



January 9, 2019

Mr. Adam G. Fox, P.E.
Principal Engineer
Division of Environmental Compliance
Bureau of Engineering and Construction
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Jason Coite, P.E. / Mandy Socolosky

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 8.07-01 (18)
HazMat Inspection – Bridge No. 02169, I-84 over Lower Ruby Brook,
Willington, CT
ConnDOT Assignment No. 519-5751
ConnDOT Project No. 160-150
TRC Project No. 289951.5751.0710

Dear Mr. Fox:

TRC performed a limited hazardous materials site investigation associated with the planned rehabilitation of Bridge No. 02169, I-84 over Lower Ruby Brook in Willington, Connecticut. There were no painted surfaces identified on the bridge/culvert components scheduled for impact at Bridge No. 02169, therefore no lead paint was identified at the site. The black asphalt material inside and outside the eight (8) foot metal pipe arch and black tar filler on eighteen (18) inch metal pipe were sampled and found to contain no detectable amounts of asbestos. Laboratory results, site sketch, TRC Mobile Data Solutions report and site description are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

TRC

A handwritten signature in black ink, appearing to read "Stephen R. Arienti".

Stephen R. Arienti, CHMM
Senior Project Manager – Program Manager

A handwritten signature in black ink, appearing to read "Erik R. Plimpton".

Erik R. Plimpton, P.E., CHMM, CMC
Vice President – Engineer in Charge



BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0053172
Project #: 289951.5751.0710
Date Received: 12/17/2018
Date Analyzed: 12/18/2018

Site: Bridge 2169, Willington, CT

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
1	Black (tar)	Yes	No	--	---	ND	None
2	Black (tar)	Yes	No	--	---	ND	None
3	Black (asphalt filler)	Yes	No	--	---	ND	None
4	Black (asphalt filler)	Yes	No	--	---	ND	None

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop


SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2019. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2019. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

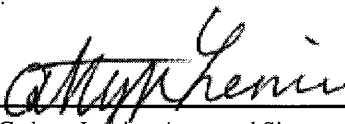
This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by:



Kathleen Williamson, Laboratory Manager

Reviewed by:



Cathryn Lemire, Approved Signatory

Date Issued

12/18/2018

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #AAL-007 TX #300354
CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426
VT #AL014538 LA#05011 VA #3333 000283
PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411
AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907

NT17613

TEM Bulk Chain of Custody Record

Other:

EPA N.O.B Qualitative

For Lab Use Only					
Client ID #	Lab ID#	Description	Location	Acceptable on Receipt	Comments
1	53172	Tar	See COC		
3	53172	Asphalt Filler			
For Lab Use Only	# Spies	Total	Client #	Batch #	Results Reported
					Comments

ProScience Analytical Services, Inc.

22 Cummings Park, Woburn, Massachusetts 01801
781-935-3212 ~ Fax: 781-932-4857 ~ E-Mail: general@proscience.net

Laboratory Report

Client Project #: 289951 5751 0710
Client Reference: CT DOT - Bridge 2169, Willington, CT
PO #: C289951
Client #: 297
Client Name: TRC Environmental Corp. (CT)

Batch: NT 17613
Method: NOB
Date Received: 12/20/2018
Date Analyzed: 12/21/2018
Date of Report: 12/21/2018

LAB ID	Field ID	Description:	Color	Initial Weight	CHR	AMO	ACT	CRO	ANT	TRE	% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	Preped / Charged
NT132590	1	Black Tar		.2663	.00	.00	.00	.00	.00	.00	32.37	63.95	3.68	ND	Yes	No
NT132591	3	Hard Black Asphalt Filler		.3897	.00	.00	.00	.00	.00	.00	49	99.46	.05	ND	Yes	No

Comments:

Key: CHR = Chrysotile AMO = Amosite CRO = Crocidolite ACT = Actinolite TRE = Tremolite ANT = Anthophyllite TR = Trace = < 1% ND = None Detected


