MINERVA ENTERPRISES, IN Ticket # 247023 9000 Minerya Rd. P.O. Box 709 Date: 09/07/2011 Waynesburg, OH 44888 Customer Name Time 7.34:10 AM Ph: 330-888-3435 Fax 330-866-3468 2C15101 Customar# -70,000 Gross Weight Transporterr Kurtz Brothers Tare Weight Truck Type Tandem dump Net Weight(tons): Volume Recieved(yards) Truck License # 35 165 Waste Type Location Frable Asbestos OH, Euclid Minerya Job # Generator. Former Cleveland ME REP/P O # Accepted: If No, this material was rejected for the following reasons. Yes

L certify that all materials meet Stark County/effic EPA specifications.

This certifies that the waste specified on this tricket has been properly disposed of in accordance with all local, state and federal regulations.

06094

# PRECISION ENVIRONMENTAL CO.

REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD RO, Waste, Asbestos, 9, NA2212, PGIII I. Work site same and mailing address Owner's telepho Owner's same PRY THURS, INUSTEE FURNICE CLEVELAND TRANCHER 30-762-7317 20100 ST CLAIR AVE I CUITER AVE KRUR, DA 44305 EUCLID, EM 105205 Operators's tele (216) 642 6040 2. Operator's manu and address PRECISION ENVIRONMENTAL CO. 5500 Old Brecksville Road. Independence, Ohio 44131 WDS plane ma 3. Waste disposed the (WDS) name, making address, and physical site location 230-868-3435 SINERVA ENTERPRISES 9600 HINERYA ED VATHESDURA, OH 44688 6. Name, and address of responsible sourcey (Local, District or EPA office where notification was sent) LEVELAND DIV OF AIR, 75 ERIEVIEW PLOZA, CLEVELAND, DR 5. Description of materials ACM BUILDING DERAK OHMP. Ten 8. Special hearting instructions and sublishmal information EMERGENCY CONTACT: PRECISION ENVIRONMENTAL (216) 642-6040 9. OPERATOR'S CENTIFICATION: I hereby decises that the castelle of this consignment are fully said accurately des 19 and are classified, packed, neurized and Indeled, and are in all respects to proper condition for trac eni and government regulations TONG (MUDDINY) Transporter 1 (Astronomical present of receipt of presentals) Transporter 2 (Actionledgmont of receipt of materials)
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1 Inhading Area - Pink

Omeleles .. White

Project Site - Gold

MINERVA ENTERPRISES, IN Ticket # 247086 9000 Minerva Rd. P.O. Box 709 Date 09/07/2011 Waynesburg, OH 44688 Customer Name Ph: 330-886-3435 Tima 1:44:34 PM Fax: 330-868-3466 Customar # Gross Weight. 76,000 Transporter: Kurtz Brothers Tare Weight 31,000 Truck Type Tendem dump Net Weight (tons): Truck License # Volume Recieved(yards) 165 Location OH, Euclid Waste Type Frieble Asbestes Generator # doL syreniM Former Clay aland ME REPIP 0 # Accepted: Yes If No, this material was rejected for the following reasons. Minerya Enterprises Representative I certify that all materials meet Stark County/onlio EPA specifications This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

248815 , 06176

REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD RQ, Waste, Asbestos, 9, NA2212, PGIII

	20100 ST CLAIR	Owner's name ARY THOMAS, PL COTTER AVE MRON, OR		Owner's telephone number 330 – 752 – 7377
GENE	2. Operator's name and address PRECISION ENVIRONMENTAL CO. S100 Old Brecksville Road. Independence, Ohio #4131			Operators's telophung number (216) 642 6040
4.	3. Waste dispusal the (WDS) name, mailing address, and phys MINERVA ENTERPRISES 9000 MINERVA ED WAYNESSURG, OH 4:1688	ica) site location	,	WDS phose number 330 –866-3435
	4. Name, and address of responsible agency (Local, District or CLEVELAND DIV OF AIR. 75 ERIRVIEW PL	ETA effice where no ARA, CLEVELA	diffication was sent) ND , ON	÷
	5. Description of materials	6. Con	tainers Type	2, Total quantity outlie maters or cubic yards
	ACM BUILD!N'S DEBRIS		DUMPSTER	20 YAR DS
+	R. Special bandling instructions and additional information  EMERGENCY CONTACT: PRECISION ENVIRO	ONMENTAL (210	5) 642-6040	
	9. OPERATOR'S CERTIFICATION: I heroby decisive that it proper slipping name and are classified, packed, marked and according to applicable international and government regular terrational and te	iabeled, and are in all ions		
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R R	Transporter 2 (Acknowledgment of receipt of materials)     Address and telephone as	IND 25	DENCE OH	
	Printedtypes came Title	Signature		Date (M/DD/YY)
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S 1 T E	13. Weste disposal site owner or operator. Certification of re    Continue   Continue	ecipt of dishesins mate	ertals by this manifest	except as noted in item  O // // Date (M/DD/YY)

Precision - White

Transporter - Yellow

Unloading Area - Pink

Project Site - Gold

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JLLP-PRECISION 000213

JINERVA ENTERPR 1980 Minero Rd. (7.0.) Veyneskug, OH 4:1989 Pr. 330-898-3469 Fax: 330-898-3469	Elox 709	or Name mental Company	Ticket & Dete: Time:	248814 10/11/2011 2:46:24 PM
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Location:	OH, Euslid	Weste Type."	Friebb As	bestos
Generator.	Former Cleveland	Minerya Job K ' a	/e <sup>r</sup> eucild,oh <sup>m</sup> -sc	
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Accepted:	Yes U No; this material v	ies rejected for the following res	sons.	4
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Driver.	Y		. \ \/\	KAH.
County that Expandicular		Minama Enterprises Représer s certifies that the waste specifi posed or in secondance with all	T madesper	AHIV

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PRECISION ENVIRONMENTAL CO.
REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD
RQ, Waste, Asbestos, 9, NA2212, PGIU

	20100 ST CLAIR	Owner's name SARY THOMAS, 71 COTTER AVI ALCRON, CH	1 1	Owner's telephone another 330 –762 –7377
GENER	2. Operator's name and address PRECISION ENVIRONMENTAL CO. 5500 Old Breeksville Road. Independence, Ohio 44   3			Operators's tolepisone number (2 16) 642 6040
ATOR	3. Whate disposal site (WOS) name, molling address, and plays in the Carlon of the Car	alcal site locution	,	WDS phoue number 930 -666 -3435
	4. Name, and address of responsible agency (Local, District or CLEVELAND DIV OF AIR, 75 ERIEVIEW SI	r EPA office where no ASA , CLEVELA	iffication was sent) ND , (DH	,
	5. Description of materials	6. Con Number	tuinera	7. Total quoudity
	ACM BUILDING DEBRIS		DONPSTED	eable meters or cubic yards
	8. Special handling instructions and additional information EMERGENCY CONTACT PRECISION ENVIR	<u> </u>	i	
	9. OPERATOR'S CERTIFICATION: I hereby declare that a proper shapping name and are classified, packed, marked and scending to applicable international and government regular printed hypes share.  Printed hypes share	be contents of this con labeled, and are in al loss	isignment are fully or	
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S	Printent syped name Title	KURTZ S		Date (M/DD/XY)
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W. A S T				
3	Victim locals	ceipt of usivestos mate	erials by this manifest	Except as no tod by item ,

Precision - White

Transporter - Yellow

Unloading Area · Pink

Project Site - Gold

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JLLP-PRECISION 000216

MINERVA ENTERPRISES, IN 9000 Minerva Rd. P.O. Box 709 Waynesburg, OH 44888 Ph 330-868-3436 Fax 330-868-3488	Customer Name	Ticket # 247126 Date: 09/08/2011 Time: 8:48:24 AM
Customer # 806 20 C Transporter: Kurtz Brothers Truck Type Trailer dump Truck License # 187 Location: OH, Euclid Generator Former Claveland	Gross Weight Tare Weight: Net Weight(tons): Volume Recieved(yards): Waste Type Minery a Job #	0 70,000 0 34,000 you 0 187 on Frieble Asbestos
ME REP/P.O.# kill Accepted: Yes If No.  Driver: Accepted: Yes If No.  Learning that all meterials meet Stark Country/onio EPA specifications	this material was rejected for the following reasons  Minerva Enterprises Representative  This certifies that the waste specified or disposed of in accordance with all local,	. Hela

PRECISION ENVIRONMENTAL CO.

06097 1124

REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD (
RQ. Waste, Asbestos, 9, NA2212, PGHI

FURMER CLEVELAND TRENCHER 20100 ST CLAIR AVE	Owner's name BY THOMAS L COUTER A CHOS, OH S	YE .	Owner's telephone number 330 - 762 - 7377
2. Operator's name and address PRECISION ENVIRONMENTAL CQ 2011 5500 Old Brecksville Rold, Independence, Obio 44131	\$C+3)T(\$		Operators's telephone number (216) 642-6040 76,000
3. Waste disposal site (WDS) name, mailing address, and physic MINERVA ENTERPRESES FORD MINERVA RD BATTERSURE, CO 44688	al site location		WDS phone number 210-866-3435
4. Name, and address of responditie agency (Local, District of I LEVELAND DIV ON AIR, 75 PRIETIES PLA			
5. Description of materials	6. C	ontainers Type	7. Total quantity cubic meters or cubic yards
ACM BUILDING DEBRIS	1	DOMP TRUCK	60 YARDS
<del>A</del>	بمجنبك		
is a remaining and a section beautiful.		4	
9. OPERATOR'S CERTIFICATION: I hereby declare that the proper shipping name and six classified, packed, murked said is according to applicable international and government regulation.  **EVENT ATES SUPERUS Trinfol/typed name.	contents of this c	analgoraent are fully ac	
10. Transporter 1 (Acknowledgment of receipt of materials) Address and selephone 10.  David I Million Driver Printed/sydd name	Signature	id f. Mil	1 9-7-11 Date (M/DD/YY)
11. Transporter 2 (Acknowledgment of receipt of materials) Address and telephone no		ERCOS ALMOREN RO NEDROMOR CRIT 4403	r,
Printed/typed name Title	Signature		Date (M/DD/YY)
12. Discrepancy indication space		1 m 2	
13. Wasted disposal site owner or operator. Certification of received to the state of the state	pt of subestos mu Signature	LXOL	except as noted in item  Date (M/DD/YY)

Precision - White

Transporter - Yellow

Unloading Area - Pink

Project Site - Gold

Oct 31 2011 3:38PM

Shipper: KBI EPG-NOH (ZZ120) 6415 GRANGER ROAD INDEPENDENCE OH (216) 988-7000

Trip Summary Sheet 9/7/2011 11.55:32 Order# 138880 Movement: 139171

Consignee: PRE1003-0964 (PR2205) 20100 ST. CLAIR AVE CLEVELAND TRENCH CLEVELAND, OH (000) 000-0000

Segment Ref:

Tractor: K0187

Ref#

REF 11249.0056-008

Trip Segment: 148640

SOPNUM 120S00493474

REF 11249.0056-C

Page 1/1

Driver 1: MILDA MILLER, DAVID Driver 2: UNKNOWN UNKNOWN

Status: Dispatcher

Remarks:

Order # 138880 - HAULING MATERIAL TO MINERVA [NET30: 425.61000]

Truck Attribute: 6 AXLE, QUAD, SE

Haul: UNKNOWN

BILTO: PRECISION ENVIRONMENTAL CO. (PRE1003) 5500 OLD BRECKSVILLE ROAD INDEPENDENCE OH

(216) 642-6040

Weight Cmd Description Miles Earliest Date Latest Date Arrival Date Est Freight Ref#s Event LLD 1 EA 0 UNK 11003000 CARTAGE ONLY-KB 09/05 06:28 09/06 06:29

UNKNOWN Trailer 1:

Trailer 2: UNKNOWN

KBI EPG-NOH (ZZ120) 6415 GRANGER ROAD INDEPENDENCE, OH (216) 986-7000

Weight Gmd Miles Earliest Date Latest Date Arrival Date Est Event Count Description Freight Ref#s LUL 8 09/06 06:30 09/06 16:30 1 EA 0 UNK 11003000 CARTAGE ONLY-KB Tratler 1: UNKNOWN

Trailer 2:

UNKNOWN

PRE1003-0984 (PR2205) 20100 ST. CLAIR AVE **CLEVELAND TRENCH** CLEVELAND, OH (000) 000-0000

Total Miles:

Load Requirements:

MINERVA ENTERPRISES, IN		Ticket # 24	7024
9000 Minerya Rd P.D. Bex 709		Data 09/07/2	70.00
The Comment of the Co	ustomar Name	Time: 7:34:0:	
Ph 330-856-3435	unz Brotheys	113410	2 (5.00)
Fax: 330-868-3468	Rucision		
Customer# 308 224 MCh	Gross Weight	<del>-</del> -70.	000
Transporter Kunz Brothers	Tare Walght	- 34	.000
Truck Type Tandem dump	Net Weight(tons).	18	TON
Truck License # 184	Volume Reclaved(yards)	36	
Location: OH, Euclid	Waste Type.	Friable Asbastos	~ 7
Generator Former Claveland	Minaya Job #	2500	7-1
ME REP/P.O.# kil			
Accepted Yes If No, this ma	aterial was rejected for the following	reasons.	
onver Das gellin	Que Minary a Enterprises Repre	sentative:	dan
i certify that all materials meet Stark County/obio EPA specifications	This certifies that the waste spe disposed of in accordance with	scified on this ticket has been pr all local, state and federal regula	objerly

06092

REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD 247021

p.3

	2 1 1 1 1 1 1 1	Owner's name	Owner's telephone number
OPPER CLIVELAND TRENCHER BISO ST CLAIR AVE UCLID, ON 105205		CARY TRUMAS, TRUSTLE V1 COTTER AVE AURON, OR 44305	330-762-7377
2. Optrater's same and address PRECISION ENVIRONMENTAL: CO. S 5500 Old Brecksville Real. Independence; Ohio 4413	121 M	MUSION	Operators's telephone number (216) 642 6040
			18700
3, Waste disposal site (WD)) same, misling CLAPEVA ESTERPECTIES 2009 MINERVA RD FATREEUURG, OR 41 606	g scharess, and plays	etcal rike kicartion	WDS phone number 336-866-3435
4. Name, and address of responsible agence LEVELAND DIV OF AIR. 75. )			- X -
5. Description of materials		6, Containers Namber Type	7. Total quantity subjected in the control of the c
ACM BUILDING D	EBRIS.	1 DUMPTA	CUCK 35 YAARS
		i i i	
8. Special handling instructions and additi			
EMERGENCY CONTACT: PREC  9. OPERATOR'S CERTIFICATION: I her proper shipping name and are classified, go according to applicable international and g  KENNY YNTES	CISION ENVIR	by containts of this consignment are to labeled, and are in all respects in pro- lons	
EMERGENCY CONTACT: PREC 9. OPERATOR'S CERTIFICATION: I has proper shipping name and are classified, pa according to applicable international and g	TISION ENVIR	he contexts of this consignment are to labeled, and are in all respects in pro-	per condition for transport by highway
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# 06050

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# PRECISION ENVIRONMENTAL CO.

# REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD

RQ, Waste, Asbestos, 9, NA2212, PGIII

				01100
1. Work site name and mailing addre	ess	Owner's name		Owner's telephone number
FORMER CLEVELAND THEN 20100 ST CLAIR AVE EUCLID, OR 1105205	CHER	GARY THOMA: 71 COTTER: AKRON OH		330-762-7377
Operator's name and address     PRECISION ENVIRONMENTAL (     5500 Old Brecksville Road.     Independence, Ohio 44131	CO.			Operators's telephone number (216) 642 6040
3. Waste disposal site (WDS) name,	mailing address, and phy	sical site location		WDS phone number
MINERVA ENTERPRISES 9000 MINERVA RD WAYNESDURG, OH 44588				330-865-3435
4. Name, and address of responsible	agency (Local, District o	or EPA office where i	notification was sent)	
CLEVELAND DIV OF AIR	, 75 ERIEVIEW	Carrot Southern Breakfiller Ch	TOTAL TOTAL	
5. Description of materials		6. Co	ontainers Type	7. Total quantity cubic meters or cubic yards
ACM BUILDING	G DEBRIS	1	DUMP STER	30YARDS
450				, , , , , , , , , , , , , , , , , , , ,
9. OPERATOR'S CERTIFICATION proper shipping name and are classif according to applicable international Printed/typed name	N: I hereby declare that t fied, packed, marked and	he contents of this co	onsignment are fully an	
10. Transporter I (Acknowledgmen Address and telephone no		1	the dy	9-9-(1 Date (M/DD/YY)
11. Transporter 2 (Acknowledgmen Address and telephone no	t of receipt of materials)	9413-01 INDER	RANGER FO MIDENCE, OH 441	35.
Printed/typed name	Title	Signature		Date (M/DD/YY)
Printed/typed name  12. Discrepancy indication space	Title	Signature		Date (M/DD/YY)

Precision · White

Transporter - Yellow

Unloading Area · Pink

Project Site · Gold



MINERVA ENTERPR 9000 Minerya Rd. P.O. Waynesburg, OH 44886 Pm 330-866-3435 Fax: 330-866-3486	Box 709	Customer Name n Environmental Company	Ticket # Dete: Time:	247205 09/09/2011 9:49:27 AM	
Customer #	224	Gross Weight:	5218	0	
Transporter	Southside Emilion	Tare Weight	4064	0	
Truck Type:	Trailer dump	Nat Weight(tons):	5.7	7	
Truck License #	S3	Volume Recieved(yards)		90	
Location.	OH, Euclid	Waste Type	Friable A	sbestos	
Generator: ME REP/P 0 #	Former Cleveland	Minerva Job #	200	0	
Accepted:	Yas If No, this	material was rejected for the following rea	isons.	-	
Driver: County/ohio EPA sp		Minewa Enterprises Represer This certifies that the waste specifications disposed of in accordance with all	ied on this ticket	Duyuu has been properly ideral regulations.	

