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

January 23, 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 N-21-F located at US Highway 350 over Sheep Canyon Arroyo at MM 48.744 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 N-21-F located at US Highway 350 over Sheep Canyon Arroyo at Mile Marker (MM) 48.744 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 166 feet in length by 30 feet in width and was constructed in 1937. The bridge is a concrete on I-beam structure with painted wooden wing wall rails.

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 wing wall rail (sample N-21-F-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 a southwest metal girder beneath the bridge deck (sample N-21-F-LP-02). This paint contains 66.4% lead and is considered a lead-based paint. This paint also exists on the concrete beneath the bridge decking and the wooden wing wall rails.

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

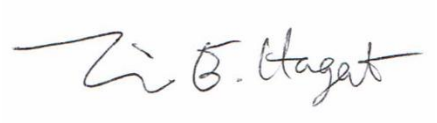
below the reporting limit of less than 0.25 milligrams per liter (mg/l) of lead. The debris from the bridge is therefore classified as solid waste (and not hazardous waste) as the TCLP result was less than the regulatory limit for lead of 5.0 mg/l.

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 metal girders and wooden wing wall rails 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 (%)
N-21-F-LP01	White paint on wood wing wall rails. Paint sample collected from southeast wing wall rail.	Lead 0.034
N-21-F-LP-02	Black paint on wood wing wall rails and metal girders. Paint sample collected from southwest girder beneath bridge deck.	**Lead** **66.4**

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)
N-21-F-TCLP01	Composite sample of bridge components including the black lead-based paint	Lead 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

REI LAB **Reservoirs Environmental, Inc.**

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,

Robin S 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

Adam Kelly
Analyst/Data QA

Reservoirs Environmental, Inc.

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
		Fax:	-3 CHEM STANDARD
DENVER, CO 80204	DENVER, CO 80204	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

PLM / PCM / TEM — DTL RUSH PRIORITY STANDARD

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Dust — RUSH PRIORITY STANDARD

Metals — RUSH PRIORITY STANDARD

*PRIOR NOTICE REQUIRED FOR SAME DAY TAT

Organics* — SAME DAY RUSH PRIORITY STANDARD

MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm

Viable Analysis** — PRIORITY STANDARD

**TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH

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:

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

REQUESTED ANALYSIS

Client Sample ID Number (Sample ID's must be unique)	PLM - Short Report	PLM - 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, 6020A, 200.8, Waste Water, Foodware), Multi Metal (7303, TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan, Waste Water, Foodware), pH (Liquid, Non-Liquid),	ORGANICS - Methamphetamine, TSS	Viables: Campylobacter, Bacillus, Salmonella (Culturable, 1-2), Listeria, E. coli O157:H7, E.coli/Coliforms - Plated, S. aureus, Yeast & Mold, Areobic Plate Count, Coliforms/E.coli (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbioal Count (wo/ID, w/ID), Enterococcus (+/- or Quantification)	MEDICAL - Bioburden, LAL	MOLD - Spore Trap, Bulk Mold, Particulate Identification	Sample Volume (L) / Area	Matrix Code	Date Collected mm/dd/yy	Laboratory Analysis Instructions
	ASBESTOS				CHEMISTRY		MICROBIOLOGY						
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 consitute 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: 01/13/2020 12:56:27	Sample Condition: ACCEPTABLE - INTACT
Received By:	HANNA MARTI	Date/Time: 01/13/2020 12:56:27	Carrier: HAND

Reservoirs Environmental, Inc.

Res Job#: **453730**

Submitted By: **COLORADO DEPT. OF TRANSPORTATION (DENVER)**

		REQUESTED ANALYSIS											VALID MATRIX CODES			LAB NOTES
		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, 6020A, 200.8, Waste Water, Foodware), Multi Metal (7303, Waste Water, Foodware), pH (Liquid, Non-Liquid), RCRA 8 Scan, Welding Fume Scan, Full Metals Scan, TCLP	**ORGANICS** - Methamphetamine, TSS	Viables: Campylobacter, Bacillus, Salmonella (Culturable, 1-2), Listeria, E.coli O157:H7, E.coli/Coliforms - Plated, S. aureus, Yeast & Mold, Areobic Plate Count, Coliforms/E. coli (State Water, Drinking Water, Non-Drinking Water, +/- Quantification), Lactic Acid, Viable Microbioal Count (wo/ID, w/ID), Enterococcus (+/- or Quantification)	**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**		
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**
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		

Reservoirs Environmental, Inc.

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,

Robin S 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 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

Reservoirs Environmental, Inc.

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
		Fax:	-3 PLM STANDARD
DENVER, CO 80204	DENVER, CO 80204	Cell:	
Project Number and/or P.O. #: 22362.10.50		**Final Data Deliverable Email Address:**	
Project Description/Location: R2 BRIDGE INSPECTIONS		TIM.HAGERT@STATE.CO.US (+ 1 ADDNL. CONTACTS)	

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm

PLM / PCM / TEM — DTL RUSH PRIORITY STANDARD

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Dust — RUSH PRIORITY STANDARD

Metals — RUSH PRIORITY STANDARD

*PRIOR NOTICE REQUIRED FOR SAME DAY TAT

Organics* — SAME DAY RUSH PRIORITY STANDARD

MICROBIOLOGY LABORATORY HOURS: Weekdays: 8am - 5pm

Viable Analysis** — PRIORITY STANDARD

**TAT DEPENDENT ON SPEED OF MICROBIAL GROWTH

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:

