



COLORADO

Department of Transportation

Office of the Chief Engineer
2829 W. Howard Place
Denver, CO 80204-2305

January 22, 2020

Mr. Gabriel Cosyleon
Environmental Program Manager/Ecologist – Region 2
Colorado Department of Transportation
1480 Quail Lake Loop
Colorado Springs, CO 80906

RE: Asbestos and Lead-Based Paint Inspection Report for Bridge M-21-J located at US Highway 350 over Draw at MM 57.069 Northeast of Timpas, Colorado

Dear Mr. Cosyleon,

The Colorado Department of Transportation (CDOT) Environmental Project Coordinator (EPC) completed an asbestos and lead-based paint inspection at bridge M-21-J located at US Highway 350 over Draw at Mile Marker (MM) 57.069 northeast of Timpas, Colorado. The CDOT-EPC is a certified asbestos building inspector, certification # 13915.

On January 8, 2020 the CDOT-EPC performed the asbestos and lead-based paint inspection of the bridge. The bridge is approximately 48 feet in length by 25 feet in width and was constructed in 1935. The bridge is a treated timber stringer structure with a timber deck and painted wooden guardrails.

Asbestos-containing materials (ACMs) were not identified during the inspection so bulk samples were not collected.

Two paint chip samples were collected from the bridge. A white paint chip sample was collected off the southeast wooden guardrail (sample M-21-J-LP01). This paint was below the threshold of 0.5% as a lead-based paint but is considered as a lead containing paint. A second paint sample was collected from a black paint, taken from the northeast wooden guardrail (sample M-21-J-LP02). This paint contains 0.89% lead and is considered a lead-based paint.

As the lead-based paint was observed on a substrate other than metal, a composite sample of bridge components, including the black lead-based paint, was collected and submitted for Toxicity Characteristic Leaching Procedure (TCLP) analysis. The sample was collected to determine if the components of the bridge structure would be considered as hazardous waste. The TCLP laboratory result for this bridge structure revealed a result below the reporting limit of less than 0.25 milligrams per liter (mg/l) of lead. The debris from the bridge is therefore classified as solid waste (and not hazardous waste) as the TCLP result was less than the regulatory limit for lead of 5.0 mg/l.

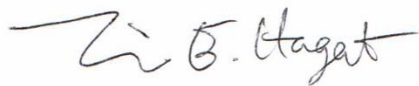


The paint chip samples were submitted and analyzed by Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy – Mass Spectrometry (AES-MS) by Reservoirs Environmental, Inc. (Reservoirs). The TCLP sample was analyzed by Reservoirs using Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy – Inductively Coupled Plasma (AES-ICP). Reservoirs is an accredited laboratory for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - American Certificate #480.

The black paint located on the wooden guardrails is a lead-based paint. If the paint will be disturbed by repair or removal activities, it is recommended that paint removal and waste disposal work be performed in accordance with 29 CFR 1926.62 and Section 250.04 of the 2017 CDOT Standard Specifications for Road and Bridge Construction Handbook. ACMs were not identified on the structure during the bridge inspection. Please contact (720) 582-0694 with any questions or concerns regarding this report.

Sincerely,

COLORADO DEPARTMENT OF TRANSPORTATION



Tim Hagert

Environmental Project Coordinator

Certified Asbestos Building Inspector #13915

Attachments: Paint Chip Sample Summary Table
TCLP Sample Summary Table
Laboratory Results
Sample Location Drawing
Photographic Log
Inspector Certificate



Paint Chip Sample Summary Table

Sample ID	Sample Description & Location	Analytical Result (%)
M-21-J-LP01	White paint on wood guardrails and metal guardrail bolts. Paint sample collected from southeast guardrail.	<u>Lead</u> 0.095
M-21-J-LP02	Black paint on wood guardrails and metal guardrail bolts. Paint sample collected from northeast guardrail.	<u>Lead</u> 0.89

Notes: BRL – Below Reporting Limit

% - Percent

Lead-Based Paint – 0.5% or greater

Toxicity Characteristic Leaching Procedure (TCLP) Sample Summary Table

Sample ID	Sample Description & Location	Analytical Result (mg/l)
M-21-J-TCLP01	Composite sample of bridge components including the black lead-based paint	<u>Lead</u> BRL

Notes: BRL – Below Reporting Limit (less than 0.25 mg/l)
mg/l – milligrams per liter

Regulatory Level as Hazardous Waste (for Lead) – 5.0 mg/l or greater



January 20, 2020

Subcontractor Number:

Laboratory Report: RES 453730-2

Project #/P.O. #: 22362.10.50

Project Description: R2 and R4 bridges

Tim Hagert
Colorado Dept. of Transportation (Denver)
2829 West Howard Place
Denver CO 80204

Dear Tim,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the American Industrial Hygiene Association, Lab ID 101533 - Accreditation Certificate #480. The laboratory is currently proficient in both IHPAT & ELPAT programs respectively.