# PRECISION ENVIRONMENTAL CO. REGULATED ASBESTOS MATERIAL: EPA WASTE SHIPMENT RECORD

RQ, Waste, Asbestos, 9, NA2212, PGIII

<u>-</u>	iste, Asbestos, 9, NA2212, PGIII	207994
1. Work site name and mailing address CLEVELAND TRENCHER 20100 ST CLAIR CLEVELAND, OH 1105205	Owner's name  DARY THOMAS, TRUSTEN  FI COTTER AVE  AKRON, OH	Owner's telephone number E 330 - 762 - 7377
2. Operator's name and address PRECISION ENVIRONMENTAL CO. 5500 Old Brecksville Road. Independence, Ohio 44131		Operators's telephone number (216) 642 6040
3. Waste disposal site (WDS) name, mailing address MINERVA ENTERPRISES 9000 MINERVA RD WAYNESDURG, OH 44588	ss, and physical site location	WDS phone number 330-866-3435
4. Name, and address of responsible agency (Local CLEVELAND DEV OF AIR, 75 ERREV	District or EPA office where notification wa	is sent)
5. Description of materials  ACM BUILDING DES	6. Containers Number Type BRIS   Dumps	The second secon
8. Special handling instructions and additional information EMERGENCY CONTACT: PRECISION  9. OPERATOR'S CERTIFICATION: I hereby decorproper shipping name and are classified, packed, m according to applicable international and government of the property of the printed/typed name.	I ENVIRONMENTAL (216) 642-6040 clare that the contents of this consignment are carked and labeled, and are in all respects in p	e fully and accurately described above by
10. Transporter 1 (Acknowledgment of receipt of n Address and telephone no  STEVE FEWER  Printed/typed name  Title  11. Transporter 2 (Acknowledgment of receipt of n Address and telephone no	naterials)  OCP Signature ANGER	9/22//1 Date (M/DD/YY)
Printed/typed name  Title  12. Discrepancy indication space	Signature	Date (M/DD/YY)
13. Waste disposal site owner or operator, Certification of the Printed types hame.	ation of receipt of asbestos materials by this r	Date M/DD/V/)



000 Minerys Rd. P.O. Veynasburg, OH 44666 h: 330-868-3435 ax: 330-868-3488		Customer Name  Environmental Company	Deta:	247994 09/24/2011 7:44:40 AM
Customer#	224	Gross Weight:	77800	
Transporten	Cooper Disposal	Tare Weight:	32500	
Truck Type:	30 cuyd Roll-off	Net Weight(fons)	22.65	
Truck License #	01	Volume Recieved(yards):	30	
Location	OH, Cleveland	Waste Type.	de	Asbestos
Generator	Cleveland Trencher	Minerva Job #	2000	
ME REP/P 0 #	ydh			
Accepted	Yes If No, this i	material was rejected for the following re	esons.	
Driver.  I certify that all mate County/ohio EPA spi	rials meet Stark	Minery's Enterprises Represe This cartifies that the waste specificacy with all	had on this ticked but	been properly

# EXHIBIT 4

2812 Shakercrest Blvd. Beachwood, Ohio 44122 Phone (216) 378-0997 FAX (216) 464-6290

## ASBESTOS MONITORING REPORT

# CLEVELAND TRENCHER 20100 St. Clair Ave Euclid, Ohio

## Prepared For:

Precision Environmental Company 5500 Old Brecksville Road Independence, Ohio 44131

## Prepared By:

## RCS Environmental Group, Ltd.

2812 Shakercrest Blvd, Beachwood, Oho 44122 (216) 378-0997

Date:

October 31, 2011

Project No.

201128

### CERTIFICATE OF ACCURACY AND COMPLETENESS

RCS Environmental conducted the Asbestos Monitoring in a manner consistent with sound engineering practice and with professional judgment. The conclusions and recommendations presented in the Asbestos Monitoring Report are based on the level of effort and investigative techniques defined under the scope of work by Precision Environmental and RCS Environmental. No other warranty or guarantee, expressed or implied, is made.

Qualified consultants performed the sampling and analysis with diligence and in accordance with regulatory and/or accepted industry practice. RCS Environmental Group, Ltd. certifies that the information presented herein is accurate and complete as described.

I certify that I have reviewed this document:

Michael Schmidt, CIH,

President



Cleveland Trencher

## TABLE OF CONTENTS

<u>SECTIONS</u>		Page Number
Summary Re <sub>l</sub>	port	Ĩ
Section I	Summary of Asbestos Abatement Work	2
Section II	Description of Protective Controls	2
Section III	Air Sampling Plan	3
Section IV	Comments and Follow-up Action	4

## **SECTION**

Section 1	TEM Air Monitoring Data Sheet
Section 2	PCM Air Monitoring Data Sheet
Section 3	Daily Field Logs
Section 4	Certifications

2 (\$)

## ASBESTOS AIR MONITORING SUMMARY

Consultant: RCS Environmental Group, Ltd.

2812 Shakercrest Blvd. Beachwood, Ohio 44122

Contractor: Precision Environmental Company

5500 Old Brecksville Road Independence, Ohio 44131

Location: Cleveland Trencher

20100 St. Clair Ave.

Euclid, Ohio

Scope of Work: Removal of asbestos debris from abandon concrete pads

from demolished buildings and soil.

Project Monitors: Michael Schmidt, CIH

Ohio Department of Health

Asbestos Hazard Evaluation Specialist

Asbestos Project Designer

Cecil Brannon

Ohio Department of Health

Asbestos Hazard Evaluation Specialist

Project Date(s): August 23 through October 4, 2011

S

### I. Summary Asbestos Abatement Work

The asbestos decontamination work performed during this project consisted of the following:

The former Cleveland Trencher property (20100 St. Clair Ave.) is located on 14 1 acres including 140,000 square feet of building in the heart of Euclid's industrial zone.

From the 1920s until around 2000, the site was used by Cleveland Trencher to fabricate, paint and assemble metal components for trenching and excavating equipment. In 2007, asbestos abatement of the property was initiated and demolition of several buildings was conducted by others. The asbestos abatement activities were deemed inadequate and the project has halted. Asbestos remained in existing buildings, on the ground, and on the demolished building concrete pads. The US EPA reports indicate that OEPA found not only asbestos at the location, but also 120 drums and containers of materials, primarily lead paints, oils, and solvents.

Precision Environmental was contracted to finish the abatement activities abandoned by others. This included the completion of the asbestos abatement activities and the proper removal and disposal of the identified drums.

## II. Description of Protective Controls

A. <u>Decontamination Facility</u>: A Decontamination Facility (DF) was constructed within the Support Zone of the project. The DF consisted of a clean room, shower room, and an equipment (dirty) room. Each chamber was separated by air locks using a series of polyethylene flaps and/or doors.

All workers were required to decontaminate each time they left the work area. All equipment was showered out or wet wiped before being removed from the decontamination facility Wastewater was removed from the shower by a two-stage filtering pump fitted with a 5-micron final filter

A separate area was constructed for the decontamination of the waste trucks. A concrete pad was constructed with a drain for wastewater 

Each truck had its tires and under carriage washed with water from pressure washers before leaving the project site. All wastewater was collected and filtered by a two-stage filtering pump fitted with a 5-micron final filter

B. Personal Protective Equipment: During removal activities workers donned half-face air purifying respirators equipped with High Efficiency Particulate Air (HEPA) filters. In addition, workers wore full body Tyvek suits with head and foot coverings. Safety equipment also included the use of safety glasses and work boots. All personal protective equipment was disposed of or decontaminated prior to the worker leaving the work area.

ge 2 S

Cleveland Trencher

## III. Air Sampling Plan

The Asbestos Sampling Plan (ASP) was used as a guide for the abatement and cleanup activities being conducted at Cleveland Trencher The ASP is the framework for conducting environmental monitoring during a complex asbestos abatement project.

The ASP determined the exposure pathways of potential receptor populations. It was important to consider multiple pathways, age and duration of exposure of said populations.

The site location is located in an industrial area with a significant portion of the buildings being vacant. Directly east southeast, is a large grassy/wooded area. No residential properties are located in the immediate area of the project work area. Based on visual inspections of field conditions the follow distinct receptor populations were considered:

- Asbestos Workers
- Authorized Visitors to the Site
- Inspectors
- Down Wind Occupants of Industrial Buildings.

### A. Air Monitoring General

All laboratory analysis was conducted by International Asbestos Testing Laboratories (IATL). IATL is certified by AHIA and NAVLAP. All samples were sent to the laboratory under Chain of Custody procedures. All sampling equipment was calibrated daily in the field with a rotameter which has been calibrated by a primary standard.

## B. <u>Daily Perimeter Air Monitoring</u>

Perimeter Air Monitoring was conducted on a daily basis. Perimeter samples were collected upwind from the days planned abatement work. In addition, samples were collected within the Support Zone of the project. Additional perimeter samples were collected downwind as close to the day's work area as possible. The exact location of the perimeter sampling was determined daily based on wind direction and planned abatement activities.

All perimeter sampling was conducted using 25 millimeter mixed cellulose ester cassettes (MCE) with a pore size of 0.8 micrometers. Samples were analyzed using the NIOSH Method 7400 Phase Contrast Microscopy (PCM) techniques.

Any PCM result greater than 0.005 fibers per square centimeter was further analyzed using NIOSH Method 7402. The NIOSH 7400 Method uses a transmission electron microscope (TEM) for the specific determination of asbestos fibers and bundles. The NIOSH 7402 method uses the fiber counting rules of the NIOSH 7400 PCM method (PCMe), therefore a more direct correlation can be made between the two methods.

All perimeter air monitoring results were less than 0.005 fibers per cubic centimeter of air

Cleveland Trencher Page 3

#### C. **Daily Personal Air Monitoring**

RCS Environmental conducted personal air monitoring of the abatement contractor's personnel. Samples were conducted on approximately 25% of the contractor's workforce. Personal samples were collected using calibrated low flow pumps. Samples were analyzed using the NIOSH 7400 PCM method. Samples were collected in a manner consistent with OSHA regulations for determining a Permissible Exposure Limit (PEL) and a 30-minute excursion limit.

All personal air monitoring results were below the OSHA PEL of 0 10 f/cc.

#### D. **Final Clearance Evaluation**

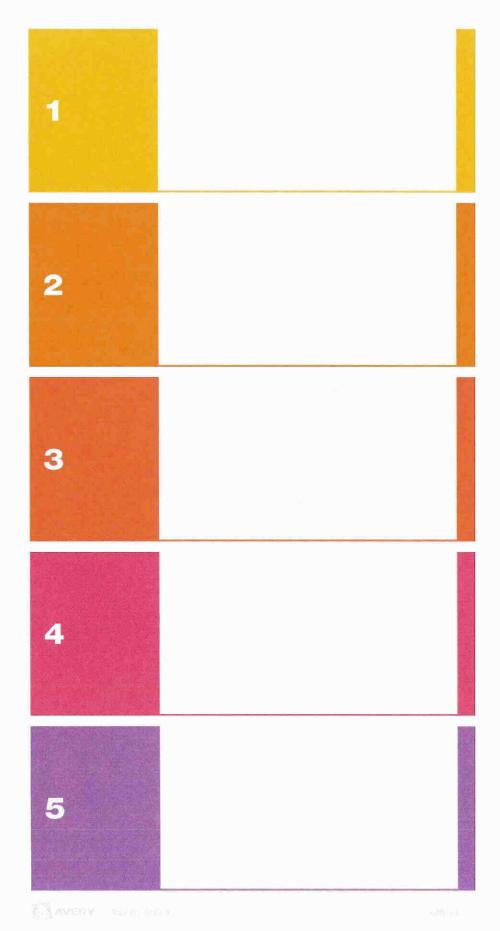
All work areas were visual inspected by an ODH certified Asbestos Hazard Evaluation Specialist. The inspection was thorough and complete as to identify any remaining asbestos dust or debris.

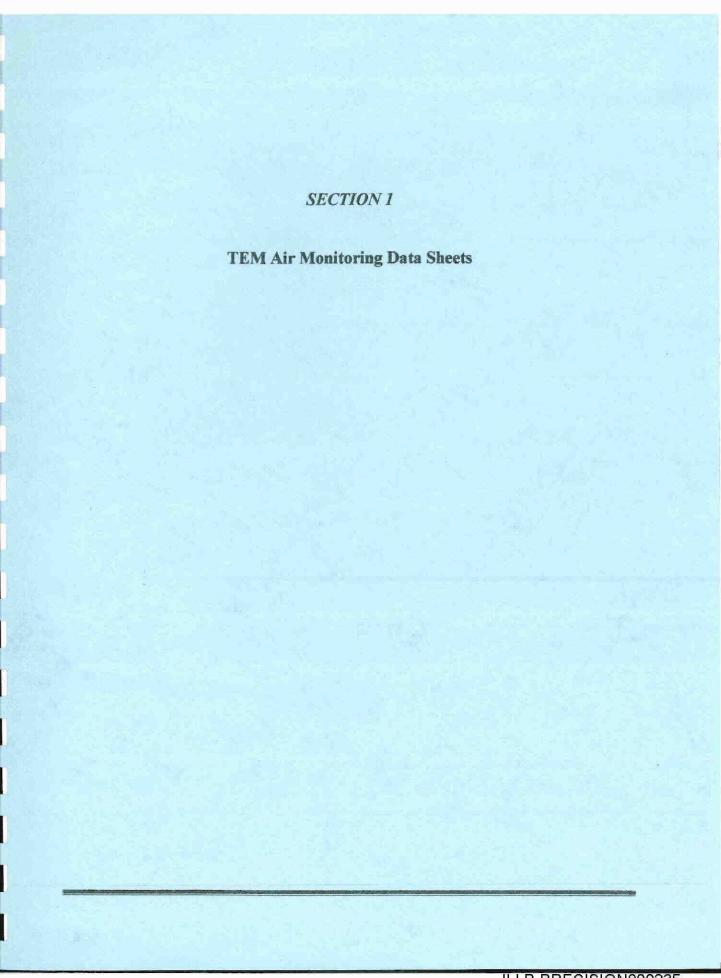
At the completion of the final visual inspection, the abatement activities for that work area was deemed complete.

#### IV. Comments and Follow-up Action

All specified asbestos contaminated materials were removed and all work conformed to the work plan.

Based on the field notes, visual inspections, observations of work practices, inspection of work areas and air sample results, it is RCS Environmental's opinion that the project was conducted in compliance with regulatory and industry standards.







# **CERTIFICATE OF ANALYSIS**

Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

44122

OH

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

## TEM AIR SAMPLE ANALYSIS SUMMARY

	Lab No.	Client No.	Location	Volume	Result	Asbestos Types
	4429701A	01A/01B	WestSideOfProperty SouthPastEndOfBldg. 082311/082411	1576 Liters	<11.0 Fibers/mm <sup>2</sup> <0.0027 Fibers/cc	None Detected
****	4429702A	02A/02B	WestSideOfProperty @WestSideGate 082311/082411	1572 Liters	<11.0 Fibers/mm² <0.0027 Fibers/cc	None Detected
	4429703A	03A/03B	SouthwestCorner OfProperty 082311/082411	1566 Liters	<11.0 Fibers/mm² <0.0027 Fibers/cc	None Detected
<b>-</b>	4429704A	04A/04B	South Center Of Property 082311/082411	1562 Liters	<11.0 Fibers/mm² <0.0027 Fibers/cc	None Detected
	4429705A	05A/05B	East Side East Of Property 082311/082411	1554 Liters	11.0 Fibers/mm² 0.0027 Fibers/cc	Chrysotile
	4429706A	06A/06B	North End Inside Decon Area 082311/082411	1552 Liters	<11.0 Fibers/mm² <0.0027 Fibers/cc	None Detected

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

**NYS-DOH No. 11021** 

Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. LATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L. (0.0074 flec). These results are not blank corrected.

Analysis Performed By: \_C. Liska

Approved By:

Frank E. Ehrenfeld, III Laboratory Director

**Date:** 9/21/2011

Page 1 of 2



# **CERTIFICATE OF ANALYSIS**

Client:

**RCS** Environmental Group

2812 Shakercrest Blvd

Beachwood

OH

44122

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

## TEM AIR SAMPLE ANALYSIS SUMMARY

Lab No.Client No.LocationVolumeResultAsbestos Types4429707A07A/07BField Blank<br/>082311/082411NA Liters<br/>NA Fibers/cc<11.0 Fibers/mm²<br/>NA Fibers/ccNone Detected<br/>NA Fibers/cc

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

NYS-DOH No. 11021

Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.

LATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc).

These results are not blank corrected.

Analysis Perform	ed By:	C. Liska	

**Date:** 9/21/2011

Page 2 of 2



# Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429701A 01A/01B

Description/ Location:

WestSideOfProperty SouthPastEndOfBldg.

082311/082411

Volume: Filter Type:

Filter Size: Pore Size:

385 mm<sup>2</sup> 0.80 µm

ANALYSIS RESULTS:

Grid Openings:

Opening Area:

Area Analyzed:

**Detection Limit:** 

0.013 mm<sup>2</sup>

11.0 Fibers/mm<sup>2</sup>

ASBESTOS FIBERS:

>=0.5μm to <5.0μm:

>=5.0µm:

Fibers/Area:

Concentration:

Types Identified: Type 2:

Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration:

Types Identified: Type 2:

Type 3: Type 4:

Micrograph Number:

1576 Liters

MCE

Sensitivity:

0.091 mm<sup>2</sup>

0.0027 Fibers/cc

None Detected

None Detected None Detected

<11.0 Fibers/mm²

<0.0027 Fibers/cc

None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

<0.0027 Fibers/cc

None Detected

X-Ray Spectrum Number:

## Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client, Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc). These results are not blank corrected.

Analysis Perfomed By:	C. Liska		

Date:

9/21/2011

Page 1 of 7



# Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

**IATL No.:** 

4429702A

Description/ Location:

WestSideOfProperty

@WestSideGate 082311/082411

Client Sample No.:

02A/02B

Volume:

Filter Type: Filter Size:

Pore Size:

1572 Liters

MCE 385 mm<sup>2</sup>

0.80 µm

ANALYSIS RESULTS:

Grid Openings:

Opening Area:

Area Analyzed:

Sensitivity: Detection Limit: 7

 $0.013 \text{ mm}^2$ 0.091 mm<sup>2</sup>

11.0 Fibers/mm<sup>2</sup>

0.0027 Fibers/cc

ASBESTOS FIBERS:

>=0.5µm to <5.0µm:

>=5.0µm;

Fibers/Area:

Concentration:

Types Identified: Type 2:

Type 3:

None Detected None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

<0.0027 Fibers/cc

None Detected

None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

<0.0027 Fibers/cc

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration:

Types Identified:

Type 2: Type 3:

Type 4:

Micrograph Number:

X-Ray Spectrum Number:

## Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc). These results are not blank corrected.

Analysis Perfomed By:	C. Liska

Date:

9/21/2011

Page 2 of 7

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054 Telephone: 856-231-9449 Fax: 856-231-9818

**IATL** 

# Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

LATL No.:

Client Sample No.:

4429703A

03A/03B

**Description/Location:** 

SouthwestCorner

OfProperty 082311/082411

Volume:

Filter Type:

Filter Size: Pore Size:

1566 Liters MCE

385 mm<sup>2</sup> 0.80 µm

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed:

Sensitivity: Detection Limit:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup> 11.0 Fibers/mm²

0.0027 Fibers/cc

ASBESTOS FIBERS:

>=0.5µm to <5.0µm:

>=5.0µm: Fibers/Area:

Concentration: Types Identified:

None Detected None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup> <0.0027 Fibers/cc None Detected

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration: Types Identified:

Type 2:

Type 3: Type 4:

None Detected

<11.0 Fibers/mm<sup>2</sup> <0.0027 Fibers/cc None Detected

Micrograph Number:

X-Ray Spectrum Number:

## Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc). These results are not blank corrected.

Analysis Perfomed By:		C. Liska	 	
Date:	9/21/2011			



## Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

44122

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429704A

04A/04B

Description/ Location:

South Center

Of Property 082311/082411

Volume: Filter Type:

Filter Size: Pore Size:

MCE

385 mm²

Grid Openings:

Opening Area: Area Analyzed:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup> Sensitivity:

Detection Limit:

ASBESTOS FIBERS:

>=0.5µm to <5.0µm; >=5.0μm: Fibers/Area:

Concentration: Types Identified:

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area: Concentration:

Types Identified: Type 2:

Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number: 1562 Liters

0.80 µm

ANALYSIS RESULTS:

11.0 Fibers/mm<sup>2</sup>

0.0027 Fibers/cc

None Detected

None Detected None Detected <11.0 Fibers/mm²

<0.0027 Fibers/cc None Detected

None Detected

<11.0 Fibers/mm² <0.0027 Fibers/cc None Detected

## Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L. (0.0074 f/cc). These results are not blank corrected.

