

## Cover Page

**Order ID :** Q2832

**Project ID :** Amtrak Sawtooth Bridges 2025

**Client :** Portal Partners Tri-Venture

**Lab Sample Number**

Q2832-01  
Q2832-02  
Q2832-03  
Q2832-04  
Q2832-05  
Q2832-06  
Q2832-07  
Q2832-08  
Q2832-09  
Q2832-10

**Client Sample Number**

TG-S01  
TG-S01  
TG-S02  
TG-S02  
TG-S03  
TG-S03  
TG-S04  
TG-S04  
TG-S05  
TG-S05

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Date: 8/26/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: VOC-TCLVOA-10**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_Y were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of VOC-TCLVOA-10 was based on method 8260D.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The %RSD is greater than 20% in the Initial Calibration method (82Y081225S.M) for Methylene chloride passing on linear regression.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

### **E. Additional Comments:**

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Trip Blank was not provided with this set of samples.

The soil samples results are based on a dry weight basis.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial



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Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

**F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: TCLP VOA**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: TCLP VOA. This data package contains results for TCLP VOA.

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_N were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of TCLP VOA was based on method 8260D and TCLP extraction method was 1311.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank Spike Duplicate met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

### **E. Additional Comments:**

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Trip Blank was not provided with this set of samples.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.



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**F. Manual Integration Comments:**

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: SVOC-TCL BNA -20**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-TCL BNA -20. This data package contains results for SVOC-TCL BNA -20.

### **C. Analytical Techniques:**

The samples were analyzed on instrument BNA\_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. The analysis of SVOC-TCL BNA -20 was based on method 8270E and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The MS {Q2820-17MS} with File ID: BP025415.D recoveries met the requirements for all compounds except for 3,3-Dichlorobenzidine[50%], 3-Nitroaniline[60%] and 4-Chloroaniline[47%], these compounds did not meet the NJDKQP criteria but met the in-house criteria due to matrix interference.

The MSD {Q2820-17MSD} with File ID: BP025416.D recoveries met the requirements for all compounds except for 3,3-Dichlorobenzidine[55%], 3-Nitroaniline[65%] and 4-Chloroaniline[50%], these compounds did not meet the NJDKQP criteria but met the in-house criteria due to matrix interference.

The RPD were met for all analysis.

The Blank Spike for {PB169228BS} with File ID: BP025407.D met requirements for all compounds except for 3,3-Dichlorobenzidine[65%], 4-Chloroaniline[65%], this compound did not meet the NJDKQP criteria but met the in-house criteria.



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The Blank analysis did not indicate the presence of lab contamination.  
The Initial Calibration met the requirements.

The Continuous Calibration File ID BP025455.D met the requirements except for Benzaldehyde and Hexachlorocyclopentadiene. Associated samples does not have hit for these compounds, therefor no further corrective action was taken.

The Continuous Calibration File ID BP025528.D met the requirements except for Benzaldehyde. Associated samples does not have hit for these compounds, therefor no further corrective action was taken.

The Continuous Calibration File ID BP025544.D met the requirements except for 2,4-Dinitrophenol and Benzaldehyde. Associated samples does not have hit for these compounds, therefor no further corrective action was taken.

The Tuning criteria met requirements.

Samples TG-S01, TG-S02, TG-S03, TG-S04 and TG-S05 were diluted due to viscous and concentrated matrix.

**E. Additional Comments:**

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

The soil samples results are based on a dry weight basis.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

**F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: TCLP BNA**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: TCLP BNA. This data package contains results for TCLP BNA.

### **C. Analytical Techniques:**

The samples were analyzed on instrument BNA\_F using GC Column DB-UI 8270D which is 20 meters, 0.18 mm ID, 0.36 um df. The samples were analyzed on instrument BNA\_P using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGA. The analysis of TCLP BNA was based on method 8270E and extraction was done based on method 3510 and TCLP extraction method was 1311.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Internal Standards Areas were met for all analysis.

The Retention Times were met for all analysis.

The MS {Q2832-02MS} with File ID: BP025449.D recoveries met the requirements for all compounds except for 1,4-Dichlorobenzene[54%], this compound did not meet the NJDKQP criteria and in-house criteria and Hexachlorobutadiene[62%], this compound did not meet the NJDKQP criteria but met the in-house criteria due to matrix interference.