Mark Derosier, Analyst



SUBJECT CONN DOT BRIDGE 2169

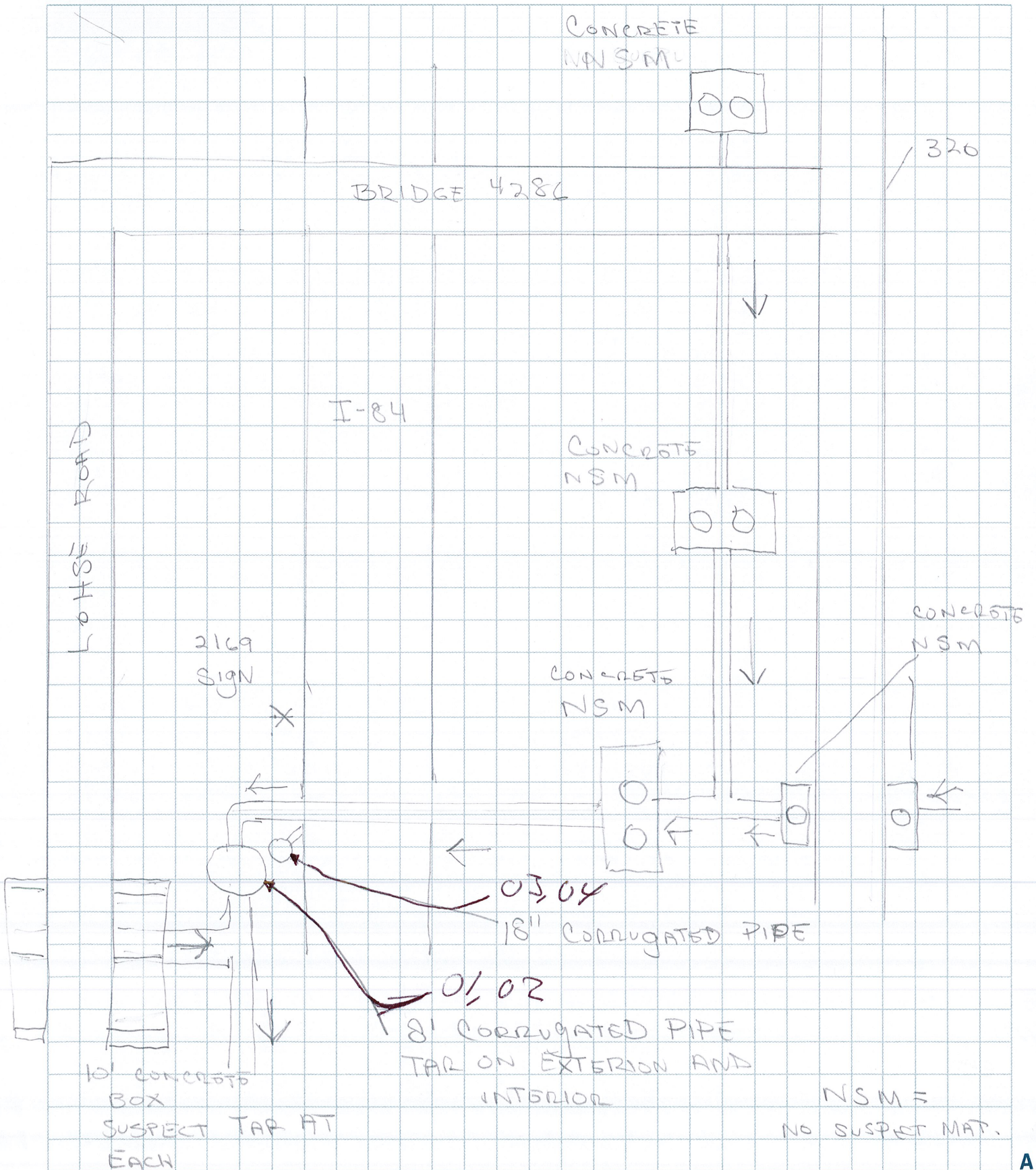
SHEET NO. _____ OF _____

PROJECT NO. 289951.5751.0710

DATE 12/17/18

BY _____

CHK'D _____



ConnDOT, Conn DOT Bridge 2169, Tolland, , Willington, 06279, CT, US, I 84,

Created	2018-12-17 11:57:10 EST by Carmen Jacko
Updated	2018-12-19 15:41:26 EST by Stephen Arienti
Location	41.9177184572458, -72.261601615254
Status	<div></div> Survey Complete