Analysis Perfomed By:		C. Liska	
Dote:	9/21/2011		

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054 Telephone: 856-231-9449 Fax: 856-231-9818

IATL

# Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

LATL No.;

4429705A

**Description/Location:** 

East Side

Client Sample No.:

05A/05B

East Of

East Of Property 082311/082411

Volume:

Filter Type: Filter Size: Pore Size: 1554 Liters MCE

385 mm² 0.80 μm

ANALYSIS RESULTS:

Grid Openings:

Opening Area:
Area Analyzed:
Sensitivity:

0.013 mm² 0.091 mm² 11.0 Fibers/mm²

1

Detection Limit:

0.0027 Fibers/cc

ASBESTOS FIBERS:

>=0.5µm to <5.0µm;

>=5.0µm:
Fibers/Area:
Concentration:

Types Identified:

None Detected

11.0 Fibers/mm² 0.0027 Fibers/cc

Chrysotile

Type 2:

Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area: Concentration: Types Identified: None Detected <11.0 Fibers/mm² <0.0027 Fibers/cc None Detected

Type 2: Type 3:

Type 4:

Micrograph Number: X-Ray Spectrum Number:

## Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.

IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc).

These results are not blank corrected.

Analysis Perfomed By:	C. Liska	

Date:

9/21/2011



## Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

4429706A

Client Sample No.: 06A/06B Description/ Location:

North End Inside

Decon Area 082311/082411

Volume:

Filter Type: Filter Size:

Pore Size:

1552 Liters

MCE 385 mm<sup>2</sup>  $0.80 \, \mu m$ 

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed:

Sensitivity:

0.013 mm² 0.091 mm<sup>2</sup> 11.0 Fibers/mm<sup>2</sup>

Detection Limit:

0.0027 Fibers/cc

ASBESTOS FIBERS:

>=0.5μm to <5.0μm:

>=5.0um: Fibers/Area:

Concentration:

Types Identified:

Type 3:

None Detected None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

<0.0027 Fibers/cc None Detected

Type 2:

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration: Types Identified:

Type 2:

Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number: None Detected

<11.0 Fibers/mm²

<0.0027 Fibers/cc None Detected

Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc). These results are not blank corrected.

Analysis Perfomed By:	C. Liska		

Date:

9/21/2011

Page 6 of 7



#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

**LATL No.:** 

Client Sample No.:

4429707A

07A/07B

Description/ Location:

Field Blank

082311/082411

Volume:

Filter Type: Filter Size:

Pore Size:

MCE

385 mm<sup>2</sup> 0.80 µm

Grid Openings:

Opening Area: Area Analyzed:

Sensitivity: Detection Limit:

11.0 Fibers/mm<sup>2</sup>

ASBESTOS FIBERS:

 $>=0.5 \mu m$  to  $<5.0 \mu m$ ;

>=5.0µm: Fibers/Area:

Concentration:

Types Identified:

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration:

Types Identified:

Type 2: Type 3:

Type 4:

Micrograph Number:

X-Ray Spectrum Number:

NA Liters

ANALYSIS RESULTS:

0.013 mm<sup>2</sup>

0.091 mm<sup>2</sup>

NA Fibers/cc

None Detected None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

NA Fibers/cc

None Detected

None Detected

<11.0 Fibers/mm² NA Fibers/cc

None Detected

#### Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.
IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.
Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 flat)
These results are not blank corrected.

Analysis Perfomed By:	C. Liska		
•			 

Date:

9/21/2011

Page 7 of 7



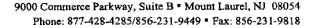
9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054 Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

## **Chain of Custody**

-Airborne Asbestos -

	·	
Contact Information		1
Client Company: RCS ENVIRONMENTAL	Project Number:	
Office Address: 2012 SHAKERCREST	Project Name:	CLEVELAND TRENCHER
City, State, Zip: BEACHWOOD OH WIZE	Primary Contact:	MIKE SCHMIDT
Fax Number:	Office Phone:	216-378-0997
Email Address: 🗜	Cell Phone:	
Resenvironmental emsn.c	OM.	
Analysis/Instructions:		
₽₽CM		j
1 TEM - NIOSH 740Z		į
□PLM		ì
Other		ł
		1
Method (specify): PLEASE USE METHO	D 7400 Ans	7402 ON EACH CASSETTIE
Special Instructions:		
Turnaround Time		
Preliminary Results Requested Date: Specific date / time	L.IVerba	al 🛱 Email 🗆 Fax
10 Day 5 Day 5 Day 2 Day 1	Day* 12 Hour**	6 Hour** □ RUSH**
Note: Viable/Culturable samples may require several days in order to		
* End of next business day unless otherwise specified. ** Ma	trix Dependent. ***Please n	notify the lab before shipping***
		DEAGLIS
Chain of Custody	7 1	DEVEN
Relinquished (Name/Organization):	Date: 9/6/11	Time: 5m
Received (Name / IATL):	Date:	Times 2011
Sample Login (Name / IATL):	Date:	Time:
Analysis(Name(s) / IATL): QA/QC Review (Name / IATL):	Date: 9.27.17	Time:  A filme:  Pu
COMPOUNDED UNABLE FIGURE 1 A L.D. COMPOUNDED COMPOUND COMPOUNDED COMPOUNDED COMPOUNDED COMPOUNDED COMPOUNDED COMPOUND COMPOUNDED COMPOUNDED COMPOUNDED COMPOUNDED COMPOUNDED COMPOUND COMPOUNDED COMPOUND C	NO VoDate:	:PA::::(((tt: 6=/1.5)
Archived / Released: QA/QC InterLAB Use:	Date:	Time:

Celebrating 25 years...one sample at a time www.latl.com





## Sample Log

-Airborne Asbestos -

Client:	RCS ENVIRONMENTAL	_ Project:_	CLEUKLAND TRENCHER
Sampling Date:	8/23-24/4	-	•

Client Sample #	iATL#	Location/ Description	Flow Rate	<u>Start</u> End	Sampling time (min)	Area (ft3) Volume (L)	Results
082311-01B	4429701	2 contraction				1576	<del></del>
1082411-02 B 1082311-02A 1082411-03B	4429702					1572	
082311-03A	4429703					1566	<del> </del>
002411-04B	4429704					1502	
082411-05B	4429705			ļ	ļ	1554	
082411-06B 082311-06A	4429706			<u> </u>		1552	
002411-078 002311-07A	4429707	BLANK		<u> </u>			
·	<del> </del>			-	<u> </u>		·
	<u></u>			}	<u> </u>		
							<del></del>
				<u> </u>			·
					}		

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\* = Insufficient Sample Provided to Analyze (<50mg) \*\*\* = Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director.

Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NIDEP conditions apply. conditions apply.



## **BATCH / SAMPLE MANAGEMENT REPORT**

Customer No.:	RCS486			Batch Number:	2524
Customer:	RCS Environr 2812 Shakerer	-		Project:	Cleveland Tren
	Beachwood	OH	44122	Project Number:	,
Customer Dane	90			TAT:	3
Customer Rep:	SC			Date/Time Rec'd:	
				Date/Time Rec'd:	9/16/20
# of Samples:	7	Analysis: ]	TEM NIOSH	Time/Date Due:	9/21/20
Initials Signal Acknowledge	- , ,	RTP:	To PLM N	OB To TEI	M NOB
Special Instruct	ions:				
Admin Notes:	rcse	nvironmental@r	nsn.com		
Sar Sar Sar Pap No No PC Bla Mi	mples received of mples received of mple containers perwork received of Incomplete Container Incomplete Sample container Incomplete Incomplete Incomplete Incomplete Incom	wet. covered with dus damaged, conter d in the same ba hain of Custody ample Log Recei Ds do not match me indicated. TEM NIOSH 74 itted as required g requirements no	it possible cross containts spilled possible crig as samples possible contained.  Received.  ived.  i the client's sample log	ons contamination. ontamination.  . y opened and portion of filter relical method. d Carrier Air Bill.	
Wi   Wi   Wi   Wi   Wi   Wi	rong Client ID I rong Client Loca rong Project ID rong TurnArour rong Due Date I	ation Listed: Listed: ad Time Listed: Listed: Received Listed fethod Listed:		Sample Log Stamp	Mislabelled: Samples Not Stamped:

SMGT.BatchSMR.0207

Copy: FE, JN, RS, 5

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RCS Environmental Group	

# ASBESTOS AIR MONITORING REPORT

Date	8/23/2011
Client	
Project	
Project No	
Analidical Ma	ihad

		1	DESCRIPTIVE INFO	RMATION	Analytical Method	
SAMPLE I.D.	SAMPLE TYPE	Workers Name	SOCIAL SECURITY #	LOCATION	ACTIVITY	RESPIRATOR TYPE
082311-0A	BCD			Westside of Property South pas	of end of Building	
082311-02A	BGD			Westside of Property @ Westsi		
082311-03 A	BGP			Southwest corner of Property		
082311-04 A	8GD			South center of Property		
082311-05A	BGP			Eastside East of Property		
082811-06A	BGD			Northend inside Decon Arm		
082511-07#	FB			Field Blank		
	, 1					
						] ·

**ANALYTICAL INFORMATION** 

SAMPLE I.D.	PUMP#	ÇALIB,	CALIB, FLOW RATE (L/min)		RL	RUNNING TIME (min)		VOLUME	PIDERS/	FIBERS/	LOG	FIBER/om
COLINITED IID.	rowir #	BEGINNING	END	AVERAGE	START	STOP	DURATION	(Liters)	FIELDS	Mim² (Blank Com)	FIBERS/	(Blank Corr)
0823H - 01A	20	2.0	2.0	2.0	6808	1449	401	802				
092311-02A	74	2.0	2.0	2.0	0810	1452	402	904				
082311-03A	49	2.0	2.0	2.0	04/3	1435	402	804				
082311-04A	99	7.0	2,0	2.0	0819	1458	399	798				
082311-05A	87	2.0	2.0	2.0	0814	1500	396	792				
082311-06 A	54	2.0	2.0	2.0	0832	1506	394	788				
082311-07A	NA	· NA	NΑ		NΑ							
		<u> </u>				<del></del>					· 	<b></b>
	· · · · · · · · · · · · · · · · · · ·		····									<u> </u>
											•	

	KEY	TO ABBREVIATIONS	
SAMPLE	TYPE	ACTIVITY	RESPIRATOR
°RS = personal IEX = hepa exhaust 'B = field blank	FC = finel clearance EXC = excursion IWA = inside work area	REM = removel CLN = clear-up GLRG = glovebag va. n = waste bad-out	HM = half mask FF = half face P = powered APR = all purifying reap.

Comments	<del></del>	*****************	<del></del>
Sampled by_		Date	8/23/2011
Analyzad by		Code	~

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RCS Environmental Group	

#### ASBESTOS AIR MONITORING REPORT

Date	8/24/2011	<b>B</b>
Client		
Project		
Project No	),	
A mails at a sail		

		MATION

			DESCRIPTION A		10100104	
SAMPLE I.D.	SAMPLE TYPE	WORKERS NAME	SOCIAL SECURITY #	LOCATION	ACTIVITY	RESPIRATOR TYPE
82411 - 01B	BGD	······································		Westaide of Property Southpastend of Bulder		
082411-028	BGD			Westeiden & Property Elvestside Cate		
092411-033	BGD			Southwest Corner of Property		
082411-04B	BGP			South Center of Property		<u> </u>
082411-058	BGD			Eastside East of Property		
082411-068	BGD			North endinside Decon Area		
082411-07B				Field Black		
-		**************************************				<u>                                     </u>
						,
						<u> </u>

**ANALYTICAL INFORMATION** 

SAMPLE I.D.	PUMP#	BI   BI   BI   BI   BI   BI   BI   BI	CALIS. FLOW RATE (L/min)		RU	RUNNING TIME (min)		VOLUME	FISERS/	FIBERS/	LOQ	FIBER/om*
		BRGINNING	END	AVERAGE	START	STOP	DURATION	(Litere)	FIELDS	(Blank Corr)	FIBERS/ om <sup>2</sup>	(Bienk Gorr)
082411-013	20	7.0	2.0	2.0	0825	1452	387	774				
082411-023	79	7.0	2.0	2.0	08120	1454	384	768				
082411-038	49	7.0	2.0	1.0	0814	1455	381	762				
082411-04B	99	2.0	200	2.0	0839	1501	382	764				
08241-053	87	2.0	2.0	2.0	0842	1506	384	742				
082411-06B	54	2.0	2.0	2.0	0850	1512	382	764			· ·	
082411-07B	NA	NA	NA	NA	NА	NΑ						
							ļ					
	· · · · · · · · · · · · · · · · · · ·											<del> </del>
	· · · · · · · · · · · · · · · · · · ·											<del>                                     </del>
			······································				1					<u> </u>

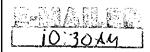
KEY TO ABBREVIATIONS							
SAMPLE	TYPE	ACTIVITY	RESPIRATOR				
5 w personal C= hepa exhaust • field blank	FC = final clearance EXC = accuration IWA = inside work area control according to the control area	REM = removal CLN = dipan-up GLBG = glovebag WLC = waste load-out	HM = half meek FF = full face P = powered APR = ale purifying resp.				

Sampled by Date S

Date



# PRELIMINARY RESULTS Airborne Asbestos Analysis TEM NIOSH



Client:	RCS Environmen		_	Project: Project No.:	Cleveland Tren	cher 9-21-11	
Client No.:	Beachwood C RCS486	OH 44122	<del>_</del> 	PCM Reprep(y/n) Turn-Around Time	y e:	3 Day	
Client Conta	icts:		Laborator	y Contacts:			
Contacts:	Mike Schmidt		Contacts:	Frank E. Ehrenfeld I	П		
Phone:			Phone:	(856) 231-9449			
Fax:	0		Fax:	(856) 231-9818			
Cell/Pager:	216-378-0997		Cell/Pager:	(856) 727-8904			
E-Mail:	0		E-Mail:	E-Mail: <u>frankehrenfeld@jatl.com</u>			
Chain of Cu	stody:			<del></del>		<u> </u>	
Samples Taker	n in Field:		Date:		Time:		
Samples Rec'd	at Laboratory:	DMD	Date:	9/16/11	Time:		
Samples Analy	yzed:	CL	Date:	9/21/11	Time:		
Preliminary Results Faxed:		Date:		Time:			
D. C. Salara	esults E-Mail:		Date:		Time:	<del></del>	

# Summary Data Transmission Electron Microscopy NIOSH 7402

Client	IATL	Volume	Comments	<sup>1</sup> Results	<sup>2</sup> Results	<sup>3</sup> Results
Sample ID#	Sample ID #	(L)	Comments	f/mm²	f/cc	f/cc
082411-01B	4429701	1576	None Detected	< 11	< 0.0027	< 0.0027
082311-01A	/					
082411-02B	4429702	1572	None Detected	< 11	< 0.0027	< 0.0027
082311-02A	/					ļ
082411-03B	4429703	1566	None Detected	< 11	< 0.0027	< 0.0027
082311-03A	ŗ					
082411-04B	4429704	1562	None Detected	< 11	< 0.0027	< 0.0027
082311-04A	Υ					
082411-05B	4429705	1554	Chrysotile	11	0.0027	0.0027
082311-05B	V					
082411-06B	4429706	1552	None Detected	< 11	< 0.0027	< 0.0027
082311-06A	V			<u> </u>		

1 - Total Asbestos Fibers in relation to area analyzed. 2 - Total Asbestos Fibers Grid Box #:	7169
of all sizes as a function of the volume of air sampled. 3 - Same as for 2 for	
fibers > 5.0 $\mu$ m in length. Instrument (I, II):	I

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.



#### PRELIMINARY RESULTS Airborne Asbestos Analysis TEM NIOSH

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فدسس	Mary Control of the C	e ≽-e <sub>taves</sub>		vertee regresses	j

	Client:	RCS Environm 2812 Shakercre	est Blvd.			Project: Project No.:	Cleveland	Trencher	
	Client No.:	Beachwood OH 44122 at No.: RCS486				PCM Reprep(y/n) Turn-Around Tim	e:y	3	Day
	Client Conta	cts:			Laborator	y Contacts:			
	Contacts:	Mike Schmid	it		Contacts:	Frank E. Ehrenfeld l	П		
I	Phone:				Phone:	(856) 231-9449			
ri .	Fax:	0			Fax:	(856) 231-9818			
	Cell/Pager:	216-378-099	7		Cell/Pager:	(856) 727-8904			
	E-Mail:	0			E-Mail:	frankehrenfeld@iatl	.com		
)* = -			<del>-</del>						<del></del>
_  L	Chain of Cus	tody:							
	Samples Taken	in Field:			Date:		Time:		
	Samples Rec'd	at Laboratory:	DMD		Date:	9/16/11	Time:		_
II	Samples Analy	zed:	CL		Date;	9/21/11	Time:		-
∥	Preliminary Re	sults Faxed:			Date:		Time:		_
	Preliminary Re	sults E-Mail:		<del></del>	Date:		Time:		<u>-</u>
=					Summary D sion Electro NIOSH 74	n Microscopy			
	Client	IATL	Volume	İ	Comment		1 Results	<sup>2</sup> Results	3 Results
	Sample ID#	Sample ID #	(L)		Comment		f/mm²	f/cc	f/cc
= 	082411-07B	4429707	FB		None Detec	ted	< 11	< NA	< NA
	282411-07A								
_									
IL									
				.,.					

1 - Total Asbestos Fibers in relation to area analyzed.	2 - Total Asbestos Fibers
of all sizes as a function of the volume of air sampled.	3 - Same as for 2 for
fibers > 5.0 μm in length.	

Grid Box #:	7169
Testan and (T. II)	· ·
Instrument (L, II):	1

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.