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy - Mass Spectrometry (ICP-MS) per your request. Reported sample results were not blank corrected. The analysis has been completed in general accordance with the appropriate methodology as stated in the analysis table. Results have been sent to your office.

RES 453730-2 is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

A handwritten signature in blue ink that reads "Robin Klover".

by Adam Kelly

Robin Klover
Vice President

RESERVOIRS ENVIRONMENTAL, INC

NVLAP Lab Code 101896-0
AIHA Certificate of Accreditation #480 LAB ID 101533

TABLE: I ANALYSIS: LEAD IN PAINT

RES Job Number: **RES 453730-2**
 Client: **Colorado Dept. of Transportation (Denver)**
 Client Project/P.O.: **22362.10.50**
 Client Project Description: **R2 and R4 bridges**
 Date Samples Received: **January 13, 2020**
 Analysis Type: **REI CHEMISTRY SOP / USEPA SW846 3050B/7420-M**
 Turnaround: **Standard**
 Date Samples Analyzed: **January 15, 2020**

NA = Not Analyzed
NR = Not Received
ND = None Detected
TR = Trace; <1 % Visual Estimate
Trem-Act = Tremolite-Actinolite
BAS = Below Analytical Sensitivity
BRL = Below Reporting Limit
CBR = Cannot Be Read

Client ID Number	Reporting Limit (%)	LEAD CONCENTRATION (%)
M-22-U-LP01	0.0041	0.38
M-22-U-LP02	0.0036	38.5
M-22-Y-LP01	0.0046	1.9
M-22-Y-LP02	0.0041	0.27
M-21-J-LP01	0.0042	0.095
M-21-J-LP02	0.0042	0.89
M-21-B-LP01	0.0048	6.1
M-21-B-LP02	0.0045	38.2
M-21-C-LP01	0.0043	6.5
M-21-C-LP02	0.0040	6.9
N-21-F-LP01	0.0047	0.034
N-21-F-LP-02	0.0045	66.4
N-21-C-LP01	0.0040	6.9
N-21-C-LP02	0.0043	1.4

* Unless otherwise noted all quality control samples performed within specifications established by the laboratory



Analyst/Data QA



RES Job #: 453730

SUBMITTED BY	INVOICE TO	CONTACT INFORMATION	SERIES
Company: COLORADO DEPT. OF TRANSPORTATION (DEN ...	Company: COLORADO DEPT. OF TRANSPORTATION (DEN ...	Contact: TIM HAGERT	-1 PLM STANDARD -2 CHEM STANDARD -3 CHEM STANDARD
Address: 2829 WEST HOWARD PLACE	Address: 2829 WEST HOWARD PLACE	Phone: (720) 582-0694	
DENVER, CO 80204	DENVER, CO 80204	Fax: Cell:	
Project Number and/or P.O. #: 22362.10.50		Final Data Deliverable Email Address:	
Project Description/Location: R2 AND R4 BRIDGES		TIM.HAGERT@STATE.CO.US (+ 1 ADDNL. CONTACTS)	

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm	REQUESTED ANALYSIS			VALID MATRIX CODES		LAB NOTES	
PLM / PCM / TEM DTL RUSH PRIORITY STANDARD	PLM - Short Report Long Report, CARB 435 TEM - AHERA, (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, ISO 10312, ISO 13794, Charfield, Waste Water, Drinking Water, Bulk +/- PCM - 7400A, 7400B, OSHA DUST - Total, Respirable METALS - Analyte(s) Pb , Lead Only (7082, 7420), Waste Water, Foodware, Multi Metal (7303, 8020A, 200 B, Waste Water, Foodware), pH (Liquid, Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan ORGANICS - Methamphetamine, TSS Viables MEDICAL - Biorburden, LAL MOLD - Spore Trap, Bulk Mold, Particulate Identification	Air = A		Bulk = B			
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm		Dust = D		Food = F			
Dust RUSH PRIORITY STANDARD		Paint = P		Soil = S			
Metals		Surface = SU		Swab = SW			
Organics* SAME DAY RUSH PRIORITY STANDARD		Tape = T		Wipe = W			
MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm		Drinking Water = DW		Waste Water = WW			
Viable Analysis** PRIORITY STANDARD		**ASTM E1792 approved wipe media only**					
Medical Device Analysis RUSH STANDARD							
Mold Analysis RUSH PRIORITY STANDARD							
Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.							
Special Instructions:							
Client Sample ID Number (Sample ID's must be unique)	ASBESTOS	CHEMISTRY	MICROBIOLOGY	Sample Volume (L) / Area	Matrix Code	Date Collected mm/dd/yy	Laboratory Analysis Instructions
1 M-22-U-TR01-01	X				B		
2 M-22-U-TR01-02	X				B		
3 M-21-B-EJM01-01	X				B		
4 M-21-B-EJM01-02	X				B		
5 M-21-C-EJM01-02	X				B		
6 M-21-C-EJM01-01	X				B		
7 N-21-C-TR01-01	X				B		
8 N-21-C-TR01-02	X				B		
9 M-22-U-LP01		X			P		
10 M-22-U-LP02		X			P		
11 M-22-Y-LP01		X			P		
12 M-22-Y-LP02		X			P		
13 M-21-J-LP01		X			P		