The MSD {Q2832-02MSD} with File ID: BP025450.D recoveries met the requirements for all compounds except for 1,4-Dichlorobenzene[62%], this compound did not meet the NJDKQP criteria but met the in-house criteria due to matrix interference.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.





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The Tuning criteria met requirements.

**E. Additional Comments:**

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

**F. Manual Integration Comments:**

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: TCLP Pesticide**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: TCLP Pesticide. This data package contains results for TCLP Pesticide.

### **C. Analytical Techniques:**

The analysis was performed on instrument ECD\_D. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df.; Catalog # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 7HMG017- 11. The analysis of TCLP Pesticides was based on method 8081B and extraction was done based on method 3510 and TCLP extraction method was 1311.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Retention Times were met for all analysis.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the requirements for all compounds.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration File ID PD089947.D met the requirements except for Endrin is failing in 2nd column, however it is passed in 1st column therefore no corrective action was taken

### **E. Additional Comments:**

### **F. Manual Integration Comments:**

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: PCB**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: PCB. This data package contains results for PCB.

### **C. Analytical Techniques:**

The analyses were performed on instrument GCECD\_P. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11. The analyses were performed on instrument GCECD\_O. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11. The analysis of PCBs was based on method 8082A and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Retention Times were met for all analysis.

The MS {Q2832-03MS} with File ID: PP074344.D recoveries met the requirements for all compounds except for [AR1260(2)153%], This compound did not meet the NJDKQP criteria and in-house criteria. due to matrix interference.

The MSD {Q2832-03MSD} with File ID: PP074345.D recoveries met the requirements for all compounds except for [ AR1260(2)148], This compound did not meet the NJDKQP criteria and in-house criteria.. due to matrix interference.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.



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The Continuous Calibration File ID PO112945.D met the requirements except for Decachlorobiphenyl is failing in 1st column, however it is passed in 2nd column therefore no corrective action was taken.

Samples TG-S05 was diluted due to bad matrix.

Samples TG-S02, TG-S03 and TG-S04 were diluted due to high concentrations.

**E. Additional Comments:**

The soil samples results are based on a dry weight basis.

**F. Manual Integration Comments:**

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: TCLP Herbicide**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: TCLP Herbicide. This data package contains results for TCLP Herbicide.

### **C. Analytical Techniques:**

The analysis was performed on instrument ECD\_S. The front column is RTX-CLPesticides which is 30 meters, 0.32 mm ID, 0.5 um df, Catalog # 11139. The rear column is RTX-CLPesticides2 which is 30 meters, 0.32 mm ID, 0.25 um df, Catalog #: 11324. The analysis of TCLP Herbicides was based on method 8151A and extraction was done based on method 3510 and TCLP extraction method was 1311.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis except for

TG-S01 [2,4-DCAA(1)134%],

TG-S03 [2,4-DCAA(1)131%],

TG-S04 [2,4-DCAA(1)135%],

TG-S04RE [2,4-DCAA(1)135%],

TG-S05 [2,4-DCAA(1)135%],

TG-S05RE [2,4-DCAA(1)131%] these compounds did not meet the NJDKQP criteria but met the in-house criteria also

TG-S02 [2,4-DCAA(2)144%],

TG-S02RE [2,4-DCAA(2)144%],

TG-S03 [2,4-DCAA(2)148%],

TG-S03RE [2,4-DCAA(2)146%],

TG-S04 [2,4-DCAA(2)154%],

TG-S04RE [2,4-DCAA(2)154%],

TG-S05 [2,4-DCAA(2)152%],

TG-S05RE [2,4-DCAA(2)149%].

these compounds did not meet the NJDKQP criteria and in-house criteria, All the failure samples in surrogates were reanalysed to confirm the results as per method and reported in the data and

TG-S01 [2,4-DCAA(2)150%],  
TG-S01MS [2,4-DCAA(1)155%, 2,4-DCAA(2)175%],  
TG-S01MSD [2,4-DCAA(1)156%, 2,4-DCAA(2)176%] these compounds did not meet the NJDKQP criteria and in-house criteria due to matrix interference surrogate failure confirm with their original sample.

The Retention Times were met for all analysis.