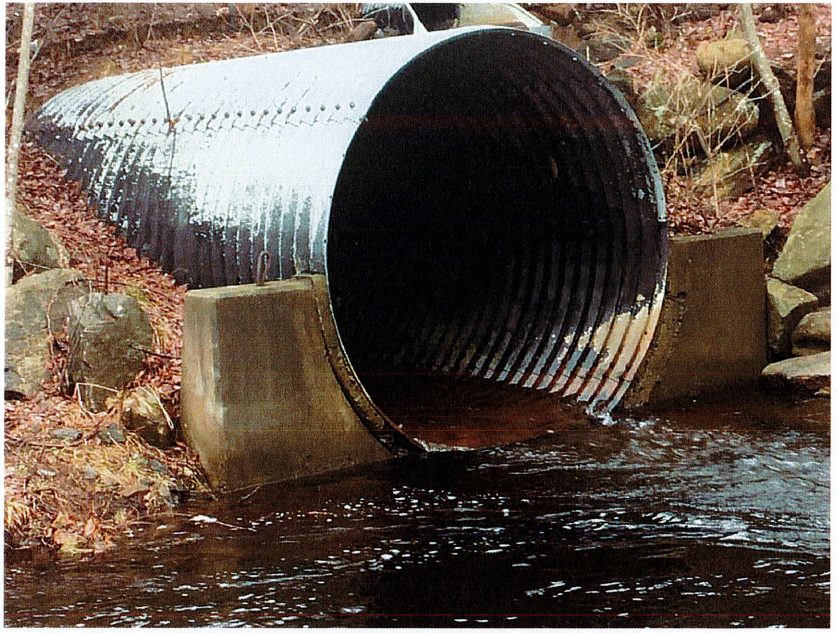
Job Information

Site Name	Conn DOT Bridge 2169
Address	I 84 Willington, CT 06279
TRC Project Number	289951.5751.0710
Project Manager	Stephen Arienti
Inspector(s)	Carmen Jacko, Pat Schaffner
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
Date	2018-12-17

Overview Photo



18 inch corrugated metal pipe South did of I 84



8' corrugated metal pipe with black tar sealant on interior and exterior. North side of I 84





Culvert on South side of I 84



South side of I 84. One side of dual 6' pipes.



6' concrete pipe interior seam



Interior seam of concrete pipe seam



Interior of 6' concrete pipe seam

Surveys Performed

Asbestos

Asbestos Section

(2), Black tar on pipe

1, 8' corrugated pipe

Sample Number	1
Sample Location	8' corrugated pipe
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-19
Time	15:31

2, 8' corrugated pipe

Sample Number	2
Sample Location	8' corrugated pipe
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2018-12-19
Time	15:32

Material Information

Sampled or Assumed?

Material Description

Is Material a Non-Friable Organically Bound (NOB)

Homogeneous Area

Total Count

Sampled

Black tar on pipe

Yes

8' corrugated pipe

(2)

(2), Hard black asphalt filler

3, 18" corrugated pipe

Sample Number

3

Sample Location

18" corrugated pipe

Analyze by Layer

No

Asbestos Bulk Analysis

PLM EPA 600/R93/116

Grab or Composite

Grab

Date

2018-12-19

Time

15:33

4, 18" corrugated pipe

Sample Number

4

Sample Location

18" corrugated pipe

Analyze by Layer

No

Asbestos Bulk Analysis

PLM EPA 600/R93/116

Grab or Composite

Grab

Date

2018-12-19

Time

15:33

Material Information

Sampled or Assumed?