REI will analyze incoming samples based on information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing, client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days. Failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: <i>T.H.</i>	TIM HAGERT	Date/Time: 01/13/2020 12:56:27	Sample Condition: ACCEPTABLE - INTACT
Received By: <i>H.M.</i>	HANNA MARTI	Date/Time: 01/13/2020 12:56:27	Carrier: HAND



Res Job#: 453730

Submitted By: COLORADO DEPT. OF TRANSPORTATION (DENVER)

Client Sample ID Number (Sample ID's must be unique)	REQUESTED ANALYSIS				VALID MATRIX CODES		LAB NOTES									
	ASBESTOS	CHEMISTRY	MICROBIOLOGY	PLM - Short Report, Long Report, CARB 435	TEM - AHERA, (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, ISO 10312, ISO 13794, Chatfield, Waste Water, Drinking Water, Bulk +/-	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) [Pb, Lead Only] (7082, 7420, 8020A, 200.8, Waste Water, Foodware), pH (Liquid, Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan	ORGANICS - Methamphetamine, TSS	Viabiles	MEDICAL - Bioburden, LAL	MOLD - Spore Trap, Bulk Mold, Particulate Identification	Air = A Bulk = B Dust = D Food = F Paint = P Soil = S Surface = SU Swab = SW Tape = T Wipe = W Drinking Water = DW Waste Water = WW **ASTM E1792 approved wipe media only**	LAB NOTES		
													Sample Volume (L) / Area	Matrix Code	Date Collected mm/dd/yy	Laboratory Analysis Instructions
14 M-21-J-LP02		X												P		
15 M-21-B-LP01		X												P		
16 M-21-B-LP02		X												P		
17 M-21-C-LP01		X												P		
18 M-21-C-LP02		X												P		
19 N-21-F-LP01		X												P		
20 N-21-F-LP-02		X												P		
21 N-21-C-LP01		X												P		
22 N-21-C-LP02		X												P		
23 H-19-C-TCLP01		X												B		
24 F-19-E-TCLP01		X												B		
25 G-21-A-TCLP01		X												B		



February 03, 2020

Subcontractor Number:

Laboratory Report: RES 454456-1

Project #/P.O. #: 22362.10.50

Project Description: R2 bridge inspections

Tim Hagert
Colorado Dept. of Transportation (Denver)
2829 West Howard Place
Denver CO 80204

Dear Tim,

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy - Inductively Coupled Plasma (AES-ICP) per your request. Reported sample results were not blank corrected. The analysis has been completed in general accordance with the appropriate methodology as stated in the analysis table. Results have been sent to your office.

RES 454456-1 is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

A handwritten signature in blue ink that reads "Robin Klover". Below the signature, the text "by Adam Kelly" is printed in a small, black, sans-serif font.

Robin Klover
Vice President

RESERVOIRS ENVIRONMENTAL, INC

NVLAP Lab Code 101896-0
AIHA Certificate of Accreditation #480 LAB ID 101533

TABLE: I ANALYSIS: LEAD VIA TCLP EXTRACTION

RES Job Number: **RES 454456-1**
 Client: **Colorado Dept. of Transportation (Denver)**
 Client Project/P.O.: **22362.10.50**
 Client Project Description: **R2 bridge inspections**
 Date Samples Received: **January 22, 2020**
 Analysis Type: **REI CHEMISTRY SOP / USEPA SW846 1311/3011A/7420-M**
 Turnaround: **Standard**
 Date Samples Analyzed: **January 28, 2020**

