



July 5, 2016

Mr. Christopher Bonsignore, P.E.
Principal Engineer
Environmental Compliance Section
Bureau of Engineering and Highway Operations
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Judith Nemecek, P.E. / Robert Reilly

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection – Bridge No 00728, Route 15 over Saugatuck River, Westport, CT
ConnDOT Assignment No. 514-5271
ConnDOT Project No. 158-207
TRC Project No. 222165.5271.00710

Dear Mr. Bonsignore:

TRC performed a limited survey for hazardous building materials associated with Bridge No 00728 (Site No. 3), Route 15 over Saugatuck River in Westport, Connecticut. Results of the survey identified detectable levels of lead in the paint (0.1-9.5 mg/cm²) associated with the structural steel/metal bridge components at Bridge No. 00728. The metal railing on the parapet walls of the bridge was galvanized (unpainted), therefore no lead paint was identified. Results obtained from TCLP waste stream sampling and analysis for leachable lead from the paint on the structural steel/metal bridge components (7.3 mg/L) characterized the paint waste stream at Bridge No. 00728 as EPA RCRA/CTDEEP hazardous waste. Black tar vapor barrier between the concrete deck and abutment walls was found to contain non-ACM. Non-suspect rubber expansion joints were identified on the topside of the bridge. Pigeon/bird guano accumulations were identified on the piers above the structural steel at Bridge No. 00728.

Laboratory data, Site No. information and photos 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 "Erik R. Plimpton".

Erik R. Plimpton, P.E., CHMM, CMC
Vice President - Program Manager

A handwritten signature in blue ink, appearing to read "Edmund J. Burke".

Edmund J. Burke, P.E.
Engineer-in-Charge



Lead Based Paint Measurement Summary Table

Device(s): Niton XLP301-A (Serial #24792) X Ray Fluorescence (XRF) Spectrum Analyzer
 Site: CT DOT - Bridge No. 00728, Westport, CT
 Project #: 222165.5271.0710
 Date(s): 6/30/2016
 Inspector: Hilton Hernandez (Lead Inspector/RA #002231)

Number	Interior/ Exterior	Location	Bridge No.	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
1												247.4	6/30/2016 11:33
2			Self-Calibration						0.8	0.1	1.1	7.7	6/30/2016 11:40
3			0.7 calibration						3.5	0.4	1.3	3.7	6/30/2016 11:41
4			3.6 calibration						1.6	0.2	1.2	5.9	6/30/2016 11:41
5	Exterior	Westport	Bridge No. 00728	Girder	Cross beam	Metal	Green/Grey	Defective	0.1	0.1	1.9	5.2	6/30/2016 11:46
6	Exterior	Westport	Bridge No. 00728	Girder	Cross beam	Metal	Green/Grey	Defective	0.0	0.0	2.0	5.4	6/30/2016 11:49
7					VOID								
8	Exterior	Westport	Bridge No. 00728	Girder	Cross beam	Metal	Green/Grey	Defective	0.0	0.0	1.4	7.3	6/30/2016 11:51
9	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	0.0	0.0	1.3	8.0	6/30/2016 11:53
10					VOID								
11	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	0.0	0.0	3.0	7.4	6/30/2016 11:55
12	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	0.0	0.0	1.0	3.1	6/30/2016 11:56
13	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	9.5	2.6	4.9	3.3	6/30/2016 11:58
14	Exterior	Westport	Bridge No. 00728	Girder	Rocker	Metal	Green/Grey	Defective	0.0	0.0	1.6	4.9	6/30/2016 12:01
15	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	0.0	0.0	2.9	7.0	6/30/2016 12:02
16	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	0.0	0.0	1.0	1.3	6/30/2016 12:03
17	Exterior	Westport	Bridge No. 00728	Girder		Metal	Green/Grey	Defective	3.6	2.1	5.5	1.6	6/30/2016 12:06
18			0.7 calibration						0.7	0.1	1.0	4.2	6/30/2016 12:09
19			3.6 calibration						3.6	0.9	1.3	1.8	6/30/2016 12:10
20			1.6 calibration						1.5	0.3	1.1	2.8	6/30/2016 12:10