Sampled

Material Description

Hard black asphalt filler

Is Material a Non-Friable Organically Bound (NOB)

Yes

Total Count

(2)

General Information

Site Sketch Diagrams

CTRC 21 GREEN ROAD NORTH WINSTON, CONNECTICUT 06095 TEL: 860.298-6800 FAX: 860.298-6800										ASBESTOS Bulk SAMPLING CHAIN OF CUSTODY										Edition: Oct-1-2009 Supersedes previous editions	
SIGNATURE		PROJECT NAME		INSPECTOR		PARAMETERS		LAB ID #		LAB ID #		LAB ID #		LAB ID #		LAB ID #					
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAB	SAMPLE LOCATION	PLM EPA 600/33116 (POSITIVE STOP)	PLM EPA 600/33116 (of gravimetric reduction) (POSITIVE STOP)	ANALYTE BY LAYER	PORE COUNT (IF >1% & <10%)	TEM NY NIOSH 1854 (IF PLM SERIES NEG)	TRAIL	TRAIL	TRAIL	TRAIL	TRAIL	TRAIL				
1	12/17/18	1130	X	X	X	6" CONCRETE PIPE	X	X	X	X	X	1	1	1	1	1	1				
2	12/17/18	1135	X	X	X	6" CONCRETE PIPE	X	X	X	X	X	1	1	1	1	1	1				
3	12/17/18	1145	X	X	X	6" CONCRETE PIPE	X	X	X	X	X	1	1	1	1	1	1				
4	12/17/18	1150	X	X	X	6" CONCRETE PIPE	X	X	X	X	X	1	1	1	1	1	1				

Send to **SARIENTI@TRCSOLUTIONS.COM**

Asbestos Samples Submitted to TRC Lab	Yes
Date Submitted to Lab	2018-12-17
App Name	WinBSI HBM Survey 1.0

Generate Report Documentation

Cloud-based reporting is still actively being developed, but some features that are at an advanced stage of development may be used with the understanding that unexpected errors may occur occasionally. Please report any difficulties or errors to Justin Coleman.

Where should the document(s) be sent?	sarienti@trcsolutions.com
Generate Documents	N/A

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



memorandum

subject: Design Approval Request
Project No.: 160-150
F.A.P. No.: 0845 (052)
Replacement of Bridge No. 02169
I-84 over Lower Ruby Brook
Town of Willington

date: July 13, 2018

to: Theodore H. Nezames
Manager of Bridges
Bureau of Engineering and Construction

from: Rabih M. Barakat 
Transportation Principal Engineer
Bureau of Engineering and Construction

Rabih M. Barakat P.E.
2018.07.13 08:47:06-04'00'

LOCATION:

Bridge No. 02169 supports I-84 and the I-84 Interchange 71 EB and WB on-ramps over Lower Ruby Brook in the town of Willington (Town). The structure is located approximately 300-feet west of Route 320 (I-84 mile point 87.73).

PURPOSE AND NEED:

The purpose and need for this project is to address the structural deficiencies and inadequacies of the existing structure. The existing structure is in poor condition (Rating = 4), controlled primarily by the deteriorated condition of the invert of the corrugated metal pipe. Depressions have been found in the westbound shoulder adjacent to the existing corrugated metal pipe and open cut excavation will be utilized to remove the unstable soil and existing corrugated metal pipe.

Project location is not subject to frequent/reoccurring accidents, SLOSSS data is not applicable.

DESCRIPTION:

The existing Bridge No. 02169 is composed of three structures. The upstream portion of the structure consists of 185 feet of twin 6-foot concrete pipes. The middle portion consists of a 14-foot by 10-foot concrete box culvert that is 185 feet long, which leads to the downstream portion, a 110-foot long, 8-foot diameter corrugated metal pipe. The estimated 2015 Average Daily Traffic count on I-84 is 49,800 vehicles per day.

The proposed replacement of Bridge No. 02169 involves replacing the 8-foot corrugated metal pipe with a 14-foot by 11-foot precast concrete box culvert utilizing open cut excavation. The existing 14-foot by 10-foot precast concrete box culvert would then be extended 48 feet to the east with a 14-foot by 11-foot precast concrete box culvert that would be able to accommodate a one-foot layer of natural channel bottom material. The existing 14-foot by 10-foot concrete box culvert will be lined with a corrugated metal arch supported on concrete pedestals and the space between the arch and the existing concrete box culvert will be filled with grout. The existing 6-foot reinforced concrete pipes will be removed and an open channel will be designed and graded from the rehabilitated structure to Lower Ruby Brook.