NA = Not Analyzed
 NR = Not Received
 ND = None Detected
 TR = Trace; <1 % Visual Estimate
 Trem-Act = Tremolite-Actinolite
 BAS = Below Analytical Sensitivity
 BRL = Below Reporting Limit
 CBR = Cannot Be Read

Client ID Number	Reporting Limit (µg/L)	LEAD CONCENTRATION (µg/L)
M-22-U-TCLP01	250	270
M-22-Y-TCLP01	250	BRL
M-21-J-TCLP01	250	BRL
M-21-B-TCLP01	250	BRL
M-21-C-TCLP01	250	BRL
N-21-F-TCLP01	250	BRL
N-21-C-TCLP01	250	BRL

* Unless otherwise noted all quality control samples performed within specifications established by the laboratory



Adam Kelly
Analyst/Data QA



RES Job #: 454456

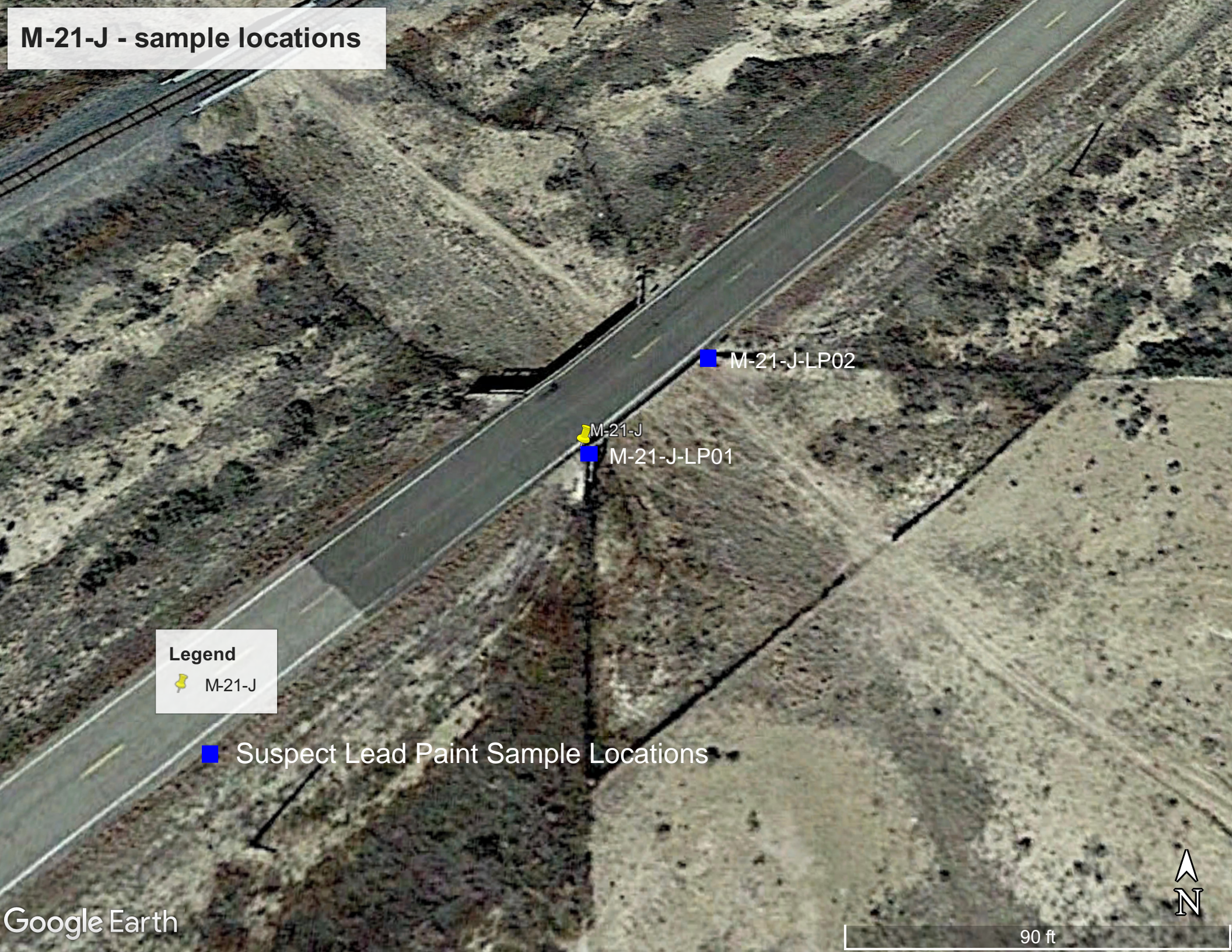
SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES	
Company: COLORADO DEPT. OF TRANSPORTATION (DEN ...)		Company: COLORADO DEPT. OF TRANSPORTATION (DEN ...)		Contact: TIM HAGERT		-1 CHEM STANDARD	
Address: 2829 WEST HOWARD PLACE		Address: 2829 WEST HOWARD PLACE		Phone: (720) 582-0694		-2 CHEM STANDARD	
DENVER, CO 80204		DENVER, CO 80204		Fax:		-3 PLM STANDARD	
Project Number and/or P.O. #: 22362.10.50		Final Data Deliverable Email Address:		TIM.HAGERT@STATE.CO.US (+ 1 ADDNL. CONTACTS)			
Project Description/Location: R2 BRIDGE INSPECTIONS							