REQUESTED ANALYSIS

Client Sample ID Number (Sample ID's must be unique)	ASBESTOS: PLM - Short Report	ASBESTOS: TEM - Long Report, CARB 435	ASBESTOS: PCM - AHERA, (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, ISO 10312, ISO 13794,Chatfield, Waste Water, Drinking Water, Bulk +/-	CHEMISTRY: DUST - 7400A, 7400B, OSHA	CHEMISTRY: DUST - Total, Respirable	CHEMISTRY: METALS - Analyte(s) [Pb, Lead Only (7082, 7420, 6020A, 200.8, Waste Water, Foodware), Multi Metal (7303, Waste Water, Foodware), pH (Liquid, Non-Liquid), TCLP, RCRA 8 Scan, Welding Fume Scan, Full Metals Scan	CHEMISTRY: ORGANICS - Methamphetamine, TSS	MICROBIOLOGY: Viables: Campylobacter, Bacillus, Salmonella (Culturable, 1-2), Listeria, E. coli O157:H7, E. coli/Coliforms - Plated, S. aureus, Yeast & Mold, Areobic Plate Count, Coliforms/E. coli (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbioal Count (wo/ID, w/ID), Enterococcus (+/- or Quantification)	MICROBIOLOGY: MEDICAL - Bioburden, LAL	MICROBIOLOGY: MOLD - Spore Trap, Bulk Mold, Particulate Identification	Sample Volume (L) / Area	Length(or Aliquots) x Width(or Area per Aliquot)	Matrix Code	# of Containers	Date Collected mm/dd/yy	Time Collected hh:mm	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				

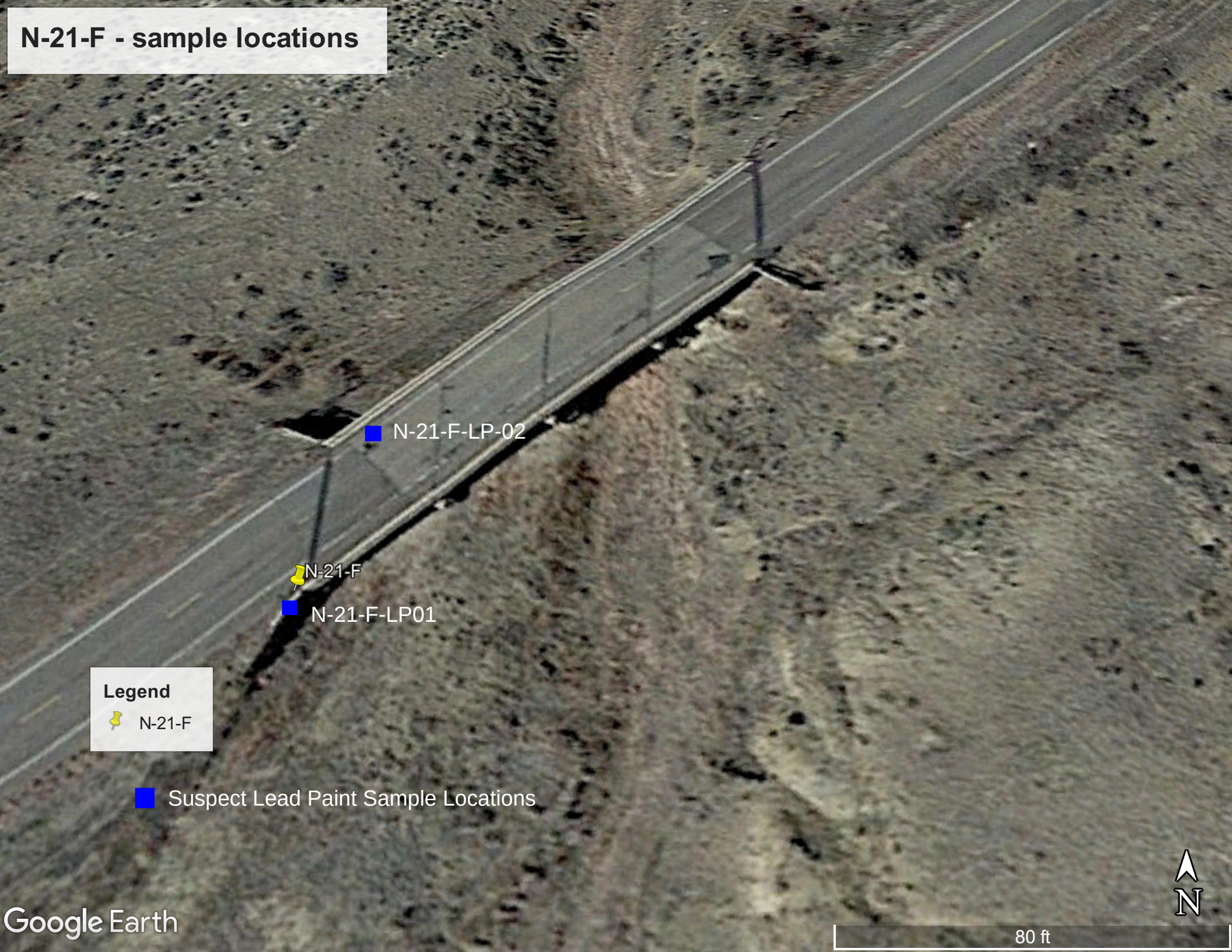
VALID MATRIX CODES

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

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 consitute 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


N-21-F - sample locations
N-21-F-LP-02
N-21-F
N-21-F-LP01
Legend
N-21-F
Suspect Lead Paint Sample Locations
Google Earth
N
80 ft

Bridge N-21-F Photographic Log

View of bridge N-21-F looking northeast.

Paint sample N-21-F-LP01. The white paint is considered as lead containing paint.

Paint sample N-21-F-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