



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-B located at US Highway 350 over Lone Tree Arroyo at MM 51.682 Southwest 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-B located at US Highway 350 over Otero Ditch at Mile Marker (MM) 51.682 southwest 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 84 feet in length by 30 feet in width and was constructed in 1937. The bridge is a concrete on I-beam structure with painted concrete guardrails and wing walls.

One suspect asbestos-containing material (ACM) was identified during the inspection. Two bulk samples of a black, fibrous tar-impregnated expansion joint material were collected from the northeast guardrail. The two bulk samples were non-detect for asbestos.

Two paints were sampled from the bridge structure. A white paint chip sample was collected from a concrete wing wall from the southeast of the bridge (sample M-21-B-LP01). This paint contains 6.1% lead and is considered a lead-based paint. A second paint sample was collected from a black paint, from beneath the deck off a metal girder (sample M-21-B-LP02). This paint contains 38.2% 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 and white lead-based paints, 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



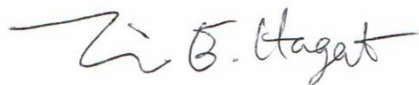
be considered as hazardous waste. The TCLP laboratory result for this bridge structure revealed a result below the reporting limit of less than 0.25 milligrams per liter (mg/l) of lead. The debris from the bridge is therefore classified as solid waste (and not hazardous waste) as the TCLP result was less than the regulatory limit for lead of 5.0 mg/l.

The bulk samples were submitted and analyzed by Polarized Light Microscopy (PLM) Analysis by Reservoirs Environmental, Inc. (Reservoirs). The paint chip samples were submitted and analyzed by Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy – Mass Spectrometry (AES-MS) by 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 PLM analysis and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - American Certificate #480.

The black and white paints located on the metal girders, concrete guardrails and wing walls are lead-based paints. If the paints 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: Suspect Asbestos Bulk Sample Summary Table
Paint Chip Sample Summary Table
TCLP Sample Summary Table
Laboratory Results
Sample Location Drawing
Photographic Log
Inspector Certificate



Suspect Asbestos Bulk Sample Summary Table

Sample ID	Sample Location	Lab Results	Condition	Material Description	Material Location	Friability	Estimated Quantity
M-21-B-EJM01-01	Northeast in guardrail	PLM ND	Good	Black, fibrous, tar-impregnated expansion joint material	Northeast guardrail	Non-Friable	5 SF
M-21-B-EJM01-02	Northeast in guardrail	PLM ND					

Notes: ND – No Asbestos Detected
 PLM – Polarized Light Microscopy
 SF – Square Feet

Paint Chip Sample Summary Table

Sample ID	Sample Description & Location	Analytical Result (%)
M-21-B-LP01	White paint collected from concrete wing wall. Sample collected from southeast wall.	<u>Lead</u> 6.1
M-21-B-LP02	Black paint taken from metal girder beneath bridge deck. Sample collected at northwest location.	<u>Lead</u> 38.2

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-B-TCLP01	Composite sample of bridge components including the black and white lead-based paints	<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 15, 2020

Subcontractor Number:

Laboratory Report: RES 453730-1

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

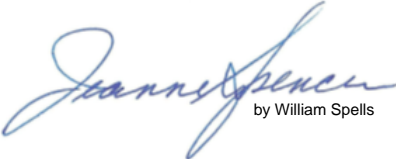
Dear Tim,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the 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 - Accreditation Certificate #480 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Reservoirs Environmental, Inc. has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

RES 453730-1 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,



by William Spells

Jeanne Spencer
President

RESERVOIRS ENVIRONMENTAL INC.

NVLAP Lab Code 101896-0

TABLE: PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: **RES 453730-1**
 Client: **Colorado Dept. of Transportation (Denver)**
 Client Project Number / P.O.: **22362.10.50**
 Client Project Description: **R2 and R4 bridges**
 Date Samples Received: **January 13, 2020**
 Method: **EPA 600/R-93/116 - Short Report, Bulk**
 Turnaround: **Standard**
 Date Samples Analyzed: **January 14, 2020 - January 15, 2020**

ND=None Detected
 TR=Trace, <1% Visual Estimate
 Trem/Act=Tremolite/Actinolite

Client Sample Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
				Mineral	Visual Estimate (%)		
M-22-U-TR01-01	A	Black resinous tar w/ tan granular material	100		ND	0	100
M-22-U-TR01-02	A	Black resinous tar	20		ND	0	100
	B	Black tar w/ tan granular material	30		ND	0	100
	C	Tan granular material	50		ND	0	100
M-21-B-EJM01-01	A	Black micaceous tar	100		ND	5	95
M-21-B-EJM01-02	A	Black micaceous tar	100		ND	0	100
M-21-C-EJM01-02	A	Brown felt	3		ND	65	35
	B	Black tar	97		ND	0	100
M-21-C-EJM01-01	A	Brown felt	10		ND	65	35
	B	Black tar	90		ND	0	100
N-21-C-TR01-01	A	Black tar	100		ND	0	100
N-21-C-TR01-02	A	Black tar	100		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Piper Lenore O. Murphy
 Piper-Lenore O. Murphy

