC-025, 1/5/95, Soil
Dominant Color: Brown
Gross Sample Appearance: Homogeneous, Non-Fibrous
Sample Type: Dirt

Layer Number: 1 General Description: Powder
Percent of Total Sample: 100%

Material Content	
No asbestos detected (less than 1% if present)	
Cellulose	5-10%
Mineral Wool	1-3%
Unspecified Non-Fibrous Material	80-90%

Observations & comments: A portion of the sample was ashed for analysis.

ATTACHMENT D

<<PHOTOLOG>>

Ecology and Environment, Inc.

Photographic Record

Client: U.S. EPA REGION VII
Camera Make: OLYMPUS OM77AF

E & E Job No.: ZT3071
Serial No. : 1047439

SITE NAME: CertainTeed/Maline Creek
SITE LOCATION: Bellefontaine Neighbors, Missouri
TDD/PAN No.: T07-9412-016/EMO0307SEA

Photographer: Kinroth
Date/Time : 01/05/95 08:36
Lens: Type: 50 mm
Serial No.: 1063023
Frame No. : 1
Direction : N
Comments :
Air monitoring technicians setting up sampling pump in front yard - 925 Marias

Photographer: Kinroth
Date/Time : 01/05/95 08:46
Lens: Type: 50 mm
Serial No.: 1063023
Frame No. : 2
Direction : W
Comments :
Air sampling pump set up/ configuration at field #5 Surrey Lane Athletic Assn.

<<PHOTOLOG>>

Ecology and Environment, Inc.

Photographic Record

Client: U.S. EPA REGION VII
Camera Make: OLYMPUS OM77AF

E & E Job No.: ZT3071
Serial No. : 1047439

SITE NAME: CertainTeed/Maline Creek
SITE LOCATION: Bellefontaine Neighbors, Missouri
TDD/PAN No.: T07-9412-016/EMO0307SEA

Photographer: Kinroth
Date/Time : 01/05/95 15:50
Lens: Type: 50 mm
Serial No.: 1063023
Frame No. : 3
Direction : ESE
Comments :
Transite pipe/material etc. eroding from Maline Creek-bank along the landfill area on former CertainTeed property

Photographer: Kinroth
Date/Time : 01/05/95 16:35
Lens: Type: 50 mm
Serial No.: 1063023
Frame No. : 4
Direction : NW
Comments :
Commons area along Maline Creek behind subdivision west of site

<<PHOTOLOG>>

Ecology and Environment, Inc.

Photographic Record

Client: U.S. EPA REGION VII
Camera Make: OLYMPUS OM77AF

E & E Job No.: ZT3071
Serial No. : 1047439

SITE NAME: CertainTeed/Maline Creek
SITE LOCATION: Bellefontaine Neighbors, Missouri
TDD/PAN No.: T07-9412-016/EMO0307SEA

Photographer: Kinroth
Date/Time : 01/05/95 16:32
Lens: Type: 50 mm
Serial No.: 1063023
Frame No. : 5
Direction : E
Comments :
FEMA demolition area SW of site at end of Marias and Lebon Streets

Photographer: Kinroth
Date/Time : 01/05/95 16:40
Lens: Type: 50 mm
Serial No.: 1063023
Frame No. : 6
Direction : S
Comments :
FEMA demolition area SW of site at end of Marias and Lebon Streets