The MS {Q2832-02MS} with File ID: PS031462.D recoveries met the requirements for all compounds except for [2,4,5-TP(Silvex)(1)151% - 2,4,5-TP(Silvex)(2)152%] and [2,4-D(1)183% - 2,4-D(2)166%], These compounds did not meet the NJDKQP criteria and in-house criteria due to matrix interference.

The MSD {Q2832-02MSD} with File ID: PS031463.D recoveries met the requirements for all compounds except for [2,4,5-TP(Silvex)(1)153% - 2,4,5-TP(Silvex)(2)161%] and [2,4-D(1)184% - 2,4-D(2)159%] These compounds did not meet the NJDKQP criteria and in-house criteria due to matrix interference.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

#### **E. Additional Comments:**

#### **F. Manual Integration Comments:**

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: EPH**

### **A. Number of Samples and Date of Receipt:**

5 Solid samples were received on 08/12/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: EPH. This data package contains results for EPH.

### **C. Analytical Techniques:**

The analysis were performed on instrument FID\_C. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224. The analyses were performed on instrument FID\_D. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224. The analysis were performed on instrument FID\_E. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224. The analysis of EPHs was based on method NJEPH and extraction was done based on method 3541.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Retention Times were met for all analysis.

The MS {Q2892-05MS} with File ID: FC069713.D recoveries met the requirements for all compounds except for Aliphatic [Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes are only being monitoring in aliphatic fraction.

The MS {Q2892-05MS} with File ID: FD049660.D recoveries met the requirements for all compounds except for Aromatic [Chrysene (C27.41)- 235%], [Bnezo[k]fluoranthene (C30.14)- 230%], [Dibenz[a,h]anthracene (C30.36)- 222%], [benzo[b]fluoranthene (C30.41)- 217%] due to matrix interference.

The MSD {Q2892-05MSD} with File ID: FC069714.D recoveries met the requirements for all compounds except for Aliphatic [Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes are only being monitoring in aliphatic fraction.

The MSD {Q2892-05MSD} with File ID: FD049661.D recoveries met the requirements for all compounds except for Aromatic [Chrysene (C27.41)- 225%],





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[Bnezo[k]fluoranthene (C30.14)- 222%], [Dibenz[a,h]anthracene (C30.36)- 216%], [benzo[b]fluoranthene (C30.41)- 209%] due to matrix interference.

The RPD were met for all analysis.

The Blank Spike for {PB169364BS} with File ID: FC069708.D met requirements for all samples except for aliphatic [Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes compounds are only being monitoring in aliphatic friction.

The Blank Spike Duplicate for {PB169364BSD} with File ID: FC069709.D met requirements for all samples except for aliphatic [Naphthalene (C11.7)- 0%, 2-methylnaphthalene (C12.89)- 0%], these analytes compounds are only being monitoring in aliphatic friction.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

**E. Additional Comments:**

The soil samples results are based on a dry weight basis.

**F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: Mercury, Metals ICP-TAL**

### **A. Number of Samples and Date of Receipt:**

05 Solid samples were received on 08/12/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, EPH, Hexavalent Chromium, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, PCB, pH, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL, TPH GC, Trivalent Chromium and VOC-TCLVOA-10. This data package contains results for Mercury, Metals ICP-TAL.

### **C. Analytical Techniques:**

The analysis of Metals ICP-TAL was based on method 6010D, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

Sample TG-S01 was diluted due to high concentrations for Mercury.

The Blank Spike met requirements for all compounds.

The Duplicate (0804-SOILDUP) analysis met criteria for all compounds except for Mercury due to sample matrix interference. The Duplicate (0804-SOILMSD) analysis met criteria for all compounds except for Mercury due to sample matrix interference. The Duplicate (TG-S05MSD) analysis met criteria for all compounds except for Manganese due to Chemical Interference during Digestion process.

The Matrix Spike (0804-SOILMS) analysis met criteria for all compounds except for Mercury due to sample Matrix interference. The Matrix Spike (TG-S05MS) analysis met criteria for all compounds except for Chromium and Vanadium due to Chemical Interference during Digestion process.

The Matrix Spike Duplicate (TG-S05MSD) analysis met criteria for all compounds except for Chromium and Sodium due to Chemical Interference during Digestion process.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution (0804-SOILL) met criteria for all compounds except for Mercury due to sample matrix interference.