80 Lupes Drive
Stratford, CT 06615



Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Stephen Arienti
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 6060713

Report Date: July 01, 2016
Project: CTDOT, Bridge
Project Number: Bridge No. 00728, Westport
PO Number: 222165.5271.0710

Connecticut Laboratory Certificate: PH 0116
Massachusetts laboratory Certificate: M-CT903



New York Certification: 11982
Rhode Island Certification: 199

CET #: 6060713

Project: CTDOT, Bridge

Project Number: Bridge No. 00728, Westport

SAMPLE SUMMARY

The sample(s) were received at 26.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
01	6060713-01	Paint Chip	6/30/2016 12:00	06/30/2016

Analyte: TCLP Lead [EPA 6010C]

Analyst: SS

Prep: EPA 3005A-1311

Matrix: Extract

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
6060713-01	01	7.3	0.013	mg/L	1	B6G0129	07/01/2016	07/01/2016 15:07	

CET # : 6060713

Project: CTDOT, Bridge

Project Number: Bridge No. 00728, Westport

QUALITY CONTROL SECTION

Batch B6G0129 - EPA 6010C

Analyte	Result (mg/L)	RL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B6G0129-BLK1)					Prepared: 7/1/2016 Analyzed: 7/1/2016				
Lead	ND	0.013							
LCS (B6G0129-BS1)					Prepared: 7/1/2016 Analyzed: 7/1/2016				
Lead	0.192	0.013	0.200		96.1	80 - 120			



80 Lupes Drive
Stratford, CT 06615

Tel: (203) 377-9984
Fax: (203) 377-9952
email: cet1@cetlabs.com

Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-tarer organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration Batch	An analytical standard analyzed with each set of samples to verify initial calibration of the system. Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected
RL	Reporting Limit
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate Result	Result from the duplicate analysis of a sample. Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte foun in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.



Connecticut Laboratory Certification PH0116
Massachussets Laboratory Certification M-CT903

New York Certification 11982
Rhode Island Certification 199

Complete Environmental Testing, Inc.

80 Lupes Drive, Stratford, CT 06615 • Tel: 203-377-9984 • Fax: 203-377-9952 • www.cetlabs.com

CET #: 6060713

Project: CTDOT, Bridge

Project Number: Bridge No. 00728, Westport

Questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,



David Ditta
Laboratory Director

Report Comments:

Sample Result Flags:

- E- The result is estimated, above the calibration range.
- H- The surrogate recovery is above the control limits.
- L- The surrogate recovery is below the control limits.
- B- The compound was detected in the laboratory blank.
- P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
- D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
- + - The Surrogate was diluted out.
- *C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
- *C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
- *F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
- *F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
- I- The Analyte exceeds %RSD limits for the Initial Calibration. This is a non-directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at the specified detection limit

All analyses were performed in house unless a Reference Laboratory is listed.

Samples will be disposed of 30 days after the report date.

CET # : 6060713

Project: CTDOT, Bridge

Project Number: Bridge No. 00728, Westport

CERTIFICATIONS

Certified Analyses included in this Report

Analyte

Certifications

No certified Analyses included in this Report

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
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BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #: 0048512
 Project #: 222165.5271.0710
 Date Received: 06/30/2016
 Date Analyzed: 06/30/2016

Site: CT DOT, Bridge #00728, Westport, 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	Yes	No	--	10% cellulose	ND	None
2	Black	Yes	No	--	10% cellulose	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, 2016. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2016. 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: *Cathryn Lemire* Reviewed by: *K. Williamson* Date Issued: 06/30/2016
 Cathryn Lemire, Laboratory Analyst Kathleen Williamson, Laboratory Manager

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 AIHA-LAP,LLC #100122 CT #PH-0426 ME LA-007S, LB-007I MA #AA000052 NY #10980 WV# LT000411
 RI #AAL-007 TX #300354 VT #AL014538 LA#05011 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907
 CO# AL-15020 PHIL# 461 PA#68-03387

