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

March 25, 2021

Mr. Craig Clark
Environmental Project Manager
Colorado Department of Transportation - Region 2
1480 Quail Lake Loop
Colorado Springs, CO 80906

**RE: Asbestos and Lead-Based Paint Inspection Report for Bridge P-19-G Minor located at State Highway 239 MM 1.74 over Canal in Trinidad, Colorado**

Dear Mr. Clark,

The Colorado Department of Transportation (CDOT) Environmental Project Coordinator (EPC) completed an asbestos and lead-based paint inspection of bridge P-19-G Minor located at State Highway 239 at Mile Marker (MM) 1.74 in Trinidad, Colorado. The CDOT-EPC is a Colorado certified asbestos building inspector, certification # 13915.

On March 10, 2021 the CDOT-EPC performed the asbestos and lead-based paint inspection of the bridge. The bridge is approximately 23 feet in length by 31 feet in width and was constructed in 1932. The bridge is a steel stringer structure with a metal plank floor with painted metal guardrail posts on the west side of the bridge.

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 silver paint chip sample was collected off a metal girder from a southeast location beneath the bridge deck (sample P-19-G Minor-LP01). This paint contains 0.049% lead and is considered as a lead containing paint. A white paint chip sample was collected off a wooden guardrail post at a southwest location (sample P-19-G Minor-LP02). This paint contains 4.1% lead and is considered a lead-based paint. This paint is located on the wood guardrail posts on the west side of the bridge.

As the lead-based paint was observed on a substrate other than metal, a composite sample of bridge components, including the white 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

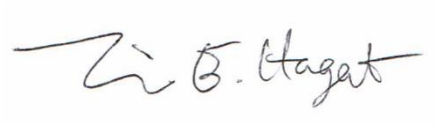
from the bridge is therefore classified as solid waste (and not hazardous waste) as the TCLP result was less than the regulatory limit for lead of 5.0 mg/l.

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 white paint located on the wooden guardrail posts 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 OSHA 29 CFR 1926.62 and Section 250.04 of the 2019 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 (%) |
|---|---|---|
| P-19-G Minor-LP01 | Silver paint on metal girders; sample collected from southeast girder beneath bridge deck | Lead<br>0.049 |
| P-19-G Minor-LP02 | White paint on wood guardrail posts; sample collected from southwest guardrail post | **Lead**<br>**4.1** |

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) |
|---|---|---|
| P-19-G Minor-TCLP01 | Composite sample of bridge components including the white lead-based paint | Lead<br>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**

# Reservoirs Environmental, Inc.

March 12, 2021

**Subcontractor Number:**
**Laboratory Report:** **RES 488247-1**
**Project #/P.O. #:** **22362.10.50**
**Project Description:** **R2 bridge**

Tim Hagert
CDOT
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 (AIHA LAP, LLC), Lab ID 101533. The laboratory is currently proficient in both IHPAT & ELPAT programs respectively.

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Inductively Coupled Plasma - 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 488247-1** 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 Jeff Green

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 488247-1** |
| Client: | **CDOT** |
| Client Project/P.O.: | **22362.10.50** |
| Client Project Description: | **R2 bridge** |
| Date Samples Received: | **March 11, 2021** |
| Analysis Type: | **REI CHEMISTRY SOP / USEPA SW846 3050B/7420-M** |
| Turnaround: | **Priority** |
| Date Samples Analyzed: | **March 12, 2021** |

NA = Not Analyzed
NR = Not Received
ND = None Detected
BAS = Below Analytical Sensitivity
BRL = Below Reporting Limit

| Client ID Number | Reporting Limit (%) | LEAD CONCENTRATION (%) |
|---|---|---|
| **P-19-G Minor-LP01** | 0.0021 | 0.049 |
| **P-19-G Minor-LP02** | 0.0041 | 4.1 |

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


Jeff Green
Analyst/Data QA

# Reservoirs Environmental, Inc.

**RES Job #: 488247**

| SUBMITTED BY | INVOICE TO | CONTACT INFORMATION | SERIES |
|---|---|---|---|
| Company: CDOT | Company: CDOT | Contact: Tim Hagert | -1 Chem Priority |
| Address: 2829 West Howard Place | Address: 2829 West Howard Place | Phone: (720) 582-0694 | |
| | | Fax: | |
| 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 | | 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, Long Report, CARB 435 | ASBESTOS: TEM - AHERA (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, Yamate Level II, ISO 10312, ISO 13794, Chatfield, Drinking Water, Waste Water, Bulk +/-, CARB Modified Ahera | ASBESTOS: PCM - 7400A, 7400B, OSHA | CHEMISTRY: DUST - Total, Respirable | CHEMISTRY: METALS - Analyte(s) Pb Lead by Flame AA (USEPA SW846 3050B/7420) | CHEMISTRY: ORGANICS - Methamphetamine, TSS | MICROBIOLOGY: VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or 1-2), Listeria, E.coli O157:H7, E.coli/Coliforms - Plated, S.aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E.coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (wo/ID or w/ID), Enterococcus (+/- or Quantification), Legionella (P, NP, C) | 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 P-19-G Minor-LP01 | | | | | X | | | | | | | P | | | |
| 2 P-19-G Minor-LP02 | | | | | X | | | | | | | P | | | |