TEM.NIOSH Prelim.001

Client Name: Client Project #: Sample Type:		RCS Environmental Group PCM Reprep				sis Date: 21/11		IATL Sample #: Client Sample #: IATL Grid Box #:	082411-01B 7169
QC Submit				···	·			Grid Archive ID #:	A1
Electron Mic	-			Dia. (mm²):				Magnification:	20,000X
	achi H600AE - EDXA Sys			Area (mm²): Filter Type: e Size (µm):	MCE		A0	celerating Voltage:	100KeV
			Frid Opening:	0.115	mm	Volume	of Air Sampled:	1576	Liters
	G (1)		pening Area:		mm²				· 
	Grid (	Openings Read Total A	/ (Kequired): rea Analyzed:		. 7 mm²		tical Sensitivity: Detection Limit:		f/mm² f/cc (0.003)
<u> </u>	<del></del> .			0.071	·····			0.0027	100 (0.003)
r		os Structures: 0.5 - 5.0 µm:	NS NS		<u> </u>	Non-Asb	estos Structures:	NSD	
		>5.0μm:	NS		- - 2				
<u>-</u>		Asbestos: Asbestos;		0.0027	_f/mm² f/ce		Non-Asbestos: Non-Asbestos:		_f/mm² f/ec
	<u> </u>	21000000	<u> </u>	0.002		<del></del>	11011 1 10003103.	- 0.0021	
						Analysis Data	:		
Grid Opening ID	Fiber Number	Structure F B M C	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
Al El		NSD							
E2		NSD							
E3		NSD			<u> </u>				
E4 E5		NSD NSD		<del> </del>	<u> </u>	]			
E6	_	NSD		}					
E7		NSD			-				
ļ		ļ			<u> </u>				
		<u> </u>		ļ <u> </u>					
			-		<del> </del>	<u> </u>	<u></u>		
		<del> </del>	<u></u>	<del> </del>					
Total:	NSD	<u> </u>	0	0	<u>!</u>	0	0	0	<u> </u>
Record v  ** Define A  *** Characte	isible prominer mphibole (DP o rize by EDS	ology, SAED, and Chrysotile DP obtained Y/N). Podd 3 fiber diamete	reflections (002 rint-out EDS and	,004, 110, 130	), 220, 200)	e: fiber orient	[ATION MAP	Prep Quality: Dissolution Carbon Film Loading	GOOD GOOD <1%
Comments:								Analyzed By:	CL
	IOSH ME 001	·	· · · -		1 of 6			_	

Client Name: RCS Environm			mental Group		· ·	is Date:		IATL Sample #:	4429702
Client Project #;					09/2	21/11	Client Sample #:	082411-02B	
Sample Typ	e:	PCM Repre	p					IATL Grid Box #:	7169
QC Submitt	al						(	Grid Archive ID #:	A5
Electron Mic	roscope ID:		Filter	r Dia. (mm²):	25	· <u> </u>		Magnification:	20,000X
<u>I</u> <u>Hita</u>	chi H600AB	, 542-47-3		Area (mm²):				1/1-1 <b>G</b> -11-1-1-1-1	20,00011
EVEX	- EDXA Syst	tem		Filter Type:			Acc	celerating Voltage:	100KeV
			Filter Por	re Size (µm):	8.0				
			Grid Opening:		mm	Volume	of Air Sampled:	1572	Liters
			opening Area:		$\mathrm{mm}^2$				
١.	Grid C		1 / (Required):		7 		ical Sensitivity:		f/mm²
		Total A	rea Analyzed:	0.091		Minimum I	Detection Limit:	0.0027	f/∞ (0.003)
		<del></del>							<del></del>
T	Total Asbestos Structures: NSD  0.5 - 5.0 μm: NSD  >5.0 μm: NSD  Asbestos: < 11.0  Asbestos: < 0.0027					Non-Asbe	estos Structures:	NSD	ļ
	(				-				
					f/mm²		Non-Asbestos:	< 11.0	f/mm²
	<del></del>				f/ce		Non-Asbestos:		f/ce
		1100000			- <del> </del>		1.01	0.0021	
	-				Ā	Analysis Data	ı <b>:</b>		
Grid	Fiber	Structure	1 Length	<sup>2</sup> Length	<sup>3</sup> Diameter	Chrysotile			Comments /
Opening	Number	FBMC	Lengtn ≤ 5.0 μm	> 5.0 µm	> 0.25 μm	*	**Amphibole	***Non-Asbestos	Micrograph /
A5 B1		Non		<u> </u>	}		<u> </u>		EDS ID
		NSD		<del> </del>	<del> </del>	<del></del>			
B2		NSD		<del> </del>					-
B3		NSD NSD		<u> </u>	<del> </del>		<del>                                     </del>		
B4		NSD	<del>-</del> -		<del>                                     </del>	<del></del>	<del> </del>		
B5 B6		NSD		<del> </del> -	<del> </del>				
B7		NSD		<del>                                     </del>					
B/_		ושמו		<del>                                     </del>	<del></del>			<u> </u>	
1		<del>                                     </del>		<del> </del>	<u> </u>	<del>-</del>			
<b>∦</b>		<del>                                     </del>		<del>                                     </del>	<del> </del>			<u> </u>	<del>-</del>
<b> </b>				1		<del></del>			
		<del> </del>		<del> </del>	<del>                                     </del>	<del></del>	1		
				<u> </u>	<u> </u>	<del></del>	<del>                                     </del>	<del></del>	
		-		<del> </del>	<del> </del>		1		
<b></b>	<b></b>	<del> </del>		+	<del>                                     </del>		<del> </del>		
Total:	NSD		0	0		0_	0	0	
L	!	1 0477	10024.5	-h ma1 1	ton fib			D O214	
			nd EDXA for eac	=				Prep Quality: Dissolution	
-	Record visible prominent Chrysotile DP reflections (002,004, 110, 130,  ** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.							Carbon Film	
	rize by EDS		, and the entry offi					Loading	
	-	d 3 fiber diamet	er (µm)		SEE REVER	SE: FIBER OR	IENTATION MA		<del></del>
·	-								
Commont-								Anglyzed Dre	CI
Comments:				-				Analyzed By:	CL

Client Nam		RCS Environ	mental Group		_	sis Date:		IATL Sample #:	4429703
Client Proje					09/	21/11		Client Sample #:	082411-03B
Sample Typ		PCM Repre						IATL Grid Box #:	7169
QC Submit	tal	RCS Environ	mental Group					Grid Archive ID#:	A9
Electron Mic	croscope ID:	· · · · · · · · · · · · · · · · · · ·	Filter	Dia. (mm²):	25			Magnification:	20,000X
I Hitz	ichi H600AB	3, 542 <u>-4</u> 7-3		Area (mm²):				Magaineation.	20,000A
EVEN	K- EDXA Sys	tem		Filter Type:			Ac	celerating Voltage:	100KeV
L			Filter Por	e Size (μm):	0.8				
							<del></del>		
			Grid Opening:	0.115	mm 2	Volume	of Air Sampled:	1566	Liters
	Grid C		opening Area: d / (Required):	0.013 7	mm² 7	A malad	inal Camaltinitus	11.0	rv 3
ł	Gna		rea Analyzed:	0.091	mm²		ical Sensitivity: Detection Limit;		f/mm²
L		100017	u ca rillaryzed.	0.021	- 111111		Ciccion Linini,	0.0027	f/ec (0.003)
							_		
1		s Structures:	NS:		-	Non-Asbe	stos Structures:	NSD	,
		0.5 - 5.0 μm: >5.0μm:	NS:		-				ı
		Asbestos:		11.0	f/mmin <sup>°</sup>		Non-Asbestos:	< 11.0	f/mm²
}		Asbestos:		0.0027	f/cc		Non-Asbestos:	<del></del>	f/ce
					-				
						Analysis Data	ı <b>:</b>		
Grid Opening ID	Fiber Number	Structure FBMC	¹ Length ≤5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile *	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
A9 F1		NSD					1		
F2		NSD							
F3		NSD				<u> </u>			
F4		NSD							
F5		NSD							
F6		NSD							
F7		NSD							
L				<b> </b> _	ļ		ļ		
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<b></b>		<u> </u>	<u> </u>	<del> </del>		<u></u>	<del> </del>	ļ	
<b> </b>				<del></del>	-	<u> </u>	1		
Total	NSD	<del> </del>	0	0	<del>                                     </del>	0	0	0	
Total:	<u>' — — — — — — — — — — — — — — — — — — —</u>	<u> </u>	<del></del>		<u> </u>	<u></u>	<u> </u>	<u> </u>	<u> </u>
		-	nd EDXA for each	-				Prep Quality:	96.55
			reflections (002,		, 220, 200)			Dissolution Carbon Film	GOOD
	mphibole (DP o rize by EDS	ootained Y/N). I	Print-out EDS and	и ацасп.				Loading	GOOD 1%
	-	d 3 fiber diamet	er (um)		SEE REVER	SE: FIBER OR	IENTATION M		1%
			u 9						
( ) CHARTING TO								Analsmod De-	<b>⊜</b> t
Comments:				<del></del>				_ Analyzed By: Reviewed By:	

Client Name: Client Project #:		RCS Environmental Group				sis Date: 21/11		IATL Sample #: Client Sample #:	4429704 082411-04B
Sample Typ	e:	PCM Repre	P					IATL Grid Box #:	7169
QC Submitt	tal						,	Grid Archive ID#:	B4
Electron Mic	croscope ID:		Filter	Dia. (mm²):	25			Magnification:	20,000X
	chi H600AB			Area (mm²):				J	,
EVEX	- EDXA Sys	tem		Filter Type: e Size (µm):			Ac	celerating Voltage:	100KeV
<u> </u>				· · · · · · · · · · · · · · · · · · ·					
			Grid Opening:	0.115	mm	Volume i	of Air Sampled:	1562	Liters
	a 110		opening Area:	0.013	mm²				21
	Gnd C		l / (Required):	7 0.091	- 7 mm²		ical Sensitivity: Detection Limit:	11.0	f/mm² !
<u> </u>		Total F	rea Analyzed:	0.091	- 111111	Minimum	Detection Limit:	0.0027	f/ec (0.003)
Т.	otal Asbesto	s Structures:	NS)	n		Non-Ashe	stos Structures:	NSD	
•		0.5 - 5.0 μm:	NSI		-	1,02,1200	Dig Dij dojajeci,	1100	
		>5.0µm:	NS:	D	- -				
		Asbestos:		11.0	f/mm²		Non-Asbestos:	< 11.0	f/mm²
		Asbestos:		0.0027	_ f/cc	<del>.</del>	Non-Asbestos:	< 0.0027	f/cc
					Ā	Analysis Data	:		
Grid Opening ID	Fiber Number	Structure FBMC	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
B4 C1	· · · · · · · · · · · · · · · · · · ·	NSD					<u> </u>		EBG ID
C2		NSD	- <del></del>		<del>                                     </del>	<del></del>			
С3		NSD							
C4		NSD							
C5		NSD							
, C6		NSD							
C7	-	NSD							
				İ			<u> </u>		
 					<del> </del>				<u>.                                    </u>
		<del> </del>			<u> </u>	<u> </u>		<u>.                                    </u>	
<b> </b>	<u> </u>						-	<del></del>	
								<u> </u>	
<b> </b>					<del> </del>				
<b> </b>		<u> </u>							
Total:	NSD		0	0		0	0	0	
* Must con	firm by Morph	ology, SAED, a	nd EDXA for eac	h suspect asbe	stos fiber			Prep Quality:	
	Must confirm by Morphology, SAED, and EDXA for each suspect asbe Record visible prominent Chrysotile DP reflections (002,004, 110, 13)							Dissolution	GOOD
** Define A								Carbon Film	GOOD
	rize by EDS					40 Pmrs ==	H-100 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 2	Loading	1%
1,2 Record I	Fiber Length an	d 3 fiber diamet	er (µm)		SEE REVER	SE: FIBER OR	IENTATION M.		·
Comments:	•							Analyzed By	CL
								Reviewed By	

Client Proj	Client Name: RCS Environmental Group Client Project #: Sample Type: PCM Reprep					Analysis Date: 14 09/21/11 CI			4429705 082411-05 7169
QC Submit		T CM ICOPIC	r					IATL Grid Box #: Grid Archive ID #:	7169 C1
	croscope ID:			Dia. (mm²):				Magnification:	20,000X
1	achi H600AB X-EDXA Sys			Area (mm²): Filter Type: re Size (μm):	MCE		Ac	celerating Voltage:	100KeV
			Grid Opening: opening Area:		mm mm²	Volume	of Air Sampled:	1554	Liters
	Grid (		d / (Required): Area Analyzed:		7 Analytical Sensitivity: 11.0 f/mm² mm² Minimum Detection Limit: 0.0027 f/cc (0.003)				
	Total Asbesto	os Structures: 0.5 - 5.0 μm: >5.0μm:	1 1 NS		<del></del>	Non-Asbe	estos Structures:	NSD	
	-	Asbestos:	110	11.0 0.0027	f/mm f/cc		Non-Asbestos: Non-Asbestos:	< 11.0 < 0.0027	f/mm² f/cc
						Analysis Data	<b>:</b>		
Grid Opening ID	Fiber Number	Structure FBMC	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
Cl Cl	<u> </u>	NSD							
C2		NSD							
C3	<u> </u>	NSD	<del></del>						
C4	1	С	1	<u> </u>	<del> </del> -	CD	<u> </u>		
C5	<del>]</del>	NSD		<del> </del>	<del>                                     </del>		! !	<u> </u>	
C6		NSD NSD			<del> </del>	<u></u>	<del></del>		
<u> </u>	<del> </del>	Non	<del></del>	<u> </u>	<del> </del>		<del> </del>	<u> </u>	
	<u> </u>			<u> </u>	<del>                                     </del>				<del>  </del>
					i				-
		<u> </u>			<u> </u>		<u> </u>		
ļ		<u> </u>				<u> </u>			
<b> </b>	<del> </del>	<del> </del>			<del>                                     </del>	<del> </del>		<u> </u>	
Total:	1		1	0		1	0	0	
Record v	visible prominer	nt Chrysotile DP	nd EDXA for eac reflections (002 Print-out EDS and	,004, 110, 130				Prep Quality: Dissolution Carbon Film Loading	GOOD GOOD <1%
	=	d 3 fiber diamet	ет (µm)		SEE REVER	SE: FIBER OR	IENTATION M.		
Comments:								Analyzed By.	CL

		<del></del>	<del></del>						
Client Name	e:	RCS Environ	mental Group		Analys	sis Date:		IATL Sample #:	4429706
Client Proje	ect#:		_		09/	21/11		Client Sample #:	082411-06B
Sample Typ	e:	PCM Repre	p					IATL Grid Box #:	7169
QC Submit	tal						•	Grid Archive ID#:	C1
Electron Mic	croscope ID:	<del></del>	Filter	Dia. (mm²):	25	··· <u>·</u>	<del></del>	Magnification:	20,000X
<u>I</u> <u>Hit</u>	achi H600AB	3, 542-47-3		Area (mm²):				<b>g</b>	20,0001
EVEX	K- EDXA Sys	stem	Filter Por	Filter Type: e Size (µm):			Aα	celerating Voltage:	100KeV
L	<del></del>		11101101	- ΕΙΣΟ (μπι).	0.0		<del></del>		
	-	(	Grid Opening:	0.115	mm	Volume	of Air Sampled:	1552	Liters
			opening Area:	0.013	mm²				•
	Grid (		l/(Required):	7	- , 7		ical Sensitivity.	11.0	f/mm²
		Total A	rea Analyzed:	0.091	nun²	Minimum I	Detection Limit:	0.0027	f/cc (0.003)
·	Fotol 4 - P	a Claure -4-	3.700			Ta. A. *		- LOP	
]		os Structures: 0.5 - 5.0 µm:	NS:		_	Non-Asbe	stos Structures:	NSD	-
		>5.0μm:	NS.		-				
ļ		Asbestos:	<	11.0	f⁄mm¹		Non-Asbestos:	< 11.0	f/mm²
		Asbestos:	<	0.0027	f/cc		Non-Asbestos:	< 0.0027	f/œ
					,	Analysis Data	:		
Grid Opening ID	Fiber Number	Structure FBMC	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile *	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
Cl Cl		NSD	<del></del>						
C2		NSD							
C3		NSD							
C4		NSD							
B7		NSD							
B8	<u> </u>	NSD					1.		
C8	<u> </u>	NSD					<del> </del>		<u> </u>
<b></b>		<del>                                     </del>			<u> </u>	<b></b>			
		<u> </u>		<u></u> ,	<del>                                     </del>		<u> </u>		ļ
<b> </b>		<del> </del>		1	<u> </u>		<u> </u>		
			<del></del>	<del> </del>	<del> </del>	-		<del> </del>	<del> </del>
ļ	<u> </u>	<del> </del>	<del></del>		<del> </del>	<del> </del>			<del> </del>
<u></u>	<del>                                     </del>		<u> </u>	<del>]</del>	1		<del> </del>	ļ	<del> </del>
<del></del>	<del> </del>	<del> </del>		<del>                                     </del>	<del> </del>	<del></del>	<del> </del>		<del> </del>
Total:	NSD	-	0	0	<u> </u>	0	0	0	
* Must cor	firm by Moroh	ology, SAED at	nd EDXA for eac	h suspect asher	stos fiber	<del></del>		Prep Quality:	
			reflections (002	=				Dissolution	GOOD
	· ·	_	rint-out EDS and		•			Carbon Film	GOOD
	rize by EDS	,						Loading	<1%
1,2 Record I	iber Length an	d 3 fiber diamet	er (µm)		SEE REVER	SE: FIBER OR	IENTATION M.	AP	
Comments:								Analyzed By	:CL
								Darriamed Dr	_

Client Nam Client Proje		RCS Environ	mental Group	_	_	sis Date: 21/11		IATL Sample #: Client Sample #:	4429707 082411-07B
Sample Typ		PCM Repres	0		L	-	l	IATL Grid Box #:	
QC Submit								Grid Archive ID #:	C5
Electron Mi	croscope ID:							· · · · · · · · · · · · · · · · · · ·	
	achi H600AF	2 542-47-3		Dia. (mm²): Area (mm²):				Magnification:	20,000X
	K-EDXA Sys			Filter Type:			Ac	celerating Voltage:	100KeV
· <del></del>				Size (µm):					
	<u> </u>		Grid Opening:	0.115	mm	Volume	of Air Sampled:	FB	Liters
			opening Area:	0.013	mm²	VOIGHIE	orrui sampicu.		Liters
	Grid (	penings Read		7	(10)	Analy	tical Sensitivity:	11.0	f/mm²
<u></u>		Total A	rea Analyzed:	0.091	_mm²	Minimum l	Detection Limit:	NA	f/cc (0.003)
	T-4-1 4 -14	Stt	N.T.O.I			NT- 4-1	St		
	lotai Asbest	os Structures: 0.5 - 5.0 µm:	NSI NSI		-	Non-Aso	estos Structures:	NSD	•
		>5.0µm:	NSI						
		Asbestos:	<	11.0	f/mm²		Non-Asbestos:	< 11.0	f/mm²
		Asbestos:	<	NA	_f/cc		Non-Asbestos:	< NA	f/ec
					4	Analysis Data	:		
Grid	Fiber	Structure F	1 Length	<sup>2</sup> Length	<sup>3</sup> Diameter				Comments /
Opening ID	Number	ВМС	≤ 5.0 μm	> 5.0 µm	> 0.25 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
C5 B1		NSD			<u> </u>				
B2	-	NSD							
В3		NSD							<u>-</u> .
B4		NSD			<u> </u>				
B5		NSD			ļ <u>-</u>		<u> </u>		
B6		NSD			<del> </del> -			<u> </u>	
B7		NSD			<del> </del>				
	<u> </u>	<del> </del>			1			<u> </u>	
<del></del>				<del></del>	<del> </del>		<del>                                     </del>	<del> </del>	<del></del>
	<del>                                     </del>		<del></del>		<del>                                     </del>				<del></del>
·	<b>-</b>	<u>†                                      </u>			<del> </del>		<u> </u>		
		1			<del>                                     </del>				
<u> </u>									
Total:	NSD	<u></u>	0	0	<u> </u>	0	0	0	
* Must con	firm by Morph	iology, SAED, ai	nd EDXA for eac	h suspect asbe	estos fiber			Prep Quality:	
	-	•	reflections (002,		0, 220, 200)			Dissolution	GOOD
	-	obtained Y/N). P	rint-out EDS and	l attach.				Carbon Film	GOOD
	rize by EDS Shor Langth or	d 3 Shandinasi	ne (11m)		CER DEVERO	3: FIBER ORIENT	ΓΔΤΊΩΝΙ ΧΑΙΡ	Loading	<1%
	_	nd 3 fiber diarnete	ո (բույ	•	ORE VENEZ	. PIDER URIEN.	TATATOM WALL		
Comments:								_ Analyzed By	
								Reviewed By	



#### **CERTIFICATE OF ANALYSIS**

Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

#### TEM AIR SAMPLE ANALYSIS SUMMARY

<u>Lab No.</u>	Client No.	Location	<u>Volume</u>	Result	Asbestos Types
4429708A	01A/01B	I/SBldg.SouthEndBy CtrOfStandingBldg. 082511/082611	1522 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected
<b>4</b> 4 <b>2</b> 9709A	02A/02B	WestSideOfProperty @WestSideGate 082511/082611	1520 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected
4429710A	03A/03B	SouthEndOfProperty NearCtrOfSouthSide 082511/082611	1514 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected
4429711A	04A/04B	EastSideIn TheSouthEnd 082511/082611	1502 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected
4429712A	05A/05B	EastSideOfProperty NearCtrOfEastSide 082511/082611	1500 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected
4429713A	06A/06B	South Side Of Decon Area 082511/082611	1490 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

NYS-DOH No. 11021

Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc). These results are not blank corrected.