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm				REQUESTED ANALYSIS				VALID MATRIX CODES				LAB NOTES			
PLM / PCM / TEM DTL RUSH PRIORITY STANDARD				<p>PLM - Short Report Long Report, CARB 435</p> <p>TEM - AHERA, (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, ISO 10312, ISO 13794, Chatfield, Waste Water, Drinking Water, Bulk +/-</p> <p>PCM - 7400A, 7400B, OSHA</p> <p>DUST - Total, Respirable</p> <p>METALS - Analyte(s) Pb Waste Water, Foodware, Multi Metal (7303, 8020A, 200 B, Waste Water, Foodware), pH (Liquid, Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan</p> <p>ORGANICS - Methamphetamine, TSS</p> <p>Viables Campylobacter, Bacillus, Salmonella (Culturable, 1-2), Listeria, E. coli O157:H7, E. coli/Coliforms - Plated, S. aureus, Yeast & Mold, Aerobic Plate Count, Coliforms/E. coli (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (wo/ID, w/ID), Enterococcus (+/- or Quantification)</p> <p>MEDICAL - Biorburden, LAL</p> <p>MOLD - Spore Trap, Bulk Mold, Particulate Identification</p>				Air = A		Bulk = B					
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm								Dust = D		Food = F					
Dust RUSH PRIORITY STANDARD								Paint = P		Soil = S					
Metals RUSH PRIORITY STANDARD *PRIOR NOTICE REQUIRED FOR SAME DAY TAT								Surface = SU		Swab = SW					
Organics* SAME DAY RUSH PRIORITY STANDARD								Tape = T		Wipe = W					
MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm								Drinking Water = DW		Waste Water = WW					
Viable Analysis** PRIORITY STANDARD **TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH								**ASTM E1792 approved wipe media only**							
Medical Device Analysis RUSH STANDARD								Sample Volume (L) / Area		Length (or Aliquots) X Width (or Area per Aliquot)					
Mold Analysis RUSH PRIORITY STANDARD								Matrix Code		# of Containers					
Special Instructions: **Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.**								Date Collected mm/dd/yy		Time Collected hr:mn					
Client Sample ID Number (Sample ID's must be unique)				ASBESTOS		CHEMISTRY		MICROBIOLOGY		Laboratory Analysis Instructions					
1 M-22-U-TCLP01						X		B							
2 M-22-Y-TCLP01						X		B							
3 M-21-J-TCLP01						X		B							
4 M-21-B-TCLP01						X		B							
5 M-21-C-TCLP01						X		B							
6 N-21-F-TCLP01						X		B							
7 N-21-C-TCLP01						X		B							
8 H-13-N-LP01						X		P							
9 H-13-N-TR01-01				X				B							
10 H-13-N-TR01-02				X				B							

REI will analyze incoming samples based on information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing, client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days. Failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By:		TIM HAGERT	Date/Time: 01/22/2020 9:28:08	Sample Condition: ACCEPTABLE
Received By:		ANNEMARIE KIEFFER	Date/Time: 01/22/2020 9:28:08	Carrier: HAND

M-21-J - sample locations



Legend
📌 M-21-J

■ Suspect Lead Paint Sample Locations



Bridge M-21-J Photographic Log



View of bridge M-21-J looking northeast.



Side view of bridge M-21-J.



Paint sample M-21-J-LP01. The white paint is considered as lead containing paint.



Paint sample M-21-J-LP02. The black paint is considered lead-based paint.



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Tim Hagert

Certification No.: 13915

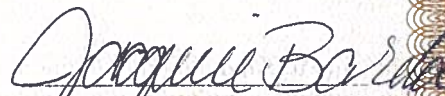
has met the requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby certified by the state of Colorado in the following discipline:

Building Inspector*

Issued: January 23, 2019

Expires: January 26, 2020

** This certificate is valid only with the possession of a current Division-approved training course certification in the discipline specified above.*


Authorized APCD Representative

SEAL