



Laboratory Report

January 13, 2021

Cathy Young - Mail Code 02-2
US EPA New England R1

Project Number: 20110017
Project: Former Cass Toy Co. - Athol, MA
Analysis: Bulk Asbestos Analysis by PLM
Analyst: Dan Boudreau

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, INGASBSED2.

Analytical Method: Polarized Light Microscope (PLM) with Dispersion Staining.
All quantities are estimated volume percent.

Date Samples Received by the Laboratory: 11/10/2020

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Report may contain multiple sections and each section will be numbered independently.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0004
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89965
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil

Client Sample ID: 0065-0005
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89966
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Former Cass Toy Co. - Athol, MA

Laboratory Blank for Bulk Asbestos

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix	Soil
Date of Extraction:	1/11/21		
Date of Analysis:	1/12/21		

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: RTI #16 used to align PLM

Client Sample ID:	0065-0006	Lab Sample ID:	AB89967
Date of Collection:	11/10/2020	Matrix	Soil
Date of Extraction:	1/11/21		
Date of Analysis:	1/12/21		

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0007
Date of Collection: 11/10/2020
Date of Extraction: 1/11/21
Date of Analysis: 1/12/21

Lab Sample ID: AB89968
Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Client Sample ID: 0065-0008
Date of Collection: 11/10/2020
Date of Extraction: 1/11/21
Date of Analysis: 1/12/21

Lab Sample ID: AB89969
Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0009
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89970
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Client Sample ID: 0065-0010
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89971
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0011
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89972
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Client Sample ID: 0065-0012
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89973
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0013
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89974
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Client Sample ID: 0065-0014
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89975
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0015
Date of Collection: 11/10/2020
Date of Extraction: 1/11/21
Date of Analysis: 1/12/21

Lab Sample ID: AB89976
Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	TRACE	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine black soil, small roots

Identified one fiber bundle

Trace = present at <1%

Client Sample ID: 0065-0016
Date of Collection: 11/10/2020
Date of Extraction: 1/11/21
Date of Analysis: 1/12/21

Lab Sample ID: AB89977
Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine brown soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0017
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89978
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Fine brown soil, small roots

Client Sample ID: 0065-0018
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89979
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Very fine, light brown soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0019
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89980
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Very fine, light brown soil, small roots, small bits of charred material

Client Sample ID: 0065-0020
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89981
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	TRACE	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Very fine, light brown soil, small roots, small bits of charred material

Identified asbestos in a single, small piece of tile.

Trace = present at <1%

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0021
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89982
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Dark brown soil, small roots

Client Sample ID: 0065-0022
 Date of Collection: 11/10/2020
 Date of Extraction: 1/11/21
 Date of Analysis: 1/12/21

Lab Sample ID: AB89983
 Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Dark brown soil, small roots

Former Cass Toy Co. - Athol, MA

Bulk Asbestos Analysis by PLM

Client Sample ID: 0065-0023
Date of Collection: 11/10/2020
Date of Extraction: 1/11/21
Date of Analysis: 1/12/21

Lab Sample ID: AB89984
Matrix: Soil

CAS Number	Compound	Concentration %	RL %	Qualifier
	Actinolite	ND	1.0	
	Amosite	ND	1.0	
	Anthophyllite	ND	1.0	
	Chrysotile	ND	1.0	
	Crocidolite	ND	1.0	
	Tremolite	ND	1.0	

Comments: Dark brown soil, small roots

USEPA
Westons/START
101 Billerica Ave
N Billerica, MA

CHAIN OF CUSTODY RECORD

Site #: 0065
Contact Name: Tyler Evans
Contact Phone: 978-621-1208

No: 1-111020-104001-0002

Cass Toy Site
Lab Contact: Doris Guzman
Lab Phone: 617-918-8490

Lab #	Sample #	Location	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
	0065-0004	PE-01	Asbestos	Soil	11/10/2020	10:02	1	poly bag	4 C	N
	0065-0005	PE-02	Asbestos	Soil	11/10/2020	10:14	1	poly bag	4 C	N
	0065-0006	PE-03	Asbestos	Soil	11/10/2020	10:04	1	poly bag	4 C	N
	0065-0007	PE-04	Asbestos	Soil	11/10/2020	10:10	1	poly bag	4 C	N
	0065-0008	PE-05	Asbestos	Soil	11/10/2020	10:12	1	poly bag	4 C	N
	0065-0009	PE-06	Asbestos	Soil	11/10/2020	10:16	1	poly bag	4 C	N
	0065-0010	PE-07	Asbestos	Soil	11/10/2020	10:08	1	poly bag	4 C	N
	0065-0011	PE-08	Asbestos	Soil	11/10/2020	10:06	1	poly bag	4 C	N
	0065-0012	PE-09	Asbestos	Soil	11/10/2020	10:20	1	poly bag	4 C	N
	0065-0013	PE-10	Asbestos	Soil	11/10/2020	10:18	1	poly bag	4 C	N
	0065-0014	PE-11	Asbestos	Soil	11/10/2020	10:28	1	poly bag	4 C	N
	0065-0015	PE-12	Asbestos	Soil	11/10/2020	10:22	1	poly bag	4 C	N
	0065-0016	PE-13	Asbestos	Soil	11/10/2020	10:20	1	poly bag	4 C	N
	0065-0017	PE-14	Asbestos	Soil	11/10/2020	10:26	1	poly bag	4 C	N
	0065-0018	PE-15	Asbestos	Soil	11/10/2020	10:24	1	poly bag	4 C	N
	0065-0019	PE-16	Asbestos	Soil	11/10/2020	10:15	1	poly bag	4 C	N
	0065-0020	PE-17	Asbestos	Soil	11/10/2020	10:12	1	poly bag	4 C	N
	0065-0021	PE-18	Asbestos	Soil	11/10/2020	10:22	1	poly bag	4 C	N
	0065-0022	PE-19	Asbestos	Soil	11/10/2020	10:10	1	poly bag	4 C	N

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY #

Special Instructions: Please send analytical results to EPA OSC Catherine Young @ Young.Catherine@epa.gov

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Dominic Moore</i>	11/10/20 12:20	<i>[Signature]</i> EPA	11-10-20 12:20	5-2C