Page 1 of 2

Analysis Performed By: C. Liska

**Date:** 9/21/2011

Approved By: <a>C</a>

Frank E Ehrenfeld, III Laboratory Director



### **CERTIFICATE OF ANALYSIS**

Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

44122

OH

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

#### TEM AIR SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Location	<u>Volume</u>	Result	Asbestos Types
4429714A	07A/07B	NorthSideOfProperty EastOfOfficeBldg. 082511/082611	1486 Liters	<11.0 Fibers/mm² <0.0028 Fibers/cc	None Detected
4429715 <b>A</b>	08A/08B	Field Blank 082511/082611	NA Liters	<9.6 Fibers/mm² NA Fibers/cc	None Detected

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

NYS-DOH No. 11021

Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AlHA or any agency of the U.S. government.

LATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc).

These results are not blank corrected.

Analysis	Performed	Rv.	C. Liska	
AHALY 313	r criorinca	DY.	C. LISKA	

Date: 9/21/2011

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#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429708A 01A/01B

**Description/Location:** 

I/SBldg.SouthEndBy CtrOfStandingBldg.

082511/082611

Volume: Filter Type:

Filter Size: Pore Size:

385 mm<sup>2</sup>

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed:

Sensitivity: Detection Limit:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup>

11.0 Fibers/mm<sup>2</sup> 0.0028 Fibers/cc

None Detected

None Detected

None Detected

None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

<11.0 Fibers/mm<sup>2</sup>

<0.0028 Fibers/cc

ASBESTOS FIBERS:

>=0.5μm to <5.0μm:

>=5.0µm: Fibers/Area:

Concentration:

Types Identified:

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area:

Types Identified:

Type 2: Type 3:

Type 4:

Micrograph Number: X-Ray Spectrum Number: 1522 Liters

MCE

0.80 µm

Concentration:

<0.0028 Fibers/cc None Detected

#### Methodology: NIOSH 7402

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Analysis P	erfomed By:	C. Liska	 
Date:	9/21/2011		

Page 1 of 8



#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429709A

02A/02B

**Description/Location:** 

WestSideOfProperty

@WestSideGate 082511/082611

Volume:

Filter Type: Filter Size:

Pore Size:

1520 Liters

385 mm<sup>2</sup>

ANALYSIS RESULTS:

Grid Openings:

Area Analyzed:

Detection Limit:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup>

11.0 Fibers/mm<sup>2</sup>

ASBESTOS FIBERS:

>=0.5 µm to <5.0 µm:

>=5.0µm: Fibers/Area:

Concentration:

Types Identified:

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration:

Types Identified:

Type 2:

Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number:

MCE

 $0.80~\mu m$ 

44122

Opening Area:

Sensitivity:

0.0028 Fibers/cc

None Detected

None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup> <0.0028 Fibers/cc

None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup>

<0.0028 Fibers/cc

None Detected

#### Methodology: NIOSH 7402

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Analysis Perfomed By:	C. Liska

Date:

9/21/2011

Page 2 of 8

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054 Telephone: 856-231-9449 Fax: 856-231-9818

## **IATL**

### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

44122

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429710A

03A/03B

**Description/Location:** 

SouthEndOfProperty NearCtrOfSouthSide

082511/082611

Filter Type: Filter Size:

Pore Size:

Volume:

385 mm<sup>2</sup> 0.80 µm

MCE

1514 Liters

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed: Sensitivity:

0.013 mm<sup>2</sup>  $0.091 \text{ mm}^2$ 

11.0 Fibers/mm<sup>2</sup> 0.0028 Fibers/cc Detection Limit:

ASBESTOS FIBERS:

>=0.5μm to <5.0μm: >=5.0µm; Fibers/Area: Concentration:

None Detected None Detected None Detected

<11.0 Fibers/mm<sup>2</sup> <0.0028 Fibers/cc None Detected

Types Identified: Type 2: Type 3:

NON-ASBESTOS FIBERS: Fibers/Area: Concentration:

<11.0 Fibers/mm<sup>2</sup> <0.0028 Fibers/cc None Detected

None Detected

Types Identified: Type 2:

Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number:

Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L. (0.0074 f/cc). These results are not blank corrected.

Analysis Perfomed By:	C. Liska		
-		 	_

Date:

9/21/2011

Page 3 of 8

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054 Telephone: 856-231-9449 Fax: 856-231-9818

## **IATL**

## Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

44122 OH

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429711A

04A/04B

Description/ Location:

EastSideIn TheSouthEnd

082511/082611

Volume:

Filter Type: Filter Size: Pore Size:

0.80 µm

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed: Sensitivity:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup> 11.0 Fibers/mm<sup>2</sup>

Detection Limit:

0.0028 Fibers/cc

1502 Liters

MCE

385 mm²

ASBESTOS FIBERS:

>=0.5µm to <5.0µm: >=5.0µm:

Fibers/Area: Concentration: None Detected None Detected

None Detected <11.0 Fibers/mm<sup>2</sup> <0.0028 Fibers/cc

Types Identified:

None Detected

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area: Concentration: None Detected <11.0 Fibers/mm²

Types Identified:

<0.0028 Fibers/cc None Detected

Type 2: Type 3: Type 4:

Micrograph Number:

X-Ray Spectrum Number:

#### Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L. (0.0074 fice). These results are not blank corrected.

Analysis Perfomed By:	C. Liska		
	-	 	

Date:

9/21/2011

Page 4 of 8



#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

LATL No.:

4429712A

Client Sample No.: 05A/05B

**Description/Location:** 

EastSideOfProperty

NearCtrOfEastSide 082511/082611

Volume:

Filter Type: Filter Size: Pore Size: 1500 Liters MCE

385 mm² 0.80 μm

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed:

Sensitivity:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup>

0.091 mm<sup>2</sup> 11.0 Fibers/mm<sup>2</sup>

Detection Limit:

0.0028 Fibers/cc

ASBESTOS FIBERS:

>=0.5μm to <5.0μm:

>=5.0µm: Fibers/Area:

Concentration: Types Identified:

Type 2: Type 3: None Detected None Detected

None Detected

<11.0 Fibers/mm<sup>2</sup> <0.0028 Fibers/cc

None Detected

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration:

Types Identified:

Type 2: Type 3:

Type 4:

Micrograph Number: X-Ray Spectrum Number: None Detected

<11.0 Fibers/mm<sup>2</sup> <0.0028 Fibers/cc

None Detected

#### Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.
IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.
Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc
These results are not blank corrected.

Analysis Perfomed By:		C. Liska	 
Date:	9/21/2011		



#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

\_\_\_\_\_\_\_\_\_\_\_

4429713A

06A/06B

**Description/Location:** 

South Side

Of Decon Area 082511/082611

Volume:

Filter Type: Filter Size:

Pore Size:

 $0.80 \, \mu m$ 

ANALYSIS RESULTS:

Opening Area: Area Analyzed: Sensitivity:

0.013 mm<sup>2</sup> 0.091 mm<sup>2</sup>

Detection Limit:

0.0028 Fibers/cc

ASBESTOS FIBERS:

>=0.5µm to <5.0µm;

>≈5.0μm: Fibers/Area:

Concentration: Types Identified:

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area:

Concentration: Types Identified:

Type 2:

Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number: 1490 Liters

MCE 385 mm<sup>2</sup>

Grid Openings:

11.0 Fibers/mm²

None Detected None Detected

None Detected <11.0 Fibers/mm<sup>2</sup>

<0.0028 Fibers/cc None Detected

None Detected <11.0 Fibers/mm²

<0.0028 Fibers/cc None Detected

#### Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blonks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L. (0.0074 f/cc). These results are not blank corrected.

Analysis P	erfomed By:	C. Liska	 	
Date:	9/21/2011			

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## **IATL**

#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122

Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

Client Sample No.:

4429714A

07A/07B

Description/ Location:

NorthSideOfProperty EastOfOfficeBldg.

082511/082611

Volume:

Filter Type: Filter Size: Pore Size: MCE 385 mm²

1486 Liters

0.80 µm

ANALYSIS RESULTS:

Grid Openings:

Opening Area:
Area Analyzed:
Sensitivity:

Detection Limit:

0.013 mm² 0.091 mm²

11.0 Fibers/mm<sup>2</sup> 0.0028 Fibers/cc

ASBESTOS FIBERS:

>=0.5μm to <5.0μm:

>=5.0µm: Fibers/Area:

Concentration: Types Identified:

Type 2: Type 3: None Detected None Detected

None Detected <11.0 Fibers/mm²

<0.0028 Fibers/cc None Detected

NON-ASBESTOS FIBERS:

Fibers/Area;

Concentration: Types Identified:

Type 2:

Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number: None Detected

<11.0 Fibers/mm² <0.0028 Fibers/ce

None Detected

#### Methodology: NIOSH 7402

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.

IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L (0.0074 f/cc).

These results are not blank corrected.

Analysis Perfomed By:	C. Liska	
	·	

Date:

9/21/2011

Page 7 of 8



#### Transmission Electron Microscopy - Sample Data

Client: RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH 44122 Report Date:

9/21/2011

Project:

Cleveland Trencher

Project No.:

IATL No.:

4429715A

Description/ Location:

Field Blank

Client Sample No.:

08A/08B

082511/082611

Volume: Filter Type:

Filter Size: Pore Size:

NA Liters MCE 385 mm<sup>2</sup>

0.80 µm

ANALYSIS RESULTS:

Grid Openings:

Opening Area: Area Analyzed: Sensitivity:

Detection Limit:

0.013 mm<sup>2</sup> 0.104 mm<sup>2</sup> 9.60 Fibers/mm<sup>2</sup> NA Fibers/cc

None Detected

ASBESTOS FIBERS:

>=0.5µm to <5.0µm:

None Detected >=5.0µm: None Detected Fibers/Area: <9.6 Fibers/mm<sup>2</sup> Concentration: NA Fibers/cc Types Identified: None Detected

Type 2: Type 3:

NON-ASBESTOS FIBERS:

Fibers/Area: Concentration: Types Identified: <9.6 Fibers/mm² NA Fibers/cc None Detected

None Detected

Type 2: Type 3: Type 4:

Micrograph Number: X-Ray Spectrum Number:

#### Methodology: NIOSH 7402

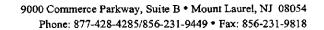
This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client. Method requires submittal of blanks for analysis. Detection Limit (Reporting Limit) is dependent upon the volume of air sampled. NIOSH guidelines recommend a minimum of 400 L. (0.0074 flec). These results are not blank corrected.

Analysis Perfomed By:	C. Liska	

Date:

9/21/2011

Page 8 of 8



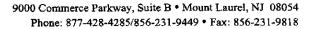


## **Chain of Custody**

-Airborne Asbestos -

Contact Information	
Client Company: RCS ENULPONMENTAL Project Nu	
Office Address: 2012 SHAKERCREST Project 1	
City, State, Zip: BEACHWOOD, OH YVIZZ Primary Co	<del></del>
Fax Number: Office l	Phone: 216-378-0997
	Phone:
RCSENITONMENTAL@MSN.COM	
Analysis/Instructions:	
₽CM	
₩TEM - NIOSH 7402	1
□ PLM	
Other	
- Oulei	
Mothed (months), D. C.K.	71/00 71/07 40)
Method (specify): PLASE - USE METHOD	EACH CASSETTE.
Special Instructions:	Perce Circums
<u> </u>	
<del></del>	<del></del>
Turnaround Time	□Verbal ÆEmail □Fax
Preliminary Results Requested Date:  Specific date / time	Liverbal (Zitemail Lifax
☐ 10 Day ☐ 5 Day 🕰 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hot	ur** ☐ 6 Hour** ☐ RUSH**
Note: Viable/Culturable samples may require several days in order to establish countable	
* End of next business day unless otherwise specified. ** Matrix Dependent. **	*Please notify the lab before shipping***
Chain of Custody	
	1 1
	LEAN E PRIME KERNE !-
Relinquished (Name/Organization): July (Ass.) Date: 91 Received (Name / IATL): Date:	THE CIME FORE
Relinquished (Name/Organization): White (Acs) Date: 9	Time:
Relinquished (Name/Organization): Date: Particle (Name / IATL): Date: Da	Time:
Relinquished (Name/Organization):  Received (Name / IATL):  Sample Login (Name / IATL):  Analysis(Name(s) / IATL):  QA/QC Review (Name / IATL):  Date:  Date:  Date:  Date:  Date:	STime: 2011
Relinquished (Name/Organization): Date: Proceed (Name / IATL): Date: Dat	Time:

Celebrating 25 years...one sample at a time www.latl.com





## Sample Log

-Airborne Asbestos -

Client: RCS ENVIRONMENTAL	Project: CLEVELAND TRENCHER
Sampling Date: 0/25-26/11	

		Location/	Flow	Start	Sampling time	Area (fi2) Volume	Results
Client Sample #	iATL#	Description	Rate	End	(min)	(L)	
082611-01B	4429708					1522	
082411-02B 082511-02A	4429709					1520	
082611-03B 082511-03A	4429710				P. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1514	<del>-</del>
082411-04B 082511-04A	4429711					1502	
082611-05B 082511-05A	4429712		,			1500	<u> </u>
082611-06B	4429713					1490	
082511-07B	4429714		, <del></del>			1486	
092611-08B 082511-08A	4429715	BLANK				MA	
		<u> </u>		ļ			· <del></del> · · · · · · · · · · · · · · · · · ·
				<u> </u>			<del></del>
· · · ·		1					
<del></del>			<del></del>		<del> </del>		

<sup>\*=</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\*= Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\*= Insufficient Sample Provided to Analyze (<50mg) \*\*\*= Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director.

Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NIDEP conditions apply.

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# ASBESTOS AIR MONITORING REPORT

Date8/2	5/2011
Client	
Project	
Project No.	
Analytical Method	

		14.18.6	
OBEC	:BIDTIVE	IMECH	MATITION
UEOL	INIT IIVE	11 TI VII	MATION

SAMPLE I.D.	SAMPLE TYPE	WORKERS NAME	SOCIAL SECURITY #	LOCATION	ACTIVITY	RESPIRATOR TYPE
082511-01A	BGD			Inside Building Southendles Conterof standing Build	1	
082511-0LA	2G D			Westside of Property C Westside Gate	<i>!</i>	<u> </u>
042511-03 A	BCO			Southend of Property Near Conter of South side		
082511-044	BGD			Eastside in the Southend	·	
08251-03A	BCD			Eastside of Property Near Center of Eastside		
082611-06A	3CD			Southside of Decon Area		
082511-074	BCD			Northerd of Property East of Office Builder	1	
08251-081	FB			Field Blank		
		<u> </u>				
<del></del>		<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>				

#### **ANALYTICAL INFORMATION**

SAMPLE I.D.	PUMP #	CALIB.	FLOW RATE	(L/min)	RU	NNING TIME	(min)	VOLUME	FIBERS/ FIBERS/		LOG	FIBER/cm <sup>4</sup>
SAMPLE I.U.	runir #	BEGINNING	IEND	AVERAGE	START	STOP	DURATION	(Liters)	FIELD8	(Blenk Corr)	FIBERS/ om <sup>3</sup>	(Blank Corr)
082511-014	49	2.0	2.0	2.0	0817	1451	396	792				
082511-02A	20	2.0	2.0	20	0820	1454	394	788				
082511-03A	. 54	2.0	2.0	2.0	0826	1458	392	784				
082511-04A	99	2.0	2.0	2.0	0833	1459	386	772				
092511-05 A	87	2.0	20	2.0	0837	1503	386	722				
082511-06A	79	2.0	2.0	2.0	0841	1505	384	768				
042511-07 A	P02	2.0	2.0	2.0	0849	1509	380	760				
082511-084	NA	NA	NA	NA	NA	N4	NA					
						-,,					,	
·		1	_	1	i		1				}	1

KEY	TO	ABBF	REVI	ATK	<b>BNC</b>
		ACTIV	ITY		

#### SAMPLE TYPE

PRS = personal FC = final diserance
HEX = heps axhaust FXC = axcurator
FS = field blank
SGD = background OWA = cutalde work area
OWA = cutalde work area

REM = removal CLN = clean-up GLBG = glovebag WLO = wasta load-out HM = half mask
PF = full face
P = powered
APR = sir purifying resp.

RESPIRATOR

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Comments

Sampled by

\_\_\_ Date \_\_\_\_\_ 8/25/2

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(\$)	RCS Environmental	
	Group	

# ASBESTOS AIR MONITORING REPORT

Date	8/26/2011	
Client		
Project		
Project No		
Analytical		

DESC	RIP	TIVE	INFO	RMA	TION
------	-----	------	------	-----	------

			DESCRIPTION OF A		7 11 101 11 11 11 11 11 11 11 11 11 11 11		
SAMPLE I.D.	SAMPLE TYPE	WORKERS NAME	SOCIAL SECURITY #	LOCATION	ACTIVITY	RESPIRATOR TYPE	
82611 - 018	BGD			Toside Builling Southerd by Conter of Stanley Buil			
82611 - OZB	BGD			Westside of Property C Westside Gate			
82611 O3B	BGD			South end of Property New Center of South			
82611 O4B	BGD			Eastside in the Southend			
82611 - OSB	BGD			Eastside of Proporty Near Center of Fastside			
B2611 - 06B	Bed			Southside of Decon Aren			
82611 - 073	BG D			Northand of Property East of Office Building		]	
82611 - 088	FB			Field Blank			
						·	
		<del></del>				1	

#### **ANALYTICAL INFORMATION**

SAMPLE I.D.	PUMP #	OALIB, FLOW RATE (L/min)			RU	RUNNING TIME (min)			FIBERS/	FIBERS/	LOQ	FiBER/om <sup>a</sup>
SAMPLE I.D.	PURIT #	BEGINNING	END	AVERAGE	START	STOP	DURATION	(Liters)	FIELDS	MM <sup>1</sup> (Blank Corr)	FIBERS/ om <sup>3</sup>	(Blank Corr)
82411 - 01B	49	2.0	20	2.0	0730	1335	365	730				
82611 - ORB	20	2.0	20	2.0	0732	1338	366	732				
82611- 033	. 54	2.0	2.0	2.0	0735	1340	365	730				
82611- OB	99	2.0	2.0	2.0	0737	1342	365	730				
88611 - OSB	81	2.0	2.0	2.0	0740	1344	364	728				
82611 - 068	79	2.0	2.0	2.0	0744	1345	361	722				1
82611- 07B	Poz	2.0	2.0	2.0	0747	1350	363	726				
82611-08B	NA	NA	NΑ	NA	ΝA							
							T					

## KEY TO ABBREVIATIONS SAMPLE TYPE ACTIVITY

PRS = personal HEX = heps exhaust PS = field blank FC = final clearance EXC = excursion IWA = inside work area REM = removal
CLN = clean-up
GLSG = glovebag

RESPIRATOR

HM = helf mank

FF = full face

P = powered

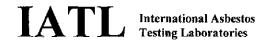
APR = air purifying reep.