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 #: 222165.5271.0710
 Client Reference: CT DOT - Bridge #00728 Westport, CT
 PO #: C222165
 Client #: 297
 Client Name: TRC Environmental Corp. (CT)

Batch: NT 15934
 Method: NOB
 Date Received: 7/1/2016
 Date Analyzed: 7/5/2016
 Date of Report: 7/5/2016

LAB ID	Field ID	Description:	Color	Initial Weight	% Asbestos Types						% Other Non-asb.	% Organic	% Carb.	Total % Asbestos	Analyzed / Charged	
					CHR	AMO	ACT	CRO	ANT	TRE					Yes	No
NT121086	02	Black Tar Vapor Barrier		.1605	.05	.00	.00	.00	.00	.00	9.66	70.84	19.50	TR	Yes	No

Comments:

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

Aimee Cormier
 Aimee Cormier, Analyst



SUBJECT CIPOT- Bridge 00729 Westport

SHEET NO. 1 OF 1

PROJECT NO. _____

DATE 6/30/16

BY SA/HH

CHK'D _____

Notes

- Galvanized railing on rubber pads (no suspect)
- 4 road expansion joints that are rubber (no suspect)
- guano observed at plain rafter below structural steel at both sides of bridge
- suspect tar vapor barrier at abutment (VBI)
 - where grey concrete sits on tan concrete
- painted steel and structure (0.1-0.2 mil)

Project Description

State Project No. 158-207

F.A.P. No. 0015(121)

Rehabilitation of Bridge # 00728 – Merritt Parkway over the Saugatuck River

Westport, CT

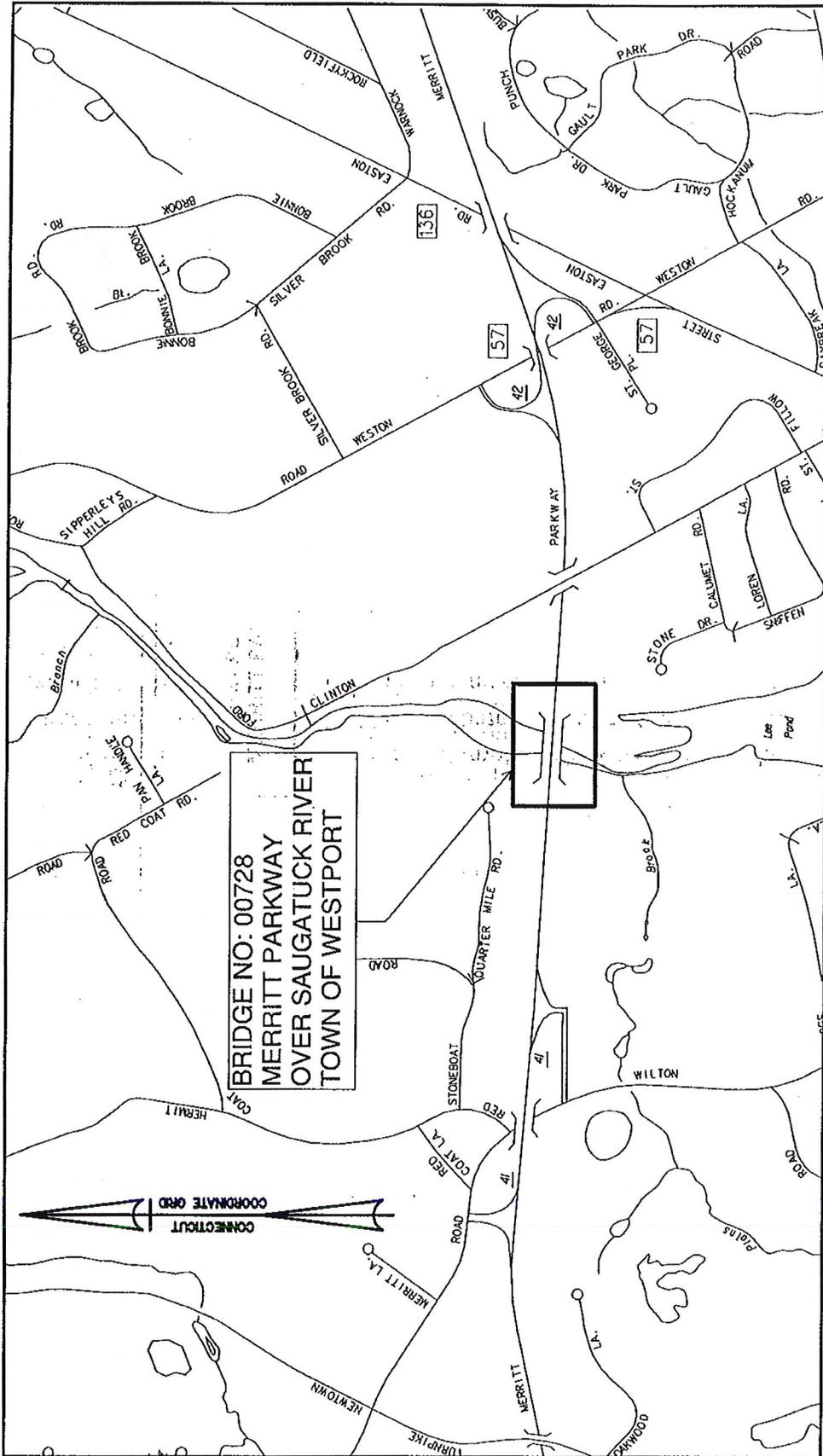
Project Location: This project involves the rehabilitation of Bridge # 00728 carrying Route 15 over the Saugatuck River in the town of Westport. The bridge is located approximately midway between Parkway exits 41 and 42, at mile point 21.07.