Analyst

Landon Spells
 Landon Spells

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	
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 CHEM 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 AND R4 BRIDGES							

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm		REQUESTED ANALYSIS				VALID MATRIX CODES		LAB NOTES
PLM / PCM / TEM	DTL RUSH PRIORITY STANDARD					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		
Viable Analysis**	PRIORITY STANDARD **TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH					Waste Water = WW		
Medical Device Analysis	RUSH STANDARD					**ASTM E1792 approved wipe media only**		
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
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>Tim Hagert</i>	TIM HAGERT	Date/Time: 01/13/2020 12:56:27	Sample Condition: ACCEPTABLE - INTACT
Received By: <i>Hanna Marti</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 <small>(Sample ID's must be unique)</small>	REQUESTED ANALYSIS						VALID MATRIX CODES		LAB NOTES							
	ASBESTOS	CHEMISTRY	MICROBIOLOGY	PLM - Short Report	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	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		



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". Below the signature, the text "by Adam Kelly" is printed in a small, black 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 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



Adam Kelly
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	
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 CHEM 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 AND R4 BRIDGES							

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm		REQUESTED ANALYSIS				VALID MATRIX CODES		LAB NOTES	
PLM / PCM / TEM	DTL RUSH PRIORITY STANDARD					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			
Viable Analysis**	PRIORITY STANDARD **TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH					Waste Water = WW			
Medical Device Analysis	RUSH STANDARD					**ASTM E1792 approved wipe media only**			
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>Tim Hagert</i>	TIM HAGERT	Date/Time: 01/13/2020 12:56:27	Sample Condition: ACCEPTABLE - INTACT
Received By: <i>Hanna Marti</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 <small>(Sample ID's must be unique)</small>	REQUESTED ANALYSIS			VALID MATRIX CODES		LAB NOTES
	ASBESTOS	CHEMISTRY	MICROBIOLOGY	Sample Volume (L) / Area	Date Collected mm/dd/yy	
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		

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), Multi Metal (7303, 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	VALID MATRIX CODES 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
Laboratory Analysis Instructions		