Sampled by M

Comments

Date 8/26/2011

Date



## **BATCH / SAMPLE MANAGEMENT REPORT**

	RCS486			Batch Number:	25248
Customer:		onmental Group		Project:	Cleveland Trencl
	2812 Shake Beachwood		1.2	Project Number:	
	Beachwood	. 011	THE CONTRACTOR OF THE PARTY OF	-	
Customer Rep:	SC			TAT:	3 T
				Date/Time Rec'd:	9/16/20
# of Samples:	8	Analysis:	TEM NIOSH	Time/Date Due:	9/21/20
Initials Signal Acknowledge	-	RTP:	To PLM N	ОВ То ТЕМ №	NOB
Special Instruct	tions:	<del></del>			
Admin Notes:	ro	csenvironmental@	msn.com		
Sh	ipping Error	:			
			aled container. Bulk sam	ples not double bagged.	
	_			promised, possible contamination.	
Sa:	mples receive	d wet.		•	
Sa	mples receive	d covered with du	ist possible cross conta	mination.	
			ents spilled possible cr		
			ag as samples possible co		
	_	Chain of Custody			
	=	Sample Log Rec	•	-	
			ch the client's sample log.		
		Time indicated.			
			402. Cassettes previously	y opened and portion of filter remo	ved.
			d by the requested analyti		
			not attained. See attached		
					· · · · · · · · · · · · · · · · · · ·
	atch Error:			Login Error	
	2			Login Error:	
Ba	rong Client II	D Listed:		Sample Log Stamped	Incorrectly:
Ba W	rong Client II	D Listed: ocation Listed:	·	_	
W W	rong Client II rong Client L rong Project I	ocation Listed: ID Listed:		Sample Log Stamped Sample Containers M Duplicate / Extra Sam	islabelled: ples Not Stamped:
W W W	rong Client II rong Client L rong Project I rong TurnArc	ocation Listed: ID Listed: ound Time Listed:		Sample Log Stamped Sample Containers M	islabelled: ples Not Stamped:
	rong Client II rong Client La rong Project I rong TurnArc rong Due Dat	ocation Listed: ID Listed: ound Time Listed: te Listed:		Sample Log Stamped Sample Containers M Duplicate / Extra Sam	islabelled: ples Not Stamped:
W W W W	rong Client II rong Client L rong Project I rong TurnArc rong Due Dat rong Date/Tir	ocation Listed: ID Listed: ound Time Listed: te Listed: me Received Liste		Sample Log Stamped Sample Containers M Duplicate / Extra Sam	islabelled: ples Not Stamped:
	frong Client II frong Client L frong Project I frong TurnArc frong Due Dat frong Date/Tir frong Analysis	ocation Listed: ID Listed: ound Time Listed: te Listed:	ed:	Sample Log Stamped Sample Containers M Duplicate / Extra Sam	islabelled: ples Not Stamped:

SMGT.BatchSMR,0207



216-378-0997

Fax:

Cell/Pager:

#### PRELIMINARY RESULTS Airborne Asbestos Analysis TEM NIOSH

9-21-11	TA
The second secon	1 21
12:20 PM	

Client:	RCS Environmental Group	Project: <u>Cle</u>	veland Trencher	
	2812 Shakercrest Blvd.	Project No.:		•
	Beachwood OH 44122	PCM Reprep(y/n)	у	
Client No.:	RCS486	Turn-Around Time:	3 Day	
Client Conta	acts:	Laboratory Contacts:	· · · · · · · · · · · · · · · · · · ·	i
Contacts:	Mike Schmidt	Contacts: Frank E. Ehrenfeld III		1
Phone:		Phone: (856) 231-9449		ı

(856) 231-9818

Cell/Pager: (856) 727-8904

E-Mail: 0		E-Mail:	frankehrenfeld@iatl	.com
Chain of Custody:				
Samples Taken in Field:		Date:		Time:
Samples Rec'd at Laboratory:	DMD	Date:	9/16/11	Time:
Samples Analyzed:	CL	Date:	9/21/11	Time:
Preliminary Results Faxed:		Date:		Time:
Preliminary Results E-Mail:		Date:		Time:

Fax:

#### **Summary Data** Transmission Electron Microscopy **NIOSH 7402**

Client Sample ID #	IATL Sample ID #	Volume (L)	Comments	i Results f/mm²	<sup>2</sup> Results f/cc	<sup>3</sup> Results f/cc
082611-01B	4429708	1522	None Detected	< 11	< 0.0028	< 0.0028
082611-01B	4429709	1520	None Detected	< 11	< 0.0028	< 0.0028
082611-03B	4429710	1514	None Detected	< 11	< 0.0028	< 0.0028
082611-04B	4429711	1502	None Detected	< 11	< 0.0028	< 0.0028
082611-05B	4429712	1500	None Detected	< 11	< 0.0028	< 0.0028
082611-06B	4429713	1490	None Detected	< 11	< 0.0028	< 0.0028
082611-07B	4429714	1486	None Detected	< 11	< 0.0028	< 0.0028
082611-08B	4429715	FB	None Detected	< 9.62	< NA	< NA
:						-
			<del></del>		<del>                                     </del>	

1 - Total Asbestos Fibers in relation to area analyzed. 2 - Total Asbestos Fibers	Grid Box #:	7170
of all sizes as a function of the volume of air sampled. 3 - Same as for 2 for		
fibers > 5.0 μm in length.	Instrument (I, II):	I

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.

TEM NIOSH Prelim 001

lient Name		RCS Environ	mental Group		_	sis Date: 21/11		IATL Sample #:	4429708	
lient Proje		nort D			09/.	21/11		Client Sample #:	082611-01B	
ample Type		PCM Repres	•					IATL Grid Box #:	7170	
C Submitt	al 							Grid Archive ID #:	A1	
lectron Mic	roscope ID:		Filter	Dia. (mm²):	25			Magnification:	20,000X	
<u>I</u> <u>Hita</u>	chi H600AF	3 <u>, 542-47-3</u>		Area (mm²):	385			Ũ	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
EVEX	- EDXA Sys	tem		Filter Type:	MCE		Ac	celerating Voltage:	$100 \mathrm{KeV}$	
			Filter Pore	Size (μm):	0.8					
						***				
			Grid Opening: opening Area:	0.115	mm²	Volume	of Air Sampled:	1522	Liters	
	Grid C	Oria o penings Read		7	7	Analy	tical Sensitivity:	11.0	f/mm²	
	~·		rea Analyzed:	0.091	mm²		Detection Limit:		f/cc (0.003)	
	Cotol Achaet	os Structures:	NS	D.		Non Ash	estos Structures;	NSD		
1		0.5 - 5.0 μm:	NS:		-	1,011-7,720(	esios du uciujus,	TION		
		>5.0µm:	NS		•					
		Asbestos:	<	11.0	f/mm²		Non-Asbestos:	< 11.0	f/mm²	
		Asbestos:	<	0.0028	f/cc		Non-Asbestos:	< 0.0028	f/cc	
						Analysis Data	•			
Grid Opening	Fiber	Structure F B M C	<sup>1</sup> Length	<sup>2</sup> Length	<sup>3</sup> Diameter	* Chrysotile	**Amphibole	***Non-Asbestos	Comments / Micrograph /	
ID	Number	BMC	≤ 5.0 µm	> 5.0 µm	> 0.25 μm				EDS ID	
AI B1		NSD								
B2		NSD								
В3	·	NSD								
B4		NSD								
B5		NSD					<del> </del>		ļ	
B6	-	NSD			<del></del>					
B7		NSD						ļ		
	<del></del>	<u> </u>		<del> </del>			ı			
		<del>                                     </del>					-			
					<del>                                     </del>		<del> </del>			
				<del> </del>		<u> </u>		·		
4		<del> </del>			-					
			<del></del>	<del> </del>	<del> </del>	<del>                                     </del>	ļ			
				1						
Total:	NSD		0	0		0	0	0		
		ology, SAED, at	<u>'</u>		estos fiber	0	0	<u> </u>		
Must con	firm by Morph	iology, SAED, at	nd EDXA for eac	h suspect asbe		0	0	O Prep Quality: Dissolution	GOOD	
Must con Record vi	firm by Morph		nd EDXA for eac reflections (002	h suspect asbe		0	0	Prep Quality:	GOOD	
Must con Record vi	firm by Morph	nt Chrysotile DP	nd EDXA for eac reflections (002	h suspect asbe		0	0	Prep Quality: Dissolution		
Must con Record vi  ** Define An	firm by Morph isible promine: mphibole (DP rize by EDS	nt Chrysotile DP	nd EDXA for eac reflections (002 Print-out EDS an	h suspect asbe	), 220, 200)	0 E: FIBER ORIEN	<u> </u>	Prep Quality: Dissolution Carbon Film	GOOD	
Must con Record vi * Define Ai ** Character 1, 2 Record F	firm by Morph isible promine: mphibole (DP rize by EDS	nt Chrysotile DP obtained Y/N). F	nd EDXA for eac reflections (002 Print-out EDS an	h suspect asbe	), 220, 200)	· · · · · · · · · · · · · · · · · · ·	<u> </u>	Prep Quality: Dissolution Carbon Film Loading Analyzed By	GOOD 1% CL	
Must con Record vi  ** Define A	firm by Morph isible promine: mphibole (DP rize by EDS	nt Chrysotile DP obtained Y/N). F	nd EDXA for eac reflections (002 Print-out EDS an	h suspect asbe	), 220, 200)	· · · · · · · · · · · · · · · · · · ·	<u> </u>	Prep Quality: Dissolution Carbon Film	GOOD 1% CL	

Client Nam Client Proje	ect #;		mental Group		Analysis Date: 09/21/11		IATL Sample #: Client Sample #;	4429709 082611-02B	
Sample Typ QC Submit		PCM Repre	p					IATL Grid Box #:	7170
						···	<del> </del>	Grid Archive ID #:	A5
Electron Mi	-			Dia. (mm²):				Magnification:	20,000X
_	achi H600AE K-EDXA Sys		Effective	Area (mm²): Filter Type:			Δa	celerating Voltage:	1007-17
L VL	r- DDM1 Sys	tem	Filter Por	e Size (μm):			7.0	celerating voltage.	100KeV
		,							
		i	Grid Opening:	0.115	mm	Volume o	of Air Sampled:	1520	Liters
			opening Area:	0.013	mm²				
	Grid Openings Read / (Required): 7  Total Area Analyzed: 0.091			7	7 mm²	=	ical Sensitivity: Detection Limit:	0.0028	f/mm²
		- Total F		0.051	_*****	TVIIIIIIIIIIII I	———————	0,0028	f/cc (0.003)
		s Structures:					4 01 1	1707	
_		os Structures: 0.5 - 5.0 μm:	NS: NS:		-	Non-Asbe	stos Structures:	NSD	
		>5.0µm:	NS.		-				
		Asbestos:		11.0	_f/mm¹		Non-Asbestos:	< 11.0	f/mm²
		Asbestos:		0.0028	_f/cc		Non-Asbestos:	< 0.0028	f/cc
						Analysis Data	:		
Grid Opening ID	Fiber Number	Structure FBM C	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile *	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
A5 D1	l	NSD	<del></del>	<del></del>					
D2		NSD							
D3		NSD							
D4_		NSD							
D5		NSD			<del>}</del>				
D6 D7		NSD NSD					<del>.</del> -	<u> </u>	<del> </del>
D/	<del>                                     </del>	NoD			<del>                                     </del>		_	<u> </u>	
- :								<del></del>	
		ļ		<b></b>			ļ. <u>-</u>		
<u> </u>	<u> </u>		<del></del>		<u> </u>		_	<u> </u>	
	-	<del>                                     </del>	<u> </u>						<b></b>
Total:	NSD		0	0		0	0	0	
* Must cor	ifirm by Morph	ology, SAED, at	nd EDXA for eac	h suspect asbes	tos fiber			Prep Quality:	
			reflections (002,	-			-	Dissolution	GOOD
	•	obtained Y/N). I	Print-out EDS and	l attach.				Carbon Film	GOOD
	rize by EDS Sher I enoth an	d 3 fiber diamet	or (um)		SHE DEVED	SE: FIBER ORI	IENT ATTON NA	Loading AP	1%
	-	as not mainer	ու (իսու)		3110 M3 V 1510	ob, Philippin Old			~ <del>*</del>
Comments:							_	Analyzed By:	
-			<u> </u>				_	Reviewed By:	

Client Name	ect #:	RCS Epviron			ì -	sis <b>D</b> ate: 21/11		IATL Sample #: Client Sample #:	4429710 082611-03B
Sample Type QC Submitt		PCM Repre	Þ					IATL Grid Box #: Grid Archive ID #:	7170 A9
Electron Mic	roscope ID:		Filter	Dia. (mm²):	25	<del></del>	<del></del>	Magnification:	20,000X
	chi H600AB			Area (mm²):	385			<u>-</u>	20,000
EVEX	- EDXA Sys	tem 	Filter Por	Filter Type: e Size (µm):				celerating Voltage:	100KeV
			Grid Opening:	0.115	mm	Volume	of Air Sampled:	1514	Liters
	Grid (		opening Area: l / (Required):		mm² 7	Analst	ical Sensitivity:	11.0	f/mm²
		=	rea Analyzed:		mm²		Detection Limit:	<del></del>	f/cc (0.003)
Т		s Structures: _ 0.5 - 5.0 μm:	NS NS		-	Non-Asbe	estos Structures:	NSD	
		>5.0µm:	NS		- 				
		Asbestos: Asbestos:		11.0 0.0028	f/mm² f/cc		Non-Asbestos: Non-Asbestos:	< 11.0 < 0.0028	f/mm² f/cc
	<u>–</u>	<del></del>			<u>-</u> 	Analysis Data	······································		
Grid Opening	Fiber Number	Structure FBMC	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 µm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile	**Amphibole	***Non-Asbestos	
<b>ID</b> A9 B1		NSD					[ 		EDS ID
В2		NSD	<u> </u>			<del></del> -			_
A3		NSD			_				
A4	ļ	NSD	<del></del> -						
A5	•	NSD						<u> </u>	· · · · · · · · · · · · · · · · · · ·
A6	···	NSD		<b> </b>	<u> </u>				-
A7		NSD					1		
					ļ				
						_	<del> </del>		
ļ									
Total:	NSD		0	0		0	0	0	
			nd EDXA for eac reflections (002					Prep Quality: Dissolution	2000
•	•	-	renections (002) Print-out EDS and		, 220, 200)			Carbon Film	GOOD
	rize by EDS	<b>y</b>						Loading	1%
-	iber Length an	d 3 fiber diamete	er (µm)		SEE REVER	SE: FIBER OR	IENTATION M.		~~
Comments:						<del></del>		Analyzed By:	
								Reviewed By:	

Client Name Client Proje Sample Typ	et #: e:	RCS Environ PCM Repre	mental Group		09/21/11			IATL Sample #: Client Sample #: IATL Grid Box #:	4429712 082611-05B 7170
QC Submitt	al						Į.	Grid Archive ID#:	<u>B8</u>
t e	croscope ID: ochi H600AB - EDXA Sys		Effective .	Dia. (mm²): Area (mm²): Filter Type:	385 MCE		Acc	Magnification:	20,000X 100KeV
L		,	Filter Por	e Size (µm):	0.8		_		
	Grid (	Grid Openings Read	Grid Opening: opening Area: 1 / (Required): rea Analyzed:	0.115 0.013 7 0.091	mm mm² 7 mm²	Analyi	of Air Sampled: tical Sensitivity. Detection Limit:	11.0	Liters f/mm² f/cc (0.003)
Т		os Structures: 0.5 - 5.0 µm: >5.0 µm: Asbestos: Asbestos:		D	f/mm f/cc	Non-Asbe	estos Structures: Non-Asbestos: Non-Asbestos:	< 11.0	f/mm² f/ce
						Analysis Data	ı:		
Grid Opening ID	Fiber Number	Structure FBMC	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile *	**Amphibole	***Non-Asbestos	Comments / Micrograph / EDS ID
B8 D1		NSD					<u> </u>	<del></del>	
D2		NSD							
D3		NSD							
D4		NSD							
D5		NSD							
D6		NSD							
D7		NSD							
Total:	NSD	<u> </u>	0	0		0	0	0	
Record v  ** Define A  *** Character	risible prominer mphibole (DP rize by EDS	nt Chrysotile DP	nd EDXA for each reflections (002 , Print-out EDS and er (µm)	,004, 110, 130	, 220, 200)	SE: FIBER OR	JENTATION M.	Prep Quality: Dissolution Carbon Film Loading AP Analyzed By	GOOD GOOD <1%
								Reviewed By	