Purpose & Need: The bridge is a built up open spandrel steel arch bridge that consists of a main span of 130 feet and six approach spans for a total length of 253 feet – 3 inches. The bridge was originally constructed in 1938, rehabilitated and widened in 1990. The 2014 bridge inspection report assigned a condition rating of 3 (Serious) for the steel arch, floor beams, columns and bracing. A Load Rating Evaluation was performed in 2013 to determine the adequacy of the structure to support emergency, maintenance and bridge inspection vehicles, and if interim/emergency measures were needed prior to construction of Project 158-207. As a result of the load rating evaluation, it was determined that there is a need to strengthen/rehabilitate this bridge in order to ensure that the structure has adequate load carrying capacity and to allow for continued use of this bridge.

Project Description:

The project is currently in the Rehabilitation Study Report Phase and the actual extents and amount of rehabilitation has yet to be determined, but based on preliminary evaluations, the following are anticipated:

- Historic concrete repairs to substructure units including concrete pier caps, columns, and abutments
- Steel repairs to the spandrel arch superstructure including arch ribs, columns, floorbeams, and bracing members.
- Demolish and reconstruct bridge parapet to the original parapet & provide a two-tube Bridge Rail system in front of the balustrade parapet.
- Replacement of bituminous wearing surface
- Partial Depth and Full Depth Deck patching
- Replacement of concrete headers and installation of new expansion joints
- Abrasive blast clean of steel elements.



BRIDGE NO: 00728
 MERRITT PARKWAY
 OVER SAUGATUCK RIVER
 TOWN OF WESTPORT



STATE PROJECT NO.:

158-207

CITY/TOWN:
 WESTPORT



STATE OF CONNECTICUT
 DEPARTMENT OF TRANSPORTATION



REHABILITATION OF BRIDGE # 00728 -
 MERRITT PARKWAY OVER THE SAUGATUCK
 RIVER

OFFICE OF
 ENGINEERING



DATE:
 4/29/15



PHOTO 1

Site No. 3 – Bridge No. 00728, Westport



PHOTO 2

Site No. 3 – Bridge No. 00728, Westport