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



Analyst/Data QA



RES Job #: 454456

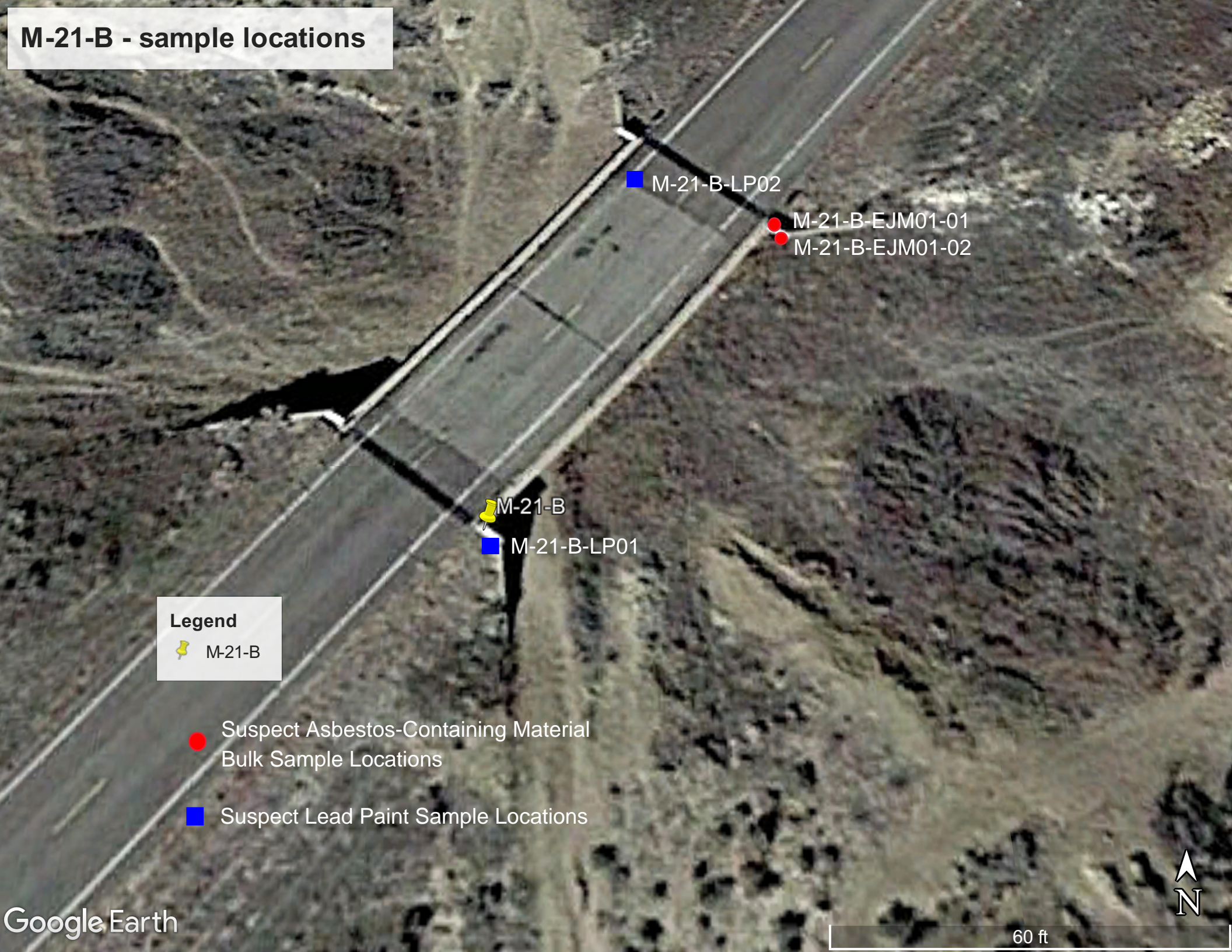
SUBMITTED BY		INVOICE TO		CONTACT INFORMATION		SERIES	
Company: COLORADO DEPT. OF TRANSPORTATION (DEN ...)		Company: COLORADO DEPT. OF TRANSPORTATION (DEN ...)		Contact: TIM HAGERT		-1 CHEM STANDARD	
Address: 2829 WEST HOWARD PLACE		Address: 2829 WEST HOWARD PLACE		Phone: (720) 582-0694		-2 CHEM STANDARD	
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	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 & Scan, Welding Fume Scan, Full Metals Scan ORGANICS - Methamphetamine, TSS 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) MEDICAL - Biorburden, LAL MOLD - Spore Trap, Bulk Mold, Particulate Identification	Air = A	Bulk = B	DTL RUSH PRIORITY STANDARD RUSH PRIORITY STANDARD *PRIOR NOTICE REQUIRED FOR SAME DAY TAT RUSH PRIORITY STANDARD SAME DAY RUSH PRIORITY STANDARD PRIORITY STANDARD **TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH RUSH STANDARD 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.**				
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm			Dust	RUSH PRIORITY STANDARD		Paint = P	Soil = S		
Medical Device Analysis			Medical Device Analysis	RUSH STANDARD		Surface = SU	Swab = SW		
Mold Analysis			Mold Analysis	RUSH PRIORITY STANDARD		Tape = T	Wipe = W		
Special Instructions:						Drinking Water = DW			
Client Sample ID Number (Sample ID's must be unique)						Waste Water = WW			
1 M-22-U-TCLP01			ASBESTOS			**ASTM E1792 approved wipe media only**			
2 M-22-Y-TCLP01				CHEMISTRY		Sample Volume (L) / Area			
3 M-21-J-TCLP01						Length (or Aliquots) X Width (or Area per Aliquot)			
4 M-21-B-TCLP01						Matrix Code			
5 M-21-C-TCLP01				# of Containers					
6 N-21-F-TCLP01				Date Collected mm/dd/yy					
7 N-21-C-TCLP01				Time Collected hr:mm					
8 H-13-N-LP01									
9 H-13-N-TR01-01		X							
10 H-13-N-TR01-02		X							

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-B - sample locations



M-21-B-LP02

M-21-B-EJM01-01
M-21-B-EJM01-02

M-21-B

M-21-B-LP01

Legend
📌 M-21-B

● Suspect Asbestos-Containing Material Bulk Sample Locations

■ Suspect Lead Paint Sample Locations



Bridge M-21-B Photographic Log



View of bridge M-21-B looking northeast.



Suspect asbestos-containing material M-21-B-EJM01. The expansion joint material is non-detect for asbestos.



Paint sample M-21-B-LP01. The white paint on concrete is considered lead-containing paint.



Paint sample M-21-B-LP02. The black paint on the metal girders is considered lead-based paint.



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Tim Hagert

Certification No.: 13915

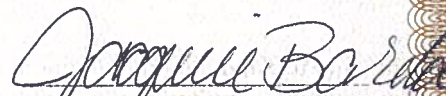
has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

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