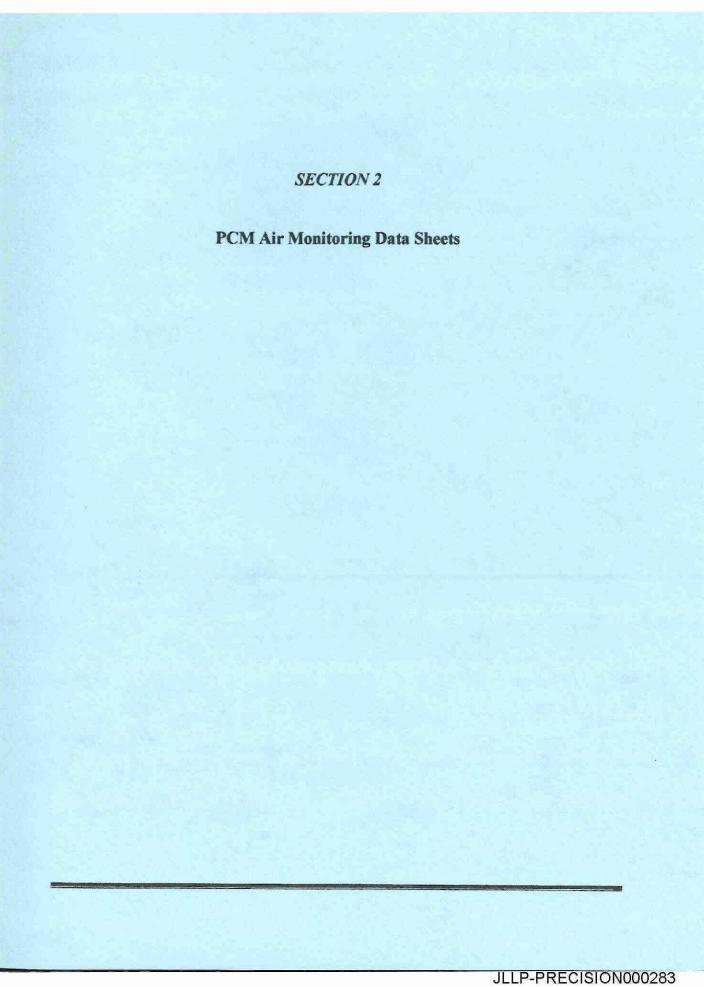
Client Name Client Proje		RCS Environ	mental Group		Analysis Date: 09/21/11			IATL Sample #: Client Sample #:	4429713 082611-06B	
Sample Typ		PCM Repres	p					IATL Grid Box #:	7170	
QC Submitt	al							Grid Archive ID#:	<u>C1</u>	
Electron Mic	roscope ID:		Filter	Dia. (mm²):	25	·-···		Magnification:	20,000X	
<u>I</u> <u>Hita</u>	chi H600AB	, 54 <u>2-47-3</u>		Area (mm²):				wagmioation.	20,0001	
EVEX	- EDXA Sys	tem		Filter Type:			Acc	celerating Voltage:	100KeV	
L			Filter Por	re Size (μm):	0.8			· .		
								<del></del>		
			Grid Opening:	0.115	mm <sub>2</sub>	Volume o	of Air Sampled:	1490	Liters	
	G-id C		opening Area: l / (Required):	0.013 7	mm <sup>2</sup> 7	Amalan	ical Sensitivity:	11.0	6/3	
	Orla		rea Analyzed:	0.091	- ′ mm²		Detection Limit:		f/mm² f/ec (0,003)	
									<i>Pac</i> (0,003)	
					· · · · · · · · · · · · · · · · · · ·	<del></del>	····			
j <sup>1</sup>		os Structures: 0.5 - 5.0 µm:	NS:		-	Non-Asbe	stos Structures:	NSD		
		0.5 - 5.0 μm.   >5.0μm:	NS:		-	•				
Asbestos: <11.0 f/mm							Non-Asbestos:	< 11.0	f/mm²	
		Asbestos:		0.0028	f/cc		Non-Asbestos:	< 0.0028	f/cc	
	Analysis Data:									
Grid Opening ID	Fiber Number	Structure FBMC	¹ Length ≤ 5.0 μm	<sup>2</sup> Length > 5.0 μm	<sup>3</sup> Diameter > 0.25 μm	Chrysotile	**Amphibole	***Non-Asbestos	Comments / Micrograph /	
		7.700					1		EDS ID	
C1 E1		NSD	<del></del>							
E2 E3		NSD NSD			<u> </u>					
E3 E4		NSD					, <u> </u>		<del></del>	
E5		NSD							<u></u>	
E6		NSD								
E7		NSD	·		1				-	
		TABLE	·		,				-	
									<u> </u>	
Total:	NSD	<u> </u>	0	0	<u> </u>	0	0	0	<u> </u>	
* Must con	nfirm by Morph	ology, SAED, a	nd EDXA for eac	h suspect asbes	stos fiber			Prep Quality:		
Record v	isible promine	nt Chrysotile DP	reflections (002	,004, 110, 130	, 220, 200)			Dissolution	GOOD	
		obtained Y/N). I	Print-out EDS and	d attach.				Carbon Film	GOOD	
	rize by EDS					an	· · · · · · · · · · · · · · · · · · ·	Loading	1%	
1,2 Record I	Tiber Length an	d 3 fiber diamet	er (µm)		SEE REVER	SE: FIBER OR	IENTATION M.	AP		
Comments:								_ Analyzed By	CL	
								Reviewed By	:	

# **TEM Air Sample Worksheet**

						<del></del>			
Client Name	e:	RCS Environ	mental Group		Analys	sis Date:		IATL Sample #:	4429714
Client Proje	ect#:				09/	21/11		Client Sample #:	082611-07B
Sample Typ	e:	PCM Repre	)					IATL Grid Box #:	7170
QC Submit								Grid Archive ID #:	C5
Electron Mic	croscope ID:	<del></del>				-			
	-	540.40.0		Dia. (mm²):				Magnification:	20,000X
-	achi H600AE		Effective	Area (mm²): Filter Type:			۸	1117-14	TOOTE TE
EVEA	K- EDXA Sys	sterii	Filter Por	rmer 1 ype. e Size (µm):			Ac	celerating Voltage:	100KeV
		···-						_	
				0.115		Valves	-f A : C1- J-	1496	т.,
			Orid Opening: opening Area:		mm mm²	volume	of Air Sampled:	1486	Liters
	Grid (	Ond Openings Read			7	Analyt	ical Sensitivity:	11.0	f/mmn²
	0.1.0		rea Analyzed:		mm²	=	Detection Limit:		f/cc (0.003)
									(0.003)
				<del></del>					· · · · · · · · · · · · · · · · · · ·
7		os Structures: _ 0.5 - 5.0 μm;	NS NS		-	Non-Asbe	stos Structures:	NSD	
		0.5 - 5.0 μm; >5.0μm;	NS NS		-				
i		Asbestos:		11.0	f/mm <sup>*</sup>		Non-Asbestos:	< 11.0	f/mm²
		Asbestos:		0.0028	f/cc		Non-Asbestos:	< 0.0028	f/ec
	-,								
					A	Analysis Data	:		
Grid		5, ,	1.	2	3	Channadila			Comments /
Opening	Fiber Number	Structure   FBMC	1 Length	<sup>2</sup> Length	<sup>3</sup> Diameter > 0.25 μm	Chrysotile *	**Amphibole	***Non-Asbestos	
Ð	Number	PBMC	≤ 5.0 μm	> 5.0 μm	> 0.25 μm				EDS ID
C5 B1		NSD							
B2		NSD					1		<u> </u>
В3		NSD				-			
B4	,	NSD							
B5		NSD							
В6		NSD				-			
B7		NSD							
		<u> </u>							
				·					
	<del> </del>	<del>                                     </del>		<del> </del>	<del>                                     </del>		<del></del>		·
							†	-	
	<del></del>	<del>                                     </del>	<u> </u>			i	†	<u> </u>	<del></del>
			······································	1		<del>                                     </del>			<del>                                     </del>
<u> </u>		<del>                                     </del>		<del>                                      </del>	<del> </del>	<del> </del>	†	<del></del>	
Total:	NSD	<del> </del>	0	0	+	0	0	0	<del> </del>
	<del>'==:</del> -	<u> </u>		<u> </u>	·	<u> </u>	<del>!</del>	<u> </u>	<u></u>
		ology, SAED, at		-				Prep Quality:	acon
	_	nt Chrysotile DP			, 220, 200)			Dissolution	GOOD
		obtained Y/N). I	rint-out EDS and	1 attach.				Carbon Film	GOOD
*** Characte	-	ul 2 Shor diameter	er (um)		SEE DEMED	SE: FIBER OR	IENTATION M	Loading	<1%
1, 2 Record i	rivet Length an	d 3 fiber diamete	a (huu)		SEE KEVEK	SD. FIDER OR	TOTAL TOTAL INC		
Comments:						<del></del>		Analyzed By:	CL
								Reviewed By	

# **TEM Air Sample Worksheet**

CTION A DIT -	<del></del>	BCC F'				in Dad		1400 0	
Client Nam Client Proje		ксэ елунов	mental Group		_	sis <b>D</b> ate: 21/11		IATL Sample #:	4429715
Sample Typ		PCM Repre	_		03//.	21/11		Client Sample #:	082611-08B
QC Submit		I Chi Repre	Р					IATL Grid Box #: Grid Archive ID #:	7170 C9
Electron Mic	croscope ID:			Dia. (mm²):				Magnification:	20,000X
	chi H600AB		Effective	Area (mm²):					
EVE	K-EDXA Sys	tem	Eilten Der	Filter Type: re Size (µm):			Ac	celerating Voltage:	100KeV
			- Filter For	e Size (µiii).	0.6				
				0.115					
i			Grid Opening: opening Area:	0.115	mm mm²	Volume	of Air Sampled:	FB	Liters
	Grid C		d / (Required):		(10)	Analyt	ical Sensitivity:	9.6	f/mm²
	-		rea Analyzed;		mm <sup>2</sup>		Detection Limit:		f/cc (0.003)
<u> </u>	,				-				(0.005)
	Cotol Ashast	s Structures:	»to	D		<b>N</b> 7 A -1	oton Star-turn	NOD	
-		os Structures: 0.5 - 5.0 μm:	NS NS		-	Non-ASbe	estos Structures:	NSD	-
	,	0.5 - 5.0 μm: >5.0μm:	NS		-				
		Asbestos:	<	9.6	f/mm²		Non-Asbestos:	< 9.6	f/mm²
		Asbestos:		NA	f/cc		Non-Asbestos:		f/ec
						_			<del>-</del>
					A	Analysis Data	:		
Grid	Fiber	Structure	1 Length	<sup>2</sup> Length	<sup>3</sup> Diameter	Chrysotile			Comments /
Opening ID	Number	FBMC	≤5.0 μm	> 5.0 µm	> 0.25 µm	*	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
C9 B1	<u> </u>	NSD		<u> </u>					1 223 12
B2		NSD							
B3		NSD							
B4		NSD	<u> </u>						<del></del>
A2		NSD							<del>                                     </del>
A3		NSD		<del>                                     </del>	<del> </del>	<del></del>			<del> </del>
A4	<del></del>	NSD	<u>.</u>						<del></del>
A5	<del></del>	NSD		<del>                                     </del>			<del> </del>	<del> </del>	<del></del>
AJ	ļ	NOD						<u> </u>	
	<del></del>			<del></del>	-				<del></del>
			1		<del>                                     </del>			<del></del>	<del></del>
<u> </u>	<del>                                       </del>	1			1			<del> </del>	
<u> </u>					<u> </u>			<del> </del>	
<b> </b>	1	<del>                                     </del>		<del> </del>	<del> </del>			<del> </del>	-
<del> </del>	<del> </del>	<del> </del>		<del> </del>				<del> </del>	
Total:	NSD	<del>                                     </del>	0	0		0	0	0	-
[			<u> </u>	<u>.l.,</u>		<u> </u>	<u> </u>	<del>'</del>	<u> </u>
			nd EDXA for eac	=				Prep Quality:	
	-	-	reflections (002		, 220, 200)			Dissolution	GOOD
	•	ontained Y/N). I	Print-out EDS and	1 апасл.				Carbon Film	GOOD
	rize by EDS Sher Length on	d 3 fiber diamete	er (um)		SEE REVER	SE: FIBER OR	IENTATION M	Loading AP	<1%
·	_	and incidiation	-ι <sub>(</sub> μιιι)		ODE ME VER	LIDER OR	TENTE I I I IVII IVII		
Comments:								- Analyzed By	
								Reviewed By	



Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

Report Date:

9/20/2011

Report Number: 252486

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

Lab No.	Client No.	Description / Location	Volume (Liters)	Density (Fibers/mm²)	Concentration (Fibers/cc)
4429701	01A/01B	WestSideOfPropertySouthPastEndOfBldg. 082311/082411	1576	2.65	<0.0018
4429702	02A/02B	WestSideOfProperty@WestSideGate 082311/082411	1572	2.65	<0.0018
4429703	03A/03B	SouthwestCornerOfProperty 082311/082411	1566	2.65	<0.0018
4429704	04A/04B	South Center Of Property 082311/082411	1562	2.65	<0.0018
4429705	05A/05B	EastSideEastOfProperty 082311/082411	1554	2.65	<0.0018
4429706	06A/06B	NorthEndInsideDeconArea 082311/082411	1554	2.65	<0.0018
4429707	07A/07B	Field Blank 082311/082411	0	1.33	NA

Accreditation:

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government This report shall not be reproduced except in full, without written approval of the laboratory.

Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed.

Method requires submittal of blanks. Reporting Limit based upon 7 f/mm2. These results are not blank corrected.

IATL assumes that appropriate sampling methods were used and that the data upon which these results are based, has been accurately supplied by the client. This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.

Current annual Coefficient of Variation (CV) values from low to high fiber ranges are 0.24, 0.36, & 0.25 as required by NIOSH 7400.

Date Received: \_\_9/16/2011

Date Analyzed:

9/20/2011

Analyst:

B. Reich

Approved By:

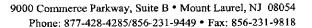




# Chain of Custody -Airborne Asbestos –

Contact Information	····	
Contact Information		
Client Company: RCS ENVIRONMENTAL	Project Number:	0.515.0.5.150
Office Address: 28/2 SHAKERCREST	Project Name:	CLEUELAND TRENCHER
City, State, Zip: BEACHWOOD, OH 44122	Primary Contact:	MIKE SchmioT
Fax Number:	Office Phone:	216-370-0997
Email Address:	Cell Phone:	
RCSENJironmenta/ RMSN.ca	om.	
Analysis/Instructions:    PCM	> 7400 A~>>	7402 ON EACH CASSETTE
Turnaround Time  Preliminary Results Requested Date:  Specific date / time  Specific dat	Day* 12 Hour** Contable colony f	orming units (CFU) of fungi.
	<del></del> .	
Chain of Custody Relinquished (Name/Organization): Received (Name / IATL): Sample Login (Name / IATL): Analysis(Name(s) / IATL): QA/QC Review (Name / IATL): Archived / Released: QA/QC InterLAB Use:	Date: 9/6/11 Date: 9/00/11 Date: 9/00/11 Date: Date: Date:	Time: 500 Time: 500 Time: Time: Time: By

Celebrating 25 years...one sample at a time www.latl.com





# Sample Log

-Airborne Asbestos -

Client:	RCS ENVIRONMENTAL	Project:	CLEURLAND TRENCHER	
Sampling Date:	8/23-24/11			

							<u>,</u>		
	Client Sample #	· iATL#		Location/ Description	Flow Rate	<u>Start</u> End	Sampling time (min)	Area (ft2) Volume (L)	Results CC
√	082311-01B	4429701	孟						2,65 <0,0013
V	092411-02B	4429702	2			_		1572	265<0018
V	082411-03B 082311-03A	4429703	る					1546 1	2.65 <0.0018
J	082411-04B	4429704	品		_			1562	265 <0.0018
J	002411-05B 092311-05A	4429705	吞						265<0.0018
	082411-06B 082311-06A	4429706	<b>B</b>		_			1552	2.65<0.0018
	002411-07B 002311-07A	4429707	40	BLANK					1:33
						<u> </u>			
	<del></del>		7						
			- 1						
						<del> </del>		<u> </u>	
					_				

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\* = Insufficient Sample Provided to Analyze (<50mg)

\*\* = Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s). ML : Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.



Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

Report Date:

9/20/2011

Report Number: 252488

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

<u>Lab No.</u>	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4429708	01 <b>A/0</b> 1B	InsideBldg.SouthEndByCtrOfStandByBldg. 082511/082611	1522	2.65	<0.0018
4429709	02A/02B	WestSideOfProperty@WestSideGate 082511/082611	1520	2.65	<0.0018
4429710	03A/03B	SouthEndOfPropertyNearCtrOfSouthSide 082511/082611	1514	2.65	<0.0019
4429711	04A/04B	EastSideInTheSouthEπd 082511/082611	1502	2.65	<0.0019
4429712	05A/05B	EastSideOfPropertyNearCtrOfEastSide 082511/082611	1500	2.65	<0.0019
4429713	06A/06B	South Side Of Decon Area 082511/082611	1490	2.65	<0.0019
4429714	07A/07B	NorthSideOfPropertyEastOfOfficeBldg. 082511/082611	1486	2.65	<0.0019
4429715	08A/08B	Field Blank 082511/082611	0	1.33	NA

Accreditation:

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed. Method requires submittal of blanks. Reporting Limit based upon 7 f/mm<sup>2</sup>. These results are not blank corrected.

IATL assumes that appropriate sampling methods were used and that the data upon which these results are based, has been accurately supplied by the client. This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. Current annual Coefficient of Variation (CV) values from low to high fiber ranges are 0.24, 0.36, & 0.25 as required by NIOSH 7400.

**Date Received:** 9/16/2011

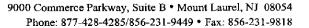
Date Analyzed:

9/20/2011

Analyst:

B. Reich

Approved By:

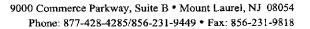




# Chain of Custody -Airhorne Ashestos -

Contact Information						
Client Company: RCS ENUIDONMENTAL Project Number:  Office Address: 2012 SHAKERCREST Project Name: CEUDAND TREN	· · · leA					
Office Address: 2012 SHAKERCREST Project Name: CEURAND TREN City, State, Zip: BEACHWOOD, OH YVIZZ Primary Contact: MIXE SCHMIRE	XHEIL.					
Fax Number: Office Phone: 216-378-0997	7					
Email Address: Cell Phone:						
RCSenvironmental@MSN.COM						
Analysis/Instructions:						
PCM						
ZTEM - NIOSH 740 Z						
□ PLM						
☐ Other						
Method (specify): PLEASE USE METHOD 7400 MM 7402 ON FACH CASSETTA.  Special Instructions:						
	1					
Turnaround Time						
Turnaround Time  Preliminary Results Requested Date:						
Preliminary Results Requested Date:  Specific date / time  10 Day 15 Day 3 Day 12 Day 1 Day* 12 Hour** 6 Hour** RUSH**  Note: Viable/Culturable samples may require several days in order to establish countable colony forming units (CFU) of fungi.						
Preliminary Results Requested Date:  Specific date / time  10 Day	*					
Preliminary Results Requested Date:  Specific date / time  10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour** RUSH**  Note: Viable/Culturable samples may require several days in order to establish countable colony forming units (CFU) of fungi.	*					
Preliminary Results Requested Date:  Specific date / time  10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour** RUSH**  Note: Viable/Culturable samples may require several days in order to establish countable colony forming units (CFU) of fungi.	*					

Celebrating 25 years ... one sample at a time www.isti.com





# Sample Log

-Airborne Asbestos -

Client: RCS ENVIRONMENTAL	Project: CLEVELAND TRENCHER
Sampling Date: <u>8/25-26/11</u>	

	Client Sample #	iATL#	Location/ Description	Flow Rate	<u>Start</u> End	Sampling time (min)	Area (ft2) Volume (L)	Results CC
€.	082511-01B	4429708	2				1522	2.65 < 0.0018
Į	082611-02B 082511-02A	4429709	<del>2</del>				1520	2.65 < 0.0018
<b>V</b>	082611-03B 082511-03A		36				1514	2-65 < 0,0019
V	082411-04B		彦				1502	265 < 2.00A
V	082611-05B 082511-05A		3		) 	<u></u>	1500	265<00019
V.	082511-06B		र के				1490	2,65 <0,0019
<b>/</b>	082511-07B	4429714	क				1486	2-65 < 20019
<b>~</b>	082511-08B	4429715	5 BLANK				MA	1.33
		<u> </u>						
				-	:		1	
					<del> </del> -			
	-		<del> </del>					

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\* = Insufficient Sample Provided to Analyze (<50mg) \*\*\* = Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.



Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

OH

44122

Report Date:

9/20/2011

Report Number: 252490

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Description / Location	Volume (Liters)	Density (Fibers/mm²)	Concentration (Fibers/cc)
4429716	08232011-08	PRS:Rodney Warrens#2410 InDeconAreaSetupUnloadSupplys	342	42.4	0.0480
4429717	08232011-09	EXC:Rodney Warrens#2410 2ndFloorOfficeBldg.SealingWindow	60	2.65	<0.0470
4429718	08232011-10	PRS:Rodney Warrens#2410 2ndFloorOfficeBldg.SealingWindow	210	10.6	0.0190
4429719	08232011-11	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government This report shall not be reproduced except in full, without written approval of the laboratory.

Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed. Method requires submittal of blanks. Reporting Limit based upon 7 f/mm<sup>2</sup>. These results are not blank corrected. IATL assumes that appropriate sampling methods were used and that the data upon which these results are based, has been accurately supplied by the client.

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Date Received: 9/16/2011

Date Analyzed:

9/20/2011

Analyst:

B. Reich

Approved By:

Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH

Report Date:

9/20/2011

Report Number: 252490

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

<u>Lab No.</u>	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4429720	08242011-08	EXC:Rodney Warrens#2410 OfficeBldg.2ndFloorSealingWindows	60	2.65	<0.0470
4429721	08242011-09	PRS:Rodney Warrens#2410 OfficeBldg.2ndFloorSealingWindows	512	29.2	0.0220
4429722	08242011-10	PRS:Rodney Warrens#2410 OfficeBldg.2ndFloorSealingWindows	362	18.6	0.0200
4429723	08242011-11	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

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**Date Received:** 9/16/2011

Date Analyzed:

9/20/2011

Analyst:

B. Reich

Approved By:

Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

OH

44122

Report Date:

9/20/2011

Report Number: 252490

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

<u>Lab No.</u>	Client No.	Description / Location	Volume (Liters)	Density (Fibers/mm²)	Concentration (Fibers/cc)
4429724	08252011-09	PRS:Rodney Warrens#2410 OfficeBldg.2ndFloorSealingWindows	630	7.29	0.0045
4429725	08252011-10	EXC:Rodney Warrens#2410 OfficeBldg.1stFloorSealingWindows	60	2.65	<0.0470
4429726	08252011-11	PRS:Rodney Warrens#2410 OfficeBldg.1stFloorSealingWindows	262	2.65	<0.0110
4429727	08252011-12	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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**Date Received:** 9/16/2011

Date Analyzed:

9/20/2011

Analyst:

B. Reich

Approved By:



Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

OH

Report Date:

9/20/2011

Report Number: 252490

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

Lab No.	Client No.	Description / Location	Volume (Liters)	Density (Fibers/mm²)	Concentration (Fibers/cc)
4429728	08262011-09	EXC:Rodney Warrens#2410 OfficeBldg.1stFloorSealingWindows	64	2.65	<0.0440
4429729	08262011-10	PRS:Rodney Warrens#2410 OfficeBldg.1stFloorSealingWindows	368	7.96	0.0083
4429730	08262011-11	PRS:Rodney Warrens#2410 OfficeBldg.1stFloorSealingWindows	206	19.9	0.0370
4429731	08262011-12	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed. Method requires submittal of blanks. Reporting Limit based upon 7 f/mm2. These results are not blank corrected.

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Date Received: 9/16/2011

Date Analyzed:

9/20/2011

Analyst:

B. Reich

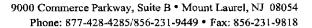
Approved By:



9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054 Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

# Chain of Custody -Airborne Asbestos -

Contact Information					
Client Company: RCS ENUIRONMENTAL Project Number:					
Office Address: 2812 SHAKERCREST Project Name: CLEVELAND TRENCHER					
City, State, Zip: BEACHWOOD, OH 44122 Primary Contact: MIXE Schmidt					
Fax Number: Office Phone: 216-376,0997					
Email Address: Cell Phone: SAME					
RCS environmental RMSN.com					
K-26/10/10/11MP/119/12/13/12/19					
Matrix/Method:					
PCM: NIOSH 7400					
☐ PCM: OSHA ID-160					
l					
TEM: NIOSH 7402					
TEM: AHERA 40 CFR 763					
☐ TEM: ISO 10312					
☐ TEM: ISO 13794					
☐ Other					
Special Instructions: PLEASE ANALYZE ALL "POSITIVE" RESULTS					
GREATER THAN 0.005 FLCC BY NIOSH TY02 (TEM).					
DO NOT ANALYZE BY TEM IF GREATER THAN 0.005 FICE BECAUSE					
OF DETECTION LIMIT AND SMALL SAMPLE VOLUME					
Turnaround Time					
Proliminary Results Requested Date:  Specific date / time  Specific date / time					
Specific date / time  10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour** 1 RUSH**					
Seed to Day seed Day seed Day seed in Day seed in Day Seed 1 Day Seed 1 Little Seed 1					
* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***					
Chain of Custody  Reliaminated Olympic Commissions of the Commission of the Commissi					
Relinquished (Name/Organization):  Received (Name / iATL):  Date:  Date:  Time:					
Sample Login (Name / iATL):  Date:  Time: State in time: State in					
Analysis(Name(s) / iATL): Date: 1/2011 Time:					
QA/QC Review (Name / iATL): Date: Time:					
Archived / Released:QA/QC InterLAB Use:Date:A Time:					



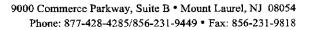


# **Chain of Custody**

-Airborne Asbestos -

Contact Information						
Client Company: RCS ENUIRONMENTAL Project Number:						
Office Address: 2812 SHAKERCREST Project Name: CLEVELAND TRENCHER						
City, State, Zip: BEACHWOOD, OH 44122 Primary Contact: MIKE Schmipt						
Fax Number: Office Phone: 216-376,0997						
Email Address: Cell Phone: SAME						
RCS environmental RMSN.com						
K-SMOTOTIMENT AT CHISTOCK						
Matrix/Method:						
PCM: NIOSH 7400						
PCM: OSHA ID-160						
☐ TEM: NIOSH 7402						
TEM: AHERA 40 CFR 763						
☐ TEM: ISO 10312						
☐ TEM: ISO 13794						
Other						
Special Instructions: PLEASE ANALYZE ALL "POSITIVE" RESULTS						
(SREATER THAN 0.005 FICE BY NIOSH 7402 (TEM).						
DO NOT ANALYZE BY TEM IF GREATER THAN 0.005 FICE BECAUSE						
OF DETECTION LIMIT AND SMALL SAMPLE VOLUME						
Turnanan I Tima						
Turnaround Time  Preliminary Results Requested Date:   Uverbal Demail Fax						
Specific date / time						
☐ 10 Day ☐ 5 Day ☑ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**						
* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping ***						
Chain of Custody						
Relinquished (Name/Organization):						
Received (Name / iATL):  Sample Login (Name / iATL):  Date:  Time:  Time						
Analysis(Name(s) / iATL):  Date: Time:						
QA/QC Review (Name / iATL): Date:Time:						
Archived / Released: QA/QC InterLAB Use: Date: ATtime: By						

Celebrating 25 years...one sample at a time www.fath.com





# Sample Log

-Airborne Asbestos -

Client: RCS ENVIRONMENTAL	Project: CLEUKLAND TRENCHER
Sampling Date: 8/23-26/11	

	Client Sample #	iATL#	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft2) Volume (L)	Results
1	08232011-08	4429716				760	342	424 0,048
1	0823zo11.09	4429717				Albake	90	2.65 < 0.047
4	08232011-10	4429718				ooke	210	10.6 0.019
y	08232011-11	4429719				18	BANK	133
V	8242011-08	4429720				AB	60	2.65 < 0.047
$\vee$	8242011-09	4429721				够	512	29,2 0,022
Y	9242011-10	4429722				型	362	18.6 0,020
4	824201-11	4429723				40	BLANK	1.33
Ž	8252011-99	4429724			· <del>-</del>	S	630	7.27 0.0045
4	8252011-10	4429725				10	60	2.65 < 9.047
Ч	8252011-11	4429726		_			262	265 <0.011
ᆚ	8252011-12	4429727				rds	BLANK	1.33
	82691-09	4429728		_		700	64	265 50,044
	82891-10	4429729 4429730 4429731				点	368	7,96 0,0083.
	8281-17 4281-12	4429731				Xec.	206 BLANK	19.9 0.037

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\* = Insufficient Sample Provided to Analyze (<50mg) \*\*\* - Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s), ML = Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.

Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

Lab No.	Client No.	Description / Location	Volume (Liters)	Density <u>(Fibers/mm²)</u>	Concentration (Fibers/cc)
4436670	082911-01	PER:West Side South Past End Of Bldg.	1296	2.65	<0.0022
4436671	082911-02	PER:West Side @ West Gate	1293	2.65	<0.0022
4436672	082911-03	PER:South End Of Property Near Center Of South	1290	2.65	<0.0022
4436673	082911-04	PER:East End Of Property Near Center	1275	2.65	<0.0022
4436674	082911-05	PER:South Side Of Decon Area	1305	2.65	<0.0022
4436675	082911-06	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed. Method requires submittal of blanks. Reporting Limit based upon 7 f/mm<sup>2</sup>. These results are not blank corrected.

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Current annual Coefficient of Variation (CV) values from low to high fiber ranges are 0.24, 0.36, & 0.25 as required by NIOSH 7400.

Date Received: \_\_9/26/2011

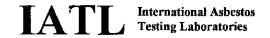
Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:



Client:

**RCS** Environmental Group

2812 Shakercrest Blvd

Beachwood

Report Date:

9/27/2011

Report Number: 253205

Jer: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

<u>Lab No.</u>	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436676	083011-01	PER:West Side @ West Gate	1305	2.65	<0.0022
4436677	083011-02	PER:South SideNear Center	1305	2.65	<0.0022
4436678	083011-03	PER:East Side Near Center	1305	2.65	<0.0022
4436679	083011-04	PER:Southeast Of Decon Area	1305	2.65	<0.0022
4436680	083011-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

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Date Received:

9/26/2011

Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:



Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

\_\_\_

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

Lab No.	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436681	083111-01	PER:West Side Southwest  @ West Gate	1365	2.65	<0.0021
4436682	083111-02	PER:South End Center Of South	1344	2.65	<0.0021
4436683	083111-03	PER:East Side Center	1317	2.65	<0.0021
4436684	083111-04	PER:North Side Of Decon Area	1452	2.65	<0.0019
4436685	083111-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

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Date Received:

9/26/2011

Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:



Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

OH

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

Lab No.	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436686	090111-01	PER:West Side @ Gate	1221	2.65	<0.0023
4436687	090111-02	PER:South End Center Of South	1215	2.65	<0.0023
4436688	090111-03	PER:East Side Center	1206	2.65	<0.0023
4436689	090111-04	PER:North Side Of Decon Area	1600	2.65	<0.0018
4436690	090111-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Current annual Coefficient of Variation (CV) values from low to high fiber ranges are 0.24, 0.36, & 0.25 as required by NIOSH 7400.

Date Received: \_\_9/26/2011

Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:

Client:

**RCS Environmental Group** 

2812 Shakercrest Blvd

Beachwood

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

Lab No.	Client No.	Description / Location	Volume (Liters)	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436691	090211-01	PER:Southwest On West Gate	1224	2.65	<0.0023
4436692	090211-02	PER:South End Center Of South	1224	2.65	<0.0023
4436693	090211-03	PER:East Side Center Of East	1221	2.65	<0.0023
4436694	090211-04	PER:North Side Of Decon Area	1624	2.65	<0.0017
4436695	090211-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed. Method requires submittal of blanks. Reporting Limit based upon 7 f/mm<sup>2</sup>. These results are not blank corrected.

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B. Reich

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Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH

44122

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

Lab No.	Client No.	Description / Location	Volume (Liters)	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436696	090611-01	PER:Southwest @ West Gate	1314	2.65	<0.0021
4436697	090611-02	PER:South End Center	1308	2.65	<0.0021
4436698	090611-03	PER:East Side Center	1290	2.65	<0.0022
4436699	090611-04	PER:North End Of Decon Arca	1620	2.65	<0.0017
4436700	090611-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

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Date Received: \_\_9/26/2011

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Analyst:

B. Reich

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Client:

RCS Environmental Group

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Beachwood

OH

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

<u>Lab No.</u>	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436701	090711-01	PER:Southwest @ West Gate	1068	2.65	<0.0026
4436702	090711-02	PER:South End Center	1065	2.65	<0.0026
4436703	090711-03	PER:East Side Center	1062	2.65	<0.0026
4436704	090711-04	PER:North End Of Decon Area	1172	2.65	<0.0024
4436705	090711-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSII 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

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Method requires submittal of blanks. Reporting Limit based upon 7 f/mm². These results are not blank corrected.

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Date Received:

9/26/2011

Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:

Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

ОН

44122

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

<u>Lab No.</u>	Client No.	Description / Location	Volume <u>(Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436706	090811-02	PER:South End Near Center	1137	2.65	<0.0025
4436707	090811-03	PER:East Side Near Center	1131	5.31	<0.0025
4436708	090811-04	PER:North End Of Decon Area	1608	2.65	<0.0017
4436709	090811-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

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Method requires submittal of blanks. Reporting Limit based upon 7 f/mm². These results are not blank corrected.

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Date Received: \_

9/26/2011

Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:

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Client:

RCS Environmental Group

2812 Shakercrest Blvd

Beachwood

OH

Report Date:

9/27/2011

Report Number: 253205

Project:

Cleveland Trencher

Project No.:

#### PCM AIR SAMPLE ANALYSIS SUMMARY

44122

<u>Lab No.</u>	Client No.	Description / Location	Volume ( <u>Liters)</u>	Density (Fibers/mm²)	Concentration (Fibers/cc)
4436710	090911-01	PER:Southwest @ West Gate	1440	2.65	<0.0020
4436711	090911-02	PER:South Center	1440	18.6	0.0050
4436712	090911-03	PER:East Near Center	1425	13.3	0.0036
4436713	090911-04	PER:North End Of Decon	1716	2.65	<0.0016
4436714	090911-05	Field Blank	0	1.33	NA

AIHA Registry Program, LLC

AIHA-LAP, LLC No. 100188

Accreditation:

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Analytical Method: Phase Contrast Microscopy - NIOSH 7400 Method Revision #4, Issue 2, August 15, 1994

Comments:

A VOID concentration means that the sample has been overloaded with particulate matter and could not be reliably analyzed.

Method requires submittal of blanks. Reporting Limit based upon 7 f/mm². These results are not blank corrected.

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Date Received: \_\_9/26/2011

Date Analyzed:

9/27/2011

Analyst:

B. Reich

Approved By:



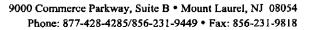
9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054 Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

# **Chain of Custody**

-Airborne Asbestos -

Contact Information
Client Company: RCS ENVIRONMENTAL Project Number:
Office Address: 2812 SHAKERCREST Project Name: CLEVELAND TRENCHER
City, State, Zip: BEACHWOOD, OH 44122 Primary Contact: MIXE SCHM.DT
Fax Number: Office Phone: 216-376,0997
Email Address: Cell Phone: Same
RCSenuironmental RMSN.com
1. The second of months of the second
Matrix/Method:
DEPCM: NIOSH 7400
PCM: OSHA ID-160
☐ TEM: NIOSH 7402
☐ TEM: AHERA 40 CFR 763
☐ TEM: ISO 10312
☐ TEM: ISO 13794
Other
Special Instructions: PLEASE ANALYZE ALL "POSITIVE" RESULTS
GREATER THAN 0.005 FLCC BY NIGSH T402 (TEM).
DO NOT ANALYZE BY TEM IF GREATER THAN 0.005 FICE BECAUSE
OF DETECTION LIMIT AND SMALL SAMPLE UCLUME
T
Turnaround Time  Preliminary Results Requested Date:
Specific date / time
☐ 10 Day ☐ 5 Day ☑ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**
* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***
2-12 of here desired only introductions operation. Product Department. I heart natify the law before suitphing
Chain of Custody
Relinquished (Name/Organization): Med Date: Date: Time: 500
Received (Name / iATL):  Date: Date: Time: VE
Sample Login (Name / iATL):  Analysis(Name(s) / iATL):  Date: Date: Time:
QA/QC Review (Name / iATL): Date: Time: / Date:
Archived / Released: QA/QC InterLAB Use: Date: Time.
LATL-BV
Celebrating 25 years some cample at a time www.lath.com

10F5





# Sample Log

-Airborne Asbestos -

Client: R RC	S ENVIRONMENTAL	Project: CLEVELAND TRENCHER
	9/29-30/11	

Client Sample #	iATL#	Location/ Description	Flow Rate	Start End	Sampling time (min)	Auca (ft2) Volume (L)	My Results Cc
082911-01	4436670				100	1296	2.65<0.0022
08291102	4436671				n n n	1293	2,65 < 0.0022
082911-03	4436672				2 100	1290	2,65 <0,002
082911-04	4436673		· · -		秀	1275	265 <0,000
082911-05	4436674				景		265 <0,0022
032911-06	4436675		-		城	BLANK	1.33
083011-01	4436676				7		2,65 <0,002
083011-02	4436677				76		2,65 < 0,062
093011-03	4436678				<del>7</del> 8	1305	2.65 <0,002
083011-04	4436679				る		265 <0,00Z
083011-05	4436680				705	BLANK	1:33
	<u> </u>	-					_
		1					

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\* = Insufficient Sample Provided to Analyze (<50mg)

\*\*\* = Matrix / Substrate Interference Possible

FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply conditions apply.



# Sample Log

-Airborne Asbestos -

Client: RCS ENVIRONMENTAL	Project: CLEVELAND TRENCHER

Sampling Date: 8/31, 9/1, 9/2 ZOII

Client Sample #	iATL#	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft2) Volume (L)	mm2Results fcc
063111-01	4436681				怠	1365	265 < 0,0021
083111 02	4436682				800	1344	2.65 < 0.0021
02311-03	4436583				<del>2</del>	1317	2.65 <0,0024
083111-04	4436684				700	1452	2.65 < 0,0019
08311-05	4436685				加	BLANK	133
090111-01	4436686				贫		265 < 0.0023
09011-02	4436687				7 150	l	2.65 < 0.0023
090111-03	4436688				吞	1206	2.65 <0.0023
090111-04	4436689				Æ	1600	2.65 <0,0018
090111-05	4436690				705	BLANK	1.33
090211-01	4436691				磊	1224	2.65<0.0023
090211-02	4436692	<u> </u>			吞	1224	265 < 0,0023
090211-03	4436693		· · · · · · · · · · · · · · · · · · ·		700	(22)	265<0,0023
090211-04	4436694				760	1624	2,65<0.0017
090211-05	4436695				加	BLANK	1.33

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\* = Insufficient Sample Provided to Analyze (<50mg) \*\*\* = Matrix / Substrate Interference Possible

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9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054 Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

# Sample Log

<ul> <li>Airborne Asbestos</li> </ul>					
and the second s					

Client: PCS ENVIRONMENTAL	Project: CLEVELAND TRENCHER
Sampling Date: 96-8/11	

Client Sample #	iatl#	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft2) Volume (L)	Results free
090611-01	4436696				200	1314	7.65 < 0,0021
090611-02	4436697				虑	1308	2.65 <0,0021
090611-03	4436698				Ŕ	1290	2.65 < 0,0022
090611-04	4436699				台	1620	265 < 0,0017
090611-05	4436700				姑	BANK	133
090711-01	4436701				150	1068	2,65 <0,0006
090711-02	4436702				Æ		2,65<0,0026
090711-03	4436703				2 150		2.65 <0.0026
9011-04	4436704				i de la companya de l	1172	265 < 0,0024
090711-05	4436705				100	BLANK	133
090811-01	_000 -						MS)
090811-02	4436706				<del>2</del> 65	1137	265 <0,0025
090811-03	4436707				1 100 100	1131	5.3 < 0.0025
090811-04	4436708				危	1600 .	265 < 0,0017
090811-05	4436709				太	BLANK	1.33

Constraining 25 years—one sample at a time

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

\*\*\* = Insufficient Sample Provided to Analyze (<50mg)

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