**E. Additional Comments:**

The Post Digest Spike (TG-S05A) analysis met criteria for all compounds except for Chromium, Sodium and Vanadium due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.

The Post Digest Spike (0804-SOILA) analysis met criteria for all compounds except for Mercury due to unknown chemical interference of matrix with the addition of spike amount after digestion and before analysis; matrix has suppression effect during addition of spike.

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## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: TCLP ICP Metals, TCLP Mercury**

### **A. Number of Samples and Date of Receipt:**

05 Solid samples were received on 08/12/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, EPH, Hexavalent Chromium, Ignitability, Mercury, Metals ICP-TAL, METALS-TAL, PCB, pH, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TCLP-FULL, TPH GC, Trivalent Chromium and VOC-TCLVOA-10. This data package contains results for TCLP ICP Metals, TCLP Mercury.

### **C. Analytical Techniques:**

The analysis of TCLP ICP Metals was based on method 6010D, digestion based on method 3010 (waters). The analysis and digestion of TCLP Mercury was based on method 7470A and TCLP extraction method was 1311.

### **D. QA/ QC Samples:**

The Holding Times were met for all analysis.

The Blank Spike met requirements for all compounds.

The Duplicate (TP-10DUP) analysis met criteria for all compounds except for Barium due to sample matrix interference.

The Matrix Spike (TP-10MS) analysis met criteria for all compounds except for Barium due to Chemical Interference during Digestion Process.

The Matrix Spike Duplicate (TP-10MSD) analysis met criteria for all compounds except for Barium due to Chemical Interference during Digestion Process.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

### **E. Additional Comments:**

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I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature\_\_\_\_\_



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

## **CASE NARRATIVE**

### **Portal Partners Tri-Venture**

**Project Name: Amtrak Sawtooth Bridges 2025**

**Project # N/A**

**Order ID # Q2832**

**Test Name: Corrosivity, Hexavalent Chromium, Ignitability, Reactive Cyanide, Reactive Sulfide, Trivalent Chromium**

### **A. Number of Samples and Date of Receipt:**

10 Solid samples were received on 08/12/2025.

### **B. Parameters:**

According to the Chain of Custody document, the following analyses were requested: Corrosivity, Hexavalent Chromium, Ignitability, Reactive Cyanide, Reactive Sulfide, Trivalent Chromium. This data package contains results for Corrosivity, Hexavalent Chromium, Ignitability, Reactive Cyanide, Reactive Sulfide, Trivalent Chromium.

### **C. Analytical Techniques:**

The analysis of Ignitability was based on method 1030, The analysis of Trivalent Chromium was based on method 6010D, The analysis of Hexavalent Chromium was based on method 7196A, The analysis of Reactive Cyanide was based on method 9012B, The analysis of Reactive Sulfide was based on method 9034 and The analysis of Corrosivity was based on method 9045D.

### **D. QA/ QC Samples:**

The Holding Times were met for all samples except for TG-S01 of Corrosivity, for TG-S02 of Corrosivity, for TG-S03 of Corrosivity, for TG-S04 of Corrosivity and for TG-S05 of Corrosivity as samples were received out of holding time.

The Blank Spike met requirements for all compounds.

The Duplicate analysis met criteria for all compounds.

The Matrix Spike analysis met criteria for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

### **E. Additional Comments:**

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I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature\_\_\_\_\_

## DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

<b>J</b>	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
<b>U</b>	Indicates the analyte was analyzed for, but not detected.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>E</b>	Indicates the reported value is estimated because of the presence of interference
<b>M</b>	Indicates Duplicate injection precision not met.
<b>N</b>	Indicates the spiked sample recovery is not within control limits.
<b>S</b>	Indicates the reported value was determined by the Method of Standard Addition (MSA).
<b>*</b>	Indicates that the duplicate analysis is not within control limits.
<b>+</b>	Indicates the correlation coefficient for the MSA is less than 0.995.
<b>D</b>	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
<b>M</b>	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
<b>OR</b>	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements
<b>H</b>	Sample Analysis Out Of Hold Time

## DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements



## APPENDIX A

### QA REVIEW GENERAL DOCUMENTATION

Project #: Q2832

Completed

For thorough review, the report must have the following:

#### GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

#### COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

#### CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

#### ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: PRADIP PRAJAPATI

Date: 08/26/2025