**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: 03/11/2021 14:02:03 | Sample Condition: Acceptable |
| Received By: | | Sophia Ingram | Date/Time: 03/11/2021 14:02:03 | Carrier: Hand |

# Reservoirs Environmental, Inc.

March 19, 2021

**Subcontractor Number:**
**Laboratory Report:** **RES 488461-1**
**Project #/P.O. #:** **22362.10.50**
**Project Description:** **R2 bridge**

Tim Hagert
CDOT
2829 West Howard Place
Denver CO 80204

Dear Tim,

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Inductively Coupled Plasma - 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 488461-1** 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, as received by the customer. 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 Jeff Green

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 488461-1** |
| Client: | **CDOT** |
| Client Project/P.O.: | **22362.10.50** |
| Client Project Description: | **R2 bridge** |
| Date Samples Received: | **March 16, 2021** |
| Analysis Type: | **REI CHEMISTRY SOP / USEPA SW846 1311/3011A/7420-M** |
| Turnaround: | **Priority** |
| Date Samples Analyzed: | **March 19, 2021** |

NA = Not Analyzed
NR = Not Received
ND = None Detected
BAS = Below Analytical Sensitivity
BRL = Below Reporting Limit

| Client ID Number | Reporting Limit (mg/L) | LEAD CONCENTRATION (mg/L) |
|---|---|---|
| **P-19-G Minor-TCLP01** | 0.25 | BRL |

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

Jeff Green
Analyst/Data QA

# Reservoirs Environmental, Inc.

REI LAB

**RES Job #: 488461**

| SUBMITTED BY | INVOICE TO | CONTACT INFORMATION | SERIES |
|---|---|---|---|
| Company: CDOT | Company: CDOT | Contact: Tim Hagert | -1 Chem Priority |
| Address: 2829 West Howard Place | Address: 2829 West Howard Place | Phone: (720) 582-0694 | |
| | | Fax: | |
| 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 | | 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) | PLM - Short Report, Long Report, CARB 435 | TEM - AHERA (+/- or Quantified), Microvac (+/- or Quantified), Wipe (+/- or Quantified), NIOSH 7402, Yamate Level II, ISO 10312, ISO 13794, Chatfield, Drinking Water, Waste Water, Bulk +/-, CARB Modified Ahera | PCM - 7400A, 7400B, OSHA | DUST - Total, Respirable | METALS - Analyte(s) Pb TCLP Lead Only by Flame AA (US EPA SW846 1311/3011A/7420) | ORGANICS - Methamphetamine, TSS | VIABLES - Campylobacter, Bacillus, Salmonella (Culturable or 1-2), Listeria, E.coli O157:H7, E.coli/Coliforms - Plated, S.aureus, Yeast & Mol, Aerobic Plate Count, Coliforms/E.coli - (State Water, Drinking Water, Non-Drinking Water, +/-, Quantification), Lactic Acid, Viable Microbial Count (wo/ID or w/ID), Enterococcus (+/- or Quantification), Legionella (P, NP, C) | MEDICAL - Bioburden, LAL | MOLD - Spore Trap, Bulk Mold, Particulate Identification |
|---|---|---|---|---|---|---|---|---|---|
| | ASBESTOS | | | CHEMISTRY | | | MICROBIOLOGY | | |
| 1 P-19-G Minor-TCLP01 | | | | | X | | | | |

**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** | |

| 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 |
|---|---|---|---|---|---|
| | | B | | | |

**LAB NOTES**

**Laboratory Analysis Instructions**

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: | T.E. Hart | Tim Hagert | Date/Time: 03/16/2021 9:28:05 | Sample Condition: Acceptable |
| Received By: | | Sophia Ingram | Date/Time: 03/16/2021 9:28:05 | Carrier: Hand |


P-19-G Minor - sample locations
P-19-G Minor-LP02
P-19-G Minor-LP01
P-19-G MINOR
Legend
P-19-G MINOR
Suspect Lead-Based Paint Sample Location
Google Earth
N
100 ft

# Bridge P-19-G Minor Photographic Log


View of bridge P-19-G Minor looking north.


View of the east side of bridge P-19-G Minor.


Paint sample P-19-G Minor-LP01. The silver paint is considered as a lead containing paint.


**Paint sample P-19-G Minor-LP02. The white paint is considered a 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:** **December 31, 2020**

**Expires:** **January 26, 2022**

**** 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